MITIGATED NEGATIVE DECLARATION
GEOTECHNICAL INVESTIGATIONS AT THE NORTH HAIWEE DAM
Inyo County, California

Lead Agency

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, #1044
Los Angeles, California 90012-2694

Contact:

Thomas A. Dailor

August 29, 2003

Page

INTRODUCTION

Previous seismic investigations were conducted to determine how the existing North Haiwee Dam would perform under a Controlling Maximum Credible Earthquake (CMCE). The study found that the dam, constructed in 1913, would not perform satisfactorily for a CMCE event and would need to be reinforced**,** reconstructed, or replaced.

The Los Angeles Department of Water and Power (LADWP) has conducted a preliminary engineering investigation of possible alternatives to improve performance of the dam. One alternative would involve the construction of a new dam, North Haiwee Dam No. 2 (NHD2), at a site 800 feet north of the existing dam, as well as the realigning of portions of the First Los Angeles Aqueduct (FLAA) and Cactus Flat Road (CFR). LADWP proposes to initiate an in-field seismic testing (trenching) and geotechnical boring program to facilitate the engineering design process. Planning and engineering for the construction and realignment work cannot go forward without first obtaining the information from the proposed geotechnical program.

The project site is located at the southern end of Owens Valley at the eastern toe of the Sierra Nevada, approximately 2.5 miles southeast of the town of Olancha. The proposed NHD2 would be located approximately 800 feet north of the existing North Haiwee Dam. Maps depicting the location of the proposed project are located in the Initial Study/Mitigated Negative Declaration documents in Attachment 1.

This is a public information document. Information contained herein is intended to explain the environmental impacts expected to result from construction and operation of the proposed project, and to satisfy the disclosure requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY AND CHECKLIST

(Article IV – City CEQA Guidelines)

LEAD CITY AGENCY	**COUNCIL DISTRICT**	**DATE**
City of Los Angeles, Department of Water and Power 111 N. Hope Street, Room 1044 Los Angeles, CA 90012	N/A	07/21/03

PROJECT TITLE/NO.	**CASE NO.**
Geotechnical Investigations for the North Haiwee Dam No. 2 Project	N/A

PREVIOUS ACTIONS CASE NO.	☐ **DOES have significant changes from previous actions.** ☐ **DOES NOT have significant changes from previous actions.**
NONE	

PROJECT DESCRIPTION:

The project involves performing geotechnical trenching and boring in order to complete design studies for the proposed North Haiwee Dam No. 2 reconstruction. The proposed geotechnical investigation (Project) includes excavation of trenches up to 300 feet long, up to 10 feet deep, and up to 20 feet wide in seven different locations in the vicinity of the existing North Haiwee Dam and conducting a geotechnical boring program. (Please refer to Attachment 1 for more information.)

PROJECT LOCATION:

The project site is generally located in Inyo County, at the southern end of Owens Valley and eastern toe of the Sierra Nevada. The project site is located immediately north of Haiwee Reservoir, east of Highway 395.

PLANNING DISTRICT	**STATUS:** ☐ **PRELIMINARY** ☐**PROPOSED**_____ ☐**ADOPTED** **date**
N/A	

EXISTING ZONING	**MAX. DENSITY ZONING:**	☐ **DOES CONFORM TO PLAN**
N/A	N/A	
PLANNED LAND USE & ZONE:	**MAX. DENSITY PLAN:**	☐ **DOES NOT CONFORM TO PLAN**
N/A	N/A	
SURROUNDING LAND USES:	**PROJECT DENSITY:**	☐ **NO DISTRICT PLAN**
Open Space; Agricultural Uses	N/A	

☞ **DETERMINATION (to be completed by Lead City Agency)**

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed 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 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 proposed 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 proposed project, nothing further is required.

	Environmental Assessment Supervisor
SIGNATURE	**TITLE**
Charles C. Holloway	**Environmental Affairs, LADWP**
PRINTED NAME	**FOR**

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).

5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   1) Earlier Analysis Used. Identify and state where they are available for review.
   2) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   3) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated

7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9) The explanation of each issue should identify:
   1) The significance criteria or threshold, if any, used to evaluate each question; and
   2) The mitigation measure identified, if any, to reduce the impact to less than significance.

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.

☐ I. Aesthetics	☐ II. Agricultural Resources	■ III. Air Quality
■ IV. Biological Resources	■ V. Cultural Resources	☐ VI. Geology and Soils
☐ VII. Hazards and Hazardous Materials	☐ VIII. Hydrology and Water Quality	☐ IX. Land Use and Planning
☐ X. Mineral Resources	☐ XI. Noise	☐ XII. Population and Housing
☐ XIII. Public Services	☐ XIV. Recreation	☐ XV. Transportation/Traffic
☐ XVI. Utilities and Service Systems	☐ XVII. Mandatory Findings of Significance	

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

☞ **BACKGROUND**

PROPONENT NAME **City of Los Angeles, Department of Water and Power** **Environmental Affairs, Thomas A. Dailor**	**PHONE NUMBER:** **(213) 367-0221**
PROPONENT ADDRESS **111 N. Hope Street, Room 1044** **Los Angeles, CA 90012**	
AGENCY REQUIRING CHECKLIST **City of Los Angeles, Department of Water and Power**	**DATE SUBMITTED:** **7/21/03**
PROPOSAL NAME (If Applicable) **(Same as Project Title)**	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			**X**	
The project site is not located within a designated scenic vista and there are no sensitive visual receptors in the vicinity that would be significantly affected. The trenching activities would modify the topography by leaving an open pit, which would create a temporary visual impact. However, the trenches would be backfilled to the previous state following geotechnical investigations, which would take approximately 8-10 weeks. Over time, the testing sites would blend in with the surrounding environment. Therefore, the visual impacts of the Project would be less than significant.				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			**X**	
There are no designated State Scenic Highways in the project vicinity. Highway 395, which is approximately 0.5 miles west of the project site, is eligible, but not officially designated (Caltrans 1999). Some of the testing sites may be visible from Highway 395 during trenching and boring activities. However, because the testing sites would be backfilled, there would be no long-term visual impacts from the highway. There is a potentially eligible National Historic Register structure through proposed Trench T-5, identified on Figure 2. The potentially eligible structure is likely to be a gravel separator used during the construction of the North Haiwee Dam. Activities at T-5 have the potential to cause visual impacts to the eligible structure if the structure is damaged during project-related activities. However, the structure is not visible from a state scenic highway. Therefore, from a visual standpoint, the potential impacts are less than significant. The potential cultural impacts to the structure are discussed separately in Section V of this Initial Study.				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
See response to I (a).				
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?				**X**
Trenching and boring activities would occur during daylight hours. Therefore, artificial lighting will not be installed as part of the Project.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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?				**X**
The project site is not on designated Farmland, and implementation of the Project will not convert Farmland to non-agricultural use. The project site is owned by LADWP for operation and support of public facilities.				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
The project site is not under a Williamson Act contract and is not currently zoned for agricultural use.				
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				**X**
The Project would not impact existing Farmland or result in the conversion of Farmland to non-agricultural use.				
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan [e.g., the South Coast Air Quality Management District (SCAQMD) Plan or Congestion Management Plan?		**X**		
The Project site is within the Great Basin Valleys Air Basin (GBVAB), which is managed by the Great Basin Unified Air Pollution Control District (GBUAPCD or District). The GBVAB is a non-attainment area for PM_{10}. The GBUAPCD does not have CEQA emission standards for construction impacts. However, based on consultation with GBUAPCD, the stationary source thresholds, identified in the District's Rule 209-A, are utilized as thresholds in this analysis. According to Rule 209-A, a project would have a significant impact on regional air quality if it were to emit more than 250 pounds per day of any criteria pollutant (CO, NO_X, ROG, PM_{10}, SO_X).				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

