

APPENDIX C

Visual Impacts Assessment Technical Report

This page intentionally left blank.

VISUAL IMPACTS ASSESSMENT TECHNICAL REPORT

NORTH HAIWEE DAM NO. 2 PROJECT

Prepared for:



**Los Angeles Department of Water & Power
Environmental Affairs
111 North Hope Street, Room 1050
Los Angeles, CA 90012-2694**

Prepared by:

**Terry A. Hayes Associates Inc.
8522 National Boulevard, Suite 102
Culver City, CA 90232
(310) 839-4200**

April 2017

This page intentionally left blank.

TABLE OF CONTENTS

1 Introduction..... 1

2 Project Description 1

3 Methodology 2

 3.1 Inventory 2

 3.2 Analysis 3

4 Regulatory Framework 5

 4.1 Federal 5

 4.1.1 National Environmental Policy Act..... 5

 4.1.2 Federal Land Policy and Management Act..... 5

 4.1.3 California Desert Conservation Area Plan..... 5

 4.1.4 Bureau of Land Management 6

 4.2 State 6

 4.2.1 California Environmental Quality Act..... 6

 4.3 Regional and Local 7

 4.3.1 Inyo County 7

5 Existing Conditions..... 7

 5.1 Project Site..... 7

 5.1.1 Borrow Site 10..... 9

 5.1.2 Borrow Site 15..... 9

 5.2 Visual Resources Inventory 9

 5.2.1 Regional Setting..... 9

 5.2.2 Key Observation Points 10

 5.2.3 Landscape Scenic Quality..... 18

 5.2.4 Viewer Sensitivity..... 19

 5.2.5 Distance Zones..... 20

6 Impact Analysis..... 20

 6.1 Visual Contrast Rating and Impact Results 20

 6.1.1 Construction Impacts 26

 6.1.2 Operational Impacts..... 27

 6.1.3 Cumulative Impacts 28

7 Mitigation Measures 28

 7.1 Mitigation Measures Related to Construction Impacts..... 28

 7.2 Mitigation Measures Related to Operational Impacts..... 28

 7.3 Mitigation Measures Related to Cumulative Impacts..... 29

8 Residual Impacts After Mitigation..... 29

9 CEQA Significance Conclusions..... 29

10 NEPA Summary 30

11 References..... 30

12 List of Abbreviations and Acronyms 30

13 Preparer Qualifications..... 31

 13.1 Terry A. Hayes Associates..... 31

LIST OF FIGURES

Figure 5-1 Project Project Components at Project Site 8
Figure 5-2 KOP Locations Selected for Detailed Analysis 11
Figure 5-3 KOP 1 12
Figure 5-4 KOP 2 13
Figure 5-5 KOP 3 14
Figure 5-6 KOP 4 15
Figure 5-7 KOP 5 16
Figure 5-8 KOP 6 17
Figure 6-1 KOP 2 Visual Simulation 21
Figure 6-2 KOP 3 Visual Simulation 22
Figure 6-3 KOP 5 Visual Simulation 23
Figure 6-4 KOP 6 Visual Simulation 24

LIST OF TABLES

Table 5-1 Visual Resources Management General Public Lands 6
Table 5-2 Scenic Quality Rating 19
Table 5-3 Sensitivity Level Rating and Distance Zone..... 20
Table 6-1 Visual Contrast Rating Summary 25

APPENDIX Visual Contrasting Rating Worksheets

1 Introduction

The Visual Impacts Assessment Technical Report (Visual Study) was prepared by Terry A. Hayes Associates Inc. for the Los Angeles Department of Water and Power (LADWP) to provide the visual characterization of existing resources and to assess the proposed visual effects of the North Haiwee Dam No. 2 Project (Proposed Project). The Bureau of Land Management (BLM) is the lead agency under the National Environmental Policy Act (NEPA), and the LADWP is the lead agency under the California Environmental Quality Act (CEQA). As lead agencies, BLM and LADWP are required to determine the potential for the Proposed Project to result in significant impacts, to implement measures to minimize harm where potentially significant effects occur, and to develop alternatives to reduce significant impacts. The results of this Visual Study, and environmental analysis as a whole, will be taken into consideration as part of the decision-making process whether to approve the Proposed Project. This Visual Study identifies and evaluates key visual resources in the area surrounding the Project Site and determines the degree of visual impacts that could occur from the Proposed Project on the existing landscape and built environment. This Visual Study evaluates potential aesthetic impacts associated with the Proposed Project and provides a visualization of the Proposed Project elements and the surface viewsheds from selected points within and near the Project Site.

