

Initial Study and Negative Declaration
for
Big Pine Northeast Regreening Project



**Los Angeles Department of Water
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, CA 90012**

November 2011

CEQA Initial Study and Negative Declaration

Big Pine Northeast Regreening Project

November 2011

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CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT
PROPOSED NEGATIVE DECLARATION
(Article I, City CEQA Guidelines)

LEAD CITY AGENCY AND ADDRESS: Los Angeles Department of Water and Power 111 N. Hope Street, Room 1044 Los Angeles, CA 90012	COUNCIL DISTRICT N/A
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PROJECT TITLE: Big Pine Northeast Regreening (November 2011 Initial Study)	LOG REFERENCE N/A
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PROJECT LOCATION:

The proposed project is located in Inyo County, northeast of the town of Big Pine in the Owens Valley. The project site is south of State Route 168, east of Highway 395 and west of the Big Pine Canal.

DESCRIPTION:

Under the Big Pine Northeast Regreening, 30 acres of abandoned agricultural land would be irrigated and seeded with a pasture mix to support livestock grazing. Implementation of the project will mitigate for impacts caused by abandoned agriculture and groundwater pumping activities as identified in the 1991 EIR "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct, 1970 to 1990 and 1990 Onward, Pursuant to a Long Term Groundwater Management Plan" (LADWP, 1991).

Water will be supplied by surface water obtained from the Big Pine Canal. This will require the construction of a sump (concrete basin) from which water will be pumped. In addition, a single wooden power pole will be installed to provide power to the sump location to run the pump. The project will be supplied with up to 150 acre-feet of water per year by surface water from the above-named source. On an annual basis, an equivalent amount of water will be pumped from Well W375 to make-up for the surface water supplied to the project. Water supplied to the project will be contingent upon the Technical Group exempting well W375 for the Project under the provisions described by the Water Agreement. Additional project components include minor site cleanup, preparation of soil for seeding, fencing of the area and installation of a sprinkler system. A designated lessee will be responsible for the on-going maintenance of the pasture, which includes the use of livestock to graze the area.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY:

FINDING:

See the attached Initial Study.

NO MITIGATION MEASURES IMPOSED.

THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED.

PERSON PREPARING THIS FORM	ADDRESS	TELEPHONE NUMBER
Nancy Chung, Environmental Specialist	111 N. Hope Street, Room 1044 Los Angeles, CA 90012	213 367-0404

SIGNATURE (Official) <i>Charles C. Holloway</i> Charles C. Holloway, Manager of Environmental Assessment and Planning	DATE November 10, 2011
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Appendix B Effects of Groundwater Pumping to Supply the Northeast Big Pine Regreening Mitigation Project Memo from the County of Inyo Water Department, August 30, 2011 Letter from County Inyo Water Department and Robert F. Harrington Curriculum Vitae
Appendix C Operational Tests of Wells 375W, 380W, 381W, and 382W: Results From Previous Tests and Recommendations for Future Tests and Management
Appendix D Vegetation Survey
Appendix E Summary of and Responses to Public Comment Letters on the August 2011 Big Pine Regreening Initial Study

Section 1

Project and Agency Information

1.1 PROJECT TITLE AND LEAD AGENCY

Project Title:	Big Pine Northeast Regreening Project
Lead Agency Name:	Los Angeles Department of Water and Power
Lead Agency Address:	111 N. Hope Street, Los Angeles, CA 90012
Contact Persons:	Nancy Chung / Lori Gillem
Contact Phone Number:	(213) 367-0404 / (760) 873-0407
Project Sponsor:	Los Angeles Department of Water and Power

1.2 PROJECT BACKGROUND AND OBJECTIVES

The Initial Study (IS) has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations (CCR) Section 15000 et seq. The IS serves to identify the site-specific impacts, evaluate their potential significance, and determine the appropriate document needed to comply with CEQA. For this project, LADWP has determined, based on the information reviewed and contained herein, that the proposed Big Pine Northeast Regreening project would not have a significant environmental impact. Based on this IS, a Negative Declaration (ND) is the appropriate CEQA document. Staff recommends that the City of Los Angeles Board of Water and Power Commissioners adopt this IS/ND for the proposed project.

The Big Pine Northeast Regreening Project was identified in the 1991 EIR “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” (EIR) as on-site mitigation for impacts to groundwater-dependent vegetation. Implementation of the project will mitigate for impacts caused by abandoned agriculture and groundwater pumping with the conversion of approximately 30 acres of Rabbitbrush Scrub to irrigated pasture.

In 1991 the Los Angeles Department of Water and Power (LADWP) and Inyo County entered into the “Agreement between the County of Inyo and the City of Los Angeles and Its Department of Water and Power on a Long Term Groundwater Management Plan for Owens Valley and Inyo County” (Water Agreement). The proposed regreening project is governed by the Water Agreement. For management purposes, the Water Agreement divides vegetation of the Owens Valley floor into five management types classified as A, B, C, D and E. Although the project was identified in the 1991 EIR as a mitigation project which would fall under Type E classification, the area was mapped as Rabbitbrush Scrub, a Type B designation. The approximately 30 acre project area will be delineated as a separate parcel and designated and managed as Type E, and the remainder of the existing vegetation parcel will remain Type B Rabbitbrush Scrub. Type E 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 (Water Agreement). This will require an amendment to the Big Pine Quadrangle Vegetation Management Map that is incorporated into the Water Agreement.

Section 1 – Project and Agency Information

A final scoping document for the “Regreening Northeast of Big Pine” was approved by the Standing Committee in September 1988. The document outlined the need, description, scope, water supply, and other information related to the project. However, in 2010 the project description was updated and changed from the 1988 scoping document as conditions associated with the project have changed (August 27, 2010). At the November 4, 2010 Inyo/Los Angeles Standing Committee meeting, the Technical Group presented the Revised Scoping Document “Regreening Northeast of Big Pine Irrigated Pasture – Big Pine Area as an Enhancement/Mitigation Project”. The main modifications to the 1988 Final Scoping Document include: changing the lease designation, revising the boundaries of the project, and amending the water supply source and method of application identified for the project. The Standing Committee adopted the Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project as a replacement to the 1988 Final Scoping Document.

The following list chronologically summarizes key background information on the project (Refer to Appendix A):

- 1982
Standing Committee created, parties include LADWP and Inyo County.
- September 1988
Project scoping document “Regreening Northeast of Big Pine,” approved by Standing Committee.
- 1991
Project became an on-site mitigation measure in the 1991 EIR “Waters from the Owens Valley to Supply the Second Los Angeles Aqueduct, 1970 to 1990 and 1990 Onward, Pursuant to a Long Term Ground Water Management Plan”.
- 1991
LADWP and Inyo County entered into the Water Agreement. The proposed project is governed by the Water Agreement; and the project site will be re-designated and managed as a Type E parcel upon completion.
- November 2010
The project scope changed as conditions associated with project changed. The Revised Scoping Document: “Regreening Northeast of Big Pine Irrigated Pasture-Big Pine Area as an Enhancement/Mitigation Project,” was approved by the Standing Committee. The Standing Committee meeting was open to the public and comments were received.

Previous CEQA Document

An Initial Study for this project was originally distributed to agencies, organizations and interested parties for public review from August 3 to September 1, 2011 (August 2011 Initial Study). A Notice of Completion and copies of the document were sent to the State Clearinghouse and the Initial Study was posted on the LADWP website. Notice of availability of document was published in the Inyo Register and with the Inyo County Clerk. Copies of the Initial Study were available at LADWP offices in Bishop and Los Angeles, and also at the Bishop Branch Library.

Section 1 – Project and Agency Information

Public and agency comments received on the August 2011 document are included Appendix E. In response to the comments received, LADWP has revised the Initial Study and is distributing a new document for public review (November 2011 Initial Study). Appendix E also includes a table summarizing the comments received and LADWP responses to comments.

Project Objective

The objective of the proposed project is to comply with the terms of the 1991 EIR and enhance the aesthetics and re-green 30 acres of abandoned agricultural lands located adjacent to a residential area northeast of Big Pine.

1.3 PROJECT LOCATION AND ENVIRONMENTAL SETTING

The proposed project is located in Inyo County, northeast of the town of Big Pine in the Owens Valley. The project site is south of State Route 168, east of Highway 395 and west of the Big Pine Canal. The adjacent land uses include residential housing, small businesses, open space and a County campground. Figure 1 is a photograph of the project site taken in March 2011.

**Figure 1
Pre-Project Site Conditions**



1.4 PROJECT DESCRIPTION

The project would convert 30 acres of abandoned agricultural land vegetated with rabbitbrush scrub to irrigated pasture. The pasture will be seeded with a pasture seed mix selected by the lessee that has been commercially modified for increased productivity and palatability which will include clovers, legumes, and perennial grasses and will support livestock grazing. Water will be supplied to the project site to sustain the new vegetation by a buried 6-inch plastic pipe. The new pipeline will be installed to convey the water to the site and to distribute the water across the project area via sprinkler irrigation. Pipeline construction will include excavating a 30-inch deep by 12-inch wide trench, installing plastic pipe and backfilling the trench with the excavated

Section 1 – Project and Agency Information

soil. Measuring devices will be installed to quantify the amount of water delivered. Water trucks will be used to wet the area prior to construction to minimize dust emissions. In addition, historical resources documented by URS Corporation during an archaeological survey (URS, 2005) will be avoided during construction; the pipeline is oriented to avoid these resources.

Water will be supplied by surface water obtained from the Big Pine Canal. This will require the construction of a sump (concrete basin) from which water will be pumped. In addition, a single wooden power pole will be installed to provide power to the sump location to run the pump (See Figures 2 and 3). The project will be supplied with up to 150 acre-feet of water per year by surface water from the above-named sources. On an annual basis, an equivalent amount of water will be pumped from an existing well, Well W375 located approximately 3 miles southeast of the project pasture area (see Figures 2 and 3) to make-up for the water supplied to the project.

Additional project components include minor site cleanup, preparation of soil for seeding, fencing of the area and installation of a sprinkler system. The designated lessee (RLI-483, Mendiburu) will be responsible for the on-going maintenance of the pasture, which includes the use of livestock to graze the area.

The following summarizes construction activities and maintenance necessary to implement the project (see Figures 2 and 4):

- Installation of 1,320 ft of 6-inch plastic pipe by excavating a single 30-inch deep by 12-inch wide trench and then backfilling the trench with the excavated soils.
- Construction of 4 ft x 4 ft x 5 ft concrete basin sump at the northeast corner of the project site from which water collected from the named sources will be pumped.
- Installation of a single standard wooden power pole adjacent to the sump to provide power to the sump pump.
- Installation of five-strand barbed wire fence around the perimeter of the project site.
- Minor cleanup, preparation of soil, and seeding with pasture mixture.
- Installation of sprinkler system.

The following equipment will be used during project construction: backhoe, small crane, mower, flatbed truck, pump mechanic trucks, concrete transit mixers, power pole setting truck, equipment service truck, and pick-ups. The estimated construction duration is three weeks.

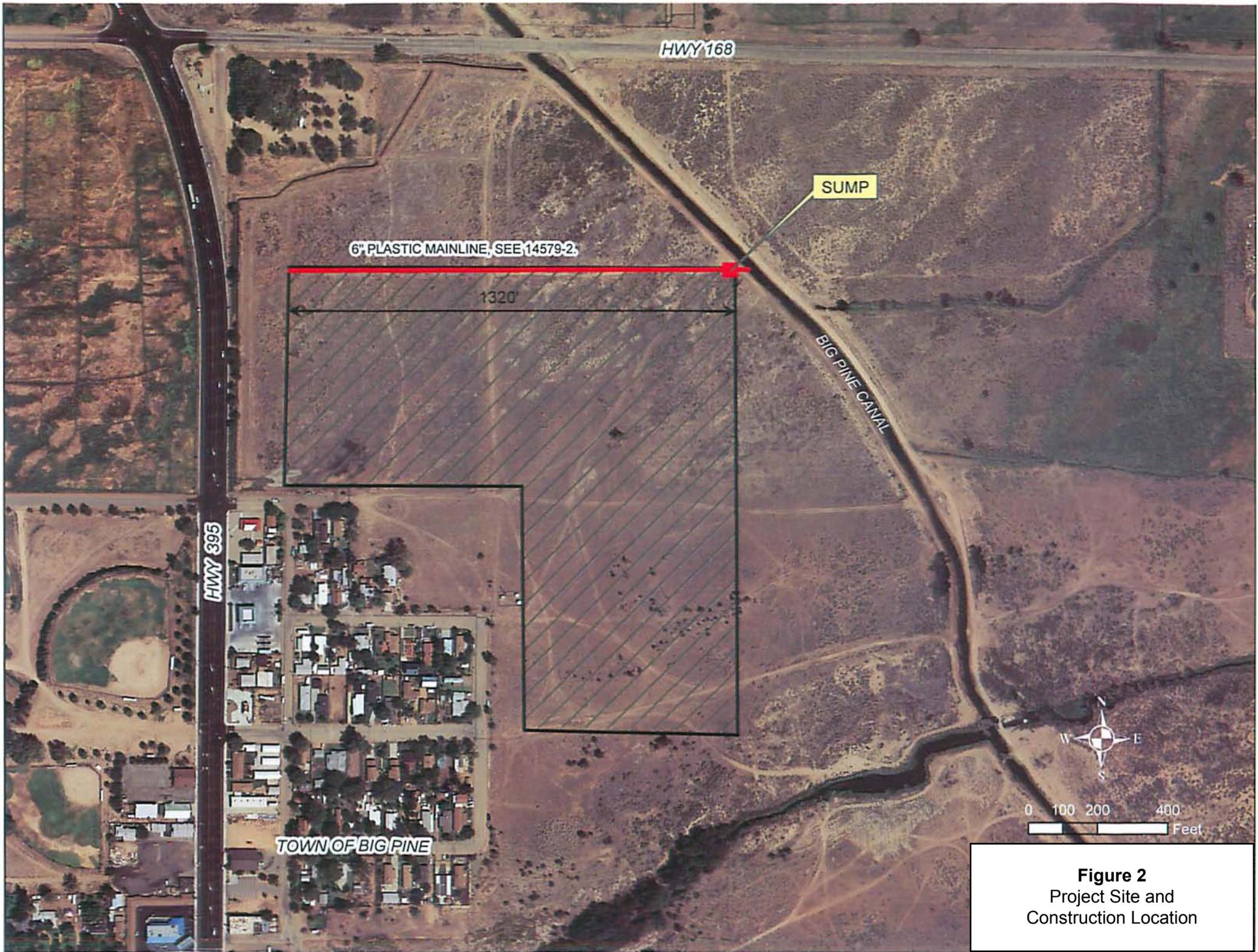


Figure 2
Project Site and
Construction Location

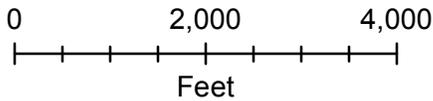
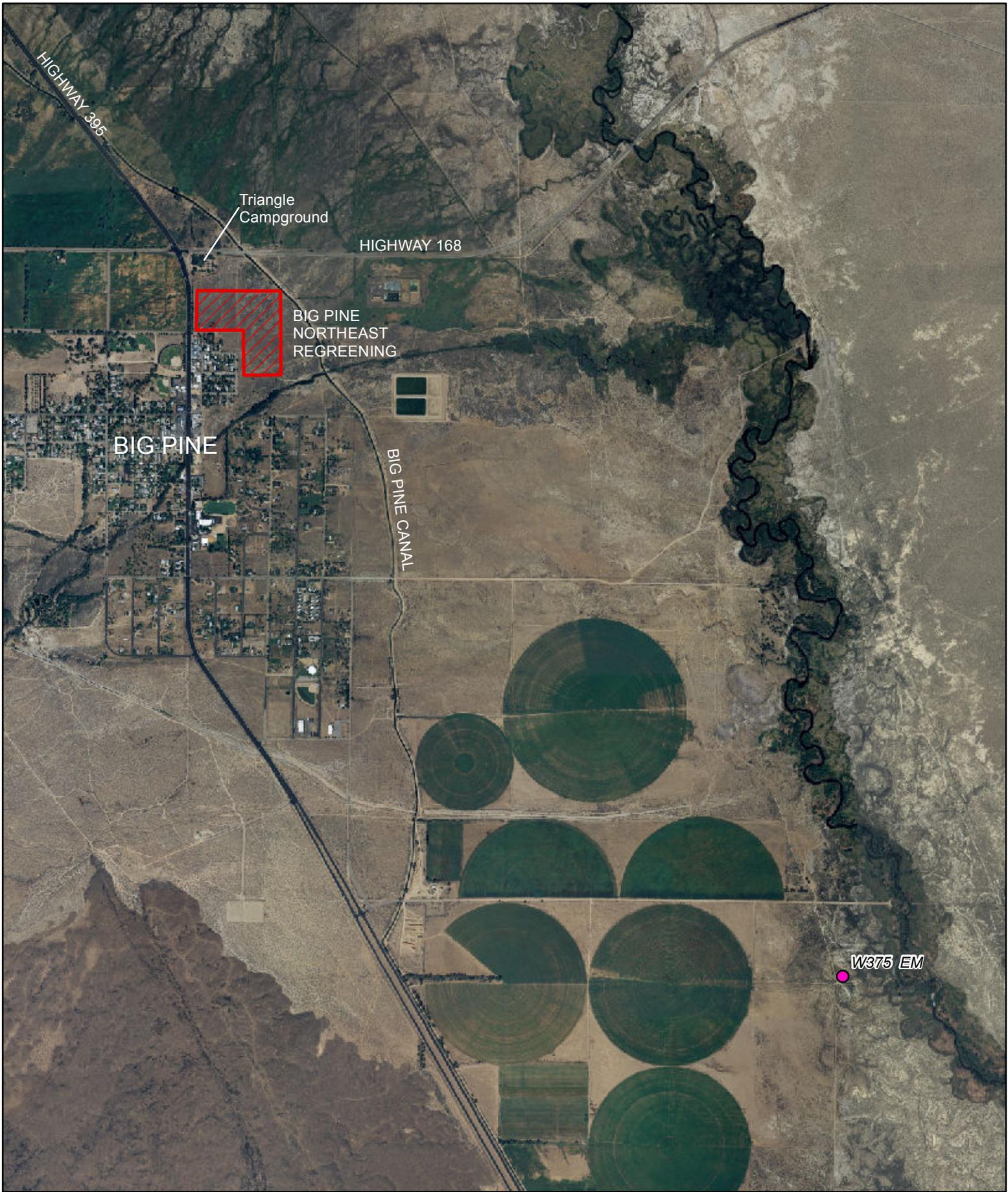
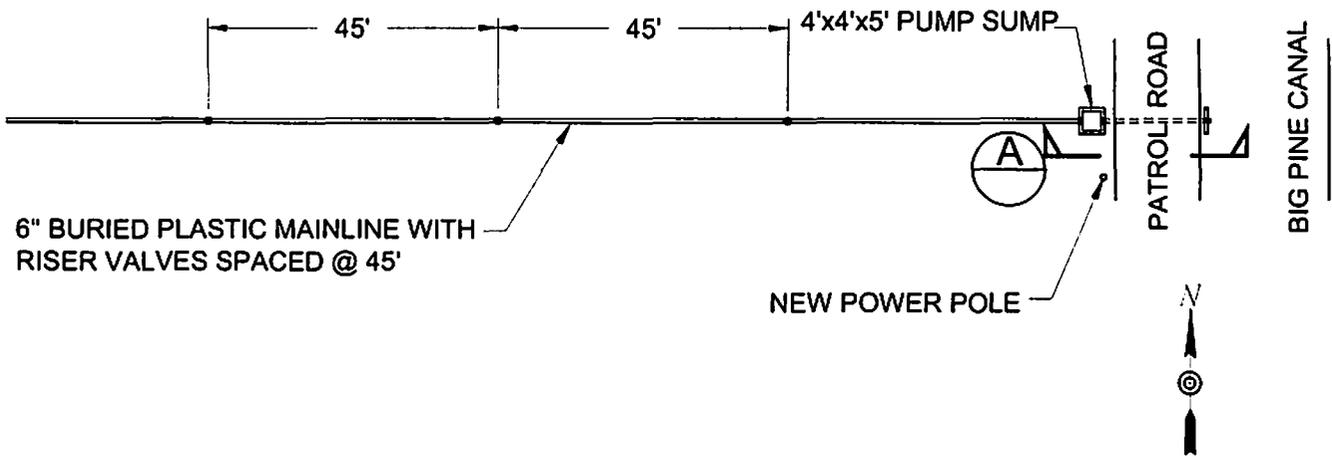
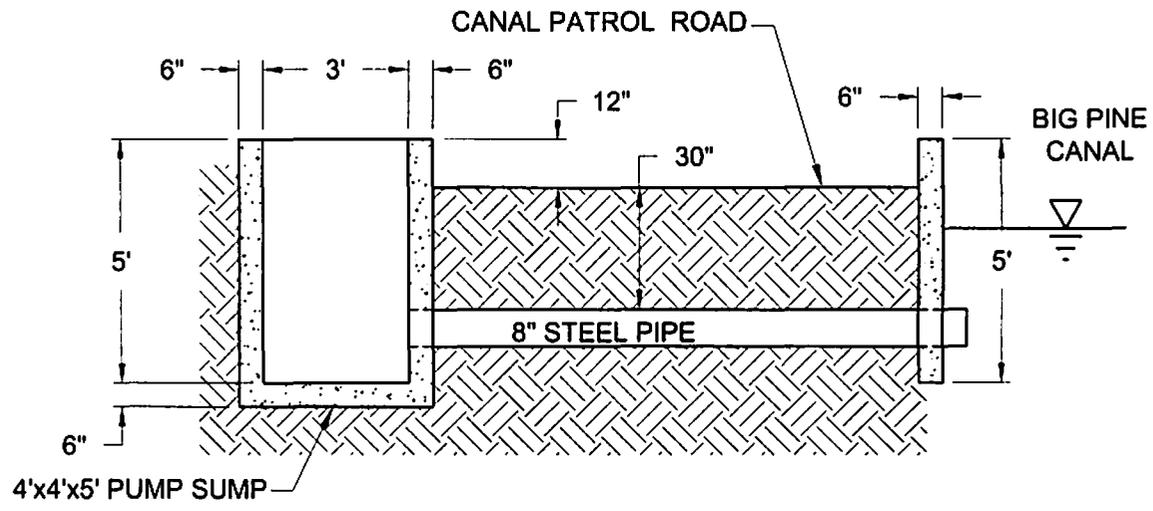


Figure 3
Project Site and Existing
Well W375 Location



PLAN



SECTION A

SCALE: NONE

A14,579-2

BIG PINE NORTHEAST REGREENING - Figure 4

REFERENCES		DEPARTMENT OF WATER AND POWER		CITY OF LOS ANGELES	
DESIGNED	W. HOPPER	DATE	04/11	APPROVED	
DRAWN	T. ZHAO	DATE	04/11		
WORK ORDER NO.	#ZMD02	CHECKED		MJD	ASHEET.DWG 10/01

A

Section 1 – Project and Agency Information

1.5 APPLICABLE PLANS AND POLICIES

The project is located on City-owned land within Inyo County. The Inyo County General Plan designates the area as Agriculture. The zoning is Open Space; 40-acre minimum lot size, and M-2; light industrial. As a regreening effort of an abandoned agricultural parcel, the proposed project does not conflict with the LADWP Owens Valley Land Management Plan (LADWP, 2010) or the Habitat Conservation Plan for LADWP lands (in preparation by LADWP).

1.6 PROJECT APPROVALS

Consistency with the Long Term Water Agreement

The proposed project has been designed in accordance with the Water Agreement. Currently (November 2011), Well W375 is designated as in “off-status” per the terms of the Water Agreement. However, as provided by the Water Agreement Section V.C, the Inyo/Los Angeles Technical Group may exempt enhancement/mitigation project wells, such as Well W375, from the well turn-off provisions of the Water Agreement if appropriate. As described in Section 2.3.9 (Hydrology and Water Quality), pumping from Well W375 is appropriate because impacts on the groundwater table would not be significant. Water supplied to the project will be contingent upon the Technical Group exempting Well W375 for the project under the provisions described by the Water Agreement.

The Big Pine Northeast Regreening Project is one of a number of enhancement/mitigation projects committed to be implemented by the Inyo/Los Angeles Standing Committee between 1970 and 1990. The September 27, 1988 final scoping document for the project, as approved by the Inyo/Los Angeles Standing Committee, provided under Section 4, *Water Supply*: “*The new pasture will be supplied up to 150 acre feet annually from existing E/M well No. 375 in the Big Pine area.*” The enhancement/mitigation projects were evaluated in the 1991 EIR on *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* (1991 EIR). Section 13.4 of the 1991 EIR entitled, *Impacts and Mitigation Measures* states in part:

*“In the future, the export of Owens Valley water will be governed by the terms of the (Water) Agreement. **These terms include provisions for new wells and the pumping of water for enhancement/mitigation projects**”* (emphasis added).

The 1991 EIR also provides under Section S.5, *The Agreement*:

*“...all enhancement/mitigation projects implemented by the Standing Committee between 1984 and 1990 will continue. Periodic evaluations of the projects will be made by the Technical Group. **These projects will continue to be supplied with groundwater as necessary.**”* (emphasis added)

In addition to the Big Pine Northeast Regreening Project scoping document and the 1991 EIR, Section X of the Water Agreement also requires that enhancement/mitigation projects be supplied with groundwater as necessary:

“X. ENHANCEMENT/MITIGATION PROJECTS

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

Section 1 – Project and Agency Information

*Group. Subject to the provisions of section VI, **enhancement/mitigation projects shall continue to be supplied by enhancement/mitigation wells as necessary.** New enhancement projects will be implemented if such projects are approved by the Inyo County Board of Supervisors and the Department, acting through the Standing Committee” (emphasis added).*

Moreover, Section III of the Stipulation and Order in California Superior Court Case No. 12908 (Stipulation and Order) states the overall goal of the Water Agreement:

*“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**” (emphasis added).*

Section XXII of the Stipulation and Order provides:

“Any water right of either the County or of Los Angeles or of any other person existing prior to the entry of this Stipulation and Order will not be adversely affected, directly or indirectly, by this Stipulation and Order.”

Operating Well W375 to provide make-up water for the Big Pine Northeast Regreening Project is consistent with the project scoping documents approved by the Inyo/Los Angeles Standing Committee, the 1991 EIR, and the Water Agreement. Pumping make-up water for the project complies with the overall goal of the Water Agreement to provide *a reliable supply of water for export to Los Angeles and for use in Inyo County* while avoiding violation of Water Agreement Section XXII by adversely affecting the existing water rights of the City of Los Angeles.

The project was approved by the Inyo/Los Angeles Standing Committee in September 1988, and the revisions were approved in November 2010.

Other Approvals

LADWP will obtain a project-specific Streambed Alteration Agreement for the construction of the sump facility adjacent to Big Pine Canal prior to construction. Routine maintenance of irrigation conveyance features within LADWP’s system is covered by an existing Routine Maintenance Agreement between California Department of Fish and Game (CDFG) and LADWP (2008). LADWP will request an Amendment to the Routine Maintenance Agreement after construction is complete to cover on-going maintenance of the new facility. LADWP will comply with all applicable regulations and obtain applicable permits, including the National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit since project construction will disturb an area greater than 1 acre.

Section 2

Environmental Analysis

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Population and Housing
<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Hazards and Hazardous Materials	<input type="checkbox"/> Public Services
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Recreation
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Transportation and Traffic
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Noise	<input type="checkbox"/> Mandatory Findings of Significance

2.2 AGENCY DETERMINATION

On the basis of this initial evaluation:

- I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature: _____

Title: _____

Printed Name: _____

Date: _____

Section 2

Environmental Analysis

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Population and Housing
<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Hazards and Hazardous Materials	<input type="checkbox"/> Public Services
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Recreation
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Transportation and Traffic
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Noise	<input type="checkbox"/> Mandatory Findings of Significance

2.2 AGENCY DETERMINATION

On the basis of this initial evaluation:

- I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature: Charles C. Holloway

Title: Manager of Environmental Assessment and Planning

Printed Name: Charles C. Holloway

Date: 11/10/2011

Section 2 – Environmental Analysis

2.3 ENVIRONMENTAL CHECKLIST

2.3.1 Aesthetics

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed project site is sparsely vegetated with rabbitbrush, native grasses, and annual forbs. The project site is disturbed with numerous dirt roads. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375 to supply the project with make-up water. Well W375 is located in a vegetation parcel mapped as Nevada Saltbush Scrub (comprised of *Atriplex torreyi*, *Ericameria nauseosa*, *Artemisia tridentata*, *Sporobolus airoides*, *Sarcobatus vermiculatus*, and *Distichlis spicata*). Figure 6, from a recent site visit (September, 2011) confirmed the vegetation composition. Based on analysis presented in the Hydrology Section, there will not be significant impacts to hydrology and vegetation; therefore, there will be no significant aesthetic impacts from this portion of the project.

Figure 5
Pre-Project Site Conditions



Figure 6
Existing Well W375 Conditions



- a) **Less than Significant Impact.** The project will convert rabbitbrush scrub to irrigated pasture which will not have a substantial adverse effect on a scenic vista. There are no designated scenic vistas in the immediate vicinity of the proposed project site or in sufficiently close proximity such that views from those vistas would be adversely affected by the proposed project. Additionally, there will be no changes at the Well W375 site. Therefore, the impact will be less than significant.

Section 2 – Environmental Analysis

- b) **Less than Significant Impact.** Scenic roadways are designated by BLM, Inyo National Forest, Caltrans, and the Federal Highway Administration. State Highway 395 is an officially designated State Scenic Highway from Independence to north of Tinemaha Reservoir (postmiles 76.5 to 96.9) (Caltrans, 2008). State Highway 395 is eligible for designation in the portions north and south of that segment (Caltrans, 2008). The project site is just east of State Highway 395 in the eligible, but not designated, portion of the roadway. There are no major landform features, rock outcroppings, or historic buildings on the project site. During implementation of the project, a few non-native trees will be removed. Since the project will improve the aesthetics of the parcel by regreening the area, the project will have a beneficial effect on views from a portion of roadway eligible for designation as a scenic roadway, SR 395. Well W375 (proposed to supply makeup water for the project) is an existing well and is not close to any scenic highway. The impact to scenic resources is less than significant.
- c) **Less than Significant Impact.** The proposed project will not degrade the existing visual character or quality of the site and its surroundings. The current project site is sparsely vegetated and disturbed with numerous roads; project implementation will increase vegetative cover and provide pasture management, a beneficial effect. Well W375 (proposed to supply makeup water for the project) is an existing well. The predicted drawdown, see Hydrology section, will not adversely affect the phreatophytic communities in the vicinity of the well. The impact on visual character of the project site and the Well W375 site will be less than significant.
- d) **No Impact.** Since no new lighting is proposed at the 30 acre project site or at the existing Well W375, the project will not create a new source of substantial light or glare that would adversely affect nighttime views in the project area. Therefore, no impact will occur.

Section 2 – Environmental Analysis

2.3.2 Agriculture and Forest Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** No part of the proposed project is located on or near Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (DOC, 2006). The area of the proposed project is not mapped, and is not considered Farmland (ZIMAS, 2007).
- b) **No Impact.** Existing zoning by Inyo County of the project site is OS-40 (Open Space, 40-acre minimum lot size), M-2 (Light Industrial) with a land use designation of A (Agricultural) (Inyo County, Inyo County Interactive Mapping (GIS) 2009). Since Inyo County does not offer a Williamson Act program, the proposed project will have no impact on agricultural zoning or Williamson Act contracts.
- c) **No Impact.** No part of the project is zoned as forested land, nor will the proposed project result in conversion of forest land to non-forest use. Public Resources Code Section 12220 (g) defines "Forest land" as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There will be no impact or conflict with existing zoning or cause rezoning of forest lands.
- d) **No Impact.** No part of the project is zoned as forested land, nor will the proposed project result in conversion of forest land to non-forest use. Public Resources Code Section 12220

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(g) defines "Forest land" as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There will be no impact on forest land.

- e) **No Impact.** The proposed project will create irrigated pasture which will be utilized for livestock grazing. Therefore, there will be no impact relative to converting farmland to non-agricultural use.

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2.3.3 Air Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) The Owens Valley is located in the Great Basin Unified Air Pollution Control District (GBUAPCD). The valley has been designated by the State and EPA as a non-attainment area for the state and federal 24-hour average PM₁₀ standards. The area has been designated as attainment or unclassified for all other ambient air quality standards. Air quality is considered excellent for all criteria pollutants with the exception of PM₁₀. Large industrial sources are absent from the Owens Valley. The major sources of criteria pollutants, other than wind-blown dust, are woodstoves, fireplaces, vehicle tailpipe emissions, fugitive dust from travel on unpaved roads, prescribed burning, and gravel mining. The project also includes groundwater pumping of up to 150 acre feet annually from an existing well, W375, to supply the project with water. Since this is an existing well, there will be no construction in this area that would create air pollutant emissions. Additionally, based on analysis presented in the Hydrology Section, there will not be significant impacts to hydrology and vegetation from this portion of the project that would result in erosion or dust generation.
- b) **No Impact.** The relevant air quality plan for the project area is the *Final 2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (SIP)* (GBUAPCD, 2008). The focus of this planning document is implementation of dust control measures at Owens Dry Lake, the major particulate matter source in the valley. Since implementation of the project may decrease particulate matter emissions through increased vegetation coverage, and through pasture management, the project is consistent with the applicable air quality plan. There is no impact on the applicable air quality plan.
- c) **Less than Significant Impact.** Emissions during project construction will result from the operation of a backhoe, small crane, mower, flatbed truck, pump mechanic trucks, concrete transit mixer, power pole setting truck, equipment service truck, and four pickup trucks. Air pollutant emissions from intermittent use of these vehicles and equipment during the estimated three weeks of construction would be minimal. Dust emissions from ground

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disturbance necessary to install the irrigation system will be minimized by the use of water trucks prior to, and during, ground disturbance. The GBUAPCD has not established specific quantitative thresholds of significance for air emissions related to construction. Due to the short duration of project construction and the small number of vehicles and equipment, the impact on air quality from project construction is less than significant. Since operation of the project will increase vegetative cover on 30 acres of land, project operation will decrease dust emissions from the project site, a beneficial effect

- c) **Less Than Significant Impact.** The project area is a non-attainment area for PM₁₀. Construction of the project will result in dust emissions from earth disturbance. LADWP must meet GBUAPCD Rule 401, which requires that fugitive dust emission control measures be implemented to adequately prevent visible dust from leaving the property and to maintain compliance with the PM₁₀ standard. Due to the small acreage of disturbance planned and the use of water trucks as warranted, dust emissions related to project construction are not anticipated to be visible off the project site. Therefore, project related impacts on PM₁₀ will be less than significant.

- d) **Less Than Significant Impact.** Sensitive receptors include schools, day-care facilities, nursing homes, and residences. Since only a small number of construction vehicles and equipment are necessary for a short construction period (three weeks), and since water trucks will be used during project construction, project-related air quality impacts on adjacent residences will be less than significant.

- e) **Less Than Significant Impact.** Project construction will result in minor localized odors associated with fuel use for equipment and vehicles for the short construction duration (three weeks). These odors are common and not normally considered offensive. Therefore, odor impacts on adjacent residences will be less than significant.

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2.3.4 Biological Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The project site vegetation was mapped in the summer of 1986. At a recent site visit (March, 2011) site photographs were taken and it was confirmed that the vegetation community is unchanged from 1986 conditions. The parcel is mapped as Rabbitbrush Scrub with 25 percent live cover and designated as Green Book Type B. For management purposes, the Water Agreement divides the vegetation of the Owens Valley floor into five management types classified as A, B, C, D, and E (Green Book, Inyo County and City of Los Angeles, 1990). Shrub communities with an estimated average annual evapotranspiration greater than estimated average precipitation within the quadrangle were classified as Type B. Once implemented, the project will be managed as a Type E parcel. Type E 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 (Water Agreement). Implementation of the project will require an amendment to the Big Pine Quadrangle Vegetation Management Map that is incorporated into the Agreement. Vegetation at Well W375 was mapped as Nevada Saltbush Scrub (comprised of *Atriplex torreyi*, *Ericameria nauseosa*, *Artemisia tridentata*, *Sporobolus airoides*, *Sarcobatus vermiculatus*, and *Distichlis*

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spicata). Figure 6 from a recent site visit (September, 2011) confirmed the vegetation composition. Well W375 will be pumped to supply the project with up to 150 acre feet of make-up water annually. Since this is an existing well, there will be no construction in this area to disturb the vegetation or wildlife habitat in this area. Additionally, based on analysis presented in the Hydrology Section, there will not be significant impacts to hydrology from this portion of the project that would adversely affect phreatophytic vegetation.

- a) **Less Than Significant Impact.** The proposed project will not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. The project will include the removal of all existing vegetation within the 30 acre project area and seeding the site with a pasture mix that will support livestock grazing. This mix would be commercially modified for increased productivity and palatability, and will include clovers, legumes, and perennial grasses.

Based on California Natural Diversity Data Base (CNDDDB) listings for the Big Pine USGS quadrangle and other published records, the following sensitive species have the potential to occur on the project site:

- Northern Harrier (*Circus cyaneus*) (SSC)
- Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*) (state endangered)
- Yellow-Breasted Chat (*Icteria virens*) (CSC)
- Summer Tanager (*Piranga rubra*)
- Cooper's Hawk (*Accipiter cooperii*)
- Swainson's Hawk (*Buteo swainsoni*) (state threatened)
- Long-eared Owl (*Asio otus*)
- Townsend's Big-eared Bat (*Corynorhinus townsendii*) (CSC; U.S. Forest Service sensitive)
- Hoary Bat (*Lasiurus cinereus*)
- Pallid Bat (*Antrozous pallidus*) (CSC; U.S. Forest Service Sensitive)
- Borrego Parnopes Cuckoo Wasp (*Parnopes borregoensis*)
- Wong's Springsnail (*Pyrgulopsis wongi*)
- Northern Leopard Frog (*Lithobates pipiens*)
- Owens Pupfish (*Cyprinodon radiosus*)
- Owens Tui Chub (*Siphateles bicolor snyderi*)
- Sierra Nevada Big Horn Sheep (*Ovis Canadensis sierrae*) (federal endangered, state endangered)
- Owens Valley Checkerbloom (*Sidalcea covillei*) (state endangered)
- Inyo County Star-Tulip (*Calochortus excavatus*) (CSC)
- Inyo phacelia (*Phacelia inyoensis*)
- King's eyelash grass (*Blepharidachne kingii*)
- Nevada oryctes (*Oryctes nevadensis*)
- Parish's popcorn-flower (*Plagiobothrys parishii*)
- Shockley's milk-vetch (*Astragalus serenoii* var. *shockleyi*)
- Wheeler's dune-broom (*Chaetadelpa wheeleri*)
- Coyote gilia (*Aliciella triodon*)
- Sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*)

Sensitive Avian Species. No suitable nesting habitat exists on the project site for the following riparian dependent species: Western Yellow-billed Cuckoo, Willow Flycatcher,

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Bell's Vireo, Yellow Warbler, Yellow-breasted Chat, or Summer Tanager. The few isolated cottonwoods along the ditch adjacent to Highway 395 provide limited foraging opportunities for migrants of these species. Long-eared Owls require dense vegetation for nesting, which is lacking at the site. The open, disturbed dry brush habitat provides only limited foraging opportunities for this species. Project implementation should increase the quality of available foraging habitat for this species, if present in the vicinity. The few isolated cottonwoods on and adjacent to the site do provide potential nesting opportunities for Swainson's Hawk. Loggerhead Shrike, a species of special concern, could potentially nest in the brush located in the project area (nesting season late-February thru June). Non-native trees on the project site will be examined for the presence of active nests prior to removal. Surrounding trees subject to disturbance from project-related activities during the nesting season (March 1 through September 15) will also be surveyed for the presence of active nests. A qualified LADWP biologist will visit the project site 48 hours prior to construction activities commencing and survey for active raptor and bird nests. If an active nest is found, clearing and construction within 300 feet of the nest or 500 feet of a raptor nest will be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Therefore, impacts on sensitive avian species will be less than significant.

Sensitive Aquatic Species. Northern Leopard Frog and Owens Pupfish require a permanent source of water, which is lacking on site. There is a nearby but off-site existing ditch, which conveys water only during the irrigation season and therefore is not a permanent source that can be expected to support these species. Therefore, impacts on sensitive aquatic species will be less than significant.

Sensitive Bat Species. There is no suitable roosting habitat for bats on the project site. Pallid Bats, forage primarily by capturing large insects on the ground in open habitats, and thus may forage in the project area. Other sensitive bat species such as Townsend's Big-eared Bat (*Corynorhinus townsendii*), Spotted Bat (*Eurderma maculatum*), and Western Red Bat (*Lasiurus blossevillii*) are not expected, but may occur while in transit to other higher quality foraging habitats. Therefore, impacts to sensitive bat species will be less than significant.

Sensitive Plant Species. Rare plants are not present within the project area. Records for *Sidalcea covillei*, *Calochortus excavatus*, *Phacelia inyoensis*, *Blepharidachne kingii*, *Oryctes nevadensis*, *Plagiobothrys parishii*, *Astragalus serenoii* var. *shockleyi*, *Chaetodelpha wheeleri*, *Aliciella triodon*, and *Loeflingia squarrosa* var. *artemisiarum* occur for the USGS quad sheet. At the March 2011 site visit, and at numerous site visits during the growing season, a vegetation inventory (Appendix D) was performed and no sensitive plant species were found within the project site. Since none of these species are present on the project site, the project will have no impact on sensitive plant species.

- b) **No Impact.** The project site does not contain any riparian vegetation or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. No riparian vegetation will be disturbed during the sump installation. Therefore, the project will have no impact on sensitive habitat types.
- c) **No Impact.** The project site does not contain wetlands or wetland vegetation. No riparian vegetation will be disturbed during the sump installation. Therefore, the project will have no impact on federally protected wetlands.

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- d) **Less Than Significant Impact.** The proposed project will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. The small amount of water removed from Big Pine Canal to run the irrigation system for the project will not create a noticeable elevation change in the canal downstream of the project. Big Pine Canal has numerous input and outlet structures along it, and the addition of the pipeline and sump structure for the implementation of the proposed project will not create additional impacts to the canal or any resident or migratory wildlife. The proposed project will only temporarily disturb the site, and over time will improve the site. Therefore, impacts on wildlife corridors will be less than significant.
- e) **No Impact.** This project does not conflict with any local policies or ordinances protecting biological resources. The project site has been designated as an enhancement/mitigation project location and implementation of the proposed project is consistent with that designation.
- f) **No Impact.** The project site does not fall within any Habitat Conservation Plan, Natural Community Conservation Plan, or state habitat conservation plan. LADWP is currently working with the United States Fish and Wildlife Service (USFWS) to develop a Habitat Conservation Plan (HCP). The proposed project will not conflict the in-progress HCP.

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2.3.5 Cultural Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

In December 2004, URS Corporation (URS) was retained to conduct a cultural resources inventory of the proposed regreening area in the vicinity of Big Pine, Inyo County, California. Field work was conducted the week of December 13, 2004. Additionally, a California Historical Resources Information System search was conducted for the proposed project and did not reveal any previously recorded archaeological sites. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Since this is an existing well, there will be no construction in this area, and therefore no impacts to cultural resources.

- a) **Less Than Significant Impact.** Archaeological investigations were conducted by URS Corporation (URS, 2005). Two historical sites containing artifacts from dumping events were documented within the project area. A formal evaluation of the significance of the two sites has not been conducted. The two sites will be avoided during ground disturbing activities associated with the project. Therefore, since the sites will be avoided, the project will not cause substantial adverse change in the significance of a historical resource.

- b) **No Impact.** No archaeological resources were delineated during the site evaluations. Therefore, the project will not cause a substantial adverse change in the significance of an archaeological resource.

- c) **No Impact.** The project will not directly or indirectly destroy a unique paleontological resource or unique geologic feature. There are no known paleontological resources or unique geologic features existing on the project site (URS, 2005).

- d) **No Impact.** Human remains are not known for the project site. Construction at the project site necessary for installation of the irrigation system is not anticipated to disturb human remains. However, in the unlikely event that evidence of human remains is found, all work shall cease and an archaeological consultant will evaluate the findings in accordance with standard practices and applicable regulations. The County Coroner and an appropriate local tribal representative will be informed and consulted as required by State law.

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2.3.6 Geology and Soils

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The project area is located in eastern California, in the town of Big Pine in the Owens Valley. The Owens Valley of eastern California is a deep north-south trending basin, lying between the Sierra Nevada to the west and the White-Inyo Mountains to the east. The Owens Valley was formed as a fault block basin with the valley floor dropped down relative to the mountain blocks on either side.

The Owens Valley is the westernmost basin in a geologic province known as the Basin and Range, a region of fault-bounded, closed basins separated by parallel mountain ranges stretching from central Utah to the Sierra Nevada and encompassing all of the state of Nevada. Geological formations in the project areas are of Cenozoic age, chiefly Quaternary.

The soils in Owens Valley contain mostly Quaternary alluvial fan, basin-fill, and lacustrine deposits (Miles and Goudy, 1997).

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The project area is mapped as Hesperia-Cartago complex soils with 0 to 5 percent slopes. The soil is very deep and well drained with moderately rapid permeability (NRCS, 2002).

The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Since this is an existing well, there will be no construction in this area to impact the geology and soils in the area. Additionally, based on analysis presented in Hydrology Section), there will not be significant impacts to hydrology from this portion of the project to adversely affect phreatophytic vegetation and thus, use of water from Well W375 will not significantly impact top soil or create erosion.

- a) **Less than Significant Impact.** The project area is located within U.S. Geological Survey quadrangles containing delineated Alquist-Priolo special studies zones (California Geological Survey). Surface rupture on these faults is also possible outside of the currently mapped active traces of these range-front faults in the vicinity of the project sites. Since habitable structures will not be built as part of the proposed project, people will not be exposed to adverse effects involving seismic ground shaking. The project area has relatively little slope which reduces the possibility of landslides. Since failure of project facilities related to seismic events would be easily repaired, the project will have a less than significant impact related to seismic hazards.
- b) **Less than Significant Impact.** The proposed project includes minor soil disturbance related to installation of the sump, sprinkler irrigation, and fencing. Since all appropriate BMPs will be utilized during construction to prevent erosion and the loss of topsoil, project construction will have a less than significant impact on soil erosion. Project operation will increase vegetative cover and therefore soil stabilization on the project site - a beneficial impact.
- c) **No Impact.** Soils within the project area have a slope of 0 to 5 percent and are classified as very deep soils. Liquefaction is unlikely at the project site. Habitable structures will not be built as part of the proposed project. Therefore, there will be no project-related impacts from unstable soils.
- d) **No Impact.** Habitable structures will not be built as part of the proposed project. The soils mapped in the adjacent areas have low concentrations of clay. Therefore, there will be no project-related impacts from expansive soils.
- e) **No Impact.** Sanitation facilities are not present or proposed for the project site. There will be no impact on soils related to wastewater disposal.

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2.3.7 Greenhouse Gas Emissions

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **Less Than Significant Impact.** GBUAPCD has not identified a significance threshold from GHG emissions. Project related emissions of GHGs will be limited to air pollutants generated during the temporary (approximately three weeks) construction period. Construction emissions will result from operation of a backhoe, small crane, mower, flatbed truck, pump mechanic trucks, concrete transit mixer, power pole setting truck, equipment service truck, and four pickup trucks. Based on the number of vehicles and equipment, the intermittent nature of their use, and the short construction duration, greenhouse gas emissions from construction would be minimal and less than significant. Operations-related air pollutant emissions will result from infrequent vehicle trips to the project site – similar to existing conditions. Since operation of the project will not increase air pollutant emissions over existing conditions, and since increased vegetative cover on 30 acres could result in a minor reduction of atmospheric CO₂, the project will have a less than significant impact on GHG emissions and therefore climate change. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Well W375 is an existing facility pumped by a 150 horsepower electric motor. Emission related to the electric power generation necessary for pump operation would be less than significant.
- b) **No Impact.** The following policies and regulations are relevant to climate change in California:

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- **State of California Assembly Bill 32** – California Global Warming Solutions Act - Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was signed into law on September 27, 2006. With the Governor's signing of AB 32, the Health and Safety Code (Section 38501, Subdivision (a)) now states the following: *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

AB 32 requires the California Air Resources Board (CARB), in coordination with State agencies as well as members of the private and academic communities, to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. Under the provisions of the bill, by 2020, statewide greenhouse gas emissions will be limited to the equivalent emission levels in 1990.

- **State of California Senate Bill 375** - On September 30, 2008, Governor Arnold Schwarzenegger signed Senate Bill (SB) 375, which seeks to reduce GHG emissions by discouraging sprawl development and dependence on car travel. SB 375 helps implement the AB 32 GHG reduction goals by integrating land use, regional transportation and housing planning.

As an enhancement/mitigation project which will increase vegetative cover on the project site, the proposed project is consistent with GHG policies and regulations. Therefore, there is no impact on these policies and regulations.

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2.3.8 Hazards and Hazardous Materials

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

Construction of the proposed project will require occasional transport of limited quantities of fuel. Fuel will be used for vehicles and power equipment. Fuel will be contained within the manufacturer's tanks on all powered heavy equipment onsite, or in approved canisters for powered hand equipment. When necessary, a fuel/service truck will visit the site, parking at a non-sensitive location such as a road shoulder on level ground. Equipment operators will move all mobile equipment to the fuel/service truck for refueling. No fuel will be stored onsite at the project location. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Since Well W375 is an existing structure there will be no new hazards or hazardous materials at this site.

a and b) **Less Than Significant Impact.** As is the current practice by LADWP, use of fuels for construction will be carefully monitored to limit exposure of humans or environmental

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receptors. Therefore, impacts related to release or accidental exposure to humans or the environment will be less than significant.

- c) **No Impact.** There are no schools within ¼ mile of the project site. Hazardous materials use will be limited to fuels. Since fuels will be properly handled, there will be no impact on the schools from hazardous materials.
- d) **No Impact.** Section 65962.5 of the California Government Code requires the California Environmental Protection Agency (CalEPA) to update a list of known hazardous materials sites, which is also called the “Cortese List.” The sites on the Cortese List are designated by the State Water Resources Control Board, the Integrated Waste Management Board, and the Department of Toxic Substances Control. The proposed project site is not located in an area included on a hazardous materials site list.
- e and f) **No Impact.** The project area is not located sufficiently near either a private airstrip or public airport to pose a safety risk. There will be no project-related impacts on airport safety.
- g) **Less Than Significant Impact.** Due to the small numbers of personnel and equipment needed for project construction, project-related traffic will have a less than significant impact on emergency access and evacuation plans.
- h) **Less Than Significant Impact.** Project implementation will increase vegetation at the project site and therefore may result in a minor increase in the volume of potential fuel for fires. However, the project site will be grazed which will serve to manage the volume of vegetation on-site. Additionally, the project site is located on LADWP land subject to LADWP’s fire management strategies. Therefore, impacts related to wildland fires will be less than significant.

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2.3.9 Hydrology and Water Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

A maximum of 150 acre-feet of irrigation water annually will be supplied to the project pasture area via surface water obtained from the Big Pine Canal. A commensurate amount of make-up groundwater will be pumped from an existing well, W375, located approximately 3 miles southeast of the project pasture area. The relationship of the project pasture area to Well W375 is shown on Figure 3. The current pumping capacity of Well W375 is approximately 5.5 cubic

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feet per second (cfs). Based upon maximum project demand, Well W375 is capable of pumping the annual replacement groundwater in approximately two weeks.

A key issue for consideration is the potential impact on the environment of pumping Well W375 to produce 150 acre-feet of water or less. In evaluating this potential impact, the hydrogeology and well construction details of W375 are important factors to consider. The hydrogeology in the area of Well W375 includes a shallow unconfined aquifer and deeper confined aquifer separated by an approximately 60 foot thick low-permeability clay layer (Figure 7: USGS Water Supply Paper 2370-H Cross Section B-B). Well W375 is constructed with a total depth of 450 feet and is screened to extract groundwater only from the deeper confined aquifer between 260 feet and 440 feet. Because the well is constructed in the deepest aquifer and separated from the shallow aquifer by a low-permeability layer, groundwater pumping from Well W375 has a limited effect on the shallow aquifer.

The potential impact of pumping Well W375 on shallow water levels (and subsequent impacts on vegetation and soils) has been quantified using two entirely different methods:

- 1) Comparison to actual field (operational) testing of the well, and;
- 2) Use of a previously-constructed groundwater model of the Owens Valley.

These two methods, along with the results of the analysis, are described in more detail below.

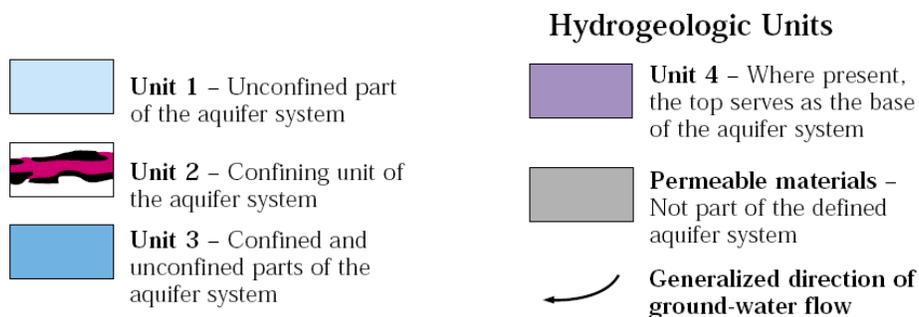
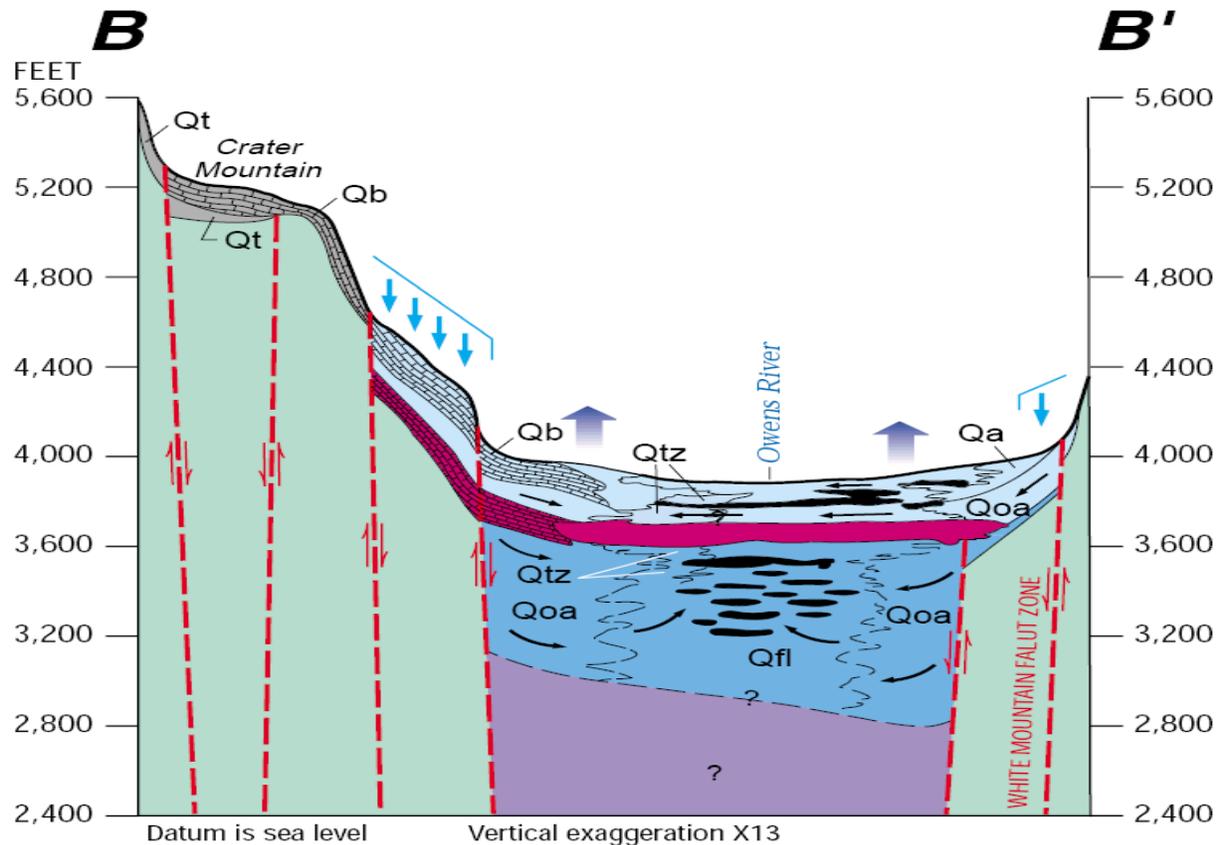
Operational Testing

In 1997 and 1998, an “operational test” was conducted on Well W375. The operational test consisted of pumping the well continuously at its full capacity for a period of approximately nine months. During this period of time, the change in water levels in twelve (12) deep monitoring wells and twenty (20) shallow monitoring wells was carefully monitored and documented. The monitoring wells were dispersed over a wide area ranging from approximately 0.1 to 3 miles away from Well W375. The operational testing is significant because it represents actual field data whereby Well W375 was pumped continuously for a long period of time, and the effects on the shallow water table were documented. Thus, the results are based on measured field data and do not depend on estimates of uncertain parameters or modeling methods which have inherent uncertainty.

The results of the operational test are included in Appendix C. Operational testing of Well W375 indicated that continuous pumping of the well for approximately nine months did not induce a discernable drawdown in the shallow aquifer (Appendix C, page 28). It is therefore concluded that a pumping volume of nearly 15 times less than the operational test, and for a period of time of less than 2 percent of the operational test will also have an indiscernible impact on the shallow aquifer which supports vegetation.

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Figure 7
USGS Water Supply Paper 2370- Cross Section B-B



Notes:

East-West geologic cross section of Owens Valley in Big Pine. From Figure 5, page 19 of the USGS Water Supply Paper 2370-H, titled Evaluation of the Hydrologic System and Selected Water-Management Alternatives in the Owens Valley, California

Well W375 is located west of Owens River and is screened only within unit 3, the confined aquifer, below the confining Unit that separates Unit 1 (shallow aquifer) and Unit 3 (deep aquifer).

Groundwater Modeling

As a second analysis method, the Inyo County Water Department Director/senior hydrologist, Dr. Robert Harrington, performed a modeling analysis on potential effects of groundwater pumping to supply the Big Pine Northeast Regreening Project. A description of this work is included in Appendix B.

To evaluate the effects of different pumping locations on the water table, the a regional groundwater model for the Owens Valley was used to examine the effect of project pumping on water table elevations in the Big Pine area. This groundwater model was originally developed by the United States Geological Survey (USGS) as part of a larger program to evaluate the relationship of groundwater pumping and vegetation (USGS Water Supply Paper 2370-H, 1998)

Using the model, pumping was simulated from three different locations: the regreening project site, the town supply well, and Well W375. For each location, draw down resulting from 10 years of project operation was simulated, holding all other inputs to the model constant.

The results of the analysis indicate that, of the options considered, the least likely to have an adverse impact is pumping from Well W375. The predicted long term drawdown of operating Well W375 for project make-up water on the deep aquifer is too small (predicted shallow water table drawdown of less than 3 inches) to measurably affect the shallow aquifer dependent vegetation (phreatophytic communities) in the vicinity of the well. The model is conservative and overestimates the drawdown induced by operating Well W375 for project make-up water. If factors such as stream capture by the pumping well and irrigation return flow to the shallow aquifer were included, the predicted drawdown would be reduced and the water table in the vicinity of the regreening area will increase. (Appendix B & E, August 30, 2011 Inyo County Water Department Letter). These results were presented by the Technical Group to the Standing Committee at a public meeting in November, 2010 in which local citizens were able to comment on the proposed project.

Groundwater models have inherent limitations because they are generalizations of the groundwater system. Nevertheless, they represent the best-available tools to analyze long-term effects of groundwater pumping. The fact that the groundwater model simulations agree well with actual field testing (documented in the operational test described in Appendix C) provides much higher confidence in the modeling results.

Conclusion

Based on field results from the operational testing (Appendix C), and groundwater modeling analysis (Appendix B), pumping 150 acre-feet per year from Well W375 will have a less than significant impact to the hydrology of the area and phreatophytic vegetation. The 150 acre-feet per year can be produced from the well in a period of approximately two weeks. During these two weeks, the drop in water table in the vicinity of the well (where the greatest impacts are expected) is expected to be less than 1 inch, and less than 1 inch at greater distances from the well. The water table level is expected to substantially recover within two weeks after termination of make-up water pumping, although there will be a slight long-term cumulative decline. Long-term water table drawdown over a period of over 10 years or more in the vicinity of the well is predicted to be less than 3 inches based on long-term modeling (Appendix B). These fluctuations are well within the natural fluctuations currently observed and are therefore not expected to have a significant impact on soils or vegetation.

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a), f) **Less than Significant Impact.** Beneficial uses and water quality objectives are specified in the Water Quality Control Plan for the Lahontan Region (Basin Plan) prepared by the Lahontan Regional Water Quality Control Board (Regional Board, 2005). Relevant to the project site, beneficial uses designated for Big Pine Canal are municipal and domestic supply, agricultural supply, groundwater recharge, water contact recreation, noncontact water recreation, commercial and sportfishing, cold freshwater habitat, and wildlife habitat. Waterbody-specific numeric objectives for the protection of these beneficial uses are not specified in the Basin Plan for Big Pine Canal.

During project site construction, minor disturbance will occur in Big Pine Canal to install the 4 ft x 4 ft x 5 ft concrete basin and soil disturbances of less than 2 acres will occur during installation of the irrigation system and site fencing. In compliance with the State Water Resources Control Board (SWRCB) General Permit for NPDES General Construction, a Stormwater Pollution Prevention Plan (SWPPP) is required for all projects that disturb more than 1 acre. Accordingly, during construction of the project, stormwater will be managed in accordance with Best Management Practices (BMPs) identified in the SWPPP to minimize sediment impacts to the Canal. Table 1 provides a summary of potential construction BMPs.