The Project has a potential to create a temporary increase in PM_{10} emissions during trenching and boring activities. Project trenching will require excavation of approximately 3,450 cubic yards of material total over a 5-day period, or 690 cubic yards per day. Approximately the same quantity of material will be backfilled after a two month period. Using emissions factors from the South Coast Air Quality Management District CEQA Air Quality Handbook, 1993, the emissions due to trenching and boring are approximately 66.5 lbs/day CO, 49.8 lbs/day NO_X, 7.8 lbs/day ROG, and 31.26 lbs/day PM_{10}, which is well below the GBUAPCD threshold of 250 lbs/day. Since the GBVAB is already in non-attainment for PM_{10}, the additional emissions could contribute to an existing air quality violation, if not mitigated.

The potential air quality impacts would be mitigated to a less than significant level by implementing the following measures.

Mitigation

- The Project Specifications shall incorporate the applicable provisions of the Great Basin Valleys Air Pollution Control District Fugitive Dust Rule (Rule 401), provided below:

  A person shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:

  1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
  2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;
  3. Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations;
  4. Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and
  5. Maintenance of roadways in a clean condition.

- The contractor shall discontinue construction activities during first and second-stage smog alerts.
- When feasible, the contractor shall utilize existing power sources (i.e., temporary power poles) to minimize the use of diesel generators.

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		**X**		
See response to III (a).				
c) Result in cumulative 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 that exceed quantitative thresholds for ozone precursors)?		**X**		
See response to III (a). With mitigation, the Project's construction-related PM_{10} emissions would not result in a cumulatively significant impact to air quality.				
d) Expose sensitive receptors to substantial pollutant concentrations?				**X**
There are no sensitive receptors in the vicinity of the project site that would be exposed to substantial pollutant concentrations.				
e) Create objectionable odors affecting a substantial number of people?				**X**
Implementation of the Project would not create objectionable odors. In addition, there are no sensitive receptors in the vicinity of the project site.				
IV. BIOLOGICAL RESOURCES – 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?		**X**		

Sensitive Plants

Implementation of the Project would temporarily impact sanicle cymopterus (*Cymopterus ripleyi* var. *saniculoides*), a California Native Plant Society (CNPS) List 1B plant species. CNPS List 1B species are considered sensitive species. Digging of Trench T-2 in its current location would temporarily impact a location where 40 individuals of sanicle cymopterus occur. Additional individuals of sanicle cymopterus could be trampled by the geotechnical team during project-related activities. These impacts would be significant, but would be mitigated to a less than significant level.

Sensitive Wildlife

The Mohave ground squirrel, a CDFG listed threatened species, occurs throughout the project site. Project implementation could have permanent and temporary impacts on the Mohave ground squirrel through incidental take and habitat modification. The trenching and boring activities associated with the geotechnical investigation would temporarily impact approximately 4.5 acres of appropriate ground squirrel habitat (1.1 acres associated with trenching and 3.4 acres associated with boring). For trench locations, the impact area was calculated using the maximum dimensions of the potentially affected surface area (i.e., trenches are potentially 300 feet long by 20 feet wide, times 7 trenches; plus an assumption of travel over open land). For boring locations, the impact area was calculated as the linear distance of boring alignments affected by drive-over by drilling equipment times a width of 8 feet. Trenching and boring activities could result in the take of ground squirrels that would either be killed in their burrows or forced to flee the area, thus potentially abandoning occupied burrows. Either impact would be considered take of the species. The exact number of animals taken is not determinable. Impacts to the Mohave ground squirrel would be significant, but would be mitigated to a less than significant level.

Mitigation

- To compensate for the permanent loss of habitat, LADWP will preserve Mohave ground squirrel habitat (Habitat Management Lands) at a 3:1 ratio at a location approved by CDFG. Funding for the long-term management of the land preserved also is required. LADWP and CDFG will negotiate the per-acre cost of managing the lands to be preserved and fee title or conservation easement shall be granted to CDFG or other CDFG-approved non-profit entity.

  Alternately, the preservation of Mohave ground squirrel habitat could be accomplished through elimination of cattle grazing on lands owned by LADWP in Inyo County within the geographic range of Mohave ground squirrel and/or restoration of native vegetation within the range and in habitat suitable for Mohave ground squirrel on LADWP, public, or state lands in Inyo County. In either case, LADWP shall transfer fee title or a conservation easement over the Habitat Management Lands to the CDFG under terms approved by the CDFG. Alternatively, the transfer may be to another public entity or non-profit corporation approved by the CDFG under terms approved by the CDFG.

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

- A preconstruction environmental education program shall be conducted for all persons working on the Project. The education program shall include identification of sensitive biological resources on-site, terms and conditions of the Incidental Take Permit, and the California Endangered Species Act.

- Impacts to sanicle cymopterus shall be avoided where feasible through project redesign. In particular, Trench T-2 contains two clusters of sanicle cymopterus. If redesign of Trench T-2 to avoid impacts to sanicle cymopterus is not feasible, a mitigation plan shall be negotiated with and approved by CDFG.

- Sanicle cymopterus populations near proposed geotechnical testing sites shall be flagged by a qualified biologist prior to testing activities and avoided by project personnel.

- A qualified biological monitor familiar with sanicle cymopterus shall be on-site during testing activities in the vicinity of this species.

- Project boundaries shall be clearly delineated prior to construction. Existing roads shall be used to the greatest extent possible. All project-related parking and equipment storage shall be confined to previously disturbed areas.

- A qualified biological monitor familiar with Mohave ground squirrel shall be on-site to monitor trenching and boring activities.

