INITIAL STUDY

NORTH HAIWEE DAM
SEISMIC IMPROVEMENT PROJECT

Prepared for:

Los Angeles Department of Water & Power
Environmental Affairs
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Los Angeles, CA 90012-2694

Prepared by:

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October 2014

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1 Project Description

1.1 Project Background

The City of Los Angeles Department of Water and Power (LADWP), in cooperation with the U.S. Bureau of Land Management (BLM), proposes to replace or to improve the seismic reliability of the existing North Haiwee Dam (existing Dam or NHD) located in the Owens Valley, California, approximately 150 miles north of Los Angeles (Figure 1-1). LADWP owns and operates the existing earthfill Dam (constructed in 1913), an essential component of the Los Angeles Aqueduct (LAA) system which transports water from the Owens Valley through the North Haiwee Reservoir (NHR) (Figure 1-2) to southern California and the City of Los Angeles.

A seismic stability evaluation of the existing Dam, conducted by LADWP, concluded that the existing Dam could experience structural failure in the event of a Controlling Maximum Credible Earthquake (MCE) scenario. The MCE is the largest earthquake which could possibly occur at a fault, based on the characteristics of that particular earthquake fault. Based on this evaluation, the California Department of Water Resources, Division of Safety of Dams (DSOD), has directed LADWP to operate the NHR at a restricted maximum surface water elevation in order to prevent flooding in the event of an MCE.

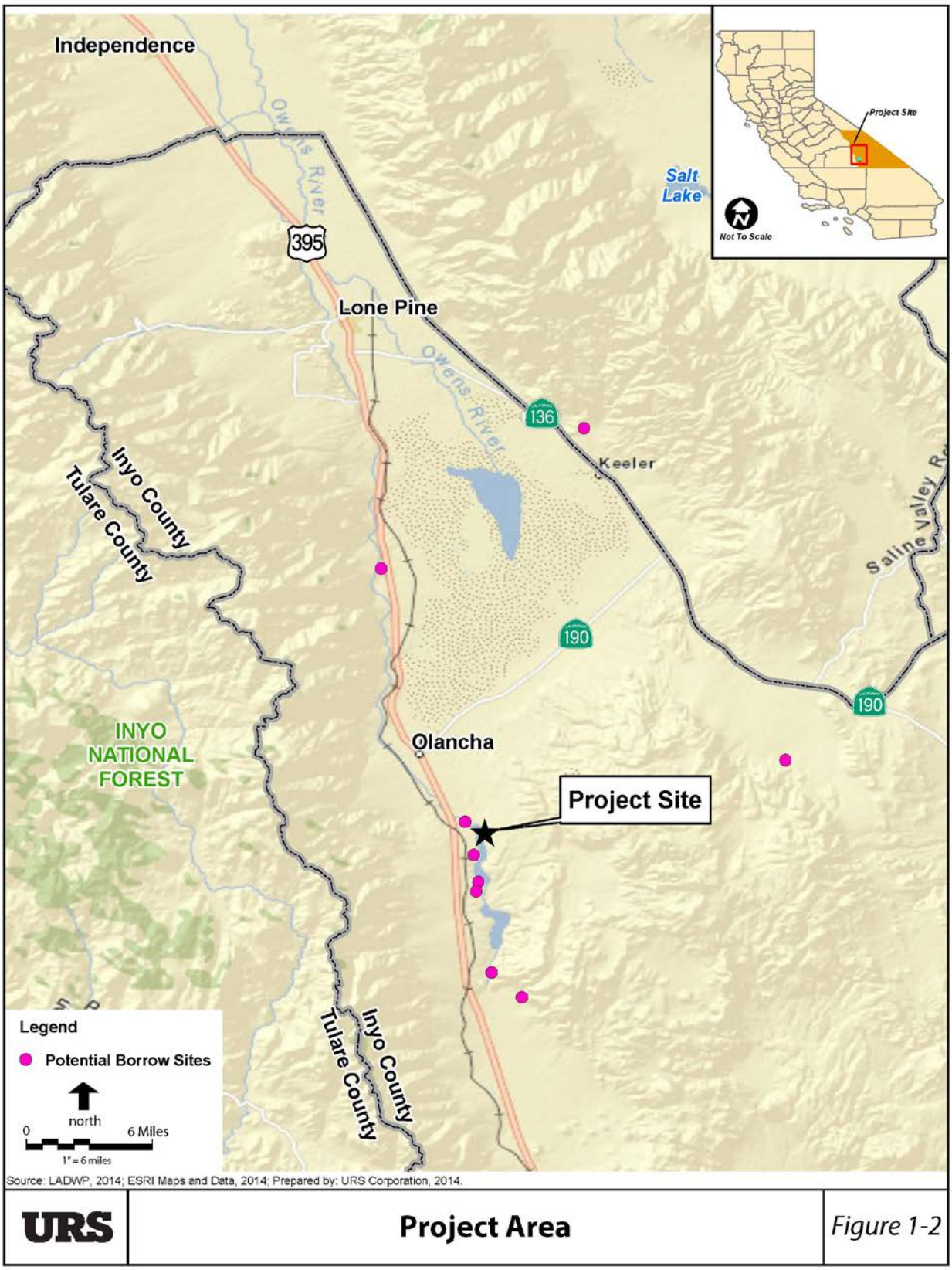
In order to operate the NHR at the normal water level permitted prior to the restrictions put in place by DSOD, LADWP needs to comply with DSOD requirements including demonstration of continuous progress on seismic improvements and initiation of construction activities for such improvements by 2017. To that end, LADWP is proposing the North Haiwee Dam Seismic Improvement Project (proposed Project). The proposed Project would provide sufficient seismic reliability for the NHR, maintain the function of an essential water conveyance infrastructure component for the Los Angeles region, and protect local populations from a hazardous flooding event.

1.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to projects initiated by, funded by, or requiring discretionary approvals from State or local government agencies. The proposed Project constitutes a project as defined by CEQA (California Public Resources Code Section 21000 et seq.). The CEQA Guidelines Section 15367 states that a "Lead Agency" is "the public agency which has the principal responsibility for carrying out or approving a project." Therefore, LADWP is the lead agency responsible for compliance with CEQA for the proposed Project.

As the Lead Agency for the proposed Project, LADWP must complete an environmental review to determine if implementation of the proposed Project would result in significant adverse environmental impacts. To fulfill the purpose of CEQA, an Initial Study has been prepared to assist in making that determination. An Initial Study is used to present a worst-case, preliminary evaluation of potential significant adverse environmental impacts based on the scope of the proposed Project, as it is known at the time of preparation of the Initial Study. The evaluation contained in this Initial Study as well as public input solicited from agencies and members of the public during review of the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) will influence and focus the environmental topics that will be evaluated further in the EIR.


Independence
Project Vicinity
Owens Lake
Project Site
CALIFORNIA
Visalia
Delano
Ridgecrest
Bakersfield
Barstow
Lancaster
Palmdale
Victorville
Santa Clarita
Simi Valley
Thousand Oaks
Oxnard
Los Angeles
Rancho Cucamonga
Ontario
El Monte
Pomona
Santa Monica
Riverside
Banning
Anaheim
Corona
Cathedral City
Indio
Long Beach
Santa Ana
Palm Desert
Lake Forest
Mission Viejo
Murrieta
Project Site
Not To Scale
north
0
32 Miles
1" = 32 miles
Source: LADWP, 2014; ESRI Maps and Data, 2014; Prepared by: URS Corporation, 2014.
URS
Regional Map
Figure 1-1


Independence
Owens River
395
Salt Lake
Project Site
Not To Scale
Lone Pine
Owens River
136
Keeler
Inyo County
Tulare County
Saline Valley
190
190
INYO NATIONAL FOREST
Olancha
Project Site
Legend
Potential Borrow Sites
north
0
6 Miles
1" = 6 miles
Inyo County
Tulare County
Source: LADWP, 2014; ESRI Maps and Data, 2014; Prepared by: URS Corporation, 2014.
URS
Project Area
Figure 1-2

The EIR will also include an evaluation of alternatives to the proposed Project that would reduce or avoid significant impacts, including a No Project Alternative. Based on the Initial Study analysis and the NOP review, factors for which no significant adverse environmental impacts are expected to occur will be eliminated from further evaluation in the EIR. A preliminary evaluation of the potentially affected factors is included in the Initial Study checklist in Section 3.

1.3 National Environmental Policy Act

The National Environmental Policy Act (NEPA) applies to actions initiated by, funded by, or requiring discretionary approvals from federal government agencies. The proposed Project (proposed action under NEPA) would require discretionary approval from the BLM because the proposed action would have the potential to affect federally-owned lands. The BLM, as the NEPA Lead Agency, will prepare NEPA documentation for the proposed action.

1.4 Project Location

The proposed Project would be located in the Owens Valley in unincorporated areas of Inyo County, California. The Project site is located approximately 0.5 miles southeast of the community of Olancha, and approximately 0.75 miles north of the community of Haiwee (Inyo County, 2002). The Project site is bordered on the south by the NHR, on the east by undeveloped, hilly LADWP-owned property, on the north by the privately-owned Butterworth Ranch, and on the west by undeveloped BLM-owned land.

The existing Dam is located at the north end of the NHR and South Haiwee Reservoir. Cactus Flats Road travels roughly west to east, north of the existing Dam. The LAA approaches the NHR from the northwest, and enters the NHR approximately 0.25 miles south of the existing Dam. The existing Dam is approximately 0.7 miles east of the United States Highway 395 (US-395) and the Project site is accessed via the partially paved North Haiwee Road from the west and via the partially paved Cactus Flats Road from the north and east.

1.5 Project Site and Surrounding Land Uses

1.5.1 Land Use and Zoning Designation

The majority of the Project site is designated as a Natural Resources (NR) land use by the Inyo County General Plan. A portion of the realigned LAA would pass through BLM property, designated in the Inyo County General Plan as State and Federal Lands (SFL) use. The NR land use designation, which is "applied to land or water areas that are essentially unimproved and planned to remain open in character, provides for the preservation of natural resources, the managed production of resources, and recreational uses." The SFL designation is applied to "those State- and Federally-owned parks, forests, recreation, and/or management areas that have adopted management plans" (Inyo County, 2002, p.p.4-24). The Project site is zoned by Inyo County as Open Space with a 40-acre minimum size (OS-40). One borrow site also includes a Rural Protection (RP) land use.

1.5.2 Surrounding Land Uses

The land use designation of the Project area to the northeast, east, southeast, and west of the Project site is SFL. The area south of the Project site (NHR and its surroundings) has land use designation of NR. Butterworth Ranch, to the north of the Project site, is designated as Agricultural use. The Project area is zoned as OS-40, the same designation as the Project site (Inyo County, 2002, p.p.4-24).

1.6 Project Objectives

A thorough seismic hazards investigation by LADWP determined that the NHD would sustain large permanent deformations, with the potential for an uncontrolled release of water, when subjected to the MCE (LADWP, 2001). The NHD and NHR are integral components of the LAA, which provides approximately 50% of the annual average water supply for the City of Los Angeles. The NHR is crucial to LAA operations and if the NHD should fail, the City's water supply would be essentially cut off from Owens Valley. As a result, remedial construction work is essential to ensure public safety and operational reliability. The following are the key objectives of the proposed Project:

- Preventing an uncontrolled release of water from the NHR when NHD is subjected to an earthquake event, thereby ensuring public safety;
- Meeting normal operational needs of the NHR and the LAA;
- Providing minimal disruption to reservoir operations during construction;
- Maintaining a reliable water supply to the City of Los Angeles, ensuring public health and safety; and
- Maintaining access through Cactus Flats Road.

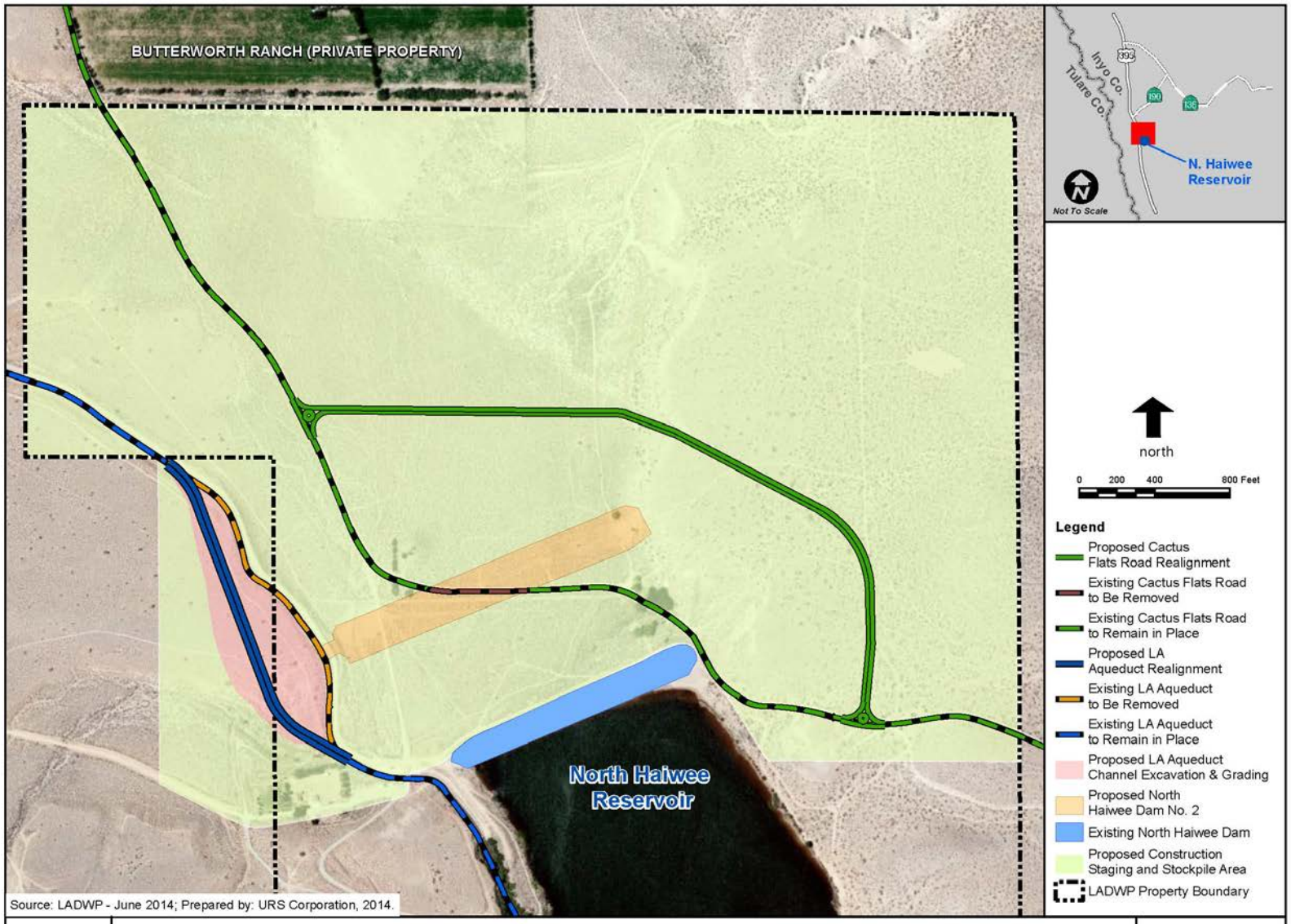
1.7 Proposed Project

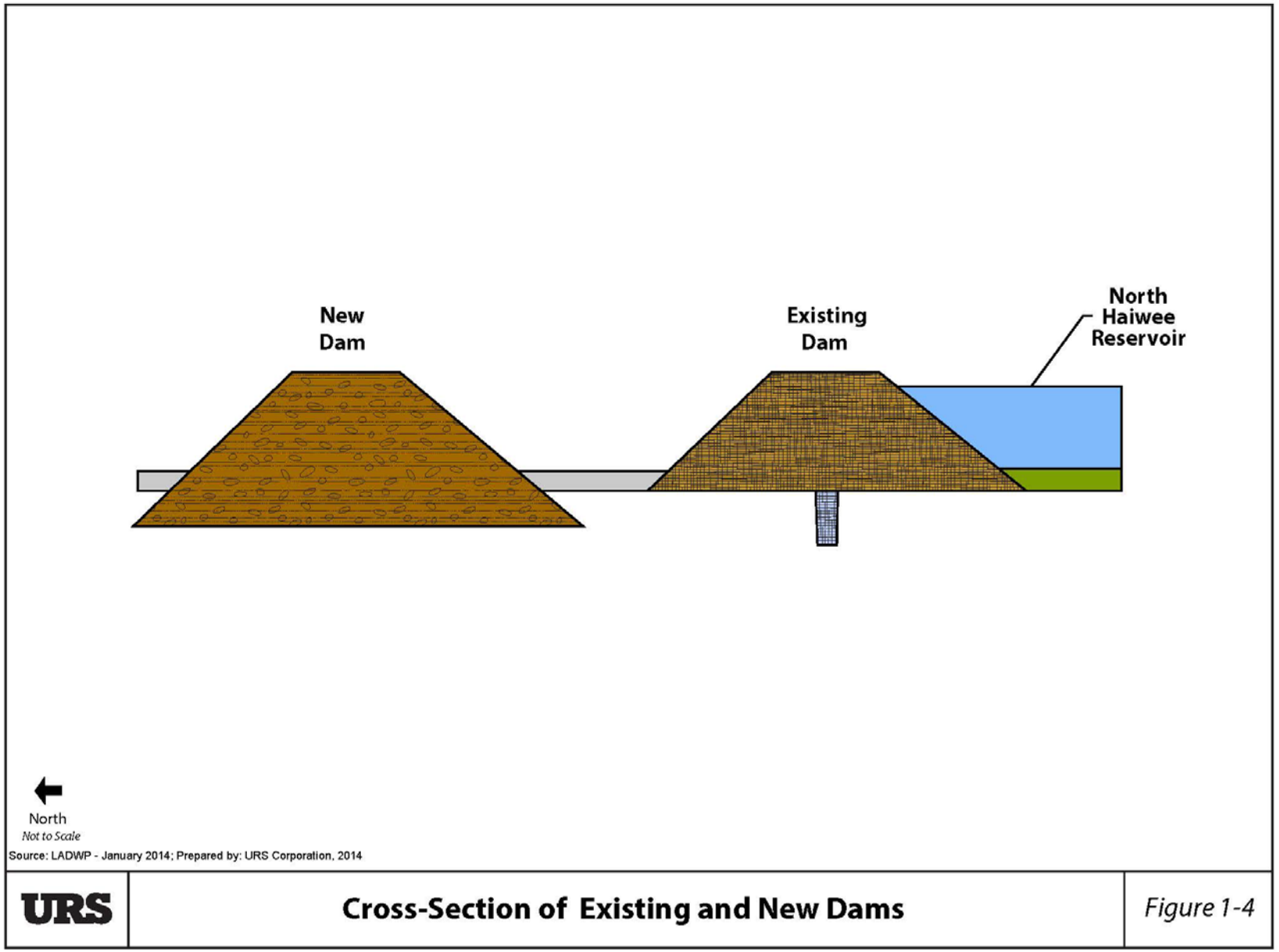
The proposed Project is comprised of three main elements (Figure 1-3). These are:

1. North Haiwee Dam No. 2;
2. Los Angeles Aqueduct Realignment; and,
3. Cactus Flats Road Realignment.

1.7.1 North Haiwee Dam Number 2

North Haiwee Dam Number 2 (new Dam or NHD2) will be constructed north of the existing Dam. The NHD2 axis will be located approximately 800 feet north and roughly parallel to the existing Dam axis (Figure 1-4). NHD2 will serve as a backup dam in the event the NHD is damaged by an earthquake event. NHD2 will be designed to retain water in the NHR in the event of failure of the NHD. The proposed NHD2 location provides a basin and a new accessible length of aqueduct channel between the existing Dam and NHD2 that may be utilized for water quality and sediment management purposes or storage. The new Dam would be an embankment dam and would either be homogeneous (non-clay core dam comprised of one primary material) or zoned (containing a clay core, and "zones" of different material types). Seepage control systems will be provided for the new Dam and will be designed depending on the type of embankment dam selected (homogeneous or zoned).


BUTTERWORTH RANCH (PRIVATE PROPERTY)
North Haiwee Reservoir
Source: LADWP - June 2014; Prepared by: URS Corporation, 2014.
Inyo Co.
Tulare Co.
395
190
136
N. Haiwee Reservoir
Not To Scale
north
0 200 400 800 Feet
Legend
Proposed Cactus Flats Road Realignment
Existing Cactus Flats Road to Be Removed
Existing Cactus Flats Road to Remain in Place
Proposed LA Aqueduct Realignment
Existing LA Aqueduct to Be Removed
Existing LA Aqueduct to Remain in Place
Proposed LA Aqueduct Channel Excavation & Grading
Proposed North Haiwee Dam No. 2
Existing North Haiwee Dam
Proposed Construction Staging and Stockpile Area
LADWP Property Boundary
URS
Proposed Project Elements
Figure 1-3


New Dam
Existing Dam
North Haiwee Reservoir
North
Not to Scale
Source: LADWP - January 2014; Prepared by: URS Corporation, 2014
URS
Cross-Section of Existing and New Dams
Figure 1-4

NHD2 would be constructed per the design plans and specifications of DSOD guidelines and the operational requirements of the NHR. The preliminary design parameters for the NHD2 are listed in Table 1-1.

TABLE 1-1
NORTH HAIWEE DAM NO. 2 DESIGN PARAMETERS

Design Component	Design Parameter
Crest Elevation[a]	3,770 feet
Crest Width	30 feet
Average Crest Height	28 feet above existing ground surface
Maximum Crest Height	35 feet above existing ground surface
Dam Length	1,900 feet
Base Width	270 feet
Embankment Upstream Slope	3 Horizontal:1 Vertical
Embankment Downstream Slope	3 Horizontal:1 Vertical
Normal Operating Water Elevation	3,760 feet
Maximum High Water Elevation	3,764 feet
Depth of Foundation Excavation	Approximately 30 to 40 feet

Note:
[a]Crest elevation – the elevation of the uppermost surface of a dam
Source: LADWP, 2013.