Table 1
Summary of Potential Stormwater BMPs

Best Management Practices for the Protection of Stormwater Quality During Construction
<u>Housekeeping Measures</u> <ul style="list-style-type: none">• Conduct an inventory of products used or expected to be used• Cover and/or berm loose stockpiled construction materials• Store chemicals in watertight containers
<u>Employee Training</u> <ul style="list-style-type: none">• Brief staff on the importance of preventing stormwater pollution• Have staff review SWPPP• Conduct refresher training during the wet season, if relevant• Document training
<u>Erosion and Sediment Controls</u> <ul style="list-style-type: none">• Establish and maintain effective perimeter control• Stabilize construction entrances and exits to control sediment – inspect ingress and egress points daily, and maintain as necessary• Control dust during earthwork• Place sandbags or other barriers to direct stormwater flow to suitable basins
<u>Spill Prevention and Control</u> <ul style="list-style-type: none">• Inspect construction equipment for leaking• Use drip pans until equipment can be repaired• Cleanup spills immediately – remove adsorbent promptly• Notify the proper entities in the event of a spill
<u>Concrete Truck Washing Waste</u> <ul style="list-style-type: none">• Provide containment for capture of wash water• Maintain containment area

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Best Management Practices for the Protection of Stormwater Quality During Construction
<u>Hazardous Waters Management and Disposal</u> <ul style="list-style-type: none">• Store hazardous wastes (including fuels) in covered, labeled containers
<u>Materials Handling and Storage</u> <ul style="list-style-type: none">• Establish a designated area for hazardous materials (including fuels)• Berm, cover, and/or contain the storage area as necessary to prevent materials from leaking or spilling• Store the minimum volume of hazardous materials necessary for the work
<u>Vehicle and Equipment Maintenance, Repair, and Storage</u> <ul style="list-style-type: none">• Inspect vehicles and equipment regularly• Conduct maintenance as necessary• Designate areas for storage – where fluids can be captured and disposed of properly
<u>Scheduling</u> <ul style="list-style-type: none">• Avoid work during storm events• Stabilize work areas prior to predicted storm events

Since BMPs will be implemented for the construction activities and the construction duration is short (estimated at three weeks), increases in sediment load in stormwater will not adversely affect surface water beneficial uses. The project does not propose and will not result in other waste discharges. During project operation, irrigation water will remain on site. Therefore, impacts on water quality will be less than significant. Waste Discharge Requirements are not relevant to the proposed agricultural activity.

- b) **Less than Significant Impact.** The proposed project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. As documented by Inyo County, the additional pumping of W375 to provide up to 150 acre-feet per year of make-up water from the implementation of the project will have insignificant effects on the local groundwater table (see Appendix B, Inyo County Water Department July, 2010 Report). Therefore, project-related impacts on groundwater will be less than significant.
- c), d) **No Impact.** Project construction will include minor site cleanup and preparation for seeding; no berms or other obstructions to stormwater flow are proposed. Installation of the proposed sump will not alter the course of Big Pine Canal. Therefore, the proposed project will not alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- e) **No Impact.** Stormwater flows across the project site and infiltrates or enters existing surface water features. Since the project will not alter the volume of stormflows, and since engineered stormdrains are not present on the project site and are not proposed, there will be no impact on the capacity of existing or planned stormwater drainage systems. Since the greening project will increase vegetative cover on the project site, erosion will be reduced over existing conditions, a beneficial impact on stormwater quality.

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- g), h) and i) **No Impact.** The proposed project will not place housing or structures that will impede flows within the flood plain, or create levees or dams. No levees or dams are present on the project sites and no off-site levees or dams will be modified as part of project implementation. The project will have no impact on housing or structures in a 100-year flood hazard area.
- j) **Less than Significant Impact.** Due to the distance to large surface water features from the project site, seiche and tsunami are not relevant for the proposed project. However, mudflows originating at higher elevations above the project area and then moving across the site is a possible phenomenon; however, this is highly unlikely. Since no habitable structures are planned as part of the project, people will not be exposed to injury or death from mudflows. Since the damage could be readily repaired by re-installing the irrigation system and sump, the impact will be less than significant.

2.3.10 Land Use and Planning

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** The proposed project is located in an area zoned for open space and used for ranching, wildlife habitat, and recreation. No habitable structures are located on the property, and none are planned as any part of the proposed project. Therefore, there will be no project-related impacts on established communities.

- b) **No Impact.** The Inyo County General Plan (2001) includes Goal BIO-1: Maintain and enhance biological diversity and healthy ecosystems through the County. Policy BIO-1.2 calls for the preservation of riparian habitat and wetlands and Policy BIO-1.3 calls for the restoration of biodiversity. Since regreening the project site will enhance vegetation and aesthetics, the project will be consistent with these General Plan goal and policies. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. The Water Agreement states under Section III that, “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.” Pumping make-up water from Well W375 for the project complies with the overall goal of the Water Agreement to provide *a reliable supply of water for export to Los Angeles and for use in Inyo County* while avoiding violation of Water Agreement Section XXII of adversely affecting the existing water rights of the City of Los Angeles. Accordingly, there will be no adverse impacts on applicable land use plans and policies.

- c) **No Impact.** There are no Significant Natural Areas (SNAs) as determined by CDFG at the project site, and there are no adopted habitat conservation plans or natural community conservation plans for this site. Therefore, there will be no impact on any other adopted habitat plan or natural community conservation plan. LADWP is currently working with the United Fish and Wildlife Service (USFWS) to develop a Habitat Conservation Plan (HCP). The proposed project will not conflict with the in-progress HCP.

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2.3.11 Mineral Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) and b) **No Impact.** There is no existing mining activity at any part of the project site. The project site to be disturbed is not a locally-important mineral resource recovery site. Implementation of the proposed project will not limit future mineral recovery activities or result in the loss of availability of known mineral resources. Therefore, there will be no project-related impact on mineral resources.

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2.3.12 Noise

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) and d) **Less Than Significant Impact.** Houses are located adjacent to the project site and construction noise may be temporarily noticeable by some residents or persons walking along Big Pine Canal. Noise generating equipment that will be used to construct project facilities will include a backhoe, small crane, mower, flatbed truck, pump mechanic trucks, concrete transit mixers, power pole setting truck, equipment service truck and pick-ups. Since project construction will be limited to daylight hours for approximately three weeks, and since the project area is adjacent to Highway 395 (a greater noise source to adjacent residences), project-related noise impacts will be temporary and less than significant. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Since Well W375 is an existing structure there will be no noise from construction in this area. Since Well W375 is located in a remote area away from housing and will only be operational infrequently (approximately two weeks per year), operation of the well pump will have a less than significant impacts on noise.

b) **Less Than Significant Impact.** Since jackhammers or other equipment that causes substantial groundborne vibration will not be used for project construction, the proposed

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project will not substantially increase the exposure of persons to excessive groundborne vibration or groundborne noise levels. Additionally, operation of Well W375 pumps will not cause substantial vibrations.

- c) **Less Than Significant Impact.** Implementation of the proposed project will cause a temporary (approximately three weeks) increase in noise levels above background conditions. However, after construction, noise generation at the project site will be the same as for other grazing operations in the vicinity (noise related to vehicle travel for periodic site visits and maintenance). Since Well W375 is an existing structure there will be no noise from construction in this area. Operation of Well W375 will generate noise for approximately two weeks per year. The well is located in a remote area away from noise receptors. Therefore, impacts during project operation on ambient noise levels will be less than significant.

- e) and f) **No Impact.** The project area is not located sufficiently near either a private airstrip or public airport to expose people residing or working in the area to experience excessive noise levels. The Well W375 is located in a remote area. There will be no project-related impacts on noise near an active airport/airstrip.

2.3.13 Population and Housing

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) through c) **No Impact.** Habitable structures are not present on the project site and none are proposed in any part of the project. The project does not expand utility service or necessitate the development of additional infrastructure beyond the proposed site irrigation system. Therefore, there will be no impacts on population and housing from implementation of the proposed project.

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2.3.14 Public Services

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** Habitable structures are not present on the project site and none are proposed in any part of the project. Recreation use and the subsequent need for police services will be the same as existing conditions. The project is not growth inducing and does not create structures that would require additional fire protection. Therefore, there will be no project-related impacts on fire protection, police protection, schools, parks, or other public facilities.

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2.3.15 Recreation

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) and b) **No Impact.** Habitable structures and recreational facilities are not present on the project site and none are proposed in any part of the project. Therefore, the project will not result in population increases that will subsequently increase the use of park and recreational facilities. Therefore, the project will have no impact on recreation or recreational facilities.

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2.3.16 Transportation and Traffic

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) and b) **Less Than Significant Impact.** Construction of the project will result in approximately eight construction vehicles and 10 to 15 workers traveling to the project site over a three week period. However, there will be no impact on traffic patterns from construction in the town of Big Pine. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375. Since Well W375 is an existing structure there will be no construction to impact traffic in this area. The temporary increase in traffic in and around the project site is limited and temporary and will have a less than significant impact.
- c) **No Impact.** The project area is not located sufficiently near either a private airstrip or public airport, nor does the project contain features that will alter air traffic patterns. No impacts on air safety will occur.
- d) **Less Than Significant Impact.** Substantial roadway alterations are not proposed as part of the project. The existing roadways will continue to be suitable for their existing uses and no new roadway hazards will be created. The impact will have a less than significant impact on roadway hazards.

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- e) **No Impact.** Roadway alterations are not proposed as part of the project and access to the project sites will not be altered. There will be no impact on emergency access.
- f) **No Impact.** The project does not include housing, employment, or roadway improvements relevant to alternative transportation measures. Therefore, there will be no project-related impacts on alternative transportation.

Section 2 – Environmental Analysis

2.3.17 Utilities and Service Systems

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) through c) and e) through g) **No Impact.** The project does not include or induce housing or employment which will result in the need for public services and utilities. Pumping of Well W375 will be to make up water used to irrigate the regreened pastures. There will be no project-related impacts on public utilities and service systems.
- c) **No Impact.** There is no plumbed potable water serving the project sites. Well W375 is an existing structure and no expansion of this facility is required. The project will have no impact on water utility service.

Section 2 – Environmental Analysis

2.3.18 Mandatory Findings of Significance

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) **Less than Significant Impact.** Implementation of the proposed project has the potential to temporarily disturb wildlife on the project site due to noise and human presence. Additionally, historic resources are known for the project site. However, since significant disturbance to active bird nests will be avoided during project construction and since historic resources will be avoided by project design, impacts on habitat and cultural resources will be less than significant. Overall, regreening of the 30-acre project parcel will have a beneficial impact on vegetation.

- b) **No Impact.** Regreening of the 30-acre project parcel will have a beneficial impact on aesthetics of the project area – a long-term environmental goal. Additionally, establishment of vegetation on the parcel will decrease dust emissions, a beneficial effect on air quality. Implementation of the proposed project will not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

- c) **Less than Significant Impact.** Based Inyo County’s report and analysis, pumping from Well W375 will have a less than significant impact to the hydrology of the area and phreatophytic vegetation. Therefore, cumulative impacts from groundwater pumping are not relevant to the project for further evaluation. There are no known projects in the immediate area of the project site that will have overlapping construction schedules with the proposed project. Therefore, cumulative construction-related impacts on air quality, noise, and traffic will be less than significant. Along with other enhancement/mitigation projects in the Owens Valley, the project will have a beneficial impact on aesthetics.

Section 2 – Environmental Analysis

d) Less than Significant Impact. Regreening of the 30-acre project parcel will have a beneficial impact on aesthetics of the project area. Temporary and minor noise and air pollutant emission during the three weeks of project construction will have less than significant adverse effects on human beings. The project also includes groundwater pumping of up to 150 acre feet annually from Well W375 to supply the project with make-up water. Based on analysis presented in the Hydrology Section, there will not be significant impacts to hydrology and vegetation; therefore, there will be no significant impacts from this portion of the project.

Section 3

References, Abbreviations and Report Preparation

3.1 REFERENCES AND BIBLIOGRAPHY

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3.2 ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CCRI	Climate Change Research Initiative
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Los Angeles
DWR	Department of Water Resources
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
GCDIS	Global Change Data and Information System
GCRIO	Global Change Research Information Office
GBUAPCD	Great Basin Unified Air Pollution Control District
HCP	Habitat Conservation Plan
IS	Initial Study
LADWP	(City of) Los Angeles Department of Water and Power
MOU	Memorandum of Understanding
NAST	National Assessment and Synthesis Team
ND	Negative Declaration
PM₁₀	particulate matter 10 microns or less in diameter
SIP	state implementation plan
SCAQMD	South Coast Air Quality Management District
SNA	Significant Natural Areas
SWRCB	State Water Resources Control Board
USCCSP	U.S. Climate Change Science Program
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
USGS	U.S. Geological Survey

Section 3 – Report Preparation

3.3 PREPARERS OF THE INITIAL STUDY

PREPARED BY

Los Angeles Department of Water & Power
Environmental Services

Environmental Lead:

Nancy Chung

111 N. Hope Street,

Los Angeles, CA 90012

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Lori Gillem

300 Mandich Street

Bishop, CA 93514

APPENDIX A

FINAL SCOPING DOCUMENT
"REGREENING NORTHEAST OF BIG PINE"
IRRIGATED PASTURE
J&L LIVESTOCK--RLI-483 - BIG PINE AREA
AS AN
ENHANCEMENT/MITIGATION PROJECT

Introduction

The Technical Group has prepared this report to assist the Standing Committee in evaluating the "Regreening Northeast of Big Pine" enhancement/mitigation project.

1. Need

To enhance the aesthetics and regreen abandoned agricultural lands northeasterly of Big Pine, and adjacent to the residential area.

2. Description

Water will be supplied from the southwest corner of Poplar Street and U.S. Highway 395 through an existing culvert under the highway to the project area. New ditches and check structures, designed by the Department and installed by the lessee (J&L Livestock), will be used to flood irrigate up to 30 acres of new pasture.

3. Scope

The Department will design, engineer, purchase all necessary materials, and approve of the construction of the project.

The lessee (J&L Livestock) will be responsible for the following:

- a. Any and all clearing, cleanup or leveling of the project area.
- b. Installation of any and all water conveyance facilities on the site, including checks or control structures.
- c. Installation of all fencing materials.
- d. Prepare, seed and irrigate to germinate a suitable pasture over the parcel.
- e. Irrigate the pasture, and maintain and operate all ditches, conveyances and checks for the life of the project.

4. Water Supply

Water for the project will come from Big Pine Creek via the proposed Big Pine Ditch System, and/or Baker Creek via the

proposed Mendenhall Park Ditch, existing ditches, or some combination of the above to the southwest corner of Poplar Street and U.S. Highway 395, then under the highway through an existing culvert to a ditch or pipeline to the westerly edge of the project area. The new pasture will be supplied up to 150 acre feet annually from existing E/M well No. 375 in the Big Pine area. The method of application will be normal surface field irrigation practices (flood irrigation).

5. Effectiveness of Project

Providing water for this pasture will greatly enhance the area and mitigate the impacts caused by abandoned agriculture.

6. Impact of Project

This project will create no adverse impact to the environment, and will increase livestock grazing capacity in the area.

7. Cost

The lessee will be reimbursed for all of his expenses for development of the project. Estimated total cost: \$40,000

8. CEQA Requirements

Cat. Exempt.

INYO/LOS ANGELES STANDING COMMITTEE

Dedicated to the advancement of mutual cooperation



MEMORANDUM

Date: August 27, 2010

To: Inyo/Los Angeles Standing Committee

From: Inyo/Los Angeles Technical Group

Subject: Revised Scoping Document "Regreening Northeast of Big Pine" Irrigated Pasture – Big Pine Area as an Enhancement/Mitigation Project

Background

*The Final Scoping Document "Regreening Northeast of Big Pine" Irrigated Pasture J&L Livestock—RLI-483 – Big Pine Area as an Enhancement/Mitigation Project (1988 Final Scoping Document - attached) was completed and approved by the Standing Committee in September 1988. Revegetation of approximately 30 acres of pasture northeast of Big Pine is also included as a mitigation measure in the 1991 Environmental Impact Report on *Water from the Owens Valley to Supply the Second Los Angeles Aqueduct*.*

The 1988 Final Scoping Document included brief descriptions of the need, methods, scope of work, and other information relating to the Regreening Northeast of Big Pine Project. Since the 1988 Final Scoping Document was adopted by the Standing Committee, conditions associated with the project have changed. The Technical Group recognizes that these changes in circumstance necessitate a revision to the 1988 Final Scoping Document in order to facilitate the project. The changes recommended by the Technical Group are described below and included in a Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project (attached)

Key Modifications to the 1988 Final Scoping Document include:

- Changing the lessee designation from J&L Livestock to an undesignated lessee
- Revising the boundaries the project as shown on the attached map.
- Amending the water supply source and method of application identified for the project

Long-Term Water Agreement Section V.C provides that:

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.

Revised Final Scoping Document “Regreening Northeast of Big Pine”

August 27, 2010

Introduction

The Technical Group has prepared this report to assist the Standing Committee in evaluating the Regreening Northeast of Big Pine Enhancement/Mitigation Project.

1. Need

To enhance the aesthetics and regreen abandoned agricultural lands northeasterly of Big Pine and adjacent to the residential area.

2. Description

Project will be irrigated pasture located on up to 30 acres of land northeast of Big Pine, California (see attached map). Irrigation water will be supplied by flood irrigation using best management practices or by sprinkler irrigation. The irrigation system will be designed by LADWP and installed by LADWP or lessee.

3. Scope

LADWP will design, engineer, purchase materials, and construct or approve construction of the project. Lessee will be responsible for: any and all clearing, cleanup, or leveling of the project area; installation, operation, and maintenance of on site water conveyances and irrigation equipment; installation of fencing; prepare, seed, and irrigate project area in order to germinate and maintain a suitable pasture.

4. Water Supply

Water for the project will come from the Big Pine Creek via the Big Pine Ditch System or the BPIIA Ditch, or Baker Creek via the Mendenhall Park Ditch, or Baker Return Ditch, or the Big Pine Canal, or a combination of these sources. The project will be supplied with up to 150 acre-feet of water per year. Surface water supplied to the project from the above-named sources will be made up by pumping Well W375 in an amount equivalent to that supplied to the project on an annual basis.

5. Effectiveness of Project

Providing water for this pasture will greatly enhance the area and mitigate the impacts caused by abandoned agriculture.

6. Impact of Project

It is anticipated that this enhancement/mitigation project will have an overall beneficial impact.

7. Cost

Cost of the project installation will be borne by LADWP. Estimated cost to be determined

8. CEQA Requirements

LADWP will complete CEQA requirements.

AGENDA

INYO COUNTY/LOS ANGELES STANDING COMMITTEE

10:00 A.M.

August 27, 2010

Board of Supervisors Room, County Administrative Center
224 North Edwards
Independence, California

The public will be offered the opportunity to comment on each agenda item prior to any Action on the item by the Standing Committee or, in the absence of action, prior to the Committee moving to the next item on the agenda. The public will also be offered the Opportunity to address the Committee on any matter within the Committee's jurisdiction Prior to adjournment of the meeting.

1. Field trip – Blackrock Waterfowl Habitat Area and Vegetation Parcel Blackrock 94
2. Documentation of actions from May 6, 2010 meeting
3. Report on 2010-11 Operations Plan
4. **Action:** Adoption of revised scoping document for enhancement/mitigation project “Regreening Northeast of Big Pine.”
5. Report on proposed revision to Green Book, Section III.C.5 Plant Recruitment Studies.
6. Report on Lower Owens River Project Seasonal Habitat Flow
7. Report on Green Book revision effort.
8. Report on the Water Agreement land releases
9. Report on the Owens Lake Groundwater Study
10. Public Comment
11. Schedule for future Standing Committee meetings
12. Adjourn

INYO/LOS ANGELES STANDING COMMITTEE

Dedicated to the advancement of mutual cooperation



MEMORANDUM

Date: November 4, 2010

To: Inyo/Los Angeles Standing Committee

From: Inyo/Los Angeles Technical Group

Subject: Revised Scoping Document “Regreening Northeast of Big Pine” Irrigated Pasture – Big Pine Area as an Enhancement/Mitigation Project

Background

The *Final Scoping Document “Regreening Northeast of Big Pine” Irrigated Pasture J&L Livestock—RLI-483 – Big Pine Area as an Enhancement/Mitigation Project* (1988 Final Scoping Document - attached) was completed and approved by the Standing Committee in September 1988. Revegetation of approximately 30 acres of pasture northeast of Big Pine is also included as a mitigation measure in the 1991 Environmental Impact Report on *Water from the Owens Valley to Supply the Second Los Angeles Aqueduct*.

The 1988 Final Scoping Document included brief descriptions of the need, methods, scope of work, and other information relating to the Regreening Northeast of Big Pine Project. Since the 1988 Final Scoping Document was adopted by the Standing Committee, conditions associated with the project have changed. The Technical Group recognizes that these changes in circumstance necessitate a revision to the 1988 Final Scoping Document in order to facilitate the project. The changes recommended by the Technical Group are described below and included in a Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project (attached)

Key Modifications to the 1988 Final Scoping Document include:

- Changing the lessee designation from J&L Livestock to an undesignated lessee
- Revising the boundaries the project as shown on the attached map.
- Amending the water supply source and method of application identified for the project

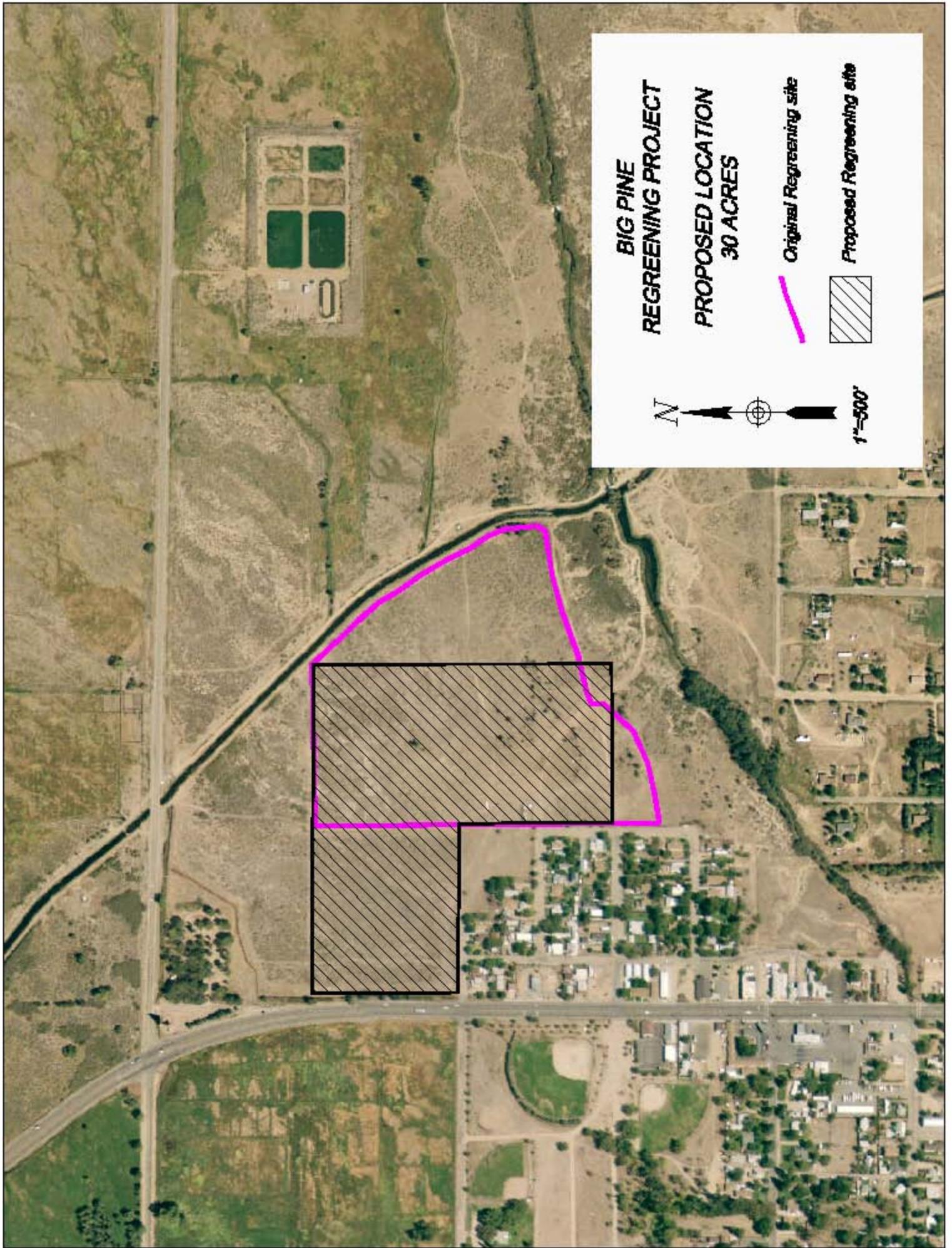
Long-Term Water Agreement Section V.C provides that:

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.

The Technical Group has analyzed the operation of Well W375 and concluded that an exemption for up to 150 acre-feet per year would have no significant impact on the environment or other well owners. The Technical Group will exempt well W375 for up to 150 acre-feet per year, not to exceed uses on the project, contingent on completion of CEQA for this project, to provide make-up water for water supplied to the project as described in the attached Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project. Make-up water will be pumped on an annual basis.

Recommendation

It is recommended that the Standing Committee adopt the Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project as a replacement to the 1988 Final Scoping Document.



**BIG PINE
REGREENING PROJECT**

**PROPOSED LOCATION
30 ACRES**

Original Regreening site

Proposed Regreening site

N



1"=500'



AGENDA

INYO COUNTY/LOS ANGELES STANDING COMMITTEE

1:00 P.M.

November 4, 2010

Elks Lodge
151 E. Line St.
Bishop, California

The public will be offered the opportunity to comment on each agenda item prior to any Action on the item by the Standing Committee or, in the absence of action, prior to the Committee moving to the next item on the agenda. The public will also be offered the Opportunity to address the Committee on any matter within the Committee's jurisdiction Prior to adjournment of the meeting.

1. Documentation of actions from August 27, 2010 meeting
2. **Action:** Reconsideration of adoption of modified scoping document for enhancement/mitigation project "Regreening Northeast of Big Pine."
3. Report on Green Book update
 - a. Green Book Section III.C.5, Plant Recruitment Studies
 - b. Green Book revision effort
4. Report on Well Exemptions
 - a. Temporary exemption of W377 to supply stockwater in Laws
 - b. Exempt well list
5. Report on the Water Agreement land releases
6. Report on the Owens Lake Groundwater Study
7. Owens Lakebed Master Plan process
8. Public Comment
9. Schedule for Future Standing Committee meetings
10. Adjourn

INYO/LOS ANGELES STANDING COMMITTEE

Dedicated to the advancement of mutual cooperation



MEMORANDUM

Date November 4, 2010

Subject: Agenda Item #1: Documentation of Actions Taken by Standing Committee at August 27, 2010 Meeting

The Standing Committee's policy is to document any actions taken by the Committee in a memorandum at the subsequent meeting. The following actions were taken at the May 6, 2010 Standing Committee meeting:

- Item 4. The Standing Committee adopted the Revised Final Scoping Document, Regreening Northeast of Big Pine, Irrigated Pasture – Big Pine Area, Enhancement/Mitigation Project as a replacement to the 1988 Final Scoping Document.

APPENDIX B



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WEB: <http://www.inyowater.org>

P.O. Box 337
135 South Jackson Street
Independence, CA 92526

**COUNTY OF INYO
WATER DEPARTMENT**

July 23, 2010

TO: Los Angeles Technical Group members

FROM: Inyo County Technical Group members

SUBJECT: Effects of groundwater pumping to supply the Northeast Big Pine Regreening mitigation project

INTRODUCTION. The Regreening Northeast of Big Pine Project was approved by the Inyo/Los Angeles Standing Committee as an enhancement/mitigation project in 1988. The project consists of irrigating 30 acres of abandoned agricultural land with the goal of enhancing the aesthetics of the area. This project was adopted as a mitigation measure in the 1991 Final Environmental Impact Report for Water From the Owens Valley to Supply the Second Aqueduct (FEIR). The scoping document approved by the Standing Committee identified the water supply for the project as coming from Big Pine Creek via the Big Pine Ditch System, Baker Creek via Mendenhall Ditch, existing ditches, or some combination thereof. The scoping document also described that the project will be supplied with up to 150 acre-feet per year (afy) from well W375. FEIR Table 4-3 allocates 750 afy to the project, but this appears to be a typographical error. Based on this description of the water supply for the project, it appears that the Standing Committee intended for the project to be supplied from surface water conveyances near the project, and that an equivalent amount of water would be pumped from W375 to make up the water supplied to the project.

The Technical Group has discussed modifications to the project described in the scoping document, including alternative locations for pumping make-up water. To evaluate the effects of different pumping locations on the water table, the USGS regional groundwater model for the Owens Valley (documented in USGS Water Supply Paper 2370-H, 1998) was used to examine the effect of project pumping on water table elevations in the Big Pine area.

METHOD. Pumping was simulated from three different locations: the regreening project site, the town supply well, and Well W375 (Figure 1). For each location, drawdown resulting from ten years of project operation was simulated, holding all other inputs to the model constant. During each year, 150 acre-feet were withdrawn over a six-month period, followed by six months of recovery. 150 acre-feet

of pumping over a six-month period is equal to a pumping rate of 0.4148 cubic-feet per second (cfs). In reality, pumping rates would vary over the course of the irrigation season; for example, W375 could pump 150 acre-feet in about two weeks if operated at full capacity. Although pumping schedules may vary from the schedule simulated, the overall effect of withdrawing 150 afy would be similar to the simulated effect. Simulations were initiated from a steady-state condition based on 2008 pumping rates and average recharge. Pumping at the project site and from the town supply well was apportioned between the upper and lower model layers based on aquifer transmissivity. This resulted in 90% of pumpage being withdrawn from the lower layer at the project site, and 60% of pumpage being withdrawn from the lower aquifer at the town supply well. 100% of pumpage from W375 was withdrawn from the lower model layer, because W375 is screened from 260 to 440 feet below ground surface and sealed above the well screen. Hydrographs were simulated for each well location, and for the Big Pine Paiute Tribe Reservation (BPPTR).

RESULTS. Figure 2 shows simulated drawdown at the regreening project site and the BPPTR resulting from pumping from a well at the regreening project site. Simulated drawdown does not exceed 0.4 ft at the BPPTR, and does not exceed 1.0 ft at the project site. Drawdown at monitoring site BP1 would be similar to the project site. Figure 1 shows that native phreatophytic vegetation is adjacent to the project site, therefore, the maximum drawdown such vegetation would be subjected to would be 1.0 ft with seasonal recovery to less than 0.5 ft of drawdown. Approximately eight years after pumping begins, simulated drawdown equilibrates (i.e., the annual decline ceases). Operation of well W210 has been discussed by the Technical Group as an alternative source of water for the project. W210 would produce a drawdown pattern similar to a well located at the project site.

Figure 3 shows simulated drawdown resulting from using the town supply well, W341, to supply the town system with 150 afy of additional water. Maximum simulated drawdown at the town well site is less than 4.3 ft, and maximum simulated drawdown at the BPPTR is less than 0.3 ft. A replacement for W341 has been constructed nearby. It is not known that either W341 or the replacement well (W415) has sufficient additional capacity to accommodate supplying the regreening project. Approximately eight years after pumping begins, simulated drawdown equilibrates.

Figure 4 shows simulated drawdown resulting from pumping W375 to provide make-up water for the water supplied to the project. The hydrographs in Figure 4 appear angular because the groundwater model output has a maximum resolution of 0.01 ft. Maximum simulated water table drawdown at W375 is less than 0.2 ft, and maximum simulated drawdown at BPPTR is less than 0.25 ft. Approximately eight years after pumping begins, drawdown equilibrates. After two years, water table drawdown at the BPPTR exceeds drawdown at W375. This results from W375 withdrawing water from the deeper aquifer and a high degree of aquifer confinement at W375. Operational testing conducted on W375, in which the well was pumped continuously for several months, did not induce measureable drawdown in the shallow aquifer, consistent with these model results.

DISCUSSION AND RECOMMENDATION. The regional groundwater model that these results are based on has a coarse spatial resolution, generalized hydraulic parameters, and simplified hydrologic processes. The results presented here are approximations, and the response of the actual system will

likely be different by an unknown amount. The effect of stream capture by pumping wells and the effect of irrigation return flow to the shallow aquifer were not simulated. If these effects were included in the model, predicted drawdown would be reduced. Reducing the irrigation duty for the project from 150 afy to 90 afy, as has been discussed by the Technical Group, would proportionally reduce pumping and resultant drawdown. It is not clear that such a reduction would provide adequate water for the project to succeed. Pumping effects from other wells not simulated here are additive to the effects resulting from regreening project pumping.

Among the water supply options considered, the least likely to have an adverse impact is pumping from W375. This option produced the least drawdown at BPPTTR and will have negligible effect on riparian areas west of Big Pine. Drawdown induced by pumping W341 (Figure 3) could potentially affect groundwater dependent vegetation growing along stream channels and fault scarps west of Big Pine. Drawdown induced by a well at the regreening project site indicates that a well located at the site poses little risk to phreatophytic vegetation, but slightly higher drawdown is predicted than for W375. The predicted drawdown from W375 is too small to measurably affect the phreatophytic communities in the vicinity of the well (Figure 4), and is therefore considered insignificant. The Water Department recommends that W375 be exempt to provide up to 150 afy as make up water for water supplied to the regreening project.

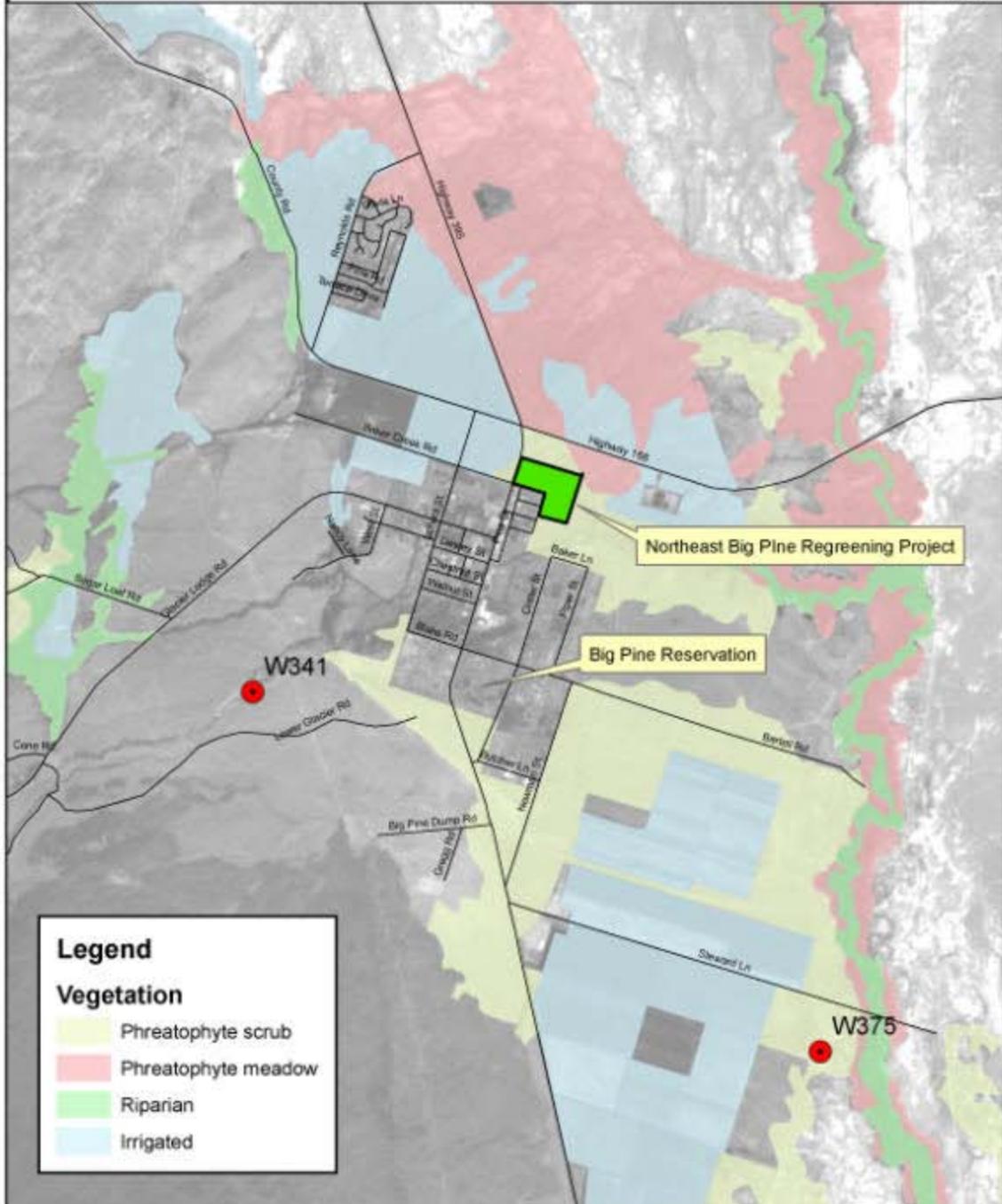


Figure 1. Location map. Existing wells W375 and W341 are shown. Vegetation map is for LADWP lands only.

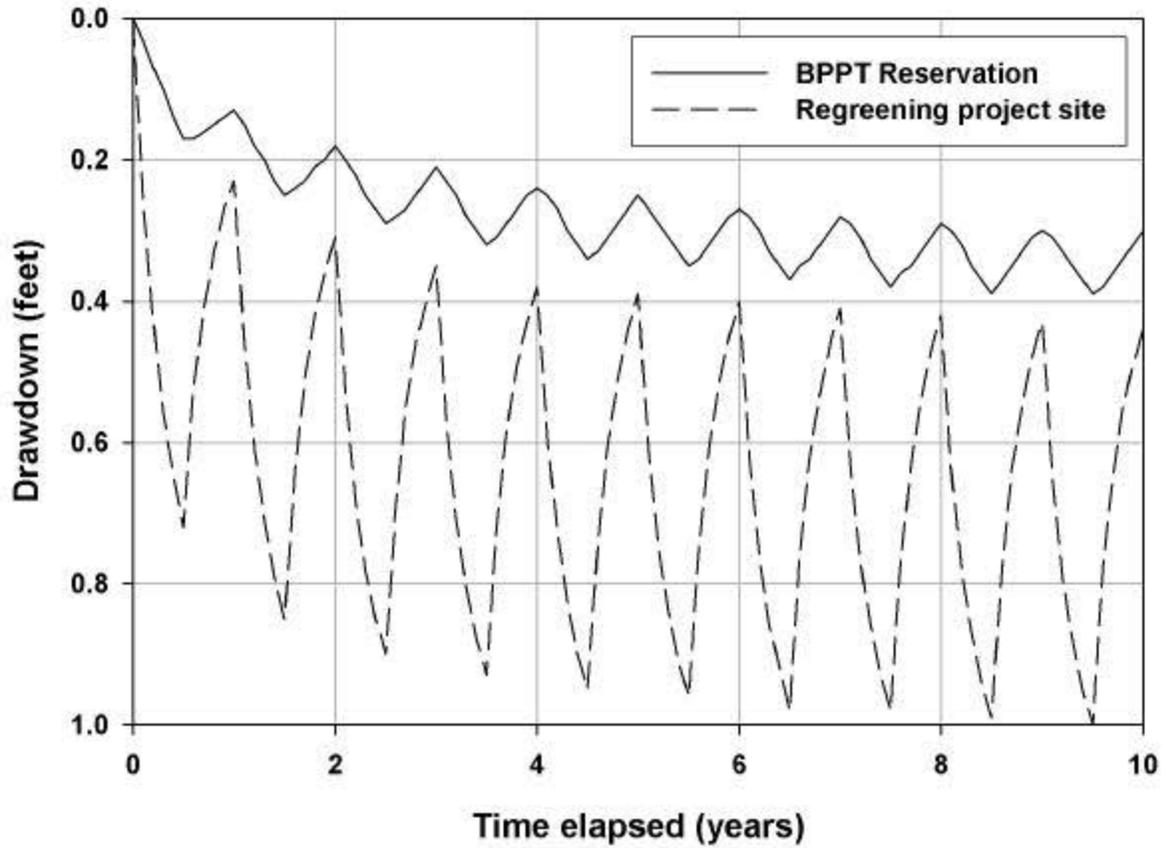


Figure 2. Simulated drawdown resulting from a well located at regreening project site.

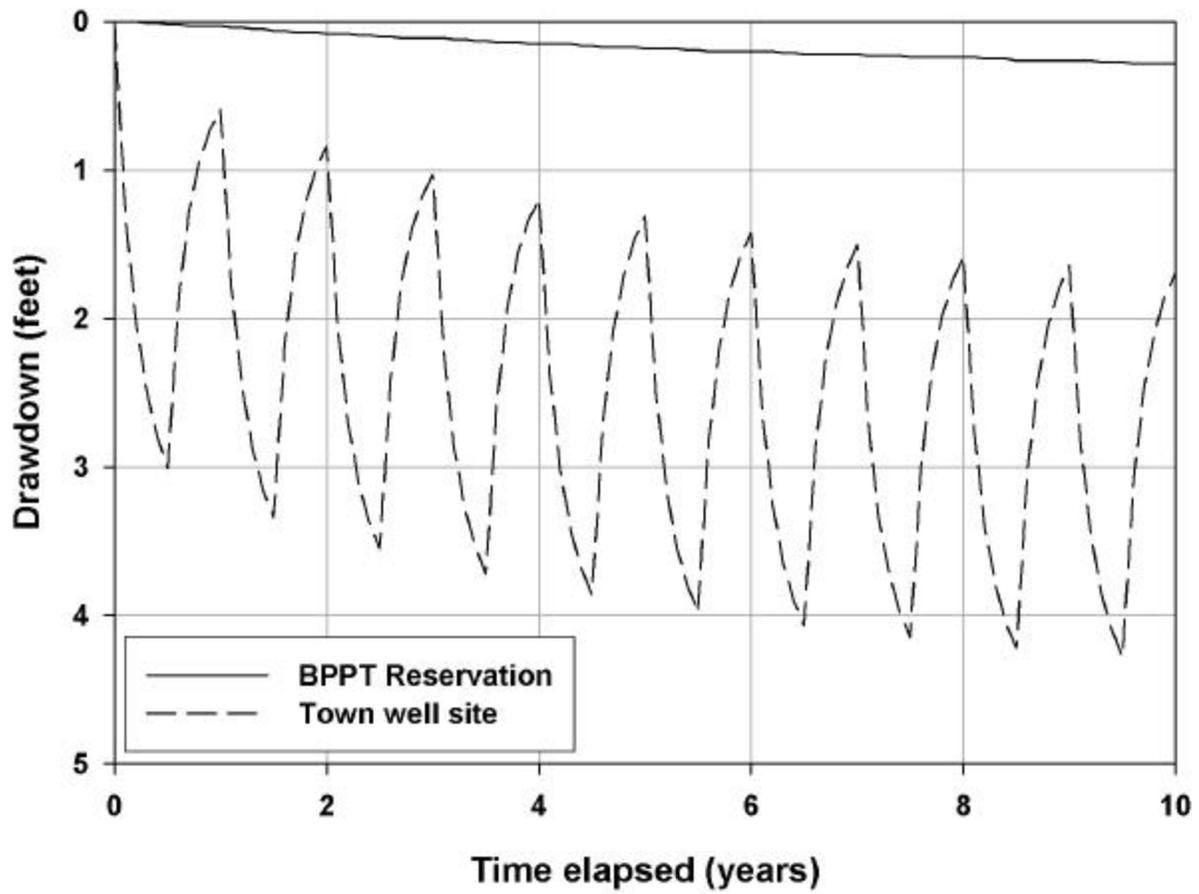


Figure 3. Simulated drawdown resulting from using town supply well to supply project.

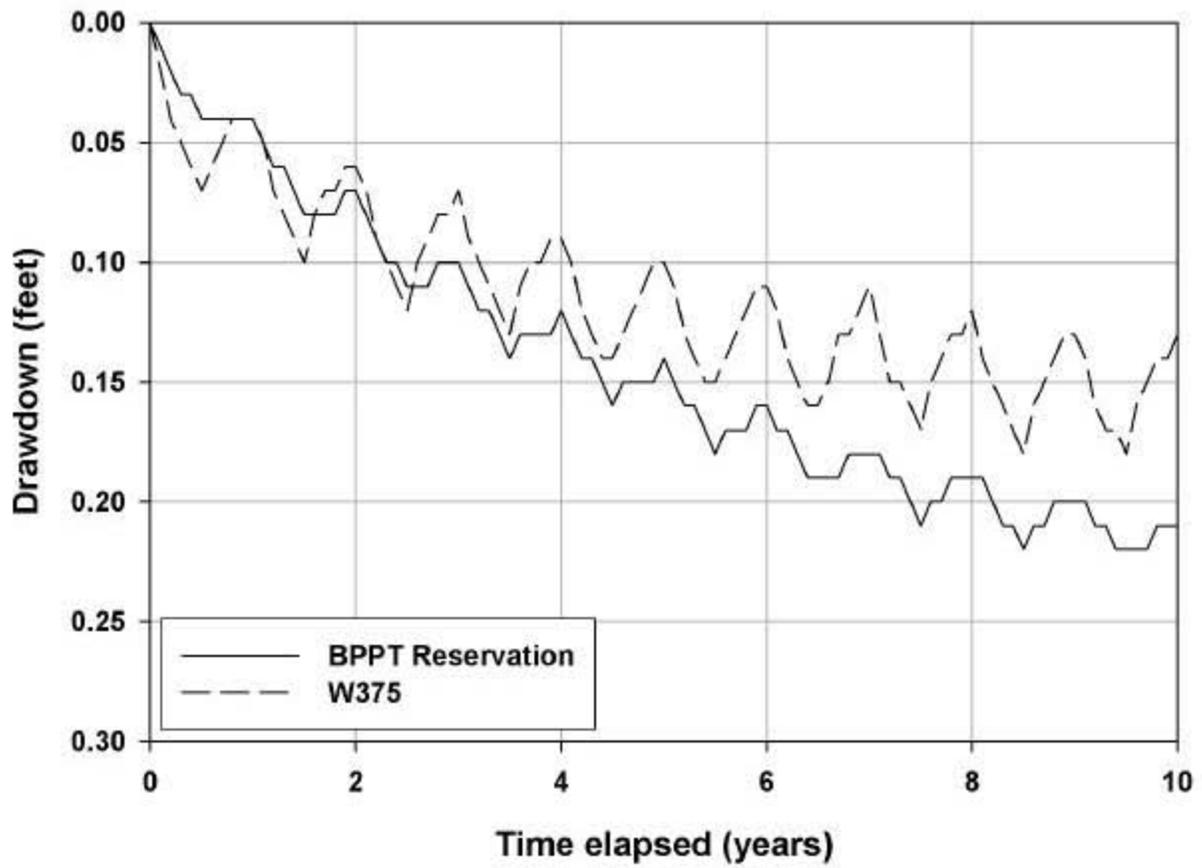


Figure 4. Simulated drawdown resulting from pumping W375 to provide make-up water.



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**COUNTY OF INYO
WATER DEPARTMENT**

August 30, 2011

TO: Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attention: Ms. Nancy Chung
111 North Hope Street, Room 1050
Los Angeles, CA 90012

FROM: Bob Harrington, Water Director
County of Inyo

SUBJECT: Comments on CEQA Initial Study and Negative Declaration for Big Pine
Northeast Regreening Project

Thank you for the opportunity to comment on the environmental analysis for this project. Regarding Initial Study Section 2.3.9, Hydrology and Water Quality, we raise two points:

1. The Initial Study concludes that groundwater pumping for the project will have no significant impacts based on a groundwater modeling analysis done by the Inyo County Water Department. It should be understood that the amount of drawdown is likely overestimated in the Water Department's work, because the effect of stream capture by the pumping well and the effect of irrigation return flow to the shallow aquifer were not simulated. If these effects were included in the model, predicted drawdown would be reduced. Additionally, the Water Department's analysis assumed that the maximum allotment provided for the project would be used each year. Reducing the irrigation duty for the project from 150 acre-feet per year to 90 acre-feet per year through more efficient irrigation practices, as has been discussed by the Technical Group, would proportionally reduce pumping and resultant drawdown.
2. We have examined additional information pertaining to potential impacts of pumping Well 375. In 1997 and 1998, an operational test of Well 375 was conducted jointly by LADWP and the Inyo County Water Department, where the well was pumped continuously for 196 days, producing 2170 acre-feet of water, or nearly 15 times the amount of pumping that is proposed annually for the Big Pine Northeast Regreening

Project. Twenty shallow wells and twelve deep wells in the vicinity of Well 375 were monitored during the test. Observations from this test showed that there were no more than a few inches of drawdown in shallow wells in the Big Pine area. This is consistent with, and strengthens, the Initial Study's conclusion that the proposed pumping for this project will have no negative impacts.

Robert F. Harrington
Curriculum Vitae

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Employment

County of Inyo Water Department, 2007-present
Water Director – Responsible for directing the Inyo County Water Department, which is charged with implementation of Inyo County water policies. These policies stem primarily from the County's interactions with the City of Los Angeles's water export activities in Inyo County, and from the County's regulation of groundwater transfers. The Water Department's activities include monitoring hydrologic conditions, monitoring vegetation conditions potentially affected by water management activities, assessing potential effects of proposed groundwater pumping, developing and implementing mitigation measures for adverse impacts due to groundwater pumping, monitoring mitigation activities, integrated regional water management planning, invasive species control, and informing and educating the public regarding county water issues.

County of Inyo Water Department, 1997-2007
Hydrologist – Responsible for collecting, analyzing, and reporting on hydrologic conditions as related to Inyo County water policies. Tasks include data collection and interpretation, groundwater model development and review, monitoring network design, development of monitoring and mitigation plans aimed at mitigating impacts of groundwater pumping, and multidisciplinary teamwork to assess effects of hydrologic changes on biological resources.

University of Arizona, 1991-1997
Department of Hydrology and Water Resources, Research Assistant.

Desert Research Institute, 1989-1991
Water Resources Center, Research Assistant.

Education

University of Arizona
PhD in hydrology with minor in remote sensing, 1997. Dissertation title: The release of meltwater and ionic solute from melting snow.

University of Nevada-Reno
MSc in hydrology/hydrogeology, 1991. Thesis title: The amount and fate of acid deposition in the Sierra Nevada, California.

University of Nevada-Reno

BS in geophysics with minor in mathematics, 1988.

Professional Registrations

California Registered Geologist #8285

Professional Affiliations

American Geophysical Union
American Water Resources Association
Geological Society of America
Groundwater Resources Association of California
National Ground Water Association

Peer-reviewed Publications

Steinwand, A.L., R.F. Harrington, and D. Or, Water balance for Great Basin phreatophytes derived from eddy covariance, soil water and water table measurements, *Journal of Hydrology*, 329(3-4), 595-605, 2006.

Steinwand, A.L., R.F. Harrington, and D. Or, Comment on “The inappropriate use of crop transpiration coefficients (K_c) to estimate evapotranspiration in arid ecosystems: A review” by Mata-González et al. Vol. 19: 285–295. (2005),” *Arid Land Research and Management*, 20(2), 177-179, 2006.

Steinwand A.L., R.F. Harrington, and D.P. Groeneveld, Transpiration coefficients for three Great Basin shrubs, *Journal of Arid Environments*, 49(3), 555-567, 2001.

Harrington, R.F., R. C. Bales, Modeling ionic solute transport in melting snow, *Water Resources Research*, 34(7), 1727-1736, 1998.

Harrington, R., R. C. Bales, Interannual, seasonal, and spatial patterns of meltwater and solute fluxes in a seasonal snowpack, *Water Resources Research*, 34(4), 823-832, 1998.

Harrington, R.F., R.C. Bales, and P. Wagon, Variability of melt-water and solute fluxes from homogeneous melting snow at the laboratory scale, *Hydrological Processes*, 10, 945-953, 1996.

Bales, R.C., and R.F. Harrington, Recent progress in snow hydrology, *Reviews of Geophysics, Supplement*, U.S. National Report to the IUGG, 1011-1020, 1995.

Harrington, R.F., K. Elder, and R.C. Bales, Distributed snow melt modeling using a clustering algorithm, *in IAHS Pub. 228, Biogeochemistry of Seasonally Snow Covered Catchments*, 1995.

Harrington, R.F., A.W. Gertler, D. Grosjean, and P. Amar, Formic acid and acetic acid in the Western Sierra Nevada, California, *Atmospheric Environment*, 27A(12), 1843-1849, 1993.

Conference Presentations and Published Abstracts

Harrington, R.F., Challenges of monitoring and mitigating adverse impacts of groundwater pumping, Great Basin Water Forum, Sparks Nevada, October 2010. (*Invited oral presentation*)

Harrington, R.F., Groundwater management in the Owens Valley under the Inyo/Los Angeles Long-Term Water Agreement, Sierra Nevada Alliance 15th Annual Conference, September 2008. (*Invited oral presentation*)

Harrington, R.F., A.L. Steinwand, and D. Or, Vadose zone water balance for Great Basin phreatophytes, Fall 2005 Meeting of the American Geophysical Union, San Francisco, California, December 2005. (*Invited oral presentation*)

Harrington and Steinwand, Evapotranspiration from groundwater dependent plant communities, Owens Valley, California, 2004 Evapotranspiration Symposium, Nevada Water Resources Association, November 15, 2004, Las Vegas, Nevada. (*Invited oral presentation*)

Harrington, R.F., Hydrology and water extraction from Owens Valley, in Impacts of Climate Change on Landscapes of the Eastern Sierra Nevada and Western Great Basin, USGS Open File Report 01-202, 2001. (*Invited oral presentation, published abstract*)

Harrington, R.F. and A. Steinwand, Regional groundwater discharge estimated using micrometeorological measurements, plot-scale measurements of vegetation cover, and remotely-sensed vegetation cover, Fall 2002 Meeting of the American Geophysical Union, San Francisco, California, December 2002. (*Poster presentation*)

Harrington, R.F., Regression modeling of water table fluctuations for management of groundwater pumping in phreatophytic vegetation, Fall 1999 Meeting of the American Geophysical Union, San Francisco, California, December 1999. (*Poster presentation*)

Manning, S. and R.F. Harrington, Effects of water table fluctuations on phreatophytic plant communities in the Owens Valley, California, Fall 1999 Meeting of the American Geophysical Union, San Francisco, California, Fall 1999. (*Oral presentation*)

Colee, M., R. Harrington, T. Painter, and J. Dozier, A high-resolution distributed snowmelt model in an alpine catchment, *in* International Conference on Snow Hydrology: The Integration of Physical, Chemical, and Biological Systems, J. Hardy, M. Albert, and P. Marsh, eds., p. 93 USACE Cold Regions Research and Engineering Laboratory Special Report 98-10, 1998. (*Published abstract*)

Harrington, R.F., R. Jordan, and D. Tarboton, A comparison between two physically based snow models, Fall Meeting of the American Geophysical Union, San Francisco, California, 1995. (*Oral presentation*)

Kattelman, R., and R.F. Harrington, Daily melt waves through an alpine

snowpack, Fall Meeting of the American Geophysical Union, San Francisco, 1995. (*Poster presentation*)

Harrington, R.F., and R.C. Bales, Spatial variability of snowmelt and ion release from a seasonal snowpack, Mammoth Lakes, California, Fall Meeting of the American Geophysical Union, 1993. (*Poster presentation*)

Harrington, R.F., R. Galarraga-Sanchez, and R.C. Bales, Predicting the release of ionic solute from alpine snowpacks using coupled snowmelt and digital elevation models, 23rd Annual Meeting of the American Water Resources Assoc., Reno, Nevada, 1992. (*Oral presentation*)

Harrington, R.F., and R.C. Bales, Laboratory experiments as a model for field-scale variability in water and solute release from melting snow, Fall Meeting of the American Geophysical Union, 1992. (*Poster presentation*)

Harrington, R.F., A.W. Gertler, and P. Amar, Network operations and preliminary monitoring results for the receptor modeling of acidic air pollutants to forested regions of the Sierra Nevada study, 84th Annual Meeting and Exhibition of the Air and Waste Management Assoc., Vancouver, British Columbia, Canada, 1991. (*Oral presentation*)

Harrington, R.F., and A.W. Gertler, Modeling the fate of atmospheric dry deposition in Sierra Nevada soils, 84th Annual Meeting and Exhibition of the Air and Waste Management Assoc., Vancouver, British Columbia, Canada, 1991. (*Oral presentation*)

APPENDIX C

**Operational tests of wells 375W, 380W, 381W, and 382W:
results from previous tests and recommendations for future
tests and management**

*Robert Harrington
Hydrologist
Inyo County Water Department*

June, 2001

Report to The Inyo County/Los Angeles Technical Group

Introduction

Most LADWP production wells in the Owens Valley are screened throughout the saturated aquifer; however, in an effort to minimize the effect of groundwater extraction on water levels in the shallow aquifer, several newer wells were screened only in the deep aquifer and sealed throughout confining layers and the shallow aquifer. Because these wells were constructed so as to reduce their effect on the shallow aquifer, it may be feasible and advantageous to develop alternatives to the soil water and plant water requirement based management methods described in the Green Book to govern operation of these wells. “Operational tests” were conducted on four of these sealed wells during which the wells were pumped for extended periods of time and water levels in the deep and shallow aquifers were monitored within a two-mile radius of the production wells. These tests were conducted on well 375W in the Big Pine wellfield (Figure 1), and wells 380W, 381W, and 382W in the Thibaut-Sawmill wellfield (Figures 2 and 3) with the purpose of evaluating the saturated hydraulic linkage between the wells and their associated vegetation and soil water monitoring sites.

During the development of the Annual Operations Plan for 2000-2001, LADWP proposed operating wells 374W, 375W, 380W, and 381W on the basis that these wells had “no impact on [the] shallow aquifer during 1997-1998 pump test” (G. Coufal letter to G. James, April 20, 2000). Inyo County protested that these wells were in “off” status and had not been formally exempted by the Standing Committee (G. James letter to G. Coufal, May 1, 2000). In its response to Inyo County’s comments, LADWP recast the operation of these wells as an operational test (G. Coufal letter to G. James, May 26, 2000). Inyo County agreed that the wells could be operated as part of a test if the Standing Committee approved a proposal for such a test (G. James letter to G. Coufal, July 28, 2000); however, the Standing Committee did not agree to conduct a test due to unresolved differences between LADWP and Inyo County staff about how the test should proceed. It was the opinion of Inyo County staff that one of the preliminary steps in developing a viable proposal for further testing of these wells was that the data from previous tests be examined and used to assess the need for and guide the design of any

further tests. Examination of data from the previous test was hampered by the absence of any kind of report from the previous test, and, at the September 14 2000 Standing Committee meeting, efforts to incorporate an operational test into the 2000-2001 Annual Operations Plan were abandoned. At that meeting, Inyo County committed to provide LADWP with a more detailed document regarding the County's views and concerns regarding operational testing of these wells. This report is that document.

The purpose of this report is to assess the need for additional operational tests, and to initiate development of alternative management for these wells. To accomplish this, data from the operational tests were examined to ascertain if any effect of the test pumping could be detected in the hydrographs of shallow and deep wells monitored during the operational tests. The proposal for the previous operational tests specified several analyses such as analytical modeling and development of drawdown contours which are not conducted here. The present report is meant only to fulfill the commitment Inyo County made to the Standing Committee to examine the data from the previous tests provide an assessment of the need for further operational testing of these wells. This report should not be construed as a final report for the operational tests conducted in 1996-1998.

Methods

Many factors cause water level fluctuations in wells at a variety of time scales. To correctly assess the effect of test pumping, fluctuations unrelated to test pumping must be identified and accounted for (Freeze and Cherry, 1979). During the operational tests, fluctuations in recharge, surface water stage, evapotranspiration (ET), water spreading, or non-test pumping may have influenced water levels in observation wells, masking the effect of the test pumping. To account for these external influences, the hydrograph for each observation well was examined and assessed qualitatively to determine the relative magnitude of test-pumping induced fluctuations versus externally-induced fluctuations.

Data. Construction details for wells 375W, 380W, 381W, and 382W and periods of test pumping are given in Table 1. Daily average flow rates for the four production wells, the

Big Pine Canal, and the Owens River are given in Figures 4 and 5. Pumping rates for wells 330W, 332W, 341W, 351W, 356W, and 409W are not given, because their monthly production rates remained fairly constant throughout the period of the operational tests. Table 2 lists the depths of observation wells monitored during the operational tests. Hydrographs for the wells listed in Table 2 are given in Figures 6 through 35. In order to assess background trends at each well, the hydrographs span the period 1996 through 2001. Though the data presented here provide a large amount of information about groundwater fluctuations during the operational tests, there are further data that could be included in a complete analysis of these tests: data from several wells that were equipped with continuous recorders are not included, and only a few of LADWP's numerous surface water measuring stations are included. Nevertheless, the data are sufficient for the qualitative and preliminary analysis undertaken here.

Table 1. Construction details and test periods for pumped wells. Capacities are from City of Los Angeles and County of Inyo, Table 9-10 (1990).