2 Project Description

LADWP proposes to improve the seismic reliability of the North Haiwee Reservoir (NHR) located in the Owens Valley, California, approximately 150 miles north of Los Angeles. LADWP has prepared a draft joint Environmental Impact Report/Environmental Assessment (EIR/EA) in cooperation with BLM. The purpose of the North Haiwee Dam No. 2 Project is to construct North Haiwee Dam No. 2 (NHD2 or new Dam) to the north of North Haiwee Dam (NHD or existing Dam), which impounds NHR. Seismic studies have found that NHD would have potential to fail during a Maximum Credible Earthquake event, the largest possible earthquake which could happen. NHD2 would serve to improve the seismic reliability of NHR in the event that the existing Dam is damaged or breached by an earthquake event, thereby ensuring public health and safety and securing the City of Los Angeles' water source. The Proposed Project would provide sufficient seismic reliability for NHR, maintain the function of an essential water conveyance infrastructure component for the City of Los Angeles, and protect local populations from a hazardous flooding event. The Proposed Project would also create a basin between NHD2 and NHD, allowing LADWP to divert water from the Los Angeles Aqueduct (LAA), through the basin, and through a notch in NHD into NHR.

This technical report includes the evaluation of the No Project Alternative, as well as two Build Alternatives: the Cement Deep Soil Mixing (CDSM) Alternative and the Excavate and Recompact Alternative. The Proposed Project consists of the following components, which are common to both Build Alternatives:

- Construction of the NHD2 components: NHD2, the east and west berms, and grading of the basin area between NHD and NHD2;
- Realignment of Cactus Flats Road;
- Realignment of the LAA and construction of the diversion structure and temporary bridge;
- Construction of the diversion channel and NHD modifications;
- Excavation of materials from Borrow Site 10¹; and
- Purchase and hauling of materials from Borrow Site 15.

¹ Borrow Site 10 refers to the LAA Excavation Area and Borrow Site 15 refers to the existing mine in Keeler in the Draft EIR/EA.

The differentiating component between the two Build Alternatives is the method of construction of the foundation of NHD2, which affects the timeline and construction efforts of the NHD2 components and use of Borrow Sites 10 and 15. Construction of the remaining Proposed Project components is the same between the two Build Alternatives, except for the timeline of the diversion channel and NHD modifications.

Refer to Chapter 1.0, Introduction and Chapter 2.0, Project Description and Alternatives of the Draft EIR/EA for the full description of the Proposed Project, including purpose and need, objectives, regulatory requirements, alternatives, construction, and operations. Borrow Site 10 refers to the LAA Excavation Area and Borrow Site 15 refers to the existing mine in Keeler in the Draft EIR/EA.

3 Methodology

The visual character and quality at the Project Site and its vicinity were evaluated using the BLM Visual Resource Management (VRM) Manual to determine the extent of potential direct, indirect, cumulative impacts in both the short- and long-term for each of the Project Alternatives. The BLM VRM system provides the methodology to identify and evaluate scenic values to determine the appropriate levels of management. It also provides the methodology to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. The BLM VRM system consists of two stages, identifying inventory, known as the Visual Resource Inventory (VRI), and analyzing Proposed Project effects on the visual environment, known as the Visual Resource Contrast Rating (VCR) (BLM Handbook, 1986). This Visual Study was prepared to identify the VRI as required by BLM and characterize the visual resources that would potentially be affected by construction and operation of the Proposed Project. As a lead agency under NEPA, BLM must use the VCR to determine the potential for the Proposed Project to result in significant impacts, and consider mitigation measures and alternatives capable of avoiding significant impacts. The resulting environmental effects of the Proposed Project will then be taken into consideration as part of its decision-making process for whether to implement the Proposed Project.