1.7.2 Los Angeles Aqueduct Realignment

The LAA is an open flow channel that flows continuously. The westerly abutment of NHD2 would encroach upon a portion of the existing LAA. In order to construct NHD2 and maintain operations of the LAA, the proposed Project would realign a portion of the LAA. Once the realigned LAA is constructed, the flow of water through the existing LAA would be halted temporarily to connect the newly built segment to the existing LAA. After the LAA is reconnected, the obsolete existing LAA segment would be demolished and backfilled. Any excess soil from the excavation would be analyzed for potential use as material for the new Dam. LADWP construction crews and/or a licensed and bonded contractor would construct the new section of the LAA. The realigned LAA would utilize the following design parameters:

- Trapezoidal Concrete Channel
- Approximately 1,900 feet in length
- Channel Width: 32 to 35 feet
- Channel Depth: 12 to 15 feet
- Channel Side Slopes: 1 Horizontal: 1 Vertical

1.7.3 Cactus Flats Road Realignment

As with the existing LAA, construction of NHD2 would interrupt the existing Cactus Flats Road, directly blocking the roadway. Cactus Flats Road, which falls under the jurisdiction of Inyo County, is not a primary roadway, but is used by mining vehicles traveling to and from local mining sites, LADWP personnel, and other motorists. In order to maintain access to this public road, the existing Cactus Flats Road would need to be realigned to accommodate the new Dam. Realignment of Cactus Flats Road would not require the acquisition of additional right of way (ROW) because the realignment would take place within LADWP-owned land. For drainage purposes, two reinforced concrete culverts would be installed. LADWP would construct the new road.

The preliminary design parameters for the realigned portion of Cactus Flats Road are an approximate length of 7,000 feet and width of 20 feet. The realigned Cactus Flats Road would have a grade of up to eight percent (dependent on final design), and would incorporate compacted base material along the roadway and Arizona crossings[1] drainage system.

1.7.4 Project Construction

The construction of the proposed Project would be phased as follows:

- Phase I – Cactus Flats Road Realignment
- Phase II – LAA Realignment
- Phase III – NHD2 Construction

Construction in the Project site would involve use of LADWP and BLM lands for staging, potentially rerouting sections of the LAA, and realigning Cactus Flats Road. The land designated as construction staging areas is owned by LADWP and the BLM, and has previously been designated as a potential disposal tract within Inyo County (BLM, 2005). Materials to be used for the construction of NHD2 will be derived from lands owned by LADWP, the BLM, and private owners, depending on the final dam design alternative selected.

Phase I – Cactus Flats Road Realignment

Initial site preparation would include selective clearing and grubbing to remove trees and plants along the path of the new road. The existing Cactus Flats Road would not be demolished, except where the new Dam would be located. The remaining portions of the existing road would be retained by LADWP to provide access to the dam structures. Debris generated as the result of the site preparation work would be temporarily stockpiled on-site and later hauled off-site for disposal. Excavation and grading would occur in a 40 foot-wide corridor along the length of the realigned Cactus Flats Road. The realigned Cactus Flats Road would be constructed of compacted base material and asphalt paving. The proposed construction of the Cactus Flats Road realignment is expected to last approximately 12 months.

Phase II – LAA Realignment

Site preparation for the realigned LAA would require selective clearing and grubbing of the site prior to the start of excavation along the proposed alignment. Debris generated as a result of the site preparation will be temporarily stockpiled on-site and will later be hauled off the site for disposal.

In order to provide a haul route to the stockpile area, a temporary bridge (to be removed after construction) will be constructed over the existing LAA. A trapezoidal channel would be excavated and graded along the proposed alignment for approximately 1,900 feet until reaching the northern and southern connection points with the existing LAA channel.

Reinforcement and concrete forms would be placed along the new channel alignment and the realigned LAA would be constructed. Once the new portion of the LAA is constructed, the flow of water through the existing LAA would be halted temporarily to connect the newly built realigned LAA to the existing LAA. After the realigned LAA is connected, the obsolete LAA segment will be demolished and backfilled. The construction of the LAA realignment is expected to last approximately 18 months.

Phase III – North Haiwee Dam No. 2 Construction

Construction of NHD2 will require several material types in order to construct the embankment and the Dam foundation. Material storage and the processing and blending of NHD2 fill material would be done on-

[1] Arizona Crossings – a type of road crossing that allows a waterway to run over a road. Man-made Arizona crossings include culverts that allow water to pass through a paved road.

site. Borrow materials would be stockpiled north of the proposed NHD2 location in the area identified in Figure 1-3. The new Dam would be constructed in several stages:

- **Foundation removal and excavation.** The earth in the footprint of the new Dam would be removed, creating a base for the foundation of the new Dam.
- **Foundation compaction.** A combination of existing material removed from the foundation area and new materials would be compacted to form the foundation of the new Dam.
- **New Dam construction.** Once the foundation for NHD2 is constructed and compacted, the new Dam would be constructed on top of the foundation. Fill material would be placed in loose level lifts across the foundation and subsequent layers and would be mechanically compacted. The new Dam would be constructed through this layering process.
- **Embankment grading.** After all fill would be placed and compacted, the new embankment would be graded to the finished dimensions.

The construction of the new Dam is expected to last approximately 36 months. The construction staging areas are adjacent to the new Dam construction area and would be accessed via the existing Cactus Flats Road. This portion of Cactus Flats Road would be inaccessible to the general public during construction but would not be demolished, as it would provide access to the new and existing Dams.

Borrow Sites

The borrow material for the new Dam construction would be obtained from nine proposed borrow sites within a 21 mile radius of the Project site. Borrow material would be hauled to the Project site by dump trucks or trailers and stockpiled. Borrow material may include riprap, gravel, sand, and clay. Final selection of borrow material is dependent on practicality of excavation and transport, quantity and quality of materials, final NHD2 design, and potential for significant environmental impacts.

Borrow sites may be located on LADWP-owned property, BLM, other Federally-owned property, State-owned property, or privately-owned property (see Figure 1-2). The final selected borrow sites will be analyzed in detail in the EIR for the proposed Project, including permit and restoration requirements for sites which are selected.

1.7.5 Project Operation

Since July 2002, the NHR has been under a restricted maximum high water elevation of 3,757.5 feet, as required by DSOD. Prior to implementing the restriction, the NHR maintained a normal operating high water elevation of 3,760 feet, with a capacity of 11,533 acre-feet, and could temporarily operate up to an elevation of 3,764 feet with flashboards placed at Merritt Spillway. The Merritt Spillway elevation is 3,759 feet. NHD2 would be designed for a maximum reservoir operating elevation of 3,764 feet. A Certificate of Approval would be obtained from the DSOD for normal operations of the NHR at an elevation of 3,760 feet and to allow for a temporary maximum water surface elevation up to an elevation of 3,764 feet. Following the full construction of NHD2, temporary operations of the NHR at elevations over 3,759 feet (maximum of 3,764 feet) would require the placement of flashboards at Merritt Spillway. However, historically LADWP has not operated NHD over 3,760 feet, and does not propose to operate NHD2 above that level.

1.8 Required Permits and Approvals

The proposed Project would require approvals and/or permits from multiple agencies. In addition to LADWP approval of the EIR, the following agencies play an important role in approving various aspects of the proposed Project:

TABLE 1-2
PERMITS AND APPROVALS REQUIRED

Issuing Agency	Permit/Approval
LADWP	Approval of CEQA documentation
BLM	Approval of NEPA documentation
BLM	Right of Way permit for the realignment of the LAA and Construction Staging
BLM	Mineral Extraction Permit for borrow pit operation and mining site restoration
USFWS	Biological Opinion (on Biological Assessment as part of NEPA process)
USACE	404 Permit
CDFW	2081 Mohave Ground Squirrel Incidental Take Permit
CDFW	2081 Consistency with Biological Opinion and Habitat Conservation Plan (HCP)
CDFW	1602 Lake Streambed Alteration Agreement (LSAA) Permit
SMGB	Surface Mining and Reclamation Act of 1975 (SMARA) Compliance
Lahontan RWQCB	401 Permit or Waste Discharge Requirements
SWRCB	Construction General Stormwater Permit
Inyo County	Permit for the realignment of Cactus Flats Road
Inyo County	Conditional Use Permit (CUP) and SMARA Plan approval [a]

Notes:
[a] Requires a Mining and Restoration Plan approved by SMGB
BLM = Bureau of Land Management
USFWS = United States Fish and Wildlife Service
USACE = U.S. Army Corps of Engineers
CDFW = California Department of Fish and Wildlife
SMGB = State Mining and Geology Board
SWRCB = State Water Resources Control Board
RWQCB = Regional Water Quality Control Board
Source: LADWP and URS Corporation, 2014

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2 Initial Study Form

Project Title

North Haiwee Dam Seismic Improvement Project.

Lead Agency Name and Address

City of Los Angeles Department of Water & Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, CA 90012-2694

Contact Person and Phone Number

Chuck Holloway, Manager of Environmental Planning and Assessment
213-367-4211

Project Location

Township 19 South, Range 37 East, SE quarter of Section 33 and SW quarter of Section 34;
Township 20 South, Range 37 East, NW quarter of Section 3 and NE quarter of Section 4.

General Plan Designation

Natural Resources (NR), Rural Protection (RP), and State and Federal Lands (SFL).

Zoning

Open Space with 40-acre minimum (OS-40).

Description of Project

Refer to Chapter 1, Project Description.

Surrounding Land Uses and Setting

The Project site is located in the Owens Valley area of Inyo County, CA. Detailed surrounding land uses and setting information is available in Section 1.4 Project Location.

Responsible/Trustee Agencies

- Bureau of Land Management
- United States Army Corps of Engineers
- United States Fish and Wildlife Services
- California Department of Fish and Wildlife
- Lahontan Regional Water Quality Control Board
- California Department of Water Resources, Division of Safety of Dams

Reviewing Agencies

- Inyo County Planning Department
- Inyo County Sheriff's Office
- Inyo County Department of Public Works
- California Department of Forestry (Fire)

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist in Section 3.

☒ Aesthetics	☒ Agricultural and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology/Water Quality
☐ Land Use/Planning	☒ Mineral Resources	☒ Noise
☒ Population/Housing	☒ Public Services	☒ Recreation
☒ Transportation	☒ Utilities/Service Systems	☒ Mandatory Findings of Significance

Determination (To be completed by Lead 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 in 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 that 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 address 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 proposed project could have a significant effect on the environment because all potentially significant effects (1) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Charles C. Holloway
Signature

10/29/2014
Date

Charles C. Holloway
Printed Name

For

3 Initial Study Checklist

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b. Substantially damage scenic resources including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☒ [2]	☐	☐	☐
II. AGRICULTURAL AND FORESTRY RESOURCES. 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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☒ [3]	☐	☐	☐
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])?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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 or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
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)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e. Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

[2] Potentially significant impact determination is for lighting impacts only. As discussed in Section I.d, impacts related to glare would be less than significant.

[3] Potentially significant impact determination is for conflicts with agricultural uses only. As discussed in Section II.b, conflicts with Williamson Act Contracts would not occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☒	☐	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐
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?	☐	☐	☐	☒
V. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☒	☐	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☒	☐	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☐
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:				
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.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an application plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
VIII. 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?	☒	☐	☐	☐
b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☒	☐	☐	☐
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
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)?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
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 that would result in flooding on- or off-site?	☒	☐	☐	☐
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?	☒	☐	☐	☐
f. Otherwise substantially degrade water quality?	☒	☐	☐	☐
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year floodplain area structures 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?	☒	☐	☐	☐
j. Inundation by seiche, tsunami, or mudflow?	☒[4]	☐	☐	☐
X. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. 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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
XII. 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?	☒	☐	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒[5]	☐

[4] Potentially significant impact determination is for seiche and mudflow impacts only. As discussed in Section IX.j, impacts related to tsunamis would not occur.

[5] This impact will be less than significant; however, it will be further analyzed in the EIR

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XIII. 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)?	☒	☐	☐	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES. Would the project:				
a. 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:				
Fire protection?	☒	☐	☐	☐
Police protection?	☒	☐	☐	☐
Schools?	☒	☐	☐	☐
Parks?	☒	☐	☐	☐
Other public facilities?	☒	☐	☐	☐
XV. RECREATION. Would the project:				
a. 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?	☒	☐	☐	☐
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☒	☐	☐	☐
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an application 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?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e. Result in inadequate emergency access?	☐	☐	☒	☐
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?	☒	☐	☐	☐
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
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?	☒	☐	☐	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☐	☐
g. Comply with federal, state, and local statues and regulations related to solid waste?	☐	☐	☐	☒
XVIII. 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?	☒	☐	☐	☐
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, effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Source: CEQA Guidelines, 2014.

4 Environmental Impact Assessment

4.1 Aesthetics

Would the project:

I.a. Have a substantial adverse effect on a scenic vista?

The Project site is located in the Owens Valley in Inyo County. The Owens Valley is bordered on the west by the Sierra Nevada range and on the east by Haiwee Ridge and the Inyo Mountains, all of which are considered scenic vistas. The 2001 Inyo County General Plan Conservation/Open Space Element contains specific goals and policies for the protection of panoramic views and maintaining the open and natural character of the County (County of Inyo, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. The new Dam would have a proposed height of 3,770 feet above sea level. The average elevation in the southeastern portion of the community of Olancha, where the nearest sensitive receptors are located, is approximately 3,700 feet above sea level. The new Dam would be approximately 70 feet higher than the average elevation of the community of Olancha, and would be visible to sensitive receptors. A line of sight analysis is required to fully evaluate whether the new Dam structure would block views of the mountains to the southeast, and whether a substantial adverse effect on a scenic vista would potentially occur.

The topography at the nine proposed borrow sites varies from flat to hilly. During construction, temporary stockpiling of materials at the proposed borrow sites may be required. However, the height of the borrow material piles would not be high enough to block views of the mountains. Permanent changes to the proposed borrow sites would result in topography modification; however, changes in height would be reductions, not additions.

The components of the LAA Realignment and the Cactus Flats Road Realignment are two-dimensional or below ground level. Temporary construction equipment may obstruct views, but not scenic views of the mountains. Operations of the realigned LAA and the realigned Cactus Flats Road would not have above surface three-dimensional structures.

Overall, as the largest component of the proposed Project, NHD2 would introduce a new structure that may impact the line of sight of sensitive receptors and needs to be evaluated further to determine the level of significance. Therefore, impacts related to substantial adverse effect on a scenic vista may be potentially significant, and this topic will be evaluated further in the EIR.

I.b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The State of California Department of Transportation (Caltrans) has designated portions of State Route (SR-)168, SR-190, and US-395 in Inyo County as State scenic highways. These designated scenic highway segments are not in close proximity to any portion of the Project or proposed borrow sites. Portions of US-395 and SR-190 are also listed as Eligible State Scenic Highways. Scenic resources that contribute to the scenic highways, eligible or officially designated, include the Inyo Mountains, Haiwee Ridge, and Eastern Sierra Nevadas. NHD2, and the realigned LAA and Cactus Flats Road are located approximately 0.7 miles east of the Eligible Scenic Highways portion of US-395. In addition, some of the borrow sites are within a mile of the Eligible Scenic Highways, with the closest borrow site approximately 0.14 miles from the Eligible Scenic Highways portion of US-395. Haul routes from the proposed borrow sites to the Project site travel along the Eligible Scenic Highways portion of US-395 and SR-190.

Explanation of Checklist Determination

No Impact. The LAA Realignment and Cactus Flats Road Realignment would consist of horizontal elements and would not substantially change any existing topography. The NHD2, LAA Realignment, and Cactus Flats Road Realignment are located a significant distance from the official Caltrans-designated scenic highway portions of US-395 (42 miles) and of SR-190 (21 miles) and would not have any impacts on resources located along an officially designated scenic highway.

The new Dam, the realigned LAA, and the realigned Cactus Flats Road would be located less than a mile from an Eligible Scenic Highway (US-395). The closest scenic resources along the Eligible Scenic Highways include the Sierra Nevada to the west and Haiwee Ridge and the Inyo Mountains to the east. The NHD2, LAA Realignment, and Cactus Flats Road Realignment would be located between the Eligible Scenic Highway portions of US-395, the Haiwee Ridge, and the Inyo Mountains; but, neither their construction nor operations would damage these resources as the materials for the new Dam, realigned LAA, and realigned Cactus Flats Road would not come from these resources or otherwise damage their integrity. In addition, these proposed Project elements would not in any way obstruct views from the Eligible Scenic Highways.

Some of the proposed borrow sites would be located in close proximity to the Eligible Scenic Highways portion of US-395 and of SR-190, and would utilize haul routes along these highways. However, the proposed borrow sites would not be located within scenic resources, and would not affect scenic resources associated with the Eligible Scenic Highways.

Overall, the proposed Project would not damage scenic resources within an official or eligible Caltrans-designated scenic highway. Therefore, impacts related to damaging scenic resources including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway would not occur, and this topic will not be evaluated in the EIR.

I.c. Substantially degrade the existing visual character or quality of the site and its surroundings?

The predominant existing land use at the Project site is open space with some agricultural and rural development nearby. At the primary construction area, the current visual character includes minor agricultural development. The existing character near the proposed borrow sites include open space, sparse development and population, and agricultural uses. Proposed borrow sites include both undeveloped and undisturbed locations as well as active mines and abandoned mines.

Explanation of Checklist Determination

Potentially Significant Impact. NHD2 would be a comparable structure to the existing Dam and be made of similar materials. However, as there would be two dams in the same area, the visual character within the Project site would change significantly. The topography would also change as the sloping of the new Dam would start further north of the existing Dam. Extracting borrow materials at existing active mines would involve the same activities as existing conditions, and would not substantially change the visual character of these portions of the Project site. However, reactivation of abandoned mine sites and development of undisturbed sites as active mines would be considered a substantial, permanent change in the visual character of those sites.

Realignment of the LAA would move the LAA west of its current location. Although the proposed LAA realignment would be similar in character to the existing LAA, the extent of change of visual character may be significant as existing landscape and topography are modified to create the slope needed for the new LAA section. Similarly, the realignment of Cactus Flats Road would move the road north and east of its current location, and the extent of change of visual character may be significant as existing landscape and topography are modified to create the slope needed for the new road.

Based on the significant changes in current topography and permanent changes to volumes of materials, further analysis is required to determine whether the proposed Project would significantly impact the visual character or quality of the Project site and its surroundings. Therefore, impacts related to substantially

degrading the existing visual character or quality of the site and its surroundings may be potentially significant, and this topic will be evaluated further in the EIR.

I.d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Lighting

There is no lighting at the existing Dam, the existing LAA, or the existing Cactus Flats Road. The residence supporting the existing Dam contains lighting features and levels typical of a residential use.

Glare

The Project site is primarily composed of structures that are made, generally, from non-reflective materials. The existing Dam is an earthen dam, made of non-reflective materials such as rock, gravel, and clay. Other components such as metal (railings) and plastic may create glare, but these are minor components of the existing Dam. The existing LAA is made of concrete and a few metal components. Most of the existing glare from the LAA is from the water. The existing portion of Cactus Flats Road does not contain reflective materials.

Explanation of Checklist Determination

Lighting

Potentially Significant Impact. The construction of NHD2, the LAA Realignment, and the Cactus Flats Road Realignment may require nighttime lighting for nighttime construction activities and/or for security lighting around the staging areas. Construction lighting may also be provided for the borrow sites. This type of lighting would be temporary, but would introduce a lighting component that would not otherwise exist in the area. Operations of the NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would not include a permanent lighting component. The lighting at the residence adjacent to the Dam would remain consistent with existing conditions. Overall, because the only new source of lighting would be created for the construction of the proposed Project, the impacts would be considered temporary. However, it is expected that the construction phase may be up to 36 months. Therefore, impacts related to creating a new source of substantial light may be potentially significant, and this topic will be evaluated further in the EIR.

Glare

Less Than Significant Impact. The materials used for construction of the new Dam, realigned LAA, and realigned Cactus Flats Road would be similar to the non-reflective materials used for the existing Dam, existing LAA, and existing Cactus Flats Road. These materials include rocks, gravel, dirt, asphalt, and concrete. Although there is the potential that some equipment that is used may have reflective surfaces, its use would be limited to the construction period and would not remain during operations. In addition, the potential glare from the water in the LAA would be similar to existing conditions, as the realigned LAA would not increase the surface area of the LAA, and the non-operational portion of the LAA would not contain water. The materials to be extracted at the proposed borrow sites include sand, clay, riprap, and gravel and are non-reflective. Although there is the potential that some equipment that is used may have reflective surfaces, its use would be limited to the construction period and would not remain during operations. Overall, as non-reflective materials would be utilized to construct the elements of the proposed Project, and any glare from construction equipment would be temporary and short-term, impacts related to glare would be less than significant, and this topic will not be evaluated in the EIR.

4.2 Agriculture and Forestry Resources

Would the Project:

II.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?*

The Project site is located within Inyo County, which does not have any designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) (DOC, 2012).

Explanation of Checklist Determination

No Impact. The proposed locations of the NHD2, borrow sites, LAA Realignment, and Cactus Flats Road Realignment are not currently used as farmland and are all zoned OS-40. Therefore, impacts related to converting Farmland, as identified by the FMMP, to non-agricultural use during construction and operations would not occur, and this topic will not be evaluated in the EIR.

II.b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Agricultural Use Conflicts

As described in Section 1.5, Environmental Setting, the land uses within and surrounding the Project site, including proposed borrow sites, are designated as NR, RP, and SFL. The Project site and its surroundings are zoned as OS-40, an open space designation.

Williamson Act Contracts

The Project site does not include any Williamson Act land, because Inyo County does not participate in Williamson Act contracts (DOC, 2013).

Explanation of Checklist Determination

Agricultural Use Conflicts

Potentially Significant Impact. Although, the proposed location of the NHD2 is not currently used as farmland, the boundary of the Project site near the existing Dam is located adjacent to the Butterworth Ranch, a privately-owned property which currently has agricultural uses within it. This property would not be taken for construction or operations of the proposed Project. In addition, the potential borrow sites are not currently used for agriculture. Staging areas and some haul routes may be located near or adjacent to agricultural uses, but would not directly use these uses. The OS-40 zoning designation of the Project permits public and quasi-public uses and mining, in addition to agriculture uses. However, a full evaluation would be needed to determine the significance level of potential conflicts with agricultural uses, particularly those adjacent to the Project site where construction would occur for the new Dam, realigned LAA, and realigned Cactus Flats Road. Therefore, impacts related to conflict with existing zoning for agricultural use may be potentially significant, and will be evaluated further in the EIR.

Williamson Act Contracts

No Impact. As Inyo County does not participate in Williamson Act contracts, impacts related to conflict with a Williamson Act contract would not occur, and this topic will not be evaluated in the EIR.

II.c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined in Public Resources Code section 4526), or timberland-zoned Timberland Production (as defined by Government Code section 51104[g])?

As described in Section 1.5, Environmental Setting, the Project site land use is designated as NR and SFL, the latter designation being one for State and Federal Lands, and one proposed borrow site includes the RP land use. The Project site and its surroundings are zoned as OS-40, an open space designation. The nearest forest land to the Project site is the Inyo National Forest in the Eastern Sierra Nevadas.

Explanation of Checklist Determination

No Impact. Construction and operations of NHD2 and the Cactus Flats Road Realignment would be within LADWP-owned land which is zoned OS-40. The LAA Realignment would be located within LADWP and BLM land, and is also zoned OS-40. The proposed locations of NHD2, the LAA Realignment, and the Cactus Flats Road Realignment are not currently used as forest land or timberland-zoned.