Well	Casing size (inches)	Depth (feet)	Screened interval (feet)	Seal depth (feet)	Capacity (cfs)	Test period
375W	18	450	260-440	240	5.6	11/3/97-6/16/98
380W	18	730	250-690	230	3.2	10/1/96-1/29/97; 4/6/97-4/21/98
381W	20	700	250-690	230	3.4	10/1/96-1/29/97; 4/6/97-4/21/98
382W	20	625	275-615	232	1.8	11/3/98-4/21/98

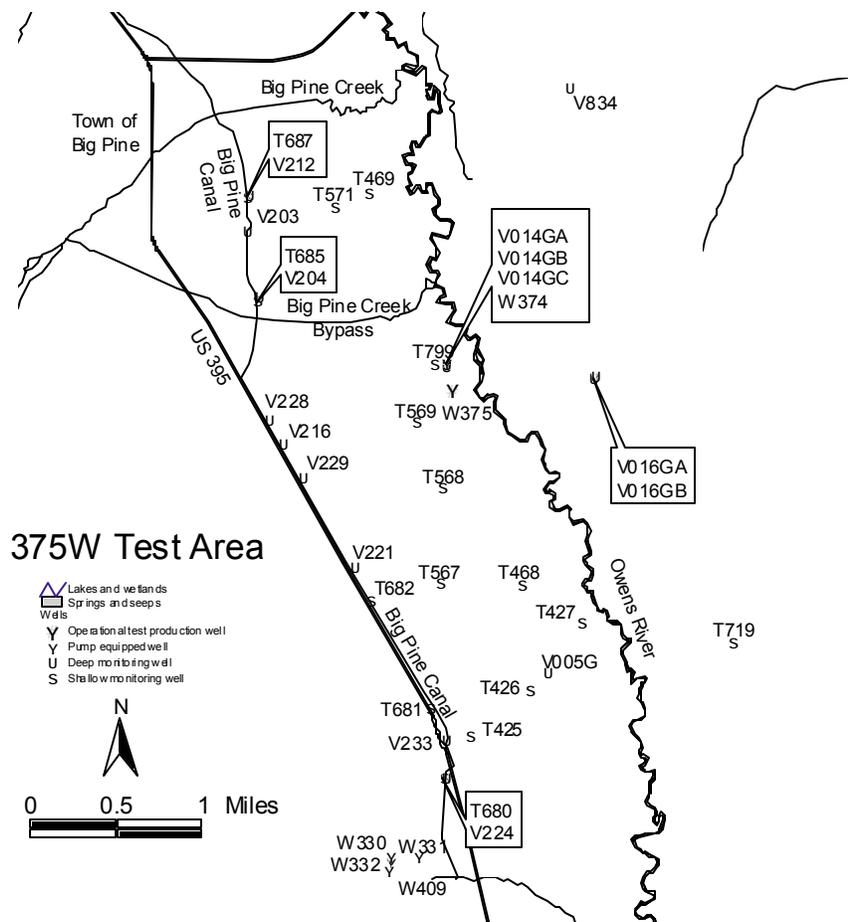


Figure 1. Map of 375W area, Big Pine wellfield.

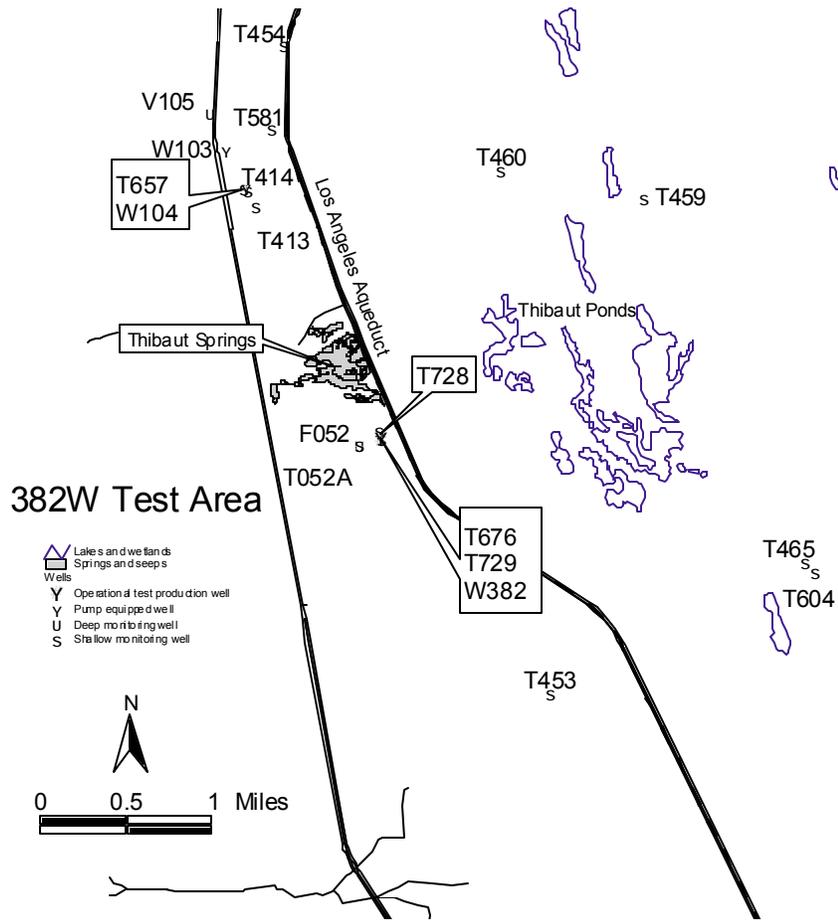


Figure 3. Map of 382W area, Thibaut Sawmill area.

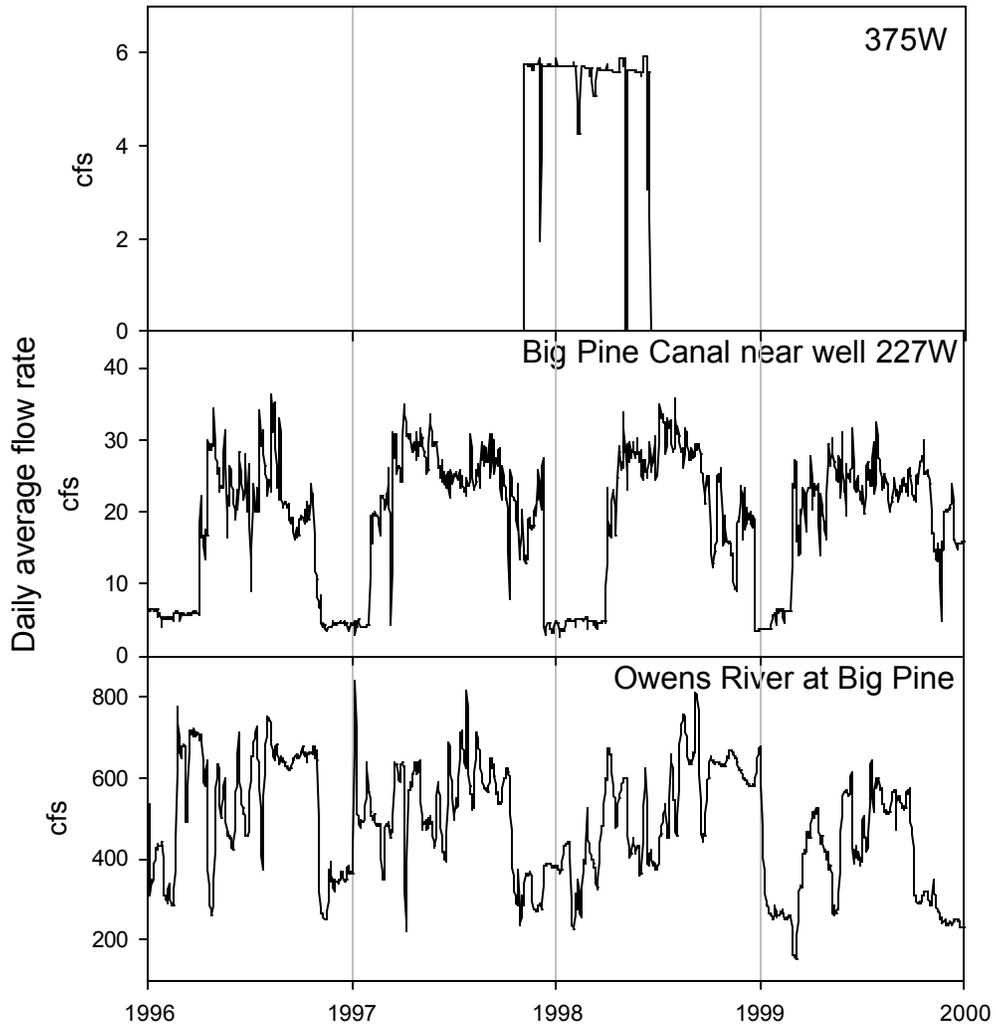


Figure 4. Daily average flow rates for well 375W and surface water conveyances near Big Pine during the operational test.

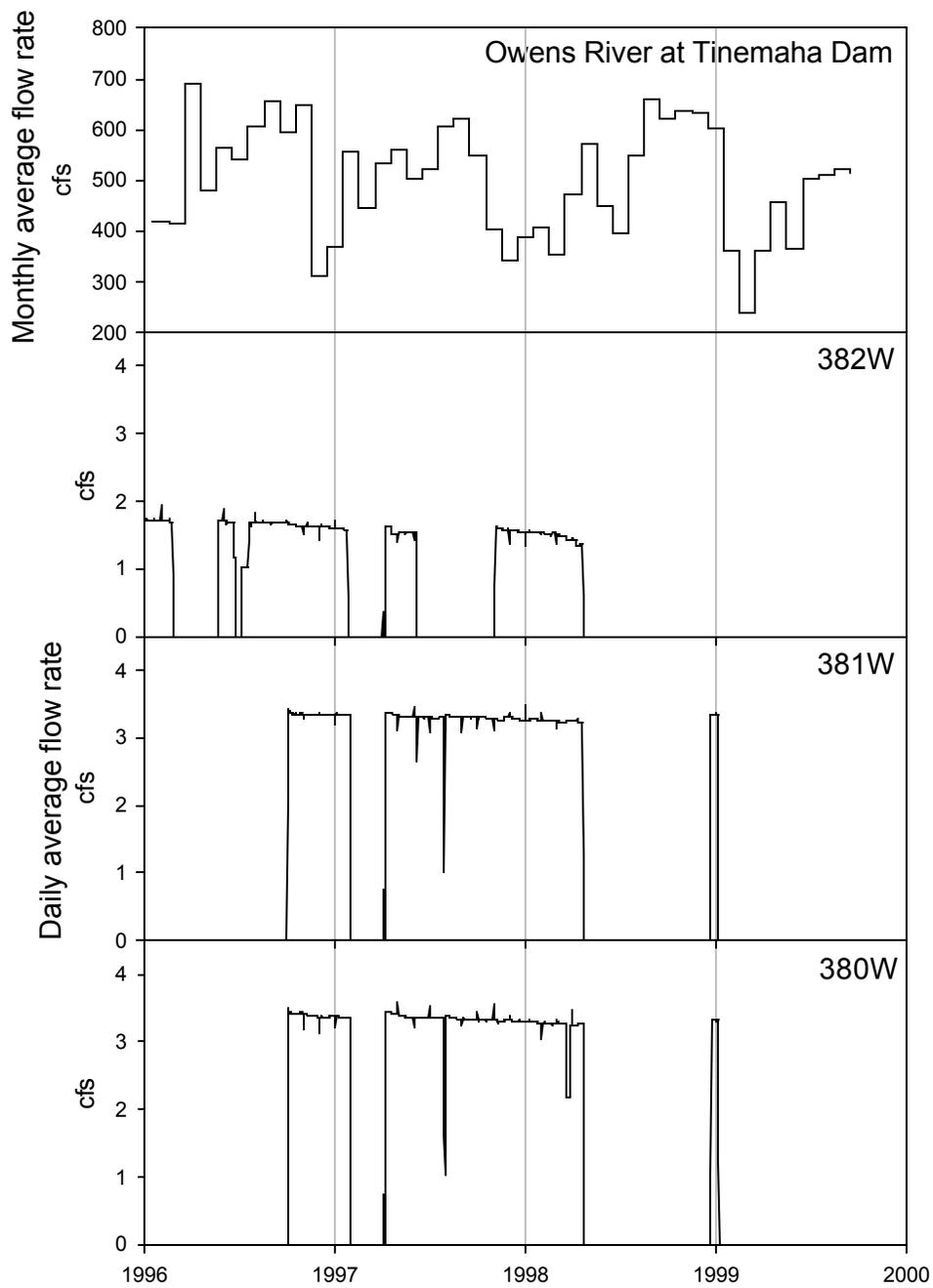


Figure 5. Daily average flow rates for wells 380W, 381W, and 382W; monthly average flow rate for Owens River at Tinemaha Dam.

Table 2. Wells monitored during operational tests.

Well	Depth (feet)	Well	Depth (feet)	Well	Depth (feet)	Well	Depth (feet)
375W test							
Shallow wells				Deep wells			
425T	20.9	681T	33.1	203V	200+	228V	100.0
426T	19.7	682T	58.9	204V	137.6	229V	131.0
427T	19.3	685T	----	212V	200+	233V	149.0
468T	19.6	687T	53.0	216V	101.0	834V	----
469T	21.0	719T	20.7	221V	79.4	V014GA	315.0
567T	29.5	799T	29.3	224V	322.0	V016GA	----
568T	32.0	V005G	----				
569T	42.3	V014GB	166.0*				
571T	39.4	V014GC	41.0				
680T	41.0	V016GB	31.3				
380/381 test							
Shallow wells				Deep wells			
376T	63.5	507T	52.0	108V	128.9	366V	210.0
377T	52.6	603T	19.8	156V	----	628T	----
380T	41.8	630T	----	158V	173.0	629T	----
381T	52.4	660T	31.7	339V	140.0	631T	----
415T	42.3	661T	79.8				
416T	23.3	673T	19.7				
417T	63.0	674T	----				
454T	21.7	803T	29.0				
457T	31.6	804T	28.8				
458T	19.4	805T	27.0				
505T	52.8	806T	26.5				
506T	42.3						
382W test							
Shallow wells				Deep wells			
052AT	20.0	460T	42.1	728T	156.6	105V	206.9
413T	42.3	465T	20.2	729T	202.9	052F	----
414T	20.2	581T	11.0				
453T	21.0	604T	13.4				
454T	21.7	657T	20.7				
459T	20.1	676T	17.3				

*V014GB's depth suggests it should be considered a deep well, but its hydrograph more closely resembles V014GC, a shallow well at the site, than it resembles V014GA.

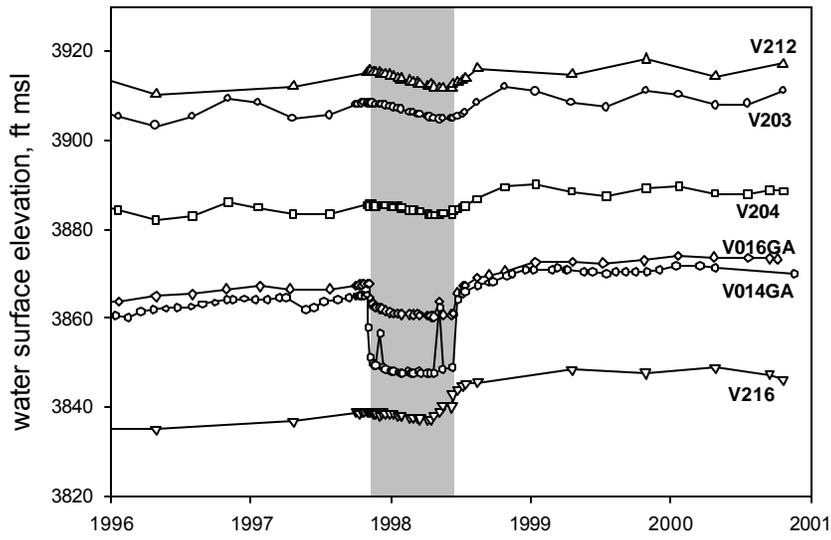


Figure 6. Deep wells near 375W. Gray indicates when 375W was on.

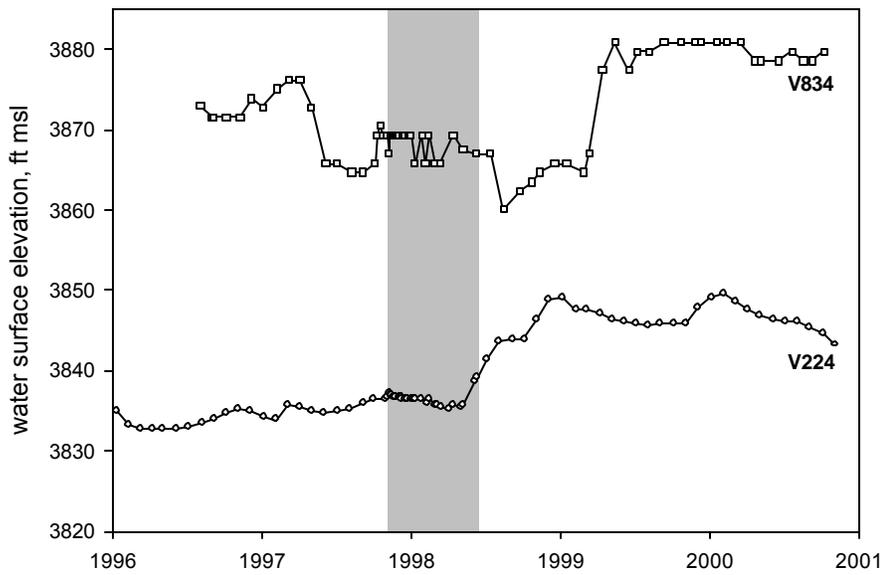


Figure 7. Deep wells near 375W. Gray indicates when 375W was on.

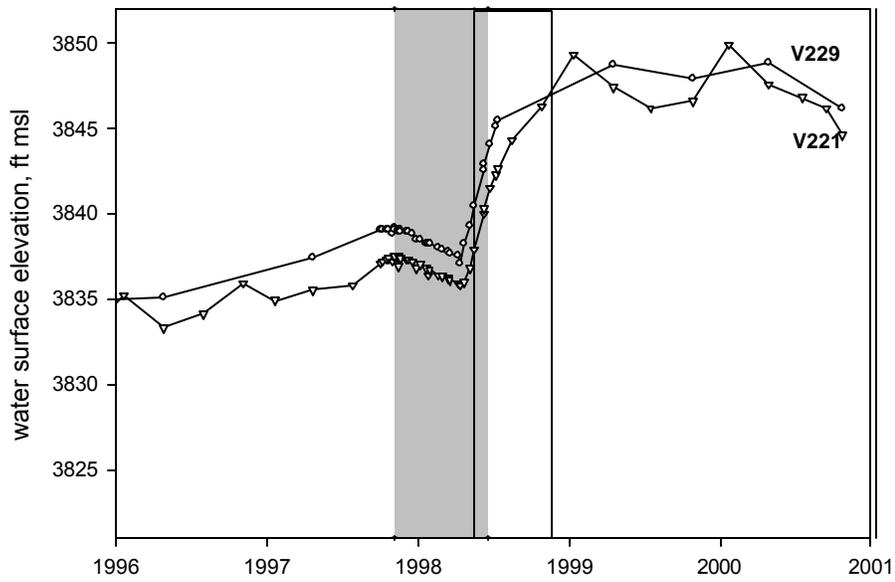


Figure 8. Deep wells near 375W. Gray indicates when 375W was on.

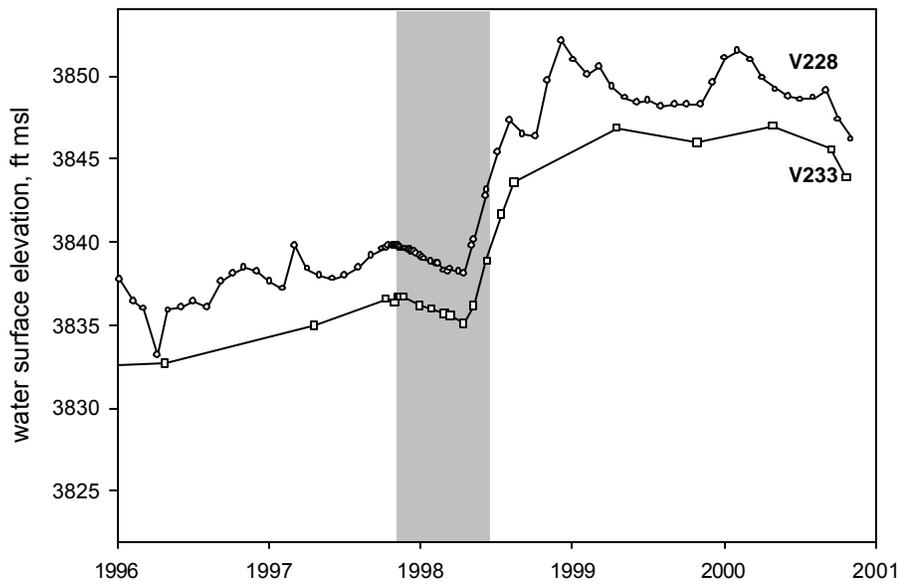


Figure 9. Deep wells near 375W. Gray indicates when 375W was on.

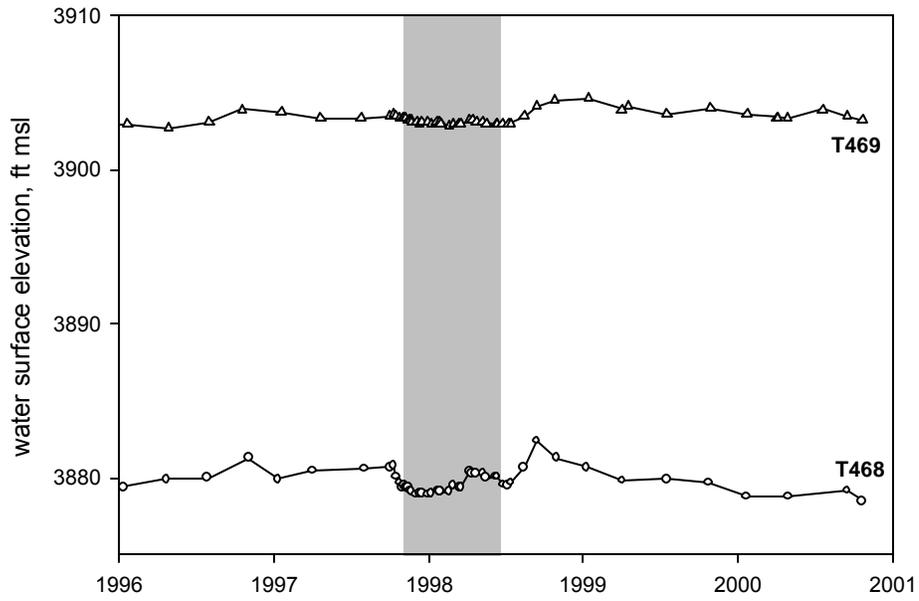


Figure 10. Shallow wells near 375W. Gray indicates when 375W was on.

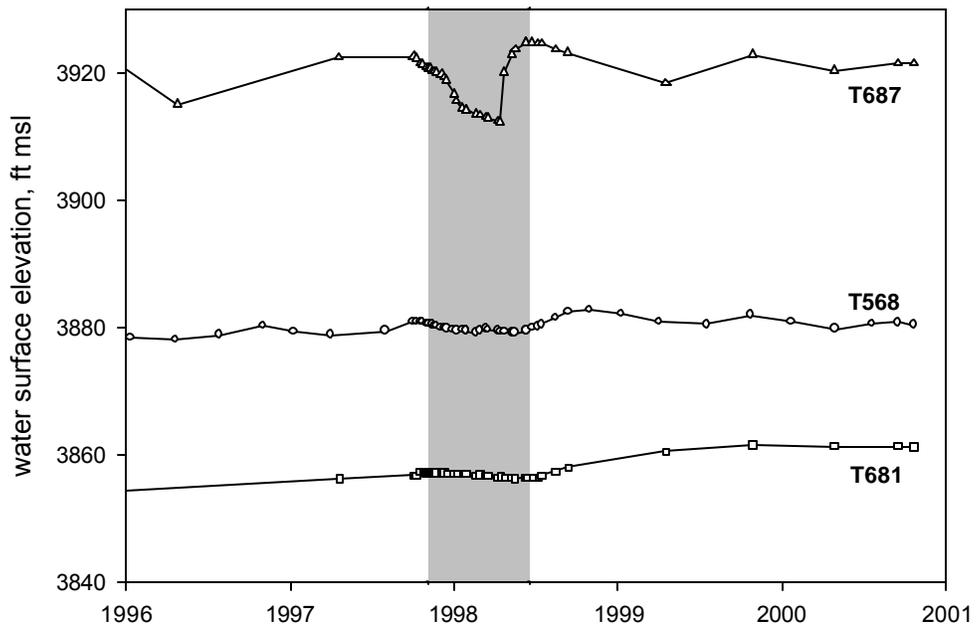


Figure 11. Shallow wells near 375W. Gray indicates when 375W was on

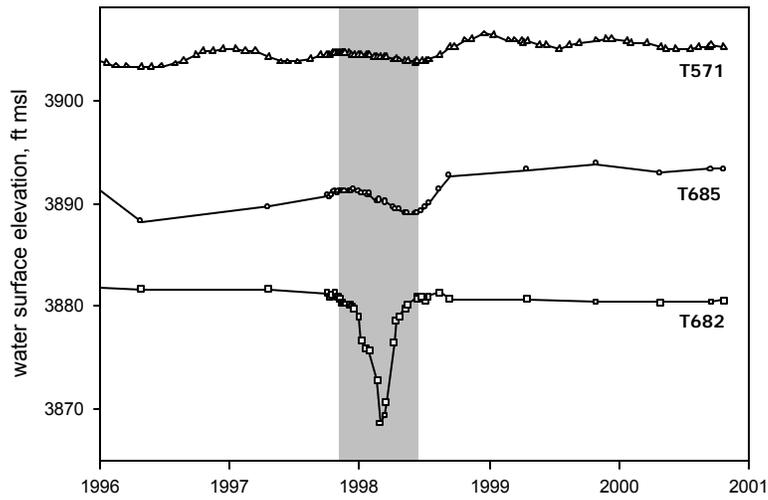


Figure 12. Shallow wells near 375W. Gray indicates when 375W was on.

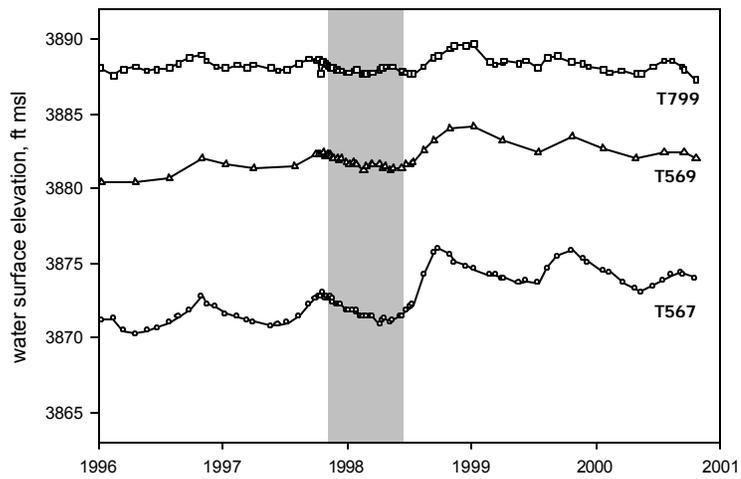


Figure 13. Shallow wells near 375W. Gray indicates when 375W was on.

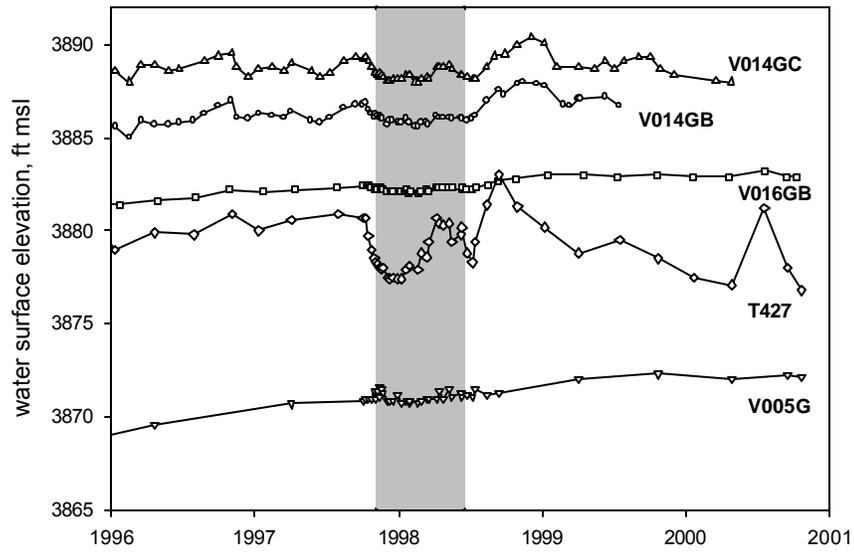


Figure 14. Shallow wells near 375W. Gray indicates when 375W was on.

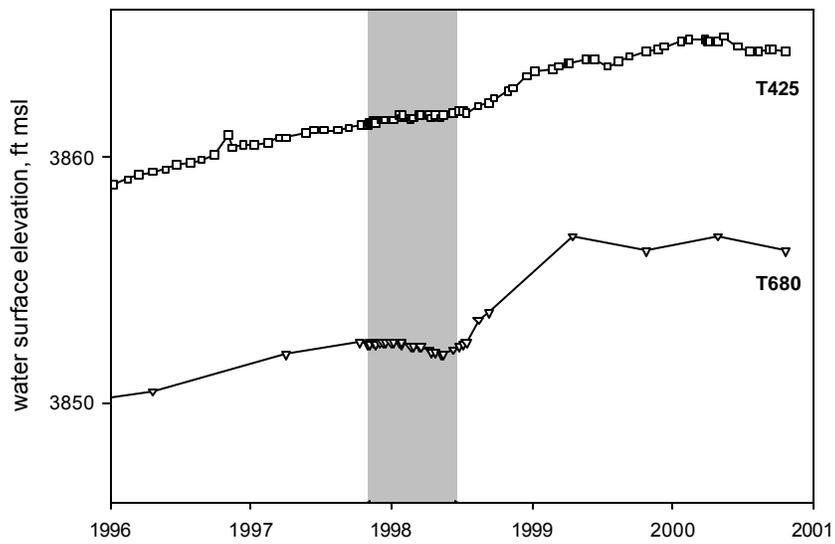


Figure 15. Shallow wells near 375W. Gray indicates when 375W was on.

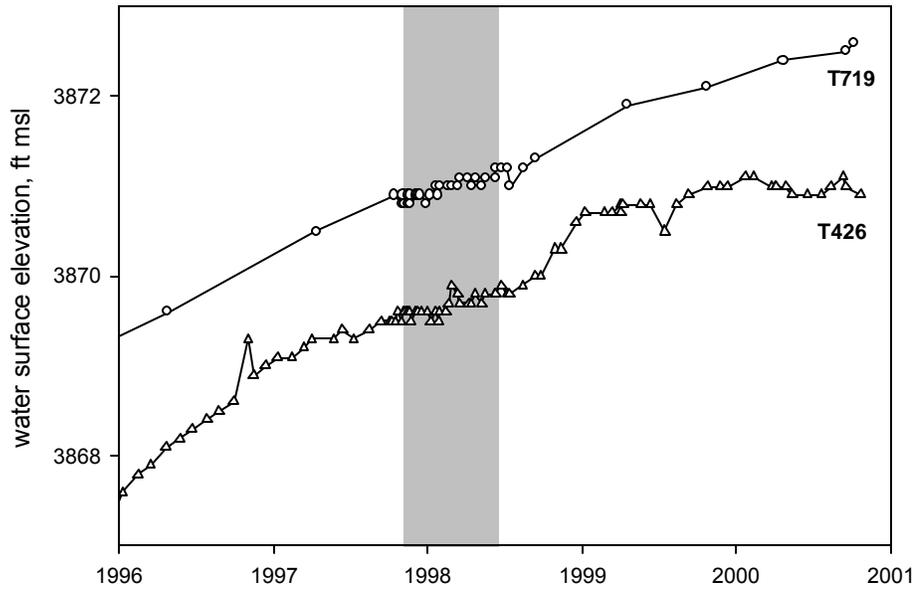


Figure 16. Shallow wells near 375W. Gray indicates when well was on.

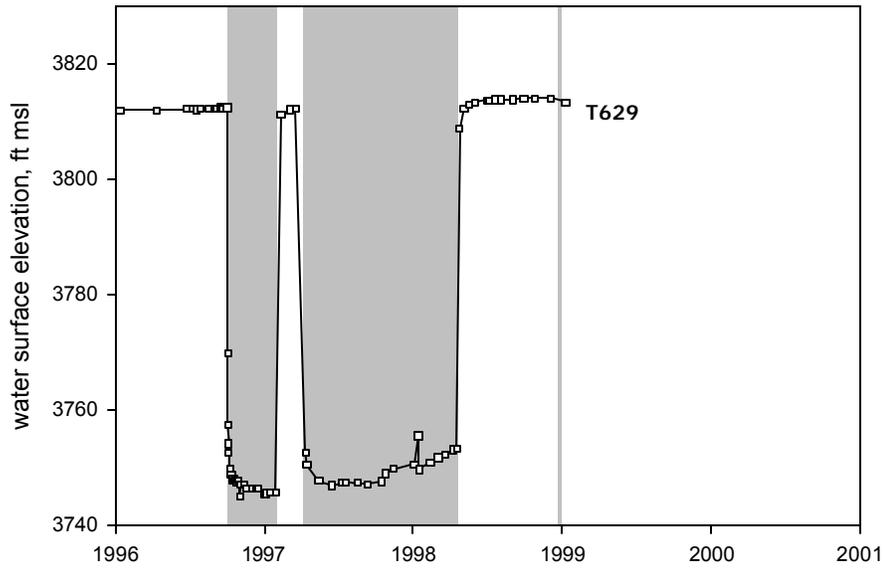


Figure 17. Deep well near 380W and 381W. Gray indicates when wells were on.

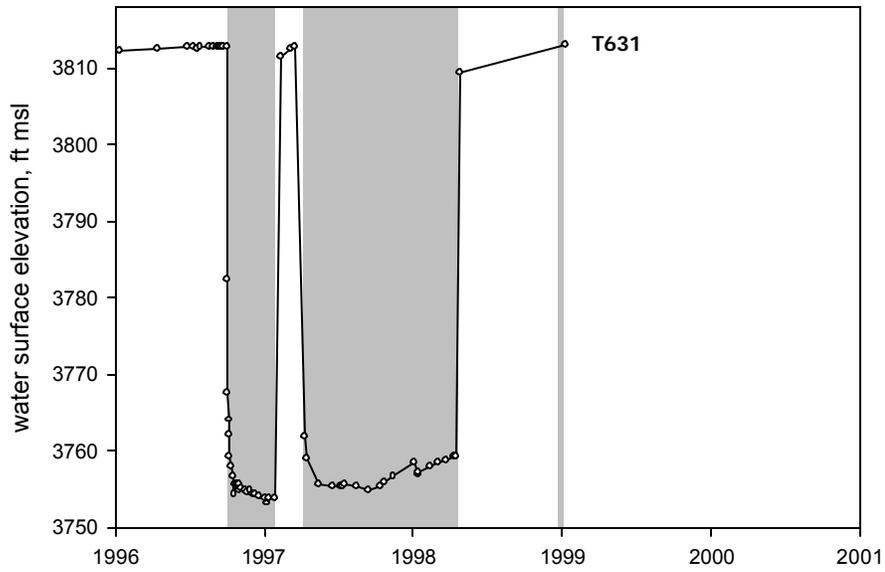


Figure 18. Deep well near 380W and 381W. Gray indicates when wells were on.

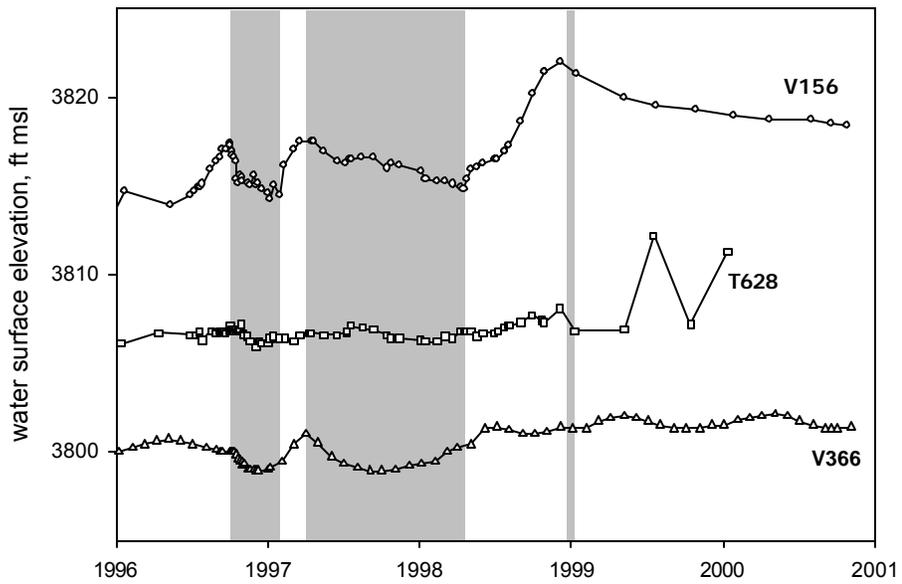


Figure 19. Deep wells near 380W and 381W. Gray indicates when wells were on.

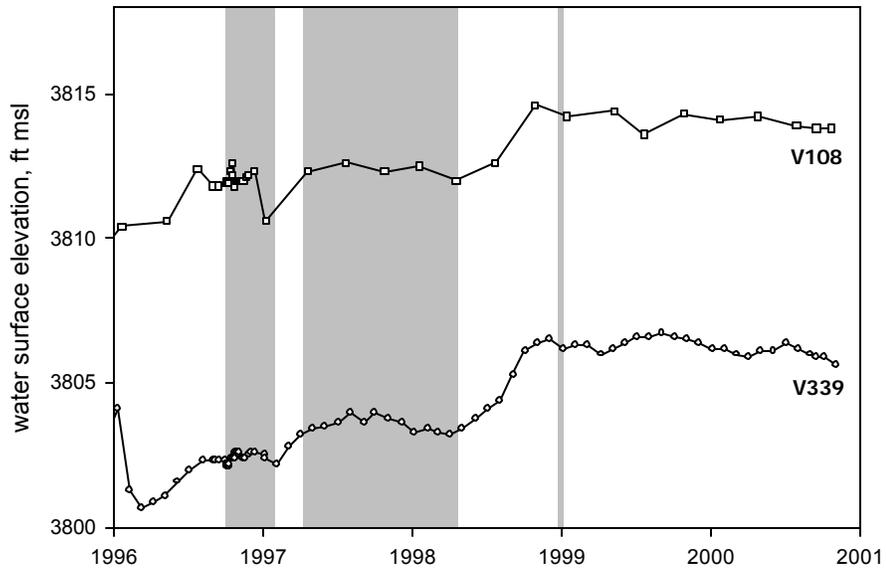


Figure 20. Deep wells near 380W and 381W. Gray indicates when wells were on.

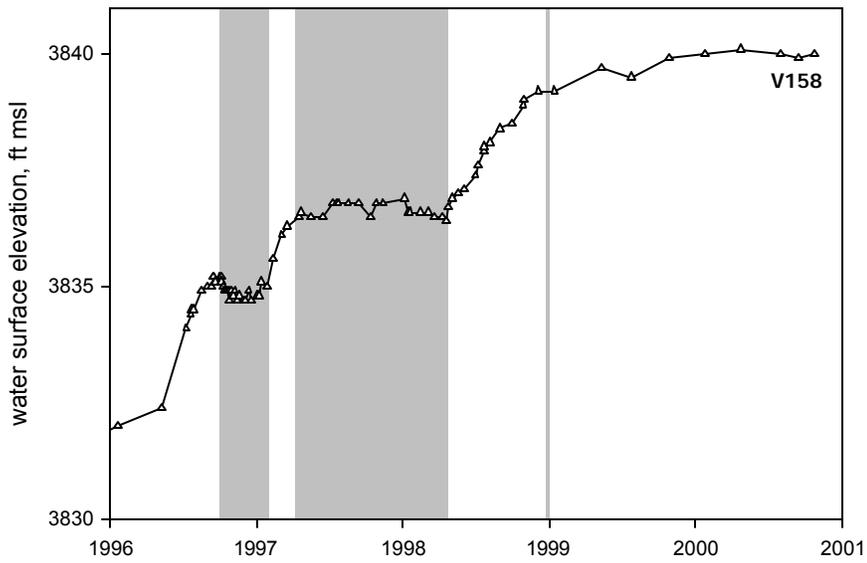


Figure 21. Deep well near 380W and 381W. Gray indicates when wells were on.

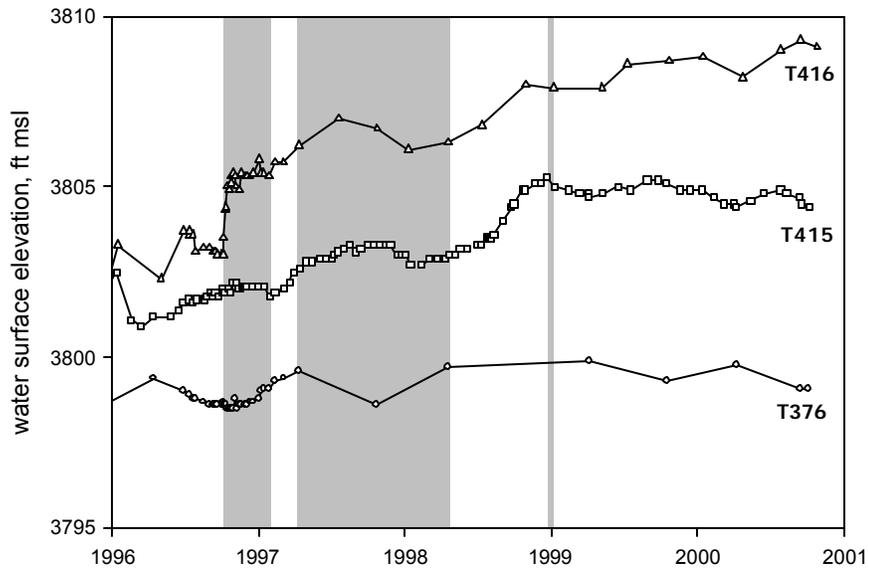


Figure 22. Shallow wells near 380W and 381W. Gray indicates when wells were on.

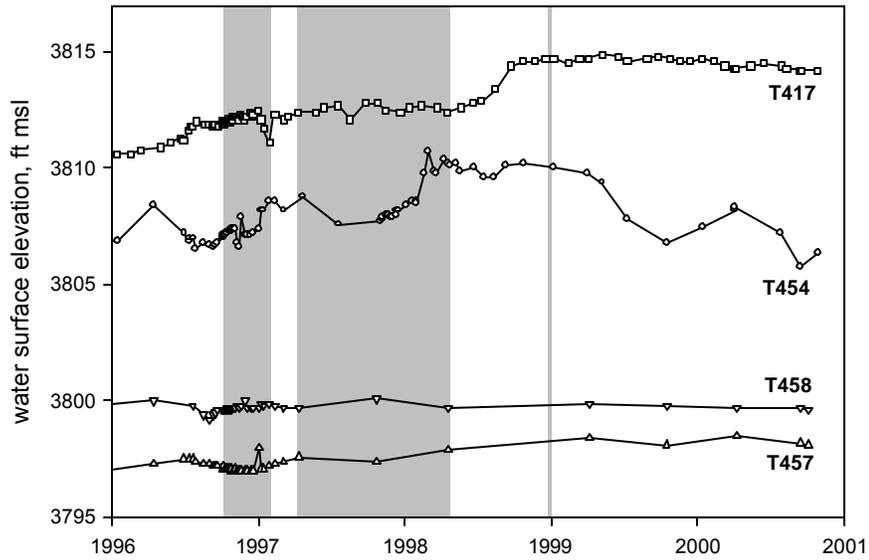


Figure 23. Shallow wells near 380W and 381W. Gray indicates when wells were on.

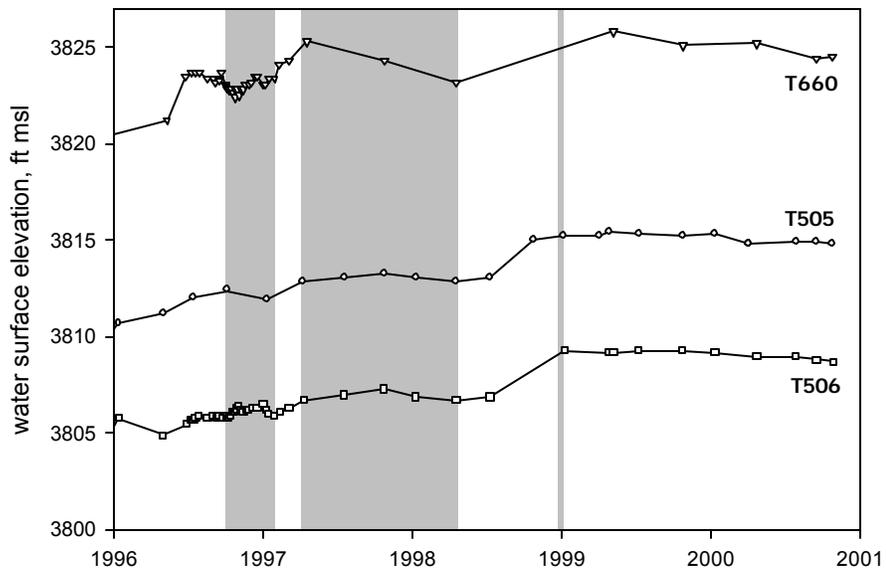


Figure 24. Shallow wells near 380W and 381W. Gray indicates when wells were on.

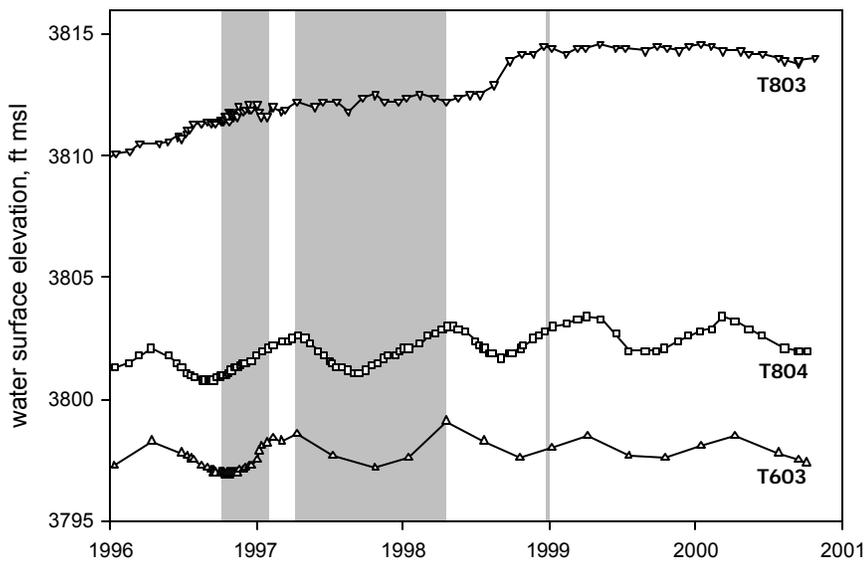


Figure 25. Shallow wells near 380W and 381W. Gray indicates when wells were on.

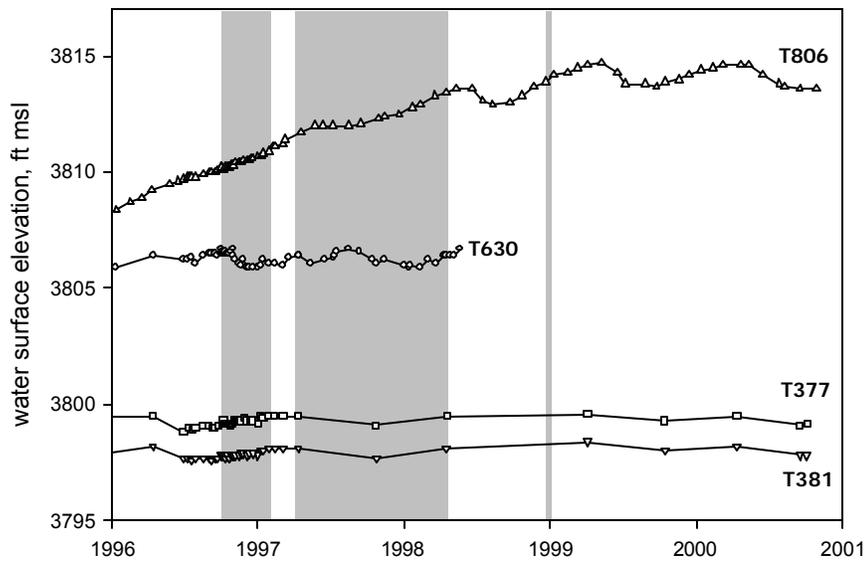


Figure 26. Shallow wells near 380W and 381W. Gray indicates when wells were on.

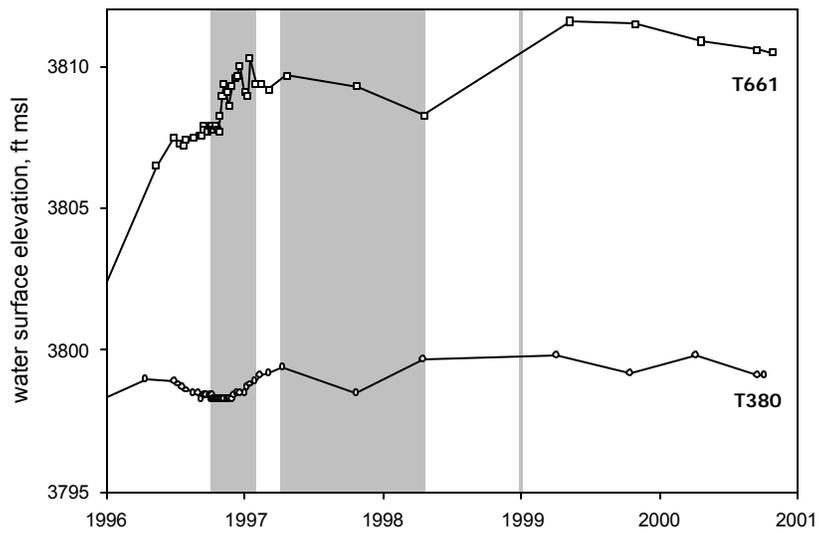


Figure 27. Shallow wells near 380W and 381W. Gray indicates when wells were on.

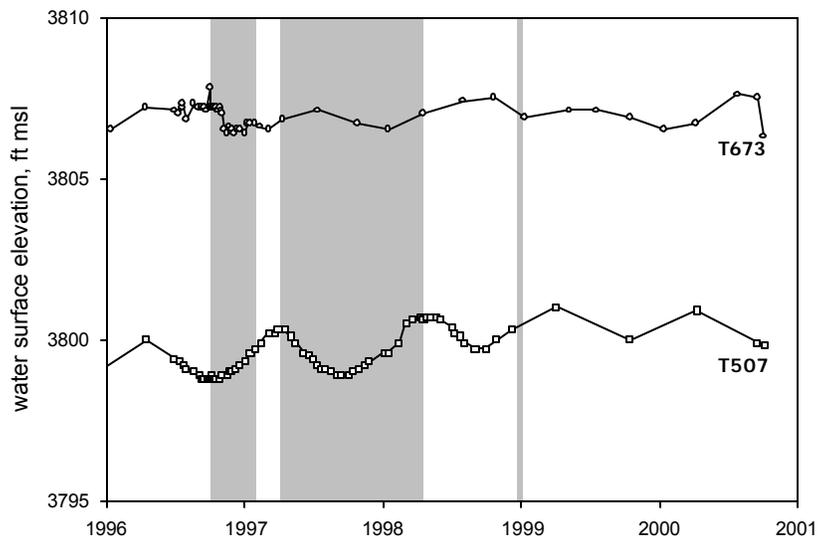


Figure 28. Shallow wells near 380W and 381W. Gray indicates when wells were on.



Figure 29. Shallow wells near 380W and 381W. Gray indicates when wells were on.

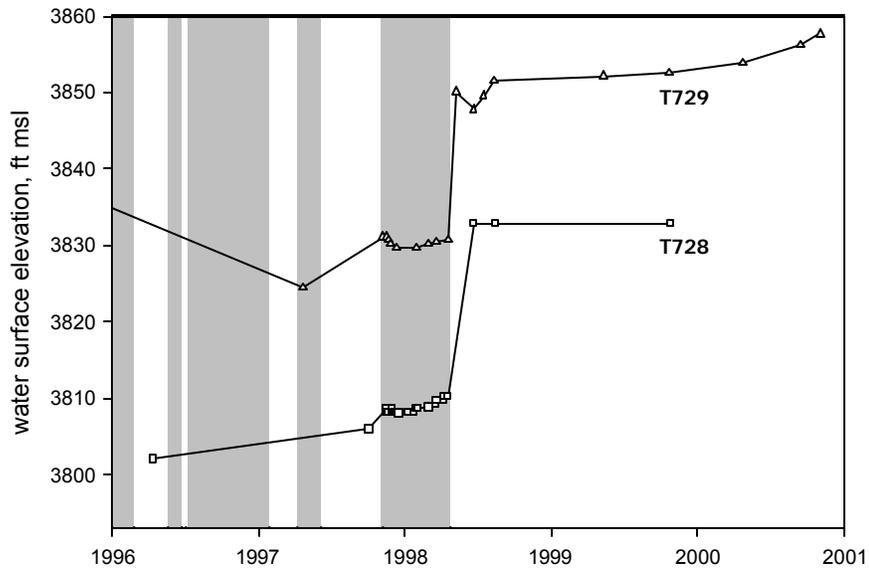


Figure 30. Deep wells near 382W. Gray indicates when 382W was on.

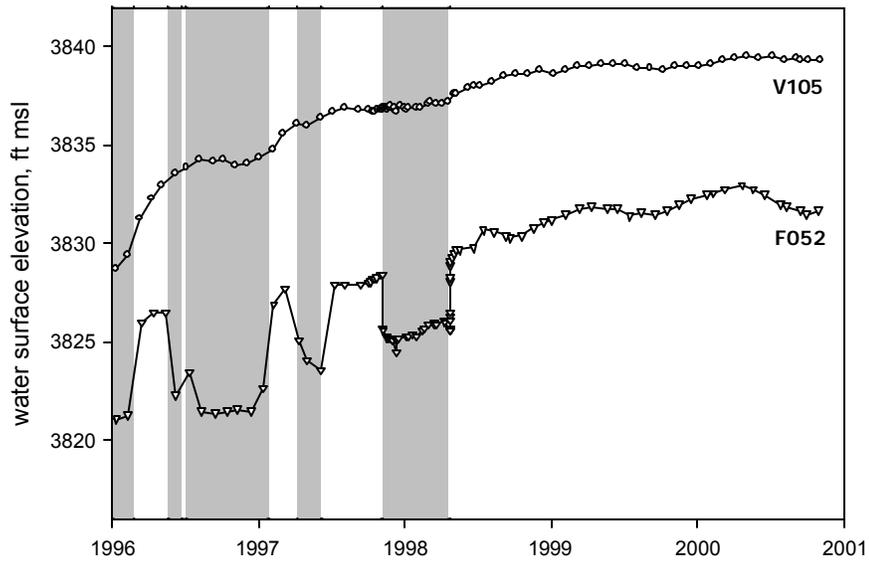


Figure 31. Deep wells near 382W. Gray indicates when 382W was on.

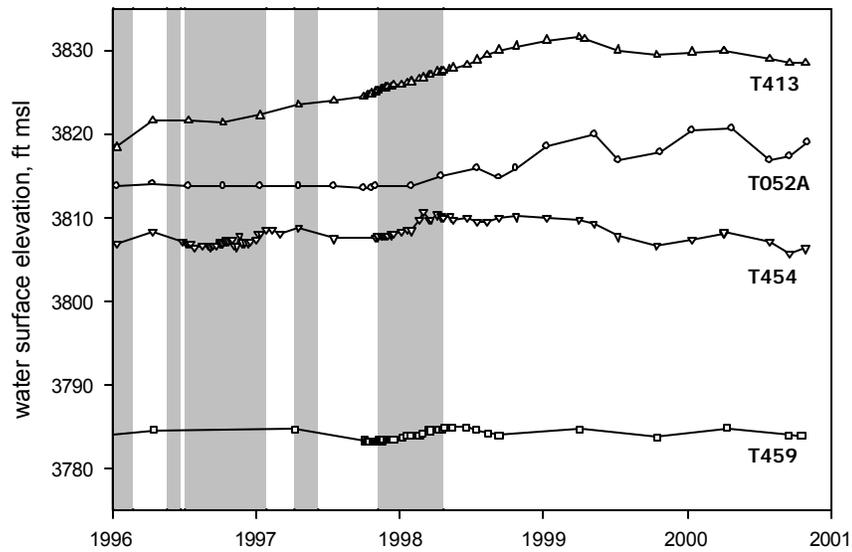


Figure 32. Shallow wells near 382W. Gray indicates when 382W was on.

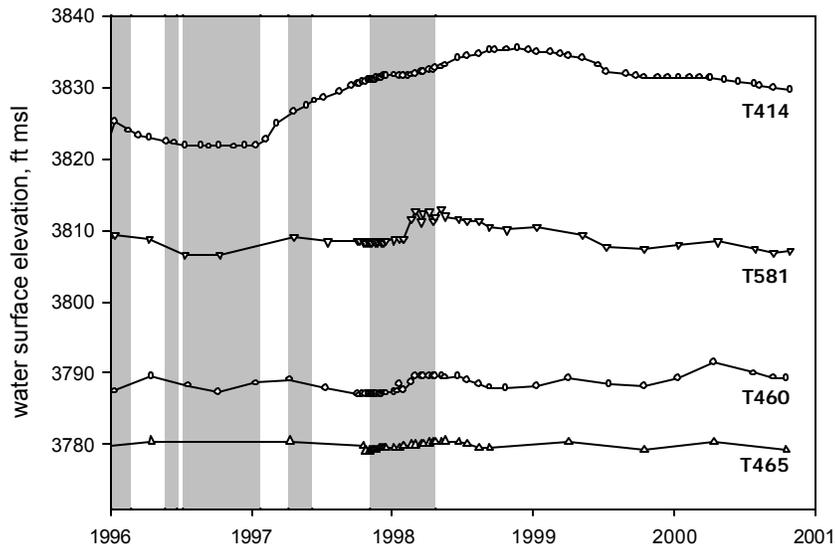


Figure 33. Shallow wells near 382W. Gray indicates when 382W was on.

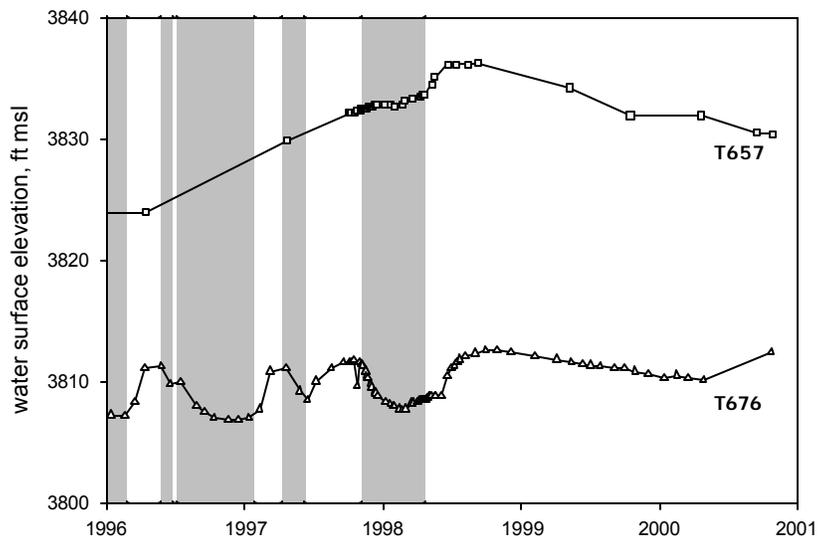


Figure 34. Shallow wells near 382W. Gray indicates when 382W was on.

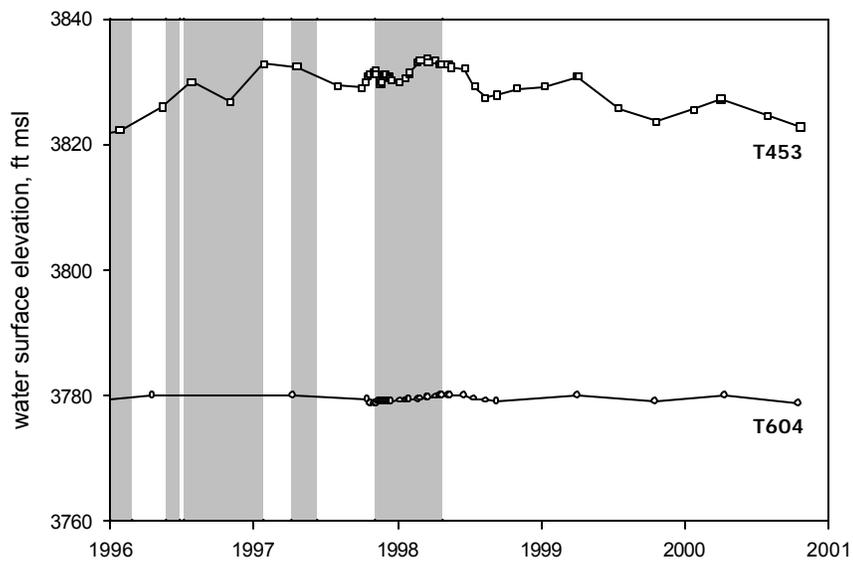


Figure 35. Shallow wells near 382W. Gray indicates when 382W was on.

Analysis. The timing of changes in water levels in observation wells monitored during the operational tests was compared to changes in hydrologic variables such as canal and aqueduct operation, river flows, and test pumping to get a qualitative sense of what variables influenced each observation well. By looking for contemporaneous changes in water level and external variables, the relative importance of various hydrological stresses was assessed. In a few cases (e.g., 631T, Figure 18), the effect due to test pumping is of far greater magnitude than other effects. In most cases, any effect of pumping is overprinted on background fluctuations of greater magnitude than the effect of pumping.

There are two general strategies for assessing background effects during aquifer tests. One is based on the assumption of spatially uniform background trends, the other based on temporally uniform background trends (Kruseman and de Ridder, 2000). If an observation well is distant enough from the pumped well that it is unaffected by the pumping, it can be used to define the background trend for wells closer to the pumped well. This requires that the well used to define the background trend be influenced by the same hydrologic variables as the pumping-affected wells nearer to the production well. In other words, the background trend must be spatially uniform, or at least is a simple function of location. Because of the extended period of time that the pumping wells were run during these tests, a large area encompassing a variety of local sources and sinks was potentially influenced by the test pumping; therefore, the assumption of a spatially uniform background trend is not met in these tests. An alternative is to observe trends in wells before and after the pump test and to interpolate the background trend through the period of the pump test. In this case, it is assumed that the background trend at each well is temporally uniform. Background trends observed during these tests were variable between wells, consisting of linear and nonlinear trends, periodic signals driven by seasonally varying recharge and discharge, step changes caused by stage changes in surface water conveyances, or combinations of these patterns. The complex form and uncertain cause of these background patterns renders all but a few of the records unsuitable for aquifer parameter estimation and no attempt was made here to estimate parameters. If one was to attempt to estimate parameters from these data, using the

hydrograph before and after the test would be the more tenable way of discriminating pumping effects from background effects.