3.1 Inventory

The inventory stage involves identifying the visual resources of an area and assigning them to inventory classes using BLM's VRI process. The process involves rating the visual appeal of a tract of land, measuring public concern for scenic quality, and determining whether the tract of land is visible from travel routes or observation points. The scenic quality score ranges from zero to 19, with the higher number being the most valuable. This score, along with distance delineation, is then used to categorize BLM-managed lands into classes. The results of the VRI become an important component of how BLM lands will be used and allocated for different purposes, and how they are developed through public participation and collaboration. Visual values are considered throughout the VRI process, and the visual resources are then assigned to management classes with established objectives (BLM Handbook, 1986):

- Class I: Preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.
- Class II: Retain the existing character of the landscape. The level of change to the characteristic landscape should be low.
- Class III: Partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
- Class IV: Provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

As summarized above, the inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. The scenic quality evaluation is a measure of the visual appeal of a tract of land. In the VRI process, visual resources are given an A, B, or C rating based on the apparent scenic quality which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications (BLM Handbook, 1986). During the rating process, each of these factors is ranked on a comparative basis with similar features within the physiographic province, a geographic region with a characteristic geomorphology, and often specific subsurface rock type or structural elements. The evaluation of scenic quality assigns the greatest scenic value to areas that either have the most variety or have the most similarities in make-up (harmonious composition to the natural landscape). Visual resources are assigned high, medium, or low sensitivity levels by analyzing the following factors:

- **Type of Users.** Sensitivity will vary with the type of users. Recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.
- **Amount of Use.** Areas seen and used by large numbers of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increase.
- **Public Interest.** The visual quality of an area may be of concern to local, state, or national groups. Indicators of this concern are usually expressed in public meetings, letters, newspaper or magazine articles, newsletters, land-use plans, etc. Public controversy created in response to proposed activities that would change the landscape character should also be considered.
- **Adjacent Land Uses.** The interrelationship with land uses in adjacent lands can affect the visual sensitivity of an area. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be visually sensitive.
- **Special Areas.** Management objectives for special areas such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Areas of Critical Environmental Concern, frequently require special consideration for the protection of the visual values. This does not necessarily mean that these areas are scenic, but rather that one of the management objectives may be to preserve the natural landscape setting. The management objectives for these areas may be used as a basis for assigning sensitivity levels.
- **Other Factors.** Consider any other information such as research or studies that includes indicators of visual sensitivity.

The delineation of distance zones are subdivided into three distance zones based on relative visibility from travel routes or observation points. The three zones are: foreground-middleground, background, and seldom seen. The foreground-middleground zone includes areas seen from highways, rivers, or other viewing locations which are less than three to five miles away. Areas seen beyond the foreground-middleground zone but usually less than 15 miles away are in the background zone. Areas not seen as foreground-middleground or background (i.e., hidden from view) are in the seldom seen zone (BLM Handbook, 1986).

3.2 Analysis

The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. To evaluate potential visual effects, contrast ratings are assigned to each view by considering the following factors: distance, angle of observation, length of time the Project is in view, relativity to size or scale, season of use, light conditions, recovery time, spatial

relationship, and atmospheric conditions. The degree of visual change is measured through a contrast rating established in the BLM VRM Manual 8431 (BLM Handbook, 1986). The VCR process is used for this analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. The analysis is to be used as a guide for resolving visual impacts. The contrast rating system is a systematic process used by BLM to analyze potential visual impact of proposed projects and activities. For purposes of this analysis, the degree to which the Proposed Project impacts the visual quality of a landscape depends on the visual contrast created between the Proposed Project and the existing landscape. The contrast is measured by comparing the project features with the major features in the existing landscape.

The following steps are used to implement the VCR process (BLM Handbook, 1986):

- Define project description and objectives
- Select Key Observation Points (KOP)
- Prepare Visual Simulations
- Determine Project Contrast

Determining the degree of contrast is the key factor in identifying whether the Proposed Project would result in a visual impact. The following general criteria are to be used when rating the degree of contrast:

- None - The element contrast is not visible or perceived.
- Weak - The element contrast can be seen but does not attract attention.
- Moderate - The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong - The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

For purposes of this analysis, when the degree of contrast is weak or not perceived, the impact of the Proposed Project would not be significant. When the degree of contrast is determined to be moderate or strong, the Proposed Project would result in a visual impact and mitigation measures would be required to reduce the impact to not adverse. Visual contrast rating worksheets were completed during field reconnaissance and provided a measure of the degree of contrast that would potentially occur from the introduction of the Proposed Project components into the existing landscape. These sheets are included in the appendix. The following factors should be considered when applying the criteria:

- Distance - The contrast created by a project usually is less as viewing distance increases.
- Angle of Observation - The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.
- Length of Time the Project is in View - If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, as from an overlook, the contrast may be very significant.
- Relative Size or Scale - The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is place.
- Season of Use - Contrast ratings should consider the physical conditions that exist during the heaviest or most critical visitor use season, such as snow cover and tree defoliation during the winter, leaf color in the fall, and lush vegetation and flowering in the spring.