- Trash and food items shall be removed from the project site daily and disposed of properly to avoid attracting ravens, a common predator of the Mohave ground squirrel.

- Open trenches and boring sites shall be inspected three times a day for the presence of trapped ground squirrels (and other wildlife species) and inspected by the on-site biologist immediately prior to backfilling. Alternatively, inspections would not be required if ramps are provided in trenches to allow animals to escape.

- All temporarily affected areas that were previously vegetated shall be restored with native plant species to accelerate recovery.

- During construction and at the completion of construction activities, monthly and final compliance reports shall be provided to CDFG documenting the effectiveness of mitigation measures and the level of take associated with the Project.

- Water from well pump testing shall not be discharged to the ground in Mohave ground squirrel habitat areas.

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		**X**		
Joshua tree woodland and Mojave riparian forest are present within the project site and are considered sensitive vegetation communities by CDFG and the County of Inyo. Impacts to these sensitive vegetation communities would occur through removal of vegetation. The trenches, as proposed, would impact approximately 2.95 acres of Joshua tree woodland and 0.1 acres of Mojave riparian forest. These impacts would be considered significant, but would be mitigated to a less than significant. **Mitigation** • Individual Joshua trees shall be avoided to the greatest extent possible. Compensation for impacts to Joshua tree woodland shall be negotiated with CDFG prior to ground disturbing activities. • Compensation for impacts to Mohave riparian forest shall be negotiated with CDFG prior to ground disturbing activities.				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
The project site does not have any federally protected wetlands as defined by Section 404 of the Clean Water Act. The U.S. Army Corps of Engineers (Corps) jurisdiction over wetlands is dependent on a hydrological connection or adjacency to navigable water bodies (i.e., "waters of the U.S."). The project site is within the Owens Valley, which is an enclosed basin that lacks a surface drainage connection to other jurisdictional waters that ultimately flow into the ocean. Reservoirs are regulated by the Corps only if a determination of navigability has been made by the Corps for that water body. Based on the isolated nature of the waters and wetlands in the project area, the wetland and water resources on the project site are not regulated by the Corps.				
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 native wildlife nursery sites?		**X**		

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
See response to IV (a).				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?		**X**		
No local ordinances protecting biological resources are applicable to the site; however, the Inyo County General Plan contains guidelines regarding biological resource issues. The County's General Plan contains the following guidelines relevant to the Project: important riparian areas and wetlands are to be preserved and protected for biological resource value; restoration of degraded biological communities is encouraged; development is discouraged within Environmental Resource Areas; and development should be directed into the less significant habitat areas (County 2001). Because the Project has the potential to create significant biological impacts, there is a potential to conflict with the County General Plan. With implementation of mitigation measures listed above in IV(a) and (b), potential conflicts with local policies would be mitigated to a less than significant level.				
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?		**X**		
The project site is within land covered by the California Desert Conservation Area (CDCA) Plan. The CDCA Plan serves as the land use guide for management of public lands within the CDCA to protect the natural environment while also balancing various other considerations under a multiple use policy. An amendment to the CDCA Plan, the West Mohave Plan, is currently being developed. When completed, the West Mohave Plan will be the habitat conservation plan applicable to the project site. According to the current CDCA Plan, the project site is not situated near any of the planned management areas for fish and wildlife (i.e., Areas of Critical Environmental Concern, Habitat Management Plans, Road Designation Restriction, or Special Attention Area). The North Haiwee Reservoir and its environs are considered in the CDCA Plan to be habitat for the golden eagle (*Aquila chrysaetos*) and the Mohave ground squirrel. Because the Project has the potential to create significant biological impacts, there is a potential to conflict with the CDCA Plan. With implementation of mitigation measures listed above in IV(a) and (b), potential conflicts with local policies would be mitigated to less than significant.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5?		**X**		
Qualified archaeologists have documented the cultural resources at the project site through a records search and pedestrian survey (EDAW 2003b). The identified resources have not been evaluated, but are potentially eligible for the California Register of Historical Resources. Ground disturbance within the sites could cause a substantial adverse change to the resources. Specifically, Trench T-5 is proposed across a site with a standing wooden structure that is potentially eligible for listing on both the National Register and California Register. However, the impacts from the geotechnical trenching and borings on LADWP property would be reduced to less than significant by avoiding these resources during project activities. Mitigation measures, listed below in V(b), would be implemented to reduce the impact to less than significant.				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations Section 15064.5?		**X**		
Qualified archaeologists have documented the archaeological resources at the project site through a records search and pedestrian survey (EDAW 2003b). The identified resources have not been evaluated, but are potentially eligible for the California Register of Historical Resources. Specifically, Trench T-4 is proposed across a site containing prehistoric and historic artifacts and borings in this same area could adversely affect resources associated with CA-INY-2243, HD-CS-001H, and HD-CS-005H. Trench T-7 is outside of the area covered by the pedestrian survey. The impacts from the geotechnical trenching and borings on LADWP property would be reduced to less than significant by adjusting the trench and boring locations to avoid resources (as provided in the mitigation measures below). **Mitigation** • Trenching, boring, and well locations in areas outside of previously surveyed areas, such as T-7, (EDAW 2003b), require a pedestrian archaeological survey, and if applicable, a record search prior to construction activities. All activities shall be located to avoid historic and archeological resources.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
• Trenching and boring locations shall be located to avoid known historic or archaeological resources, in particular, the historic and cultural resources at Trenches T-4 and T-5, and the geotechnical borings in and around CA-INY-2243, HD-CS-001H, and HD-CS-005H. A qualified archeologist shall be retained to assist with determining acceptable location parameters for these trenches and borings. The archaeologist is authorized to delineate the loci of the existing resources at Trenches T-4 and T-5 by use of small shovel test pits. • A qualified cultural resources monitor shall be on-site during ground disturbing activities at the adjusted Trench T-4 and T-5 locations and at the borings in and around known cultural resources. The cultural resources monitor shall have the authority to halt or redirect construction if new significant cultural resources are found. • If trenching and well locations cannot be adjusted to feasibly avoid the sites, the resources shall be evaluated for eligibility to the California Register of Historical Resources and assessed regarding whether they are unique archaeological resources prior to disturbance by construction.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				**X**
There are no known unique paleontological resources or unique geologic features at the project site. The project site consists of later Quaternary alluvium deposits, where fossils are generally unknown.				
d) Disturb any human remains, including those interred outside of formal cemeteries?				**X**
A preliminary investigation conducted by a qualified archaeologist for this Project revealed no evidence of any known Native American burial sites or remains at the project site.				
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				**X**
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.				**X**