Results

375W test deep wells. Deep wells in the Big Pine area showed three distinct patterns. Wells 203V, 204V, and 212V (Figure 6) showed smooth annual periodic fluctuations with maxima in the late fall and minima in the late spring. Wells 216V, 221V, 224V, 228V, 229V, and 233V (Figures 6, 7, 8, and 9) showed an abrupt increase in spring of 1998 during the operational test. Wells V014GA and V016GA (Figure 6) increased steadily except for a clear effect due to the test pumping. The first two patterns appear to be related to operation of the Big Pine Canal (cf. Figure 4). Wells that penetrate volcanic rocks responded with abrupt increases when the canal flows increased in the spring of 1998 (Figure 4); however, it is not clear why the rise in water levels in 1998 was larger than during previous or subsequent years. 1998 was a heavy runoff year, and spreading operations west of Highway 395 may have contributed to the rise in water levels, but no records exist to confirm this. Conversely, wells 203V, 204V, and 212V responded gradually to the increase in canal stage although they are immediately adjacent to the canal. These three wells do not penetrate volcanic rocks. Wells V014GA and V016GA (Figure 6) were not affected by fluctuations in the Big Pine Canal. Aquifer parameters could be derived from the hydrographs for these two wells. Well 834V (Figure 7), at Steward Ranch, does not follow a pattern similar to any of the three described above, presumably because its fluctuations are largely governed by pumping for irrigation on the ranch and its source of recharge is primarily from the Wacoubi Embayment rather than from the Sierran range front.

375W test shallow wells. Patterns in shallow wells in the Big Pine area are more varied than patterns in deep wells. Wells 427T, 468T, 568T, 687T, V014GC, and V014GB (Figures 10, 11, and 14) began declining prior to the start of the test and recovered subsequent to the test, making it impossible to assess how much, if any, of the drawdown observed in these wells was attributable to test pumping. The declines prior to the start of

the test were probably due either to reductions in Big Pine Canal or Owens River flows (Figure 1) or cessation of irrigation in the Steward Lane area in the early fall of 1997. Many wells (567T, 568T, 569T, 571T, and 685T; Figures 11, 12, and 13) show an annual cycle that peaks in the fall. Precipitation, irrigation, canal operations, pumpage, ET, stream flow, water spreading, and other natural and man-caused factors also exhibit quasiperiodic annual cycles, thus the relative importance of these sources of the annual fluctuations in these wells is difficult to identify and probably is influenced by multiple factors. It is likely that operation of the Big Pine Canal, stage of the Owens River, and irrigation influenced these hydrographs. For example, the abrupt rise in 687T (Figure 11) appears attributable to increased flow in the Big Pine Canal. Wells 427T, 799T, V014GC, and V014GB (Figures 12, 13, and 14) show less well-defined annual cycles, but are seasonally variable. The patterns in these four wells during the test are similar, but the amplitude of fluctuations in 427T is greater, probably in response to change in stage of the Owens River (Figure 1). Wells 425T, 426T, 680T, 681T, 719T, V005G, and V016GB (Figures 11, 14, 15, and 16) have smoothly increasing trends with possibly a few inches of drawdown during the test superimposed upon the trend.

Pumping-induced drawdown from 375W. Deep wells V014GA and V016GA show clear responses to test pumping of 375W (Figure 6). Other deep wells may have been affected by test pumping, but the effect was not detectable because of fluctuations due to changes in recharge conditions. Shallow wells with smooth hydrographs show a slight deflection in the slope of the hydrograph during the test (425T, 426T, 719T, V005G, and V016GB). These wells are in the east and south part of the test area. Even with the relatively smooth background trends in these wells it is difficult to quantify the exact amount of pumping-induced drawdown in these shallow wells, because the effect of pumping appears to amount to at most a few inches of drawdown. However, the possibility of pumping induced drawdown of the shallow aquifer cannot be ruled out based on the results of these tests. Other shallow wells may have had similar or greater amounts of pumping induced drawdown than those identified above; however, the few inches of drawdown attributable to the test pumping may not have been discernable against the larger background fluctuations that were prevalent in the western and northern part of the

test area. Wells 680T and 681T also show slight changes in slope during the test, but it is not clear whether this is part of a seasonal cycle or due to test pumping. It cannot be determined whether or not wells with large seasonal fluctuations or changes due to river stage were affected by test pumping.

380W/381W deep wells. Wells 629T and 631T (Figures 17 and 18), each within 100 ft of one of the pumping wells, showed clear responses to the test pumping of 380W and 381W. Several deep wells more distant from the pumping wells show more subdued, but clear, drawdown due to the test pumping (156V, V158, 339V, and 366V; Figures 19, 20, and 21). Other wells do not show a clear response to the test pumping (628T and 108V; Figures 19 and 20).

380W/381W shallow wells. Most shallow wells near wells 380W and 381W follow one of three patterns: (1) irregular hydrographs due to surface water fluctuations (415T, 416T, 417T, 454T, 460T, 630T, 661T, 673T, and 674T; Figures 22, 23, 26, 27, and 33); (2) smooth quasi-sinusoidal hydrographs with an annual period peaking in the springtime (376T, 377T, 380T, 381T, 457T, 458T, 507T, 603T, 804T, 805T, and 806T; Figures 22, 23, 25, 26, 27, 28, and 29), apparently due to the seasonality of plant transpiration; or (3) relatively smooth hydrographs (505T, 506T, and 803T; Figures 24 and 25). The shallow wells nearest the pumping wells fall into the first category, suggesting that water levels in the LA Aqueduct, the Blackrock Ditch, and the ponds at the Blackrock Fish Hatchery maintain the water table in this area. Wells displaying quasi-sinusoidal hydrographs lie east of the LA Aqueduct in areas of shallow groundwater, suggesting a linkage to climatological stresses.

Pumping-induced drawdown from 380W and 381W. Deep wells 629T and 631T near 380W and 381W showed about sixty feet of drawdown when the wells were operated. Deep wells more distant from the production wells also showed drawdown of up to a few feet of response (156V, 158V, 339V, and 366V). Pumping effects could not be detected in any shallow wells, either because effects were buffered by surface water, masked by other variations, or no pumping effects propagated to the shallow aquifer.

382W deep wells. Two deep wells within 200 ft of well 382W (728T and 729T; Figure 30) showed slight drawdown at the beginning of the test and abrupt recovery following the end of the test. These two wells were artesian before the test began and resumed flowing after 382W was shut off. No pressure data are available to quantify the head in these wells prior to the start of the test, but the cessation of flow was clearly related to operation of 382W. Well 052F (Figure 31) showed a clear response to pumping. Well 105V (Figure 31) possibly showed some drawdown due to test pumping of 382W, but the deflection of its hydrograph began before test pumping of 382W started. Interpretation of this hydrograph is complicated by effects due to pumping of 103W and 104W in late-1995 and test pumping from 380W and 381W. 105V is approximately equidistant from 382W and wells 380W and 381W.

382 shallow wells. Well 676T (Figure 34), about 50 ft from 382W, clearly showed drawdown due to operation of the well, but it is unclear whether this was due to leakage through the well seal, leakage through the aquitard, or cessation of artesian flow in nearby artesian wells. During the period of test pumping, abundant runoff and water spreading affected several shallow wells near 382W (453T, 454T, 460T, and 581T; Figures 32, 33, and 35). Wells 414T and 657T (Figures 33 and 34) showed slight deflections in their hydrographs that may be related to the test pumping. Wells 459T, 465T, and 604T (Figures 32, 33, and 35) showed smoothly varying hydrographs, apparently unaffected by test pumping or surface water spreading.

Pumping-induced drawdown from 382W. Artesian flow ceased in wells 728T and 729T when 382W was turned on and resumed when it was turned off. Well 052F showed a clear response to pumping and may be suitable for parameter estimation. 676T showed a clear response to operation of 382W, but as discussed above, the pathway by which this effect propagated to the shallow aquifer is unclear.

Conclusions and Recommendations

Operational tests. The two main conclusions to be drawn from these tests are: (1) that the problem of separating the effects of test pumping from effects of other factors severely hampers observation of pumping affects in the shallow aquifer, and (2) that operational testing as conducted in these tests to assess the effects of these wells is unlikely to provide a useful assessment of the long-term operation of these wells. In all but a few wells monitored during these tests, the assessment of pumping effects was inconclusive because of the large amount of external noise in the hydrographs compared to the modest signal due to pumping. Danskin (1998) states that, though confining pumping to the deep aquifer may reduce impacts to the shallow aquifer, sustained pumping of such wells will eventually affect groundwater dependent vegetation by propagation of drawdown around the margins of confining clay layers. Were this to occur, impacts would be far progressed before they were detectable in the shallow aquifer. Regarding the original goal of the tests, they were successful in showing that the hydraulic linkage between the production wells and their associated monitoring sites is not a reliable management strategy. In cases where effects of test pumping were qualitatively detectable, in most cases the background effects appeared sufficiently complex that any attempt at parameter derivation by standard aquifer test analysis techniques would be subject to large errors. Furthermore, conducting operational tests by operating these wells and monitoring for drawdown, even for longer than a year as done for 380W and 381W, does not provide a clear assessment of the long-term effects of operation of these wells. A more viable strategy would be to design and conduct aquifer tests so that they support a modeling effort directed at assessing pumping impacts, thereby accounting for the many factors contributing to each hydrograph and providing the capability to simulate long periods of well operation.

In the area of 375W, these tests suggested that drawdown may be propagating through or around confining layers east and south of 375W. Further work should be aimed at confirming or refuting this hypothesis by quantifying the aquifer confinement in the area. The linkage between the stage of surface water conveyances and hydraulic head in

aquifer systems should be determined, because this linkage appeared to control many of the hydrographs during the test. Further, the linkage between various local hydrostratigraphic units should be determined, in particular, the linkage between volcanic rocks related to Crater Mountain and the fluviolacustrine deposits of the valley floor appeared to control the response to recharge from the Big Pine Canal. Any further operational testing should be aimed at establishing hydraulic parameters, extent of confinement, and hydrostratigraphic and structural relationships to support a numerical model of the Big Pine area.

In the 380W/381W area, testing suggested that surface water buffered pumping effects near the wells, but effects propagated long distances from the wells. Surface water buffering southeast of wells 380W and 381W will probably increase in the future as the Blackrock Waterfowl Management Area is intermittently inundated as part of the Lower Owens River Project. Drawdown was observed in deep wells near the alluvial fans west of 380W/381W, indicating that the mechanism identified by Danskin is probably active in this area. Further operational testing of 380W/381W is unlikely to yield any additional information unless aimed at supporting a modeling effort, e.g., aquifer testing to determine confining layer characteristics. An observation well was drilled in 2000 into the confining layer near wells 380W and 381W for the purpose of evaluating confining layer properties. An aquifer test should be designed and conducted using this well as part of the confining layer cooperative study.

During the 382W test, drawdown related to the test was observed in shallow well 676T near the pumping well. It remains unclear how drawdown propagated from the deep aquifer to 676T. Possible pathways by which drawdown in the deep aquifer might have been communicated to the shallow aquifer are propagation through the confining layer by Darcian flow, flow through natural breaches in the confining layer such as faults or fractures, propagation around confining layers where they pinch out or grade into more permeable material, propagation through abandoned wells that are completed in both the deep and shallow zones, leakage past the seal in the pumping well, or propagation through artesian wells. The role played by the artesian flows in maintaining the water

table could be investigated by temporarily sealing the artesian wells and observing the response of well 676T, however, it is not necessary to answer this question before a monitoring program could be developed. Well 382W differs from 375W, 380W, and 381W in that there are clearly identifiable groundwater dependent resources near the well. Extensive spring and seep areas and areas of phreatophytic vegetation in the Thibaut Springs area are within 0.5 miles of 382W (Ecosystems Sciences, 2000), as well as rare plant populations east of the LA Aqueduct. Monitoring should be installed to observe any affects of 382W on these areas.

Future management of wells sealed to deep aquifers. Wells 375W, 380W, 381W, and 382W withdraw water only from the deep aquifer, and as a consequence the cones of depression of these wells affects a greater area than would be affected if an equivalent amount of water was withdrawn from both the deep and shallow aquifers. When wells extract water directly from the shallow aquifer, it can be expected that the impact on water levels in the shallow aquifer will be a function of distance from the pumping well; however, when extraction is limited to the deep confined zone, impacts to the shallow aquifer will depend on the properties and extent of the confining layer.

Of particular concern is the possible impact of these wells on spring, seep, wetland, or riparian resources that occur where groundwater emerges due to structural or stratigraphic controls on groundwater flow (e.g., faults that allow upward flow through confining layers, or facies changes that terminate confining layers). Existing knowledge of the characteristics of the confining layers is insufficient to predict when and where effects will reach the shallow aquifer system; therefore, it is recommended that management for these wells be focused on identification of areas within the radius of influence of these wells that might be impacted and developing monitoring for those areas. Section I.V.3 of the Green Book (City of Los Angeles and Inyo County, 1990) notes that Type D vegetation is more sensitive to water deficits than Types A, B, or C, and specifies that the effectiveness of existing management methods will be evaluated and appropriate monitoring and management methods developed. It should further be recognized that the delineation of Type D as defined by the management maps appended

to the Agreement may be insufficient to fully identify all the riparian and marshland areas within the radius of influence of these wells. For example, the Thibaut Springs area near well 382W is identified by Ecosystem Science (2000) as spring area (DWP 11), but is designated as Type C on the Agreement management maps.

A study is identified in Section V.B.8 of the Green Book (City of Los Angeles and Inyo County, 1990) aimed at developing effective monitoring for riparian and marshland vegetation. LADWP is currently developing this study. It is recommended that monitoring for spring, seep, and riparian areas within the radius of influence of wells sealed to the deep aquifer be incorporated into this study.

LADWP and Inyo County are currently engaged in two other cooperative studies that should prove useful in designing management for these wells. One cooperative study is aimed at evaluating the hydraulic properties of confining layers; the other is aimed at improving hydrological modeling tools. Together, these studies should provide tools for assessing the radius of influence of these wells, and provide information about the timing and location of drawdown propagating from the deep to the shallow zones. It is recommended that development of alternative management of these wells be addressed within the scope of these studies, and that data from the tests be incorporated into these studies. If in the course of these studies data gaps are identified, LADWP and Inyo County should seek joint funding for research to address them.

The following steps are a suggested outline for the development of a management program for these wells:

1. *Identify the radius of influence of these wells.* This task consists of developing and using groundwater models to delineate the area within which groundwater dependent resources might be impacted due to pumping from the wells.
2. *Identify groundwater dependent resources within the radius of influence of these wells.* Likely areas to be impacted are spring and seep areas, where groundwater

emerges along faults or through artesian wells, or areas where confining layers are inferred to grade into more permeable material (for example, at the toe of an alluvial fan). It should also be recognized that Type B and C vegetation may be impacted if drawdown propagates to the shallow aquifer.

3. *Identify the allowable fluctuation in measurable hydrological variables at the identified resources.* Ecosystem water requirements should be estimated and the water source identified for the resources identified in the second step.

4. *Identify a monitoring program for the identified resources.* Management should be based on monitoring of hydrologic conditions (surface water and groundwater levels, hydraulic gradients, and flow rates) rather than vegetation or soil water conditions, because once a measurable decline in vegetation has been observed, impacts may be irreversible or expensive and difficult to mitigate. Monitoring and management based on hydrologic conditions will identify pumping-induced changes earlier than either vegetation or soil water monitoring. In addition, once water level or flow measurement devices are installed, hydrological monitoring is easier and more certain than vegetation or soil water measurements. This monitoring program should be designed to identify baseline hydrologic and biologic conditions, provide data to verify modeling results, monitor conditions during well operation, provide management triggers to govern well operation, and monitor recovery in the event that triggers are exceeded. Monitoring may be at the identified resource, or at trigger locations between the production well and the resource. Hydrological monitoring may consist of surface water levels; spring discharge; groundwater levels in spring, seep, or phreatophyte areas; groundwater levels at intervening trigger locations; and/or vertical gradients in hydraulic head. Trigger locations intermediate between the production well and the resource may be preferable if the resource is so sensitive that no fluctuation is allowable, or if measurement at the resource is impractical. The monitoring program should also identify a sampling schedule and schedule for reporting to the Technical Group. This program should recognize that spring, seep,

and wetland vegetation is more immediately sensitive to water deficits than groundwater dependent scrub and alkali meadow communities.

5. *Define operational rules for a well management program based on the monitoring program.* Required components of this program are definitions of monitoring components and trigger points that direct changes in well management, actions that occur when trigger points are exceeded, means of determining when resources or triggers have recovered, and decision-making mechanisms that implement management of well operations.

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Freeze, R.A., and J.A. Cherry, Groundwater, Prentice Hall, 1979.

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APPENDIX D

Appendix D

Vegetation Inventory for Big Pine NE Regreening Project Area

Surveys performed by Lori Gillem, Lori Dermody. Watershed Resources Specialist, City of Los Angeles Department of Water and Power

A vegetation inventory was performed for the Big Pine NE Regreening Project area during the spring and summer of 2011 (March 21, 2011 through September 15, 2011). The site visits occurred during late spring, summer and early fall to determine if any special status plant species occur on the project site. None of the special status species listed on the Big Pine quadrangle map were found within the 30 acre project area.

Plant species found during site surveys include:

SATR12	<i>Salsola tragus</i>
AMTE	<i>Amsinckia tessellata</i>
DISP	<i>Distichlis spicata</i>
BAHY	<i>Bassia hyssopifolia</i>
SAVE4	<i>Sarcobatus vermiculatus</i>
ERNA10	<i>Ericameria nauseosa</i>
ATTO	<i>Atriplex torreyi</i>
DEPIP3	<i>Descurainia pinnata</i>
GLLE3	<i>Glycyrrhiza lepidota</i>
ROPS	<i>Robinia pseudoacacia</i>
ROWO	<i>Rosa woodsii</i>
BRTE	<i>Bromus tectorum</i>

The site surveys included walking the project area and documenting the species found. No transects were ran as percent cover of the existing site is estimated at 20% and the dominant species documented were SATR12, and BRTE which are non-native species.

APPENDIX E

**Table E-1
Summary of and Responses to Public Comment Letters on the August 2011 Big Pine Regreening Initial Study**

	Name	Organization/Affiliation	Summary of Comment Issues	Response
1	Anthony C. Karl	Unstated	Aesthetic impact of groundwater pumping; responsibility for land maintenance; impacts to water table	Refer to revised Sections 1.4, Project Description; 2.3.1, Aesthetics; and 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
2	Ceal Klinger	Bishop Resident	Adequacy of Initial Study; cumulative impacts on vegetation, wildlife, soil, impaired wellfields, water table; project alternatives; mitigation definition	Refer to revised Sections 1.2, Project Background and Objectives; 2.3.4, Biological Resources; 2.3.6, Geology and Soils; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
3	Constance Spenger	Big Pine Resident	EIR preparation; project alternatives; direct and cumulative impacts to Biological Resources and humans; groundwater loss; mandatory findings of significance	Pursuant to CEQA, a negative declaration may be adopted if a lead agency determines that the proposed project would not have a significant effect on the environment (Section 21080). Refer to revised Sections 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
4	Martha Hilchrish	Big Pine Resident	Adequacy of Initial Study; water table; impacts of groundwater pumping; project alternatives	Refer to revised Section 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
5	Larry & Ruth Blakely	Big Pine Residents	Existing environmental conditions; Well W375 pumping	The comment letter does not specifically address the adequacy of the Initial Study. The comment letter will be forwarded to the decision-makers for their review and consideration.
6	Pamela Mallory	Big Pine Resident	Adequacy of Initial Study; water table; impacts to environment and water supply; regreening without groundwater pumping	Refer to revised Section 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
7	Levi Mallory	Big Pine Resident	Adequacy of Initial Study; water table; impacts to environment and water supply; regreening without groundwater pumping	Refer to revised Section 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
8	Daya Sepsey	Big Pine Residents	Adequacy of Initial Study; water table; impacts to environment and water supply; regreening without groundwater pumping	Refer to revised Section 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.

9	Sally Manning	Bishop Resident, working with Big Pine Paiute Tribe	Adequacy of Initial Study; qualification of the project as mitigation; EIR preparation; project alternatives; LTWA; groundwater-dependent vegetation; ICWD July 2010 Report; well exemptions; cumulative and direct impacts of Well W375 pumping; areas of known controversy	Pursuant to CEQA, a negative declaration may be adopted if a lead agency determines that the proposed project would not have a significant effect on the environment (Section 21080). Refer to revised Sections 1.2, Project Background and Objectives; 1.4, Project Description; 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; 2.3.10, Land Use; and 2.3.18, Mandatory Findings of Significance. See also Appendices C and D. The inclusion of areas of known controversy is a requirement under CEQA for EIRs (CEQA Guidelines Section 15123); however, the revised Initial Study includes the comment letters received on the August 2011 document. The comment letters will be forwarded to the decision-makers for their review and consideration.
10	Steven McLaughlin and Janice Bowers	Big Pine Residents	Adequacy of Initial Study; impacts of Well W375 pumping; vegetation impacts; current status/analysis of impacts of pumping on Parcel 162; project alternatives	Refer to revised Sections 2.3.4, Biological Resources; and 2.3.9, Hydrology and Water Quality. See also Appendices C and D. The comment letter will be forwarded to the decision-makers for their review and consideration.
11	Gary Bacock	Tribal Administrator, Big Pine Paiute Tribe	Public meeting process/Brown Act; project mitigation; well exemptions; groundwater pumping impacts to tribal reservation/water table; EIR preparation	In November 2010, the Revised Scoping Document, "Regreening Northeast of Big Pine Irrigated Pasture-Big Pine Area as an Enhancement/Mitigation Project," was approved by the Standing Committee. The Standing Committee meeting was open to the public and comments were received (refer to Section 1.2, Project Background and Objectives). Refer to revised Sections 1.4, Project Description and 2.3.9, Hydrology and Water Quality; and see also Appendix C. Pursuant to CEQA, a negative declaration may be adopted if a lead agency determines that the proposed project would not have a significant effect on the environment (Section 21080).The comment letter will be forwarded to the decision-makers for their review and consideration.
12	Dale Delgado	Chairman, Bishop Tribal Council	Aesthetic impact of groundwater pumping; regreening without groundwater pumping; water table; groundwater-dependent vegetation; cumulative impacts; mitigation qualification; adequacy of Initial Study; project alternatives; public meetings; well exemptions	Refer to revised Sections 1.2, Project Background and Objectives; 1.4, Project Description; 2.3.1, Aesthetics; 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
13	Daniel Pritchett	Conservation Chair, Bristlecone Chapter California Native Plant Society	Cumulative impacts; adequacy of Initial Study; Well W375 exemption; project alternatives; ICWD July 2010 analysis; public opinion	Refer to revised Sections 1.4, Project Description; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. The inclusion of areas of known controversy is a requirement under CEQA for EIRs (CEQA Guidelines Section 15123); however, the revised Initial Study includes the comment letters received on the August 2011 document. The comment letters will be forwarded to the decision-makers for their review and consideration.
14	Donald Mooney	<i>Law Office of Donald Mooney for the Owens Valley Committee (OVC)</i>	EIR preparation; mapped location of Well W375; groundwater pumping impacts; cumulative project impacts to groundwater/biological resources; project consistency with LTWA	Pursuant to CEQA, a negative declaration may be adopted if a lead agency determines that the proposed project would not have a significant effect on the environment (Section 21080). Also pursuant to CEQA, public controversy regarding potential environmental effects of a project is not sufficient reason to require an EIR "if there is no substantial evidence in light of the whole record before the lead agency that the project may have a significant effect on the environment" (Section 21082.2). Refer to revised Sections 1.4, Project Description; 1.6, Project Approvals; 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; 2.3.10, Land Use; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.

15	Mark Bagley	<i>MOU Rep., Sierra Club and President/Director, OVC</i>	Groundwater pumping as mitigation; well exemption; Well W375 pumping impacts; water table; EIR preparation; cumulative impacts analysis; adequacy of Initial Study; ICWD July 2010 analysis; impacts to biological resources	Refer to revised Sections 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendix C. Pursuant to CEQA, a negative declaration may be adopted if a lead agency determines that the proposed project would not have a significant effect on the environment (Section 21080). The comment letter will be forwarded to the decision-makers for their review and consideration.
16	Brad Henderson/Tammy Branston	Senior Environmental Scientist, Dept. Fish and Game	Future vegetation composition; seed mix species identification/use of native species; clarification regarding Routine Maintenance Agreement/irrigation conveyance; breeding bird season, nest protection, and pre-construction surveys; occurrence of sensitive plant species	Refer to revised Sections 1.2, Project Background and Objectives; 1.4, Project Description; 1.6, Project Approvals; 2.3.1, Aesthetics; 2.3.3., Air Quality; 2.3.4, Biological Resources; 2.3.9, Hydrology and Water Quality; and 2.3.18, Mandatory Findings of Significance. See also Appendices C and D. The comment letter will be forwarded to the decision-makers for their review and consideration.
17	Scott Morgan	Director, Gov. Office of Planning and Research (State Clearinghouse)	Confirmation of State Clearinghouse Distribution of CEQA document and compliance with the review requirements for the environmental document, pursuant to CEQA	The revised Initial Study (November 2011) will be submitted to the State Clearinghouse.
18	Bob Harrington	Water Director, Inyo County Water Department	Overestimation of drawdown in ICWD modeling; reduction of irrigation duty; Well W375 pumping impacts; additional findings	Refer to revised Sections 1.4, Project Description; and 2.3.9, Hydrology and Water Quality. See also Appendix C. The comment letter will be forwarded to the decision-makers for their review and consideration.
19	Cindi Mitton	Senior Engineer, Lahontan Region RWCQB	Permit requirements; project measures and BMPs to reduce water quality impacts and sediment discharge	Refer to revised Sections 1.6, Project Approvals; 2.36, Geology and Soils; and 2.3.9, Hydrology and Water Quality. The comment letter will be forwarded to the decision-makers for their review and consideration.
20	Dave Singleton	Program Analyst, Native American Heritage Commission (NAHC)	Consultation with listed tribes; contact with CHRIS for recorded archeological data; code compliance for accidental resource/human remains discovery during construction	Refer to revised Section 2.3.5, Cultural Resources. The November 2011 revised Initial Study will be distributed to relevant Native American tribal representatives for their review and comment. The comment letter will be forwarded to the decision-makers for their review and consideration.
21	Virgil Moose	Tribal Chairperson, Big Pine Paiute Tribe	Adequacy of Initial Study; mitigation qualification; EIR preparation; well exemptions; water table; Well W375 pumping impacts to Hydrology/Water Quality, Air Quality, Biological Resources, Cultural Resources and Land Use; ICWD July 2010 analysis; vegetation and soils; LTWA; consideration of public comment; greening without groundwater pumping	Refer to revised Sections 1.2, Project Background and Objectives; 1.4, Project Description; 2.3.3, Air Quality; 2.3.4, Biological Resources; 2.3.5, Cultural Resources; 2.36, Geology and Soils; 2.3.9, Hydrology and Water Quality; 2.3.10, Land Use and Planning; and 2.3.18, Mandatory Findings of Significance. See also Appendix C and D. The comment letter will be forwarded to the decision-makers for their review and consideration.
22	Alan Bacock	<i>Water Program Coordinator, Big Pine Paiute Tribe</i>	Letter to Dr. Robert Harrington, Inyo County Water Director, with comments on groundwater pumping included in the Big Pine Northeast Regreening Project.	Refer to revised Sections 1.6 and 2.3.9, Hydrology and Water Quality. The comment letter will be forwarded to the decision-makers for their review and consideration.

8/31/2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung,

The Big Pine Northeast Regreening project is not acceptable by any means. This area is the most barren piece of land in Big Pine. Wild grass can barely grow on it. This barren look was achieved by pumping the water from underneath it. Why would you water it with surface water and then pump from somewhere else to make up for water used to regreen it. This is insane. Stop scarring the land by pumping groundwater. This is one of the most beautiful places on earth. This project does not even have a lessee! Who is going to tend to this? Why is this project moving forward? I went to the county's meeting regarding this and publicly commented. I turned around and asked the entire audience if anyone was in favor of this project? No one commented. The public comments were all negative! I am a certified water operator and am deeply concerned about pumping and any further lowering of our water table.

Sincerely,

Anthony C. Karl



Ceal Klingler
940 Starlite Drive
Bishop, CA 93514

August 27, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 N Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung,

I'm writing in response to the "Initial Study and Negative Declaration for Big Pine Northeast Regreening Project" released in August.

I was startled to discover that the IS/ND does not include any discussion of potential significant cumulative environmental impacts of groundwater pumping for the project, which ironically is meant to mitigate for pumping impacts. The project description includes exempted groundwater pumping from Well 375 to "make up" for surface water supplied to the project and therefore should describe cumulative effects of such pumping. Furthermore, since simply supplying surface water without "making up" the water with pumping is an obvious alternative with fewer potential impacts, that alternative should have been examined in the initial study, and an explanation provided for why that less harmful alternative was not selected.

More specifically, the IS/ND for the Big Pine "regreening" project includes the following problems:

1. The report fails to examine potential significant *cumulative* environmental effects of groundwater pumping described by the project. Although surface water will be supplied for irrigation, that water will then be replaced by groundwater pumping in an already impaired wellfield. Section 2.3.9, Hydrology and Water Quality, isolates the discussion of impacts to only this project without discussing the cumulative effects of pumping for this project *and other uses within the same wellfield*. Section 2.3.18c discusses cumulative impacts, but *only at the site where water is to be applied, not at the site where groundwater pumping occurs*.

Potential significant *cumulative* impacts as a result of such groundwater pumping--and particularly from pumping from an exempt well-- include, but are not limited to:

- a. Significant cumulative changes in groundwater-dependent vegetation as a result of keeping groundwater tables below the rooting zone in areas linked to Well 375.
- b. Significant potential impacts on wildlife dependent on groundwater-dependent

habitat. Although the report describes potential effects on wildlife within the agricultural zone to be irrigated, section 2.3.4 of the report completely fails to address effects on wildlife within the zone *to be pumped*. If pumping is part of the project, where is the discussion of potential cumulative impacts of such pumping? For example, impacts to wildlife might result from

i. changes in vegetation, i.e., loss of food and/or shelter, or loss of prey items that depended on vegetation for food or shelter.

ii. changes in soil moisture, e.g., *Spea intermontana*--an amphibian species still present in a few remaining areas of Big Pine--depends upon soil moisture from high enough water tables to survive months to years of dry surface conditions. Maintaining groundwater tables below rooting zones of vegetation extirpates groundwater-dependent species from pumping zones, regardless of whether or not the effect is cumulative rather than resulting only from the amount proposed to be pumped for this specific project.

iii. loss of soil (see 1c below).

c. Significant cumulative negative effects on soils present in the pumping zone. As loss of groundwater-dependent vegetation occurs, soils erode steadily from the surface, an effect that can already be readily observed in wellfields surrounding Big Pine. This effect should be discussed, at the very least, in sections 2.3.2 (converting groundwater-dependent meadows to eroded, devegetated surfaces reduces their value for agricultural use), 2.3.3 (soil blown from devegetated surfaces inevitably winds up as particulate matter air pollution) and 2.3.4 (groundwater-dependent meadows are a unique habitat that endemic organisms--particularly amphibians, insects, and arachnids as well as some endemic mammals and avian species--require for their continued existence).

Oddly, none of these effects are mentioned in the report, nor are any other potential significant cumulative effects of the project mentioned. For example, cumulative impacts of groundwater pumping in impaired wellfields should also be discussed in the aesthetics section (section 2.3.1) in the context of cumulative effects on vegetation of pumping from exempt wells. Alkali meadows likely appeal far more to the viewing public aesthetically than windblown dust and pedestaled remnants of vegetation--already easily viewed in other areas of the Owens Valley in which ongoing pumping has maintained water tables below rooting zones.

Finally, cumulative potential environmental impacts should be discussed in section 2.3.9, Hydrology and Water Quality. Since pumping for the project proposed is within an area that has already been significantly affected by low water tables, there should be some discussion of how it is that further groundwater pumping in that area, whether deemed "insignificant" in isolation or not, would not contribute to those negative effects, especially if the project requires a pumping exemption in order to proceed.

2. Alternatives to the project to avoid potential significant impacts should be examined. An easy and obvious example would be a project that does not require groundwater pumping to supply "make-up" water for the "mitigation" project. Why have project designers decided that exempting groundwater pumping from an already impaired area is a better option for mitigation than simply using surface water? Does using surface water for the project create a new and significant environmental impact elsewhere in the Owens Valley that pumping groundwater will then ameliorate?

3. The project as described fails to meet CEQA standards for mitigation and should be revised to do so.

Article 20, section 15370 of the California Environmental Quality Act defines "mitigation" as follows:

"Mitigation" includes:

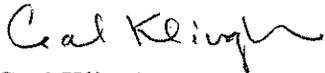
- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- (d) Reducing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

Note: Authority cited: Section 21083, Public Resources Code; Reference: Sections 21002, 21002.1, 21081, and 21100(c), Public Resources Code.

In order to mitigate for the effects of groundwater pumping on the Big Pine region, the regreening project should at least attempt one of the above goals. Goal e, "Compensating for the impact by replacing or providing substitute resources or environments," appears to be the goal that project designers have in mind, but they can only achieve such a goal by "replacing or providing" said resources, not by removing and relocating those resources from some other place within the affected area and compounding the ongoing impacts that this project was supposed to help mitigate.

Many thanks for your time and the opportunity to comment.

Sincerely,


Ceal Klingler

120 Olivia Lane
Big Pine, California 93513
August 26, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope Street, Room 1050
Los Angeles, CA 90012
via email to: nancy.chung@ladwp.com
Hard copy follows.

Re: Initial Study and Negative Declaration for the Big Pine NorthEast Regreening

Dear Ms. Chung:

The following are my comments on the above-referenced document. Contrary to assertions in the Initial Study/Negative Declaration (IS/ND) for the project, biological impacts, and impacts on human beings would be significant and immitigable. An Environmental Impact Report for the Big Pine NorthEast Regreening project must be prepared. Alternatives to the project must be considered.

The purpose of the Regreening is to mitigate for impacts caused by abandoned agriculture and groundwater pumping activities. However, taking water from Well W375 would negate any mitigating effects of irrigating the planned 30 acres, because the pumping would cause further desertification in the vicinity of the well site.

Impacts to Biological resources by water withdrawal from Well W375 would be significant and immitigable. Taking water from Well W375 will cause impacts to groundwater dependent vegetation, and a net loss of groundwater in the Owens Valley, which is already overdrawn. Direct and cumulative impacts to Biological Resources caused by water withdrawal from Well W375 are not discussed in the IS/ND.

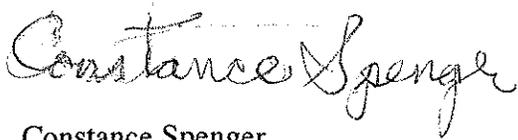
The Mandatory Findings of Significance are false. The Project has the potential to degrade the quality of the environment by the pumping of Well W375, which would cause increased desertification. Pumping water from Well W375, which is already closed due to significant negative environmental impacts, would have direct impacts, and far-reaching cumulative impacts.

The direct and cumulative effect on human beings would be significant. The cone of water depression in the region of the Well W375 reaches into the inhabited areas of Big Pine and the Big Pine Paiute Reservation. In 1910, ground water in the Big Pine area was only 10 feet below the surface of the earth, but now the water table has sunk to 90 feet below ground level. Groundwater in the area around Big Pine has not reached yet reached even the mid-1980s baseline.

Withdrawal of water from Well W375, a closed well, has generated much controversy. Hundreds of local residents signed petitions against the withdrawal. Alternatives to the Project are needed.

Thank you for your consideration.

Yours Truly,

A handwritten signature in cursive script that reads "Constance Spenger". The signature is written in black ink and is positioned above the printed name.

Constance Spenger

August 27, 2011

Los Angeles Dept. of Water and Power
Environmental Assessment and Planning
Attn: Mrs Nancy Chung
111 No. Hope St, Room 1050
Los Angeles, CA, 90012

Dear Mrs. Chung,

Your agency's Initial Study/Negative Declaration for the Big Pine Northeast Re-greening project is inadequate because the project is contingent on pumping. The project will not adequately mitigate past water management practices in Owens Valley, because groundwater pumping to support the project will continue the decline of the water table in the Big Pine area. As a result, it will cause adverse effects to the environment and on the water supply for people who live in the community. The pumping impacts were not adequately analyzed in your agency's IS/ND, and no alternatives to the project were presented. For DWP to pump and call it "mitigation" for past impacts due to pumping is an insult to the land and the people of Owens Valley.

Sincerely,

Martha S. Hilchert

851 Shahaar ave.

Lone Pine, CA 93545

Ph. 760-8764517

Larry and Ruth Blakely
415 Sierra Grande St.
Bishop, CA 93514

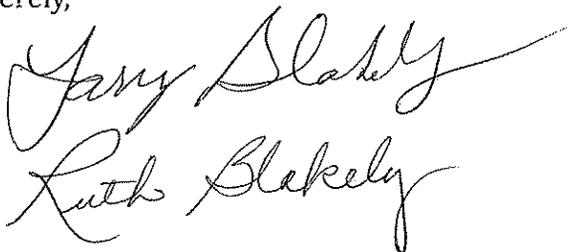
August 23, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung,

The DWP has overexploited the Big Pine wellfield area for many years, leading to environmental degradation. No pumping should occur at Well 375 in this year of water excess, nor in the future, until conditions improve.

Sincerely,

Handwritten signatures of Larry and Ruth Blakely. The signature of Larry Blakely is written above the signature of Ruth Blakely.

August 22, 2011

Los Angeles DWP

Environmental Assessment and Planning

ATTN: Ms Nancy Chung

111 No. Hope St. Room 1050

Los Angeles, CA 90012

Dear Ms Chung,

Your agency's Initial Study/Negative Declaration for the Big Pine Northeast Regreening Project is inadequate. Ground water pumping to support the project will continue the decline of the water table in the Big Pine area. As a result it will cause adverse effects to the environment and on the water supply for people who live in the community.

Since the early 1970's I have seen the plants and trees in the northeast portion of Big Pine dry up and die. Where there once was sage, willow, rabbittbrush, locust trees and cottonwood trees is now a dry desert that only tumbleweeds grow on. This condition adds to the already horrible dust storms we endure through most of the year. Big Pine should be regreened and the water mining should stop now before more and more of the environment around Big Pine is destroyed.

The DWP takes more than its fair share of our water as it is! The regreening project should be completed without the pumping!

Sincerely,

A handwritten signature in cursive script that reads "Pamela Mallory".

Pamela Mallory

PO Box 425

Big Pine, CA 93513

August 22, 2011

Los Angeles DWP

Environmental Assessment and Planning

ATTN: Ms Nancy Chung

111 No. Hope St. Room 1050

Los Angeles, CA 90012

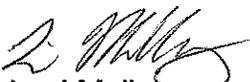
Dear Ms Chung,

Your agency's Initial Study/Negative Declaration for the Big Pine Northeast Regreening Project is inadequate. Ground water pumping to support the project will continue the decline of the water table in the Big Pine area. As a result it will cause adverse effects to the environment and on the water supply for people who live in the community.

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The DWP takes more that it's fair share of our water as it is! The regreening project should be completed without the pumping!

Sincerely,


Levi Mallory

PO Box 425

Big Pine, CA 93513

August 22, 2011

Los Angeles DWP

Environmental Assessment and Planning

ATTN: Ms Nancy Chung

111 No. Hope St. Room 1050

Los Angeles, CA 90012

Dear Ms Chung,

Your agency's Initial Study/Negative Declaration for the Big Pine Northeast Regreening Project is inadequate. Ground water pumping to support the project will continue the decline of the water table in the Big Pine area. As a result it will cause adverse effects to the environment and on the water supply for people who live in the community.

Since the early 1970's I have seen the plants and trees in the northeast portion of Big Pine dry up and die. Where there once was sage, willow, rabbitbrush, locust trees and cottonwood trees is now a dry desert that only tumbleweeds grow on. This condition adds to the already horrible dust storms we endure through most of the year. Big Pine should be regreened and the water mining should stop now before more and more of the environment around Big Pine is destroyed.

The DWP takes more than its fair share of our water as it is! The regreening project should be completed without the pumping!

Sincerely,



Daya Rose Sepsey

PO Box 425

Big Pine, CA 93513

401 E. YANEY ST.
BISHOP, CA 93514
(760) 873-3790
smanning@telis.org

August 28, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung,

**Subject: Comments on Initial Study/Negative Declaration for the proposed
Big Pine Northeast Regreening project**

Los Angeles Department of Water and Power's (LADWP's) Initial Study/Negative Declaration (IS/ND) for the proposed Big Pine Northeast Regreening mitigation project (BP NE Rgr) is inadequate for many reasons, including the following:

- The project description is flawed because the project as described fails to qualify as true mitigation. The 1991 EIR¹ to the Long Term Water Agreement (LTWA) identified groundwater pumping impacts in the Big Pine area and called for mitigation. It is one thing for LADWP to "mitigate" those impacts by "regreening" a small pasture, but it is contrary to the concept of mitigation to do so by pumping an equivalent amount of water for export from the Big Pine area. Big Pine and the entire Owens Valley clearly deserve environmental remedies for impacts caused by LADWP's water gathering. By regreening 30 acres, LADWP makes an anemic attempt to mitigate, but the attempt is negated by the requirement to pump to make up water supplied to the regreening. There is no net environmental gain: The project fails to qualify as mitigation.
- Because a required component of the project is pumping make-up water from Well 375, and because there could be adverse effects as a result of pumping the well, the full effects of pumping need to be disclosed in an EIR under CEQA. Data, reports, analyses, and other documentation are available and must be used to present a more thorough analysis of operating Well 375. Instead, LADWP used in the IS/ND a self-declared inadequate memorandum from Inyo County Water Department as the only analysis of possible impacts. That memorandum fails to disclose the extent of impacts created by Well 375.
- Project alternatives must also be developed and presented in the EIR. As suggested in the memorandum prepared by Inyo County Water Department, there are other ways to implement the project besides pumping Well 375. A "no project" alternative (in this case, mitigation without additional pumping) must also be included.

¹ City of Los Angeles and County of Inyo. 1991. Water from the Owens Valley to supply the second Los Angeles Aqueduct: 1970 to 1990, and 1990 onward, pursuant to a long term groundwater management plan, Final Environmental Impact Report. State Clearing House no. 89080705.

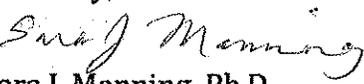
- The LTWA is mentioned in the text of the IS/ND, yet it is omitted from Section 2.3.10 even though it's a land management policy specifying the goal of avoiding adverse environmental changes throughout Owens Valley.
- The Inyo County Water Department July 2010 analysis of pumping Well 375 fails to refer to the LTWA or to existing data and analyses, including peer-reviewed ecological literature, which document the relationship between pumping and vegetation change. With regard to Well 375, the Inyo County Water Department analysis disclosed only the projected water table declines at the location of the well and at an unspecified location under the Big Pine Indian Reservation. Clearly if Well 375 affects the Reservation, which is located about 2 miles from the well, drawdown from the well will be extensive, and effects may be both direct and cumulative. The full extent of the pumping effects must be disclosed in an EIR.
- Well 375 is currently in Off status because of depleted soil water at permanent monitoring site BP2. Sadly, facts such as this were not presented in the IS/ND or in Inyo County Water Department's memorandum. Pumping a well linked to BP2 is a clear violation of the LTWA. Pumping will interfere with soil water recovery and result in a permanent adverse environmental impact at BP2.
- The purpose of the On/Off monitoring sites is to protect groundwater-dependent vegetation. Vegetation in the parcel in which Well 375 and BP2 are located has been in poor condition since the mid 1980s, the LTWA's baseline period for vegetation (see map and data from Inyo County Water Department 2010 Annual Report attached to this letter). Low vegetation cover persists and weeds now dominate parts of the parcel in wet years, suggesting it is converting from groundwater to precipitation dependence.
- The Inyo County Water Department July 2010 analysis of pumping Well 375 makes this assertion: "predicted drawdown from W375 is too small to measurably affect the phreatophytic communities in the vicinity of the well (Figure 4), and is therefore considered insignificant." There are several problems with this statement. First, it fails to disclose the projected extent of drawdown created by Well 375. Why is the statement limited to "the vicinity of the well"? In their memorandum, only Figure 1 is a map, but it shows no information useful for understanding the extent of regional water table drawdown and the implications for phreatophytic vegetation. The text and Figure 4 project how Well 375 will affect the water table in two small locations. Another problem with the memo's statement is the assertion regarding significance. Other reports by Inyo County Water Department, including their most recent annual report available on their website, show the phreatophytic vegetation surrounding Well 375 is "significantly below baseline" (see map and data attached to this letter). Determining significance under the LTWA may require a lengthy Technical Group process which has not taken place.
- The drawdown created by Well 375 will result in significant adverse environmental impacts. Regardless of any joint political determination made by LADWP and Inyo County, and contradictory to the memo's assertion of insignificance, research presented in a peer-reviewed ecological study shows a strong correlation between declines in water table and

vegetation up to a threshold point². The researchers demonstrated with statistical significance that declines in the water table result in declines in vegetation cover, not increases in, or “no effect” on, vegetation. The environmental “significance” of such changes must be examined in light of all other considerations, such as the already-measured declines and cumulative effects, and not be arbitrarily designated by opinion of an anonymous memo writer.

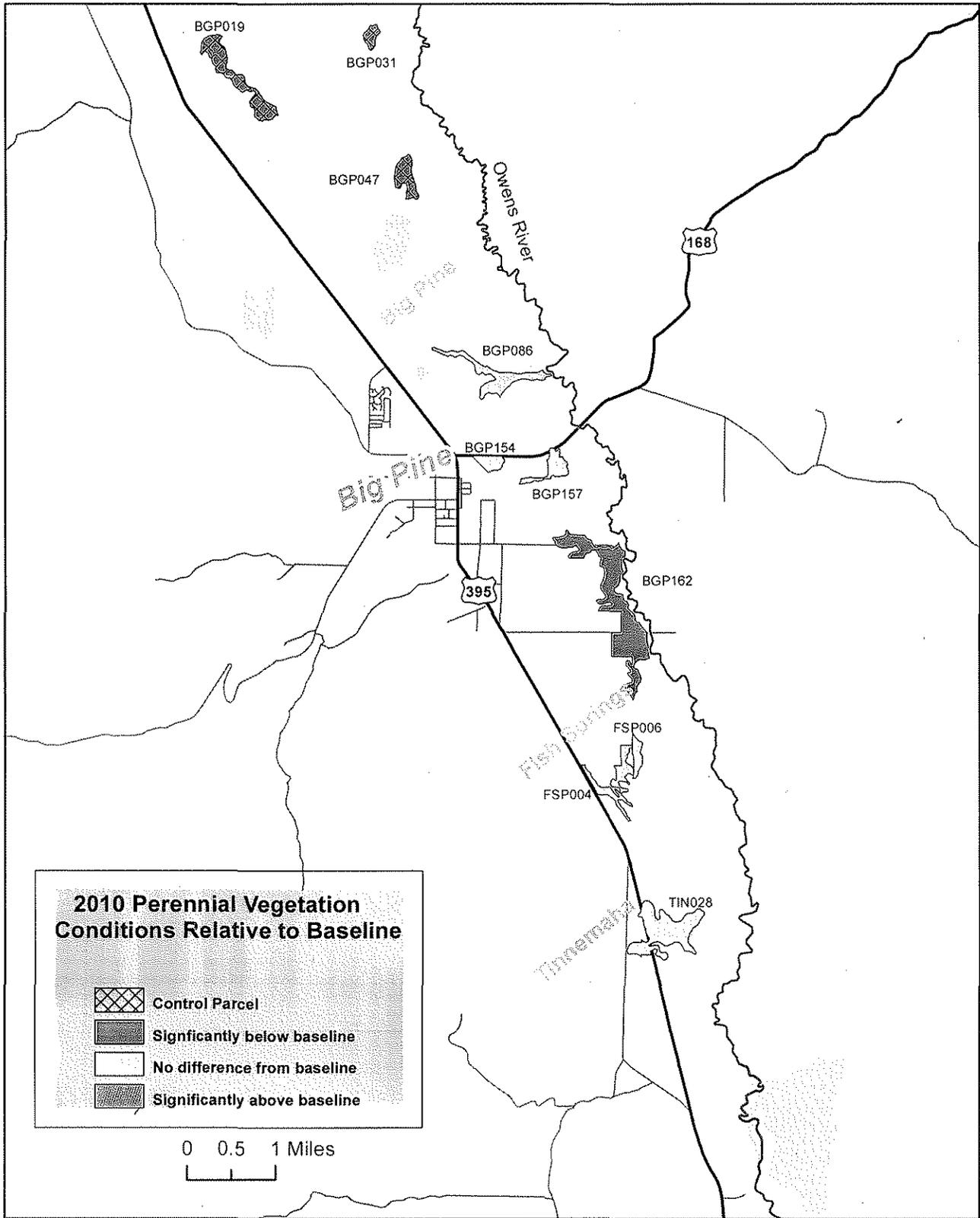
- The project would require the Inyo/LA Technical Group to *exempt* Well 375. Therefore, the EIR must look at effects of well exemptions, especially for the Big Pine area. Already, the bulk of annual pumping occurring in LADWP’s Big Pine wellfield comes from exempt wells. Exempt wells located at Fish Springs hatchery suck more than 20,000 ac-ft/yr of water from the area and nearly all the water is exported southward. This chronic pumping for 40 years has adversely affected water levels and the environment several miles from the hatchery, and it prevents snowmelt runoff from recharging the Big Pine aquifer in a meaningful way. Can LADWP present even one good reason why an additional well exemption is necessary?
- LADWP’s EIR on the BP NE Rgr needs to examine cumulative impacts of regional pumping. Ironically, if done correctly using all available data and gathering public input, LADWP will learn that, not only will pumping Well 375 result in impacts, but the pumping that has occurred since the 1991 EIR has caused additional adverse impacts to the Big Pine area environment that, in turn, will require mitigation. In other words, by proposing to pump Well 375, LADWP’s appropriate CEQA analysis will reveal a much bigger problem. This fact alone should be grounds for removing the requirement to pump Well 375 as a necessary component of the BP NE Rgr project.
- Another reason the IS/ND is inadequate is because it fails to disclose the extent and content of public concern to date over this project and its requirement to pump make-up water. In August and November 2010, a revision to the BP NE Rgr project scope went before the Inyo/LA Standing Committee. There was an uproar in Big Pine over the revised project scope. Many local citizens signed petitions, attended meetings, voiced concerns, wrote letters to the newspaper, etc., and virtually all public comment was in opposition to the need for make-up water for the project. CEQA must disclose areas of known controversy, but LADWP ignored this requirement in the IS/ND.

In conclusion: LADWP needs to prepare an EIR to evaluate the full effects of this project, which, as described, could have significant adverse effects on the environment due to the requirement to exempt and pump Well 375. Were LADWP to drop the requirement for make-up water, then a CEQA Negative Declaration to assess the potential impacts of regreening the 30 acres with surface water might be sufficient. I look forward to reviewing LADWP’s second attempt to fulfill CEQA with regard to the BP NE Rgr project.

Sincerely,


Sara J. Manning, Ph.D.

² Elmore, A. J., S. J. Manning, J. F. Mustard, and J. M. Craine. 2006. Decline in alkali meadow vegetation cover in California: the effects of groundwater extraction and drought. *Journal of Applied Ecology* 43:770-779.



BGP162
Nevada Saltbush Scrub (Type B)

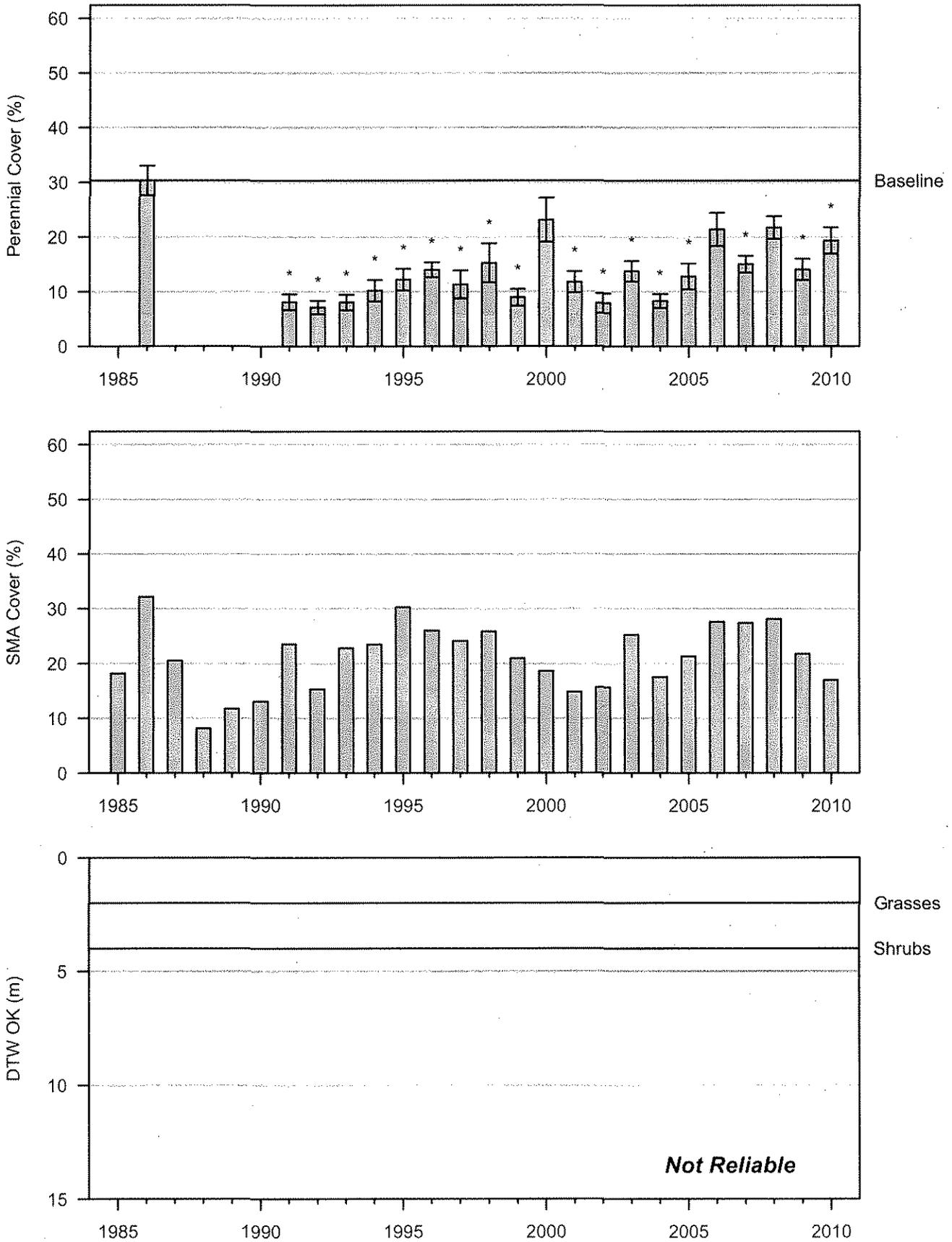


Figure 11: 2010 Wellfield



BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY
Big Pine Paiute Indian Reservation

September 30, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 North Hope Street, Room 1050
Los Angeles, CA 90012

Dear Ms. Chung:

Subject: Qualifications for Big Pine Paiute Tribe's comments on
Big Pine Northeast Regreening project Initial Study/Negative Declaration

The Big Pine Paiute Tribe of the Owens Valley (Tribe) submitted a letter dated August 26, 2011, on the above-noted project. The Tribe herein informs Los Angeles Department of Water and Power that the Tribe's comment letter was prepared by the Tribal Environmental Director, Dr. Sally Manning, then reviewed by Tribal Council and staff prior to sending. As demonstrated in the attached letter and *curriculum vitae*, Dr. Manning is an expert with regard to Owens Valley ecology and water issues. Please enter these qualifications into the Environmental Review Record for this project.

Sincerely,

Virgil Moose
Tribal Chairperson

Attachments: Manning letter
Manning curriculum vitae

Big Pine Tribal Office
P.O. Box 700 • 825 South Main Street • Big Pine, CA 93513
Phone: 760-938-2003 • Fax: 760-938-2942

401 E. YANEY ST.
BISHOP, CA 93514
(760) 873-3790
smanning@telis.org

September 30, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung:

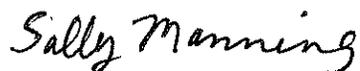
Subject: Qualifications for Dr. Sara J. "Sally" Manning

It appears from our email and phone correspondence that you understand that, in my current capacity as Environmental Director for the Big Pine Paiute Tribe of the Owens Valley (Tribe), I supplied the technical, ecological, and Inyo/LA Water Agreement information included in the Tribe's August 26, 2011, comment letter on the Big Pine Northeast Regreening Initial Study/Negative Declaration. The Tribe's letter was reviewed by the Tribal Council and staff members, then signed by Chairperson Virgil Moose. In addition, I submitted a personal comment letter dated August 28. Neither letter advised you of my qualifications with regard to the subject matter. With this letter, I submit my *curriculum vitae* for the record.

Many years of productive experience in Owens Valley show I am very well-qualified to comment on the region's ecology and hydrology as well as matters addressed by the Los Angeles Department of Water and Power (LADWP) and Inyo County. I performed my Ph.D. dissertation research in Owens Valley, and I spent 24 consecutive field seasons with Inyo County Water Department. At the end of 2008, I retired from Inyo County. Since then, and in my work with the Tribe, I have continued to be very actively involved in the Inyo/LA issues.

Should you have any questions regarding my experience and qualifications, please contact me.

Sincerely,



Sara J. "Sally" Manning, Ph.D.

Enclosure: *curriculum vitae*

Sara J. "Sally" Manning, Ph.D.
Certified Senior Ecologist (Ecological Society of America)

<p>Work: Environmental Director Big Pine Paiute Tribe of the Owens Valley P. O. Box 700, 825 S. Main St. Big Pine, CA 93513 (760) 938-2003 ext. 233 s.manning@bigpinepaiute.org</p>	<p>Home: 401 E. Yaney St. Bishop, CA 93514 (760) 873-3790 smanning@telis.org</p>
--	---

EDUCATION

Ph.D. in Botany, University of California, Davis, CA. 1992. Major Professor: Dr. Michael G. Barbour.
Dissertation title: Competition for water between two desert shrubs, *Haplopappus cooperi* and *Chrysothamnus teretifolius*, in the Owens Valley, California.

M.S. in Botany, University of California, Davis.

B.A., Magna Cum Laude, Phi Beta Kappa, Honors in Biology, Wake Forest University, Winston-Salem, North Carolina. 1980.

Cerro Coso (Bishop, CA) and Diablo Valley (Pleasant Hill, CA) Community Colleges (1981-1996), miscellaneous self-improvement post-college courses: Field Ornithology, California Landscapes, College Physics, Music Appreciation.
graduated Miami Palmetto High School, Miami, Florida.

PROFESSIONAL EXPERIENCE

Summer 2009 – present Environmental Director, Big Pine Paiute Tribe

Responsible for all aspects of environmental management of a small sovereign nation. Duties include training and supervising staff engaged in Solid Waste and Water Quality; grant writing; managing grants and budgets; hiring consultants and project monitoring; preparing environmental ordinances; acquiring, studying, and reviewing environmental documents (EIRs, EISs); organizing and presenting environmental programs to a wide range of audiences and ages; actively interacting with numerous agencies and groups with regard to regional environmental issues; and carrying out other activities related to environmental quality. Recently received training in ESRI GIS (Geographic Information System) software, grants management, air pollution monitoring technology, and hazardous waste emergency response.

Spring 2009 Consulting Botanist

Perform field inventory of plant species and communities, search for rare plants, and collect data using GPS technology.

Spring 2009 Tutor

After-school math and language arts tutoring for K-8 students.

1991 - 2008 Vegetation Scientist, Inyo County Water Department

Duties: direct all vegetation monitoring activities for Inyo County according to general goals of water agreement between County and City of Los Angeles, Department of Water and Power; conduct research projects to improve monitoring and management; collect and analyze field and laboratory data; prepare written and oral technical reports; supervise and train staff of up to 7 research assistants; represent the Water Dept. on all plant-related matters; work closely and coordinate activities with other Water Dept. disciplines (soils, hydrology, GIS); assist in preparation of CEQA documents; present research findings at

professional conferences; frequently lead field trips for college classes, science teachers, and others visiting Owens Valley and contribute extensively to local science education and research projects. Skills: understand concepts of botany, plant ecology, plant physiology, revegetation, and statistics; extensive knowledge of Owens Valley flora, vegetation, ecology, geography and water issues; experience with vegetation mapping, sampling techniques, data analysis, management of invasive species, and state and federal protocols relating to sensitive plants; experience with GIS (ArcView), GPS, spreadsheet and statistical analysis software, word processing, and Power Point; experience with long hours in field, on foot and in 4WD pickup truck; successfully completed California Native Plant Society vegetation rapid assessment training course, 8-hour basic wilderness first aid, and ESRI course in ArcCad (GIS).

RESEARCH INTERESTS

Short- and long-term effects of hydrologic alterations, especially groundwater withdrawal, on Owens Valley vegetation cover, composition and dynamics; ecology of alkali meadow; population dynamics of rare and endangered plant species; control of exotic pest plants; revegetation of disturbed arid lands; phenology and ecophysiology of native shrubs and grasses; field and remote sensing monitoring techniques for detecting vegetation change.

1985 - 1990 Research Assistant, Inyo County Water Department

Duties: (Contract employee) Assist with long-term study of plant responses to groundwater pumping; collect vegetation transect and leaf area data; use pressure chamber and porometer to collect plant physiological data; perform data analysis; assemble and review related published literature; write scientific reports; perform other tasks as assigned.

1990 College Instructor, Prescott College

Taught five unit plant ecology course to Bishop student enrolled in Adult Degree Program.