One of the proposed borrow sites is located approximately 1,000 feet away from the Inyo National Forest. Although the proposed borrow site is adjacent to the forest, it is zoned as OS-40 and is not zoned as forest land. Therefore, impacts related to conflicts with existing zoning for, or cause rezoning of, forest land, timberland, or timberland-zoned Timberland Production would not occur, and this topic will not be evaluated further in the EIR.

II.d. Result in the loss of forest land or conversion of forest land to non-forest use?

Refer to II.c for existing conditions.

Explanation of Checklist Determination

No Impact. None of the proposed borrow sites are located within the Inyo National Forest. The nearest borrow site is located approximately 1,000 feet away from the Inyo National Forest and is zoned as open space. However, the proposed borrow site is not located within the Inyo National Forest, and would not remove any forest land or convert forest land to a non-forest use. Therefore, impacts related to loss of forest land or conversion of forest land to non-forest use would not occur, and this topic will not be evaluated further in the EIR.

II.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 or conversion of forest land to non-forest use?

Refer to Section II.a for existing conditions related to Farmlands and Sections II.c for existing conditions related to forest land.

Explanation of Checklist Determination

Cumulative Farmland Loss

No Impact. Inyo County does not have any designated Farmland as shown by the FMMP and none of the elements of the proposed Project would change existing agricultural uses to non-agricultural uses. Therefore, direct and cumulative impacts related to loss of Farmland would not occur, and this topic will not be evaluated in the EIR.

Cumulative Forest Land Conversion

No Impact. None of the proposed borrow sites is located within Inyo National Forest or is zoned for forest land. The other elements of the proposed Project would not result in conversion of forest lands, so there is no cumulative conversion of forest lands anticipated by the proposed Project. Therefore, direct and cumulative impacts related to conversion of forest land to non-forest would not occur, and this topic will not be evaluated further in the EIR.

4.3 Air Quality

Would the project:

III.a. Conflict with or obstruct implementation of the applicable air quality plan?

The proposed Project is within the Great Basin Unified Air Pollution Control District (GBUAPCD), and is within the Owens Valley PM_{10} Planning Area (OVPA). Since 1987, the United States Environmental Protection Agency (USEPA) has identified the OVPA as a non-attainment area for State and federal 24-hour average for particulate matter less than 10 microns (PM_{10}). Wind-blown dust from the dry bed of Owens Lake is the dominant cause of the violations for PM_{10} in the OVPA. Other contributing sources of PM_{10} include dust from the Keeler and Olancha Dunes, woodstoves, fireplaces, vehicle tailpipe emissions, fugitive dust from travel on unpaved roads, and prescribed burning activities. In January 1993, the USEPA completed a reclassification process, and included the OVPA among five nationwide areas reclassified as "serious." The OVPA has been designated as "attainment" or "unclassified" for all other ambient air quality standards. In 2008, the GBUAPCD released the OVPA Demonstration of Attainment State Implementation Plan (SIP). The SIP was subsequently updated in 2013. The intention of the SIP is to provide controlling measures to reduce PM_{10} emissions within the OVPA.

Explanation of Checklist Determination

Potentially Significant Impact. Equipment usage and activities, such as grading, excavation, on-road and off-road vehicle travel, and paving during construction of the proposed Project would result in potential emissions of air pollutants such as PM_{10}. Emissions of PM_{10} would result in exceedance of air quality standards in the OVPA because the OVPA is in non-attainment for PM_{10} and thus there would be a conflict with the SIP.

The new Dam, realigned LAA, and realigned Cactus Flats Road are passive uses and would not emit PM_{10}. However, maintenance activities associated with the proposed Project may result in emissions of PM_{10}, which would constitute an air-quality standard violation, as the OVPA is in non-attainment for PM_{10}, and thus activities would conflict with the SIP. Therefore, impacts related to conflicting with or obstructing implementation of the applicable air -quality plan may be potentially significant, and this topic will be evaluated further in the EIR.

III.b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Refer to Section III.a for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section III.a for the explanation of checklist determination. Therefore, impacts related to violating an air quality standard or contributing substantially to an existing or projected air quality violation may be potentially significant, and this topic will be evaluated further in the EIR.

III.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)?

Refer to Section III.a for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section III.a for the explanation of checklist determination. Therefore, impacts related to a cumulatively considerable net increase of any criteria pollutant for which the Basin is non-attainment under an applicable federal or State ambient air quality standard may be potentially significant, and this topic will be evaluated further in the EIR.

III.d. Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors include land uses such as schools, day-care facilities, nursing homes, hospitals, and residences. Examples of these sensitive receptors include residences to the west and north of the NHD2 construction site, as well as residents in the communities of Olancha, Haiwee, Cartago, Keeler, and Lone Pine. In addition, the Southern Inyo Healthcare District Hospital is located in the City of Lone Pine. There are six schools in the City of Lone Pine, including a Headstart Program facility and a preschool.

Explanation of Checklist Determination

Potentially Significant Impact. Equipment usage and activities, such as grading, excavation, on-road and off-road vehicle travel, and paving during construction of the proposed Project would result in potential emissions of air pollutants, including oxides of nitrogen (NOx) and/or PM_{10}. Although most of these sensitive receptors are located at distances from the main construction areas where they would not be directly affected, there would be sensitive receptors located along potential haul routes that pass through existing communities. Therefore, construction impacts related to exposing sensitive receptors to substantial pollutant concentrations may be potentially significant, and this topic will be evaluated further in the EIR.

The new Dam, realigned LAA, and realigned Cactus Flats Roads would themselves be passive uses and would not emit air pollutants. However, activities associated with maintenance of these structures may result in emissions of NOx and/or PM_{10}. Because there are no major hauling operations proposed during operations of the proposed Project, it is not anticipated that maintenance activities would expose sensitive receptors to substantial pollutant concentrations. Therefore, operational impacts related to exposing sensitive receptors to substantial pollutant concentrations would be less than significant.

III.e. Create objectionable odors affecting a substantial number of people?

Types of land uses that typically pose potential odor problems include agriculture, wastewater treatment plants, food processing and rendering facilities, chemical plants, composting facilities, landfills, waste transfer stations, and dairies. There are agricultural uses to the north of the NHD2 site. In general, the Project site is sparsely populated, with clusters of residences in communities of Haiwee, Olancha, Cartago, Keeler, and Lone Pine.

Explanation of Checklist Determination

Potentially Significant Impact. Equipment usage and activities, such as grading, excavation, and on-road and off-road vehicle travel during construction of the proposed Project would result in localized odors associated with fuel use for equipment and vehicles. These odors are common to construction sites and are generally not considered offensive when exposure is short-term and in small quantities. Construction of the realigned LAA and the realigned Cactus Flats Road would last 18 months and 12 months, respectively, which can be considered as short-term. However, construction of NHD2 is expected to last 36 months, which is not considered short-term. Nevertheless, the area surrounding the three proposed Project elements is sparsely populated and, thus, would not affect a substantial number of people. The realigned Cactus Flats Road would also require paving activities, which will generate strong odors associated with installing asphalt. The area adjacent to the Cactus Flats Road Realignment is sparsely populated and, thus, would not affect a substantial number of people.

Trucks traveling on haul routes associated with carrying materials from proposed borrow site locations to the construction sites have the potential to release objectionable odors such as those from using diesel gas. These

odors are common and not normally considered offensive when exposure is short-term and in small quantities. However, hauling activities would continue for a large portion of the 36-month timeline of NHD2 construction. Unlike the NHD2 construction site, some of the proposed borrow site locations would require haul routes that travel through more densely populated areas. Therefore, construction impacts related to creating objectionable odors affecting a substantial number of people may be potentially significant, and this topic will be evaluated further in the EIR.

During operations, maintenance activities for the new Dam the realigned LAA, and the realigned Cactus Flats Road may result in localized odors in small quantities from fuel use for equipment and vehicles. Similar to construction, any objectionable odors generated during operations would not affect a substantial number of people. In addition, these proposed Project elements would function similarly to the existing Dam, existing LAA, and existing Cactus Flats Road and would not generate any objectionable odors due to their passive uses. Therefore, operational impacts related to creating objectionable odors affecting a substantial number of people would be less than significant.

4.4 Biological Resources

Would the project:

IV.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 Wildlife or U.S. Fish and Wildlife Service?*

Per the Inyo County General Plan (Inyo County, 2001), special-status plants or wildlife species are species that are legally protected under the State and federal Endangered Species Acts (ESAs) or other regulations, and species that are considered by the scientific community to be sufficiently rare to qualify for such listing. The Inyo County General Plan defines special-status plants and wildlife as those species that fall into the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal ESA, and various notices in the Federal Register [FR] [species proposed for listing];
- Species that are candidates for possible future listing as threatened or endangered under the federal ESA;
- Species listed or proposed for listing by the State of California as threatened or endangered under the California ESA;
- Species that meet the definition of rare, threatened, or endangered under CEQA (State CEQA Guidelines Section 15380);
- Plants listed as rare or endangered under the California Native Plant Protection Act;
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California";
- Animal species of special concern to California Department of Fish and Wildlife (CDFW); and
- Animals fully protected in California.

A wide range of special-status plant and animal species are known to or have the potential to occur in the proposed Project area.

Special-Status Plant Species

Special-status plants are defined as those plants that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged

expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status species include:

- Plants listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal ESA or the California ESA;
- Plants that meet the definitions of rare or endangered under *CEQA Guidelines* Section 15380.
- Plants considered by the CNPS to be rare, threatened, or endangered (List 1A, 1B, and 2 plants) in California;
- Plants listed by the CNPS as plants in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants);
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.);
- Plants covered under an adopted Natural Communities Conservation Plan (NCCP)/HCP.

A review of the California Natural Diversity Database (CNDDB) found 29 special-status plant species recorded within a nine-quad search surrounding the Project area (Table 4-1). The potential for special-status plant species to occur is based on proximity to previously recorded occurrences, onsite vegetation and habitat quality, topography, elevation, soils, surrounding land uses, habitat preferences, and geographic ranges.

TABLE 4-1
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	State Status	Status/CNPS Rank
Sidalcea covillei	Owens Valley checkerbloom	Endangered	1B.1
Deinandra mohavensis	Mojave tarplant	Endangered	1B.3
Plagiobothrys parishii	Parish's popcornflower	None	1B.1
Astragalus atratus var. mensanus	Darwin Mesa milk-vetch	None	1B.1
Cymopterus ripleyi var. saniculoides	sanicle cymopterus	None	1B.2
Cryptantha circumscissa var. rosulata	rosette cushion cryptantha	None	1B.2
Phacelia nashiana	Charlotte's phacelia	None	1B.2
Lupinus padre-crowleyi	Father Crowley's lupine	Rare	1B.2
Ivesia campestris	field ivesia	None	1B.2
Perityle inyoensis	Inyo rock daisy	None	1B.2
Trifolium dedeckerae	Dedecker's clover	None	1B.3
Monardella beneolens	sweet-smelling monardella	None	1B.3
Mentzelia tridentata	creamy blazing star	None	1B.3
Cordylanthus eremicus ssp. kernensis	Kern Plateau bird's-beak	None	1B.3
Penstemon fruticiformis var. amargosae	Amargosa beardtongue	None	1B.3
Eriogonum mensicola	Pinyon Mesa buckwheat	None	1B.3
Eriogonum wrightii var. olanchense	Olancha Peak buckwheat	None	1B.3
Viola pinetorum var. grisea	grey-leaved violet	None	1B.3
Oryctes nevadensis	Nevada oryctes	None	2B.1
Botrychium minganense	mingan moonwort	None	2B.2
Hackelia sharsmithii	Sharsmith's stickseed	None	2B.3
Sarcobatus baileyi	Bailey's greasewood	None	2B.3
Sidalcea multifida	cut-leaf checkerbloom	None	2B.3
Eremothera boothii ssp. boothii	Booth's evening-primrose	None	2B.3
Botrychium lunaria	common moonwort	None	2B.3

TABLE 4-1
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	State Status	Status/CNPS Rank
Cleomella brevipes	short-pedicelled cleomella	None	4.2
Clarkia xantiana ssp. parviflora	Kern Canyon clarkia	None	4.2
Canbya candida	white pygmy-poppy	None	4.2

Definitions
State Status
SE = State Endangered
CNPS Status
Rank 1B = Plants Rare, Threatened, or Endangered in California and elsewhere
Rank 2B = Plants Rare, Threatened, or Endangered in California but not elsewhere
Rank 3 = Plants about which more information is needed
Rank 4 = Plants of limited distribution – a watch list
Threat ranks
0.1 = seriously threatened in California
0.2 = moderately threatened in California
0.3 = not very threatened in California
Source: CNDDB, 2014; LADWP, 2014

Special-Status Wildlife Species

Special-status wildlife are defined as those animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status wildlife includes:

- Wildlife listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal ESA or the California ESA;
- Wildlife that meet the definitions of rare or endangered under *CEQA Guidelines* Section 15380;
- Wildlife covered under an adopted NCCP/HCP;
- Wildlife designated by CDFW as species of special concern;
- Wildlife "fully protected" in California (California Fish and Game Code Sections 3511, 4700, and 5050); and
- Wildlife protected by the Migratory Bird Treaty Act (MTBA).

A review was conducted of the most recent CNDDB records within a nine-quad search area, along with the CDFW January 2011 "Special Animals List," which identifies "species at risk" or "special status species" that are considered by CDFW, Western Bat Working Group (WBWG), BLM, U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS) and other agencies to be the taxa of species with the greatest conservation need (Table 4-2).

A review for the project resulted in 59 special-status wildlife species. Thirty-seven of these species (Table 4-2) were previously recorded within the CNDDB nine-quad search area and the remaining 22 species (ferruginous hawk, redhead, brant, common loon, American white pelican, long-billed curlew, least bittern, bald eagle, peregrine falcon, black tern, yellow-billed cuckoo, long-eared owl, bank swallow, yellow-headed blackbird, Virginia's warbler, Nuttall's woodpecker, western red bat, western small-footed myotis, long-eared myotis, fringed myotis, hoary bat, and western mastiff bat) were also identified as having the potential to occur within the Project vicinity. The potential for special-status wildlife species to occur in the project area is based on the proximity to these previously recorded occurrences, on-site vegetation and habitat quality,

topography, elevation, soils, surrounding land uses, habitat preferences, and geographic ranges. Many of the waterbird and amphibian species in Table 4-2 have potential to occur in the lacustrine and riparian areas located in the vicinity of the Project area of Haiwee reservoir. The remaining mammal, bird, and reptile species have the potential to occur within upland habitats such as the borrow pit sites and NHD2.

Table 4-2 below shows the federal and state regulatory status, preferred habitat, and probability of occurrence for each special-status wildlife species known to occur in the nine quads surrounding the Project. Based on these factors, 39 special-status wildlife species were determined to be present or have a high or medium potential to occur on, or in the vicinity of the study site.

TABLE 4-2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status	Probability of Occurrence	Preferred Habitat
Pyrgulopsis wongi	Wong's springsnail	USFS:S	Unlikely	No suitable habitat present. Inhabits seeps and small to medium spring-fed streams. Common in watercress and on small pieces of travertine and stone.
Oncorhynchus mykiss aguabonita	Volcano Creek golden trout	USFS:S; SSC	Unlikely	No suitable habitat present. Found present at elevations from 6,890 feet to 10,000 feet above sea level, in California's southern Sierra Nevada mountains.
Siphateles bicolor snyderi	Owens tui chub	FE; SE	Unlikely	No suitable habitat present. Prefers water with low velocities such as portions of the Owens River, associated tributaries, springs, sloughs, drainage ditches, and irrigation canals with dense aquatic vegetation.
Cyprinodon radiosus	Owens pupfish	FE; SE; FP	Unlikely	No suitable habitat present. Prefers spring pools, sloughs, irrigation ditches, swamps, and flooded pastures in the Owens Valley from Fish Slough in Mono County to Lone Pine in Inyo County.
Batrachoseps campi	Inyo Mountains slender salamander	BLM:S, USFS:S; SSC	Medium	Inhabits very dry mountain ranges typically in the immediate vicinity of springs, seeps, and their associated riparian growth where there is a small area of suitable habitat surrounded by inhospitable desert terrain.
Batrachoseps robustus	Kern Plateau salamander	USFS:S	Unlikely	No suitable habitat present. Range occurs in Kern Plateau in southeastern Sierra Nevada mountains. Prefers moist habitats of pine and fir forests, as well as pinyon pine, sagebrush, and oaks in drier habitats.
Hydromantes platycephalus	Mount Lyell salamander	SSC	Unlikely	No suitable habitat present. Range occurs at higher elevations of the Sierra Nevada mountains. Prefers areas with associated water seepage in caves, granite boulders, rock fissures, rocky stream edges, and seepages from springs and melting snow.
Gopherus agassizii	desert tortoise	FT; ST	Present	Present in project vicinity. Prefers alluvial fans, washes, and canyons where suitable friable soils for den construction are present.
Rana sierrae	Sierra Nevada yellow-legged frog	Proposed FE; ST; SSC	Unlikely	No suitable habitat or elevation present. Inhabits lakes, ponds, meadow streams, isolated pools, and sunny riverbanks in the southern Sierra Nevada mountains.
Sceloporus graciosus graciosus	northern sagebrush lizard	BLM:S	Medium	Prefers open areas with scattered low bushes and lots of sun. Inhabits sagebrush and other types of shrublands, mainly in the mountains.
Elgaria panamintina	Panamint alligator lizard	BLM:S, USFS:S; SSC	Medium	Prefers rocky canyon bottoms near streams and springs, grown with creosote bush, sagebrush, and at the lower edge of the piñon-juniper zone. Found in dense vegetation near damp soil, and also in rocky talus outside of riparian areas.
Aythya americana	Redhead	SSC	High	Prefers open lakes and bays. Often on salt water in winter.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FC; BLM:S; USFS:S; SE	Low	Prefers wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes.

TABLE 4-2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status	Probability of Occurrence	Preferred Habitat
Branta bernicla	Brant	SSC	Low	Prefers tundra and coastal islands in the Arctic and migrates to salt marshes and estuaries in winter.
Gavia immer	common loon	SSC	High	Prefer lakes with coves and islands as well as large reservoirs and slow-moving rivers.
Pelecanus erythrorhynchos	American white pelican	SSC	High	Observed on NHR in 2014. Prefers shallow water on inland marshes, lake or river edges, and wetlands. Forages on deeper lakes in late summer.
Ixobrychus exilis	Least bittern	SSC	Low	Prefers freshwater or brackish marshes with tall emergent vegetation.
Haliaeetus leucocephalus	bald eagle	FD; BLM:S; SE; EA	High	Frequent winter resident; prefers rivers, large lakes, marshes, or other large bodies of open water with an abundance of fish. Requires mature stands of hard wood trees for perching, roosting and nesting.
Circus cyaneus	northern harrier	SSC	High	Prefers freshwater and brackish marshes, lightly grazed meadows, old fields, dry upland prairies, drained marshlands, high-desert shrub-steppe, and riverside woodlands.
Buteo swainsoni	Swainson's hawk	USFS:S; USFWS:BCC; ST	High	Locally, nests in small to medium-sized trees in the vicinity of alfalfa or other agricultural fields; nests have been found at ranch adjacent to project site.
Buteo regalis	Ferruginous Hawk	USFWS:BCC	Medium	Prefers prairies, brushy scrub open country, and badlands.
Aquila chrysaetos	golden eagle	BLM:S; USFWS:BCC; FP; EA	High	Nest present at a borrow site. Prefers mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Nest on cliffs and steep escarpments in grassland, chapparal, shrubland, forest, and other vegetated areas.
Falco peregrinus anatum	American peregrine falcon	USFWS: BCC; FP	Medium	Primarily occurs near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures.
Falco mexicanus	prairie falcon	USFWS:BCC	High	Prefers grasslands, shrub-steppe, desert scrubland, and lakeshores.
Charadrius nivosus	snowy plover	USFWS:BCC; SSC	Low	Prefers barren to sparsely vegetated flats and along shores of alkaline and saline lakes, ponds, reservoirs, braided river channels, and salt evaporation ponds.
Charadrius montanus	mountain plover	BLM:S; USFWS:BCC; SSC	Low	Prefers arid plains, sandy deserts, short-grass prairies, and fields.
Numenius americanus	Long-billed Curlew	USFWS:BCC	Low	Breeds in open, sparse grassland habitat; during migration prefers lake and river shores, mudflats, salt marshes, and sandy beaches.
Childonias niger	black tern	SSC	High	Freshwater marshes and marshy lakes in summer; sandy coasts on migration and in winter.
Hydroprogne caspia	Caspian tern	USFWS:BCC	High	Prefers sandy or pebbly shores of lakes and large rivers.

TABLE 4-2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status	Probability of Occurrence	Preferred Habitat
Coccyzus americanus	yellow-billed cuckoo	FC; BLM:S; USFS:S; SE	Low	Prefers wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes.
Athene cunicularia	burrowing owl	BLM:S; SSC	High	Prefers open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.
Asio otus	long-eared owl	SSC	Medium	Nests and roosts in dense vegetation adjacent to open grasslands or shrublands used for foraging.
Picoides nuttallii	Nuttall's woodpecker	USFWS:BCC	Low	Prefers canyon scrub oaks, oak woodlands, and riparian woodlands.
Empidonax traillii extimus	southwestern willow flycatcher	FE; SE	Medium	Prefers dense vegetation throughout all vegetation layers present in riparian areas.
Lanius ludovicianus	loggerhead shrike	USFWS:BCC; SSC	High	Prefers grasslands and open areas with scattered trees, open grassy woodlands, and desert scrublands, particularly those with spines or thorns.
Vireo bellii pusillus	least Bell's vireo	FE; SE	Low	Prefers dense, low, shrubby vegetation, generally within early successional stages in dominance of willows.
Riparia riparia	bank swallow	BLM:S; ST	Medium	Nest sites occur in friable soil in vertical cliffs, banks, and bluffs along rivers, creeks, lakes and reservoirs. Forages over a variety of habitats including wetlands, open water, and grassland.
Toxostoma lecontei	Le Conte's thrasher	USFWS:BCC	High	Prefers deserts with scant vegetation (mostly cholla and creosote bush); in the Owens Valley is often found in association with dense stands of saltbush (Atriplex spp).
Oreothlypis virginiae	Virginia's warbler	USFWS: BCC	Low	Prefers scrub oak and other chaparral, pinyon-juniper brushland, pine and oak woodlands.
Dendroica petechia brewsteri	yellow warbler	USFWS:BCC; SSC	High	Prefers moist thickets, especially along streams and in swampy areas; gardens.
Icteria virens	yellow-breasted chat	SSC	Medium	Prefers dense thickets and brush, often with thorns and streamside tangles.
Spizella breweri	Brewer's sparrow	USFWS:BCC	High	Preferred habitats include sagebrush and alpine meadows.
Xanthocephalus xanthocephalus	yellow-headed blackbird	SSC	High	Prefers wetlands in prairies, mountain meadows, quaking aspen parklands, and shallow areas of marshes, ponds, and rivers.
Antrozous pallidus	pallid bat	BLM:S; USFS:S; SSC; WBWG:H	High	Prefer arid regions with rocky outcroppings to open, sparsely vegetated grasslands. Water must be available close by.