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The project site is located outside any identified Alquist-Priolo Earthquake Fault Zoning Maps (Haiwee Reservoirs Quadrangle). The Project is being proposed to determine the seismic and geologic characteristics of the project site. Testing activities would employ standard techniques that would not pose a substantial threat of rupturing known earthquake faults.				
ii) Strong seismic ground shaking?				**X**
The Project would not cause strong seismic ground shaking and does not involve the construction of structures that may be damaged during seismic activities. In addition, the area around the project site is undeveloped and lacks inhabited structures. Therefore, the Project would not expose people or structures to substantial adverse effects involving seismic ground shaking.				
iii) Seismic-related ground failure, including liquefaction?				**X**
See response to VI(a)(ii).				
iv) Landslides?				**X**
The Project does not pose a danger of landslides. The topography of the project site is relatively flat and no major excavations of hillsides are proposed. The proposed trenches would be shallow (10 feet or less) and approximately 2 to 3 feet wide. In addition, the trenches and borings would be backfilled after the geologic evaluations are completed, reducing the risk of geologic instability.				
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
The materials excavated from the trenches would be stockpiled during the geologic investigations, which would last approximately 8 to 10 weeks. Substantial loss of topsoil from the stockpiles is not expected during this time. The trenches would subsequently be backfilled with the excavated materials. Therefore, the Project would not result in a substantial loss of topsoil.				
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?				**X**
See response to IV (a).				
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?				**X**

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Project does not include the construction of any buildings or structures.				
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 waste water?				**X**
The Project does not involve the use of septic tanks or alternative waste water disposal systems.				
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				**X**
The Project would not involve routine transport or disposal of hazardous materials.				
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?				**X**
Construction and operation of the Project would not involve the handling, storage, use, and disposal of hazardous materials. Therefore, the Project would not create any reasonably foreseeable hazards to the public or the environment involving the release of hazardous materials.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
There are no schools within a quarter mile of the project site.				
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?				**X**
The Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 ("Cortese List"). Therefore, hazardous materials are not expected to be encountered during project-related activities.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				**X**
The Project is not located within an airport land use plan or within two miles of a public airport or public use airport.				
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?				**X**
The Project is not located within the vicinity of a private airstrip.				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**
Implementation of the Project would not impede access to emergency routes. If road closures are required, such as for drilling activities near Cactus Flats Road, detour routes will be provided.				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				**X**
Operation of the Project does not involve activities that would contribute to wildland fires, and the risk of wildland fires would not be increased over existing conditions.				
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?			**X**	
The Project includes installation and development of wells that require discharge of water for testing purposes. The groundwater pumped from the wells would be conveyed in pipes and discharged to the North Haiwee Reservoir. This discharged groundwater is expected to be of high quality and would not violate the water quality standards for the Reservoir. In addition, a discharge permit may be required from the Regional Water Quality Control Board, Lahontan Region (RWQCB). Discharge permits issued by RWQCB would be adhered to so that water quality impacts would be avoided.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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)?			**X**	
The Project does not propose to operate permanent water supply wells. Of the 17 wells proposed for installation, 15 are 2-inch observation wells. Two 6-inch aquifer test wells are also proposed for installation. These 2 test wells will be used to perform a 72-hour constant-discharge aquifer test. For this test, groundwater will be pumped from the wells for 72 hours and then the pump will be shut off. The volume of groundwater that would be extracted during this testing would be small relative to the aquifer and is not expected to have permanent impacts on the groundwater table level.				
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?				**X**
The Project does not involve the construction of structures that would substantially alter the existing drainage pattern of the site or area. The proposed trenches would be backfilled to the preexisting condition once the investigations are completed. Therefore, the existing drainage pattern would not be substantially altered in a manner that would result in substantial erosion, siltation, or flooding.				
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?				**X**
See response to VIII(c).				
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?				**X**