1989 - 1990 Consulting Botanist and Researcher

Performed field inventories of plant species and communities, searches for rare plants, and mapping of botanical resources in Coso Mountains (Inyo County) and Mammoth Lakes (Mono County). Inventoried vegetation and produced detailed vegetation map for native grasslands at Hungry Valley Off Highway Vehicle Park (California State Parks, Los Angeles County). Performed preliminary assessment of revegetation success at all California State Park system's Off Highway Vehicle parks.

1981 - 1988 Teaching and Research Assistant, University of California, Davis

Courses taught: Plant Ecology, Plant Physiology, Phycology, General Botany, General Biology.

GRANTS AND AWARDS

(Currently serve as Environmental Director, Big Pine Paiute Tribe. All work of Tribal Environmental Department is grant-funded. Frequently apply for and receive funding from U. S. Environmental Protection Agency and U. S. Bureau of Reclamation.)

Grant awarded February 1997: The dynamics of a semi-arid region in response to climate and water-use policy. Dr. John F. Mustard (Brown University, Providence, RI), Principal Investigator; Co-Investigators: Drs. Steve Hamburg, John A. Grant, Sara J. Manning, Aaron Steinwand, and Mr. Chris Howard. Three year award of \$358,548 from NASA Office of Mission to Plant Earth, Land Cover and Land Use Change section.

1983-1988: University of California, Davis, various graduate research and travel awards, including being selected to participate in Organization for Tropical Studies Costa Rica graduate ecology course. Also, University of California White Mountain Research Station Graduate Research Awards.

1979: Wake Forest University, selected to participate in Biology Department course and trip to Galápagos Islands and Ecuador (including the Andes Mountains and Amazon basin).

MEMBERSHIPS AND COMMITTEES

Ecological Society of America; California Native Plant Society (member of statewide Vegetation Committee since 1991; member of statewide Rare Plant Committee); Southern California Botanists; (UC) Davis Botanical Society.

Local Memberships: Audubon; League of Women Voters Eastern Sierra; Eastern Sierra Land Trust; Mono Lake Committee; Eastern Sierra Wildlife Care.

Executive Boards: CNPS Bristlecone Chapter (Secretary, Vice President, and other Board positions, 1989-present); Eastern Sierra Institute for Collaborative Education (Secretary, 1998-2003); Inyo County Employees Association/AFSCME Local 315 (Secretary, 2005-2008).

PUBLICATIONS

Pritchett, D. and S. J. Manning. (in review). Response of an intermountain groundwater-dependent ecosystem to water table drawdown.

Manning, S. J. (in press). Groundwater pumping effects on native vegetation in Owens Valley: A solution for long-term management. Proceedings of California Native Plant Society Conservation Conference: Strategies and Solutions. January 2009. Sacramento, CA

Pritchett, D. and S. J. Manning. 2009. Effects of fire and groundwater extraction on alkali meadow habitat in Owens Valley, California. *Madroño*. 56: 89-98.

Elmore, A. J., J. F. Mustard, S. P. Hamburg, and S. J. Manning. 2006. Agricultural legacies in the Great Basin alter vegetation response to precipitation and vegetation composition. *Ecosystems*. 9: 1231-1241.

Elmore, A. J., S. J. Manning, J. F. Mustard and J. M. Craine. 2006. Decline in alkali meadow vegetation cover in California: the effects of groundwater extraction and drought. *Journal of Applied Ecology*. 43:770-779.

Elmore, A. J., J. F. Mustard, and S. J. Manning. 2003. Regional patterns of Great Basin community response to changes in water resources: Owens Valley, California. *Ecological Applications*. 13(2): 443-460.

Elmore, A. J., J. F. Mustard, S. J. Manning, and D. B. Lobell. 2000. Quantifying vegetation change in Owens Valley, CA using spectral mixture analysis and the normalized difference vegetation index. *Remote Sensing of Environment*. 73:87-102.

Manning, S. J. 1999. The effects of water table decline on groundwater-dependent Great Basin plant communities in the Owens Valley, California. pp. 231-237 in: E. D. McArthur, W. K. Ostler, C. L. Wambolt, compilers, Proceedings: Shrubland Ecotones. August 12-14, 1998, Ephraim, UT.

- Proceedings RMRS-P-11. Ogden, UT: U. S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Manning, S. J., B. L. Cashore and J. M. Szewczak. 1996. Pocket gophers damage saltcedar (*Tamarix ramosissima*) roots. *Great Basin Naturalist*. 56(2).
- Steinwand, A. L. and S. J. Manning. 1996. (abstract) Environmental protection and groundwater management in the Owens Valley, California. 1996 Soil and Water Conservation Society Annual Conference Abstracts. *J. Soil Water Cons.* 51:368.
- Yamashita, I. S. and S. J. Manning. 1995. Results of four revegetation treatments on barren farmland in the Owens Valley, California. pp. 142-147 in: B. A. Roundy, E. D. McArthur, J. S. Haley, and D. K. Mann, compilers, Proceedings: Wildland shrub and arid land restoration symposium, October 19-21, 1993, Las Vegas, Nevada. USDA Forest Service Gen. Tech. Rep. INT-GTR-315. Intermountain Research Station, Ogden, Utah.
- Manning, S. J., D. W. Pritchett and M. O. Bagley. 1995. Noteworthy collections: California. *Ranunculus hydrocharoides*. *Madrono*. 42(4): 515-516.
- Manning, S. J. 1994. Changes in Owens Valley vegetation due to groundwater pumping and six years of drought. *Crossosoma*. 20(1): 1-16.
- Manning, S. J. 1992. Describing and managing Owens Valley vegetation according to water use. pp. 156-170 in: C. A. Hall, Jr., V. Doyle-Jones, and B. Widawski, eds., *The history of water: Eastern Sierra Nevada, Owens Valley, White-Inyo Mountains*. White Mountain Research Station Symposium vol. 4.
- Manning, S. J. and D. P. Groeneveld. 1990. Shrub rooting characteristics and water acquisition on xeric sites in the western Great Basin. pp. 238-244 in: E. D. McArthur, E. M. Romney, S. D. Smith, and P. T. Tueller, eds., Proceedings -- Symposium on cheatgrass invasion, shrub die-off, and other aspects of shrub biology and management. U. S. D. A. Forest Service Intermountain Research Station. Gen. Tech. Rep. INT-276.
- Manning, S. J. 1990. The relative effects of biotic and abiotic factors on growth and productivity of two Owens Valley shrubs: *Haplopappus cooperi* and *Chrysothamnus teretifolius*. pp. 21-34 in: C. A. Hall, Jr., V. Doyle-Jones, and B. Widawski, eds., *Natural history of Eastern California and High-altitude research*. White Mountain Research Station Symposium vol. 3.
- Sage, R. F., S. J. Ustin and S. J. Manning. 1989. Boron toxicity in the rare serpentine plant *Streptanthus morrisonii*. *Environmental Pollution*. 61: 77-93.
- Manning, S. J. 1988. Competition for water between two desert shrubs: The roots of the matter. pp. 30-36 in: C. A. Hall, Jr. and V. Doyle-Jones, eds., *Plant biology of Eastern California*. White Mountain Research Station vol. 2, Mary DeDecker Symposium.
- Manning, S. J. and M. G. Barbour. 1988. Root systems, spatial patterns, and competition for soil moisture between two desert subshrubs. *American Journal of Botany*. 75: 885-893.

TECHNICAL REPORTS

Manning, S. J. April 3, 2007. Status of re-inventoried vegetation parcels according to the Drought Recovery Policy, 2006. Draft Inyo County Water Department report.

Manning, S. J. March 2, 2007. Linear regression based prediction of total vegetation cover in 2010 given various estimates of water table in 2010. Draft Inyo County Water Department report.

Manning, S. J. May 9, 2006. Status of re-inventoried vegetation parcels according to the Drought Recovery Policy, 2005. Inyo County Water Department report.

Manning, S. J. March 1, 2006. Landsat cover data for the Lyman Ditch area. Inyo County Water Department report.

Manning, S. J. February 8, 2006. Change in shrub cover at permanent monitoring sites. Inyo County Water Department report.

Manning, S. J. January 9, 2006. Conversion of reinventoried parcels from meadow to scrub. Inyo County Water Department report.

Manning, S. J. September 9, 2005. Simple linear regression analysis of reinventoried parcels. Draft Inyo County Water Department report.

Manning, S. J. April 27, 2005. Status of re-inventoried vegetation parcels according to the Drought Recovery Policy, 2004. Inyo County Water Department report.

Manning, S. J. June 15, 2004. A model for Alkali Meadow cover response based on Landsat, water table, and precipitation data from 47 Owens Valley Alkali Meadow sites. Inyo County Water Department report.

Manning, S. J. May 26, 2004. Status of re-inventoried vegetation parcels according to the Drought Recovery Policy, 2003. Inyo County Water Department report.

Manning, S. J. March 25, 2004. Irrigation and vegetation cover in a Laws pasture. Draft Inyo County Water Department report.

Manning, S. J. April 7, 2003. Factors affecting *Atriplex torreyi* survival and growth: Analysis of Mazourka Canyon Road recruitment site data. Inyo County Water Department report. 48p.

Manning, S. August 23, 2002. Alabama Hills parcel, precipitation, and Lone Pine pumping. Memorandum from S. Manning to Inyo County Water Department staff. 4p.

Manning, S. J. June 2002. Vegetation conditions in monitored Owens Valley parcels in 2001. Draft Inyo County Water Department report.

Manning, S. April 24, 2002. Data from Landsat for selected parcels. Inyo County Water Department Memorandum Report to Greg James. 12p.

Manning, S. April 8, 2002. Regression results for 15 Laws re-inventoried parcels. Inyo County Water Department Memorandum Report to Greg James. 30 p.

Manning, S. April 1, 2002. Records of Laws area monitoring wells, 1981-2001. Memorandum Report to Inyo County Water Department staff. 15 p.

- Manning, S. J. February 2002. Classification of re-inventoried vegetation parcels according to the Drought Recovery Policy, 2001. Inyo County Water Department report. 125 p.
- Manning, S. September 2001. 2001 line point transect locations: Recommended omissions of outliers. Inyo/LA Technical Group Report.
- Manning, S. J. September 2001. Report on 2001 perennial vegetation conditions in Bairs Georges wellfield parcel Manzanar 37: Evidence that vegetation is still subject to the Drought Recovery Policy. Inyo/LA Technical Group Report. 22p.
- Manning, S. J. August 2001. Vegetation conditions in monitored Owens Valley parcels in 2000. Inyo/LA Technical Group Report. 85p.
- Manning, S. May 2001. A model for Owens Valley vegetation change. 6p.
- Manning, S. J. March 2001. The 2000 Status of Owens Valley vegetation parcels according to the Drought Recovery Policy. Inyo/LA Technical Group report. 188p.
- Manning, S. J. October 2000. Vegetation information for dispute resolution regarding operation of the McNally Canals. Appendix 1. In: Notice of dispute – Operation of McNally Canals, October 13, 2000.
- Manning, S. April 2000. Summary of 1999 perennial cover and life form changes in parcels inventoried with line-point transects. Inyo/LA Technical Group report.
- Manning, S. March 2000. The status of Owens Valley vegetation parcels according to the Drought Recovery Policy. Inyo/LA Technical Group report.
- Manning, S. April 1999. Summary of 1998 perennial cover and life form changes in parcels inventoried with line-point transects. Inyo/LA Technical Group report.
- Inyo County Water Dept. Staff. March 1999. (Draft) Condition of selected vegetation parcels and assessment according to the drought recovery policy. Inyo/LA Technical Group report.
- Manning, S. May 1998. Results of 1997 vegetation re-inventory. Inyo/LA Technical Group report.
- Manning, S. November 1997. Plant communities of LADWP land in the Owens Valley: An exploratory analysis of baseline conditions. Inyo/LA Technical Group report. 160 pp.
- Waterbury, D., S. Manning and I. Yamashita. August 1997. Germination of Owens Valley seeds: 1996 final test results. Inyo/LA Technical Group report.
- Manning, S. March 1997. Line Point data analysis, 1996: Overview. Inyo/LA Technical Group report.
- Yamashita, I. S. and S. J. Manning. May 1996. Using plant shelters to increase plant establishment. Inyo/LA Technical Group report.
- Waterbury, D., S. Manning and I. Yamashita. March 1996. Germination tests of Owens Valley seeds: 1995 test results. Inyo/LA Technical Group report.

- Yamashita, I. S. and S. J. Manning. January 1996. Monitoring results of four revegetation treatments on barren farmland in the Owens Valley, Calif. -- 1995 progress report. Inyo/LA Technical Group report.
- Manning, S. July 1995. Shrub Recruitment 1994: A report to the Inyo/LA Technical Group on results of monitoring for recruitment at permanent monitoring sites. Inyo/LA Technical Group report.
- Manning, S. July 1995. Mazourka Canyon Road recruitment site: Report on findings 1992-1994. Inyo/LA Technical Group report.
- Yamashita, I. S. and S. J. Manning. March 1995. Monitoring results of four revegetation treatments on barren farmland in the Owens Valley, Calif. -- 1994 Progress Report. Inyo/LA Technical Group report.
- Manning, S. March 1995. Report on 1994 rare plant site visits. Inyo/LA Technical Group report.
- Waterbury, D., S. Manning and I. Yamashita. February 1995. Germination tests of Owens Valley seeds: 1994. Inyo/LA Technical Group report.
- Manning, S. July 1994. Shrub recruitment 1991-1993: Results from permanent monitoring sites; update on Mazourka Canyon Road *Atriplex torreyi*; recommendations for future recruitment monitoring. Inyo/LA Technical Group report.
-
- Manning, S. January 1994. Report on 1993 rare plant site visits and proposal for future monitoring of rare plants consistent with the goals of the Water Agreement. Inyo/LA Technical Group report.
- Waterbury, D., I. Yamashita and S. Manning. December 1993. Germination tests of Owens Valley seeds. Inyo/LA Technical Group report.
- Yamashita, I. S. and S. J. Manning. March 1993. Laws revegetation project - 1992 progress report. Inyo/LA Technical Group report.
- Manning, S. November 1992. Report on Enhancement/Mitigation vegetation. Inyo/LA Technical Group report.
- Manning, S. February 1992. 1991 Leaf Area Trend. Inyo/LA Technical Group report.
- Manning, S. February 1992. Measuring vegetation change: Preliminary report. Inyo/LA Technical Group report.
- Manning, S. October 1991. Analysis of Vegetation Change in the Laws Area, 1987-1991. Inyo/LA Technical Group report.
- Manning, S. J. and M. G. Barbour. 1989. The Hungry Valley Native Grasslands Management Area: botanical studies, current status, and management alternatives. Report submitted to State of California, Department of Parks and Recreation.
- Groeneveld, D. P., D. C. Warren, P. J. Hubbard, I. S. Yamashita, and S. J. Manning. 1986. Transpiration processes of shallow groundwater shrubs and grasses in the Owens Valley, California. Phase 2: soil water changes and plant responses induced by altered depth to the watertable. Cooperative

Plant Water Use Study jointly conducted by: Los Angeles Department of Water and Power and Inyo County.

PROFESSIONAL PRESENTATIONS AND POSTERS (Actual presenter in bold)

Pritchett, D. and S. J. Manning. 2009. Managing drought: A case study in Owens Valley, California. Water-Ecosystem Services, Drought, and Environmental Justice. The 1st Millennium Conference of the Ecological Society of America. November 9-12, 2009, The Georgia Center, Athens, Georgia. #5 Online at http://www.esa.org/millenniumconf/2009/case_studies.php

Ecological Society of America. August 2009. Albuquerque, NM. Groundwater extraction, fire, and desertification: A case study in Owens Valley, CA. **D. W. Pritchett** and S. J. Manning. Ecological Society of America program abstracts: <http://eco.confex.com/eco/2009/techprogram/P18290.HTM>

Ecological Society of America. August 2004. Portland, OR. Using remote sensing to detect land-use legacies in Owens Valley, California: Plant Community responses to varying precipitation. **A. J. Elmore**, J. F. Mustard, S. P. Hamburg, and S. J. Manning. Ecological Society of America abstracts vol. 89.

Ecological Society of America. August 2002. Tucson, AZ. Response of groundwater dependent vegetation to precipitation and rising water table following drought in Owens Valley, California. **S. J. Manning.** Ecological Society of America abstracts vol. 87.

American Geophysical Union. Spring 2001. Land cover and land use change in a water controlled environment. **A. J. Elmore**, J. F. Mustard, and S. J. Manning. Supplement to EOS, Transactions, AGU 82:20

USGS Workshop: Impacts of climate change on landscapes of the eastern Sierra Nevada and western Great Basin. September 2000. Bishop, CA. Effects of groundwater pumping on phreatophytic plant communities in the Owens Valley, California. **S. Manning.** U. S. Geological Survey Open-File Report 01-202. p. 19.

Ecological Society of America. August 2000. Snowmass, UT. Semi-Arid Plant Community Response to Drought and Land Use at the Regional Scale. **A. J. Elmore**, J. F. Mustard, and S. J. Manning.

American Geophysical Union. November 16, 1999. San Francisco, CA. Effects of water table fluctuations on phreatophytic plant communities in the Owens Valley, California. **S. J. Manning** and R. F. Harrington. Supplement to EOS, Transactions, AGU 80:46, (Presentation December 17, 1999)

Ecological Society of America. August 1999. Spokane, WA. Patterns of vegetation response to groundwater pumping detected with field monitoring and Landsat TM data. **S. J. Manning**, J. F. Mustard and A. J. Elmore.

Ecological Society of America. August 1999. Spokane, WA.. Precision and accuracy of remotely sensed data for quantitative analysis of vegetation change in a semi-arid region. **A. J. Elmore**, J. F. Mustard, S. Manning, and D. Lobell.

Wildland Shrub Symposium: Shrubland Ecotones. August 1998. Ephraim, UT. The effects of water table decline on groundwater-dependent Great Basin plant communities in the Owens Valley, California. **S. J. Manning**.

Changing Water Regimes in Drylands. June 1997. Lake Tahoe, CA. A decade of monitoring vegetation response to groundwater pumping in the Owens Valley, California. **S. J. Manning** and A. L. Steinwand.

Soil Science Society of America. November 1996. Indianapolis, IN. Groundwater utilization by Nevada saltbush in the presence of deep and shallow water tables. **A. L. Steinwand**, **S. J. Manning** and D. Or. (Agronomy Abstracts)

Wildland Shrub Symposium and Arid Land Restoration Symposium. October 1993. Las Vegas, NV. The effects of irrigation, fertilizer, weed control, and density on the survival and growth of *Atriplex canescens* on barren farmland in the Owens Valley, California. **I. Yamashita** and **S. Manning**.

Wildland Shrub Symposium and Arid Land Restoration Symposium. October 1993. Las Vegas, NV. Effects of simulated rainfall on a stand of *Atriplex torreyi* in the Owens Valley, California. **S. J. Manning**.

ORAL PRESENTATIONS BY INVITATION

Owens Valley hydroecology field trip. May 31, 2011; June 1, 2010, and June 3, 2009. Invited leader, for visiting classes from Urban School, San Francisco, CA.

Owens Valley Groundwater Pumping and why it matters. February 23, 2011. Invited speaker, Environmental Studies and Biology classes (2 presentations). Bishop Union High School, Bishop, CA.

Owens Valley Alkali Meadows. The effects of groundwater pumping and why it matters. July 2, 2010. Invited speaker, Inyo-Mono Youth Conservation Corps. Bishop, CA.

Owens Valley Alkali Meadows. The effects of groundwater pumping and why it matters. May 19, 2009. Invited speaker, Deep Springs College. Deep Springs, CA.

Groundwater pumping in Owens Valley: the local perspective. April 2009. Invited speaker, California State University Long Beach, visiting environmental studies class, White Mountain Research Station, Bishop, CA. Also, April 2010 and scheduled for October 2011.

Groundwater pumping effects on native vegetation in Owens Valley. January 17, 2009. Invited speaker, California Native Plant Society Conservation Conference: Strategies and Solutions. Sacramento, CA.

Owens Valley Alkali Meadows and the effects of groundwater pumping. December 8, 2007. Invited speaker, California Native Plant Society Chapter Council meeting, Berkeley, CA.

Alkali Meadows and the effects of groundwater pumping. August 25, 2006. Invited speaker, Conservation and Management of Upland Birds and Habitats in Eastern California. California Partners in Flight meeting, University of California White Mountain Research Station, Bishop, CA.

Environmental effects of water export from Owens Valley. August 1, 2006. Invited speaker in symposium entitled: Human Transformation of California: Botany, History, and Sociology. Botany 2006 conference, Chico, CA.

Vegetation and ground water in Owens Valley: Two decades of monitoring change. Invited oral presentation for Mojave Chapter California Native Plant Society. April 20, 2005. Victor Valley College, Victorville, CA.

Perspectives on changes in Owens Valley hydro-ecology during the past 150 years. Invited oral presentation, University of California White Mountain Research Station lecture series. February 17, 2005. Bishop, CA.

Vegetation and ground water in Owens Valley: Two decades of monitoring change. Invited oral presentation for Owens Valley Committee/ California Native Plant Society Bristlecone Chapter public forum. April 22, 2004. Bishop, CA. Also invited and presented to Independence Civic Club, May 3, 2004, Independence, CA.

Vegetation and groundwater. Invited oral presentation for Dartmouth College Environmental Studies field course. March 19, 2004. Bishop, CA.

Effects of groundwater pumping on native vegetation: A report from the plant ecologist stationed at the front lines of a hundred-year water war. Invited oral presentation for Brown University Ecology seminar. September 26, 2002. Providence, RI.

Owens Valley vegetation and the Drought Recovery Policy. Invited oral presentation for Evergreen College, Hydrology field course. March 14, 2002. Bishop, CA.

Owens Valley: A floral and hydrological hotspot. *for* Jepson Herbarium 50th Anniversary Celebration and Scientific Symposium. June 16-18, 2000, University of California, Berkeley.

Vegetation of the Owens Valley and its response to groundwater withdrawal. *for* California Native Plant Society, Channel Islands Chapter. January 19, 2000, Santa Barbara Botanic Gardens.

Monitoring Owens Valley vegetation, field and lecture presentations to University of California undergraduate students. *for* U. C. White Mountain Research Station Environmental Biology Supercourse. Spring Quarters, 1996-2000. Bishop, CA.

Monitoring Owens Valley vegetation, field and lecture presentations to elementary and high school students and science teachers. *for* Eastern Sierra Institute (Inyo County Office of Education). Intermittent since 1991. Bishop, CA.

Inyo County Water Department history and monitoring. *for* Tahoe Baikal Institute. August 1998. Bishop, CA.

Environmental water management in the Owens Valley. March 4, 1995. *for* Southwest State University (Marshall MN). Independence, CA.

Monitoring Owens Valley vegetation. *for* California Native Plant Society, Bristlecone Chapter. January 26, 1994. Bishop, CA.

The Inyo-Los Angeles Cooperative Studies. *for* Society of American Foresters. April 22, 1989. Mammoth Lakes, CA.

Water: the roots of the matter. *for* U. C. White Mountain Research Station Fall Lecture Series. October 6, 1988. Bishop, CA.

Competition for soil moisture between two Owens Valley shrubs. *for* University of California, Davis, Botany Seminar Series. December 2, 1987. Davis, CA.

The role of roots in desert plant interactions: an example using two Owens Valley shrubs. *for* University of California, Santa Barbara Plant Biology Seminar. May 26, 1987.

Also, field trips for University of Pacific, Elderhostel, California Native Plant Society, Water Education Foundation.

THESIS ADVISOR and MISCELLANEOUS EDUCATIONAL

Big Pine Paiute Tribe of the Owens Valley: Numerous presentations for K-12 students: Plants, hydrology, ecology, environmental issues, etc.

Oschrin, Emma and Beca Gallaway. 2008. Regrowth following fire in Owens Valley alkali meadow. Bishop Union High School Honors Biology student project.

Montin, Ashley. 2005. Characterization of a previously undescribed plant/insect interaction in Owens Valley, California. Bishop Union High School Honors Biology student project.

Wilson, Matt and Maggie Profita. 2004. Determination of ring reliability and encroachment of sagebrush and rabbitbrush. Bishop Union High School Honors Biology student project.

Gokaldas, Virali. 1999. Telling a story from the ground up: Land use history and vegetation change in Owens Valley, California. Brown University Undergraduate Thesis.

Research Project advisor, WMRS Environmental Biology "Supercourse" student projects, 1996-2000.

Science Fair /Inventor's Fair Judge. Inyo County schools. Intermittent.

SELECTED VOLUNTEER ACTIVITIES AND HOBBIES

Active in Calif. Native Plant Society, Bristlecone Chapter: Organized volunteers and coordinated with museum to establish the Mary DeDecker Native Plant Garden at the Eastern California Museum, Independence, CA. Dedicated May 2003. Also lead ecology-oriented field trips.

Enjoy: Hiking, Swimming, Backpacking, Natural History, Travel, Physical Fitness, Cooking.

Steven P. McLaughlin and Janice E. Bowers
P.O. Box 819
Big Pine, CA 93513
Phone: 760-938-3140
Email: spmjeb@qnet.com

August 26, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1044
Los Angeles, CA 90012

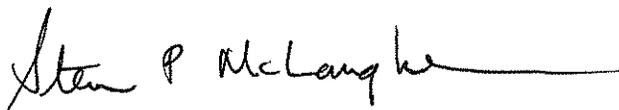
Dear Ms. Chung,

I am concerned that the Initial Study/Negative Declaration for the Big Pine Northeast Regreening project does not adequately address the potential environmental impacts of this project. As I read the document, particularly Section 2.3.4 on Biological Resources, only the impacts on the 30-acre site are discussed. Why is there no treatment of potential impacts from additional groundwater removal from well W375 for "make-up" water?

Most of the current environmental degradation of alkaline meadows in the Owens Valley is associated with pumping from exempt wells. The vegetation in Big Pine parcel 162 (where W375 is located) is significantly below baseline condition (see http://inyowater.org/Annual_Reports/2010_2011/default.htm).

The purpose of the project is supposed to be to mitigate for impacts caused by groundwater pumping. It doesn't seem to make any sense to mitigate such impacts by exempting another well in order to pump water to create a 30-acre cow pasture. I would prefer to see a CEQA analysis that evaluates the current status of Parcel 162, analyzes the affects of additional pumping on this parcel, and evaluates alternatives to the project as proposed. Such alternatives could include no project, and "regreening" without additional groundwater pumping.

Sincerely,





BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY
Big Pine Paiute Indian Reservation

Gary A. Bacock, Tribal Administrator

*E-mail: G.Bacock@BigPinePaiute.org • P.O. Box 700 • 825 South Main Street • Big Pine, CA 93513
Office No. (760) 938-2003 • Fax No. (760) 938-2942*

August 31, 2011

Via email: Nancy.Chung@LADWP.com

Nancy Chung
Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attn: Ms. Nancy Chung
111 N. Hope Street - Room 1050
Los Angeles, CA 90012

To Whom It May Concern,

This letter is in response to the solicitation of comments on the Big Pine Northeast Regreening project. These comments are submitted within the deadline stated by your notices, however, your notices had incorrect information and for some reason you have claimed that you only wanted hard copies and would not accept e-mailed copies. I believe that you cannot deny acceptance of e-mail comments and this document is e-mailed and mailed today, 8/31/11.

I have had many comments on the record from the summer of 2010 to now. This will be a brief summary of those comments, as follows:

Process Violations – To get to this point in the processing of this issue, I believe that you have violated the law and therefore, it is not valid for DWP to continue this process. The Brown Act has been violated consistently by LADWP and by Inyo County in the various stages of recommendations. It is my opinion that every meeting is a violation of law based on the Inyo-LA Water Agreement, the design of the Standing Committee & Technical Group, and the requirements of the Brown Act.

Mitigation – There is no logical explanation to claim that LADWP must mitigate the environmental impacts at this re-greening site and have LADWP entitled to make up water for that mitigation.

Exempt Well #375 – This well is in “Off” status due to the conditions of the environment around the well, and it is not warranted to exempt this well given the location and impact on the environment.

Pumping Impact to the Reservation – The impact of LADWP pumping groundwater to the Tribal Government operations is significant. For this project, the studies conducted by Inyo County indicate a drop in our water table, yet Inyo County declared the impact as “insignificant”. Considering that LADWP has created impacts to the water table at Big Pine for almost a century, any impact to our water table is significant. Since 1928 the water table has been lowered over 65 feet and since 1970 the lowering was about 40 feet. When do you ever consider repair of the water table?

Public Comments – At every meeting that Tribal representatives attended, everyone spoke in opposition to the makeup water requirement in the project and there was no voicing of support for the project from the public.

Negative Declaration – The process selected by LADWP to address the environmental impacts is this “Negative Declaration”, however, from the comments above, it should be clear that this is the wrong method to evaluate environmental impacts. We recommend following the Environmental Impact Report (EIR) process to properly disclose relevant information to evaluate this impact.

Personal Experience – In the 1950’s, 1960’s, and early 1970’s while visiting my grandmother (Lizzie Bacoch, full Paiute) on the reservation just off Bartell Road (now, near the corner of Bartell and North Piper Street), I remember the area as a place that was drying up. When I was rabbit and dove hunting, I would walk to the north and there were many cottonwood trees. However, they were dying or dead due to lack of water for years. I recently found out that Big Pine Creek used to go through that area of the reservation and it was purposely diverted north just prior to the establishment of the reservation in the late 1930’s. By my time, the area had turned into a “desert-like” environment due to the creek diversion and also due to the accumulated pumping that continues today.

Therefore continued long term effects of pumping results in negative impacts to the environment on the Big Pine Paiute Indian Reservation.

If you have any questions you may contact me at (760) 938-2003 or you can e-mail me at G.Bacock@BigPinePaiute.org.

Sincerely,



Gary A. Bacock
Tribal Administrator

Cc: Tribal Council
Gene Coufal, LADWP Bishop
Inyo County Board of Supervisors
Bob Harrington, Inyo County Water Department
Inyo County Water Commission
Bishop Paiute Tribe, Lone Pine Paiute-Shoshone Tribe, Independence Indian Reservation
Owens Valley Indian Water Commission

BISHOP TRIBAL COUNCIL

August 31, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
111 No. Hope St., Room 1050
Los Angeles, CA 90012
Attn: Nancy Chung

Dear Ms. Chung,

Thank you for the opportunity to comment on the Big Pine Northeast Regreening Project. We have reviewed the Initial Study/Negative Declaration (IS/ND) for the project and would like to submit the following comments on behalf of Bishop Paiute Tribe, a sovereign nation whose ancestral territory includes the areas affected by the proposed project.

Groundwater pumping has had a negative effect on the cultural landscape of Owens Valley Paiute-Shoshone people. Where tall grass and seed crops once grew, saltbush and sagebrush now dominate. Regreening Big Pine parcel 162 is a necessary part of the restoration of the land, however pumping more groundwater is not an acceptable alternative. Just like with dust mitigation on Owens Lake, it's the responsibility of land managers such as the Los Angeles Department of Water and Power to take responsibility for the environmental hazards that have resulted from decades of degradation. To improve the visible landscape with resources pumped from the invisible landscape underground does nothing to address the overall health of the ecosystem.

The proposal to "make-up" water for this mitigation project is unacceptable. The IS/ND presents data that the project will lower groundwater in the area around well 375, and this has been deemed insignificant to groundwater dependent vegetation in the area. In our view, a project should have absolutely no cumulative negative effect on the resources and environment of the Owens Valley, including the effects of groundwater pumping, no matter how seemingly insignificant. This project is intended to mitigate the effects of groundwater production for the second LA Aqueduct. It is completely unacceptable that water is proposed to be "made up" through pumping from an existing LADWP well. While this project may have preceded the Long Term Water Agreement, the very fact that this project has been presented as mitigation in the Environmental Impact Report requires that the project be implemented in the broadest definition of *mitigation*; to ensure minimal or no negative immediate or cumulative impacts on the environment however small.

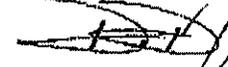
The IS/ND is inadequate. Long-term pumping impacts were not adequately analyzed in the document, and the alternatives to this project were inadequate in examining pumping effects of three pumping localities. Additionally, no alternatives to the project were presented. A broader scope of alternatives should be included, including an alternative for providing water to the project without a provision for "make up water." Public meetings are absolutely necessary for

actions such as the one proposed. No public meetings are scheduled at this time, which is not compliant with CEQA guidelines.

Water is the most important resource in the Owens Valley, for native and non-native people alike. Considering the vegetative community has suffered in the area around Well 375 and there is no recovery plan in place, this project should be subject to the same review as all other projects that have potential to affect the environment. No wells should be exempt.

For DWP to pump and call it "mitigation" for past impacts due to pumping is an insult to the land and people of Owens Valley.

Respectfully,



Dale Delgado, Jr.
Chairman, Bishop Paiute Tribe

cc: Honorable Tribal Council – Bishop Paiute Tribe
Michael Lumsden, Interim CEO/COO
Matthew Nelson THPO, Bishop Paiute Tribe
Brian Adkins, Environmental Director, Bishop Paiute Tribe
County of Inyo, Water Department
County of Inyo, Board of Supervisors
Owens Valley Tribes

California Native Plant Society

Daniel Pritchett
Bristlecone Chapter
PO Box 364
Bishop, CA 93515

August 31, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attention: Ms Nancy Chung
111 North Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms Chung:

Below please find comments on the Initial Study and Negative Declaration for the Big Pine Northeast Re-greening Project (IS&ND)

1) The IS&ND is deficient because it fails to consider cumulative impacts of exempt-well pumping. The excessive volume of pumping from exempt wells has been documented and discussed for years. For example, in Jan, 2006, Director of ICWD gave a workshop to Inyo County Board of Supervisors which focused on problems of existing well exemptions. At the Inyo County Water Commission meeting of June 22, 2011 the effects of pumping from exempt well 254 were acknowledged by the Inyo County Water Department. The enormous spatial extent of exempt well-pumping was documented in the Radius of Influence report (July 10, 2008) by DWP's own consultant, MWH. The Bristlecone Chapter of the California Native Plant Society has called attention to problems of excessive exempt-well pumping for years and formally requested the Standing Committee to allow no new well exemptions be granted until problems from existing exemptions are addressed. The Inyo County Water Department determined in February 2011 that "significant change" is occurring due to pumping from exempt wells in the Blackrock area. There is more than enough evidence to demonstrate the need for a cumulative impact analysis of exempt-well pumping.

2) The IS&ND is deficient because it fails to consider any alternatives which do not require well-exemption. At Standing Committee meetings of August and November 2010 several suggestions were made by members of the public of ways to supply replacement water to DWP without a well-exemption. The Standing Committee refused to discuss any of them on the grounds that the project will go through an analysis under CEQA. The IS&ND does not discuss any alternatives at all, but simply states that "public comments were received." This is outrageous. When decision-makers refuse to consider alternatives on the grounds that alternatives will be included in a CEQA analysis, and the CEQA analysis does not even acknowledge that alternatives exist, the CEQA analysis undermines -- rather than fulfills -- the goals of CEQA. The IS&ND doesn't provide policy makers data and analysis allowing them to make an informed decision -- the IS&ND is simply statement of political support for policy-makers' pre-conceived ideas.

3) The IS&ND is deficient because it includes no discussion of the transfer of risk inherent in the well exemption. Were the project implemented with no exemption, DWP would only get "replacement water" (water sent down the Aqueduct to replace the water diverted for the



Dedicated to the preservation of California native flora

project) when the monitoring site associated with well 375 was in "on" status. This would provide DWP with an incentive not to over-pump, because over-pumping would turn the monitoring site to "off" status and it could not be used to supply replacement water. Therefore, without an exemption, the only risk the project creates is a risk of up to 150 acre feet to DWP's water supply, a risk which DWP itself controls.

The proposed exemption, on the other hand, shifts risk from DWP, which perpetrated the original impacts, to the Big Pine wellfield, the wellfield which suffered the impacts to be mitigated. The risk is shifted because the exemption means DWP will pump its replacement water regardless of any impacts caused by the replacement water pumping. This transfer of risk is an extremely important concept and it is not even disclosed, much less analyzed and justified in the IS&ND.

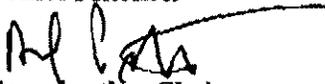
The only possible justification in the IS&ND of the (un-disclosed) transfer of risk is the memo regarding a hydrologic modeling exercise (Memo from Inyo County Water Department July 23, 2010). The memo interprets model results to mean that impacts of pumping replacement water will not be significant. The risk transferred to the Big Pine wellfield by the exemption, if this were correct, would be minimal. The report itself, however, discloses that, due to the model's "coarse spatial resolution", "generalized hydrologic parameters, and simplified hydrologic processes...*the response of the actual system will likely be different [from the modeled results] by an unknown amount*" [italics added]. In other words, the model is not adequate to quantify the uncertainty of its results. The only honest use of the model would be an admission that it is not adequate to determine whether impacts would be significant or not. The risk transference of the exemption cannot be dismissed as trivial based on the results of the modeling because the modelers themselves admit their model is too crude to make any defensible statements about its accuracy.

4) The IS&ND is deficient because it makes no reference to the strong public opposition to the proposed revisions and the reasons for this opposition. Issues of contention are customarily identified in environmental reviews. Members of the Big Pine Paiute Tribe submitted a petition with almost 200 signatures of people opposing the revisions. Given the small population of Big Pine, this is a huge number of opponents. At two public meetings no one spoke in favor of the revisions, and numerous speakers voiced opposition. The IS&ND doesn't even acknowledge the existence of opposition to the revisions much less address the basis for the opposition

Conclusion

The IS&ND should be withdrawn and replaced with an Environmental Impact Report (EIR). The EIR should include analyses of alternatives not requiring a well exemption, cumulative impacts of exempt-well pumping, a discussion of the risk transfer inherent in the proposed exemption, and acknowledgement and discussions of the numerous other objections to the proposed revisions raised by the public.

Daniel Pritchett



Conservation Chair
Bristlecone Chapter
California Native Plant Society

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September 1, 2010

**VIA FACSIMILE
(213) 367-4710
AND REGULAR MAIL**

Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attention: Ms. Nancy Chung
111 North Hope Street, Room 1050
Los Angeles, CA 90012

Re: Comments on Initial Study and Negative Declaration for
Big Pine Northeast Regreening Project

Dear Ms. Chung:

The Owens Valley Committee (OVC) submits the following comments on the Initial Study and Negative Declaration for Big Pine Northeast Regreening Project ("Project"). OVC objects to the Project on the grounds that the Initial Study/Negative Declaration ("IS/ND") violates the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code, section 21000 *et seq.* More specifically, as substantial evidence supports a fair argument that the Project may have significant environmental impacts, CEQA requires that the Los Angeles Department of Water and Power ("DWP") prepare and environmental impact report ("EIR") the Project.

In evaluating a proposed project, a public agency must evaluate whether a possibility exists that the project may have a significant environmental effect. If so, then the agency must conduct an initial threshold study. (Pub. Resources Code § 21080.1; CEQA Guidelines § 15063.) If the initial study determines that any aspect of the project may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the agency must prepare an EIR. (CEQA Guidelines § 15070(b); see also *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 304-305.) The EIR "with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision-making process to public scrutiny. (*Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 910; citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 86.) The EIR is "the heart of CEQA" and "an environmental alarm bell whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological point of no return." (*Laurel Heights Improvement Association v. The Regents of the University of California*

(“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 392.) The EIR is the “primary means” of ensuring that public agencies “take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.” (*Id.*, quoting Pub. Resources Code § 21001(a).) The central purpose of an EIR is to identify the significant environmental effects of the proposed project, and to identify ways of avoiding or minimizing those effects through the imposition of feasible mitigation measures or the selection of feasible alternatives. (Pub. Resources Code §§ 21002, 21002.1(a), 21061; CEQA Guidelines § 15002(a)(3); *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41.) The EIR is also a “document of accountability,” intended “to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions.” (*Laurel Heights I, supra*, 47 Cal.3d at p. 392 (quoting *No Oil, Inc., supra*, 13 Cal.3d at p. 86.) Thus, “[t]he EIR process protects not only the environment but also informed self-government.” (*Ibid.*)

A. The Fair Argument Standard

An agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. (Pub. Resources Code, §§ 21080(a); 21151(a); see *Laurel Heights Improvement Ass’n v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles, supra*, 13 Cal.3d at pp. 75, 82, 118.) “In reviewing an agency’s decision to adopt a negative declaration, a trial court applies the “fair argument” test.” (*City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 405; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1399; see also *Pala Band of Mission Indians v. County of San Diego* (1998) 68 Cal.App.4th 556, 571.) The fair argument test requires that agency “prepare an EIR whenever substantial evidence in the record supports a fair argument that a proposed project may have a significant effect on the environment.” (*City of Redlands, supra*, 96 Cal.App.4th at p. 405; quoting *Gentry v. City of Murrieta, supra*, 36 Cal.App.4th at pp. 1399-1400.) If such evidence exists, an agency’s decision to adopt a negative declaration constitutes an abuse of discretion and violates CEQA. (*City of Redlands, supra*, 36 Cal.App.4th at p. 406; *Pala Band of Mission Indians v. County of San Diego, supra*, 68 Cal.App.4th at p. 571.)

The “fair argument” standard is “a low threshold requirement for preparation of an EIR.” (*No Oil, Inc. v. City of Los Angeles, supra*, 13 Cal.3d 68, 84.) The fair argument standard reflects CEQA’s “preference for resolving doubts in favor of environmental review.” (*Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1316-1317.) Thus, an EIR must be prepared “whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact” (*No Oil, Inc. v. City of Los Angeles, supra*, 13 Cal.3d at p. 75) even if there is substantial evidence to the contrary (*Arviv Enterprises, Inc. South Valley Area Planning Com.* (2002) 101 Cal.App.4th 133, 1346; *Friends of “B” Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002.) CEQA defines “environment” as “the physical conditions which exist within the area which will be affected by a proposed project, including land, air,

water...flora, fauna, noise...." (Pub. Resources Code § 21060.5.) "Significant effect upon the environment" is described as "a substantial or potentially substantial adverse change in the environment." (See Pub. Resources Code § 21068; CEQA Guidelines § 15382.) A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. (See *No Oil, Inc. v. City of Los Angeles*, *supra*, 13 Cal.3d at p. 83; *Sundstrom v. County of Mendocino*, *supra*, 202 Cal.App.3d at p. 309.) Even if the overall effect of the project is beneficial, the lead agency must prepare an EIR if any part of the project "either individually or cumulatively, may cause a significant effect on the environment." (CEQA Guidelines § 15063(b)(1).) Thus, CEQA creates "a low threshold requirement" for the initial preparation of an EIR and reflects a preference for resolving doubts in favor of environmental review when the question is whether any such review is warranted. (See *No Oil, Inc. v. City of Los Angeles*, *supra*, 13 Cal.3d at p. 84; *Oro Fino Gold Mining Corp. v. County of El Dorado* (1990) 225 Cal.App.3d 872, 880-881.)

CEQA and the CEQA Guidelines provide assistance in evaluating what constitutes substantial evidence to support a "fair argument". (See CEQA Guidelines § 15384(a) ("substantial evidence" means enough relevant information and reasonable inferences...that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.")) Substantial evidence consists of "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." (Pub. Resources Code § 21080(e)(1); see also CEQA Guidelines § 15384(b).) It does not include "argument, speculation, unsubstantial opinion or narrative, evidence that is clearly inaccurate ...or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment." (Pub. Resources Code § 21080(e)(2).) Comments that present evidence of facts and reasonable assumptions from those facts may constitute substantial evidence to support fair argument that the project may have a significant effect on the environment. (See *City of Redlands*, *supra*, 96 Cal.App.4th at p. 590; see also *Stanislaus Audubon Society, Inc. v. County of Stanislaus*, (1995) 33 Cal.App.4th 144, 152-153.) Relevant personal observations of area residents on nontechnical subjects, such as traffic conditions, qualify as substantial evidence for a fair argument. (*Ocean View Estates Homeowner's Assn., Inc. v. Montecito Water District* (2004) 116 Cal.App.4th 396, 402; *Citizens Ass'n for Sensible Development v. County of Inyo* (1985) 172 Cal.App.3d 151, 173 (owner of adjacent property may, based upon personal observations, testify to existing traffic conditions). Thus, while an individual may not be experts, their firsthand observations should not casually be dismissed as immaterial because "relevant personal observations are evidence. (*Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 402.)

The Initial Study must provide the factual basis and the analysis for the determination that a project will not have a significant impact on the environment. (See CEQA Guidelines § 15063(d)(3); *City of Redlands*, *supra*, 96 Cal.App.4th at p. 408; *Sundstrom v. County of Mendocino*, *supra*, 202 Cal.App.3d at p. 311.) "An agency should not be allowed to hide behind its own failure to gather relevant data." (*Id.*) Thus,

a negative declaration may only be prepared when, in light of the whole record, no substantial evidence exists that the project may have a significant environmental effect. As discussed below and in the comments submitted by the Big Pine Paiute Tribe of the Owens Valley, the Owens Valley Committee and Sierra Club, substantial evidence supports a fair argument that the Project may have potentially significant environmental impacts, thus CEQA mandates the preparation of an EIR.

B. The IS/ND Contains a Legally Inadequate Project Description

“[A]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” CEQA requires an EIR to have an accurate and stable project description. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) Under CEQA, a “project” means “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical changes in the environment.” (CEQA Guidelines, § 15378(a).) CEQA Guidelines requires that a negative declaration include the location of the project shown on a map. (CEQA Guidelines, § 15071.)

In the present case, while the IS/ND provides a map of the revegetation area, it does not show the location of Well W375. (See IS at pp. 1-2 to 1-6.) Nor does the project description provide any discussion about the location of Well W375 or the environmental setting with regards to Well W375. As Well W375 is an integral part of the proposed Project, DWP’s failure to adequately discuss the location of the Project makes the IS/ND legally deficient.

C. Hydrology

Neither the Project Description nor the discussion in the hydrology section in the IS/ND indicates why the Project is dependent upon DWP replacing surface water for the Project with groundwater. The original mitigation measure under the 1991 EIR did not provide for use of replacement groundwater and relied solely upon surface water for the Project. There is no requirement in the original mitigation measure that DWP replace the surface water with groundwater. DWP has an obligation to comply with the mitigation measures provided in the 1991 EIR. To the extent that DWP seeks to replace the surface water with groundwater pumping makes little sense, as the mitigation measures are to mitigate for DWP’s groundwater pumping program. If the mitigation measure includes increased groundwater pumping, then such additional groundwater pumping must be fully and completely analyzed. DWP’s IS/ND, however, fails to adequately analyze the projects impacts of pumping replacement water from Well W375. The IS/ND’s determination regarding environmental impacts from pumping Well W375 is based upon the July 23, 2010 memorandum from the Inyo County Water Department. (See IS/ND, Appendix B.) Although the Memorandum indicates that the impacts from pumping Well W375 would be negligible and insignificant, the memorandum also states that “The regional groundwater model that these results are based on has a coarse spatial resolution,

generalized hydraulic parameters, and simplified hydrologic processes. The results presented here are approximations, and the response of the actual system will likely be different by an unknown amount.” (IS/ND, Appendix B.) Thus, the IS/ND contains contradictory evidence regarding impacts groundwater levels. Additionally, the Tribe’s comment letter, as well as other comment letters, provides substantial evidence supporting a fair argument that the Project’s use of Well W375 may result in substantial evidence. Thus, CEQA mandates preparation of an EIR.

D. Cumulative Impacts

The IS/ND fails to consider the project’s cumulative impacts associated with the pumping of groundwater from Well W375. (See IS/ND at p. 2-20 to 2-22.) Moreover, the ICWD’s Memorandum upon which DWP relies upon in the IS/ND for its evaluation of the Project’s groundwater impacts, is silent as to potential cumulative impacts associated with the groundwater pumping. (See IS/ND, Appendix B.) This omission is particularly glaring given the fact the Project is a mitigation measure for DWP’s groundwater pumping in the Owens Valley. As explained in the comments submitted by the Tribe and OVC/Sierra Club, surface water diversions and groundwater pumping in the Big Pine wellfield area has resulted in significant drawdown of groundwater levels and have severely impacted biological resources.

A lead agency must find that a project may have a significant effect on the environment and must prepare an EIR if the project’s potential environmental impacts, although individually limited, are cumulatively considerable. (Pub. Resources Code, § 21083(b); CEQA Guidelines, § 15065(c); see *San Bernardino Valley Audubon Society v. Metropolitan Water District* (1999) 71 Cal.App.4th 382, 398.) In *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720, the court stated:

[o]ne of the most important environmental lessons evident from past experiences is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the best example is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem. CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts.

The more severe the existing environmental problems are, the lower the threshold for finding that a project’s cumulative impacts are significant. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 691, 781.) In context of cumulative impacts to air quality, the court in *Kings County*, held that “[t]he relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether *any additional amount of precursor*

emissions should be considered significant in light of the serious nature of the ozone problems in this air basin.” (Kings County Farm Bureau, supra, 221 Cal.App.3d at 781, emphasis added.) The court held that the more severe the existing environmental problems are, the *lower the threshold for finding that a project’s cumulative impacts are significant. (Id., emphasis added.)*

In the present case, the impacts to groundwater and biological resources from DWP surface water diversion and groundwater pumping have created severe environmental problems in the Owens Valley and more specifically in the Project area. The biological impacts in the Big Pine well field area associated with DWP’s groundwater pumping and surface diversions are well documented. (See Inyo County Water Department Annual Report, 2010.)¹ Inyo County has consistently recorded impacted vegetation conditions in the Project area where Well W375 is located. (*Id.*) The biological impacts are the reason for the Project, which is a mitigation measure from the 1991 EIR.

As discussed in the Tribe’s comment letter, a report by DWP’s consultant MWH, shows that the wells in the Big Pine area have far-reaching effects on the shallow aquifer. Groundwater pumping in the area, which has been continuous and ongoing since 1970, has had a significant effect on the environment. (See MWH, Technical Memorandum, *Radius of Influence Analysis – Big Pine and Taboose-Aberdeen Wellfield*, July 10, 2008.)² Pumping additional water from Well W375 will result in a cumulative impact to groundwater levels and biological impacts that the IS/ND failed to analyze, let alone recognize. (See Tribe comment letter.)

Thus, DWP’s failure to conduct a cumulative impact analysis constitutes a prejudicial abuse of discretion. An agency cannot hide behind its failure to gather relevant data. (*Sundstrom v. County of Mendocino, supra, 202 Cal.App.3d at p. 311.*) Without the relevant data, the IS/ND does not provide the factual basis and the analysis for the determination that the Project will not have a significant impact on the environment. (See CEQA Guidelines § 15063(d)(3); *City of Redlands, supra, 96 Cal.App.4th at p. 408.*) Moreover, substantial evidence supports a fair argument that the Project will result in potentially significant cumulative environmental impacts.

¹ A copy of Inyo County Water Agency’s Annual Report, 2010 is included on the CD submitted with these comments.

² A copy of the MWH, Technical Memorandum, *Radius of Influence Analysis – Big Pine and Taboose-Aberdeen Wellfield*, July 10, 2008 is included with on the CD submitted with these comments.

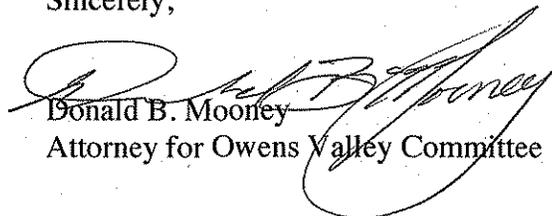
E. The Project is Inconsistent with the Long-Term Water Agreement

The Project is inconsistent with the purpose and goal of the Long-Term Water Agreement.³ The purpose of the LTWA is to manage water resources in such a manner as to prevent further degradation of vegetation conditions that existed in the region in the mid 1980s. The LTWA provides for wells to be in the "off" position in order facilitate soil water and vegetation recovery. By exempting Well W375 for the sole purpose of allowing DWP to recover water that is not required as part of the mitigation measure in the 1991 EIR creates an inconsistency with the goals and purpose of the LTWA. For purposes of CEQA, the LTWA is similar to a land use plan for a local agency. As the Project is inconsistent with the plan ("LTWA"), DWP must prepare an EIR to discuss and disclose the inconsistencies. (See CEQA Guidelines, § 15125(d).)

F. Conclusion

A negative declaration may only be prepared when, in light of the whole record, no substantial evidence exists that the project may have a significant environmental effect. Based upon the foregoing and the comments submitted by the Tribe, OVC/Sierra Club, and others, CEQA requires that DWP prepare an EIR prior to approval of the Big Pine Northeast Regreening Project.

Sincerely,


Donald B. Mooney
Attorney for Owens Valley Committee

cc: Mark Bagley

³ A copy of the Long-Term Water Agreement is included on the CD submitted with these comments.

August 29, 2011

From: Mark Bagley
Sierra Club Owens Valley MOU Representative and
Owens Valley Committee President and Policy Director
P.O. Box 1431
Bishop, CA 93515

To: Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope Street, Room 1050
Los Angeles, CA 90012

also via email to: nancy.chung@ladwp.com

Subject: Initial Study and Negative Declaration for Big Pine Northeast Regreening Project

This letter provides the joint comments from the Sierra Club and the Owens Valley Committee on the Initial Study and Negative Declaration for Big Pine Northeast Regreening Project (IS/ND). We may provide some additional comments before the September 1 comment deadline.

The stated purpose of the regreening project is to mitigate for impacts caused by abandoned agriculture and groundwater pumping activities. However, it makes no sense to us to pump more groundwater in order to mitigate for the effects of groundwater pumping in the same area. Well W375 is proposed to pump "make-up" water so that there is no water cost to LADWP for the project. To ensure there is no water cost, LADWP is proposing to exempt Well W375 from the on-off provisions of the Inyo-LA Long Term Water Agreement. There should not be an exempt well tied to this project. The purpose of the project is to mitigate for impacts from groundwater pumping and there is no reason to exempt a well under the Water Agreement unless there is some chance that pumping that well as planned may cause it to be turned off under the normal Water Agreement protocols. In other words if there is not going to be a significant effect from the pumping there is no need to exempt it.

However, the IS/ND fails to properly analyze the potential effects of the pumping from Well W375. The IS/ND does not include any discussion of potential significant cumulative environmental impacts of groundwater pumping for the project. This is crucial since the project itself is mitigation from groundwater pumping impacts in the area of the project. The cone of water depression in the region of the Well W375 reaches into the inhabited areas of Big Pine and the Big Pine Paiute Reservation. In 1910, ground water in the Big Pine area was only 10 feet below the surface of the earth, but now the water table has sunk to 90 feet below ground level. Groundwater in the area around Big Pine has not reached yet reached even the mid-1980s baseline. Given the past impacts from LADWP surface water diversions and groundwater pumping in the Big Pine wellfield we would argue that any additional groundwater drawdown

from Well W375 is a potential significant effect of the project and should require LADWP to do an EIR for the project where an adequate analysis is done on project alternatives and provides an analysis of cumulative impacts.

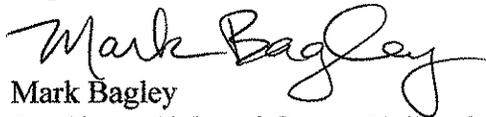
This project is planned to be supplied with surface water and is in no way dependent on groundwater except for the insistence of LADWP that it have an exempt well to collect "make-up" water. LADWP has an obligation to provide mitigation for groundwater pumping without that mitigation measure causing further significant negative impacts.

Notwithstanding the lack of a cumulative impact analysis, the IS/ND fails to present an adequate analysis of the potentially significant impacts that may result from pumping Well 375. On page 2-21 (part b) the IS/ND states that there will be less than significant impact to groundwater supplies or interfere substantially with groundwater recharge. The justification for this conclusion is an Inyo County Water Department, July 2010, report that the IS/ND states "...will have insignificant effects on the local groundwater table (Inyo County Water Department, July 2010)." This appears to be the memo that is included in the IS/ND as Appendix B. However, when you actually read the "Discussion and Recommendation" section of the County's report you find the following, "The results presented here are approximations, and the response of the actual system will likely be different by an unknown amount." We find that the IS/ND's reliance on this analysis by the County to be insufficient to reach the conclusion that pumping and exempting Well W375 will have a less than significant impact. Further analysis is necessary of the pumping. Any analysis of potentially significant negative biological impacts is largely dependent on the analysis of water drawdown, which needs further analysis.

We believe that the IS/ND is inadequate and further analysis is required.

Thank you for your consideration.

Regards,



Mark Bagley
For Sierra Club and Owens Valley Committee

**DEPARTMENT OF FISH AND GAME**

<http://www.dfg.ca.gov>
Inland Deserts Region (IDR)
407 West Line Street
Bishop, CA 93514
(760) 872-1171
(760) 872-1284 FAX



August 29, 2011

Ms. Nancy Chung
Environmental Specialist
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

**Subject: Initial Study and Negative Declaration for the Big Pine Northeast
Greening Project, Inyo County, State Clearinghouse Number 2011081001**

Dear Ms. Chung:

The Department of Fish and Game (Department) has reviewed the Initial Study (IS) and Negative Declaration (ND) for the above referenced project. The proposed project is to irrigate and seed 30 acres of abandoned agricultural land with a pasture mix to support livestock grazing. Water will be supplied by surface water obtained from Big Pine canal through a buried 6-inch pipe. Implementation of the project will mitigate for impacts caused by abandoned agriculture and groundwater pumping activities as identified in the 1991 EIR "*Water from the Owens Valley to Supply the Second Los Angeles Aqueduct, 1970-1990 Onward, Pursuant to a Long Term Groundwater Management Plan*" (LADWP, 1991).

The Department is providing comments on the IS/ND as the State agency which has the statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code §711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's Fish and wildlife management functions are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, 14 Cal. Code Regs. §15386(a)). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

The Department offers the following comments and recommendations:

Page 1-1 of the IS/ND, under "Project Background and Objectives," describes that the Water Agreement divides Owens Valley vegetation into five management types,

A through E. The proposed project is described to become a Type E classification, whereas the current designation is mapped as Type B, Rabbitbrush scrub. The IS/ND should describe the composition of the proposed Type E vegetation classification expected to dominate the project site in the future.

Page 1-3 of the IS/ND states that "pasture will be seeded with a pasture seed mix that will support livestock grazing," but does not identify species to be used in the seed mix. The Department recommends using pasturage species native to the Owens Valley for the seed mix..

Page 1-7 of the IS/ND states, "Routine Maintenance of irrigation conveyance features within LADWP's system is covered by an existing Master Agreement between California Department of Fish and Game (CDFG) and LADWP (2008)." The Department would like to clarify that this is not a Master Agreement; rather it is a Routine Maintenance Agreement. A Routine Maintenance Agreement covers only multiple routine maintenance projects on existing facilities and structures within specified waterways that LADWP completes at different time periods during the term of the agreement. New construction, including a concrete basin sump to divert water from Big Pine Canal, as well as installation of a sprinkler system and 1,320 ft irrigation pipe, is not considered an "Authorized Work Activity" for routine maintenance under the Agreement identified above. After LADWP provides written notification to Ms. Tammy Branston, the Department's 1600 Lake and Streambed Alteration Coordinator, the new irrigation conveyance features described may be added to the Routine Maintenance Agreement via an amendment application.

Page 2-11 of the IS/ND describes the examination for the presence of active bird nests prior to tree removal during the nesting season of April through July and that "if construction is determined to potentially adversely impact sensitive avian species, project implementation will be delayed until the young have fledged." The Department would like to clarify that the breeding bird season generally runs from March 1-September 15 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Also, the IS/ND should not limit nest protection to only sensitive avian species, but note that all migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). The Department recommends that 48 hours prior to the disturbance of suitable nesting habitat (for all nesting birds and raptors), surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) must be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting.

Page 2-11 of the IS/ND describes that sensitive plant species records do occur on the USGS quad sheet but that none of these species are present on the project site

Ms. Nancy Chung
SCH # 2011081001
August 29, 2011

and therefore, no impacts to sensitive plant species will occur. Please provide evidence to support this conclusion, specifically in regards to rare and endangered plant species listed on Page 2-10. Page 2-9 describes a March 2011 site visit, where photographs were taken to compare the vegetation conditions to those from 1986. However, there is no reference to any focused plant survey to detect the species listed, nor is a report included in the IS/ND as an appendix. The Department recommends conducting surveys to determine if the listed plant species on page 2-10 are present; April through July are the appropriate months to conduct a botanical survey for these species. Survey results should be provided for agency and public review under CEQA.

The Department appreciates this opportunity to comment. Questions regarding this letter and further coordination on these issues should be directed to Ms. Tammy Branston, Environmental Scientist, at (760) 872-0751 or by electronic mail at: tbranston@dfg.ca.gov.

Sincerely,



Brad Henderson
Senior Environmental Scientist

cc: Lori Gillem, Los Angeles Department of Water and Power
State Clearinghouse
Chron



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

September 1, 2011

Nancy Chung
City of Los Angeles
Department of Water and Power
111 North Spring Street
Los Angeles, CA 90012

Subject: Big Pine NE Regreening Project
SCH#: 2011081001

Dear Nancy Chung:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 30, 2011, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2011081001
Project Title Big Pine NE Regreening Project
Lead Agency Los Angeles, City of

Type Neg Negative Declaration

Description Under the Big Pine Northeast Regreening, 30 acres of abandoned agricultural land would be irrigated and seeded with a pasture mix to support livestock grazing. Implementation of the project will mitigate for impacts caused by abandoned agriculture and groundwater pumping activities as identified in the 1991 EIR "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct, 1970 to 1990 and 1990 Onward, Pursuant to a Long Term Groundwater Management Plan" (LADWP, 1991).