TABLE 4-2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status	Probability of Occurrence	Preferred Habitat
Corynorhinus townsendii	Townsend's big-eared bat	BLM:S; USFS:S; Candidate ST; WBWG:H; SSC	High	Prefers arid western desert scrub and pine forest. Hibernates in caves and abandoned mines.
Euderma maculatum	spotted bat	BLM:S; WBWG:H; SSC	High	Prefers open arid habitats dominated by juniper and sagebrush. Roosts high in cliff crevices and rocky outcrops.
Lasionycteris noctivagans	silver-haired bat	WBWG:M	Low	Prefers forested areas and hibernates in small tree hollows, beneath sections of tree bark, in buildings, rock crevices, in wood piles and on cliff faces.
Lasiurus blossevillii	western red bat	USFS:S; WBWG:H; SSC	Medium	Roosts only in tree foliage. Prefers riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in these broad-leafed trees.
Lasiurus cinereus	hoary bat	WBWG:M	Medium	Prefers to roost in foliage of coniferous and deciduous trees at the edge of clearings; will sometimes roost in caves and under rock ledges.
Myotis ciliolabrum	western small-footed myotis	BLM:S; WBWG:M	Medium	Prefers cliff-face crevices, erosion cavities, and beneath rocks on the ground.
Myotis evotis	long-eared myotis	BLM:S; WBWG:M	Low	Prefers to roost in tree cavities and beneath exfoliating bark in both living trees and dead snags. Pregnant females often roost at ground level in rock crevices, fallen logs, and even in the crevices of sawed-off stumps.
Myotis thysanodes	fringed myotis	BLM:S; WBWG:H	Medium	Prefer woodlands at moderate elevation (5-8000feet) in the mountains. Night and day roosts include caves, and abandoned mines, and buildings.
Myotis volans	long-legged myotis	WBWG:H	Medium	Prefers woodland and forest habitats above 1200 meters (4000 feet). Also forages in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests. Roosts in trees, rock crevices, fissures in stream banks, and buildings.
Myotis yumanensis	Yuma myotis	BLM:S	High	Occasionally roosts in mines or caves, but most often prefers buildings or bridges. Tree cavities are probably the original sites for most nursery roosts.
Eumops perotis californicus	western mastiff	BLM:S; WBWG:H; SSC	Low	Prefers open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
Xerospermophilus mohavensis	Mohave ground squirrel	ST	High	Inhabits open desert scrub, alkali scrub, and Joshua tree woodland with sandy or gravelly friable soils and an abundance of annual herbaceous vegetation. Avoids rocky areas.

TABLE 4-2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status	Probability of Occurrence	Preferred Habitat
Microtus californicus vallicola	Owens Valley vole	BLM:S; SSC	Medium	Inhabits wetlands and lush grass-dominated sites, as well as alkali shrub-meadow habitats.
Taxidea taxus	American badger	SSC	High	Burrows present in project area. Prefers drier, open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires open, uncultivated ground.
Ovis canadensis nelsoni	Nelson's bighorn sheep	BLM:S; USFS:S	Low	Prefers open, steep, rocky, mountainous terrain above the desert floor

Definitions

1. Federal status: USFWS Listing, other non-CA specific listing
FE = Listed as endangered under the federal Endangered Species Act (ESA)
FT = Listed as threatened under ESA
FD = Delisted in accordance with the ESA
EA = Bald and Golden Eagle Protection Act
BLM:S = Bureau of Land Management Sensitive
USFS:S = US Forest Service Sensitive
USFWS:BCC = US Fish and Wildlife Birds of Conservation Concern

2. State status: CDFG Listing
SE = Listed as endangered under the California Endangered Species Act (CESA)
ST = Listed as threatened under the CESA
SC = Candidate for listing (threatened or endangered) under CESA
SD = Delisted in accordance with the CESA
SSC = Species of Special Concern as identified by the CDFW
FP = Listed as fully protected under CDFW code

3. Other status:
WBWG = Listing by the Western Bat Working Group
L = Low Priority
M = Medium Priority
H = High Priority

Potential for Occurrence
Unlikely = The study site and/or immediate vicinity do not support suitable habitat for a particular species, and therefore the project is unlikely to impact this species.
Low Potential = The study site and/or immediate vicinity only provide limited habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate project area.
Medium Potential = The study site and/or immediate vicinity provide suitable habitat for a particular species, and proposed development may impact this species.
High Potential = The study site and/or immediate vicinity provide ideal habitat conditions for a particular species and/or known populations occur in the immediate area.

Source: CDFW, 2014; LADWP, 2014.

Explanation of Checklist Determination

Potentially Significant Impact. The proposed project has the potential, either directly or through habitat modifications, to have an impact on candidate, sensitive or special-status species as identified by the USFWS, BLM, USFS, CDFW or WBWG. The proposed project also has the potential to result in indirect or cumulative impacts to these species.

Given the high number of sensitive species in the Owens Valley (**Tables 4-1** and **4-2**), there exists the potential for construction activities related to the borrow sites, the LAA realignment, and the Cactus Flats Road realignment to impact sensitive species or their habitats. Therefore, direct, indirect and cumulative impacts to candidate, sensitive, or special-status species and their habitats, as identified in local or regional plans, policies, or regulations, may be potentially significant, and this topic will be evaluated further in the EIR.

Once in operation, activities related to the new Dam, the realigned LAA, and the realigned Cactus Flats Road would not involve any further ground disturbance or take of habitat. Therefore, operational direct impacts or impacts related to habitat modification on candidate, sensitive, or special-status species would not occur.

IV.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 Wildlife or U.S. Fish and Wildlife Service?

Three sensitive plant communities have been identified within the Project area: Joshua tree woodland, Active Desert Dunes, and Mojave riparian forest vegetation communities. Joshua tree woodland habitat is present throughout the Project area. Active Desert Dunes have been documented approximately three miles away from the nearest borrow site and the existing Dam. Mojave riparian forests have been documented along the border of the NHR. There is a large riparian area near the existing NHD, directly west of the northern end of the NHR. These are considered sensitive vegetation types by CDFW and Inyo County (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. The construction of NHD2 would impact Joshua tree woodland habitat that occurs within the Project area through the removal of vegetation. While construction of the new Dam may not directly impact the Mojave riparian forests near the existing Dam, construction activities, including ground disturbance and noise, could indirectly impact sensitive wildlife species that use this habitat for foraging and nesting purposes. Given that Active Desert Dunes are approximately three miles away from the proposed borrow sites and NHD2 site, they may be similarly indirectly impacted by construction activities. Given the presence of riparian and sensitive natural communities in the Project area, there exists the potential for construction activities related to the borrow sites, the LAA realignment, and the Cactus Flats Road realignment to require the take of portions of these resources. Therefore, direct, indirect and cumulative construction impacts related to riparian habitats and sensitive natural communities may be potentially significant, and this topic will be evaluated further in the EIR.

Once in operation, activities related to NHD2, the realigned LAA, and the realigned Cactus Flats Road would not involve any further ground disturbance or take of habitat. Therefore, direct and indirect operational impacts related to riparian habitats and sensitive natural communities would not occur.

IV.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?

Federally-protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), including navigable reservoirs, fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Reservoirs are regulated by the USACE only if a determination of navigability has been made by the USACE for that water body. While the NHR and the surrounding water resources within the Owens Valley and Rose Valley region lack

drainage connections to waters of the U.S. and have the possibility of being a navigable waters, no formal designation of navigability has been made by the USACE. Consequently, although federal recognition of navigable waters does not exist for these water resources, there is the potential for federally-protected wetlands to be discovered within the Project area and the Owens Valley and Rose Valley region.

Explanation of Checklist Determination

Potentially Significant Impact. The NHD2, realigned LAA, and realigned Cactus Flats Road would be located within Joshua tree woodland habitat, and no water resources including marshes, vernal pools, and coastal waterways occur in this location. The proposed borrow sites are located in various areas throughout the Owens Valley for which there has not been formal federal determination of the presence of wetlands. As part of the environmental assessment, consultation with USFWS would be conducted to determine if there are potential conflicts. Therefore, construction impacts to federally-protected wetlands during construction activities may be potentially significant, and this topic will be evaluated in the EIR.

Once in operation, activities related to the new Dam, the realigned LAA, and the realigned Cactus Flats Road would not involve any further ground disturbance or take of habitat. Therefore, operational impacts related to federally-protected wetlands would not occur.

IV.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?

As discussed in the existing conditions of Section IV.a, the state and federally threatened desert tortoise, the state-threatened Mohave ground squirrel, and the American badger have been documented within the Project area and vicinity, implying that migratory corridors and nursery sites may be present. Additionally, Owens Valley and Rose Valley are well documented as having an extensive migratory bird population, including shore and riparian species, as well as special-status raptors including bald eagle (*Haliaetus leucocephalus*), golden eagle (*Aquila chrysaetos*), and Swainson's hawk (*Buteo swainsoni*), which have been known to nest in Joshua tree woodlands. However, the proposed borrow site locations are not part of any documented or otherwise known migratory wildlife corridors.

Explanation of Checklist Determination

Potentially Significant Impact. Construction of NHD2 could directly impact the desert tortoise, Mohave ground squirrel, and American badger by removing nursery sites or fragmenting migratory corridors of existing resident populations and established residents that have been documented within the Project area and vicinity. The construction of both the LAA and the Cactus Flats Road Realignments would directly impact the Mohave ground squirrel and American badger by removing nursery sites of existing resident populations that have been documented in the Project area. This construction may have the potential to impact migratory corridors for desert tortoise. As discussed in Sections IV.a and IV.b, construction of NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would remove Joshua tree woodlands and Mojave riparian forest communities. This may indirectly impact migratory bird species by removal of nesting and foraging vegetation. Furthermore, construction activities, such as ground disturbance and noise, may also interfere with migratory movements. Therefore, construction impacts related to the movement of any resident or migratory fish or wildlife species, or established resident or migratory wildlife corridors, and use of wildlife nursery sites may be potentially significant, and this topic will be evaluated further in the EIR.

Once in operation, activities related to the new Dam, the realigned LAA, and the realigned Cactus Flats Road would not involve any further ground disturbance or take of habitat. Therefore, operational impacts related to the movement of any resident or migratory fish or wildlife species, or established resident or migratory wildlife corridors, and use of wildlife nursery sites would not occur.

IV.e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Currently there are no local ordinances in place for the protection of biological resources; however, the 2001 Inyo County General Plan provides guidelines for the maintenance of the County's natural environment and resources. The Inyo County General Plan addresses topics relevant to the proposed Project, including preserving and protecting important riparian areas and wetlands, restoring degraded biological communities when feasible, preserving and protecting wildlife corridors, and, when applicable, redirecting development into less significant habitat areas (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. Refer to the Explanations of Checklist Determinations for Sections IV.a through IV.d. Construction of NHD2, the realigned LAA, and the realigned Cactus Flats Road may potentially have significant biological impacts on natural and environmental resources due to ground disturbance and habitat take. Consequently, construction of the proposed Project therefore has the potential to conflict with the Inyo County General Plan guidelines on maintenance of the County's natural environment and resources. Therefore, construction impacts related to local policies or ordinances may be potentially significant, and this topic will be evaluated further in the EIR.

Once in operation, activities related to the new Dam, the realigned LAA, and the realigned Cactus Flats Road would not involve any further ground disturbance or take of habitat. Consequently, operations of the proposed Project would not be in conflict with the Inyo County General Plan guidelines on maintenance of the County's natural environment and resources. Therefore, operational impacts related to local policies or ordinances would not occur.

IV.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?

The California Desert Conservation Area (CDCA) Plan (BLM, 1980) is a guide for the management of public lands with a goal of protecting the natural environment while still allowing for multiple land uses such as farming and agriculture. Currently the BLM is developing an HCP that would be applicable to the Project area; however, at this time there are no designated planned management areas for botanical and wildlife species that would incorporate the Project area.

In addition to the CDCA, LADWP has prepared the Owens Valley Land Management Plan (OVLMP) (LADWP, 2010), which has been adopted for all City of Los Angeles-owned lands in Inyo County, with the exception of the Lower Owens River Project area. The OVLMP describes the major management actions for lands covered by this plan under the direction of the Memorandum of Understanding (MOU). The current OVLMP addresses resource management issues including water supply, habitat, recreation, and land use. The OVLMP discusses species covered in the plan, including two fish species and four avian species, all of which are either State- or federally-listed species. However, the OVLMP is not considered an "in place" HCP. Currently an HCP is being developed, and, once completed, would be incorporated into the OVLMP as an appendix. However, the OVLMP does not provide a timeframe for completion of the HCP. The proposed Project falls under the OVLMP.

Explanation of Checklist Determination

No Impact. Although there is the potential for significant direct and indirect impacts associated with the proposed Project, there are no HCPs in place which apply to the Project area. Therefore, impacts related to conflicts with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan would not occur, and this topic will not be evaluated in the EIR.

4.5 Cultural Resources

Would the project:

V.a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

A cultural resources records search and pedestrian survey conducted in support of geotechnical investigations at NHD (Shaver, 2003) demonstrated that at least eight archaeological and built environment cultural resources are present within areas where ground-disturbing activities may occur. Although the identified resources have not been formally evaluated, three have been demonstrated through a subsequent study (Nilsson, 2007) to be potentially eligible for inclusion in the California Register of Historical Resources (CRHR). These potential historical resources include a 120-acre prehistoric archaeological site on the northern side of the existing Dam; the existing LAA, which has been designated a National Historic Civil Engineering Landmark and likely meets the criteria to qualify as a National Historic Landmark; and the existing Dam, an engineering feature associated with the existing LAA. Portions of the Project site, including the nine proposed borrow sites, have not yet been surveyed for the presence of historical resources.

Explanation of Checklist Determination

Potentially Significant Impact. The construction of NHD2 would not require removal of the historic existing Dam; however, aspects of the existing Dam's integrity will likely be affected by the proposed Project, including its setting, feeling, and association (Nilsson, 2007). The proposed borrow sites have not been investigated for the presence of historical resources. However, decades of previous research in Owens Valley and Rose Valley have shown that the area has a high sensitivity for prehistoric and historic cultural resources. Ground disturbances associated with removing material from these proposed borrow sites may destroy or adversely alter any undiscovered historical resources that are present. The existing LAA has been designated a National Historic Civil Engineering Landmark and therefore likely meets the criteria for inclusion in the CRHR. The proposed Project would demolish a section of the existing LAA following construction of the realigned LAA. Lastly, the realigned Cactus Flats Road would intersect a portion of a previously recorded prehistoric archaeological site that has been shown to be potentially eligible for listing in the CRHR. Similar to other elements of the proposed Project, the potential exists for historical resources to be present within the portions of the realigned Cactus Flats Road that have not yet been surveyed. Therefore, construction impacts related to causing a substantial adverse change in the significance of a historical resource may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of NHD2, the realigned LAA, and the realigned Cactus Flats Road would not involve further ground disturbance, or takes of known historic resources. Therefore, operational impacts related to causing a substantial adverse change in the significance of a historical resource would not occur.

V.b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

According to Shaver (2003), at least six prehistoric and/or historic archaeological resources are present within the Project area. None of these resources have been formally evaluated to determine if they meet the criteria of a unique archaeological resource as defined in Section 21083.2(g) of the Public Resources Code. However, previous research has shown that the 120-acre prehistoric archaeological site on the northern side of the existing Dam has a subsurface cultural deposit, as well as the ability to produce time-sensitive artifacts, and therefore additional study and formal evaluation may show that this site qualifies as a unique archaeological resource under CEQA (Nilsson, 2007). Portions of the Project area, including the nine proposed borrow sites, have not yet been surveyed for the presence of archaeological resources.

Explanation of Checklist Determination

Potentially Significant Impact. NHD2 and a portion of the realigned Cactus Flats Road would bisect the known prehistoric archaeological site, and ground disturbances associated with construction have the potential to impact a large portion of this cultural resource. It has been demonstrated that the site contains scientifically important information, although it has not yet been formally evaluated to determine if it meets the criteria of a unique archaeological resource. Ground disturbances associated with the construction and operation of NHD2 may destroy or adversely alter the prehistoric site. The area in the vicinity of the realigned LAA was surveyed for cultural resources in 2003. At that time, no prehistoric or historic archaeological sites were encountered. The proposed borrow sites have not been investigated for the presence of archaeological resources. However, decades of previous research in Owens Valley and Rose Valley have shown that the area has a high sensitivity for prehistoric and historic cultural resources. Therefore, construction impacts related to archaeological resources may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of NHD2, the realigned LAA, and the realigned Cactus Flats Road would not involve further ground disturbance, or takes of known archaeological resources. Therefore, operational impacts related to archaeological resources would not occur.

V.c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological Resources

The majority of the Project area, including the proposed locations of NHD2, the realigned LAA, and the northern part of the realigned Cactus Flats Road, consists of Holocene alluvium. The alluvial deposits include alluvial fan deposits, channel deposits of gravel, sand and silt, windblown sand, and lacustrine deposits of silt and clay. The remainder of the Project area, including the eastern portion of the realigned Cactus Flats Road, consists of Pleistocene alluvial fan deposits (Black and Veatch, 2013). Because alluvial deposits of Holocene and Pleistocene age exist at the Project site, both vertebrate and invertebrate fossil finds are plausible. The various proposed borrow sites are located on a variety of geologic units, some of which may have a high sensitivity for paleontological resources.

Explanation of Checklist Determination

Potentially Significant Impact. The younger Quaternary alluvium in the proposed western portions of the main Project site (western part of NHD2, realigned LAA, and western part of the realigned Cactus Flats Road) are not likely to contain fossils near the surface due to its young age. However, the older Quaternary alluvium present in the proposed eastern locations of the main Project site (eastern abutment of NHD2 and the realigned Cactus Flats Road) may be intermixed with or underlie the younger deposits and, consequently, could contain fossils. The proposed borrow sites are located on a variety of geologic units, some of which may have a high sensitivity for paleontological resources. Furthermore, the depth of excavation planned for each proposed borrow site has yet to be determined. The potential exists for encountering older deposits, on the surface or at depth, which may contain significant fossil remains. Therefore, construction impacts related to paleontological resources may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of NHD2, the realigned LAA, and the realigned Cactus Flats Road would not involve further ground disturbance, or takes of known paleontological resources. Therefore, operational impacts related to paleontological resources or unique geologic features would not occur

V.d. Disturb any human remains, including those interred outside of formal cemeteries?

A cultural resources records search and pedestrian survey conducted at NHD (Shaver, 2003) did not encounter any human remains or formal cemeteries. However, the survey demonstrated that several prehistoric archaeological sites are present within the Project area. Given that the region has been populated for thousands of years, the potential exists for human remains to be present within the Project area.

Explanation of Checklist Determination

Potentially Significant Impact. NHD2 and the realigned Cactus Flats Road would bisect the previously recorded 120-acre prehistoric archaeological site, and ground disturbances associated construction have the potential to impact a large portion of this cultural resource. Although no human remains have been encountered on the Project site to date, subsurface testing by previous researchers has been limited. The area in the vicinity of the realigned LAA was surveyed for cultural resources in 2003, and at that time, no human remains or formal cemeteries were encountered. The nine proposed borrow sites have not been investigated for the presence of cultural resources or human remains. For all of the proposed Project elements, given the settlement history of the Owens Valley, the potential exists for human remains to be present within the Project site. Therefore, construction impacts related to human remains, including those interred outside formal cemeteries, may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of NHD2, the realigned LAA, and the realigned Cactus Flats Road would not involve further ground disturbance, or takes of known historic resources. Therefore, operational impacts related to human remains, including those interred outside formal cemeteries, would not occur.

4.6 Geology and Soils

Would the project:

VI.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.*

LADWP has identified that, per DSOD standards, the existing Dam is seismically unstable and has the potential to fail during the MCE seismic event due to the potential for liquefaction of the underlying alluvium and the Dam itself (LADWP, 2001). Two major active faults are located within Owens Valley in the vicinity of the Project area: The Owens Valley fault zone (OVFZ) and the Sierra Nevada Frontal fault zone (SNFFZ) (Black and Veatch, 2013). The OVFZ is the closest fault to the Project site with a north-trending strand (the 1872 rupture section) located approximately one mile to the west of the Project site (USGS, 2013).

Recent geologic investigations of the Project site determined that no active faults cross the proposed NHD2 footprint. A conditionally active fault, Fault A, is located approximately 900 feet to the east of the proposed NHD2 footprint, where the realigned Cactus Flats Road would be constructed (Black and Veatch, 2013). The Project site containing the new Dam, the realigned LAA, and the realigned Cactus Flats Road is not within Alquist-Priolo (A-P) Earthquake fault zones (Hart and Bryant, 2007). There is also potential that a fault may be present on-site near one borrow site and the realigned LAA (USGS, 2013).

Explanation of Checklist Determination

Potentially Significant Impact. Recent fault investigations have determined that the there is no potential for future fault displacement at the Project site (Black and Veatch, 2013). Additionally, the Project site is not located within the A-P fault zone (Hart and Bryant, 2007). However, a known fault crosses the site of the proposed Cactus Flats Road Realignment. Therefore, impacts related to exposing people to potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known

earthquake fault, may be potentially significant, and this topic will be evaluated further in the EIR.

ii. Strong seismic ground shaking?

Refer to existing conditions in Section VI.a. The project site is in an area characterized by active faults and seismicity. The most significant seismogenic[6] sources for the Project site are the OVFS and the SNFFZ. Additionally, Fault A, located approximately 900 feet east of the NHD2 footprint, may move and be affected by large earthquakes generated on the nearby OVFZ or the SNFFZ, although it is not likely that itself would not generate ground shaking (Black and Veatch, 2013).

Explanation of Checklist Determination

Potentially Significant Impact. Construction of the proposed Project elements would place workers and temporary structures utilized for construction purposes on-site. Ground shaking generated by nearby faults would potentially affect construction workers and construction-related structures. Therefore, construction impacts related to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of the new Dam, realigned LAA, and realigned Cactus Flats Road would be similar to existing conditions. It is not anticipated that strong ground shaking during a seismic event would result in structural failure of the new Dam as the proposed Project is a seismic improvement project intended to reduce the existing risk for dam failure. Therefore, operational impacts related to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction occurs when a saturated, granular deposit of soil that features a low relative density is subjected to extreme ground shaking during an earthquake. During this extreme shaking, the soils could lose strength due to increased pore water pressure. Ground shaking as a result of an earthquake could result in loss of ground stability. LADWP has identified that, per DSOD standards, the existing Dam is seismically unstable and has the potential to fail during the MCE seismic event due to the potential for liquefaction of the underlying alluvium and the Dam itself (LADWP, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities would not increase the risk of existing Dam liquefaction, but would require workers and construction equipment and materials to be located near NHD, and in an area potentially subject to liquefaction. Construction would therefore present an increased risk of exposure of people or structures to substantial adverse effects from liquefaction, but would be temporary. The proposed borrow sites would be located in a variety of locations, and would potentially be located on soils that could result in liquefaction during strong seismic event. Furthermore, the mining activities at the proposed borrow sites would not have any permanent or habitable structures.