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Project is located in an undeveloped area that is not served by stormwater drainage systems. In addition, implementation of the Project would not create substantial additional sources of polluted runoff. Water pumped from the test wells would be discharged via a pipe to the North Haiwee Reservoir and would not contribute to siltation in the Reservoir.				
f) Otherwise substantially degrade water quality?				**X**
The Project would not otherwise create additional sources of water pollutants that would substantially degrade water quality.				
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?				**X**
The Project would not place housing within a 100-year flood hazard area.				
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				**X**
The Project would not place structures within a 100-year flood area that would impede or redirect flood flows.				
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?				**X**
The activities associated with the Project do not pose a significant risk of causing failure of the North Haiwee Dam. The proposed trenching and boring activities were designed and reviewed by qualified engineers.				
j) Inundation by seiche, tsunami, or mudflow?				**X**
See response to VIII (i).				
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?				**X**
The Project is not located within an established community, as identified in the Inyo County General Plan (County 2001). The existing communities closest to the project site are Olancha, approximately 3 miles to the North, and Haiwee, approximately 6 miles to the south. The project site is located in an undeveloped area and would not physically divide an established community.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				**X**
The Inyo County General Plan (2001) designates the project site as Natural Resource (NR), which is applied to land or water areas that are essentially unimproved and planned to remain open in character. The NR designation provides for the preservation of natural resources, the managed production of resources, and recreational areas (County 2001). Implementation of the Project would not conflict with the NR designation. The land would remain open space in character and consistent with the existing surrounding land uses.				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		**X**		
The project site is within land covered by the CDCA Plan. The CDCA Plan serves as the land use guide for management of public lands within the CDCA to protect the natural environment while also balancing various other considerations under a multiple use policy. An amendment to the CDCA Plan, the West Mohave Plan, is currently being developed. When completed, the West Mohave Plan will be the habitat conservation plan applicable to the project site. According to the current CDCA Plan, the project site is not situated near any of the planned management areas for fish and wildlife (i.e., Areas of Critical Environmental Concern, Habitat Management Plans, Road Designation Restriction, or Special Attention Area). The North Haiwee Reservoir and its environs are considered in the CDCA Plan to be habitat for the golden eagle (*Aquila chrysaetos*) and the Mohave ground squirrel. Because the Project has the potential to create significant biological impacts, there is a potential to conflict with the CDCA Plan. With implementation of mitigation measures listed in Biological Resource Section, potential conflicts with local policies could be mitigated to a less than significant level.				
X. MINERAL RESOURCES – 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?				**X**
There are no known significant mineral resources at the project site.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				**X**
The Inyo County General Plan estimates that 60 percent of the land in the County has mineral potential. The predominant mining activity in the County is the extraction of aggregate resources (stone, sand, gravel, and clays), though the significance of mining in the County is decreasing (County 2001). The General Plan does not identify locally important mineral resources at the project site.				
XI. NOISE – 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?				**X**
Sources of noise during Project implementation are expected to include well pump equipment and heavy equipment such as bulldozer, backhoe, and truck-mounted boring rigs. Due to the lack of sensitive receptors in the vicinity of the project site, the Project would not expose people to excessive noise.				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				**X**
See response to XI (b).				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				**X**
Implementation of the Project would not result in a substantial permanent increase in ambient noise levels. The Project would be completed within approximately 3 months, and would not be a source of noise after the Project is completed.				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				**X**
See response to XI(c).				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				**X**
The project site is not located within an airport land use plan or within two miles of a public airport or public use airport.				
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?				**X**
The project site is not located within the vicinity of a private airstrip.				
XII. POPULATION AND HOUSING -- 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)?				**X**
The Project does not propose new homes or substantially improve infrastructure in a manner that would induce substantial population growth.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
The Project would not displace any existing housing or necessitate the construction of additional housing.				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**
The Project would not displace substantial numbers of people or necessitate the construction of additional housing.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES --				
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?				**X**
The Project would not cause an increase in fire hazard create that would increase the demand on fire protection services or require the construction of additional fire protection facilities.				
ii) Police protection?				**X**
The Project would not create an increased demand on police protection services or require the construction of additional police protection facilities.				
iii) Schools?				**X**
The Project would not cause an increase in population that would create an increased demand for schools or require the construction of additional schools.				
iv) Parks?				**X**
The Project would not cause an increase in population that would create an increased demand for parks.				
v) Other public facilities?				**X**
The Project would not create an increased demand other public facilities.				
XIV. RECREATION --				
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?				**X**
The Project would not cause an increase in population or increase the use of existing neighborhood and regional parks or other recreational facilities.				
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?				**X**
The Project does not include recreational facilities or require the construction or expansion of recreational facilities.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			**X**	
Project-related vehicles would access the project site primarily via Cactus Flats Road from Highway 395. The Haiwee Reservoir access road may also be used for secondary access. Cactus Flats Road is predominantly used by hauler trucks from the nearby aggregate mining operations. The Project would not cause a permanent increase in traffic around the project site. During implementation, which is expected to last approximately 3 months, the Project would generate approximately 10 vehicle roundtrips per day from commuting construction workers. Additionally, there would approximately 2 truck roundtrips per day for equipment deliveries. The Project would not require fill material to be hauled on- or off-site. This level of vehicle trip generation would not cause a substantial increase in traffic in relation to the existing traffic load and capacity.				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			**X**	
The existing Cactus Flats Road is unpaved and does not experience congestion. However, the Project would not generate a substantial amount of traffic and therefore, is not expected to substantially degrade the level of service Cactus Flats Road.				
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?				**X**
The Project would not affect air traffic patterns of affect the operation of existing airports.				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
Some of the proposed boring sites may be near Cactus Flats Road, and boring operations at these locations have the potential to interfere with traffic. However, Cactus Flats Road will not be closed, and adequate capacity for the existing traffic will be provided so that the appropriate road safety standards are met. Therefore, the Project would not substantially increase hazards on Cactus Flats Road.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?			**X**	
Cactus Flats Road will remain accessible to emergency vehicles. If Cactus Flats Road needs to be detoured, the detour would be constructed to appropriate road safety standards and be adequate for emergency access.				
f) Result in inadequate parking capacity?				**X**
A staging area (or multiple staging areas) would be designated during Project implementation and would be sized to provide adequate parking capacity.				
g) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				**X**
The Project would not conflict with use of alternative transportation or conflict with existing policies or programs supporting alternative transportation.				
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				**X**
The Project does not contain any facilities that would generate wastewater.				
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?				**X**
The Project would not require water or wastewater treatment services.				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
The Project is not connected to a storm water drainage system.				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				**X**

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Project would not increase consumptive water use and would not require new or expanded entitlements.				
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?				**X**
The Project does not contain any facilities that would generate wastewater.				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				**X**
During construction, a limited amount of solid waste may be generated and disposed of at an appropriate disposal facility.				
g) Comply with federal, state, and local statutes and regulations related to solid waste?				**X**
Project-related solid waste will be disposed of in compliance with federal, state, and local statutes and regulations.				
XVII. MANDATORY FINDINGS OF SIGNIFICANCE –				
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?		**X**		
Based on the analyses in the previous sections of this Initial Study, the Project has the potential to cause significant impacts on air quality, biological resources, cultural resources, and land use/planning. With mitigation, the potential impacts to these resources would be less than significant.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
b) 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, the effects of other current projects, and the effects of probable future projects)?			**X**	
Other proposed projects in the area include widening of Highway 395 and the construction of a 30-acre beverage bottling plant on a 120-acre parcel west of Highway 395. The Project would not have additional cumulatively significant impacts when considered together with these other projects. The Project implementation is relatively short in duration and would not cause significant unmitigated permanent impacts to the environment. This Project is an exploratory geologic evaluation and no permanent structures would be constructed.				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		**X**		
Based on the analyses in the previous sections of this Initial Study, the Project would have potentially significant environmental effects that could cause substantial adverse effects on human beings. However, with mitigation, the potential environmental effects would not cause substantial adverse effects on human beings.				

DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)

Please refer to Attachment 1 for a summary of the environmental impacts and mitigation measures.

PREPARED BY:	TITLE:	TELEPHONE NO.:	DATE:
Thomas A. Dailor	Project Manager	(213) 367-0221	7/21/03

ATTACHMENT 1

PROJECT DESCRIPTION

GEOTECHNICAL INVESTIGATIONS AT THE NORTH HAIWEE DAM

1.1 Project Location

The Project is generally located in Inyo County, at the southern end of Owens Valley and eastern toe of the Sierra Nevada (Figure 1). The project site is located immediately north of Haiwee Reservoir, east of Highway 395 (Figure 2).

1.2 General Setting

The project site is designated as Natural Resource in the Inyo County General Plan (County 2001). The area around the project site is characterized by open space, with very little development. Haiwee Reservoir lies directly to the south and there are some agricultural uses to the north. The nearest town is Olancha, which lies approximately 3 miles to the north.

1.3 Project Objectives

The objective of this project is to adequately retain the North Haiwee Reservoir if the existing North Haiwee Dam were to fail following a Controlling Maximum Credible Earthquake (CMCE) event.