Lead Agency Contact

Name Nancy Chung
Agency City of Los Angeles
Phone 213 367 0404 **Fax**
email
Address Department of Water and Power
 111 North Spring Street
City Los Angeles **State** CA **Zip** 90012

Project Location

County Inyo
City Bishop
Region
Lat / Long
Cross Streets

Parcel No.	Township	Range	Section	Base
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Proximity to:

Highways Hwy 395
Airports - -
Railways
Waterways
Schools
Land Use OS, AG/OS-40 acre minimum, M-2-light industrial/Inyo County General Plan-Agriculture

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Geologic/Seismic; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 6 (Inyo & Mono Region); Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 9; State Water Resources Control Board, Division of Financial Assistance; Regional Water Quality Control Bd., Region 6 (Victorville); Native American Heritage Commission; State Lands Commission

Date Received 08/01/2011 **Start of Review** 08/01/2011 **End of Review** 08/30/2011



State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov
 Inland Deserts Region (IDR)
 407 West Line Street
 Bishop, CA 93514
 (760) 872-1171
 (760) 872-1284 FAX

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August 29, 2011

Ms. Nancy Chung
 Environmental Specialist
 Los Angeles Department of Water and Power
 111 North Hope Street, Room 1044
 Los Angeles, CA 90012

RECEIVED

AUG 29 2011

STATE CLEARING HOUSE

**Subject: Initial Study and Negative Declaration for the Big Pine Northeast
 Regreening Project, Inyo County, State Clearinghouse Number 2011081001**

Dear Ms. Chung:

The Department of Fish and Game (Department) has reviewed the Initial Study (IS) and Negative Declaration (ND) for the above referenced project. The proposed project is to irrigate and seed 30 acres of abandoned agricultural land with a pasture mix to support livestock grazing. Water will be supplied by surface water obtained from Big Pine canal through a buried 6-inch pipe. Implementation of the project will mitigate for impacts caused by abandoned agriculture and groundwater pumping activities as identified in the 1991 EIR *"Water from the Owens Valley to Supply the Second Los Angeles Aqueduct, 1970-1990 Onward, Pursuant to a Long Term Groundwater Management Plan"* (LADWP, 1991).

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Ms. Nancy Chung
SCH # 2011081001
August 29, 2011

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Ms. Nancy Chung
SCH # 2011081001
August 29, 2011

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The Department appreciates this opportunity to comment. Questions regarding this letter and further coordination on these issues should be directed to Ms. Tammy Branston, Environmental Scientist, at (760) 872-0751 or by electronic mail at: tbranston@dfg.ca.gov.

Sincerely,



Brad Henderson
Senior Environmental Scientist

cc: Lori Gillem, Los Angeles Department of Water and Power
State Clearinghouse
Chron

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-6251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
 ds_nahc@pacbell.net



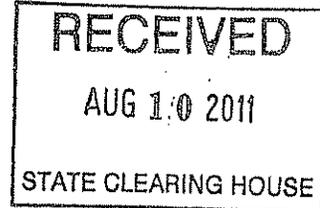
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August 8, 2011

Ms. Nancy Chung, Environmental Specialist

Los Angeles Department of Water & Power

111 N. Hope Street, Room 1044
 Los Angeles, CA 90012



Re: SCH#2011081001 CEQA Notice of Completion; proposed Negative Declaration (c.f. Article I, City CEQA Guidelines) for the "Big Pine Northeast Regreening Project;" located on 30-acres northeast of the Community of Big Pine in Inyo County, California; south of State Route 168; east of Highway 395 and west of the Big Pine Canal.

Dear Ms. Chung:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604). The NAHC wishes to comment on the above-referenced proposed Project.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC Sacred Lands File (SLF) search resulted as follows: **Native American cultural resources were not identified within the project site, the 'area of potential effect (APE).** However, the absence of archaeological items at the surface level does not preclude their existence at the subsurface level once ground-breaking activity is underway.

The NAHC 'Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to C" A Public Resources Code § 5097.95, the NAHC requests that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore we recommend, also, that you contact the California Historic Resources Information System (CHRIS) California Office of Historic Preservation for pertinent archaeological data within or near the APE, at (916) 445-7000 for the nearest Information Center in order to learn what archaeological fixtures may have been recorded in the APE.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation.

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'.

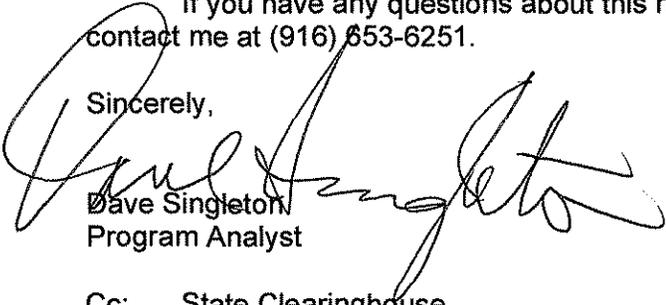
To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places and there may be sites within the APE eligible for listing on the California Register of

Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton". The signature is written in a cursive style with a large initial "D".

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List



(760) 878-0001
FAX: (760) 878-2552

EMAIL: mail@inyowater.org
WEB: <http://www.inyowater.org>

P.O. Box 337
135 South Jackson Street
Independence, CA 93526

**COUNTY OF INYO
WATER DEPARTMENT**

August 30, 2011

TO: Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attention: Ms. Nancy Chung
111 North Hope Street, Room 1050
Los Angeles, CA 90012

FROM: Bob Harrington, Water Director
County of Inyo

SUBJECT: Comments on CEQA Initial Study and Negative Declaration for Big Pine
Northeast Regreening Project

Thank you for the opportunity to comment on the environmental analysis for this project. Regarding Initial Study Section 2.3.9, Hydrology and Water Quality, we raise two points:

1. The Initial Study concludes that groundwater pumping for the project will have no significant impacts based on a groundwater modeling analysis done by the Inyo County Water Department. It should be understood that the amount of drawdown is likely overestimated in the Water Department's work, because the effect of stream capture by the pumping well and the effect of irrigation return flow to the shallow aquifer were not simulated. If these effects were included in the model, predicted drawdown would be reduced. Additionally, the Water Department's analysis assumed that the maximum allotment provided for the project would be used each year. Reducing the irrigation duty for the project from 150 acre-feet per year to 90 acre-feet per year through more efficient irrigation practices, as has been discussed by the Technical Group, would proportionally reduce pumping and resultant drawdown.
2. We have examined additional information pertaining to potential impacts of pumping Well 375. In 1997 and 1998, an operational test of Well 375 was conducted jointly by LADWP and the Inyo County Water Department, where the well was pumped continuously for 196 days, producing 2170 acre-feet of water, or nearly 15 times the amount of pumping that is proposed annually for the Big Pine Northeast Regreening

Project. Twenty shallow wells and twelve deep wells in the vicinity of Well 375 were monitored during the test. Observations from this test showed that there were no more than a few inches of drawdown in shallow wells in the Big Pine area. This is consistent with, and strengthens, the Initial Study's conclusion that the proposed pumping for this project will have no negative impacts.



Matthew Rodriguez
Secretary for
Environmental Protection

California Regional Water Quality Control Board Lahontan Region

Victorville Office

14440 Civic Drive, Suite 200, Victorville, California 92392
(760) 241-6583 • FAX (760) 241-7308
<http://www.waterboards.ca.gov/lahontan>



Edmund G. Brown Jr.
Governor

August 30, 2011

Nancy Chung
Los Angeles Department of Water and Power
111 North Spring Street
Los Angeles, CA 90012

BIG PINE NORTHEAST REGREENING PROJECT, INITIAL STUDY AND NEGATIVE DECLARATION, BIG PINE, INYO COUNTY

The California Regional Water Quality Control Board (Water Board) staff received and reviewed the above-referenced project. Our comments follow.

The proposed project is located in Inyo County, northeast of the town of Big Pine in the Owens Valley. The project site is south of State Route 168, east of Highway 395 and west of the Big Pine Canal. The project proposes that 30 acres of abandoned agricultural land would be irrigated and seeded with a pasture mix to support livestock grazing. Water will be supplied by surface water from the Big Pine Canal. This will require the construction of a sump (concrete basin) from which the water will be pumped. The sump will be supplied with water from the Big Pine Canal. Other project components include, supplying electrical power to the site, preparation of soil for seeding, fencing of the area and installation of a sprinkler system.

The project will require construction work near and in surface waters that are either waters of the U.S. or waters of the State. Surface waters include, but are not limited to, drainages, streams, washes, canals, ponds, pools, or wetlands, and may be permanent or intermittent. Waters of the State may include waters determined to be isolated or otherwise non-jurisdictional by the U.S. Army Corps of Engineers. Discharges of dredge or fill material may require Clean Water Act Section 401 water quality certification for federal waters; or waste discharge requirements for non-federal waters. Measures must be implemented to ensure that water quality is not impacted during construction activities planned. Such measures may include, re-routing surface waters around construction areas or filtering or otherwise treating surface water to remove sediment introduced during construction.

Information regarding these permits, including application forms, can be downloaded from the Water Board's web site (<http://www.waterboards.ca.gov/lahontan>). If the project is not subject to federal requirements, activities that involve fill or alteration of surface waters may still be subject to State permitting.

Best management practices (BMPs) are used to reduce pollutants in runoff to waters of the State. In addition to fencing the site, please describe BMPs that will be used to ensure that runoff from the site does not carry pollutants offsite. The environmental document must specifically describe BMPs and their role in mitigating project impacts, including timing and responsibility for implementation.

The document states that minor soil disturbance will occur during the installation of the irrigation system and site fencing; and since the volume of soil to be disturbed is minor and the construction duration is estimated to be only 3 weeks, increases in sediment load will not adversely affect surface water beneficial uses. Although the duration of construction is expected to be short, measures must still be identified and implemented to prevent sediment discharge from the site. If construction of the project involves disturbance of one acre or more, a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit, including the development of a Stormwater Pollution Prevention Plan will be required.

Water Board staff submits the above comments in compliance with CEQA Guidelines Section 15096, which requires responsible agencies to specify the scope and content of the environmental information germane to its statutory responsibilities and lead agencies to include that information in the environmental document. The Water Board requests that these comments be addressed and incorporated into the final environmental document.

Thank you for the opportunity to review and comment on the proposed project. If you have any questions, please contact me at (760) 241-7413 or cmitton@waterboards.ca.gov.

Sincerely,



Cindi Mitton, P.E.
Senior Engineer

CM\r\CEQA\BigPine NE Regreening Proj.doc

NATIVE AMERICAN HERITAGE COMMISSION

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August 8, 2011

Ms. Nancy Chung, Environmental Specialist

Los Angeles Department of Water & Power

111 N. Hope Street, Room 1044
Los Angeles, CA 90012

Re: SCH#2011081001 CEQA Notice of Completion; proposed Negative Declaration (c.f. Article I, City CEQA Guidelines) for the "Big Pine Northeast Regreening Project," located on 30-acres northeast of the Community of Big Pine in Inyo County, California; south of State Route 168; east of Highway 395 and west of the Big Pine Canal.

Dear Ms. Chung:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604). The NAHC wishes to comment on the above-referenced proposed Project.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC Sacred Lands File (SLF) search resulted as follows: **Native American cultural resources were not identified** within the project site, the 'area of potential effect (APE). However, the absence of archaeological items at the surface level does not preclude their existence at the subsurface level once ground-breaking activity is underway.

The NAHC 'Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to C" A Public Resources Code § 5097.95, the NAHC requests that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore we recommend, also, that you contact the California Historic Resources Information System (CHRIS) California Office of Historic Preservation for pertinent archaeological data within or near the APE, at (916) 445-7000 for the nearest Information Center in order to learn what archaeological fixtures may have been recorded in the APE.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation.

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'.

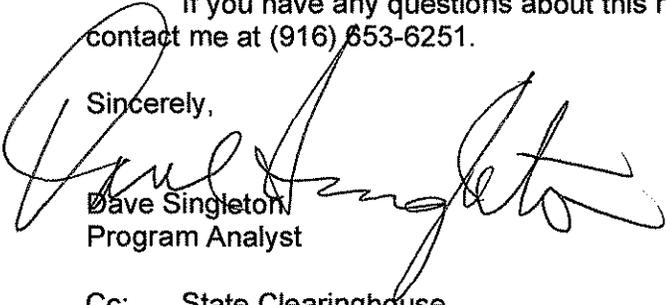
To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places and there may be sites within the APE eligible for listing on the California Register of

Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton". The signature is written in a cursive style with a large initial "D".

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

California Native American Contact List

Inyo County
August 8, 2011

Big Pine Band of Owens Valley
Virgil Moose, Chairperson
P. O. Box 700 Owens Valley Paiute
Big Pine , CA 93513
bigpinetribaladmin@earthlink
760- 938-2003
(760) 938-2942-FAX

Bishop Paiute Tribe
William Vega, Chairperson
50 Tu Su Lane Paiute - Shoshone
Bishop , CA 93514
william.vega@bishoppaiute.
(760) 873-3584
(760) 873-4143

Fort Independence Community of Paiute
Carl Dahlberg Chairperson
P.O. Box 67 Paiute
Independence CA 93526
stephanie@fortindependenc
(760) 878-2126
(760) 878-2311- Fax

Lone Pine Paiute-Shoshone Reservation
Melvin R. Joseph, Chairperson
P.O. Box 747 Paiute
Lone Pine , CA 93545 Shoshone
admin@lppsr.org
(760) 876-1034
(760) 876-8302 Fax

Timbisha Shoshone Tribe
Joe Kennedy, Chairperson
785 North Main Street, Suite Western Shoshone
Bishop , CA 93514
(760) 873-9003
(760) 873-9004 FAX

Lone Pine Paiute-Shoshone Reservation
Kathy Bancroft, Cultural Representative
P.O. Box 747 Paiute
Lone Pine , CA 93545 Shoshone
kathybancroft@yahoo.com
(406) 570-5289
(760) 876-8302 fax

Timbisha Shoshone Tribe THPO
Barbara Durham, Tribal Historic Preservation
P.O. Box 206 Western Shoshone
Death Valley , CA 92328
dvdurbarbara@netscape.
(760) 786-2374
(760) 786-2376 FAX

Big Pine Band of Owens Valley THPO
Bill Hellmer, Tribal Historic Preservation Officer
P.O. Box 700 Paiute
Big Pine , CA 93513
amargosa@aol.com
(760) 938-2003
(760) 937-3331 - cell
(760) 938-2942 fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011081001; CEQA Notice of Completion; proposed Negative Declaration for the Big KPine REgreening Project; located northeast of the Community of Big Pine in Inyo County, California.

California Native American Contact List

Inyo County
August 8, 2011

Bishop Paiute Tribe THPO

Matthew J. Nelson

50 Tu Su Lane

Bishop, CA 93514

(520) 404-7992 - cell

Matthew.

Nelson@bishoppaiute.org

(760) 873-4143 - FAX

Paiute - Shoshone

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011081001; CEQA Notice of Completion; proposed Negative Declaration for the Big KPine REgreening Project; located northeast of the Community of Big Pine in Inyo County, California.



BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY

Big Pine Paiute Indian Reservation

August 26, 2011

Los Angeles Department of Water and Power
Environmental Assessment and Planning
ATTN: Ms. Nancy Chung
111 No. Hope St., Room 1050
Los Angeles, CA 90012

Dear Ms. Chung,

Subject: Initial Study/Negative Declaration for the proposed Big Pine Northeast Regreening project

The Big Pine Paiute Tribe of the Owens Valley (Tribe) is a sovereign nation with ancestors who have lived in Owens Valley since time immemorial. Our ancestors valued the air, land, water, and living things and understood that future generations needed to live and thrive on the land's resources. However, Owens Valley changed. The first white settlers altered, and then the Los Angeles Department of Water and Power (LADWP) devastated, the place our people continue to call home. The Big Pine area does not look the way it did nor does it provide for our people as in times past, but we are still here. We will continue to make our voice heard and continue to protect the home of our people.

The Tribe's comments herein directly challenge LADWP's Initial Study/Negative Declaration (IS/ND) for the Big Pine Northeast (NE) Regreening project. We find this IS/ND inadequate because it fails to properly comply with the California Environmental Quality Act (CEQA). In this letter, the Tribe provides evidence that the Regreening project, as proposed, will result in significant impacts to our environment and people. The proposed project, which LADWP refers to as "mitigation," is not mitigation. A true mitigation alternative, as well as a no project alternative, must be included in the environmental review. An Environmental Impact Report (EIR) must be prepared for this project.

Analysis of the Big Pine NE Regreening project as a Mitigation project. The 1991 Inyo/LA Environmental Impact Report *Water from the Owens Valley to Supply the Second Los Angeles Aqueduct* (1991 EIR) states that groundwater fluctuations resulted in die-off of groundwater-dependent vegetation in Owens Valley. The actual amount of vegetation die-off in Big Pine was not quantified. Regardless, DWP committed to mitigate the effects by "regreening" 30 acres northeast of the town of Big Pine.

The Tribe takes issue with the adequacy of the 1991 EIR's analysis. Big Pine Creek is the second largest creek flowing into Owens Valley, and with the other creeks and Fish Springs, the Big Pine area was always verdant and productive. Our ancestors lived throughout the Big

Big Pine Tribal Office

P.O. Box 700 • 825 South Main Street • Big Pine, CA 93513

Phone: 760-938-2003 • Fax: 760-938-2942

Pine area and were sustained by plants cultivated and irrigated through an extensive and sophisticated ditch system, as well as by local wildlife. The attached figure shows that, as recently as 1947, the Big Pine area was very wet. Had the analysis been adequately performed as part of the 1991 EIR, Inyo and LA would have disclosed the extent of wetlands still remaining in the Big Pine area, especially near Fish Springs as observed in 1968 aerial photographs. Unfortunately, the Tribe does not possess a copy of the 1968 photos, which are kept in LADWP and Inyo County Water Department offices. However, comparing the 1947 image to 2009 shows the vast amount of dewatering and vegetation die-off that has occurred in the Big Pine area in -- by the Tribe's standards -- a very short time period. LADWP caused the desiccation by exporting huge amounts of the water. The loss of wetlands and habitat has, in turn, severely degraded the environment in Big Pine and greatly diminished culturally significant areas.

Although the Tribe would welcome mitigation projects that reasonably address the losses sustained by LADWP's dewatering of the Big Pine area, the Tribe is aware that, in the 1991 EIR, at least one mitigation project agreed to by LADWP for the Big Pine area is this Big Pine NE Regreening project. Returning water to the land and growing plants to remedy past destruction is a small step in the right direction. However, *pumping* groundwater to make up for water supplied for this project is an affront to the environment and people of Owens Valley. The IS/ND states, "On an annual basis, an equivalent amount of water will be pumped from Well W375 to makeup for the water supplied to the project. Water supplied to the project will be contingent upon the Technical Group exempting well W375 for the project under the provisions described by the Water Agreement." The Tribe fails to understand how LADWP can claim to mitigate for pumping impacts by pumping, at no net loss of DWP's water for export from the Big Pine area.

Well Exemptions. The Tribe objects to this project's requirement to exempt Well 375 and pump it to provide makeup water. Wells, regardless of their purpose, need to have an ongoing strategy to identify anticipated impacts, a publicly circulated and agreed upon monitoring plan, and appropriate mitigation measures in case of adverse impacts occur due to pumping. It is irresponsible to place wells in exempt status when Big Pine has been severely impacted by the water gathering practices of LADWP. Enormous amounts of groundwater are annually pumped from the Big Pine well field, and the majority of ground water pumped by LADWP and exported from the Big Pine area comes from wells already declared exempt by the Technical Group. As a result of years of excessive pumping, water levels remain very deep beneath the community of Big Pine and the Big Pine Indian Reservation. The heavy pumping has gradually drawn water levels deeper such that, even during periods of high runoff, water levels fail to recover to historic levels.

Inadequate analysis of pumping Well 375. The IS/ND fails to present an adequate analysis of the potentially significant impacts that may result from pumping Well 375. In these comments, the Tribe presents evidence that pumping Well 375 will result in potentially significant impacts to: Hydrology and Water Quality, Air Quality, Biological Resources, Land Use and Planning, and Cultural Resources. In addition, the Tribe finds LADWP's Mandatory Findings of Significance are untrue.

The only analysis of pumping Well 375 presented in the IS/ND is a coarse analysis performed by Inyo County Water Department, which was contained in a July 23, 2010, memorandum to the Los Angeles Technical Group members (ICWD 2010). The ICWD 2010 analysis is insufficient for the CEQA analysis because it proclaims itself inadequate to fully consider or disclose pumping impacts from Well 375. Pages 2-3 of this brief memorandum (attached as Appendix B to the IS/ND) state, "The regional groundwater model that these results are based on has a *coarse* spatial resolution, *generalized* hydraulic parameters, and *simplified*

hydrologic processes. The results presented here are *approximations, and the response of the actual system will likely be different by an unknown amount*" [italics added for emphasis]. Why should the Tribe or public put confidence in the analysis, when it clearly admits it is coarse, generalized, simplified, and approximate? ICWD 2010 also states that virtually none of the known potentially confounding and interacting factors were analyzed. The Tribe and the public deserve a more rigorous scientific analysis than the one presented in the IS/ND.

Hydrology. Pumping of Well 375, as indicated in the coarse ICWD 2010 analysis, is projected to result in water table drawdowns in the shallow aquifer to a distance of more than 2 miles from the well. Modeling performed by ICWD 2010 shows a projected drawdown of 3 inches (0.25 feet) underneath an unspecified location on the Big Pine Indian Reservation. If such drawdown is experienced more than 2 miles from Well 375 in all directions, pumping to make up for the water supplied to the project will have a very large impact on regional hydrology.

Section 2.3.9 (b) of the IS/ND is supposed to address effects of pumping for the proposed project, but the IS/ND inadequately defends its finding of "Less than significant impact" by referring only to the self-proclaimed inadequate ICWD 2010 analysis. The IS/ND fails to disclose that a wealth of data, analysis, and documentation exist describing the depletion of the Big Pine area's aquifers. This documentation ranges from USGS reports to technical and annual reports by ICWD and LADWP, the 1991 EIR, and comments from the Big Pine Tribe. Below, the Tribe presents two examples; LADWP is encouraged to disclose *all* relevant information into a true Environmental Impact Report.

The Tribe refers LADWP to two examples of the long-term pumping impacts affecting the Big Pine area: (A) a report by LADWP consultant MWH, entitled "MWH Technical Memorandum, Radius of Influence Analysis - Big Pine and Taboose- Aberdeen Wellfield, June 10, 2008," and (B) change in depth to water table grids presented by ICWD in 2006. (A) Radius of influence diagrams from MWH 2008 are attached. These diagrams show that all 19 of LADWP's wells in the Big Pine area have far-reaching effects on the shallow aquifer. For reference in the diagrams, the Tribe has outlined the Big Pine Indian Reservation. The attached table shows the effect of each LADWP well in the Big Pine area on the Reservation water table. It can be concluded from the MWH 2008 study that pumping at Fish Springs Hatchery has a huge adverse impact on the regional aquifer. This excessive hatchery pumping is continuous and has been ongoing since 1970. As a result, pumping additional wells in the Big Pine area, such as Well 375, exacerbates the constantly-stressed regional aquifer, creating a net deficit in aquifer volume and lowering local and regional water tables. This fact must be included in the analysis of the Big Pine NE Regreening project if pumping is to be a required component.

(B) Data from the ICWD annual report on groundwater conditions as of 2005 are attached. Data on change in depth to water are color-coded, with red colors showing regions throughout Owens Valley where water tables have been lowered relative to the mid 1980s baseline period. Water tables were greatly lowered by 1991 (1.a.). Following wet years in the mid 1990s, water tables in a few valley locations rebounded somewhat as of 1999 (1.b.), but water tables have generally declined since then (1.c.). The Tribe drew a box around the Big Pine area and noted the approximate location of Big Pine Indian Reservation. The data show prolonged lowered water table conditions throughout most of Big Pine for two decades. ICWD omitted water table change documentation associated with the irrigated fields south of the Reservation from the images, but the dark red coloring immediately south and east of the Reservation and the regionally depressed water levels as of 2005 indicate prolonged aquifer depression.

Air Quality. The Tribe has observed increasingly frequent airborne dust events with the dust arising from bare soils south and east of the Reservation. Huge dust devils are now common between Fish Springs and the Reservation. Winds also kick up dust from areas southeast of the Reservation (see attached photographs). Throughout this area, the effect of LADWP water export, particularly groundwater pumping, has resulted in die-off of vegetation and more exposed bare soil. The Tribe requests LADWP analyze the contribution of pumping to dust events and air quality in the Big Pine area, because additional pumping from Well 375 has the potential to contribute to declining air quality.

Biological Resources. As noted above, LADWP pumping for export from the Big Pine area has caused vegetation die-off. The Tribe presents the aerial photos from 1947 as an example of the extent of wetlands, sloughs, and dense vegetation that used to occur in the Big Pine area.

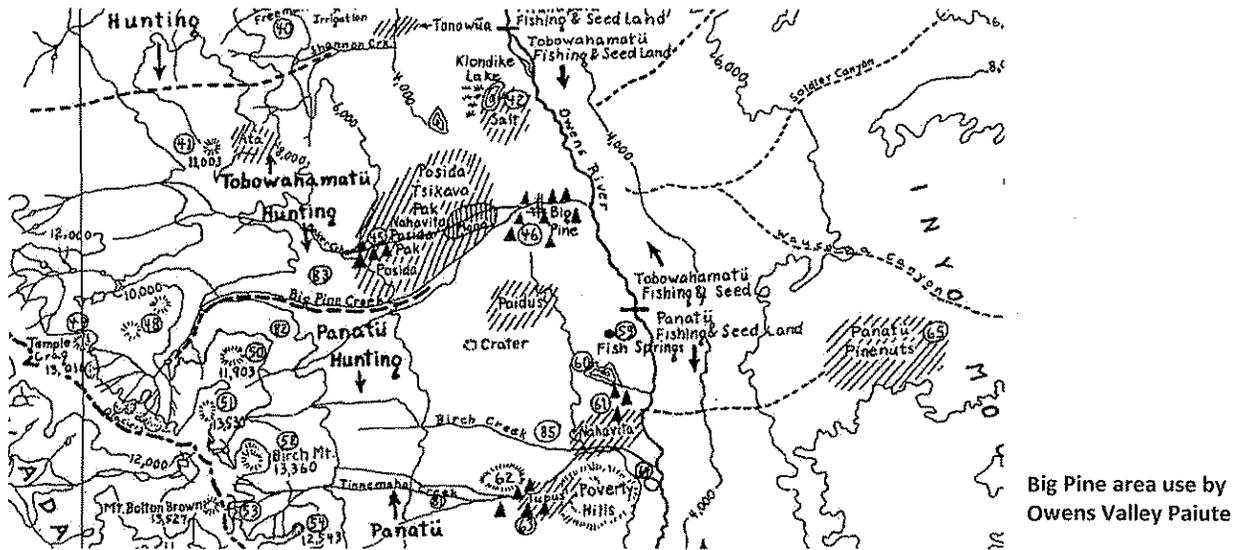
The Tribe also presents evidence that vegetation die-off has occurred, and is continuing to occur, due to groundwater pumping in the Big Pine area in violation of the Inyo/LA Long Term Water Agreement (LTWA). First, permanent monitoring site BP2 is located approximately 1200 feet from Well 375 and is "linked" for LTWA On/Off purposes to Well 375. Vegetation and soil water conditions at BP2 have resulted in Well 375 being in Off status for most of the time since On/Off protocols were implemented (see http://www.inyowater.org/Annual_Reports/2010_2011/default.htm report on 2010-11 Soil Water Conditions by Aaron Steinwand). The attached pages show BP2 water table so deep it is disconnected from the root zone and BP2 remaining in Off status since 1998.

The goal of the LTWA was to manage water resources to not cause further degradation of vegetation conditions that existed in the mid 1980s. For the LTWA, LADWP mapped vegetation, including in the Big Pine area. The 2010-11 annual report on vegetation by ICWD (same web link) shows a bleak story for vegetation in parcel Big Pine 162 (BGP162), located southeast of the Reservation. BGP162 is the parcel in which BP2 and Well 375 are located. The attached data show vegetation below baseline level every year since the mid 1980s. Why would LADWP operate a well which is in Off status? The purpose of Off status is to allow soil water and vegetation recovery. Why would LADWP operate a well located in a parcel with below-baseline vegetation? Why does the IS/ND CEQA document presented for the Big Pine NE Regreening project fail to disclose these data? This evidence for a significant adverse impact to vegetation must be addressed in an EIR on pumping to supply water for the Big Pine NE Regreening project.

Land Use and Planning. It must be noted that the Inyo/LA Long Term Water Agreement (LTWA) is a legally-binding policy which governs management of water and vegetation conditions and changes in Owens Valley. However, mention of this policy is not made in Section 2.3.10 of the IS/ND. Why not? As noted above, the Tribe presents evidence that conditions of the LTWA are being and will continue to be violated, resulting in significant adverse effects to the environment if the Big Pine NE Regreening project is implemented as proposed in the IS/ND.

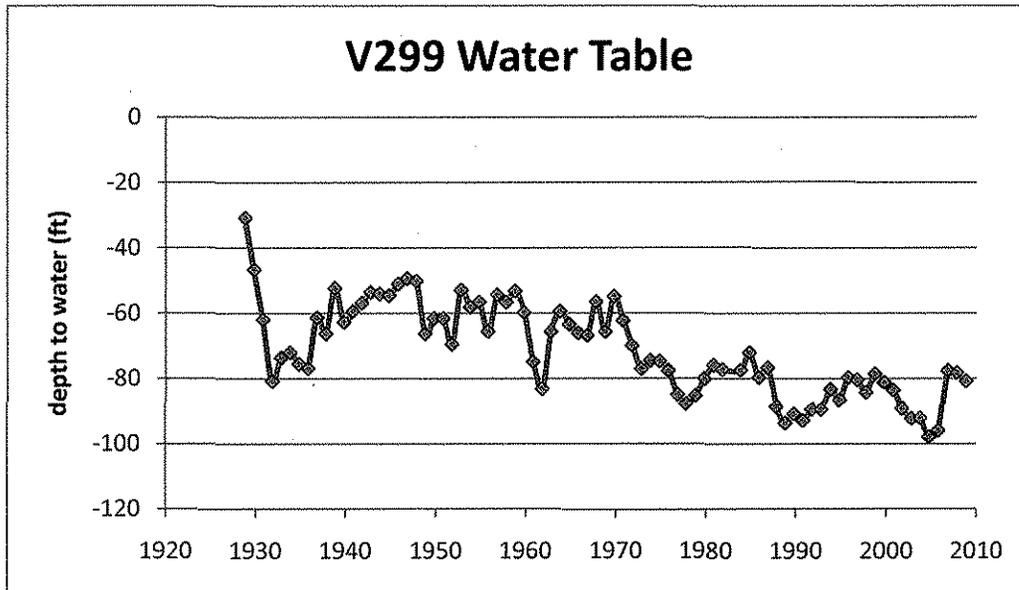
Cultural Resources. The Big Pine area supported the Tribe's ancestors because it was productive, supplying foods, medicines, and materials. Below is an excerpt of a map published by Julian Steward, *Ethnography of the Owens Valley Paiute*, University of California Publications in American Archaeology and Ethnography, Volume 33, 1933, showing some of the extent of productive, ancestral lands in the Big Pine area. The Tribe submitted extensive comments on the 1991 Inyo/LA EIR. The Tribe's comments noted there are 51 plant species in

Owens Valley which have been identified by Owens Valley Paiute/Shoshone as culturally important (Julian Steward in *Basin-Plateau Aboriginal Sociopolitical Groups*, Bureau of American Ethnology Bulletin 120, Washington, DC, 1938). In the 19th century, pre-historic irrigation ditches and tupusi (taboose) and nahavita growing areas were taken by white settlers. In the 20th century, after LADWP acquired the land, nearly all wet areas were desiccated causing a significant loss of culturally significant plants, with no hope of recovery (of those 51 plant species, 23 are restricted to wet habitats). In the Tribe's view, there has been no mitigation for these significant losses.



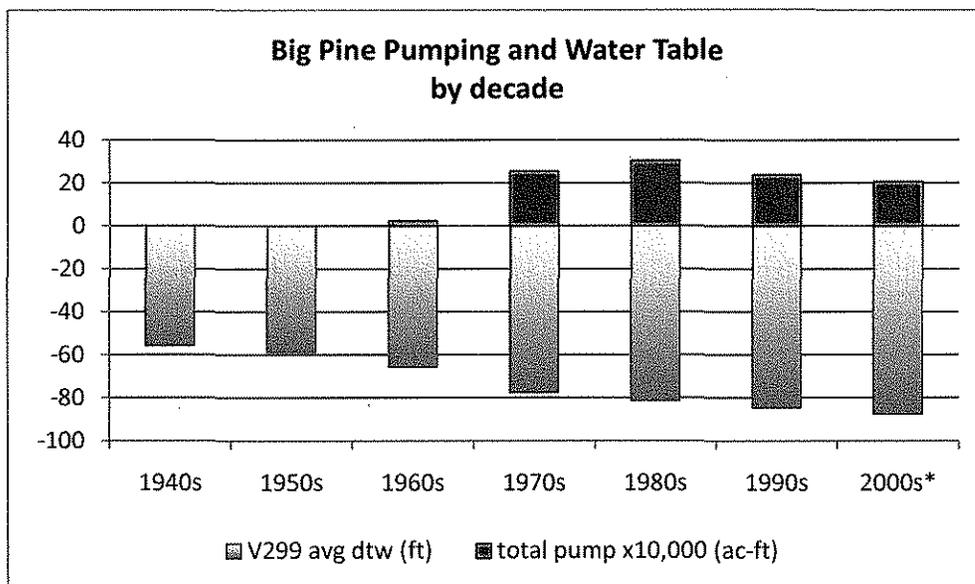
Mandatory Findings of Significance. LADWP's findings as stated in section 2.3.18 of the IS/ND are not realistic. For reasons stated above, the Tribe finds that, over the long term, exempting and then pumping Well 375 will exacerbate regional declining water levels, preclude recovery of soil water and groundwater-dependent vegetation, and directly affect the aquifer from which the Tribe acquires its drinking water.

The contribution of the project to declining water levels is a regional cumulative impact. Evidence includes water level changes that have occurred to date under the Big Pine Indian Reservation and at other monitoring well locations in the Big Pine area. Data from an observation well owned by the City of Los Angeles and located on the Big Pine Indian Reservation (V299) show that groundwater levels have steadily dropped regionally, over the past ~80 years (see below).



Depth to the water table from the ground surface at V299, 1928 through 2008. Well drillers noted water found at 6 feet and settling at 34 feet when V299 was drilled in 1928. Many measurements are taken each year, but data above have been simplified to show mid October readings. The highest water levels typically occur here in October. Some recent (non October) readings have been dry, because the observation well is only about 100 feet in length.

When the V299 October depth to water is averaged by decade (e.g. the readings for 1940 through 1949, etc.), along with the total pumping in the Big Pine area during the same decade (total acre-feet x 10,000), the pattern of gradual water table drawdown with time is evident (see below). Furthermore, the results suggest the groundwater decline has not stabilized. In fact, even though relatively less pumping has occurred in recent years, water tables have continued to drop. Thus, additional regional pumping from Well 375 will contribute to the trend observed in V299. Unfortunately, V299 is only about 100 feet deep, so it may soon be impossible to continue tracking this indicator of Reservation and regional water table trend.



Average October depth to water table (dtw) measurements, by decade, and LA DWP Big Pine area pumping during the same time period. The water table exhibits an incremental decline beneath the Big Pine Indian Reservation since the 1940s, with no obvious "leveling off" of the water table. Data for 2000s are through 2008.

Tremendous cultural and environmental damage has already occurred due to the pumping program of LADWP, and pumping Well 375 to supply the Big Pine NE Regreening project is a further environmental injustice to the Tribe. The Tribe relies on ground water to supply the domestic water needs of the Reservation. The proposed project is projected to lower the water table under the Reservation, thus increasing pumping costs, and perhaps otherwise jeopardizing the Tribe's community water system. The Tribe's water system is potentially directly affected by this project, yet this IS/ND and ICWD 2010 declare the impacts "insignificant." Through numerous letters and public comments during 2010, the Tribe objected to the potential adverse impact to its lands and resources. Should the Tribe be subject to further damages so that a self-described mitigation project can be implemented?

Lack of Inclusion of Public Comment. The Tribe finds it misleading if not dishonest that the IS/ND states (page 2-21),

"Pumping was simulated from three different locations: the regreening project site, the town supply well, and Well W375. For each location, draw down resulting from 10 years of project operation was simulated, holding all other inputs to the model constant. The results of the analysis indicate that, of the options considered, the least likely to have an adverse impact is pumping from Well W375. The predicted drawdown from W375 is too small to measurably affect the phreatophytic communities in the vicinity of the well, and is therefore considered insignificant. *The results of this study were presented by the Technical Group to the Standing Committee at a public meeting in November, 2010. Local citizens were able to comment on the proposed project.*" [bold and italics added for emphasis]

The purpose of CEQA is disclosure; the above statement is misleading because the numerous issues and objections raised by the "local citizens" and the process by which prior public comment was handled were not disclosed in the IS/ND. Approximately 30 representatives from the Big Pine Paiute Tribe attended the August 27, 2010, Standing Committee meeting in Independence. Several carried signs objecting to the project, and some gave oral statements in opposition to the project. The Standing Committee was presented with a petition, which, after being in circulation for about one week before the meeting, 164 community members had signed¹. Most importantly, the Tribal Chairperson, made a statement on behalf of the Tribe, but he was repeatedly interrupted by the Standing Committee chairman. When the issue was revisited at the November 4, 2010, Standing Committee meeting, there once again were numerous Tribal representatives in attendance and several made statements opposing the project.

At both meetings, the local citizens were told by Standing Committee representatives public comment would not be considered in the vote. Inyo County representatives said that their decision on how to vote on proceeding with the revised Big Pine NE Regreening project description had already been made by their full Board of Supervisors, and they were simply present to cast that vote. Public comment would not influence their decision, because their decision was predetermined. Inyo officials specifically told the Tribe and public that they must wait until the CEQA process to voice objections and concerns. However, the IS/ND presents no

¹ The petition was transmitted by Mr. Alan Bacock of the Big Pine Paiute Tribe. By the end of August 2010, a total of of nearly 200 signatures were collected. Copies of the petition available upon request.

opportunity for a public meeting, and it uses none of the previous public comments to disclose potentially significant impacts or controversial issues.

Clearly, public comment must be taken into consideration in the CEQA process. When LADWP embarks on a true CEQA environmental review of the Big Pine NE Regreening project, the document's preparers must acquire the audio tapes from the August 27 and November 4, 2010, Standing Committee meetings and list the comments. Attached to this letter, the Tribe resubmits its letter dated August 25 and presented at the August 27, 2010, meeting. The Tribe also attaches articles from subsequent Tribal newsletters which describe the Tribe's treatment at the Standing Committee meetings and some of the Tribe's concerns. In addition to acquiring existing public comments on the project, LADWP needs to solicit comments directly for its CEQA review, in order to fully disclose and evaluate project components.

SUMMARY

The Tribe asserts an EIR should be completed for the Big Pine NE Regreening project. The IS/ND is inadequate, as pointed out in the evidence the Tribe presents in this letter. CEQA guidelines state that, "simply filling out an initial study checklist without citing supporting information is insufficient to show the absence of significant effects." The guidelines say, "a thorough" initial study "is a crucial part of the record supporting the Lead Agency's determination." LADWP's IS/ND omits commonly known and available relevant information.

The Big Pine NE Regreening project was designated as a mitigation measure in the 1991 EIR to the Inyo/LA Water Agreement because of widespread groundwater pumping impacts caused by LADWP in the Big Pine wellfield prior to 1990. To meet this obligation for mitigation in the Big Pine area, the area may be irrigated at LADWP's expense, but no further pumping should occur because that would be a serious environmental and human cost at Big Pine's expense. The Tribe strongly objects to the well exemption component of the project. In addition to the project-specific objections that the Tribe identified above, the Tribe objects to the lack of proper solicitation and use of public comment and the inadequate CEQA process followed to date with regard to this project.

The Tribe hopes LADWP will use these and other comments to guide development of an improved, more appropriate CEQA EIR document with regard to the Big Pine NE Regreening project. Should you desire more information from the Tribe, please contact Dr. Sally Manning, Tribal Environmental Director.

Sincerely,

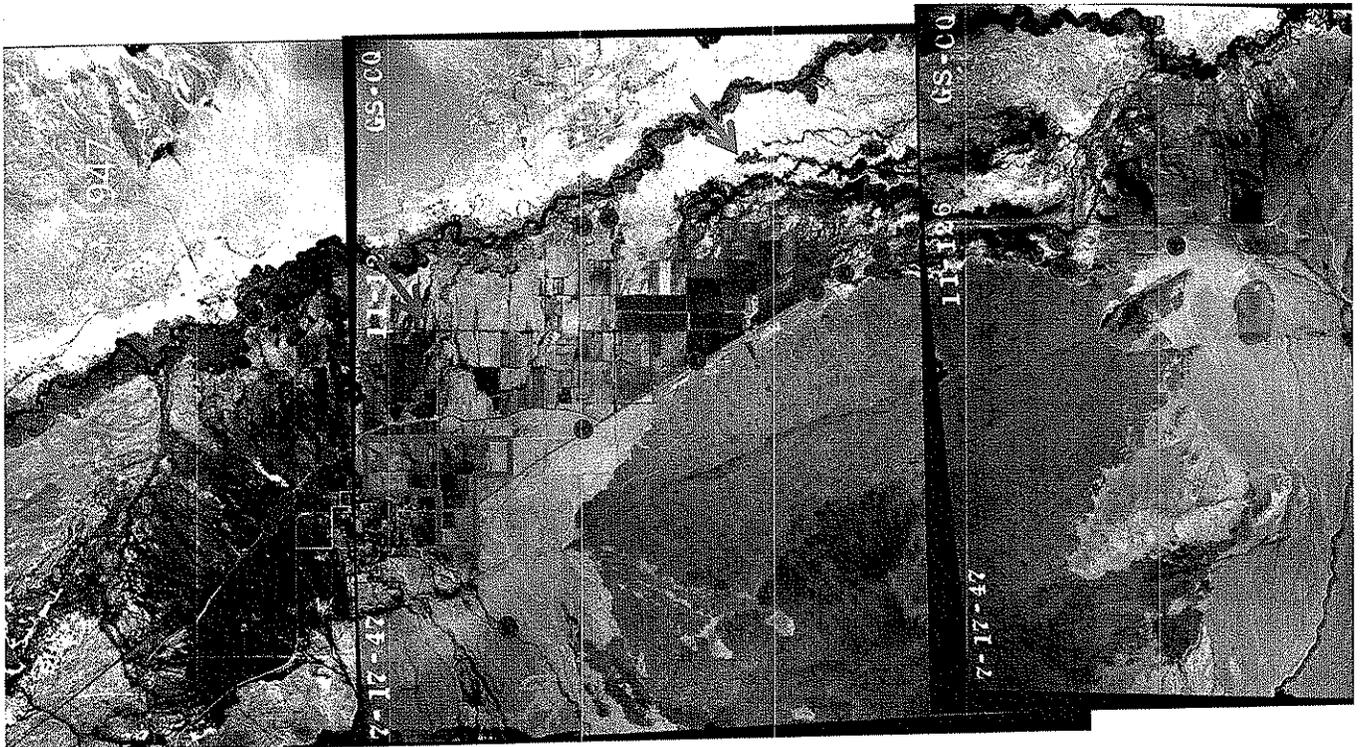
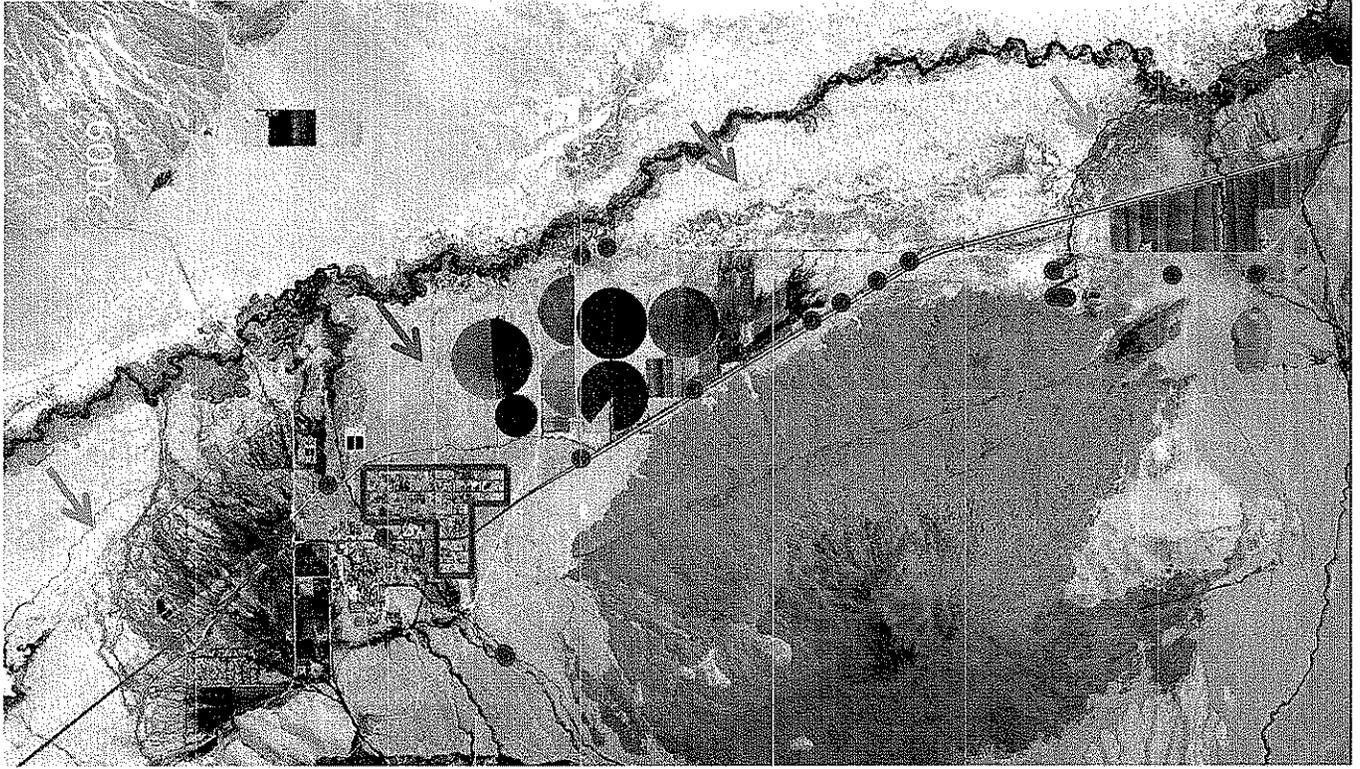


Virgil Moose
Tribal Chairperson

cc: Los Angeles City Council
LADWP Board of Water and Power Commissioners
Inyo County Board of Supervisors
Bureau of Indian Affairs
Owens Valley Indian Water Commission

Attachments:

1. Big Pine area in 1947 v. 2009
2. Radius of Influence diagrams: MWH model output for Big Pine area
3. Change in depth to water table from Inyo County annual report 2006
4. Photographs of dust southeast of Big Pine Indian Reservation
5. Monitoring site map showing BP2 and recent BP2 soil water data
6. Vegetation parcel map with BGP162 and vegetation data for BGP162
7. Petition, blank, but signed by about 200 individuals
8. Copy of Tribal comment letter dated August 25, 2010 and copies of Tribal newsletter articles



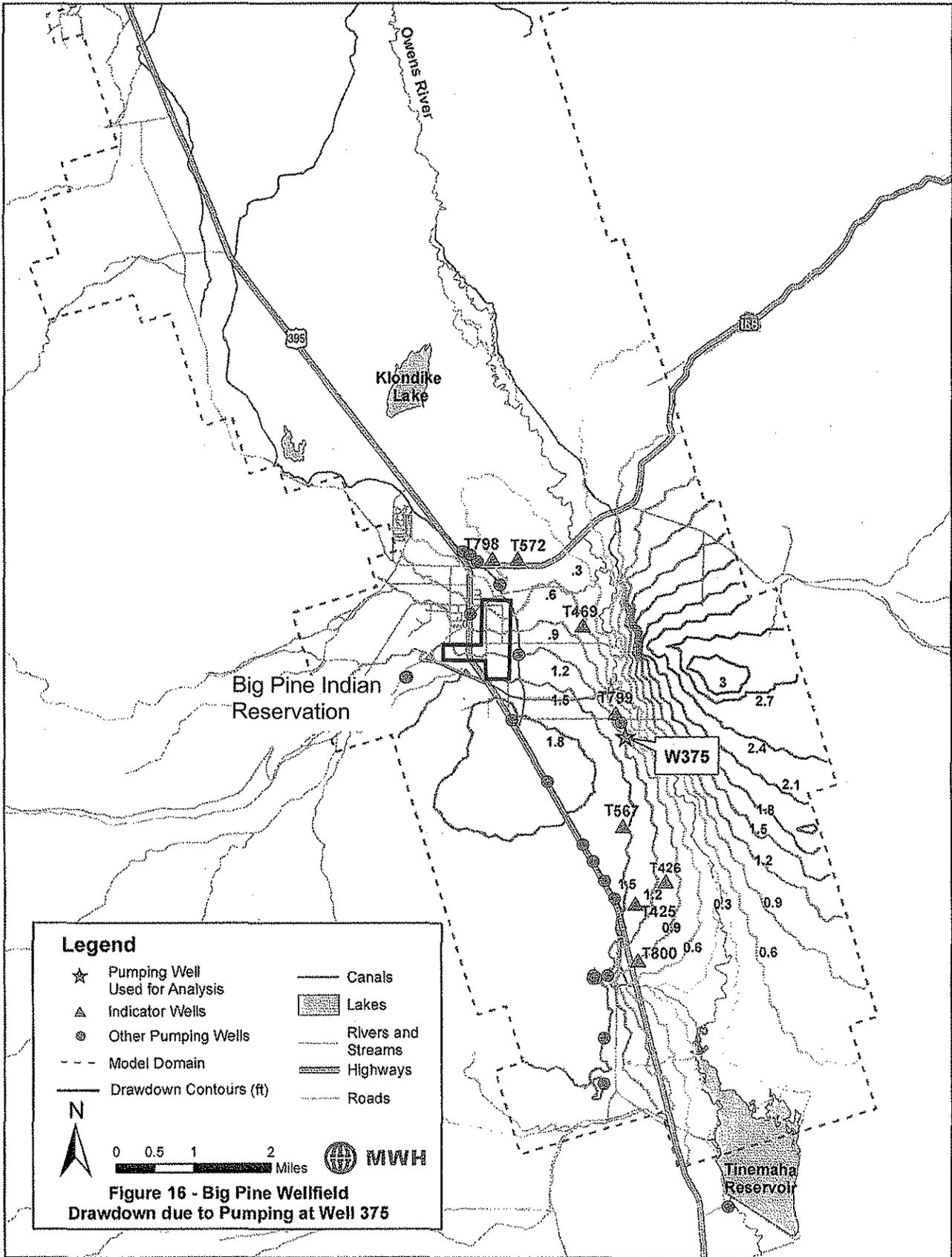


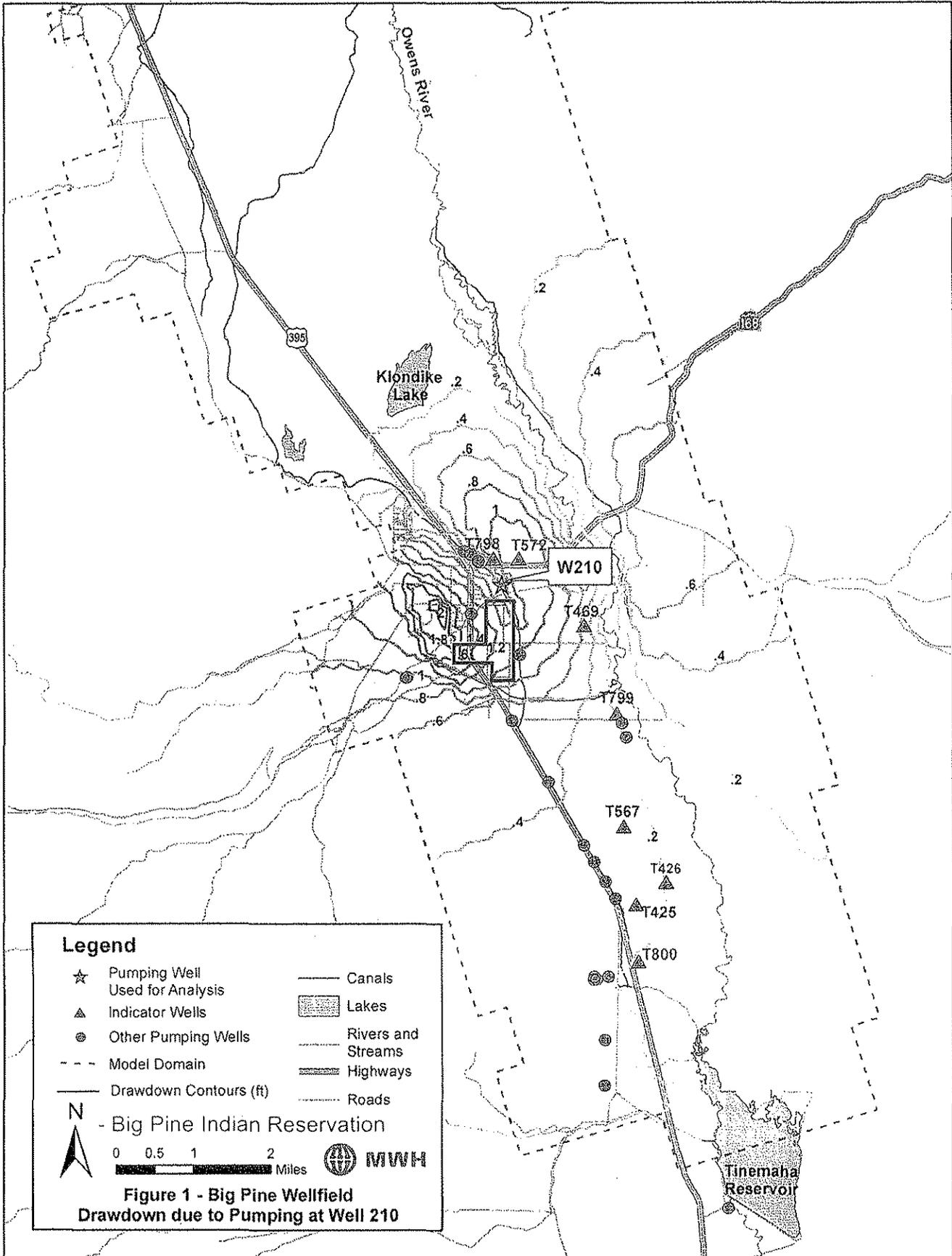
Table 1. MWH Technical Memorandum, Radius of Influence Analysis - Big Pine and Taboose-Aberdeen Wellfield, June 10, 2008, shows that *all* DWP wells in the Big Pine wellfield affect the water table under the Big Pine Indian Reservation. With the exception of the town supply well(s), all pumped water is exported from the Big Pine area. Numbers below (columns IV and VI) show estimated water table drawdown under Big Pine Indian Reservation based on modeling of pumping individual DWP wells in the BP Wellfield.

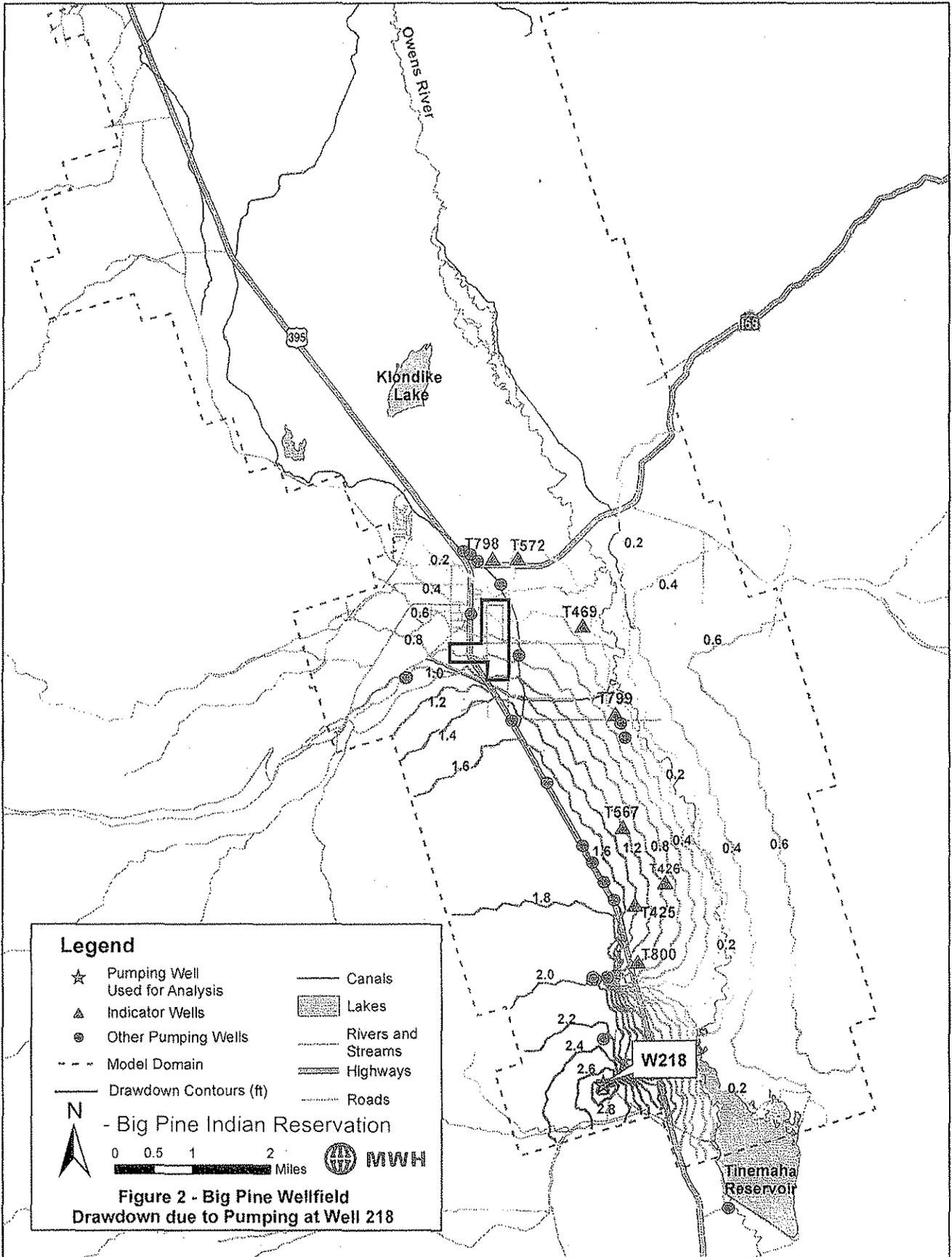
I. Well # ²	II. Location	III. Acre-feet pumped in one year	IV. Drawdown at NE Res after 1 yr of pumping well, in feet	V. % of Total drawdown	VI. Drawdown at Approx Tribal Office, in feet	VII. % of Total drawdown
210	BP Canal, N	1540	0.8	6.7	1.5	5.4
218	S of hatchery	2470	0.3	2.5	0.8	2.9
219	S of hatchery	3360	0.4	3.3	1.2	4.3
220	Near BP Canal, S	1750	0.6	5.0	1	3.6
222	BP Canal, S	950	0.15	1.3	0.4	1.4
223	BP Canal, S	1960	0.2	1.7	0.8	2.9
229	BP Canal, S	1060	0.15	1.3	0.5	1.8
231	BP Canal, S	1450	0.2	1.7	0.6	2.2
232	BP Canal, S	1380	0.15	1.2	0.6	2.1
330	Fish Hatchery, S	6100	0.75	6.2	2	7.1
331	Fish Hatchery, S	5150	0.5	4.2	1.6	5.7
332	Fish Hatchery, S	11500	1.3	10.8	4	14.3
341	BP town well, W	450	0.2	1.7	0.65	2.3
352	BP town backup, in town	50	0.03	0.3	0.75	2.7
374	SE of Res	4000	0.75	6.2	1.6	5.7
375	SE of Res	3420	0.58	4.8	1.2	4.3
378	N of town	3150	1.5	12.5	2.75	9.8
379	N of town	3200	2	16.6	2.8	10.0
389	N of town	3000	1.2	10.0	2.4	8.6
409	Fish Hatchery, S	2150	0.25	2.0	0.8	2.9
Total		58,090	12.01	100	27.95	100

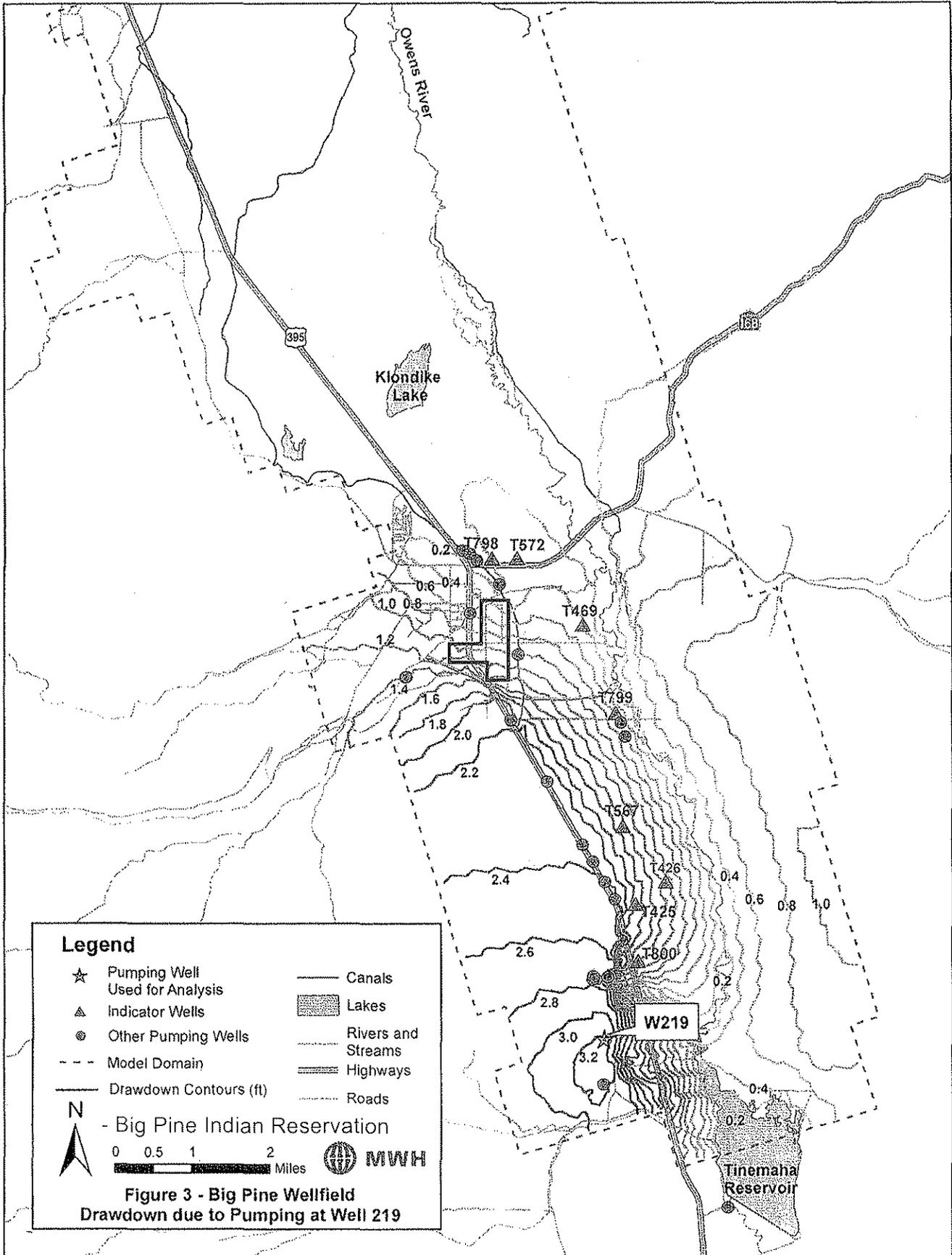
Wells in gray shading (fish hatchery and primary town supply wells) are typically operated every year, nearly all year.