Construction impacts related to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground

[6] A seismogenic source refers to a fault that could generate ground shaking during a seismic event.

failure, including liquefaction, may be potentially significant, and this topic will be evaluated further in the EIR.

Operation of the new Dam, realigned LAA, and realigned Cactus Flats Road would require minimal maintenance activities, and no habitable structures would be included as part of the proposed Project. Operations of the new Dam, realigned LAA, and realigned Cactus Flats Road would be similar to existing conditions. It is not anticipated that liquefaction would result in structural failure of the new Dam as the proposed Project is a seismic improvement project intended to reduce the existing risk for dam failure. Therefore, operational impacts related to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction, would be less than significant. Nevertheless, more detail regarding this topic is warranted and, thus, this topic will be evaluated further in the EIR.

iv. Landslides?

Landslides occur when seismic forces and other factors act to induce soil or bedrock failure on a slope. Landslides are usually caused by various factors, which may include ground slope, soil type, bedrock structure, groundwater conditions, and seismic ground shaking. In general, the Project site is located at the base of the Owens Valley, which is relatively flat. This terrain is not generally associated with landslide or slope failure. Previous environmental review has found that landslides do not pose a risk within the proposed locations of NHD2, the realigned LAA, and the realigned Cactus Flats Road (LADWP, 2004). However, the existing Dam is an earthen dam and LADWP has identified that, per DSOD standards, the NHD could pose a landslide hazard during a seismic event because of the potential for liquefaction. The footprint of the some of the nine proposed borrow sites would be located within hillside areas which would have potential for landslides.

Explanation of Checklist Determination

Potentially Significant Impact. The new Dam, realigned LAA, and realigned Cactus Flats Road would be located within a relatively flat basin in Inyo County. Construction would result in minor changes to topography for the realigned LAA and realigned Cactus Flats Road, and would not create a risk for landslides. The new Dam would include major topography changes, due to the construction of a large new vertical element. However, construction of the new Dam would include erosion controls and design parameters that would prevent landslides from occurring at NHD2. Some proposed borrow sites would be located within hillside areas which would have potential for landslides, although mining activities including earthmoving and blasting at each proposed borrow site would have the potential to disturb stable and unstable soils. Workers would be present on-site during construction activities, including earthmoving, blasting, and other mining activities. In addition, a more detailed discussion of project design features that would minimize impacts during operations is required. Therefore, impacts related to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides may be potentially significant, and this topic will be evaluated in the EIR.

VI.b. Result in substantial soil erosion or the loss of topsoil?

The Project site is located with an area underlain by Pliocene- to Holocene-age deposits consisting of alluvial, fluvial, colluvial, and lacustrine surficial deposits, including artificial fill deposits (Black and Veatch, 2013). The Project site is generally unimproved, and features unirrigated, undeveloped land, with the exception of the existing Dam, existing LAA, and existing Cactus Flats Road. Agricultural uses are located north of the Project site. The proposed borrow sites would be located in various locations, some of which are active

mines. Other proposed borrow sites are abandoned mines or undeveloped sites. The vicinity of the proposed borrow sites is generally undeveloped.

Explanation of Checklist Determination

Potentially Significant Impact. Construction of the new Dam, the realigned LAA, and the realigned Cactus Flats Road as well as excavation activities at the proposed borrow sites would include earth-moving activities that would potentially cause a loss or disturbance of existing topsoil and expose the site to wind and water erosion during and following construction, especially prior to reestablishment of vegetation. In addition, the area where the existing LAA would be demolished would become unpaved surface area, and would have an increased potential for wind and water erosion.

During operations, the slopes and other graded surfaces of the new Dam may also be exposed and could be subject to erosion. The exposed slopes and other graded surfaces created by construction of the realigned LAA and demolition of the existing LAA as well as the excavation of the borrow sites may also be exposed and could be subject to erosion. The realigned Cactus Flats Road would increase paved surface area and would therefore decrease the potential for erosion.

Therefore, construction and operational impacts related to substantial soil erosion or the loss of topsoil may be potentially significant, and this topic will be evaluated further in the EIR.

VI.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?

Refer to existing conditions in Section VI.b. The Project area is underlain by alluvial-fan deposits from the Sierra Nevada Range to the west and alluvial-fan deposits and volcanic and sedimentary rocks of the Coso Range to the east (Black and Veatch, 2013).

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section VI.a.iii, NHD is located on soils that have the potential for liquefaction of its underlying alluvium. NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would be located in the vicinity of NHD, and would thus have the potential to also be located on unstable soil.

These effects would occur during construction, as proposed Project elements are constructed, and during operations, as proposed Project elements will remain on-site. The proposed Project is a seismic improvement project, and although it is anticipated that impacts related to location on an unstable geologic unit or soil would be addressed by the proposed Project's design, further analysis is required in the EIR to determine the potential for instability and the necessary design parameters.

The proposed borrow sites would be located in a variety of locations, and would potentially be located on unstable soils or geologic units. The proposed borrow sites would function during the construction phase of the proposed Project but would be the same as existing conditions during operations.

Therefore, construction and operational impacts related to being located on a geologic unit or soil that is unstable may be potentially significant, and this topic will be evaluated further in the EIR.

VI.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?

Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a substantial increase in volume with an increase in water content and a substantial decrease in volume with a decrease in water content. Expansive soils can cause uplift pressures leading to structural damage over a long period of time and can have adverse implications for the proposed structures associated with the Project elements.

The Project site is underlain by coarse-grained alluvial soils that typically are not expansive. Some expansive soils might exist in the bedrock units that underlie the Dam site but, these are not near the surface and therefore would not represent a hazard.

Explanation of Checklist Determination

Potentially Significant Impact. Expansive soils could potentially be present under construction sites, including proposed borrow sites, and could therefore pose hazards to NHD2, the realigned LAA and the realigned Cactus Flats Road.

Expansive soils present a risk for the operation of the new Dam, the realigned LAA, and the realigned Cactus Flats Road since expansion and contraction of soils may substantially compromise the structural integrity of the structures associated with these proposed Project elements. Appropriate geotechnical investigations are in progress to determine whether the soils under NHD2, the LAA Realignment, and the Cactus Flats Road Realignment are expansive soils which would pose a risk to the structural integrity of the proposed Project elements. In addition, the expansion properties of soils will need to be evaluated for borrow materials used to construct the new Dam.

Therefore, construction and operational impacts related to expansive soils may be potentially significant, and this topic will be evaluated further in the EIR.

VI.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?*

The Project site is not currently supported by a Municipal Sewer System as there are no activities or structures associated with the existing Dam, existing LAA, and existing Cactus Flats Road requiring the need for waste water disposal. Soils on the Project site consist of permeable alluvium and would be adequate for supporting septic tanks (domestic waste).

Explanation of Checklist Determination

No Impact. During the construction of the new Dam, the proposed borrow sites, the realigned LAA, and the realigned Cactus Flats Road, temporary portable sanitary facilities would be provided for construction workers. A commercial operator would provide these facilities and would empty or replace the facilities on a normal schedule. New permanent disposal systems would not be constructed as part of the Project.

The operation of the new Dam, realigned LAA, and realigned Cactus Flats Road would require minimal human activity for maintenance. The proposed borrow sites would not have any permanent activities and would be similar to existing conditions. No habitable structures are included in the proposed Project. The proposed Project would not construct a wastewater system and no septic tanks or alternative wastewater disposal systems would be constructed.

Therefore, impacts related to soils that are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water would not occur, and this topic will not be evaluated in the EIR.

4.7 Greenhouse Gas Emissions

Would the project:

VII.a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Carbon dioxide (CO_2) is a common indicator of the various types of greenhouse gas (GHG). The GBUAPCD is currently classified as "in attainment/unclassified" for CO_2 levels in federal and State air

quality standards, and it has not identified a significance threshold for GHG emissions. Although the GBUAPCD does not have a current threshold for GHG emissions, it may choose to use other approved GHG emissions thresholds, such as those of the South Coast Air Quality Management District (SCAQMD), which is approximately 10,000 Metric tons of CO_2 emissions per year.

Explanation of Checklist Determination

Potentially Significant Impact. Equipment usage and activities during construction of the proposed Project would result in potential emissions of air pollutants such as CO_2. The activities that would potentially cause these emissions include equipment use, grading, excavation activities, and on- and off-road vehicle travel from the proposed borrow sites to NHD2. Given the extent and duration of construction activities, which would range from 12 to 36 months for each proposed Project element, it is likely that construction activities would result in a substantial generation of GHG emissions. Operational impacts would be similar to existing conditions for the LAA and Cactus Flats Road. However, as there would be two dams in operation, there would be a net increase in GHG emissions associated with the routine inspection and maintenance of the facility. Therefore, impacts related to generating substantial GHG emissions, either directly or indirectly, may be potentially significant, and this topic will be evaluated further in the EIR.

VII.b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

State of California Assembly Bill 32 (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 GHG emissions and to monitor and enforce compliance with this program. Under the provisions of the bill, by 2020, Statewide GHG emissions will be limited to the equivalent emission levels in 1990.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section VII.a. Given the extent and duration of construction activities, which would range from 12 to 36 months for each proposed Project element, it is likely that construction activities would result in substantial generation of GHG emissions. As AB 32 intends to reduce GHG emissions to 1990 levels, any new increase in GHG emissions would conflict with AB 32. Operational impacts would be similar to existing conditions for the LAA and Cactus Flats Road. However, as there would be two dams in operation, there would be a net increase in GHG emissions, which needs to be assessed in the EIR. Therefore, impacts related to conflicting with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases may be potentially significant, and this topic will be evaluated further in the EIR.

4.8 Hazards and Hazardous Materials

Would the project:

VIII.a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project site contains open space and structures that are not associated with routine transport, use, or disposal of hazardous materials. Proposed borrow sites include both existing and active mines as well as abandoned mines and unmined sites. No hazardous materials have been previously identified at the Project site or proposed borrow sites (refer to Section VIII.d).

Explanation of Checklist Determination

Potentially Significant Impact. Construction of the proposed Project would involve typical materials including gasoline, diesel, oil, and other construction-related fluids which are highly regulated. In addition, a health and safety plan would be required prior to the construction of the proposed Project, which will be evaluated by the adequate agencies to ensure proper compliance with regulations. Borrow materials, including sand, gravel, rip rap, or clay, would be hauled from proposed borrow sites to the NHD2 site by dump truck and would be stockpiled on-site. Borrow materials would not be permitted to contain hazardous materials and would be inspected if hazardous materials are suspected. Construction activities at the borrow sites may involve hazardous materials typical of mining and excavation, including chemicals and explosives.

All hazardous materials would be transported, contained, stored, used, and disposed of in accordance with federal and state regulations and would be handled in compliance with all applicable standards and regulations including Inyo County's Hazardous Materials Area Plan (Area Plan) (Inyo County Environmental Health Services Department [ICEHSD], 2008). All trash and debris generated during construction will be removed from the site and disposed of accordingly. Construction-related hazardous materials would be used only temporarily for construction; however, construction would last for multiple years, which would be sufficient time to be considered as being routinely transported, used, or disposed. Therefore, construction impacts related to routine transport, use, or disposal of hazardous materials that would create a significant hazard to the public may be potentially significant, and this topic will be evaluated further in the EIR.

Operations of the new Dam, the realigned LAA, and the realigned Cactus Flats Road would be similar to existing conditions. No hazardous materials except for those typical of maintenance and vehicle access would be used during operations. Therefore, operational impacts related to routine transport, use, or disposal of hazardous materials that would create a significant hazard to the public would be less than significant.

VIII.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?

Refer to Section VIII.a for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. As no hazardous materials have been previously identified at the Project site or proposed borrow sites, it is not expected that excavation and grading activities during construction of the proposed Project would expose construction crews to upset or accident conditions involving the release of any previously identified hazardous materials because no hazardous materials have been previously identified.

Hazardous materials that would be utilized during construction of these proposed Project elements would be typical of construction sites, such as gasoline, diesel, and oil. Construction of the realigned Cactus Flats Road would additionally involve typical road construction materials, such as asphalt. These materials would be brought on-site in ordinary quantities. Construction of the proposed Project elements would comply with the

Inyo County Area Plan in order to minimize the risk of accident or upset conditions involving these factors. Any accidental release of hazardous materials would be subject to federal, State, and local health and safety requirements.

None of the borrow sites have been previously identified as hazardous sites or containing hazardous materials. Proposed borrow site activities would generally involve surface mining for borrow materials which may include rip rap, sand, gravel and clay. These required fill materials are not considered to be hazardous materials. However, serpentine rock formations in Inyo County may contain naturally-occurring asbestos (Inyo County Integrated Waste Management, 2012), although the County is not listed by the California Department of Conservation for being at a higher risk of containing naturally-occurring asbestos. Site excavation activities may have the potential to expose any naturally occurring asbestos located on-site, which may impact construction workers. In addition, as some of the proposed borrow sites are existing and abandoned mines and there is potential that previously unidentified hazardous materials would be present due to past mining operations. Mining activities at the proposed borrow sites would also potentially require the use of various hazardous substances. These substances may include fuels, oils, mechanical fluids, and other chemicals used for heavy equipment operations. In addition, it is expected that explosives may be used during mining activities for blasting activities. The usage of these hazardous materials would be governed by occupational and health and safety laws, but may have the potential to create a significant hazard to construction workers through upset and accident conditions. Therefore, construction impacts related to creation of a significant hazard to the public or the environment through release of hazardous materials into the environment due to reasonably foreseeable upset and accident conditions may be potentially significant, and this topic will be evaluated in the EIR.

Operations of the new Dam, the realigned LAA, and the realigned Cactus Flats Road would be similar to existing conditions. As discussed in Section VII.a, no hazardous materials except for those typical of maintenance activities and vehicles would be used during operations. These hazardous materials would be brought on-site in typical quantities of maintenance activities and are already regulated for their use and for the potential for upset or accidental release conditions occur. Therefore, operational impacts related to creation of a significant hazard to the public or the environment through release of hazardous materials into the environment due to reasonably foreseeable upset and accident conditions would be less than significant.

VIII.c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no schools within one-quarter mile of the proposed siting of NHD2, the realigned LAA, and the realigned Cactus Flats Road. The closest school to NHD2, the realigned LAA, and the realigned Cactus Flats Road is Lone Pine High School in the City of Lone Pine, located approximately 28 miles north-northwest of NHD2 site (Google Earth, 2014). In addition, there are no schools located within a quarter mile of any borrow sites. The nearest schools to any proposed Project element are located approximately 1.5 miles of the potential haul route along US-395 and SR-136. These schools include Lone Pine High School, Imaca Headstart (Kindergarten School), Mt. Whitney Preschool, Lo-Inyo Elementary School, Warren E Hanson Preschool, and Alabama Hills Day School, all of which are located in Lone Pine (Google Earth, 2014).

Explanation of Checklist Determination

No Impact. As discussed above, NHD2, the realigned LAA, and the realigned Cactus Flats Road would not be located within a quarter-mile of an existing or proposed school. In addition, there are no schools located within a quarter-mile of any proposed borrow site location or potential haul routes. Therefore, construction and operational impacts related to emission of hazardous emissions or handling hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school would not occur, and this topic will not be evaluated further in the EIR.

VIII.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?

None of the locations which comprise the Project site are listed as hazardous sites or identified as containing hazardous materials on multiple hazardous materials databases, including: the Cortese List (Government Code Section 65962.5); State Water Resources Control Board (SWRCB) Geotracker database (Geotracker); California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) EnviroStor database; and USEPA Envirofacts database (SWRCB, 2014; Cal/EPA, 2014; USEPA, 2014).

Explanation of Checklist Determination

No Impact. As the Project site is not listed as a hazardous site, impacts related to creation of a significant hazard to the public or the environment due to location on a hazardous materials site list would not occur, and this topic will not be evaluated in the EIR.

VIII.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?

There are several public airports in the vicinity of the Project site. These facilities include: China Lake Naval Air Weapons Station, Inyokern Airport, Trona Airport, and Lone Pine Airport (Federal Aviation Administration, 2014). Additionally, the Southern Inyo Healthcare District Hospital in the City of Lone Pine has a helipad (Google Earth, 2014).

Explanation of Checklist Determination

No Impact. The NHD2 site, realigned LAA, and realigned Cactus Flats Road are not located within two miles of a public airport or public use airport. The closest public airport to these proposed Project elements is Lone Pine Airport, approximately 25 miles to the northwest. The NHD2, LAA Realignment, and Cactus Flats Road Realignment sites do not lie within the airport land use plan for Lone Pine Airport. The proposed borrow sites are spread across the Owens Valley and the closest borrow site to a public airport is located approximately ten miles from the Lone Pine Airport. Therefore, impacts related to public airport safety hazards for people working in the Project area would not occur, and this topic will not be evaluated in the EIR.

VIII.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?

The Porter Ranch and Sacatar Meadows Airports are the nearest private airports to the Project site, located approximately 15 miles to the southwest of the Project site (Federal Aviation Administration, 2014).

Explanation of Checklist Determination

No Impact. The closest private airport to NHD2, the LAA Realignment, and the Cactus Flats Road Realignment sites is Porter Ranch Airport, approximately 15 miles southwest of the proposed Project elements. The closest private airstrip to proposed borrow sites is Porter Ranch Airport, located in Inyokern, CA, approximately 10.2 miles southwest from the nearest proposed borrow site. Therefore, impacts related to private airstrip safety hazards for people residing or working in the Project area would not occur, and this topic will not be evaluated in the EIR.

VIII.g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

According to the Inyo County Area Plan, US-395, SR-190 and SR-136 are considered as primary evacuation routes in Inyo County (ICEHSD, 2008). The existing Cactus Flats Road is the primary access road connecting the NHD site to US-395.

Explanation of Checklist Determination

Less Than Significant Impact. The construction of NHD2 would occur upon completion of the Cactus Flats Road Realignment and would not result in the closure of Cactus Flats Road. However, construction activities at NHD2 would require borrow materials to be hauled from the proposed borrow sites to the Project site along the primary evacuation routes. The number and frequency of haul trips has not been determined at this time, but construction activities at the proposed borrow sites and NHD2 would require frequent travel. Therefore, there is potential that haul trips and other vehicle travel associated with the construction of proposed Project, as well as mining and excavation activities at the proposed borrow sites, would generate traffic that would affect established evacuation routes. However, as no road closures would occur, there would not be any interference with emergency response plans. During operations, no hauling activities would occur. Maintenance activities for the proposed Project elements would be similar to existing conditions. Therefore, impacts related to impairment of implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would be less than significant, and this topic will not be evaluated in the EIR.

VIII.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?

Wildland fires are a major public safety concern in Inyo County (Inyo County, 2001). Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. The Fire Hazard Severity Zones for the proposed Project elements fall under Local Responsibility Area (LRA)[7] and Federal Responsibility Area (FRA).[8] The Fire Hazard Severity Zones for the proposed borrow sites fall under State Responsibility Area (SRA),[9] LRA and FRA. The new Dam, LAA realignment, and Cactus Flats Road realignment are categorized as LRA High and Moderate Zones. The locations where the proposed borrow sites would be constructed vary in level of disturbance, but generally vary from SRA and LRA High Fire Hazard Severity Zones to LRA Moderate and Other Moderate Zones. However, the Project site is not classified as being within a Very High Fire Hazard Severity Zone (Cal Fire, 2007).

Explanation of Checklist Determination

Potentially Significant Impact. The location where NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would be constructed is generally undeveloped and covered with dry brush, which presents a potential fire hazard. Construction-related activities would have the potential to cause wildland fires, including through sparking or smoking and overheating equipment. Construction workers would be present on the Project site an extended period of time (12 to 36 months) and would potentially be exposed to wildland fires. The locations where the proposed borrow sites would be constructed vary in level of

[7] Local responsibility areas include incorporated cities, cultivated agriculture lands, and portions of the desert. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, counties, and by Cal Fire under contract to local government (Cal Fire, 2007)

[8] In the federal responsibility area, it is the primary responsibility of the Federal Government to prevent and suppress fires. These lands are generally protected by the Department of Agriculture, Forest Service, and the Department of the Interior bureaus: Bureau of Land Management, National Park Service, US Fish and Wildlife service, and the Bureau of Indian Affairs (United States Forest Service, 2003).

[9] State responsibility area is a legal term defining the area where the State has financial responsibility for wildland fire protection. Incorporated cities and federal ownership are not included (Cal Fire, 2007).

disturbance, but frequently contain dry brush, which would present a potential fire hazard. During mining and excavation, equipment and construction workers on-site would have the potential to cause wildland fires through sparking or overheating equipment as well as smoking. In addition, the usage of explosives and other mining techniques would have the potential to cause wildland fires. As with the other proposed Project elements, construction workers would be present on the Project site an extended period of time (up to 36 months) and would potentially be exposed to wildland fires. Therefore, construction impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires may be potentially significant, and this topic will be evaluated further in the EIR.

Operations of the new Dam and the realigned LAA would require minimal maintenance activities, which would be similar to existing conditions in terms of fire danger. Maintenance of the partially paved realigned Cactus Flats Road would be typical of paved and unpaved roads, and would occur with the same frequency as maintenance of the existing Cactus Flats Road. Fire risk due to these maintenance and operations activities would be comparable to existing conditions. Therefore, operational impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

4.9 Hydrology and Water Quality

Would the project:

IX.a. Violate any water quality standards or waste discharge requirements?

The proposed Project is located within the Lahontan Regional Water Control Board (RWQCB) and SWRCB jurisdiction. A Small Construction Waste Discharge Requirements permit (WDR) may be needed. In addition, in order to prevent pollutants from being washed or discharged into Waters of the U.S., the proposed Project must be covered by one or more National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities such as equipment usage, excavation, grading, and paving during construction of the proposed Project would have the potential to discharge pollutants into the LAA, NHR, or other water bodies within or adjacent to the Project site or proposed borrow sites. Usage of construction equipment, as well as trucks and other vehicles, would place fuel, oil, and other chemicals on-site. In addition, construction materials such as asphalt and concrete would be used and stored on-site. Borrow materials such as sand, gravel, clay, and riprap would also be present, and would have the potential to release sediments. Grading, excavation, and stockpiling would create additional potential for erosion. These construction-related materials and activities would have the potential to be captured and carried off-site by stormwater runoff. Construction-related pollutants, such as those described above, could be carried into the LAA system and into the NHR. While it is anticipated that the proposed Project would comply with all water quality standards and waste discharge requirements (such as the Lahontan Basin Plan and the California Toxics Rule) and that the proposed Project would be required to obtain permits from the Lahontan RWQCB and the SWRCB prior to construction, the amount of discharge and thus the level of significance for potential impacts needs to be discussed. In addition, the necessary project design features, BMPs, and industry standards that would adequately address these potential impacts need to be identified and disclosed. Therefore, construction impacts related to water quality standards or waste discharge requirements may be potentially significant, and this topic will be evaluated further in the EIR.