1.4 Historical Perspective

Construction of the Dam was originally set to begin in 1909 but was delayed until 1910 due to lack of equipment. Work on the Dam was further delayed in 1910 as a result of unanticipated resources needed at the South Haiwee Dam site. In 1911, preliminary exploration work began at the proposed Dam site. On April 11, 1912, the work of erecting equipment for the Dam construction was started. The Dam was constructed on native alluvium soils mainly by hydraulic fill methods. The Dam rises to elevation 3,767.7 feet, with a maximum height of approximately 34 feet above the original streambed, and has a crest length of approximately 1,500 feet long. The Dam construction was completed in February 1913 and was placed in service in 1913 along with the First Los Angeles Aqueduct (FLAA). Additionally, in 1951, a 4-inch-thick concrete overlay was placed on the upstream slope as a result of deterioration of the original facing. A blanket of pervious earth fill was placed, in March 1972, at the downstream toe along the east end of the Dam.

1.5 Project Description

Previous seismic investigations were conducted to determine how the existing North Haiwee Dam would perform under a Controlling Maximum Credible Earthquake (CMCE). The study found that the dam, constructed in 1913, would not perform satisfactorily for a CMCE event and would need to be reinforced, reconstructed, or replaced with a new dam.

The Los Angeles Department of Water and Power (LADWP) has conducted a preliminary engineering investigation of possible alternatives to improve performance of the dam. One alternative would involve the construction of a new dam, North Haiwee Dam No. 2 (NHD2), at a site 800 feet north of the existing dam, as well as the realigning of a portion of the FLAA and Cactus Flat Road (CFR). LADWP proposes to initiate an in-field seismic testing (trenching) and geotechnical boring program to facilitate the engineering design process. The program is needed to determine seismic design, soil engineering, and location parameters for the project. Planning and engineering for the construction and realignment work cannot go forward without first obtaining the information from the proposed geotechnical program.

The proposed geotechnical investigation (Project) includes excavation of trenches up to 300 feet long, up to 10 feet deep, and up to 20 feet wide in seven different locations in the vicinity of the existing North Haiwee Dam (Figure 2). Most trenches would actually be 2 to 3 feet wide, but could be wider in some areas. An area will also be needed to temporarily store the excavated material, hence, the need for a 20-foot-wide area. The trenching will be done by hand digging, by rubber-tired backhoe, or dozer depending upon the required trench size. The trenching activity would be done relatively quickly, requiring less than one week for excavation. The evaluation process could take 8 to 10 weeks. One week would be required for trench backfilling.

Approximately 53 borings would be made in the potential NHD2 construction and FLAA and CFR realignment areas using both truck-mounted rotary wash rig and truck-mounted bucket auger rig.

In addition, 17 observation wells and pump wells would be installed to determine the possible different hydraulic properties of sediment materials derived from areas east and west of the Owens Valley. Of the 17 wells, 15 are 2-inch observation wells that would be installed in the proposed borings described above.

Two 6-inch pump wells will also be installed to perform the "72-hour constant-discharge aquifer test." The test involves pumping water from the wells for 72 hours and monitoring the aquifer recovery. To determine the optimum pumping rates for the aquifer test, a "step-drawdown test" would also be performed on each of the 2 pump wells. The final pumping rate for this test is anticipated to be less than 100 gallons per minute.

1.6 Proposed Operation

The proposed project involves performing geotechnical trenching and boring to complete design studies for the proposed NHD2 construction and FLAA and CFR realignment.

1.7 Land Use Consistency

Refer to Section IX. Land Use and Planning.

1.8 Environmental Setting

The general area contains human features associated with previous uses, including the construction and operation of the North Haiwee Dam. The general area includes open space, original dam construction borrow areas, FLAA and appurtenant facilities, site access roads, Cactus Flats Road (County), agricultural operations, and evidence of a previous home site.

Comprehensive general and sensitive species biological surveys of the area of the proposed geotechnical trenching and boring locations have been conducted by EDAW, Inc. (2003a) and by EREMICO Biological Services (Appendix A). The project site is characterized by alkali scale scrub and Joshua tree woodland habitat communities. The project area is almost completely surrounded by Mohave ground squirrel habitat; habitat that is presumably occupied by the species. A portion of the proposed realignment of the FLAA is located on land administered by the Bureau of Land Management (BLM). No project activity will occur on BLM administered lands at this time.

1.9 Environmental Safeguards

Air Quality

Impact

- The Project has a potential to create a temporary increase in PM_{10} emissions during trenching and boring activities. Project trenching will require excavation of approximately 3,450 cubic yards of material total over a 5-day period, or 690 cubic yards per day. Approximately the same quantity of material will be backfilled after a two month period. Using emissions factors from the South Coast Air Quality Management District CEQA Air Quality Handbook, 1993, the emissions due to trenching and boring are approximately 66.5 lbs/day CO, 49.8 lbs/day NO_X, 7.8 lbs/day ROG, and 31.26 lbs/day PM_{10}, which is well below the GBUAPCD threshold of 250 lbs/day. Since the GBVAB is already in non-attainment for PM_{10}, the additional emissions could contribute to an existing air quality violation, if not mitigated.

Mitigation

- The Project Specifications shall incorporate the applicable provisions of the Great Basin Valleys Air Pollution Control District Fugitive Dust Rule (Rule 401), provided below:

  A person shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:

  1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
  2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;
  3. Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations;
  4. Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and
  5. Maintenance of roadways in a clean condition.

- The contractor shall discontinue construction activities during first and second-stage smog alerts.

- When feasible, the contractor shall utilize existing power sources (i.e., temporary power poles) to minimize the use of diesel generators.

Biological Resources

Impact

- Implementation of the Project would temporarily impact sanicle cymopterus (*Cymopterus ripleyi* var. *saniculoides*), a California Native Plant Society (CNPS) List 1B plant species. CNPS List 1B species are considered sensitive species. Digging of Trench T-2 in its currently proposed location would temporarily impact a location where 40 individuals of sanicle cymopterus occur. Additional individuals of sanicle cymopterus could be trampled by the geotechnical team during project-related activities. These impacts would be significant, but would be mitigated to a less than significant level.

- The Mohave ground squirrel, a CDFG listed threatened species, occurs throughout the project site. Project implementation could have permanent and temporary impacts on the Mohave ground squirrel through incidental take and habitat modification. Impacts to the Mohave ground squirrel would be significant, but would be mitigated to a less than significant level.

- Joshua tree woodland and Mojave riparian forest are present within the project site and are considered sensitive vegetation communities by CDFG and the County of Inyo. Impacts to these sensitive vegetation communities would occur through removal of vegetation. The trenches, as proposed, would impact approximately 2.95 acres of Joshua tree woodland and 0.1 acres of Mojave riparian forest. These impacts would be considered significant, but would be mitigated to a less than significant.

Mitigation

- To compensate for the permanent loss of habitat, LADWP will preserve Mohave ground squirrel habitat (Habitat Management Lands) at a 3:1 ratio at a location approved by CDFG. Funding for the long-term management of the land preserved also is required. LADWP and CDFG will negotiate the per-acre cost of managing the lands to be preserved and fee title or conservation easement shall be granted to CDFG or other CDFG-approved non-profit entity.