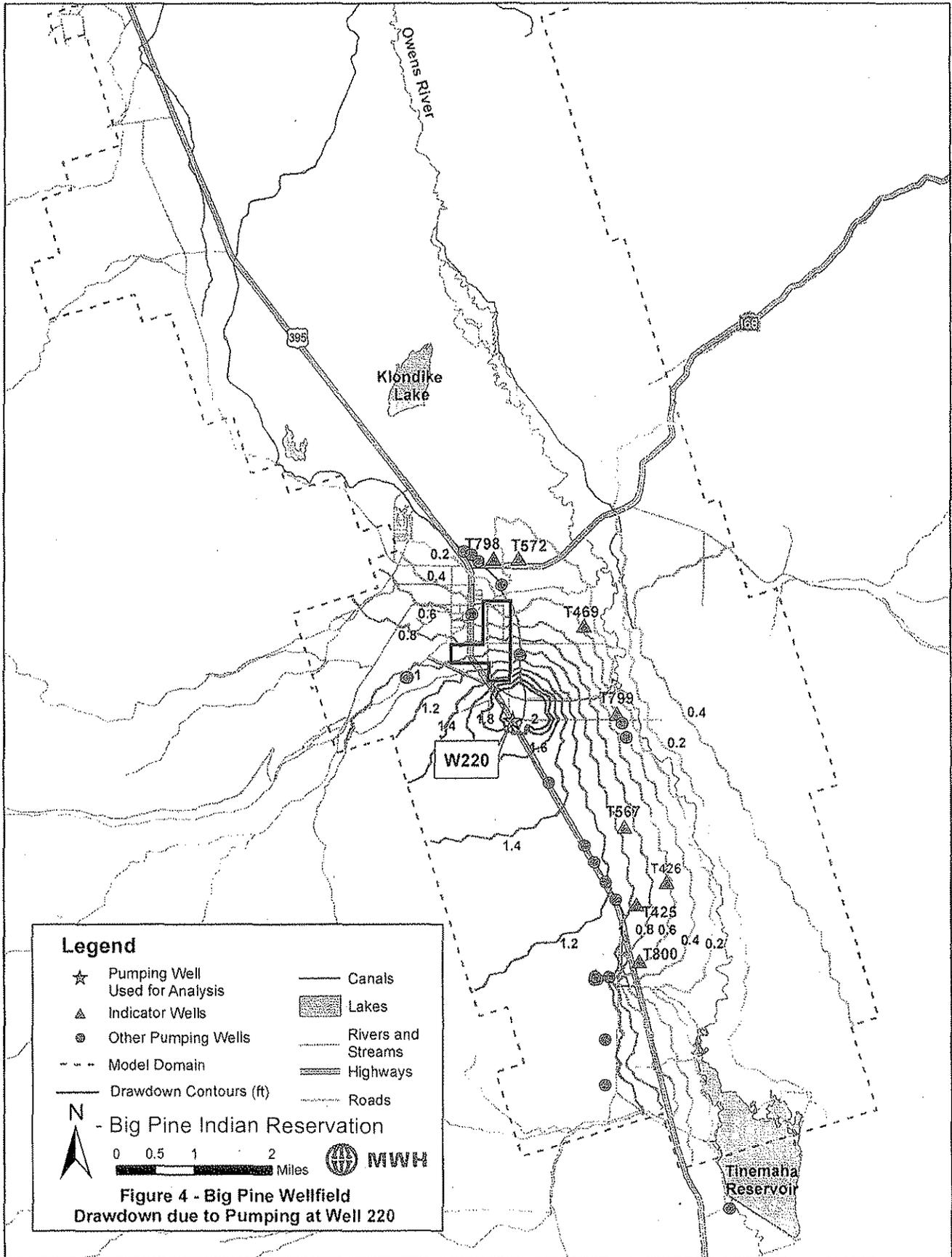
Well 375 highlighted in red shading.

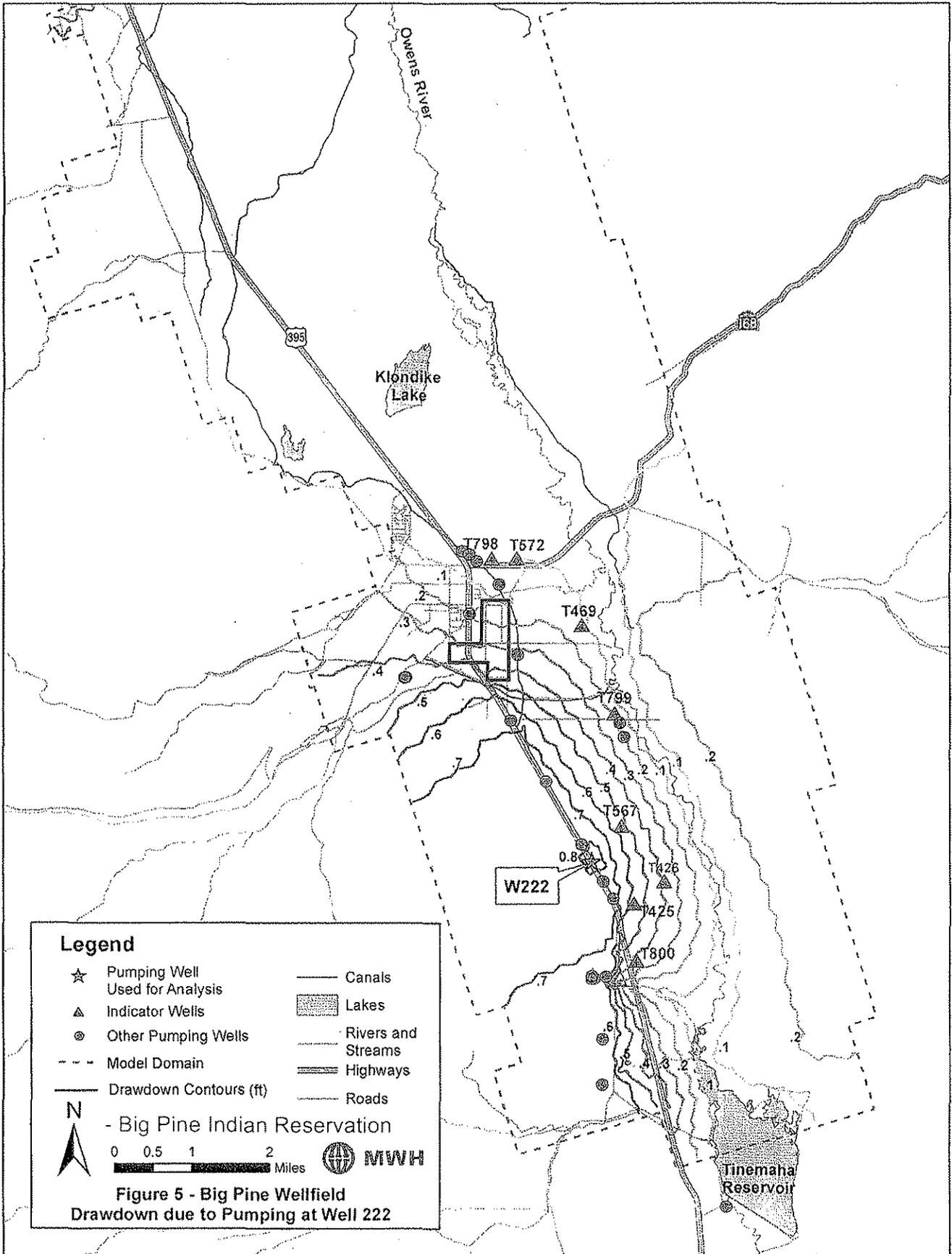
² W415 not included (currently has no pump)









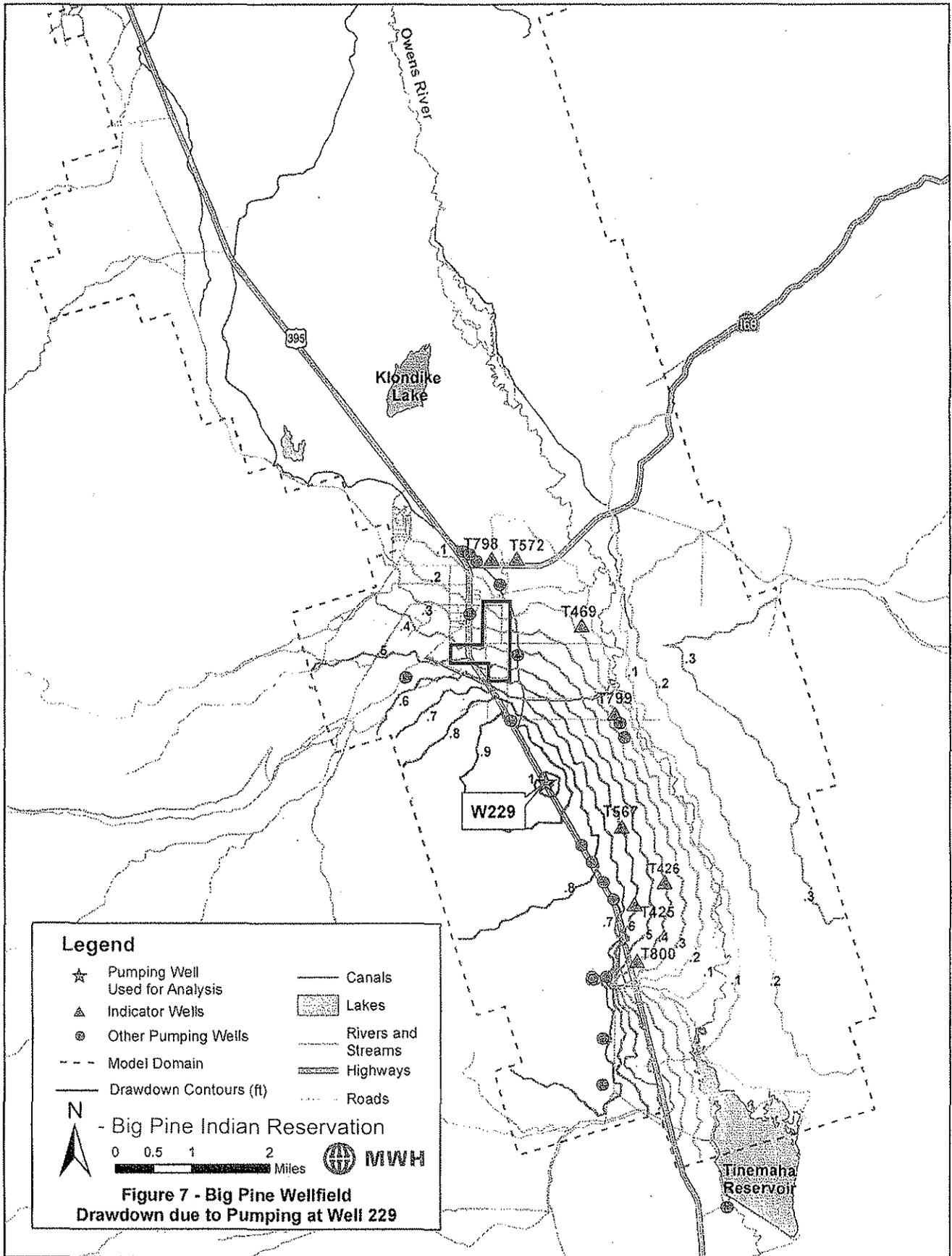


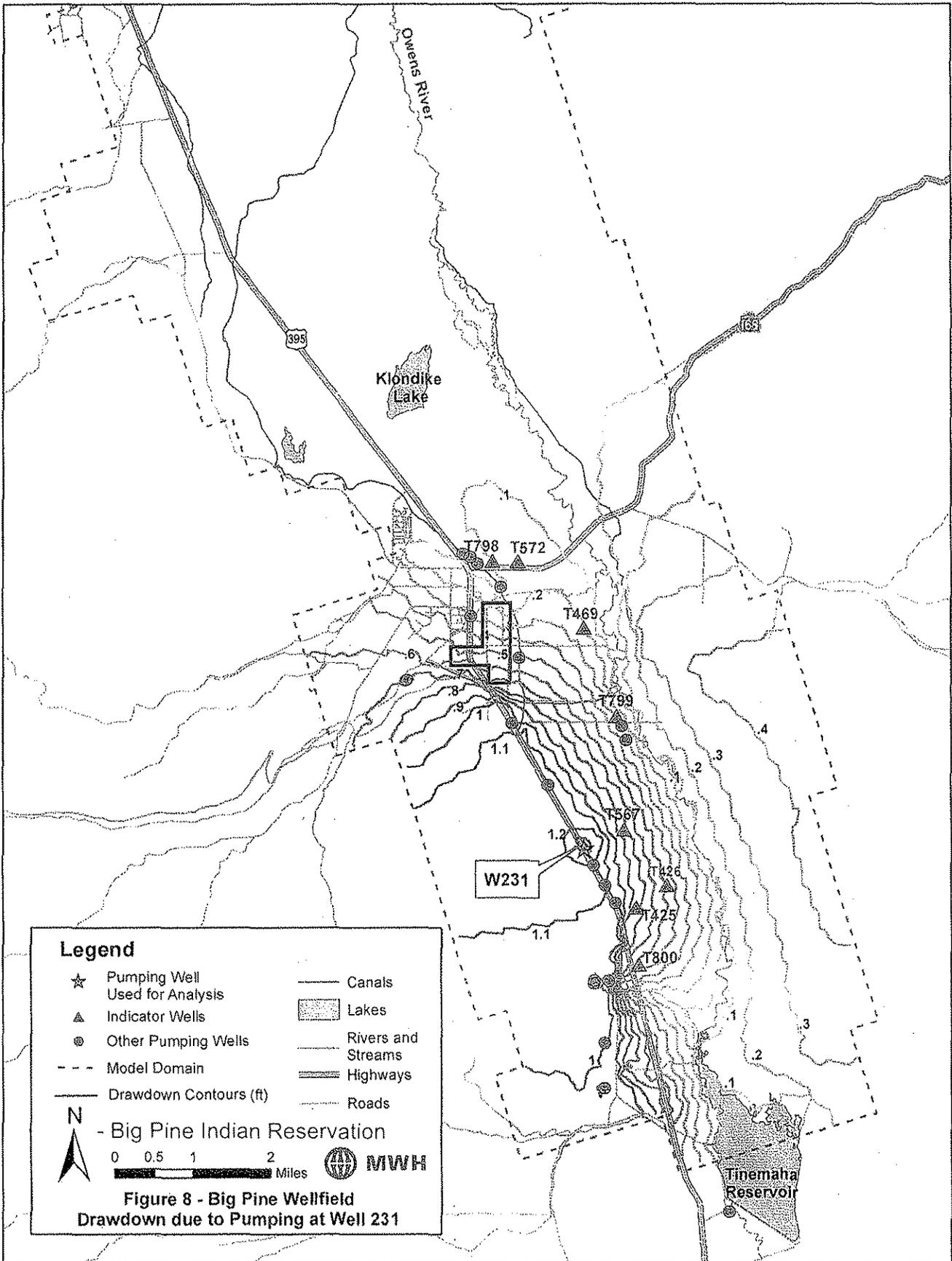
Legend

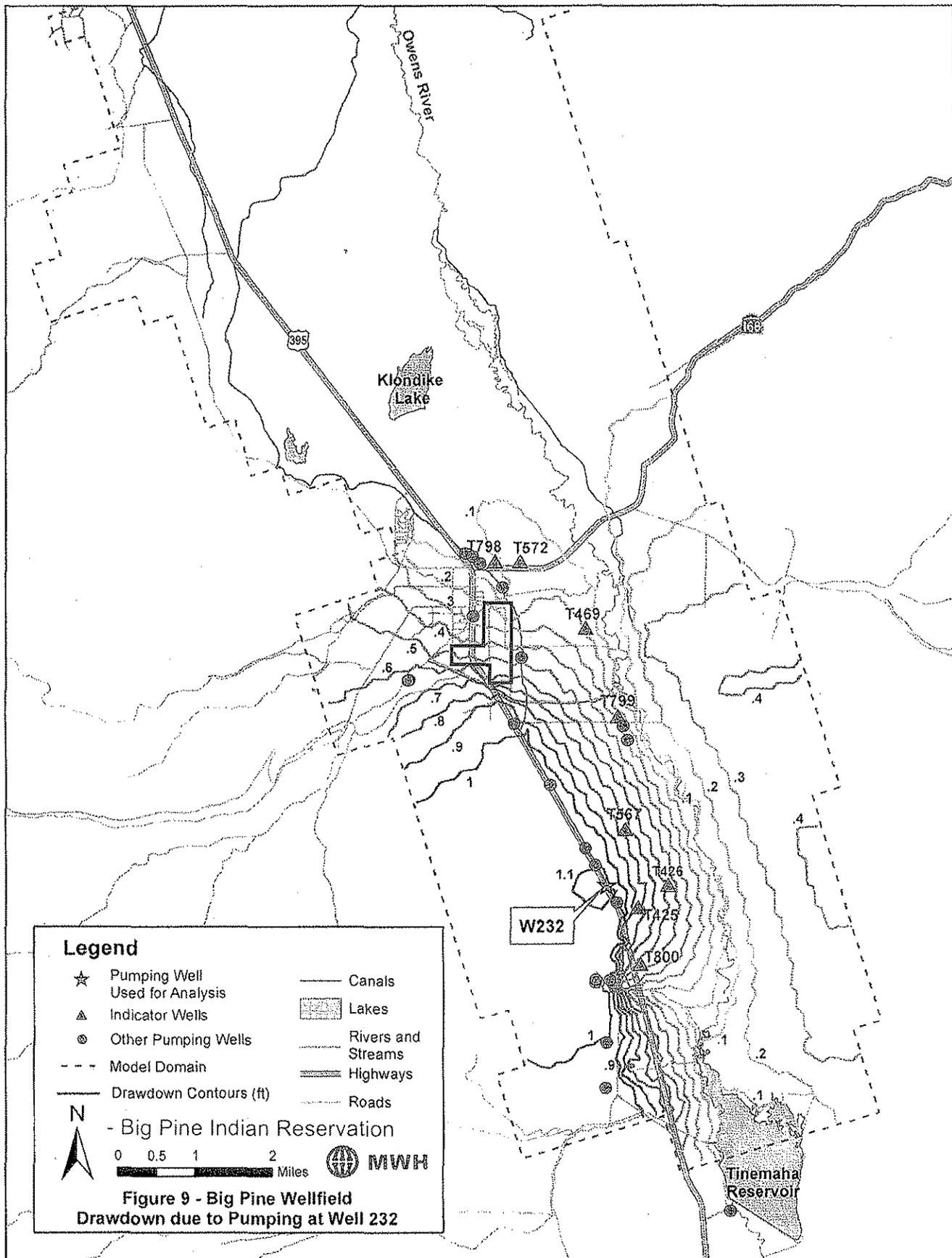
☆ Pumping Well Used for Analysis	— Canals
▲ Indicator Wells	▨ Lakes
⊙ Other Pumping Wells	— Rivers and Streams
- - - Model Domain	== Highways
— Drawdown Contours (ft)	— Roads

N
 - Big Pine Indian Reservation
 0 0.5 1 2 Miles MWH

Figure 5 - Big Pine Wellfield
Drawdown due to Pumping at Well 222





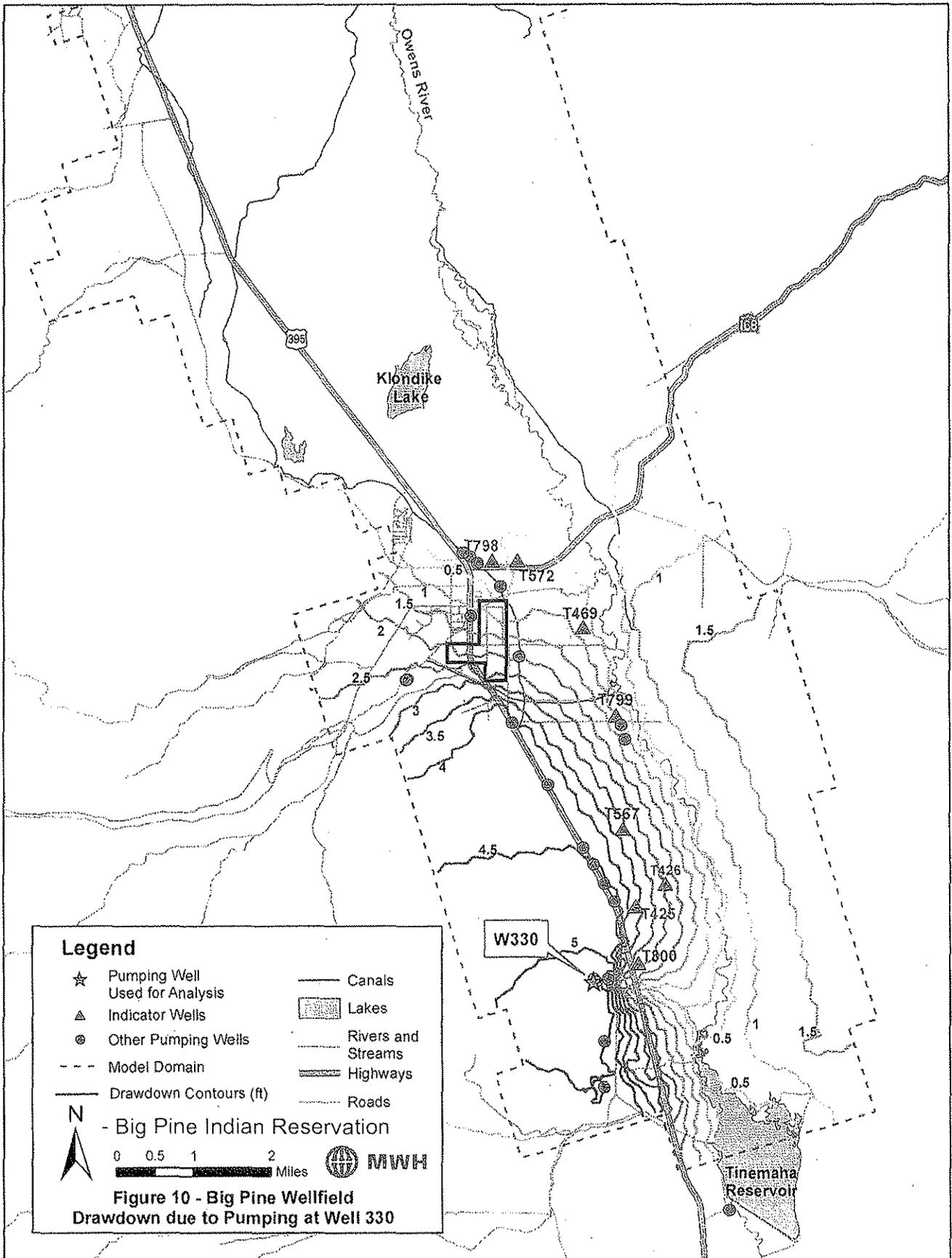


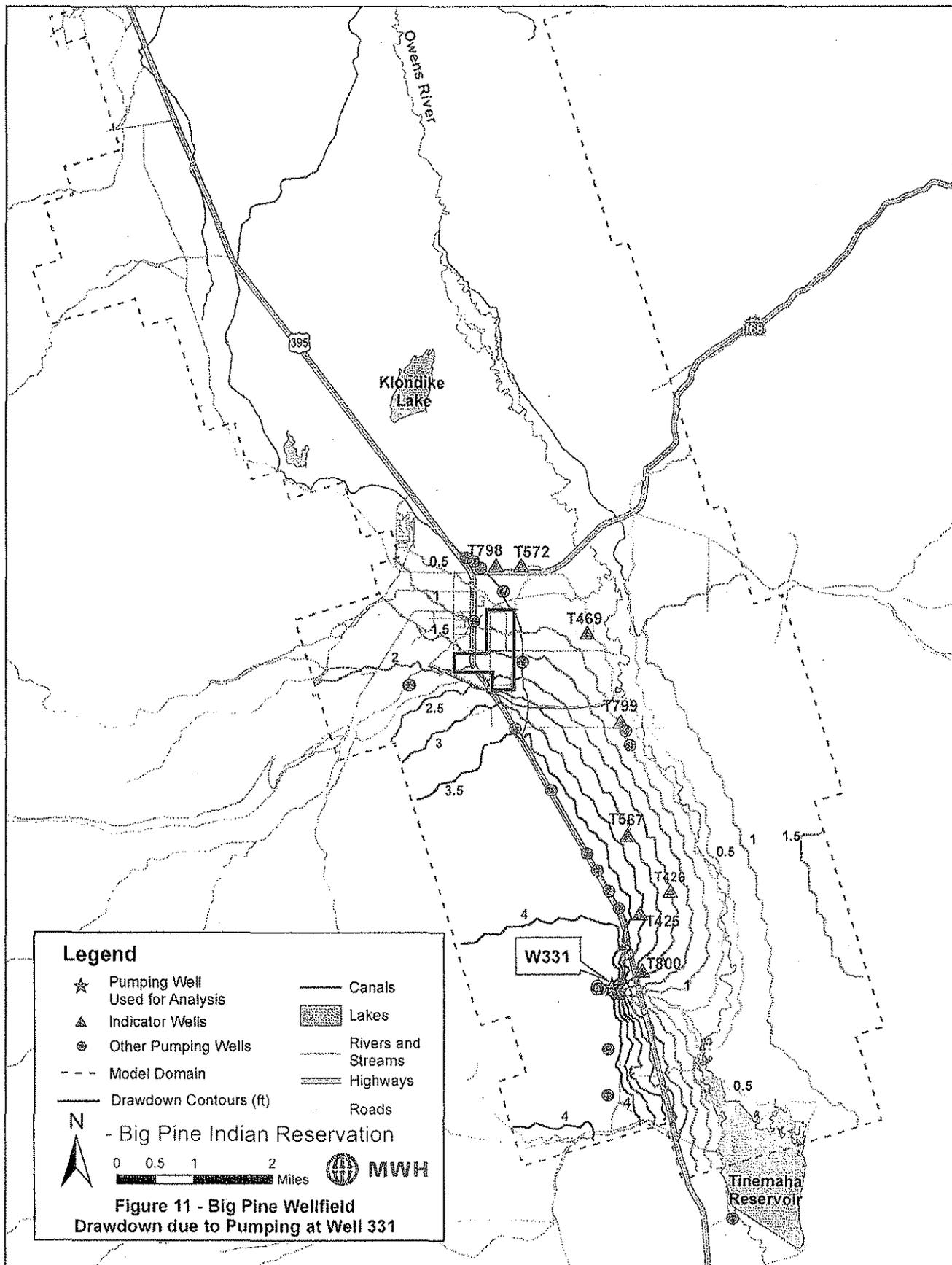
Legend

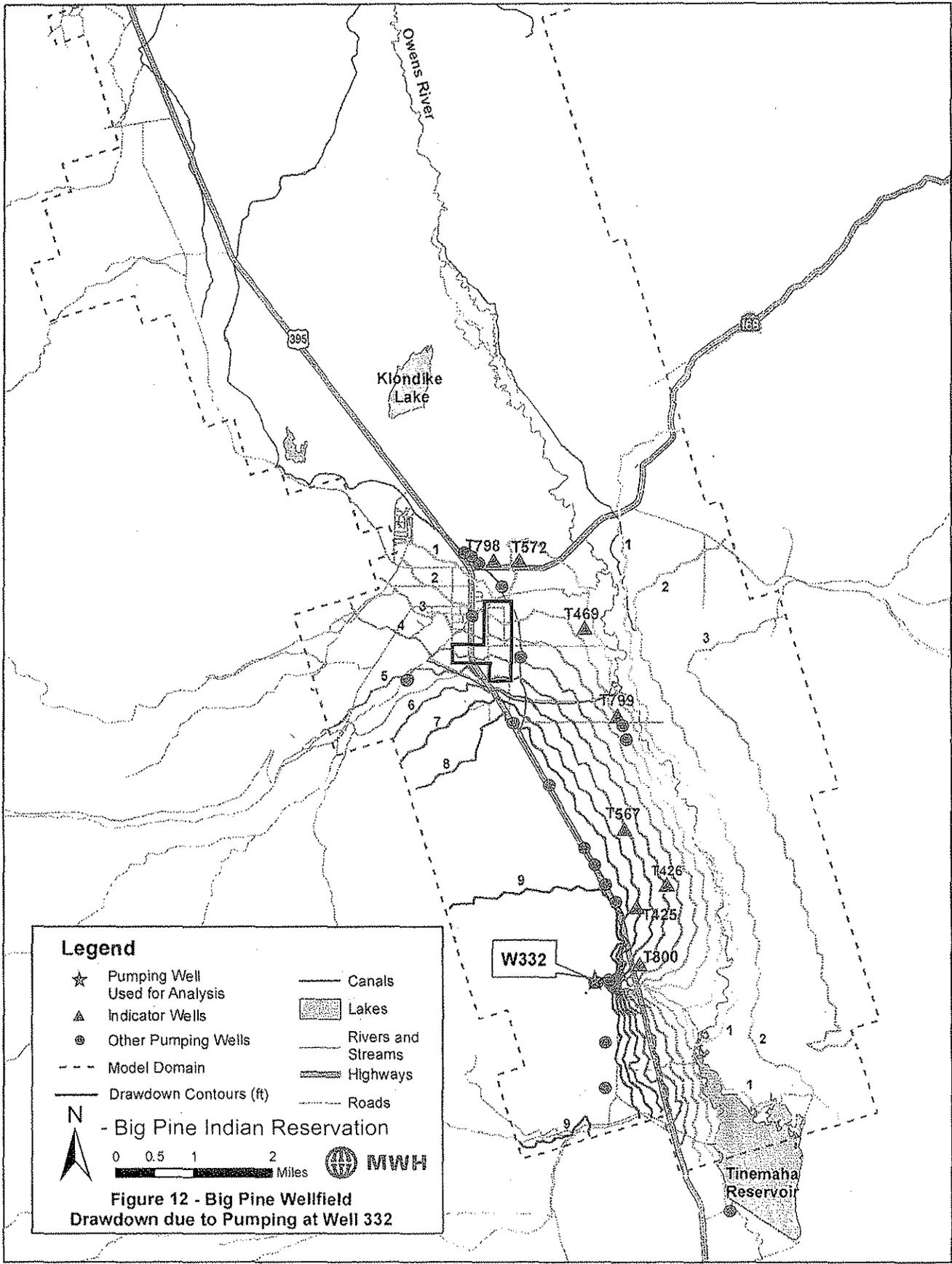
☆	Pumping Well Used for Analysis	—	Canals
▲	Indicator Wells	▨	Lakes
⊙	Other Pumping Wells	—	Rivers and Streams
- - -	Model Domain	==	Highways
—	Drawdown Contours (ft)	—	Roads

N
 - Big Pine Indian Reservation
 0 0.5 1 2 Miles MWH

**Figure 9 - Big Pine Wellfield
Drawdown due to Pumping at Well 232**







Legend

- ★ Pumping Well Used for Analysis
- ▲ Indicator Wells
- Other Pumping Wells
- - - Model Domain
- Drawdown Contours (ft)
- Canals
- ▭ Lakes
- Rivers and Streams
- Highways
- Roads

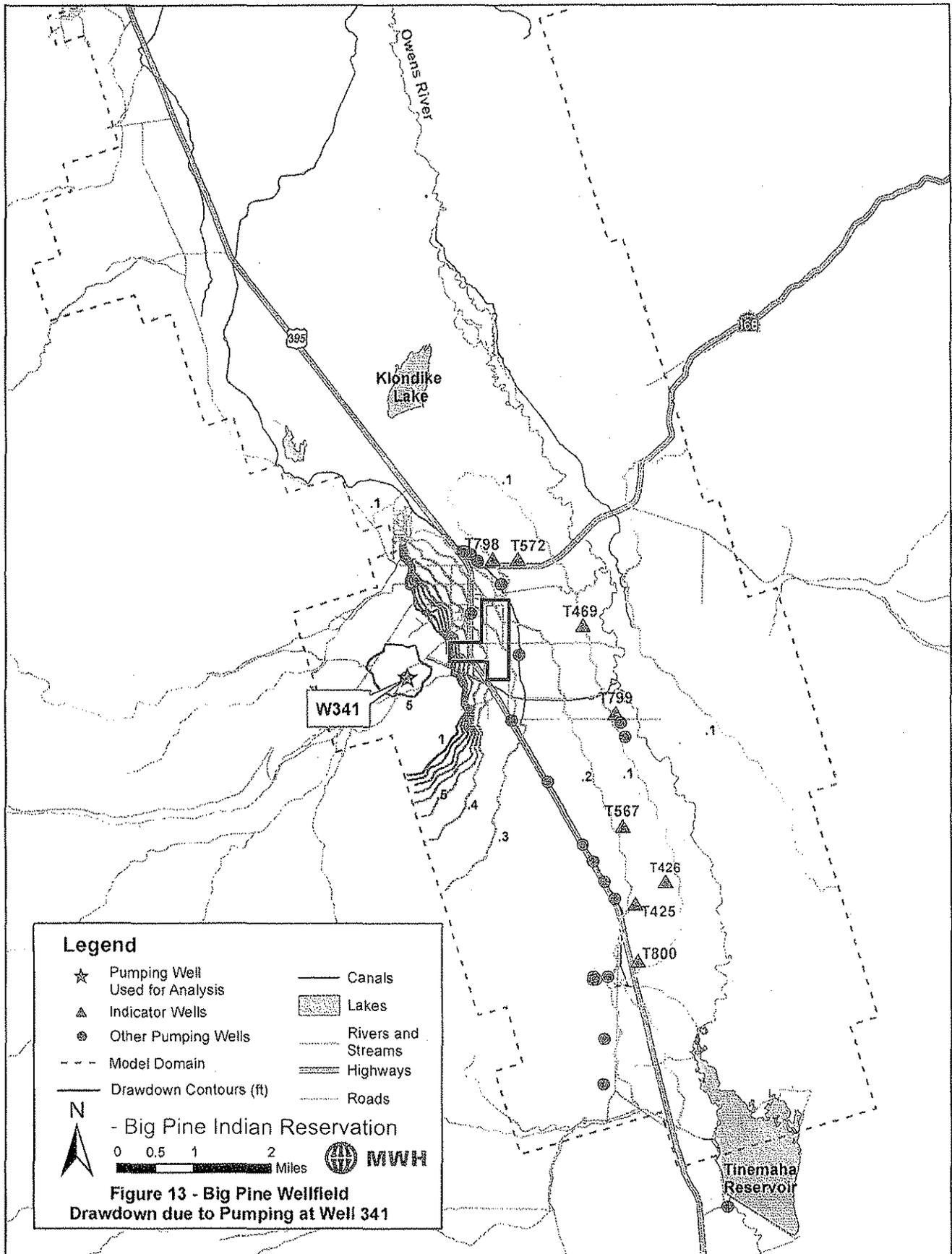


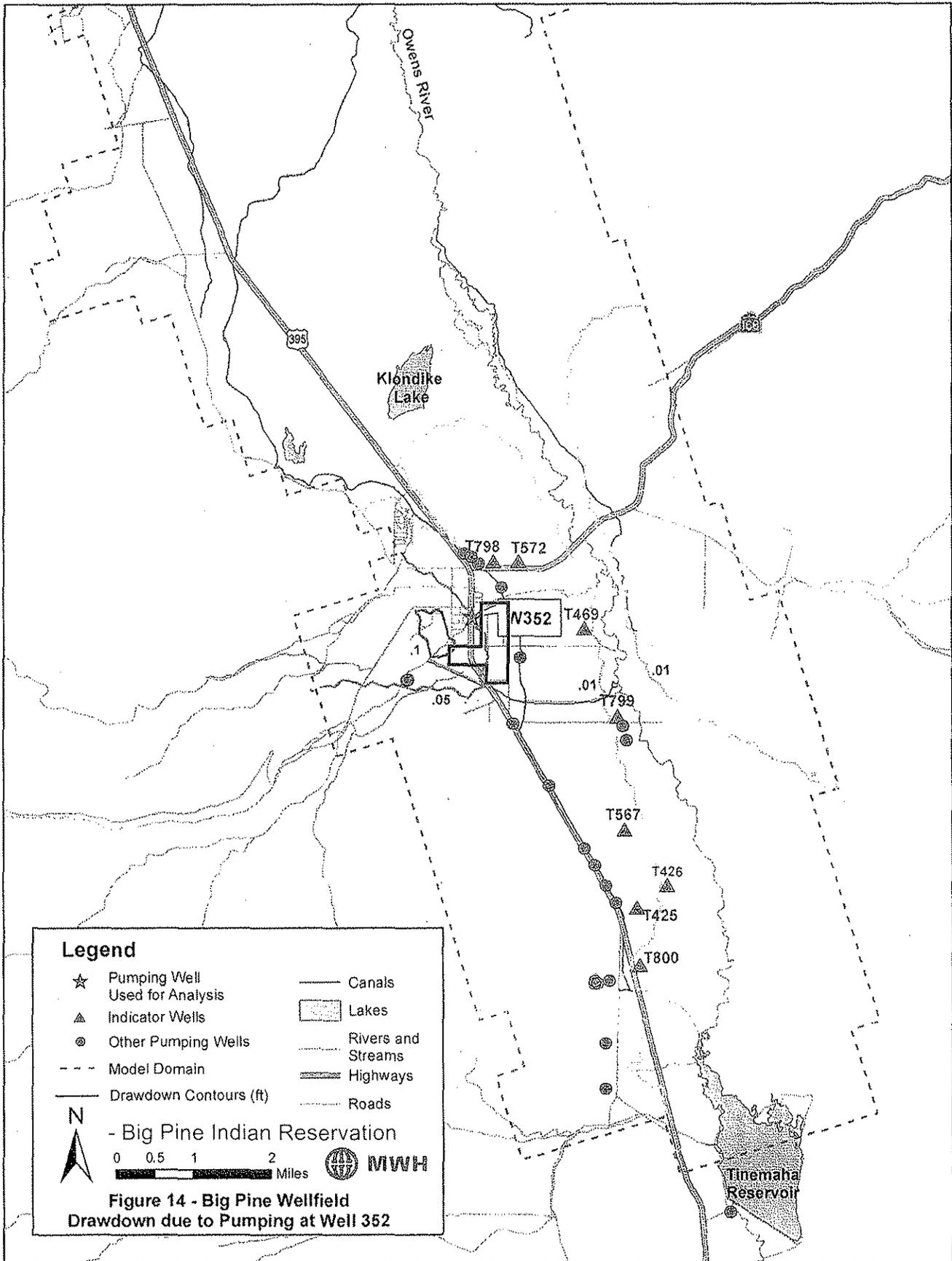
— Big Pine Indian Reservation

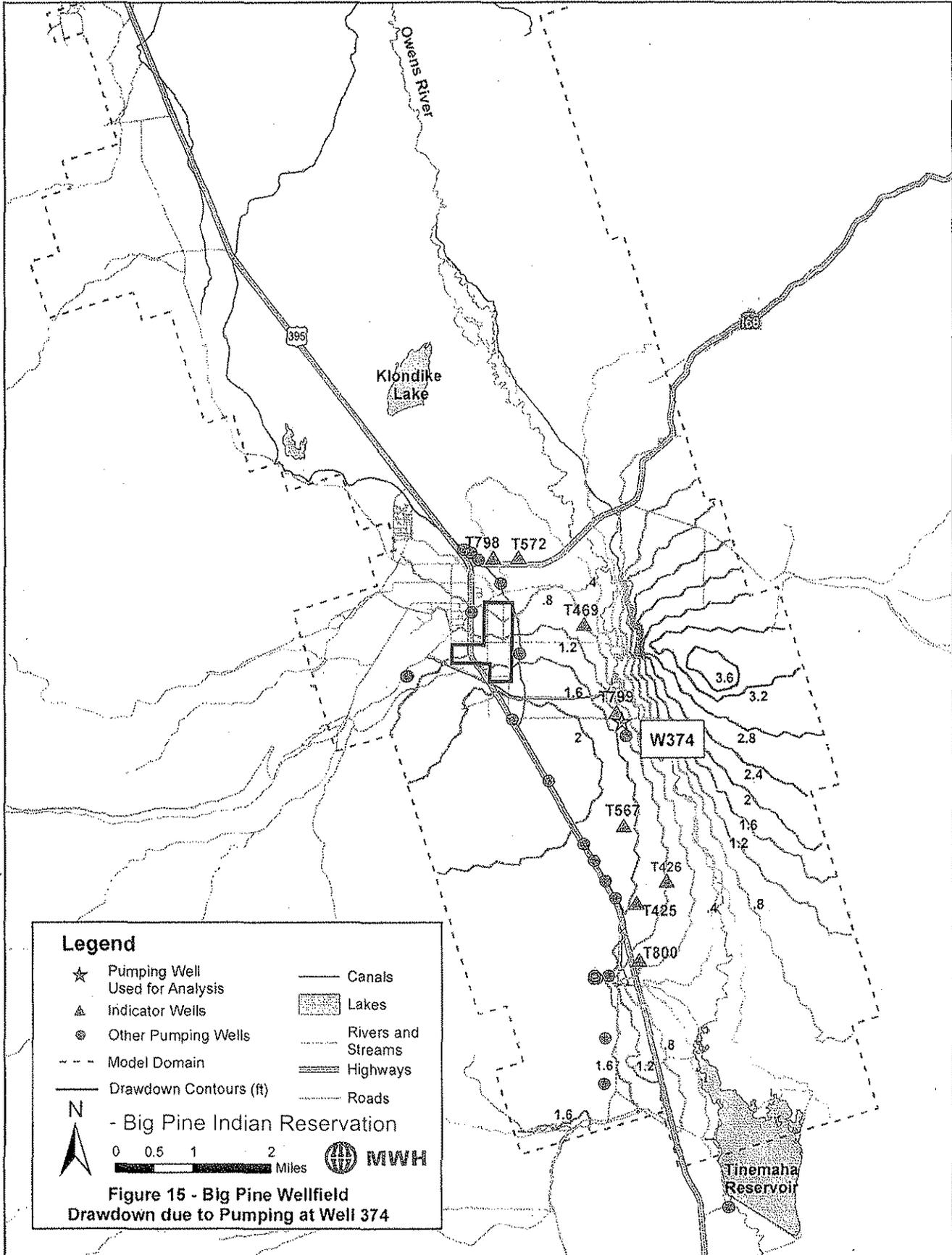
0 0.5 1 2 Miles



**Figure 12 - Big Pine Wellfield
Drawdown due to Pumping at Well 332**





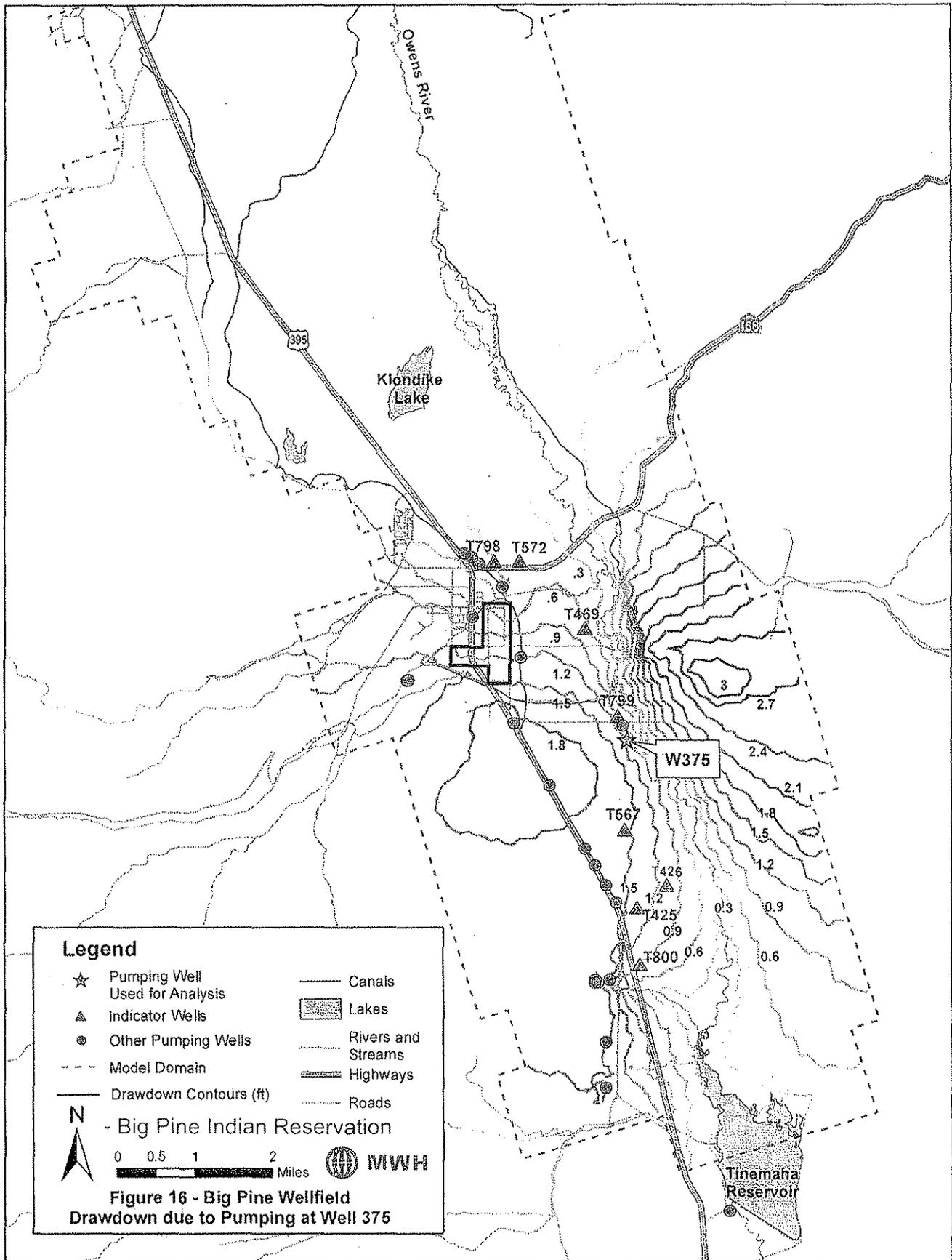


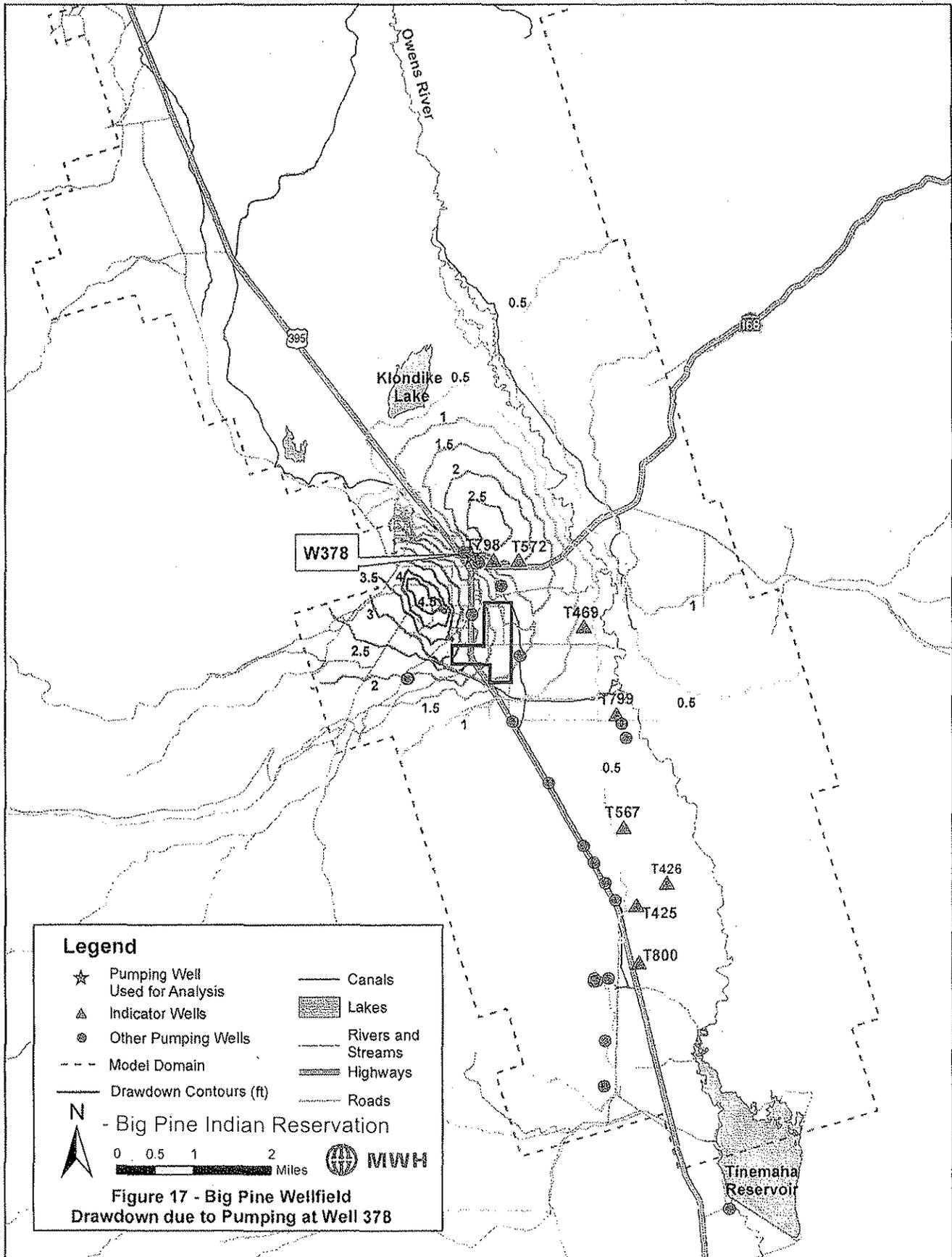
Legend

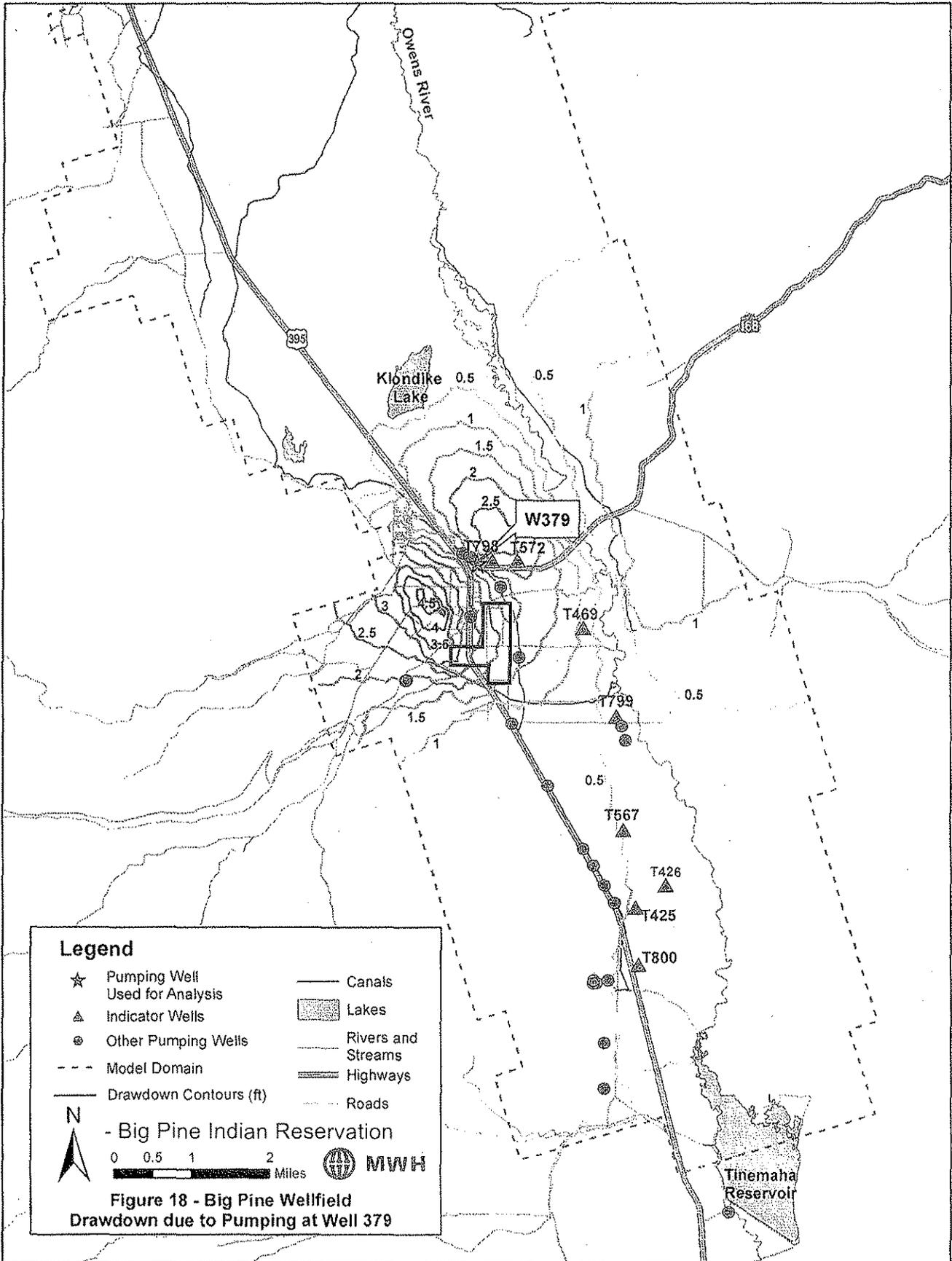
★ Pumping Well Used for Analysis	— Canals
▲ Indicator Wells	▨ Lakes
● Other Pumping Wells	— Rivers and Streams
- - - Model Domain	== Highways
— Drawdown Contours (ft)	— Roads

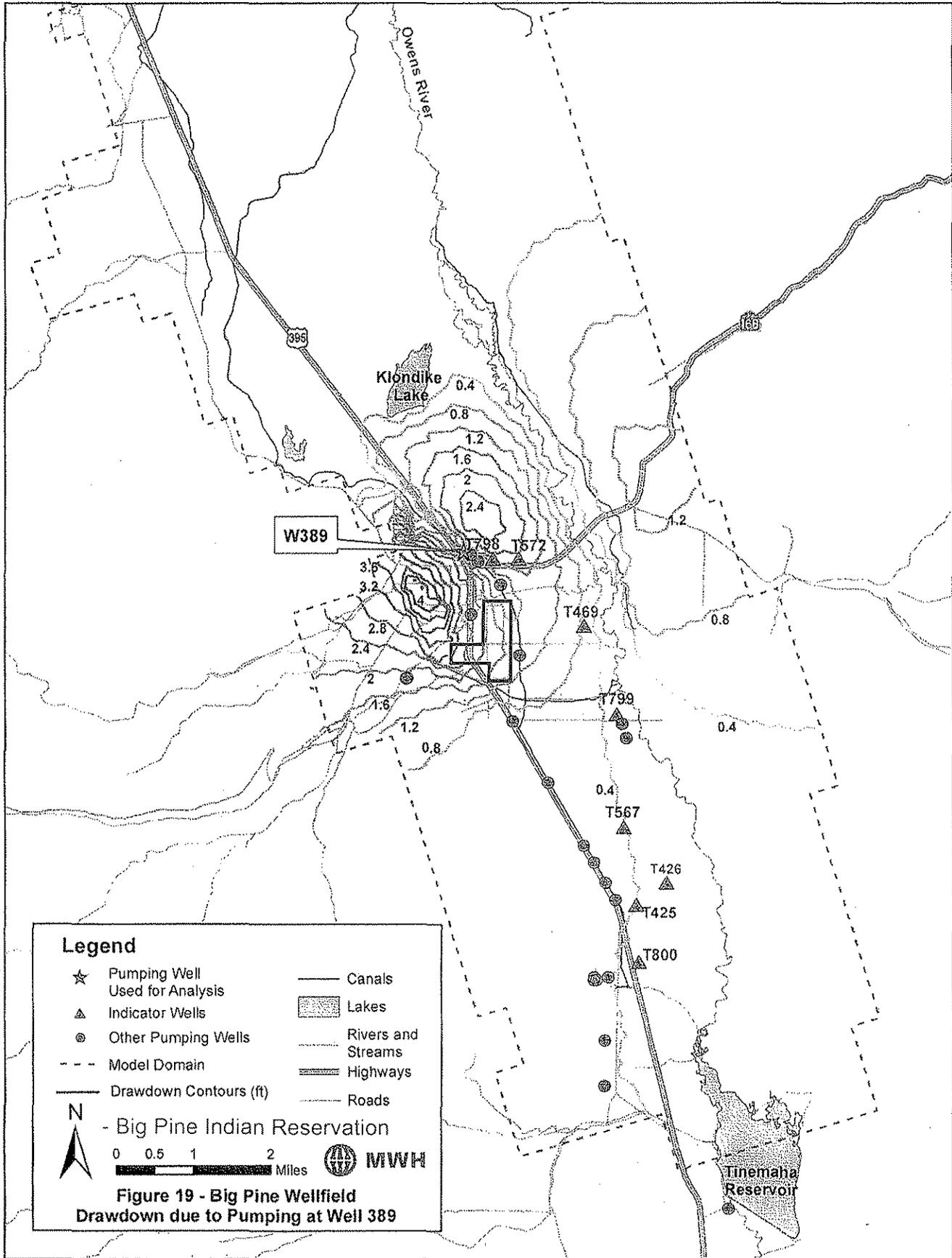
N
 - Big Pine Indian Reservation
 0 0.5 1 2 Miles MWH