Operations of NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would be similar to existing conditions. These proposed Project elements would be passive structures, and would have the same utility as the existing Dam, existing LAA, and existing Cactus Flats Road. It is not anticipated that water quality standards or waste discharge requirements would be violated as routine activities would be conducted

per applicable standards and would follow industry practices. Therefore, operational impacts related to water quality standards or waste discharge requirements would be less than significant.

IX.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)?*

The proposed Project site is over the Basin and Range Basin Fill Aquifers, made up of unconsolidated sand and gravel aquifers. The groundwater level in the Owens Valley is known to be generally deep, ranging from 80 to over 120 feet below ground surface (bgs) (California Department of Water Resources, 2014). The site is mostly underlain with soil types that provide a high rate of recharge (U.S. Department of Interior, 2006). Groundwater in the Project Site is shallow, ranging from approximately 19 to 32 feet bgs, including depths as shallow as less than 21 feet bgs in the NHD2 footprint (Black & Veatch, 2014).

Explanation of Checklist Determination

Potentially Significant Impact. The construction of NHD2 would change the topography and composition of a portion of the Project site, with the foundation excavation reaching depths of up to 30 to 40 feet bgs. While the general groundwater depth in Owens Valley is 80 to over 120 feet bgs, groundwater is shallow under the Project site, including in the NHD2 footprint, and excavation would therefore be anticipated to reach groundwater. Stockpiling on-site (materials covered in waterproof tarps, etc.) would not substantially reduce the amount of open, pervious surface area that allows groundwater recharge. The realignments of the LAA and the Cactus Flats Road would require relatively shallow excavation. It is anticipated that groundwater may be reached during construction. Construction activities at the proposed borrow sites would result in site excavation. The depths of excavation are unknown, and as a result, it is unknown if excavation may encroach upon the groundwater table.

The new Dam would potentially reduce the permeability of its proposed location, depending on the final design specifications selected. Although there may be an overall reduction in permeable ground, the surface layers would still be able to drain water to recharge aquifers. The realigned LAA would be concrete lined which would reduce permeability. However, the existing portion of the LAA that is to be closed would be demolished and, thus, increase permeability. Nevertheless, there would be a net gain of impermeable surface as the length of the proposed LAA realignment is longer than the existing LAA length that is to be closed. The realigned Cactus Flats Road would increase net impervious area because of the increase in the length of road surface, decreasing pervious area available for groundwater recharge. The realigned Cactus Flats Road would not impound surface runoff and instead would route the runoff downstream. Therefore, the realignment of Cactus Flats Road is not anticipated to significantly change recharge of local aquifers during operations.

Overall, however, impacts related to the depletion of groundwater supplies or interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table may be potentially significant, and this topic will be evaluated further in the EIR.

IX.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?*

The part of the Project site where the proposed NHD2 would be located resides within the HUC-12 (hydrologic unit code with 12 digits) boundaries of NHR (180901030503) and the Carroll Creek-Owens Lake (180901030407). Based on existing contours, a large area located northeast of the Project site drains west towards the Project site and then towards the north. The drainage in this area is conveyed through unnamed drainages. The LAA flows from north to south, as it carries water to the Los Angeles area. The existing grading in the area facilitates flows in other directions. Flows generated on the existing Cactus Flats Road

follow existing contours northward and run off the shoulders. The proposed borrow sites are located within varied topography.

Explanation of Checklist Determination

Potentially Significant Impact. During construction of the proposed Project, excavated areas would have the potential to trap water from existing flows. As NHD2 is built, the drainage patterns around NHD would gradually change. These altered drainage flows would have the potential to cause substantial erosion or siltation on- and off-site, especially as the grubbing, grading, and excavation activities associated with construction would result in increased exposure and stockpiling of soils. Grading and construction of culverts and Arizona crossings for the realigned Cactus Flats Road would potentially alter drainage patterns, and would temporarily expose soils during construction, potentially resulting in erosion or siltation. Proposed borrow sites located within natural flow paths and relatively large in size would increase the potential for erosion or siltation caused by altered drainage. Proposed borrow sites may include streams or rivers (including seasonal and intermittent streams and rivers), the alteration of which would potentially cause additional erosion and siltation. Furthermore, excavation of proposed borrow sites would have the potential to trap water or change drainage patterns.

During construction and operations, the presence of the new Dam 800 feet north of NHD would alter the existing drainage pattern as the topography would drastically change from relatively flat to include a large vertical component. Water would still follow the general existing drainage pattern (flowing from the east and turning northward once north of NHD), but would now go around NHD2, instead of through the area. The new Dam would create a permanent new obstruction to existing drainage patterns. As described above, these altered drainage flows would potentially cause erosion or siltation, both on-site (particularly between NHD and NHD2) and off-site. The realigned Cactus Flats Road would potentially result in permanent changes to drainage. However, the roadway would be partially paved, and it is not anticipated that soils would be exposed during operations. The realigned Cactus Flats Road would be surrounded by unpaved earth, similar to the existing Cactus Flats Road, and any erosion or sedimentation would be anticipated to be similar to existing conditions.

Therefore, impacts related to erosion and siltation, on- or off-site, due to a change in drainage patterns may be potentially significant, and this topic will be evaluated further in the EIR.

IX.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?

Refer to Section IX.c for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section IX.c for changes in drainage patterns under the proposed Project. During construction, proposed excavation activities would have the potential to trap water, causing localized flooding within the construction site. During excavation activities, drainage would be redirected around the excavation area and this may result in an increased rate of surface runoff, which may result in flooding off-site. The mining at borrow sites would also result in substantial changes to the topography and natural drainage characters of the respective site.

During operations, the new Dam would create a permanent new obstruction to existing drainage patterns, and this may potentially cause flooding, both on-site (particularly between NHD and NHD2) and off-site. The LAA Realignment would be designed to convey water similar to existing conditions. The realigned Cactus Flats Road would potentially result in permanent changes to drainage, including new culverts and Arizona crossings. The realigned Cactus Flats Road would be similar to the existing Cactus Flats Road but would increase impervious surface area and thus increase the amount of surface water runoff generated. The potential for this increased runoff to result in on- or off-site flooding will need to be evaluated in the EIR.

Therefore, impacts related to flooding on- or off-site due to a change in drainage patterns or an increase in the rate or amount of surface runoff may be potentially significant, and this topic will be evaluated further in the EIR.

IX.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?

Refer to Section IX.c for exiting conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities such as equipment usage, ground compaction, pile-driving, jackhammering, drilling on- and off-road travel, excavation, grading, and paving during construction of the proposed Project would potentially discharge water pollutants. Usage of construction equipment, as well as trucks and other vehicles, would bring fuel, oil, and other chemicals on-site. In addition, construction materials such as asphalt and concrete would be used and stored on-site. Borrow materials such as sand, gravel, clay, and riprap would also be present, and would have the potential to release sediments. Grading, excavation, and stockpiling would create additional potential for erosion. These construction-related materials and activities would have the potential to be captured and carried off-site by stormwater runoff.

Construction of the realigned LAA would provide additional potential for effects on water quality, especially when the realigned LAA is connected to the existing LAA system. Construction-related pollutants, such as those described above, could be carried into the LAA system and into the NHR.

Construction of the new Dam, the realigned LAA, and the realigned Cactus Flats Road would potentially result in increased runoff of surface water, as discussed in Section IX.d. The locations for proposed site improvements are not currently established. At present, the general locations of these proposed improvements do not currently have stormwater drainage systems and stormwater drainage systems have not yet been designed. In addition, provisions for drainage during construction should also be considered. Thus, this increase in surface water runoff may have the potential to exceed the capacity of existing or planned stormwater drainage systems.

In addition, mining may include blasting and other forms of intensive materials excavation, which could introduce additional chemicals and materials which could affect water quality. While these activities would not directly generate stormwater, they would have the potential to release pollutants which may affect water quality. Existing drainage systems would be present at few if any proposed borrow sites. The footprints and design of the proposed borrow sites are not yet defined, and given the rural and often undisturbed or abandoned nature of many proposed borrow sites, it is likely that few borrow sites would have infrastructure developed (such as detention basins or culverts, or temporary measures such as mulching or fabric rolls) to handle stormwater runoff and these pollutants.

Operations of the proposed Project would be similar to existing conditions. These proposed Project elements would be passive structures, and would have the same uses as the existing Dam, existing LAA, and existing Cactus Flats Road. The new Dam would be designed to prevent erosion, the realigned LAA would be lined with concrete and realigned Cactus Flats Road would be covered by asphalt. It is not anticipated that runoff from these proposed Project elements would be polluted. These proposed Project element would alter the permanent drainage and flows of the Project site, and would potentially generate stormwater runoff which would be discharged to drainage systems. As drainage systems details are not yet planned, this will be further evaluated in the EIR to determine whether planned drainage systems would be exceeded and what BMPs, if any, would be required to manage stormwater.

Therefore, construction and operational impacts related to an exceedance of the capacity of existing or planned stormwater drainage systems or a substantially greater contribution of polluted runoff may be potentially significant, and this topic will be evaluated further in the EIR.

IX.f. Otherwise substantially degrade water quality?

Refer to Sections IX.a through IX.e for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Sections IX.a through IX.e for explanations of checklist determination. Impacts related to substantially degrading water quality may be potentially significant, and this topic will be evaluated further in the EIR.

IX.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?

The NHR and NHD are located in a Zone A Flood Zone, which is an area where a 100-year flood has a one percent chance of being equaled or exceeded in any given year. The surrounding area is not located within a 100-year flood hazard area, as delineated on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 06027C3350D, dated August 16, 2011. The area surrounding the NHR has generally identified as Zone X (minimal flood hazard). The Haiwee Reservoir is listed in the Kern County inundation mapping program due to existing concerns, regarding DSOD standards and identified by LADWP, of the existing Dam's stability during seismic events (Kern County, 2009). One of the nine proposed borrow sites is located within a 100-year flood zone (FEMA, 2011).

Explanation of Checklist Determination

No Impact. The proposed Project does not include the construction of housing. The proposed Project is a seismic improvement project and would improve the seismic reliability of NHD, providing additional flood protection to the Project area. Therefore, impacts related to the placement of housing within a 100-year flood hazard area as mapped on the FEMA Flood Insurance Rate Map would not occur, and this topic will not be evaluated in the EIR.

IX.h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Refer to Section IX.g for existing conditions.

Explanation of Checklist Determination

Less Than Significant Impact. Although the existing Dam is listed in the Kern County inundation mapping program due to existing concerns, regarding DSOD standards and identified by LADWP, of the existing Dam's stability during seismic events, NHD2 is intended as a seismic improvement project, and would improve the seismic reliability of NHD, providing flood protection to the Project area. The new Dam would be located within the Zone X flood zone, where flood hazards would be minimal. The realigned LAA and realigned Cactus Flats Road would also be located in Zone X, and would not impede or redirect flood flows. Eight of the potential borrow sites are also located in Zone X, and are therefore not considered to be within a 100-year flood hazard. Because these proposed Project elements are not located within flood hazard areas, structures associated with the proposed Project would not impede or redirect flood flows. One proposed borrow site is within a 100-year flood hazard area. However, the proposed borrow site would include only construction equipment and temporary structures, not include any permanent structures that would not impede or redirect flood flows. Therefore, impacts related to the placement of structures within a 100-year flood hazard area which would impede or redirect flows would be less than significant, and this topic will not be evaluated in the EIR.

IX.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?

The NHD is the nearest existing dam in the Project site. LADWP has identified that, per DSOD standards, the existing Dam is seismically unstable and has the potential to fail during the MCE seismic event due to the potential for liquefaction of the underlying alluvium and the Dam itself (LADWP, 2001). The Project area is generally sparsely populated and developed. An agricultural use is located north of the existing Dam. Although the operating level of NHR has been restricted pending improvements, the NHR still holds a substantial amount of water. In addition, one proposed borrow site is within a 100-year flood hazard area (Refer to Section IX.g).

Explanation of Checklist Determination

Potentially Significant Impact. If NHD were to fail during construction of the proposed Project, there is the potential for a small number of people and structures to be exposed to significant risk of loss, injury, or death in the immediate vicinity of the existing Dam. Workers at the realignment of the LAA and Cactus Flats Road would also be potentially exposed to this risk. Most of the proposed borrow site locations are not adjacent to the NHD and would therefore not expose people or structures to risk of flooding or inundation by failure of a dam or levee. However, one proposed borrow site is within a 100-year flood hazard area. Therefore, construction impacts related to the exposure of people or structures to a significant risk of loss, injury, or death involving flooding, resulting from a dam or levee failure may be potentially significant, and this topic will be evaluated further in the EIR.

During operations, NHD2 is intended to prevent the potential for inundation due to seismic failure of the NHD. Therefore, operational impacts related to the exposure of people or structures to a significant risk of loss, injury, or death involving flooding, resulting from a dam or levee failure would be less than significant.

IX.j. Inundation by seiche, tsunami, or mudflow?

The proposed Project site is located inland, approximately 150 miles from the Pacific Ocean at an average elevation of 3,700 feet. A seiche event could occur if water is present in NHR during a very strong wind storm or seismic event. The Project site is located within the basin of the Owens Valley, which is generally comprised of alluvial soils and small mountain outcrops. Surrounding the valley is the Sierra Nevada mountains and Inyo Mountain ranges. Younger alluvial fans located at the base of these ranges have resulted in mudflows type events along the foothills and perimeter of the Owens Valley. The most significant event in recent history was the Oak Creek mudflows of 2008 (Wagner, 2010), which occurred northwest of Independence. Other smaller events, such as the Haiwee Creek Debris Flows in 2010 (Landcaster, 2013), have also occurred within the region. These events may occur within areas adjacent to streams that have recently been impacted by wildfires, but mudflows have also occurred in 2006 just north of the proposed NHD2 location in areas not impacted by wildfires.

Explanation of Checklist Determination

Tsunami

No Impact. The proposed Project is more than 150 miles inland from the Pacific Ocean, and is not at risk for tsunami inundation. Therefore, impacts related to inundation by tsunami would not occur, and this topic will not be evaluated in the EIR.

Seiche

Potentially Significant Impact. There is potential for a seiche event to overtop the existing Dam. During construction, workers and the uses to the north of NHD would be potentially affected by overtopping. In addition, multiple potential borrow sites are located adjacent to the NHR, and workers at those sites may also be impacted by a seiche event. Therefore, construction impacts related to inundation by seiche may be potentially significant, and this topic will be further evaluated in the EIR.

During operations, NHD2 would protect the realigned LAA and realigned Cactus Flats Road from inundation, and the proposed borrow sites would not be in use. Therefore, operational impacts related to inundation by seiche would be less than significant.

Mudflow

Potentially Significant Impact. Various areas within the Owens Valley feature younger alluvium deposits, which may be susceptible to mudflow events, particularly as a result from heavy storms and rainfall that may occur over limited vegetated areas. Due to the existing terrain and ground cover conditions, mudflows may have the potential to occur near the new Dam, the realigned LAA, and the realigned Cactus Flats Road both during construction and operation, potentially causing inundation. Inundation of the Project site during construction would have the potential to endanger construction workers and to damage structures currently being built. Due to the varied existing terrains and ground cover conditions around the proposed borrow site locations that inundation by mudflow may also occur. One proposed borrow site is located within a mile from the Haiwee Creek mudflows from 2010. Other proposed borrow sites are also located within the younger alluvial foothills of the Owens Valley. Therefore, construction impacts related to inundation by mudflow may be potentially significant, and this topic will be evaluated further in the EIR.

The potential for inundation of the proposed Project by mudflow would remain during operations but would be similar to existing conditions. Therefore, operational impacts related to the inundation by mudflow would be less than significant.

4.10 Land Use and Planning

Would the project:

X.a. Physically divide an established community?

The Project area is located in a rural portion of Inyo County, and is designated by Inyo County as OS-40 zoning for all proposed Project elements (Inyo County, 2013). The unincorporated community of Olancha is located approximately three miles northwest from the existing Dam. The unincorporated community of Haiwee is located approximately six miles south from the existing Dam. The Project area generally features undeveloped open space with sparse residential development. Cactus Flats Road does not link established communities, but serves to provide access to recreational off road vehicle trails and to the NHR as well as for mining business.

Explanation of Checklist Determination

No Impact. There are no established communities located adjacent to the main construction area near the existing Dam, existing LAA, or existing Cactus Flats Road. The new Dam, the realigned LAA, and the realigned Cactus Flats Road would be located on undeveloped land near existing structures. None of the proposed Project elements, including the proposed borrow sites, would be located in the middle of communities nor will they physically divide communities. Therefore, impacts related to physically dividing an established community would not occur, and this topic will not be evaluated in the EIR.

X.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?

As discussed in Section 1.5, the majority of the Project area is designated under the Inyo County General Plan as NR land use; however, the western portion of the Project area, which features the LAA, is located on land owned by the BLM and is designated as SFL. The NR Designation is "applied to land or water areas that are essentially unimproved and planned to remain open in character, provides for the preservation of natural resources, the managed production of resources, and recreational uses" and the SFL Designation is applied to

"State- and Federally-owned parks, forests, recreation, and/or management areas that have adopted management plans." The RP land use, which is present within or near one of the proposed borrow sites, is "applied to land or water areas that are essentially unimproved and planned to remain open in character, provides for the preservation of natural resources, the managed production of resources, low intensity agriculture including grazing, park and other low-intensity recreation, wildlife refuges, hunting and fishing preserves, horse stables, cemeteries, greenbelts and similar and compatible uses" (Inyo County, 2013).

The Project site, including the proposed borrow sites, is zoned as OS-40, which is intended to "preserve agricultural areas open space around the more intensive urban areas of the county, while providing for compatible multiple use of nonagricultural lands which are principally held by federal and other public agencies," but also includes very limited residential zoning associated with operations of an existing mine. The Inyo County OS-40 zoning designation permits open space and compatible uses on non-agricultural lands held by other public agencies (Inyo County, 2013).

Policy LU-1.16 of the Inyo County General Plan states that "All General Plan land use designations shall allow for the implementation of Enhancement/Mitigation Projects and/or mitigation measures as described in the Inyo County-Los Angeles Long Term Ground Water Management Agreement [Management Agreement] and/or the 1991 Final EIR that addressed that agreement." The Management Agreement allows for the Haiwee Reservoirs and allows for enhancement and mitigation projects related to the activities of LADWP within Inyo County.

Explanation of Checklist Determination

Less than Significant Impact. The proposed Project would provide infrastructure that is compatible with the NHR, and would continue uses that are consistent with the Inyo County NR and SFL General Plan land use designations and OS-40 zoning designation of the area. In addition, the proposed borrow sites that will be utilized to provide materials are considered as a conditionally permitted use. The new Dam would be a compatible use, which continues an existing use that is consistent with the NR land use designation and OS-40 zoning designation of the Project site. In addition, the adjacent lands would remain as open space. The realigned LAA is within the NR and SFL general plan land use designations and is zoned OS-40. The LAA Realignment would result in the continuation of an existing use and would be similar to existing land uses. The realigned Cactus Flats Road would have the same land use as the existing Cactus Flats Road, and would be similar to existing land uses. The proposed borrow sites are located in the OS-40 zoning designation, and are designated as NR, SFL, RP, or a combination of these uses. Proposed borrow site activities are permissible pursuant to Section 18.12.040 of the Inyo County Zoning Code with a conditional use. The activities would also be conducted pursuant to the *Surface Mining and Reclamation Act Of 1975* (SMARA). The proposed Project would be subject to mineral extraction permits from the BLM, covering borrow site operation and mining site restoration. Therefore, impacts related to a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed Project would be less than significant, and this topic will not be evaluated in the EIR.

X.c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

As discussed in Section IV.f, while the BLM's CDCA is in place for the Project area, there are currently no HCPs or NCCPs in place for the Project area. The Project site, however, is subject to the West Mojave Plan, which is an interagency amendment to the CDCA Plan that covers over 9.3 million acres. The majority of the Project site is not within any BLM designated Areas of Critical Environmental Concern (ACEC) providing protection for known sensitive habitat areas (BLM, 2011). However, the West Mojave Plan provides for habitat conservation efforts for sensitive species, which may be in the area of the proposed Project, such as the Mohave Ground Squirrel and the Desert Tortoise (BLM, 2006).

Explanation of Checklist Determination

No Impact. While NHD2, the LAA Realignment, and the Cactus Flats Road Realignment are not within any designated ACEC, ground disturbing activities associated with the construction of these proposed Project

elements may result in potential habitat impacts that may conflict with the West Mojave Plan. Specific biological concerns within the region include impacts to the Mohave Ground Squirrel and the Desert Tortoise. Refer to Section IV.f for further detail. However, there are no applicable HCPs or NCCPs to the Project area. Therefore, impacts related to a conflict with any applicable habitat conservation plan or natural community conservation plan would not occur, and this topic will not be evaluated in the EIR.

4.11 Mineral Resources

Would the project:

XI.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?*

According to Inyo County General Plan, Inyo County contains a wealth of mineral resources (Inyo County, 2001). Mining activities include extraction of aggregate resources such as stone, sand and gravel, and clays), as well as tungsten, silver, copper, gold, borates, and soda ash (Inyo County, 2001). Active mines near the proposed Project include the TXI Olancha Pumice Mine approximately three miles east of NHR on private land, and LADWP quarry sites for stone immediately south of South Haiwee Dam (BLM, 2012). South and east of the South Haiwee Reservoir there is documented historical mining of lead, silver, zinc, and minor tungsten and copper mining (USGS, 1996; DOC, 2000). Proposed borrow sites include both existing and active mines as well as abandoned mines and unmined sites. One proposed borrow site is near a site known to contain pumice (USGS, 2014).

Explanation of Checklist Determination

Potentially Significant Impact. The new Dam, realigned LAA, and realigned Cactus Flats Road would be located in an area known to include mineral resources of statewide importance (DOC, 1966; DOC, 1990). The construction of the new Dam would include excavation up to 30 to 40 feet bgs for the foundation. All of the proposed Project elements would include excavation and grading activities. Proposed borrow site activities would involve surface mining for borrow materials, which vary by selected site, and can contain one or more of the following: clay, riprap, sand, and gravel. Extracting borrow materials at existing and active mines would involve the same activities as existing conditions; however, reactivation of abandoned mine sites as well as development of undisturbed sites would potentially affect mineral resources due to substantial excavation and earthmoving activities. All activities associated with the borrow sites would potentially remove known mineral resources of regional and/or Statewide significance, and reduce the availability of these mineral resources.