  Alternately, the preservation of Mohave ground squirrel habitat could be accomplished through elimination of cattle grazing on lands owned by LADWP in Inyo County within the geographic range of Mohave ground squirrel and/or restoration of native vegetation within the range and in habitat suitable for Mohave ground squirrel on LADWP, public, or state lands in Inyo County. In either case, LADWP shall transfer fee title or a conservation easement over the Habitat Management Lands to the CDFG under terms approved by the CDFG. Alternatively, the transfer may be to another public entity or non-profit corporation approved by the CDFG under terms approved by the CDFG.

- A preconstruction environmental education program shall be conducted for all persons working on the Project. The education program shall include identification of sensitive biological resources on-site, terms and conditions of the Incidental Take Permit, and the California Endangered Species Act.

- Impacts to sanicle cymopterus shall be avoided where feasible through project redesign. In particular, Trench T-2 contains two clusters of sanicle cymopterus. If redesign of Trench T-2 to avoid impacts to sanicle cymopterus is not feasible, a mitigation plan shall be negotiated with and approved by CDFG.

- Sanicle cymopterus populations near proposed geotechnical testing sites shall be flagged by a qualified biologist prior to testing activities and avoided by project personnel.

- A qualified biological monitor familiar with sanicle cymopterus shall be on-site during testing activities in the vicinity of this species.

- Project boundaries shall be clearly delineated prior to construction. Existing roads shall be used to the greatest extent possible. All project-related parking and equipment storage shall be confined to previously disturbed areas.

- A qualified biological monitor familiar with Mohave ground squirrel shall be on-site to monitor trenching and boring activities.

- Trash and food items shall be removed from the project site daily and disposed of properly to avoid attracting ravens, a common predator of the Mohave ground squirrel.

- Open trenches and boring sites shall be inspected three times a day for the presence of trapped ground squirrels (and other wildlife species) and inspected by the on-site biologist immediately prior to backfilling. Alternatively, inspections would not be required if ramps are provided in trenches to allow animals to escape.

- All temporarily affected areas that were previously vegetated shall be restored with native plant species to accelerate recovery.

- During construction and at the completion of construction activities, monthly and final compliance reports shall be provided to CDFG documenting the effectiveness of mitigation measures and the level of take associated with the Project.

- Water from well pump testing shall not be discharged to the ground in Mohave ground squirrel habitat areas.

- Individual Joshua trees shall be avoided to the greatest extent possible. Compensation for impacts to Joshua tree woodland shall be negotiated with CDFG prior to ground disturbing activities.

- Compensation for impacts to Mohave riparian forest shall be negotiated with CDFG prior to ground disturbing activities.

Cultural Resources

Impact

- Proposed trenching and boring activities have the potential to disturb historical resources. Specifically, Trench T-5 is proposed across a site with a standing wooden structure (gravel separator) that is potentially eligible for listing on the National Register and California Register.

- Proposed trenching and boring activities have the potential to adversely affect archaeological resources at the project site. Specifically, Trench T-4 is proposed across a clustering of prehistoric and historic artifacts, and boring in these areas also could affect potential significant cultural resources. Trench T-7 is outside of the area covered by the pedestrian survey.

Mitigation

- Trenching, boring, and well locations in areas outside of previously surveyed areas, such as T-7, (EDAW 2003b), require a pedestrian archaeological survey, and if applicable, a record search prior to construction activities. All activities shall be located to avoid historic and archeological resources.

- Trenching and boring locations shall be located to avoid known historic or archaeological resources, in particular, the historic and cultural resources at Trenches T-4 and T-5, and the geotechnical borings in and around CA-INY-2243, HD-CS-001H, and HD-CS-005H. A qualified archeologist shall be retained to assist with determining acceptable location parameters for these trenches and borings. The archaeologist is authorized to delineate the loci of the existing resources at Trenches T-4 and T-5 by use of small shovel test pits.

- A qualified cultural resources monitor shall be on-site during ground disturbing activities at the adjusted Trench T-4 and T-5 locations and at the borings in and around known cultural resources. The cultural resources monitor shall have the authority to halt or redirect construction if new significant cultural resources are found.

- If trenching and well locations cannot be adjusted to feasibly avoid the sites, the resources shall be evaluated for eligibility to the California Register of Historical Resources and assessed regarding whether they are unique archaeological resources prior to disturbance by construction.

1.10 Required Permits and Approvals

California 2081 Incidental Take Permit

Regional Water Quality Control Board Construction Waste Discharge Permit

1.11 References

California Department of Transportation (Caltrans)
1999 California Scenic Highway Mapping System.
http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

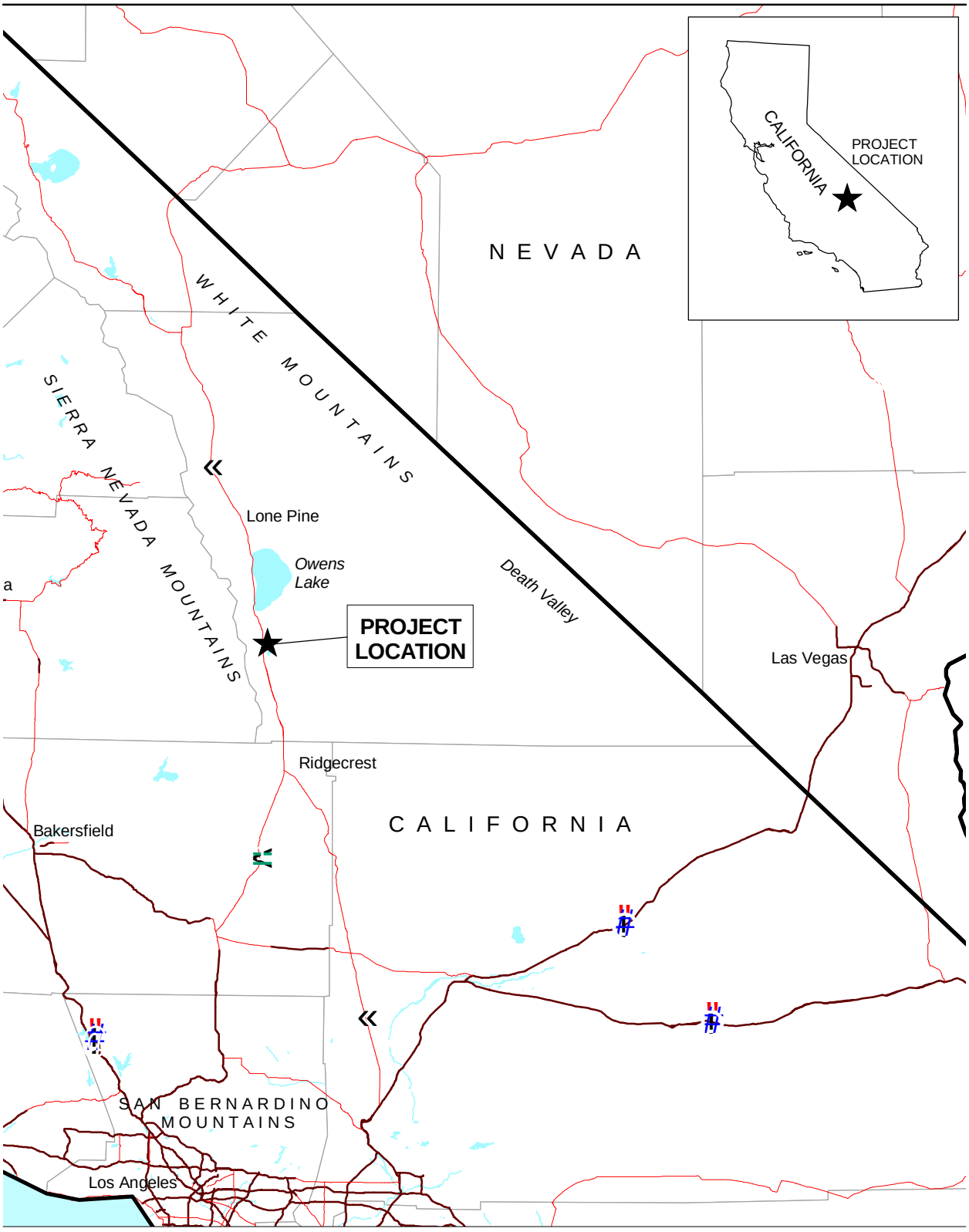
County of Inyo (County)
2001 Inyo County General Plan.