**Figure 15 - Big Pine Wellfield
Drawdown due to Pumping at Well 374**







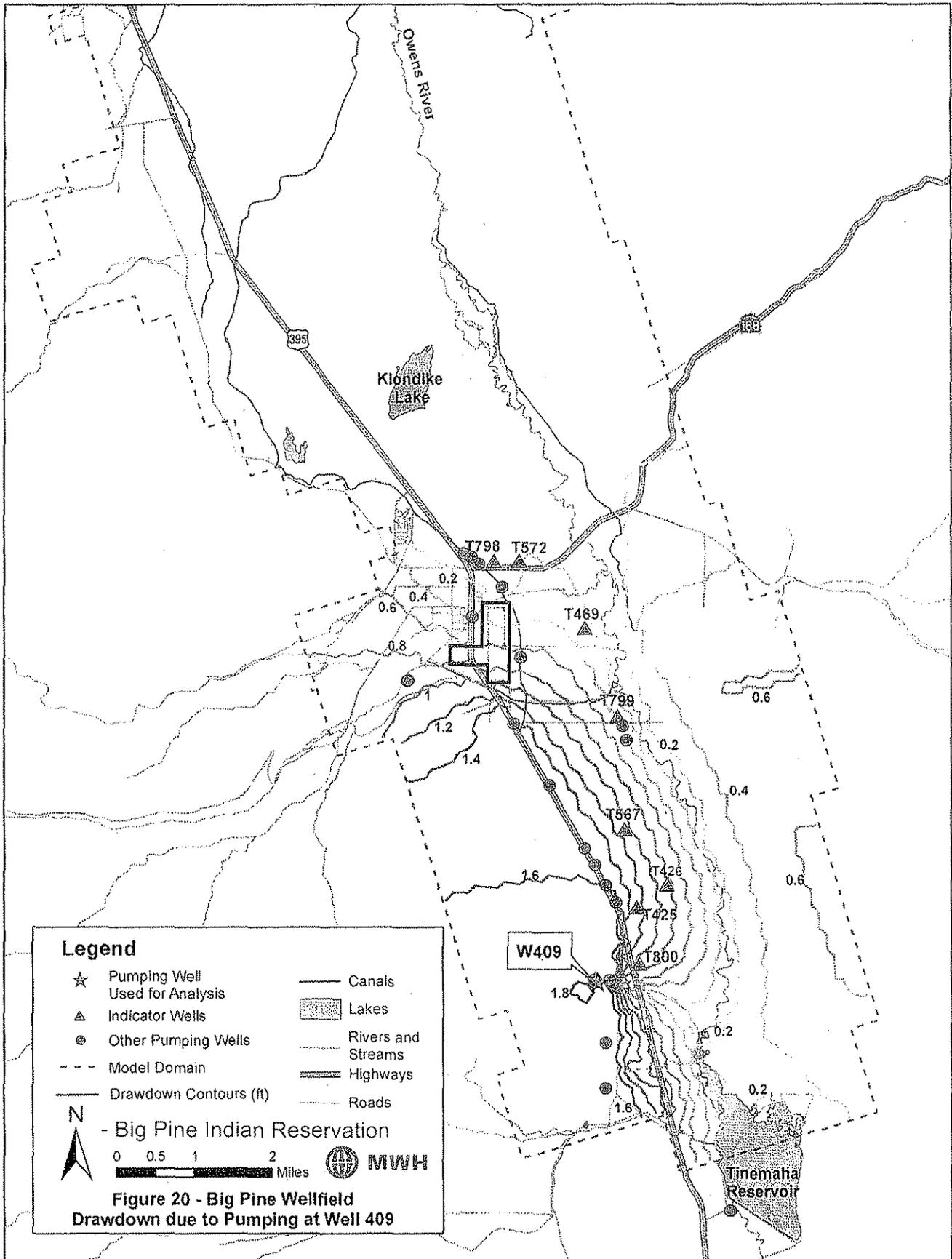


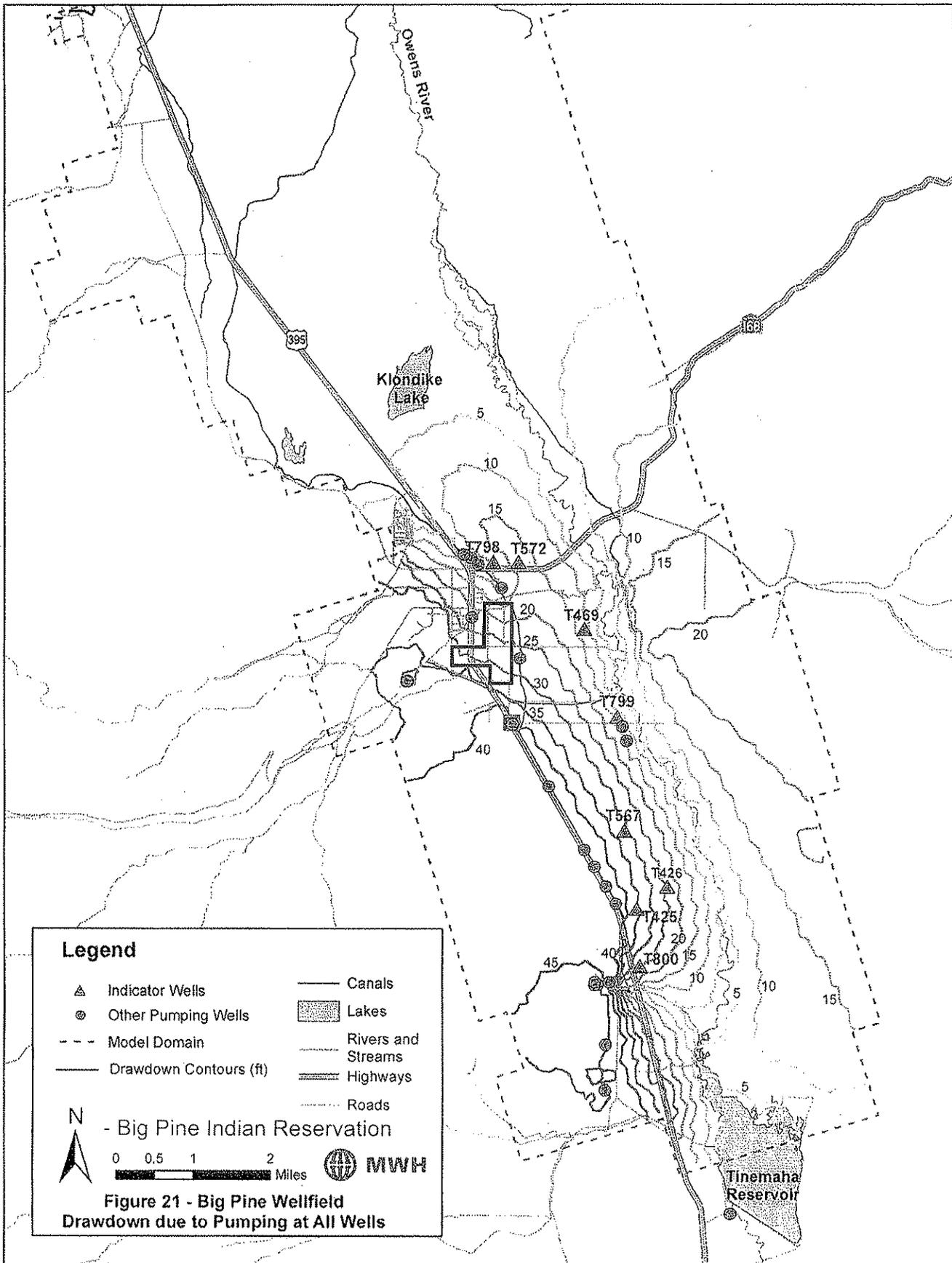
Legend

- ★ Pumping Well Used for Analysis
- ▲ Indicator Wells
- Other Pumping Wells
- - - Model Domain
- Drawdown Contours (ft)
- Canals
- ▨ Lakes
- Rivers and Streams
- == Highways
- Roads

N
 - Big Pine Indian Reservation
 0 0.5 1 2 Miles MWH

**Figure 19 - Big Pine Wellfield
Drawdown due to Pumping at Well 389**





Legend

- ▲ Indicator Wells
- Other Pumping Wells
- - - Model Domain
- Drawdown Contours (ft)
- Canals
- ▨ Lakes
- Rivers and Streams
- == Highways
- ⋯ Roads

N
 - Big Pine Indian Reservation
 0 0.5 1 2 Miles
 MWH

**Figure 21 - Big Pine Wellfield
 Drawdown due to Pumping at All Wells**

Figure 1a. Baseline to 1991

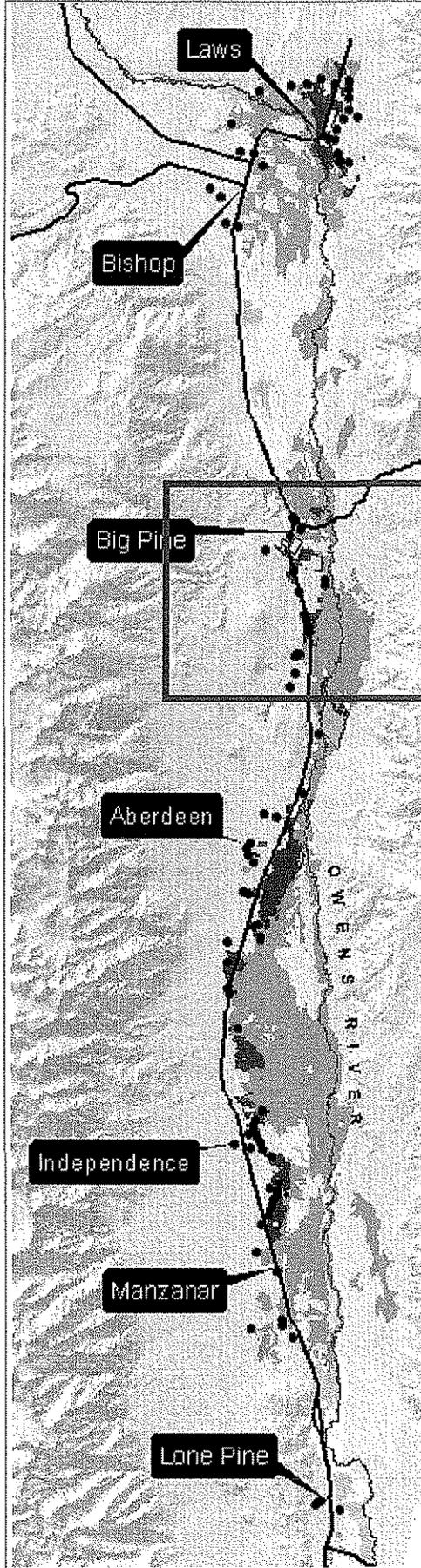


Figure 1b. Baseline to 1999

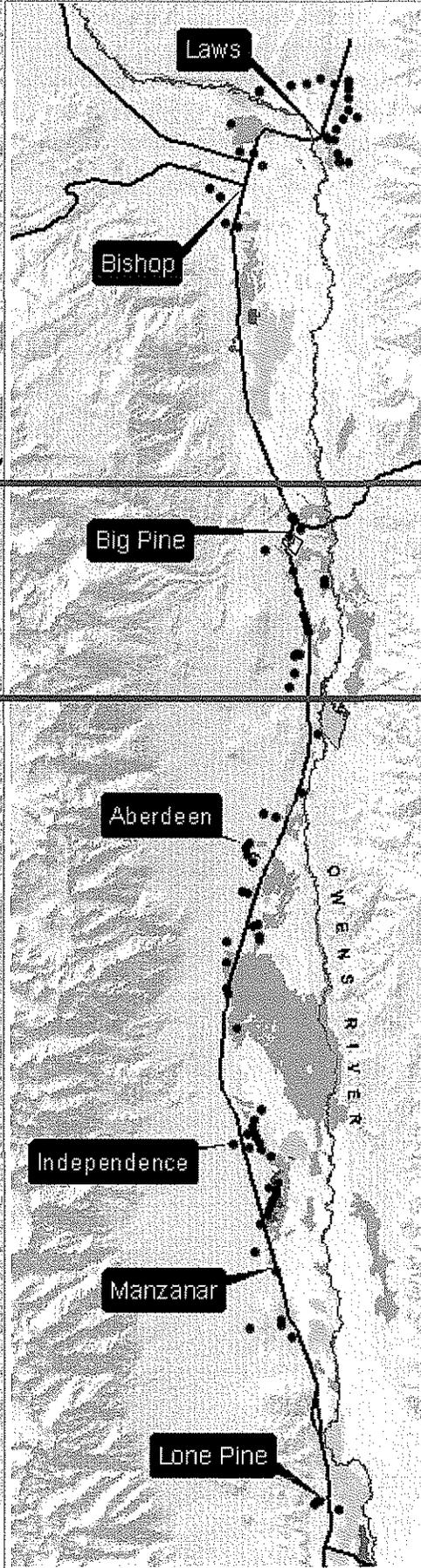


Figure 1c. Baseline to 2005

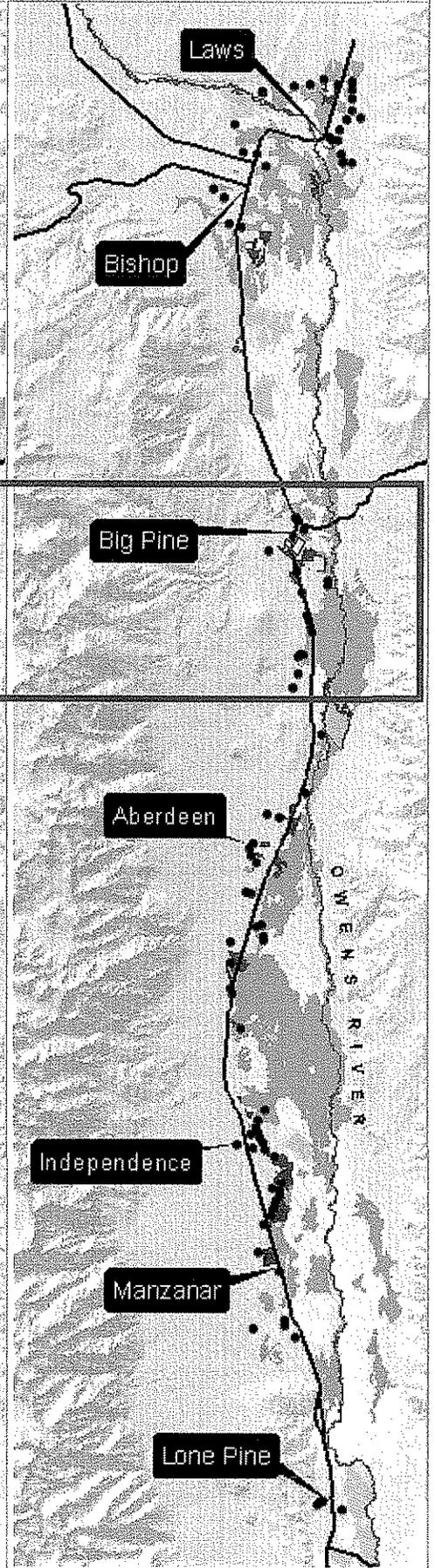
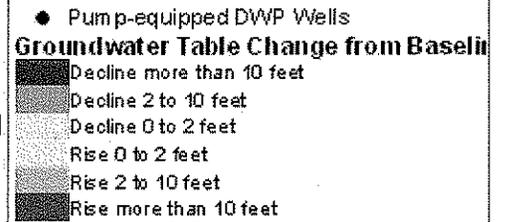


Figure 1a-c. Depth to water deviation from baseline water levels (feet) in areas of groundwater dependent vegetation. Red indicates areas where the water table is below baseline. Figure 1a represents the deepest water tables during the drought of 1987-1991; 1b shows the how the water table recovered during the mid to late 1990's, but remained below baseline in some areas; Figure 1c shows how the water table has declined since its high point in 1b.

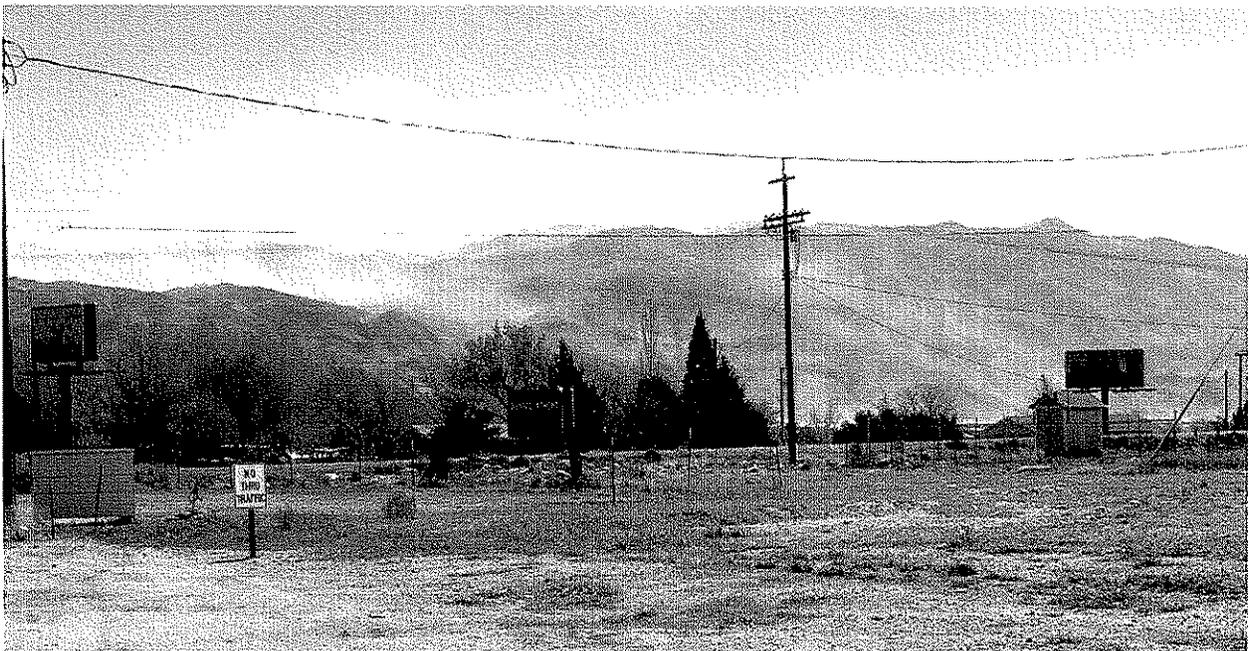


From: http://www.inyowater.org/Annual_Reports/2005-2006/groundwater_conditions.htm

Groundwater pumping in the Big Pine wellfield has resulted in vegetation die off, especially east and south of the community of Big Pine. Barren soil now gives rise to dust, and dust events are common south and east of the Big Pine Indian Reservation. The photos below were taken on March 30, 2010, from the Big Pine Tribal offices. The view is southeast, in the direction of Big Pine vegetation parcel 162.



1. View showing dust being lifted from ground surface southeast of the Big Pine Indian Reservation. Photo taken from west of Highway 395, looking toward Inyo Mountains.



2. View ESE showing the dust rising high in sky and probably into the Inyo Mountains



3. View eastward of dust which came from south of the view shown in this photo.

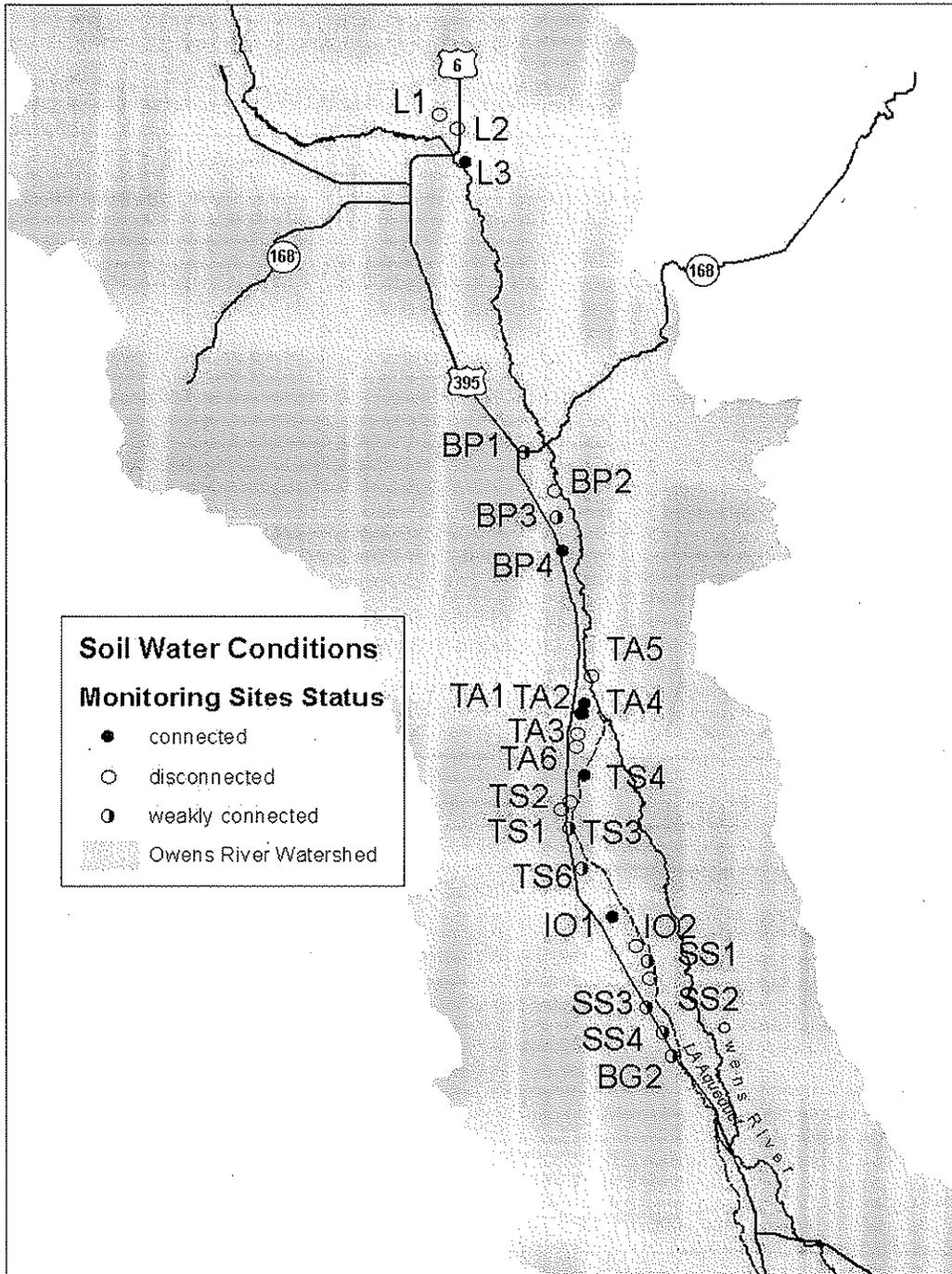
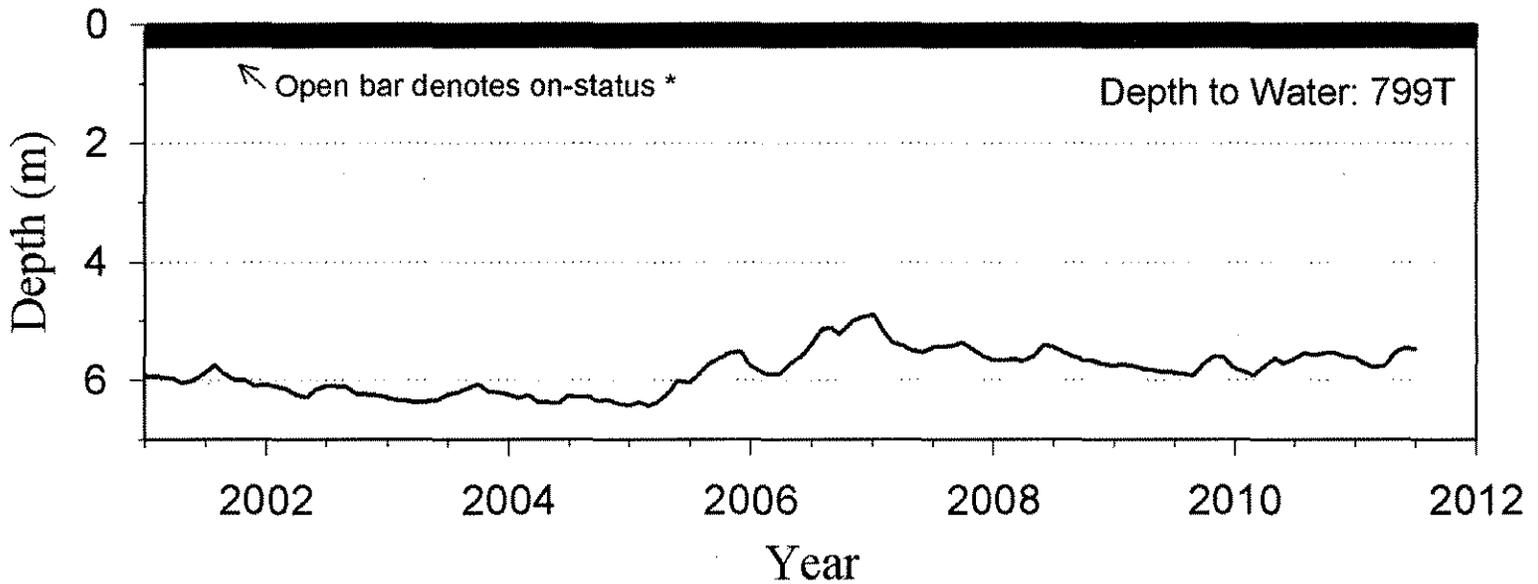
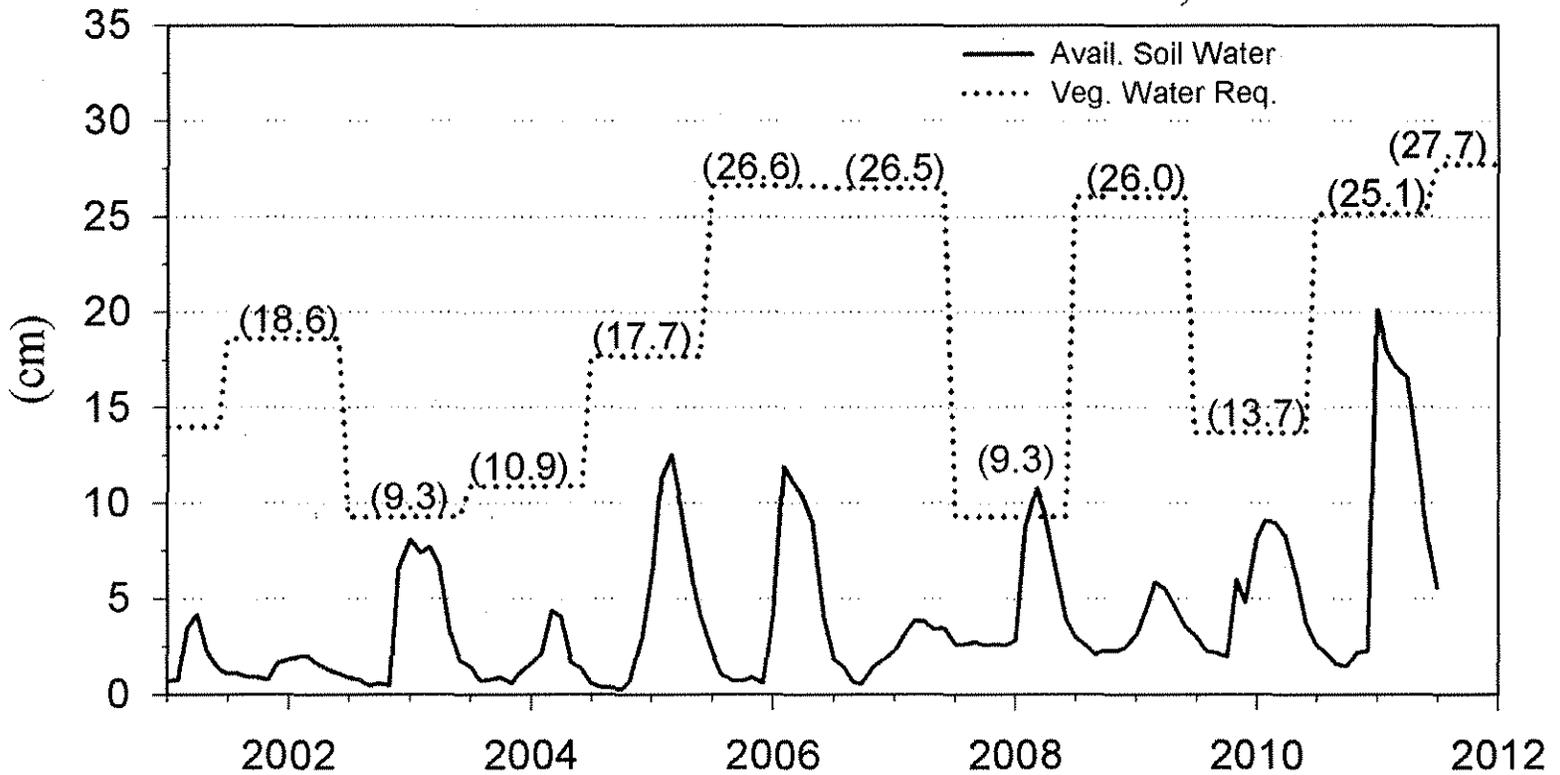


Figure 1. Owens Valley permanent monitoring sites and groundwater recharge classes.

BIG PINE MONITORING SITE #2

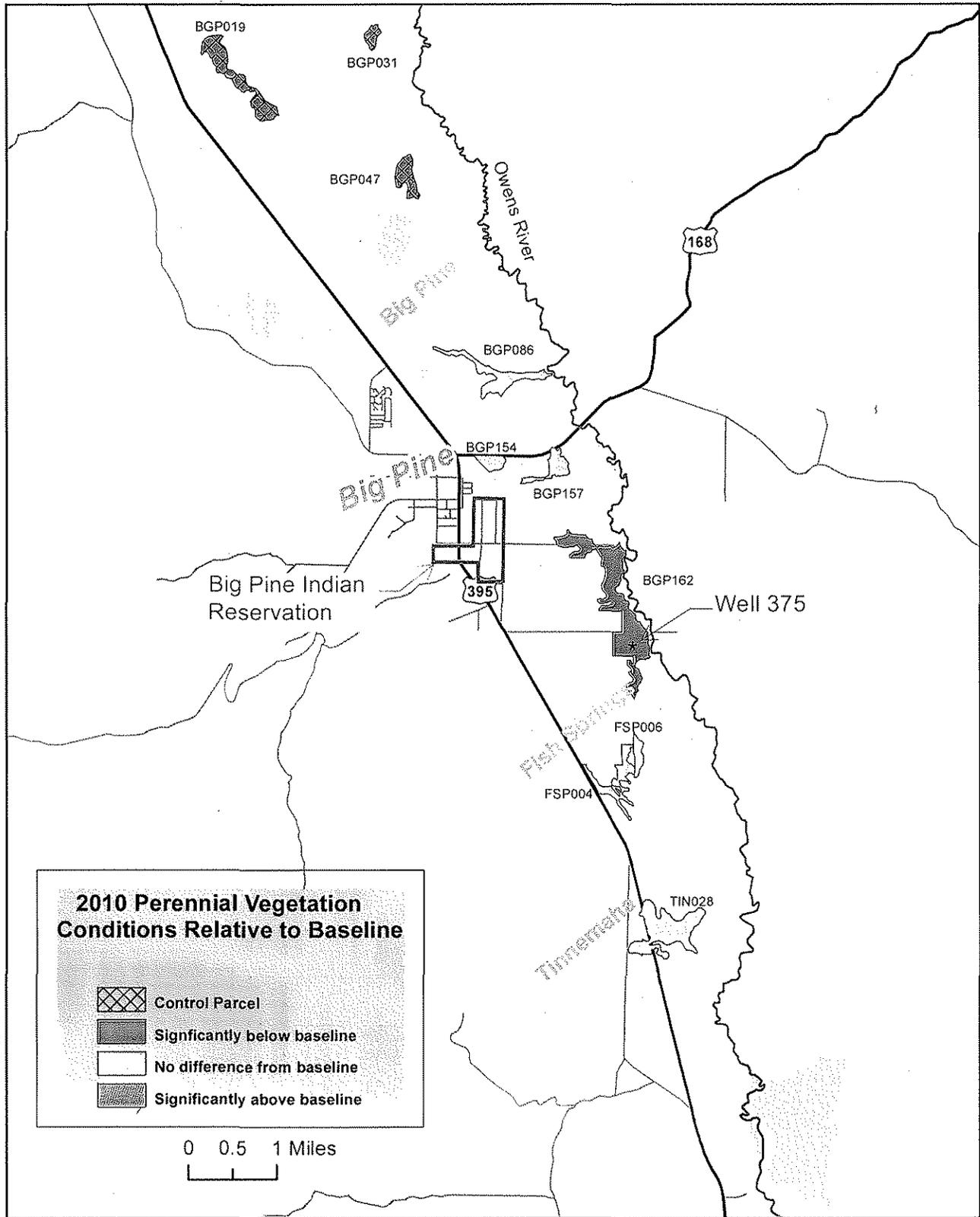
Soil-Plant Water Balance and Groundwater Data, 7/1/11



* Wells not necessarily operated when in on-status. On/off according to Green Book Section III values for Veg. Water Req.

Linked pumping wells - 220, 229, 374, 375

Soil water required for turn on (28.4 cm)



BGP019

BGP031

BGP047

BGP086

BGP154

BGP157

BGP162

168

395

Well 375

FSP006

FSP004

TIN028

Big Pine Indian Reservation

Big Pine

Fish Springs

Tinnemaha

Owens River

BGP162 Nevada Saltbush Scrub (Type B)

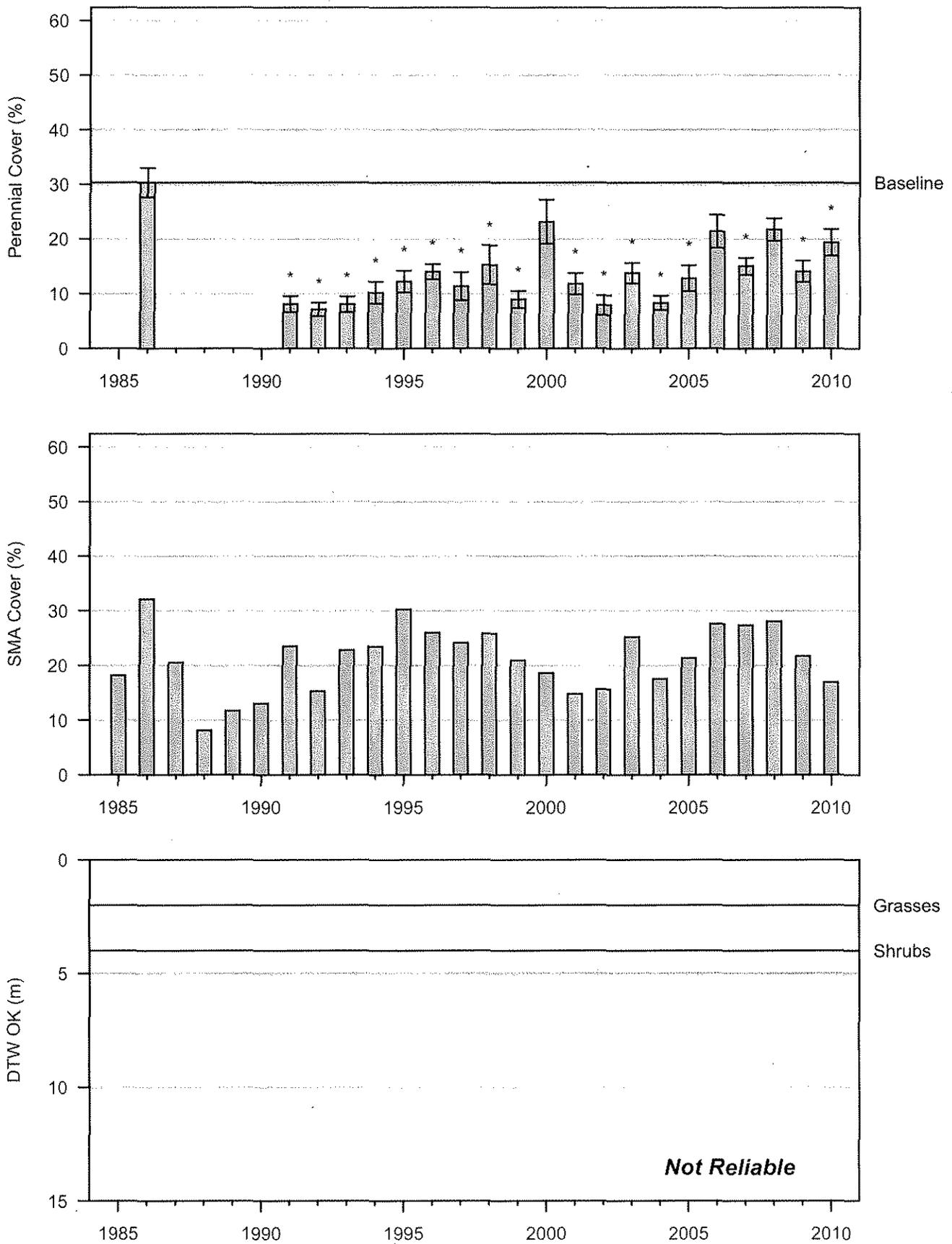


Figure 11: 2010 Wellfield



BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY
Big Pine Paiute Indian Reservation

August 25, 2010

Inyo/LA Standing Committee
C/O Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Dear Inyo/LA Standing Committee Members:

The Big Pine Paiute Tribe of the Owens Valley (Tribe) is a sovereign nation with ancestors who have lived in the Owens Valley since time immemorial. Our ancestors treated the air, land, water and beings with the utmost respect because they understood their place in creation. Our ancestors lived and cared for this valley for future generations to live and thrive. Our ancestors did not expect others who were reckless in their pursuit of prosperity to come and destroy the place they loved. However, others came. Today, I write to you with sorrow in my heart and tears streaming down my cheeks. The first white settlers altered, and then the Los Angeles Department of Water and Power (LADWP) devastated the place our people continue to call home. The Big Pine area does not look the way it did nor does it provide for our people as in times past, but we are still here. Our Tribe currently has 480 members who need to be treated as first class citizens in our county, our state and our nation. We will stand up to those who continue on a reckless path and make our voice heard in this place. We object to well exemptions. We object to out of control ground water pumping by LADWP in Big Pine. We object to mitigation projects which make LADWP feel good, but have negative consequences for our environment, and we object to the use of replacement water for the Northeast Big Pine Regreening project.

Regreening of this parcel, located in the northeast corner of the town of Big Pine, was designated as a mitigation measure in the 1991 EIR to the Inyo/LA Water Agreement because of widespread groundwater pumping impacts caused by LADWP in the Big Pine wellfield prior to 1990. The August 27, 2010, Revised Scoping Document which is being recommended for your adoption will provide up to 150 acre-feet of surface water for the implementation of the project and will allow LADWP to pump the equivalent amount of water at Well 375 to "make-up" the water used on the project. The 1988 Final Scoping Document for this project does not specify a need for "make-up" water due to the project. The 1988 document states that "water for the project will come from Big Pine Creek via the proposed Big Pine Ditch System, and/or Baker Creek via the proposed Mendenhall Park Ditch, existing ditches, or some combination of the above...to the westerly edge of the project area. The new pasture will be supplied up to 150 acre feet annually from existing E/M Well No. 375 in the Big Pine area." There is no clear language in the 1988 document referring to "make-up" water for this project. The Inyo/LA Technical Group has used an inventive interpretation to create a make-up water provision which is misleading. Even if "E/M" projects implemented prior to the 1991 EIR sometimes used "make-up" water, such a provision is not a necessary or reasonable component of projects that were later redefined as "mitigation" in the 1991 EIR. Any requirement to pump water to make up for effects of pumping is nonsensical.

The Tribe not only objects to the use of "make-up", but also objects to the well exemption being recommended. Wells, regardless of their purpose, need to have an ongoing strategy to identify

anticipated impacts, a publicly circulated and agreed upon monitoring plan, and appropriate mitigation measures in case adverse impacts occur due to pumping. It is irresponsible to place wells in exempt status when Big Pine has been severely impacted by the water gathering practices of LADWP. Enormous amounts of groundwater are annually pumped from the Big Pine well field, and, during the current runoff year, 100% of the ground water pumped by LADWP and exported from the Big Pine area comes from wells already declared Exempt by the Technical Group. As a result of years of excessive pumping, water levels remain very deep beneath the community of Big Pine and the Big Pine Indian Reservation. The heavy pumping has gradually drawn water levels deeper such that, even during periods of high runoff, water levels fail to fully recover to historic levels.

The Tribe objects to the use of "make-up" water and well exemptions in general, and the Tribe objects to the specific well that the Inyo/LA Technical group would like to exempt. Well 375 is currently in OFF status due to poor vegetation conditions. Well 375 has been in OFF status since 1998 because of insufficient soil water and those conditions have not changed. The current vegetation is a low cover of stunted saltbush and rabbitbrush. There is no good reason to exempt a well linked to a site in "OFF" status. The soil water has not recovered due to other pumping being done in the well field and if this well is declared exempt, then the soil water will never recover and the environmental impact that this project was supposed to mitigate will not only continue to exist, but will also become more extensive. The use of Well 375 will also cause further water table declines on the Big Pine Indian Reservation. The Tribe relies on ground water to supply the domestic water needs of its members and lowering the water table will increase the pumping costs. Tremendous cultural and environmental damage has already occurred due to the pumping program of LADWP. Should the Tribe be subject to further damages so that a revised self described mitigation project can be implemented? It would be a disgrace to the Tribe if this revised project description is approved by the Inyo/LA Standing Committee.

Mitigation projects are put in place for specific reasons. The reason this mitigation project was put in place in the 1991 EIR was because too much water was being pumped from the Big Pine wellfield. LADWP has created nine wellfields in the Owens Valley and the Big Pine wellfield is consistently pumped the heaviest, year after year. In fact, approximately one-third of the total amount of annual ground water pumping comes out of Big Pine. During this runoff year, five exempt DWP wells in the BP wellfield will be pumping 28,500 acre-feet of water. Groundwater models developed for the Big Pine Indian Reservation show that Big Pine area ground water flow patterns have been altered due to pumping. Ground water no longer flows generally eastward toward the Owens River; instead, excessive pumping from the Fish Springs Hatchery wells has created a cone of depression such that groundwater from the Big Pine Indian Reservation area currently flows southward toward those wells. Data from an observation well owned by LADWP and located on the Big Pine Indian Reservation (V299) show that groundwater levels have steadily dropped regionally, over the past 70 years, due to large amounts of water being pumped at the hatchery, then exported. Unfortunately, V299 is only about 100 feet deep, so it may soon be impossible to continue tracking this indicator of regional water table trend. In 1939, an agreement was made between the federal government and the City of Los Angeles to exchange lands. The indigenous population was to receive "prime agricultural land" as a result of this exchange, but due to pumping at Fish Springs, the water table has declined creating land which is much less than prime and more inclined to be dry and barren. The Northeast Big Pine Regreening project was to mitigate for pumping almost 20 years ago. As mentioned earlier in this letter, the revised project will continue to adversely impact the Big Pine Indian Reservation by adding to the cumulative affect of pumping occurring in other areas of the Big Pine well field.

In addition to the project-specific objections that the Tribe has identified above, the Tribe objects to the lack of public dialogue with regard to this project and the county's failure to follow customary procedures used to make a policy recommendation. The Tribe objects to the non-agendized decision concerning this project at the Board of Supervisor's meeting on Tuesday, August 24, 2010.

The revision to the scoping document will not mitigate for past pumping practices of LADWP. The Tribe does not consider the revised project to be mitigation when it will continue to cause a cumulative adverse impact on the water table. According to Impact 10-19 of the 1991 EIR to Supply Water to the Second Aqueduct, this project was supposed to mitigate for LADWP groundwater pumping and other water management practices in the Big Pine area from 1970-1990, which adversely affected the environment around Big Pine. This project as revised will not mitigate these effects, and the Tribe demands that the language in the revised scope of work be edited to remove the clause which states that "make-up" water will be pumped by Well 375.

Please contact Alan Bacock of my staff to find solutions which actually provide mitigation within the framework of the Northeast Big Pine Regreening project. He can be reached at 760-938-2325 or by email at abacock@gmail.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Virgil Moose". The signature is written in a cursive style with a large, prominent initial "V".

Virgil Moose
Tribal Chairperson

Cc: Los Angeles City Council
Los Angeles Department of Water and Power Board of Commissioners
Bureau of Indian Affairs
Owens Valley Indian Water Commission



BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY
Big Pine Paiute Indian Reservation

September 13, 2010

Dr. Robert Harrington
Inyo County Water Director
P.O. Box 337
Independence, CA 93526

Dear Dr. Harrington:

The Big Pine Paiute Tribe of the Owens Valley (Tribe) has recently been focused on commenting through correspondence and at public meetings regarding revisions to the Northeast Big Pine Regreening Project. The Tribe will continue to voice its concerns on that project, but wants to reiterate to the Inyo County Water Department (ICWD) that the environment within the Big Pine Wellfield has been severely altered due to groundwater pumping. A vast amount of water is being pumped in the Big Pine Wellfield for Los Angeles Department of Water and Power's (LADWP) purposes and as a result the water table is declining. The Tribe would like the ICWD to keep in mind the cumulative impacts of pumping the Big Pine Wellfield and this letter shares our position on various Big Pine water issues to assist you in understanding our concerns and hopefully provide a basis for developing a stronger partnership in the future.

Northeast Big Pine Regreening Project

The Tribe recognizes that the Northeast Big Pine Regreening Project was designated as a mitigation measure in the 1991 Environmental Impact Report to the Inyo/LA Water Agreement because of widespread groundwater pumping impacts caused by LADWP in the Big Pine Wellfield prior to 1990. The Tribe does not oppose the project as specified within the 1991 Environmental Impact Report, but does oppose the concept that LADWP is obligated to receive "make-up" water for any water applied to the project. Neither the 1991 Environmental Impact Report nor the 1988 Final Scoping Document specifies a provision for "make-up" water. Therefore, the Tribe concludes that "make-up" water is not required for the project to move forward and should not be included in the scoping document.

Last week you spoke about discussions between staff of ICWD and LADWP to revise the scoping document for the project by allocating up to 150 acre/feet of water associated with the Klondike Lake Shorebird Habitat project to be used as "make-up" water for the Northeast Big Pine Regreening Project. As stated above, the Tribe does not support the "make-up" water provision; however, the Tribe also understands that, because this water is not being delivered to Klondike Lake, the "paper" reallocation of water will have a benign impact on the environment which is a better alternative than the project recently approved at the Inyo/LA Standing Committee meeting. The Tribe does not support "make-up" water, but can live with an

unpumped mathematical replacement. Thank you for investigating alternative solutions for the project and discussing those solutions with LADWP.

Pumping at the Fish Springs Hatchery

Fish hatchery operations were set up at Fish Springs early in the 20th century during a time when thousands of acre-feet per year of water issued from these springs, but pumping for the hatchery now exceeds springflows. From 1936 through 1959, springflows averaged 16,400 ac-ft/yr but current levels of pumping to supply the hatchery average 20,272 ac-ft/yr¹. In 1971, the significant change occurred: natural spring flow ceased as the result of pumping by the City of Los Angeles to supply the second barrel of its LA Aqueduct. Pumping at the hatchery and in other parts of the Big Pine wellfield where the Fish Springs Hatchery is located has been continuous since that time, averaging 26,400 ac-ft/yr (Figure 1).

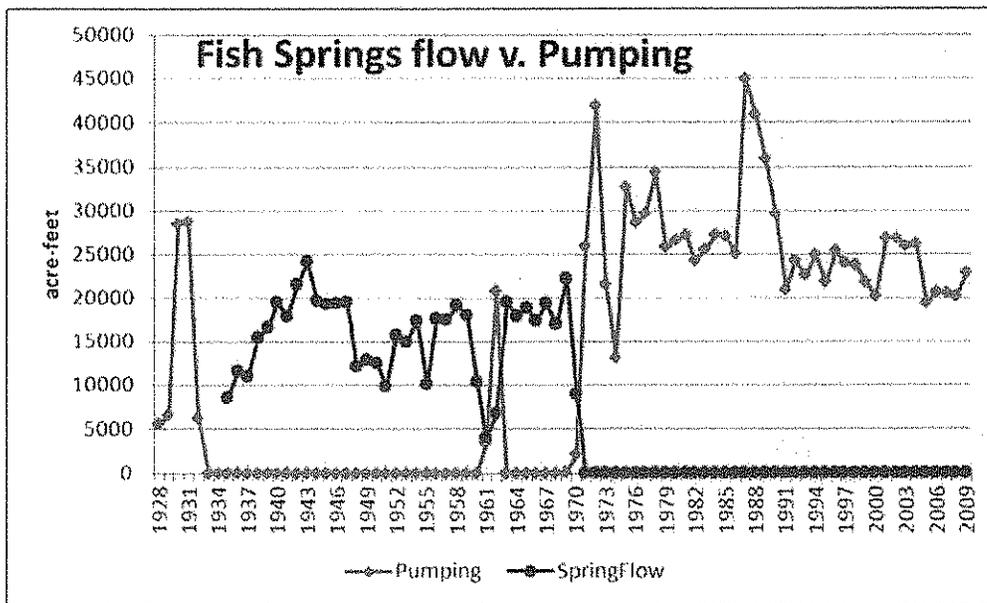


Figure 1. Pumping by the City of Los Angeles in the Big Pine area, 1928-2009, versus natural spring flow from Fish Springs. All values are in acre-feet. When first measured in the 1930s, spring flow appeared to be recovering from pumping that occurred in the 1920s. Pumping which began in the 1970s has precluded natural spring flow. Data through the 1980s were acquired from City of Los Angeles, Department of Water and Power and County of Inyo 1991 EIR², subsequent data are from reports posted by the Inyo County Water Department (www.inyowater.org).

¹ Department of Fish and Game and United States Fish and Wildlife Service, 2010. Hatchery and Stocking Program Final Environmental Impact Report/Environmental Impact Statement.

² City of Los Angeles, Department of Water and Power and County of Inyo. 1991. Water from the Owens Valley to supply the second Los Angeles Aqueduct 1970 to 1990, pursuant to a long term groundwater management plan. Final Environmental Impact Report. SCH#89080705.

to pre-pumping conditions, then the Tribe could use plants for medicinal and other cultural purposes as our ancestors had done for centuries.

As can be seen in Figure 2, our tribal ancestors had villages in the Fish Springs area and harvested plants in areas to the north and south of Fish Springs. The plants harvested in the Fish Springs area were very important to the survival of our people as described in the *Inyo Independent*, November 7, 1870:

One of the most important articles of the diet with the Indian of this section of country, is the tuber known as the 'taboose', which hold the same relation to their bill of fare as the camas does to that of the Columbia River Indians, or the potato to the white man's. The taboose is a small, oily root or nit, about the size of a large hazel nut, and is quite nutritious. On the main root of this plant a number of these nuts are generally found...both [potatoes and taboose] require damp, rich soil.

The spelling of taboose is tupusi and a gathering area is located just west of Poverty Hills on Figure 2. It has been argued by ethnographers and botanists that the plot of land designated nahavita just south of Fish Springs on Figure 2 is actually additional gathering grounds for tupusi or other plants such as *C. excavatus* due to the moist conditions which existed in that location. However, it should be noted that nahavita is also a very important plant resource for our people. These plants are no longer plentiful due to a lack of water.

Due to the adverse impacts caused by groundwater pumping at the Fish Springs Hatchery, the Tribe recommends that hatchery pumping be reduced or eliminated but that LADWP still fulfill its obligations to mitigate for the adverse environmental impacts. This process could begin, for example, with a study to determine the most efficient use of water for raising fish at the hatchery. This recommendation by the Tribe is in parallel with the goal that the California Department of Fish and Game stated in its January 2010 Final Hatchery and Stocking Program EIR/EIS for the Fish Springs and Blackrock hatcheries that it "will strive to increase water efficiency and reduce water use at the hatchery and rearing ponds." The results of this study should allow the ICWD to identify pumping levels that meet the needs of the hatchery without causing chronic groundwater drawdowns in the Big Pine Wellfield. A reduction in pumping at the Fish Springs Hatchery will result in less overall pumping in the Big Pine Wellfield, which could be beneficial to the environment in parts of the wellfield.

Analysis of Exempt Wells

The Tribe objects to well exemptions, in principle, because all pumping has the potential to adversely affect the environment of Owens Valley. The Inyo/LA Long Term Water Agreement ensured that pumping of LADWP wells and the potential environmental effects would be monitored according to a publicly circulated and agreed upon monitoring plan, and pumping would be curtailed in any case where adverse impacts occurred or were anticipated due to pumping. The Tribe respectfully requests that Inyo County unexempt wells 218, 219, 330 and 332. According to a staff report that you authored in 2007 entitled *Water Table Fluctuations*

Due to Pumping by Wells Exempt From the Well Turn-Off Provisions of the Inyo/Los Angeles Long Term Groundwater Management Agreement, as of 2004, the Big Pine Indian Reservation has had to endure 20-40 feet of water table depression due to exempt well pumping. The Tribe requests that these wells be analyzed, individually and cumulatively, for potential adverse effects to groundwater levels and the environment. Exemptions should not be granted merely because they are allowed to be granted, but should coincide with actual reasons and tradeoffs for granting exemptions, and in situations where tradeoffs are necessary, maximum allowable pumping rates should be developed through a scientific and public process.

Analysis of Big Pine Area Watershed

The Tribe is extremely concerned about the water resources in the Big Pine Area Watershed. Pumping has caused water table declines, projects are manipulating water pathways and no entity has developed a comprehensive analysis of water flows, recharge and discharge. The Tribe would like to request the ICWD do a water budget of the Big Pine area to account for water so that now and in the future all parties can learn about options for improving environmental conditions while providing for human usage.

The Tribe believes that the ICWD is the appropriate agency to assist us in protecting our environment and would like to strengthen our relationship with you. Please contact me at 760-938-2325 to continue working forward for the betterment of the place we call home.

Sincerely,



Alan Bacock
Water Program Coordinator

THANK YOU for signing the “NO PUMPING IN THE NAME OF MITIGATION” Petition!

Alan Bacock of the Big Pine Paiute Tribe (Tribe) delivered the petitions to the Inyo/LA Standing Committee at its meeting in Independence on Friday August 27. During the week the petition was circulated, **164** Big Pine area people signed on to it.

Members of the local media were conspicuously absent from the Standing Committee meeting, so here are some things that happened:

- Los Angeles’ decision-makers and political leaders did not attend the meeting; only DWP and City of LA staff members attended. According to the Inyo/LA Long-term Water Agreement at least one LA city council member and two LADWP Board of Commissioners were required to be present.
- Approximately 28 members of the Tribe attended the meeting. Seating was limited, so audience members spilled out the doorway. Some in the audience carried signs reading, “This is Degreening Not Regreening”, “Why don’t you REPLACE the Water you Stole”, “No to DWP: Protect our Piya,” etc.
- Inyo Supervisor Richard Cervantes, who chaired the meeting, gave persons making public comment a 3-minute limit after a non-native was allowed to speak without a time limit. The rule was put in place just prior to public comment on the regreening agenda item and our Tribal Chairperson’s comments. As our Tribal Chairperson read his letter to the Standing Committee, Mr. Cervantes interrupted him several times, and our Tribal Chairperson was forced to end his comments before completing the letter.
- Approximately five audience members gave public comment. All opposed the Revised Scoping Document for the Regreening Northeast of Big Pine project.
- The Standing Committee voted unanimously (2-0) to approve the project.

Apparently, neither our Inyo County government nor the City of Los Angeles is concerned about further pumping in Big Pine. This new pumping is to make up for water supplied to an overdue mitigation project, which is supposed to mitigate for too much pumping! Furthermore, Inyo and LA leaders are willing to Exempt a Big Pine area well from environmental constraints in order to pump the water for export. They acknowledge that the additional pumping could cause further lowering of the water table under the community of Big Pine, but, in their opinion, the water table will not be lowered “significantly.”

This decision will create limited opportunities to make our voice of opposition heard, but we will continue the fight to save our land from further degradation. For further information or to find ways to help, please contact Alan Bacock at (760) 938-2325 or abacock@gmail.com, or call (760) 938-3036.



Tribal Chairperson Moose comments on the revised Big Pine northeast regreening project at the August 27 meeting of the Inyo/LA Standing Committee.



Environmental Department News

Sally Manning, Environmental Director • Levi Mallory, Solid Waste Technician • Phone No. 760-938-3036

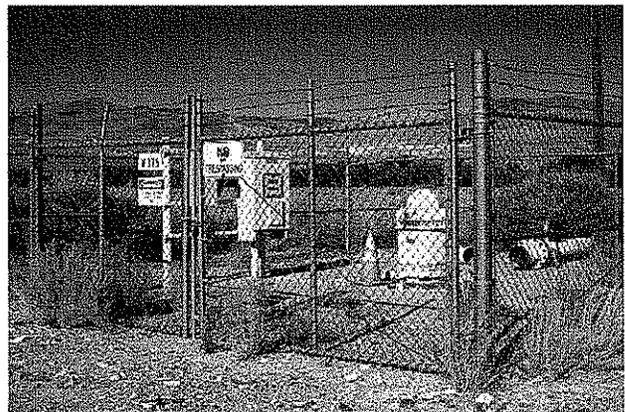
Pleas for No Pumping Fall on Deaf Ears

On November 4, 2010, many Tribal members and staff attended a second Inyo/LA Standing Committee meeting. In recent months, the Tribe has raised concerns over LADWP's plans to implement a "regreening" mitigation project northeast of town. While it's generally agreed DWP owes the community the long-overdue mitigation, many feel it should not come at the expense of further depletion of the water table under the Big Pine Indian Reservation. In August, 164 area residents signed a petition opposing pumping of an OFF-status well to provide DWP with water to offset (make-up) the water DWP would supply to the project. The well in question is located almost 2 miles southeast of the Reservation, but analyses performed by Inyo County's Water Department clearly show that running the well to supply replacement water will cause the water table under the Reservation to decline a few inches. DWP and County leaders and staff have publicly stated that lowering our water table is not significant to them.

Many community members attended the two Inyo/LA Standing Committee meetings to let them know that the groundwater is our drinking water, our water table has been lowered enough by decades of excessive pumping in the Big Pine wellfield, and the need for DWP to mitigate should come at their expense, not ours. Nevertheless, the Tribe's arguments for NO PUMPING of this make-up water fell on deaf ears as the Standing Committee voted – at both meetings -- in favor of the pumping. Inyo's representatives to the Standing Committee, including Supervisors Arcularius and Cervantes, were resistant and defensive, claiming that, for example, the audience did not raise any useful new information, the predicted water table drawdown beneath the Reservation was small and insignificant, and Big Pine's Supervisor Marty Fortney had heard from his constituents who were unanimously in favor of moving the project forward.

Participation in these formal meetings between LA and the county led to the realization that they are probably being held illegally: In violation of California's open meeting law called the Ralph M. Brown Act. The Tribe filed a letter of complaint alleging Brown Act violations, including: a lack of a quorum at a meeting where a decision was made; Standing Committee representatives came to the meeting with their minds made up on how to vote; and arbitrary rules were imposed during public comment. At the November 4 meeting, when we hoped the two parties might address concerns raised in the Tribe's letter, or at least provide an explanation, the Tribe was unable to get clear answers to questions such as: What constitutes a quorum of the Inyo/LA Standing Committee? Is there a quorum at this meeting? Who votes? How is each side's vote taken? What is each representative's view on the matter at hand? Instead, we were told that the Standing Committee might look into these procedural matters at a future meeting. In effect, they were saying they have no agreed-upon procedures, but they perform business and make decisions anyway.

Although Inyo County and DWP have belittled or ignored the Tribe's concerns, the realization that the Tribe is standing up for what's right has grown stronger with each defeat. The Big Pine area is owed mitigation for DWP's draining of the aquifer and suppression of economic opportunities. Rather than truly mitigate, DWP wishes to impose further environmental stress. By providing water to mitigate, then pumping make-up water, the net export of water from the Big Pine area may increase, because DWP gains any irrigation water that percolates as a result of the irrigation, plus DWP pumps to make up for all of the amount "delivered." Allowing this additional pumping impact to local water tables is an affront that will affect the community for generations to come. Meanwhile, for unknown reasons, our own county government is siding with DWP rather than with local constituents. Also, the Tribe has highlighted glaring deficiencies in the structure of the Inyo/LA Water Agreement's governing structure. The Tribe will continue to demand justice on this issue.





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**COUNTY OF INYO
WATER DEPARTMENT**

August 30, 2011

TO: Los Angeles Department of Water and Power
Environmental Assessment and Planning
Attention: Ms. Nancy Chung
111 North Hope Street, Room 1050
Los Angeles, CA 90012

FROM: Bob Harrington, Water Director
County of Inyo

SUBJECT: Comments on CEQA Initial Study and Negative Declaration for Big Pine
Northeast Regreening Project

Thank you for the opportunity to comment on the environmental analysis for this project. Regarding Initial Study Section 2.3.9, Hydrology and Water Quality, we raise two points:

1. The Initial Study concludes that groundwater pumping for the project will have no significant impacts based on a groundwater modeling analysis done by the Inyo County Water Department. It should be understood that the amount of drawdown is likely overestimated in the Water Department's work, because the effect of stream capture by the pumping well and the effect of irrigation return flow to the shallow aquifer were not simulated. If these effects were included in the model, predicted drawdown would be reduced. Additionally, the Water Department's analysis assumed that the maximum allotment provided for the project would be used each year. Reducing the irrigation duty for the project from 150 acre-feet per year to 90 acre-feet per year through more efficient irrigation practices, as has been discussed by the Technical Group, would proportionally reduce pumping and resultant drawdown.
2. We have examined additional information pertaining to potential impacts of pumping Well 375. In 1997 and 1998, an operational test of Well 375 was conducted jointly by LADWP and the Inyo County Water Department, where the well was pumped continuously for 196 days, producing 2170 acre-feet of water, or nearly 15 times the amount of pumping that is proposed annually for the Big Pine Northeast Regreening

Project. Twenty shallow wells and twelve deep wells in the vicinity of Well 375 were monitored during the test. Observations from this test showed that there were no more than a few inches of drawdown in shallow wells in the Big Pine area. This is consistent with, and strengthens, the Initial Study's conclusion that the proposed pumping for this project will have no negative impacts.



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MAR 8 2012

Inyo Co. Water Department

BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY

Big Pine Paiute Indian Reservation

P.O. Box 700 · 825 S. Main Street · Big Pine, CA 93513 · Phone: 760-938-2003 · Fax: 760-938-2942

March 1, 2012

Board of Water and Power Commissioners
Department of Water and Power of the City of Los Angeles
111 North Hope Street
Los Angeles, CA 90012

Dear Water and Power Commissioners:

Subject: Recommendation to *not* certify the Negative Declaration on the Big Pine Northeast Regreening Project

The Big Pine Paiute Tribe of the Owens Valley (Tribe) received a letter dated February 7, 2012, from Charles Holloway, Los Angeles Department of Water and Power (LADWP) Manager of Environmental Planning and Assessment, indicating that the Los Angeles Board of Water and Power Commissioners (Board) would be considering the certification of the Negative Declaration for the Big Pine Northeast Regreening Project (Project) on March 6, 2012. The Tribe is unable to attend the Board's meeting next week, but desires to share written comments on the Project.

The Tribe has commented extensively on the Project through written comments submitted on the Initial Study and Negative Declarations (IS/ND) prepared by LADWP in August and November of 2011 and verbally at Inyo/LA Technical Group meetings, Inyo/LA Standing Committee meetings and a Board meeting in 2010. The Tribe has been consistent in its stance that the IS/ND is inadequate and that LADWP should prepare an Environmental Impact Report (EIR) for this Project. An EIR would provide a more thorough analysis of the Project's impacts and present reasonable viable Project alternatives. One of Mr. Holloway's February 7, 2012 responses to the Tribe's comments was "The focus of the [Project] Initial Study is on the impacts (over existing conditions in November 2011) of the proposed mitigation project – conversion of approximately 30 acres of Rabbitbrush Scrub to irrigated pasture." The Tribe contends that the mitigation project is not only the conversion of vegetation from scrub to pasture, but also includes impacts associated with the pumping of Well 375 for replacement water. The IS/ND does not deny that pumping of Well 375 for this Project will continue to drawdown the water table in the Big Pine Wellfield, but asserts that the drawdown will not create a significant impact. Well 375 is currently in OFF status because of insufficient soil moisture at a nearby monitoring site, and it is located in an area which has been significantly impacted by groundwater pumping. The IS/ND did not analyze the soil moisture and water table conditions surrounding Well 375, nor did it address cumulative impacts of pumping in the Big Pine Wellfield. An analysis as part

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of an EIR would determine the cause of the soil water deficit surrounding Well 375 and thus show that additional pumping from Well 375 may result in significant impacts because soil moisture surrounding Well 375 cannot recover when the well is pumped. Unfortunately, the Tribe views the IS/ND as LADWP providing itself the opportunity to place another well on the exempt well list so that no further adverse impacts resulting from the well will be questioned.

The Tribe hopes that these comments will assist the Board in making a determination that the IS/ND is inadequate. If you should have any questions, please contact me at 760-938-2003.

Sincerely,



Alan Bacock
Water Program Coordinator

cc: Big Pine Tribal Council
Bureau of Indian Affairs
Owens Valley Indian Water Commission

~~Inyo County Water Commission~~