During operations, no further ground disturbance would occur and no additional mineral resources would be required for maintenance activities. However, the new Dam, the realigned LAA, and the Cactus Flats Road could be located on top of areas that may contain mineral resources of regional and/or Statewide significance and would permanently restrict access to these resources. Therefore, impacts related to loss of availability of a known mineral resource that would be of value to the region and the residents of the State may be potentially significant, and this topic will be evaluated further in the EIR.

XI.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?*

Parts of Inyo County and the Owens Valley are rich in mineral deposits (DOC, 1966; DOC, 1990). The Project area contains mineral resources that are locally important as discussed in the Inyo County General Plan Section 8.4 (Mineral and Energy Resources), which addresses mineral resources, and provides goals, policies, and implementation measures to protect the current and future extraction of mineral resources that are important to the County's economy. This section of the General Plan deals with both the preservation and support of mining activities, and several policies and implementation strategies seeking to prevent

incompatible development and uses, ensure reclamation, and avoidance or mitigation of environmental impacts. Goal Gov-9 includes policies to maintain mining opportunities on SFL, requires the maintenance or expansion of access, discourages incompatible developments on lands identified as containing significant mineral resources, and supports uses that will not preclude future mining activities (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section XI.a. Construction activities, such as grading, excavation, and mining of borrow sites would have the potential to damage locally-significant mineral resources or reduce access to these resources. Operations would permanently restrict access to potential mineral resources. Therefore, impacts related to loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan may be potentially significant, and this topic will be evaluated further in the EIR.

4.12 Noise

Would the project result in:

XII.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?

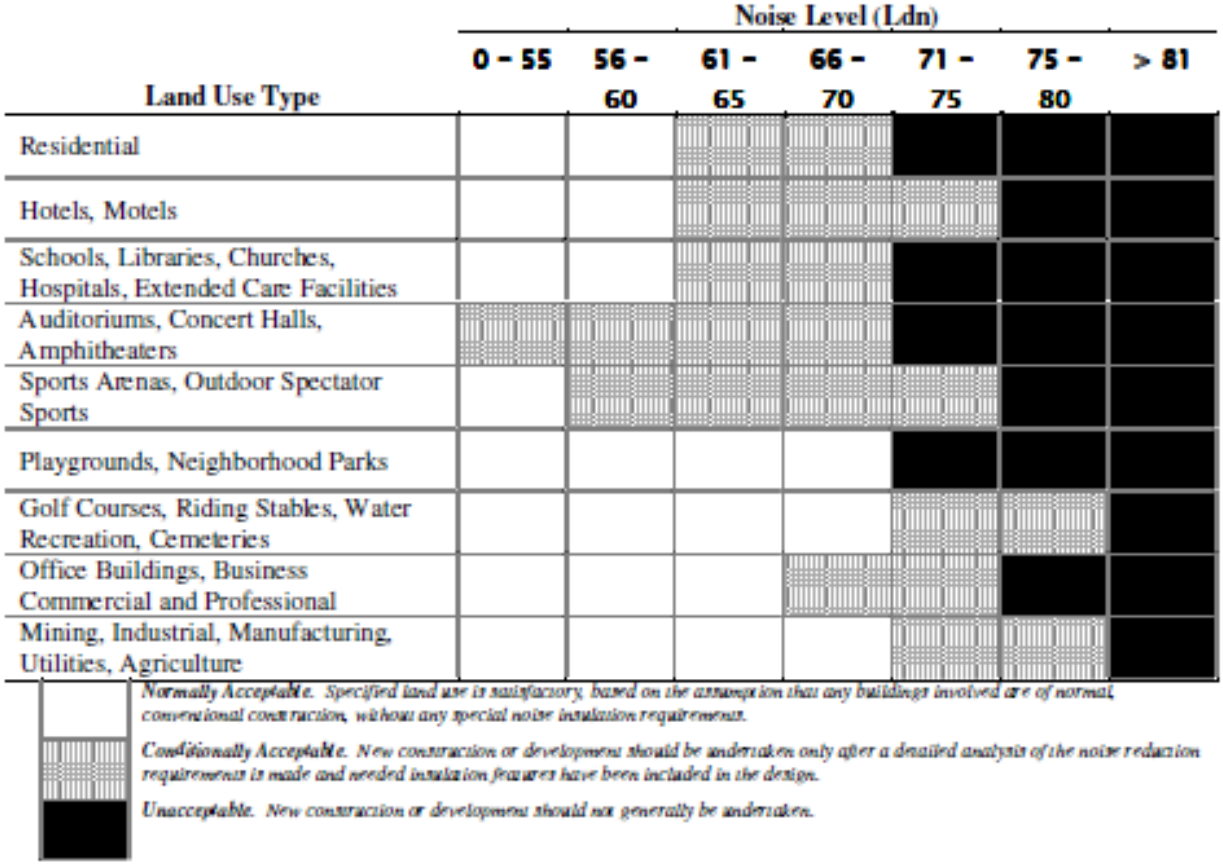
The May 2013 Draft General Plan for Inyo County contains guidelines for the maximum recommended ambient noise exposure by land use (Figure 4-1) (Inyo County, 2013). The Inyo County General Plan land uses of the Project site and the surrounding area are NR, SFL, and Agriculture. The Project site and surrounding area are zoned OS-40. Of these land uses, the Draft Inyo County General Plan only contains a standard for the Agriculture land use. Agriculture has a normally acceptable Day-Night Average Sound Level (Ldn) up to 70 Ldn. Conditionally acceptable levels are 71 to 80 Ldn, and anything over 80 Ldn is considered unacceptable (Inyo County, 2013). The General Plan notes that if the existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 A-weighted decibels (dBA) (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. Construction-generating activities associated with the proposed Project include equipment usage, ground compaction, pile-driving, jackhammering, drilling on- and off-road travel, blasting, excavation, grading, and paving. Given the size of NHD2 and the 36-month construction duration, and the proximity of agricultural uses to the north of the NHD2 site, a noise analysis will be undertaken in the EIR to determine potential significance of noise impacts during construction. In addition, the potential noise impacts during construction of the other proposed Project elements, though of shorter construction duration (18 months for the realigned LAA and 12 months for the realigned Cactus Flats Road) would be evaluated in the EIR noise analysis. Construction activities at proposed borrow sites would generate noise that may be heard by nearby sensitive receptors, and haul trucks would generate noise as they travel past sensitive receptors. Therefore, construction impacts related to 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 may be potentially significant, and this topic will be evaluated further in the EIR.

Noise levels during operations of these proposed Project elements would be similar to existing conditions. As NHD2 would be a similar structure to the existing Dam, and the realigned LAA would be a similar structure to the existing LAA, operations of NHD2 and the realigned LAA are not likely to generate noise levels above existing ambient noise levels. Proposed borrow sites would have similar noise levels to existing conditions as no activity would occur during operations. In addition, the realigned Cactus Flats Road would operate similar to the existing Cactus Flats Road, and noise levels would be similar to existing conditions. Therefore, operational impacts related to 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 would be less than significant.



Source: Inyo County, Draft 2013 General Plan Update, 2013.

Figure 4-1
Maximum Recommended Ambient Noise Exposure by Land Use (County Guidelines)

XII.b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The May 2013 Draft General Plan for Inyo County does not contain guidelines on groundborne vibration or noise levels. As a general rule, groundborne vibration decreases rapidly with distance.

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities such as equipment usage, ground compaction, pile-driving, jackhammering, drilling, on- and off-road travel, blasting, excavation, grading, and paving during associated with the proposed Project has the potential to generate groundborne vibration and noise. Given the amount of materials needed to construct NHD2 and the 36-month construction duration, a groundborne vibration and noise analysis will be undertaken in the EIR. Therefore, construction impacts resulting in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels may be potentially significant, and this topic will be evaluated further in the EIR.

NHD2, the LAA Realignment, and the Cactus Flats Road Realignment would be similar structures to the existing structures, and are not structures that generate substantial amounts of groundborne vibration and noise. Therefore, operational impacts resulting in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be less than significant.

XII.c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Generally, a project is considered to have a significant impact related to operational noise levels if it causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in Community Noise Equivalent Level (CNEL) to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase (Refer to Figure 4-1). The Project site is primarily rural and sparsely populated. Ambient noise near the Project site is primarily from vehicles traveling along US-395, and ambient noises near proposed borrow sites may include noise from mining activities occurring in the vicinity.

Explanation of Checklist Determination

Less than Significant. Construction of the proposed Project would be considered as temporary and no permanent increase in ambient noise levels would result from construction activities.

The proposed Project elements would be a similar to the existing structures. None of the existing elements are substantial generators of ambient noise as they are passive structures. Water that flows along the existing LAA may produce noise as it is flowing. However, the proposed LAA Realignment would be constructed of similar materials and same width and depth as the existing LAA to maintain adequate flow. Therefore, water flow during operations would be similar to existing conditions. The existing Cactus Flats Road itself is not a source of noise, but the traffic that uses it is. However, the realigned Cactus Flats Road would not create new capacity on this road as it will remain a two-lane road. The realigned Cactus Flats road would not increase the speed limit so as to create more noise with faster cars. Thus, ambient noise levels with the proposed Project would be similar to existing conditions. Therefore, impacts related to a substantial permanent increase in ambient noise levels in the Project area above levels existing without the project would be less than significant. Typically this would result in no further analysis; however, LADWP will conduct a detailed noise analysis as part of the EIR, and operational noise will be quantified and discussed further in the EIR.

XII.d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Refer to Section XII.a for existing conditions. Also refer to Figure 4-1.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section XII.a for the explanation of checklist determination. Impacts related to a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the proposed Project may be potentially significant, and this topic will be evaluated further in the EIR.

XII.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?

There are several public airports in the vicinity of the Project site. These facilities include: China Lake Naval Air Weapons Station, Inyokern Airport, Trona Airport, and Lone Pine Airport. Additionally, the Southern Inyo Healthcare District Hospital in the City of Lone Pine has a helipad (Google Earth, 2014).

Explanation of Checklist Determination

No Impact. NHD2, the LAA Realignment, and the Cactus Flats Realignment are not located within an airport land use plan, nor are they within two miles of a public airport or helipad. The nearest airport to the proposed location of the new Dam, the realigned LAA, and the realigned Cactus Flats Roads is the Lone Pine Airport, located approximately 25 miles to the north. The proposed borrow sites are spread across the Owens Valley, and the nearest airport to any borrow site is Lone Pine Airport, located approximately ten miles to the

west. Consequently, there is limited potential to place workers during construction in an area where they are exposed to any airplane noise, and the noise generated from construction related activities would exceed any noise created by an aircraft travelling above. In addition, the proposed borrow sites would not house any employees and would not employ significant numbers of people. Furthermore, the Lone Pine Airport is a general aviation airport with no scheduled commercial service. Large commercial jets, which produce substantial noise levels, do not utilize this airport. Therefore, impacts related to exposure to excessive noise levels from a public airport or public use airport would not occur, and this topic will not be evaluated in the EIR.

XII.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?*

The Porter Ranch and Sacatar Meadows Airports are the nearest private airports to the proposed Project.

Explanation of Checklist Determination

No Impact. The new Dam, the proposed borrow sites, the realigned LAA, and the realigned Cactus Flats Road are not within the vicinity of a private airstrip. The nearest private airport to the new Dam, the realigned LAA, and the realigned Cactus Flats Road is the Porter Ranch Airport, located approximately 15 miles southwest.

The nearest private airport to a proposed borrow site is the Porter Ranch Airport, located approximately 10.2 miles to the southwest of the nearest proposed borrow site. Therefore, impacts related to exposure to excessive noise levels within the vicinity of a private airstrip would not occur, and this topic will not be evaluated in the EIR.

4.13 Population and Housing

Would the project:

XIII.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)?*

Inyo County is primarily rural with a limited stock of private lands (Inyo County Local Transportation Commission, 2009). The Inyo County General Plan growth policies encourage logical and orderly community expansion. Inyo County's primary objective is to concentrate new growth within and close to the existing major communities, which include Bishop, Big Pine, Independence, and Lone Pine, with a secondary objective of accommodating growth in the existing rural residential communities (such as Olancha, Charleston View, Mustang Mesa, and Starlite Estates) and ensuring the expansion of existing infrastructure as needed to serve these areas (Caltrans, 2010).

Explanation of Checklist Determination

Potentially Significant Impact. Construction of the proposed Project would involve a substantial number of construction workers, although at the time of preparation of this Initial Study, an exact number is not known. Given the length of construction activities (up to 36 months), it is feasible that many construction workers would need to relocate temporarily to areas in the vicinity of the Project site. Given the rural and sparsely populated nature of the Project site vicinity, existing housing stock may not be sufficient. As the total number of the anticipated workforce is not known at this time, a determination of significance of the potential construction-period impacts related to substantial population growth, directly or indirectly, cannot be made at this time. Therefore, this topic will be evaluated further in the EIR.

The proposed Project is an infrastructure improvement project and does not contain a permanent housing component. Consequently, it would not directly induce substantial population growth. Cactus Flats Road

would not be extended to new population centers, but be realigned around the new Dam. This realignment would not likely induce population growth as the limits of Cactus Flats Road and the route will remain the same. Therefore, operational impacts related to substantial population growth, directly or indirectly, would not occur, and this topic will not be evaluated in the EIR.

XIII.b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

There is no existing housing within the proposed Project site except for a house near the existing LAA. This residence is owned by LADWP and used by their reservoir-keeper employee. All the proposed borrow sites are zoned as open space land use designation.

Explanation of Checklist Determination

No Impact. Construction and operations of these proposed Project elements would not displace the existing LADWP residence in the vicinity of the existing Dam. Use of the borrow sites or construction of the realigned LAA and Cactus Flats Road would not displace any housing. Therefore, impacts related to displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere would not occur, and this topic will not be evaluated in the EIR.

XIII.c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Refer to Section XIII.b for existing conditions.

Explanation of Checklist Determination

No Impact. Refer to Section XIII.b. Construction and operations of these proposed Project elements would not displace the existing LADWP residence. Therefore, impacts related to displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere, would not occur, and this topic will not be evaluated in the EIR.

4.14 Public Services

Would the project:

XIV.a. 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:

Fire protection?

The Lone Pine Fire District provides fire protection and emergency medical services to the Project area (Inyo County, 2001). The primary fire station that would serve the proposed Project area is the Olancha – Cartago Fire Department, located on Highway 395 in Olancha, California, approximately five miles northwest of the site of the proposed new Dam.

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities for the proposed Project would require a health and safety plan, which would comply with Inyo County General Plan Section 4.3 (Public Utilities and Services) and which would be reviewed by the Lone Pine Fire District during the permitting process and modified as needed based on their input.

During construction, haul traffic associated with the proposed Project could potentially affect response times. However, fire engines utilize sirens to move quickly through traffic and haul trucks would be required to comply with rules regarding emergency vehicle sirens. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. The potential increase in resident population may affect the acceptable service ratios for fire protection. As the anticipated workforce is not known, a determination of significance of the potential construction-period impacts related to fire protection services cannot be made at this time. Therefore, this topic will be evaluated further in the EIR.

During operations, the proposed Project would not induce population growth which would consequently affect service ratios for fire protection (Refer to Section 4.13 Population and Housing). Consequently, it is anticipated that the demand for fire protection services from the Lone Pine Fire District during operations of the proposed Project would be similar to the existing demand for services. Therefore, operational impacts related to fire protection services would be less than significant, and this topic will not be evaluated in the EIR.

Police protection?

Police protection in the Project area is provided by the Inyo County Sheriff's Department, which has a substation in Lone Pine, California, approximately 28 miles north of NHD (Inyo County, 2001). The California Highway Patrol is responsible for traffic enforcement along all of the state and federal routes, which includes the haul routes (US-395, SR-190, and SR-136) and may provide additional support to the unincorporated rural communities throughout Inyo County.

Explanation of Checklist Determination

Potentially Significant Impact. Construction activities for the proposed Project would require a health and safety plan which would comply with Inyo County General Plan Section 4.3 (Public Utilities and Services) and which would be reviewed by the Inyo County Sheriff's Department during the permitting process and modified as needed based on their input. During construction, haul traffic associated with the proposed Project could potentially affect response times. However, police cars utilize sirens to move quickly through traffic and haul trucks would be required to comply with rules regarding emergency vehicle sirens. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would potentially last multiple years. The potential increase in resident population may affect the acceptable service ratios for police protection. As the anticipated workforce is not known, a determination of significance of the potential construction-period impacts related to fire protection services cannot be made at this time. Therefore, this topic will be evaluated further in the EIR.

During operations, the proposed Project would not induce population growth, which would consequently affect service ratios for police protection (Refer to Section 4.13 Population and Housing). Consequently, it is anticipated that the demand for police protection services from the Inyo County Sheriff's Department under the proposed Project would be similar to the existing demand for services. Therefore, operational impacts related to police protection services would be less than significant, and this topic will not be evaluated in the EIR.

Schools?

The Project site is served by the Lone Pine Unified School District provides K-12 education (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. It is conceivable that some workers may relocate with their entire families and this would result in the addition of school-age children to the overall population. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on schools, and this topic would be further evaluated in the EIR.

The proposed Project is not a residential project and does not have a permanent housing component that would directly induce growth and potentially increase the population of school-age children, thus increasing demand on schools. Furthermore, the proposed Project would result in no permanent employee growth during operations and would not indirectly induce population growth, thereby permanently increasing demand for schools. Therefore, operational impacts related to increased demand for schools would not occur, and this topic will not be evaluated in the EIR.

Parks?

The nearest parks in the vicinity of the Project site include Inyo National Forest, Haiwee Ridge, and the Inyo Mountains. One of the proposed borrow sites is located approximately 1,000 feet from the Inyo National Forest.

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on parks, and this topic would be further evaluated in the EIR.

The proposed Project would not include permanent housing elements that would directly induce growth and increase demand for parks. Furthermore, the proposed Project would not result in any permanent employment growth and would not indirectly induce population growth, thereby permanently increasing demand for parks. The use of the proposed borrow site near the Inyo National Forest would not change demand for use of this resource. Therefore, impacts related to increased demand for parks would not occur. Therefore, operational impacts related to increased demand for parks would not occur, and this topic will not be evaluated in the EIR.

Other public facilities?

Other public facilities in the vicinity of the Project site include senior centers and libraries. The closest senior center to the proposed Project is the Lone Pine Senior Center, located in Lone Pine, CA located approximately 26.5 north of the NHD2 site (Inyo County Aging Services, 2014). The facility is located over ten miles from the nearest borrow site.

The closest library to the Project site is Lone Pine, CA. The Lone Pine Library is located over ten miles from the nearest proposed borrow site, and approximately 26.2 miles north of the NHD2 site (Inyo County Free Library, 2014).

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on other public facilities, and this topic would be further evaluated in the EIR.

As discussed in Section 4.13 Population and Housing, the proposed Project does not have a permanent housing component that would directly induce growth and potentially increase demand on other public facilities such as libraries, childcare centers, or senior centers. Furthermore, the proposed Project would result in no permanent employee growth and would not indirectly induce population growth, thereby permanently increasing demand for other public facilities. Therefore, operational impacts related to increased demand for other public facilities would not occur, and this topic will not be evaluated in the EIR.

4.15 Recreation

XV.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?

The NHR, existing Dam, proposed borrow site locations, existing LAA and Cactus Flats Road are not used for recreational purposes. None of the proposed borrow sites fall under the Inyo County Open Space and Recreation Land Use designation.

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on parks and other recreational facilities, and this topic would be further evaluated in the EIR.

During operations, the proposed Project would not have a housing component that would directly induce growth and potentially increase demand on recreational facilities. Furthermore, the proposed Project would not result in permanent employee growth and would not indirectly induce population growth, thereby permanently increasing demand on recreational facilities. Therefore, operational impacts related to increased demand on recreational facilities would not occur, and this topic will not be evaluated in the EIR.

XV.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?

Refer to Section XV.a for existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. The proposed Project would not include recreational facilities. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on recreational facilities, and this topic would be further evaluated in the EIR.

The proposed Project would provide sufficient seismic reliability for the existing Dam and the NHR. No new permanent recreation areas would be opened for public access and recreation and no existing recreation areas would be closed during construction or during operations. No new or expanded recreational facilities are proposed as part of the proposed Project. Therefore, operational impacts related to inclusion of recreational facilities which might have an adverse physical effect on the environment would not occur, and this topic will not be evaluated in the EIR.

4.16 Transportation and Traffic

Would the project:

XVI.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?*

The proposed Project is located within the Owens Valley region of Inyo County, which includes local, State, and federal roadways which provide access to and from the Project area. The primary Project site, which is comprised of NHD, the LAA, and the existing Cactus Flats Road, is accessed off of the partially paved Cactus Flats Road and unpaved North Haiwee Road. These roads connect to US-395, which is a four-lane divided highway at the intersection of North Haiwee Road and a two-lane highway at the intersection of Cactus Flats Road. Several proposed borrow sites would also utilize US-395 as part of their potential haul routes. The proposed borrow sites would also use other highways and local roadways for access and haul routes.

Level of service (LOS) typically measured by the ratio of traffic volume to capacity (V/C) or by the average delay experienced by vehicles on the roadway, is the primary metric used to determine the operating quality of a roadway segment or intersection. The quality of traffic operation is graded into one of six LOS designations ranging from A to F, with LOS A representing the best range of operating conditions and LOS F representing the worst. Policy RH-1.4 of the Inyo County General Plan specifies that LOS C should be maintained for all roadways and highways within the County (Inyo County, 2001). Caltrans, in coordination with the Inyo County Transportation Commission, is proposing to widen approximately 12 miles of US-395, within the vicinity of the communities of Olancha and Cartago (Caltrans, 2010). This segment of US-395 is presently operating at LOS D, which is below the Inyo County Standard of LOS C. The four-lane portion of US-395, located south of the proposed widening project, is operating at an LOS A, and the portion of US-395 that will be improved by the widening project is expected to result in LOS A (Caltrans, 2010). According to a press release from Caltrans, construction of the roadway widening is expected to begin in 2016 (Caltrans, 2011).

Explanation of Checklist Determination

Potentially Significant Impact. Construction of the proposed Project elements would require construction equipment such as graders and bulldozers to move fill materials brought from proposed borrow sites. This equipment will be limited to areas around the new Dam, and would not travel along public roadways. As a result, no additional traffic would be caused by the earth moving equipment. However, potential impacts associated with traffic may occur from trucks hauling fill material to the Project site, and other impacts may also occur as a result of trips generated by construction crews along adjacent roadways as they enter and leave the Project site. US-395, along the Cactus Flats Road entrance, is currently operating at LOS D. It is unknown at this time the total number of trips that will be required to bring fill material or the exact number of workers needed during construction.

Potential impacts to local roadways may occur as a result of the number of trips that needed to bring fill materials from the borrow sites for proposed Project construction activities. The haul routes for many of the borrow sites would require trucks carrying fill materials to utilize US-395 and enter along the Cactus Flats Entrance. The additional trips created by trucks carrying haul materials may worsen conditions. In addition, the proposed Project construction phase may coincide with the widening of the highway, which may create a cumulative temporary impact if construction of the highway results in lane closures when material from the proposed borrow sites is being transported to the Project site. Therefore, construction impacts related to a conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system may be potentially significant, and this topic will be evaluated further in the EIR.