EDAW, Inc. (EDAW)
2003a Draft Biological Technical Report, North Haiwee Dam Reconstruction Project, Inyo County, California. June 13, 2003.

EDAW, Inc. (EDAW)
2003b Cultural Resources Inventory for a 425-Acre Survey at North Haiwee Reservoir, Inyo County, California. July, 2003.

LADWP
April 9, 2002, North Haiwee Dam – Proposed Reservoir Improvements, Water Engineering & Technical Survey Memorandum.

LADWP
July 2001, North Haiwee Dam Seismic Stability Evaluation, Volume 1, Report AX-399-3.



Source: ESRI, USGS 2002 (Base Layers)

MAP NOT TO SCALE

Figure 1
Regional Map

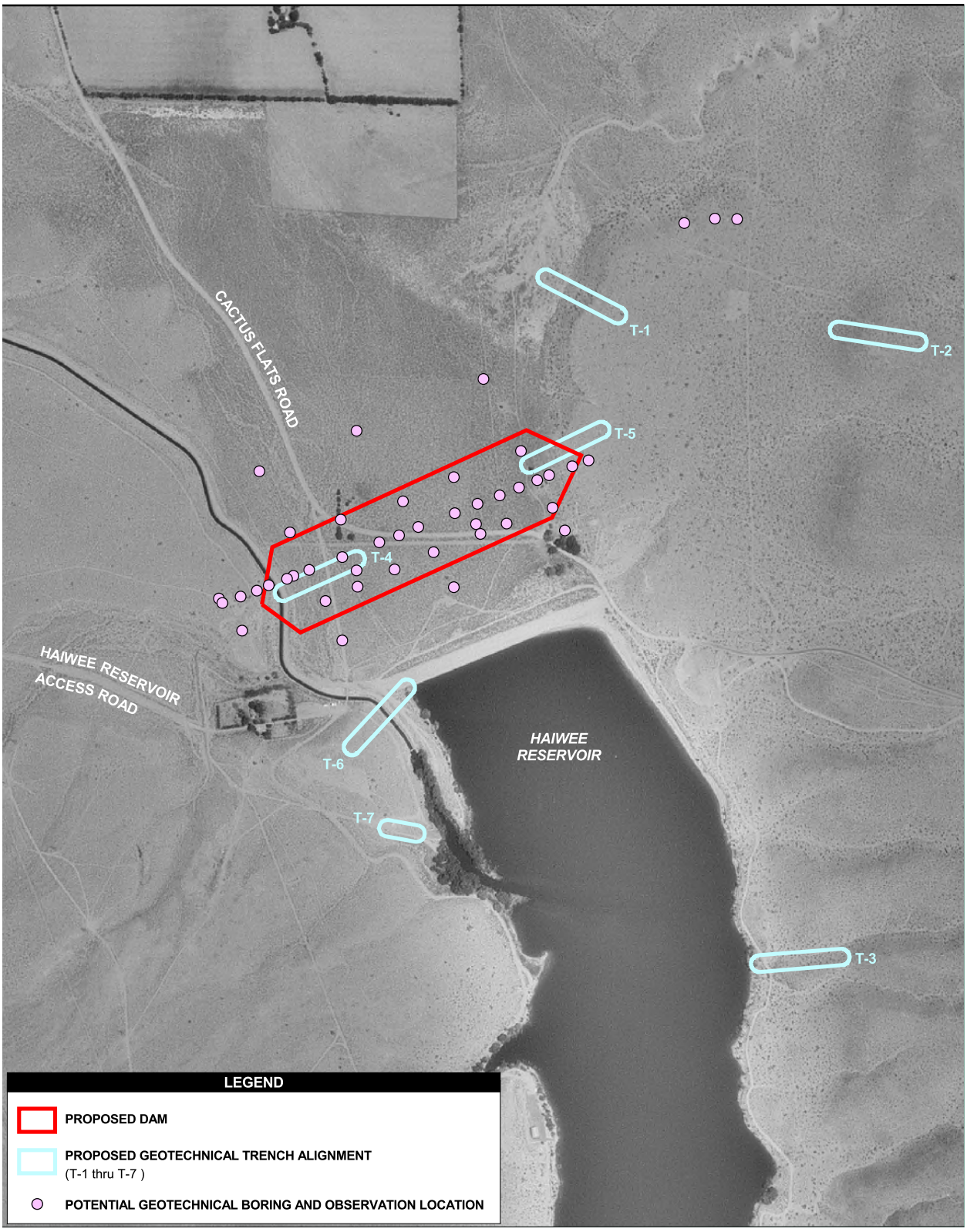


Figure 2
Project Components Map

GIS\2002\2K116\GIS\Project\components_mnd.apr UTM83m Z11 (T. Huntley) 7/18/03