Long-term operation of the new Dam and the realigned LAA would result in minimal additional trips over existing conditions since the proposed Project does not feature any operational changes for the new Dam relative to the existing conditions for the existing Dam. Long-term operation of the realigned Cactus Flat Road would not result in additional growth or uses that would need to access that roadway and no additional trips would result. Therefore, operational impacts related to a conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system would not occur.

XVI.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?*

Inyo County does not currently contain a Congestion Management Program (CMP) (Inyo County, 2009) and there are no designated roads or highways established by a county CMP agency.

Explanation of Checklist Determination

No Impact. As Inyo County does not have a CMP, impacts related to conflict with an applicable CMP would not occur, and this topic will not be evaluated in the EIR.

XVI.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?*

The nearest airport to NHD2, the LAA Realignment, and the Cactus Flats Road Realignment is Lone Pine Airport, which is approximately 25 miles north of these proposed Project elements. The closest distance any proposed borrow site location comes to an airport is approximately ten miles (from Lone Pine Airport and Porter Ranch Airport).

Explanation of Checklist Determination

No Impact. Access to the new Dam, realigned LAA, and realigned Cactus Flats Road portions of the Project site by construction crews and LADWP employees would require ground transportation only, and as such, air traffic demand would not be created or affected by the new Dam. The Project site is not within any airport land use planning area and is not subject to any height restrictions due to aircraft flight patterns. Access to the proposed borrow sites by construction crews would require ground transportation only. No air traffic demand would be created or affected by mining activities occurring at the proposed borrow sites. Therefore, impacts related to a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks would not occur, and this topic will not be evaluated in the EIR.

XVI.d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

According to the Inyo County General Plan and the Inyo County Regional Transportation Plan, US-395, which is within the vicinity of the Project site, is the major transportation corridor that passes through the

County (Inyo County, 2001; Inyo County Local Transportation Commission, 2009). Truck traffic, which includes trucks associated with the shipping of freight and mining materials, and recreational traffic, are the largest source of vehicles through this corridor. Inyo County contains a variety of resource mines, and trucks associated with the transport of these materials travel also along local roadways such as Cactus Flats Road in addition to US-395. Cactus Flats Road at US-395 currently features an unprotected turn, and there is no turning lane for vehicles leaving Cactus Flats Road and turning left to US-395. The portion of US-395 between the communities of Olancha and Cartago is currently operating at LOS D (Caltrans, 2010), which means that there is enough congestion that the roadway performs below the Inyo County standard of LOS C.

Explanation of Checklist Determination

Potentially Significant Impact. Large equipment for construction of NHD2, the LAA Realignment, and the Cactus Flats Road Realignment including construction trailers, would travel to construction staging areas in the Project site. To ensure safety, trailers which are hauling large and oversized equipment would be subject to an oversized or overweight permit issued by Caltrans and would be subject to safety regulations and any other requirements of that permit. In addition, these loads are typically accompanied by pilot vehicles for additional safety and transport of this equipment would generally be limited to the start and end of the construction phase. The majority of construction traffic would result from large trucks carrying fill materials from borrow sites to the Project. It is expected that traffic from the potential borrow sites, except those located near the NHR would travel along US-395 and then would travel along Cactus Flats Road to the Project site. Large trucks leaving the Project site to pick up additional fill material at borrow sites for the construction of the new Dam may result in a potential traffic hazard at the US-395/Cactus Flats Road intersection during construction.

Cactus Flats Road would be constructed in accordance with the requirements of the Inyo County Road Department's standard for roadways. Long-term hazards with the realignment would not be significant since the proposed design does not feature any sharp turns to steep grades that may pose a hazard to vehicles travelling along the improved section of roadway. In addition, the realigned Cactus Flats Road would not substantially alter the traffic patterns or number of trips for the roadway because no additional growth would occur as a result of the proposed Project; the realigned portion of Cactus Flats Road would not increase the capacity of the roadway, and no intersections will be impacted by the realignment as improvements would be isolated along a rural stretch of the roadway. However, potential impacts may occur during construction as a result of large vehicles navigating the unprotected intersection of Cactus Flats Road and US-395. Therefore, construction impacts related to an increase in hazards due to a design feature may be potentially significant, and this topic will be evaluated further in the EIR.

Maintenance and operations of the new Dam, the realigned LAA, and the realigned Cactus Flats Road would not involve further modifications of local roads. Therefore, operational impacts related to an increase in hazards due to a design feature would not occur.

XVI.e. Result in inadequate emergency access?

Emergency responders utilize US-395 and the paved and unpaved roads in the Project area in the event of an emergency. In addition, agencies like the California Highway Patrol have helicopters and fixed-wing aircraft to provide emergency support to rural and isolated parts of Inyo County, including people utilizing the recreational off-road vehicle trails located in the Inyo County, or construction workers associated with various types of development such as solar farms and resource mining. Access to the existing Dam and LAA is maintained by restricted access roads.

Explanation of Checklist Determination

Less Than Significant Impact. Access to the portion of the Project site that would include NHD2 and the realigned LAA and Cactus Flats Road involves US-395 and Cactus Flats Road or North Haiwee Road. Trucks traversing along the roadways to bring fill material for the new Dam may result in increased traffic along major arterials utilized by first respondents. However, during construction, there would not be temporary

closures of either US-395 or Cactus Flats Road. In addition, the intersections of US-395 and Cactus Flats Road or North Haiwee Road are designed to allow for enough space for two vehicles to cross, which would allow an emergency responder to pass even if construction crews were transporting material. Further, construction activities would not be located along the Project site access points, which would allow for Project site access to be maintained for emergency egress and ingress. The existing Dam and new Dam as well as the existing LAA and realigned LAA are several hundred feet from Cactus Flats Road, and heavy equipment used during the construction period would not be located along the roadway. Construction activities would therefore not create limited access along Cactus Flats Road. In addition, a temporary bridge will be constructed to allow for material to be transported across the existing LAA for the construction of the realigned LAA, which would temporarily provide additional access to the Project site. Therefore, impacts related to inadequate emergency access would be less than significant, and this topic will not be evaluated in the EIR.

XVI.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?

The Inyo County Collaborative Bikeways Plan identifies several local roadways and highways as proposed Class II or III bicycle facilities, including US-395 and SR-136 (Inyo County, 2008). There are no alternative transportation programs associated with LADWP use of the NHR or the LAA since these sites are generally unmanned and are located in a rural and relatively isolated portion of Inyo County. Although public transit currently serves some of the urban parts of Inyo County, such as the town of Bishop, it does not extend to the more remote parts of the County such as the Project site (Inyo County, 2001).

Explanation of Checklist Determination

Potentially Significant Impact. The existing Dam and existing LAA segment to be realigned are located within a rural and sparsely-populated portion of Inyo County, approximately two miles from US-395 via Cactus Flats Road or approximately one mile from US-395 via North Haiwee Road. There are no alternative transportation features, such as bus turnouts, or pedestrian and bike facilities, that are located presently on-site and these features are not considered as a part of the proposed Project. Any vehicles associated with the construction of the proposed Project would be subject to all traffic regulations, which include regulations that govern vehicular traffic at marked crosswalks, bike paths, and pedestrian passages. Further, construction of the new Dam and the realigned LAA would be temporary and all proposed Project activities, aside from the transport of materials or of construction crew members, would occur on the Project site and would not result in any disruptions to transit services, bicycle lanes, or other forms of alternate transportation. In addition, proposed bicycle paths would not be affected as the new Dam and realigned LAA would not be adjacent to any of the roadways where these paths are proposed. Facilities such as the bike path along US-395 would not be directly impacted by the LAA since no physical improvements to US-395 are proposed as a part of the proposed Project.

However, the anticipated increased traffic on US-395 during construction (as it will serve as a primary haul route) could potentially affect the safety or performance of this roadway as a bicycle path. Cactus Flats Road is a partially-paved roadway in a rural portion of Inyo County and does not presently contain any alternative transportation features, such as bus turnouts, or pedestrian and bike facilities. Cactus Flats Road is not identified as an existing or proposed bicycle facility; however, it may be used as one. Construction of the realigned Cactus Flats Road would disrupt the performance of this road as a potential bicycle path. Therefore, construction impacts related to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities would not occur. However, construction impacts related to otherwise decreasing the performance or safety of these facilities may be potentially significant and, thus, this topic will be evaluated further in the EIR.

Operation of the proposed Project would have similar personnel requirements as existing conditions and would not require any public transit, bicycle, or pedestrian facilities for access. The realigned Cactus Flats Road would provide similar services to the existing Cactus Flats Road. There would be no activities at the

proposed borrow sites during operations. Therefore, operational impacts related to a conflict with adopted policies, plans, or programs supporting alternative transportation would not occur, and this topic will not be evaluated in the EIR.

4.17 Utilities and Services Systems

Would the project:

XVII.a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The Project site does not currently feature a connection to any municipal sewer system. There is one existing house associated with the operations of the existing Dam.

Explanation of Checklist Determination

No Impact. During the construction of the proposed Project, portable sanitary facilities would be provided for construction workers. A commercial operator would provide these facilities and would empty or replace the facilities on a normal schedule. The proposed Project would not construct a septic tank system or any other type of wastewater treatment system. As discussed in Section 4.13 Population and Housing, the proposed Project would cause a temporary increase in population due to construction workers relocating to the Project area. Wastewater generated by this population would require treatment. However, any wastewater that would be generated by this temporary population would be treated in compliance with all laws and regulations, including all requirements set forth by the Lahontan RWQCB.

The operation of the proposed Project would require minimal human activity for maintenance. No new habitable structures are included as part of the proposed Project. The existing housing for the NHD and NHD2 reservoir-keeper would remain, and wastewater generation would be the same as existing conditions as no new long-term employment would be generated.

Therefore, impacts that exceed the wastewater treatment requirements of the applicable RWQCB would not occur, and this topic will not be evaluated in the EIR.

XVII.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?

Water

The Inyo County Water Department and LADWP jointly manage water resources for domestic uses under the 1991 Inyo/Los Angeles Long Term Water Agreement for the Owens Valley. Inyo County, community service districts, or private systems, also provides domestic water in other parts of the county (Inyo County, 2001). In addition, ICEHSD regulates approximately 105 active public and State small drinking water systems throughout the County (ICEHSD, 2012). The existing LAA and the NHR is the major water facility in the Project area. The existing residence that is associated with the maintenance of the existing Dam has an independent water source not connected to the Project site.

Wastewater

The Project site does not currently feature a connection to any municipal sewer system for wastewater treatment. The existing residence that is associated with the maintenance of the existing Dam uses a septic system. The septic system is maintained by a local operator.

Explanation of Checklist Determination

Water

Potentially Significant Impact. Construction activities would require water usage for activities such as dust suppression. Water for these activities would be brought on-site via water trucks and no new facilities or expansions to existing facilities would be required to bring water on-site. The proposed Project would not install any type of water to support the new Dam, proposed borrow sites, or realigned Cactus Flats Road. The proposed Project includes the LAA Realignment, which would create a new LAA segment for water to flow through. The LAA is a critical infrastructure element which provides water to the City of Los Angeles, and the proposed Project would alter this infrastructure. Construction of the realigned LAA would require temporarily halting the existing LAA in order to connect the realigned LAA segment and to remove the connections to the obsolete LAA segment. Construction would be coordinated to cause minimal disruption to the flow of the LAA. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on water facilities, and this topic would be further evaluated in the EIR.

During operations, the new Dam, realigned LAA, and realigned Cactus Flats Road would be passive uses which would require minimal maintenance. The existing residence associated with the maintenance of the existing and new Dams would use the same amount of water as under existing conditions, as there would be no increase in permanent residents at this location. The realigned LAA would function similarly to the existing LAA, and would not change the capacity or function of the LAA. Therefore, operational impacts related to the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, would be less than significant, and this topic will not be evaluated in the EIR.

Wastewater

Potentially Significant Impact. During construction of the proposed Project, portable sanitary facilities would be provided for construction workers and would capture all wastewater generated. A commercial operator would provide these facilities and would empty or replace the facilities on a normal schedule. As discussed in Section XIII.a, construction of the proposed Project would require a substantial workforce (total not known at this time) to relocate to the vicinity of the Project site. This increase in resident population, though construction-related, would last multiple years. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on wastewater treatment facilities, and this topic would be further evaluated in the EIR.

Operations of the new Dam, realigned LAA, and realigned Cactus Flats Road would be passive uses which would require minimal maintenance. The existing residence associated with the maintenance of the existing and new Dams would generate the same amount of wastewater as under existing conditions, as there would be no increase in permanent residents at this location. Therefore, impacts related to the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, would not occur, and this topic will not be evaluated in the EIR.

XVII.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?*

The Project site is located in a rural and sparsely portion of Inyo County and does not have any significant type of storm water drainage facilities nor is it served by any public storm water management system.

Explanation of Checklist Determination

Potentially Significant Impact. As discussed in Section IX.c and Section IX.d, construction of the new Dam would result in earthwork and grading that alters the natural drainage patterns located on-site. In addition, the new Dam would create a large new vertical element on-site that would change existing drainage flows. Construction of the new Dam would substantially change stormwater drainage on-site, including excavation for the NHD2 foundation and construction of the new Dam itself, which would interrupt existing flows as soon as it is above the existing ground level. In addition, stockpiling and earthmoving may for the new Dam may alter drainage on-site.

Mining activities at the proposed borrow sites would include earthwork, blasting, and excavation of earth. These activities would potentially substantially alter the natural drainage patterns located on-site. The proposed borrow sites may require construction of stormwater drainage facilities to manage altered drainage patterns caused by the proposed Project. Mining activities and excavation may cause permanent changes to topography and stormwater drainage facilities may be required to manage runoff and prevent flooding off- and on-site.

Construction of the realigned LAA and Cactus Flats Road would result in earthwork and grading that alters the natural drainage patterns located on-site. Drainage conveyances such as culverts and Arizona road crossings are included in the design of the realigned Cactus Flats Road. Stormwater drainage may be required to properly handle and direct runoff occurring in the vicinity of the realigned LAA.

Therefore, impacts related to the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, may be potentially significant, and this topic will be evaluated further in the EIR.

XVII.d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Refer to Section XVII.b for water demand existing conditions. The Project site includes the LAA and NHR which are sources of water.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section XVII.b explanation of checklist determination for water. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on water supplies, and this topic would be further evaluated in the EIR.

XVII.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?*

Refer to Section XVII.b for wastewater generation existing conditions.

Explanation of Checklist Determination

Potentially Significant Impact. Refer to Section XVII.b explanation of checklist determination for wastewater. As the total potential resident population generated by the proposed Project is not known at this time, LADWP may evaluate impacts of temporary population increase on demand for wastewater treatment, and this topic would be further evaluated in the EIR.

XVII.f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Inyo County currently has five active solid waste disposal sites. The ICEHSD permits and regulates these landfills, which are operated by the Inyo County Solid Waste Management Department. The five active landfills are: Bishop-Sunland Landfill, Independence Landfill, Lone Pine Landfill, Shoshone Landfill, and Tecopa Landfill (ICEHSD, 2012). Inyo County landfills are permitted to accept construction and demolition material, including broken concrete. Although there are no known hazardous materials in the Project site (Refer to Sections VIII.b and VIII.f), there is potential for discovery of previously unidentified contaminants such as naturally occurring asbestos in rock formations (Inyo County Integrated Waste Management, 2012) and contaminated soil at abandoned and active mine sites, as well as for generation of contaminated soil during construction and mining activities. The only landfill in Inyo County permitted to accept non-friable asbestos and contaminated soil is the Bishop-Sunland Landfill (Inyo County Integrated Waste Management, 2012)

The nearest landfill is the Lone Pine Landfill, which is a Class III (non-hazardous) municipal solid waste disposal facility and is permitted to accept general residential, commercial, and industrial refuse, as well as construction and demolition debris, for disposal. The Lone Pine Landfill has a permitted daily intake of 22 tons per day with an estimated closure date in 2065 (Inyo County, 2011).

Explanation of Checklist Determination

Potentially Significant Impact. Construction of NHD2 would include the removal of a substantial amount of soil during foundation excavation. This soil may be incorporated in the new Dam's construction, depending on soil quality and final NHD2 design. Construction activities at the proposed borrow sites would primarily excavate soils for construction of NHD2; however, soil of insufficient quality would likely be excavated as well in order to access borrow materials. In addition, contaminated soils and other potential hazardous materials uncovered or generated during proposed borrow site mining would require disposal. The temporarily increased population due to construction workers for the proposed Project would also generate solid waste. The solid waste generation by the temporary resident population will be evaluated in the EIR.

The existing Cactus Flats Road would not be demolished and would not generate construction debris. However, the realigned LAA would require excavation of earth, which may be incorporated in the new Dam's construction, depending on soil quality and final NHD2 design, and in backfilling the existing LAA. In addition, demolition of the existing LAA would generate concrete debris which would require disposal. Construction of the realigned Cactus Flats Road may generate some excess soils during grading activities. Therefore, construction impacts related to a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs may be potentially significant, and this topic will be evaluated further in the EIR.

Generation of solid waste during operations of the proposed Project would be similar to existing conditions. The new Dam, realigned LAA, and realigned Cactus Flats Road would be passive uses that are not anticipated to generate solid waste. Maintenance activities may generate a minimal amount of solid waste, similar to existing conditions. Therefore, operational impacts related to a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs would be less than significant.

XVII.g. Comply with federal, state, and local statutes and regulations related to solid waste?

Refer to existing conditions in Section XVII.f. The disposal of solid waste is regulated in accordance with federal, State, and County regulations, including AB 939, the Inyo County General Plan Land Use Element, and Chapters 7.08, 7.10, and 7.11 of the Inyo County Code.

Explanation of Checklist Determination

No Impact. Construction of the proposed Project would generate typical construction wastes such as soil and debris. All five landfills in Inyo County are permitted to accept these types of wastes. Any wastes disposed of during construction would be transported and disposed of in compliance with all applicable federal, State, and local regulations and statutes. In addition to construction debris and earth, construction activities at the proposed borrow sites may generate hazardous wastes. These wastes would be disposed of in Bishop-Sunland Landfill or another appropriate facility permitted to accept these types of wastes. Haul trucks bringing hazardous wastes to these facilities would follow all applicable regulations and requirements for transport of hazardous materials. Transportation and disposal of these hazardous materials would comply with all federal, State, and local statutes and regulations. Although the population of the region would temporarily increase due to construction workers relocating for the proposed Project, any new solid waste generated by the increased population would be disposed of in accordance with all applicable federal, State, and local regulations and statutes.

As discussed in Section XVII.f, the proposed Project would generate very little solid waste during operations, and would operate similarly to existing conditions. Any solid waste generated on-site would be transported and disposed of in compliance with all federal, State, and local statutes and regulations. Therefore, impacts related to compliance with federal, State, and local statutes and regulations related to solid waste would not occur, and this topic will not be evaluated in the EIR.

4.18 Mandatory Findings of Significance

XVIII.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?*

Potentially Significant Impact. Refer to Sections 4.4 (Biological Resources) and 4.5 (Cultural Resources). The construction of the proposed Project would potentially remove habitat for special-status species as well as potential nesting sites for migratory birds. Furthermore, construction of the proposed Project site may disturb previously identified cultural resources. Therefore, impacts related to 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, may be potentially significant, and these topics will be evaluated further in the EIR.

XVIII.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, effects of other current projects, and the effects of probable future projects.)?*

Potentially Significant Impact. Refer to Sections II.e, IV.c, VII.a, VII.b, XII.c, XII.d, and XVI.a for a discussion of potential cumulatively considerable impacts associated with the proposed Project. The impacts discussed in these sections may be cumulatively considerable and therefore cumulative impacts will be studied further in the EIR for those topics carried forward.

XVIII.c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. The proposed Project would have potentially significant impacts to several resource areas, including Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Noise, Transportation and Traffic, and Utilities and Service Systems. These potential impacts require further evaluation in the EIR in order to determine their level of significance and the potential for adverse effects on human beings. Therefore, impacts related to environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly, may be potentially significant, and the topics listed above will be evaluated further in the EIR.

5 References, Acronyms, and List of Preparers

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5.2 Acronyms

AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
bgs	below ground surface
BLM	Bureau of Land Management
BMP	Best Management Practice
Caltrans	California Department of Transportation
Cal Fire	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CDCA	California Desert Conservation Area Plan
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO_2	carbon dioxide
County	County of Inyo
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSSC	California Species of Special Concern
CUP	Conditional Use Permit
CWA	Clean Water Act
dBA	A-weighted decibel(s)
DOC	California Resources Agency, Department of Conservation
DSOD	California Department of Water Resources, Division of Safety of Dams
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment
EIR	Environmental Impact Report
Envirofacts	Envirofacts Multisystem Research
Envirostor	Envirostor Database
ESA	Endangered Species Act
Existing Dam	Existing North Haiwee Dam
FE	Federally Endangered
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FONSI	Finding Of No Significant Impact
FR	Federal Register
GBUAPCD	Great Basin Unified Air Pollution Control District
Geotracker	Geotracker Database
GHG	greenhouse gases
HCP	Habitat Conservation Plan
HUC	Hydrologic Unit Code
IS	Initial Study
LAA	Los Angeles Aqueduct
LADWP	City of Los Angeles Department of Water and Power
Ldn	Day-Night Average Sound Level
LOS	Level of Service
LRA	Local Responsibility Area

LSAA	Lake and Streambed Alteration Agreement
Management Agreement	Inyo County-Los Angeles Long Term Ground Water Management Agreement
MCE	Maximum Credible Earthquake
MGS	Mohave Ground Squirrel
MOU	Memorandum of Understanding
MRP	Mining and Restoration Plan
MS4	Municipal Separate Storm and Sewer System
NCCP	Natural Communities Conservation Plan
NEPA	National Environmental Policy Act
New Dam	North Haiwee Dam No. 2
NHD	Existing North Haiwee Dam
NHD2	North Haiwee Dam No. 2
NHR	North Haiwee Reservoir
NOx	oxides of nitrogen
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
OS-40	Open Space with a 40-acre minimum size
OVLMP	Owens Valley Land Management Plan
OVPA	Owens Valley PM_{10} Planning Area
PM_{10}	particulate matter less than 10 microns
PRC	California Public Resources Code
proposed Project	North Haiwee Dam Seismic Improvement Project: NHD2, Cactus Flats Road Realignment, LAA Realignment
ROW	Right-Of-Way
RP	Rural Protection Land Use Designation
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SE	State Endangered
SHR	South Haiwee Reservoir
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining & Geology Board
SR-	State Route
SRA	State Responsibility Area
ST	State Threatened
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
US-	U.S. Highway
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
v/c	volume to capacity
WQO	Water Quality Objective

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