- Light Conditions - The amount of contrast can be substantially affected by the light conditions. The direction and angle of lighting can affect color intensity, reflection, shadow, form, texture, and many other visual aspects of the landscape. Light conditions during heavy periods must be a consideration in contrast ratings.

For the purpose of ensuring compliance with the BLM's Desert Renewable Energy Conservation Plan Land Use Plan Amendment (DRECP LUPA), the Proposed Project was assessed to ensure:

- The Proposed Project identifies conservation management actions (CMAs); or
- If no management action is identified, the actions are consistent with the terms, conditions, and decisions of the Proposed Plan.

4 Regulatory Framework

4.1 Federal

The following federal laws and regulations pertain to the protection of visual resources. The guidelines under these laws were used in this analysis to determine potential effects of the Proposed Project on the visual aesthetic environment.

4.1.1 National Environmental Policy Act

NEPA was enacted "To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality." Sections 101b and 102-2 of NEPA require that it is the responsibility of the federal government to provide Americans safe, healthy, aesthetically and culturally pleasing surroundings for federal actions significantly affecting the quality of the visual landscape (NEPA, 1970).

4.1.2 Federal Land Policy and Management Act

The Federal Land Policy and Management Act of 1976 (FLPMA) established BLM as the jurisdictional agency for expanses of land in the west to be managed as multi-use lands. Section 102(a) requires that "public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values. Section 201(a) requires the maintaining of an inventory of scenic resources, and Section 505(a) requires terms and conditions to minimize damage to the scenic and aesthetic values (BLM FLPMA, 2001).

4.1.3 California Desert Conservation Area Plan

The Proposed Project is within the Sierra subregion of the California Desert District (CDD). Chapter 3 of the CDD Area Plan covers the Recreation Element and identifies a Visual Resources Management Program that require visual resource management objectives in the multiple-use class guidelines and the evaluation of proposed actions to determine the extent of change to a landscape and specification of appropriate design or mitigation measures (CDD Area Plan, 1981).

The DRECP LUPA, approved by BLM in September 2016, is an amendment to the California Desert Conservation Action Plan. The key objectives of the DRECP are to streamline renewable energy development and to provide for long-term conservation and management of special-status species, vegetation, and other resources within the DRECP Plan area. The DRECP LUPA implements its objectives through specific CMAs, including implementing four VRM classes through which visual resources will be managed. Descriptions of the objectives of each VRM class are listed in Table 5-1. The DRECP requires coordination to ensure VRM classes consider cultural resources and tribal consultation to include landmarks of cultural significance to Native Americans (LUPA-CUL-7). Some CMAs apply across the entirety of the DRECP Plan area, while others apply only to specific land uses. The consistency of the Proposed Project with the DRECP CMAs is provided in Appendix B of the Draft EIR/EA.

TABLE 5-1
VISUAL RESOURCES MANAGEMENT GENERAL PUBLIC LANDS

VRM Class	Established Objectives
Class I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
Class II	The objective to this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
Class III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
Class IV	The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Source: U.S. Bureau of Land Management, Desert Renewable Energy Conservation Plan Land Use Plan Amendment

4.1.4 Bureau of Land Management

BLM manages land under its jurisdiction according to the goals and policies established in the BLM Manual 8410, adopted in 1986, and described above in Chapter 3 as the basis for methodology for this Visual Study.

4.2 State

The following State laws and regulations pertain to the protection of visual resources. The guidelines are established under the federal jurisdiction of BLM.

4.2.1 California Environmental Quality Act

CEQA was adopted in 1970 and incorporated in the Public Resources Code Sections 21000-21177. Its purposes are to: inform about the potential significant environmental effects of proposed activities; identify ways that environmental damage can be avoided or significantly reduced; require changes in projects through the use of alternatives or mitigation measures when feasible; and, publicly disclose the reasons why a project was approved if significant environmental effects are involved. CEQA Guidelines

questions relevant to the visual analysis for the Proposed Project address effects to scenic resources and to the visual character of the area.

4.3 Regional and Local

The following regional and local laws and regulations pertain to the protection of visual resources. The Proposed Project is under the local jurisdiction of Inyo County.

4.3.1 Inyo County

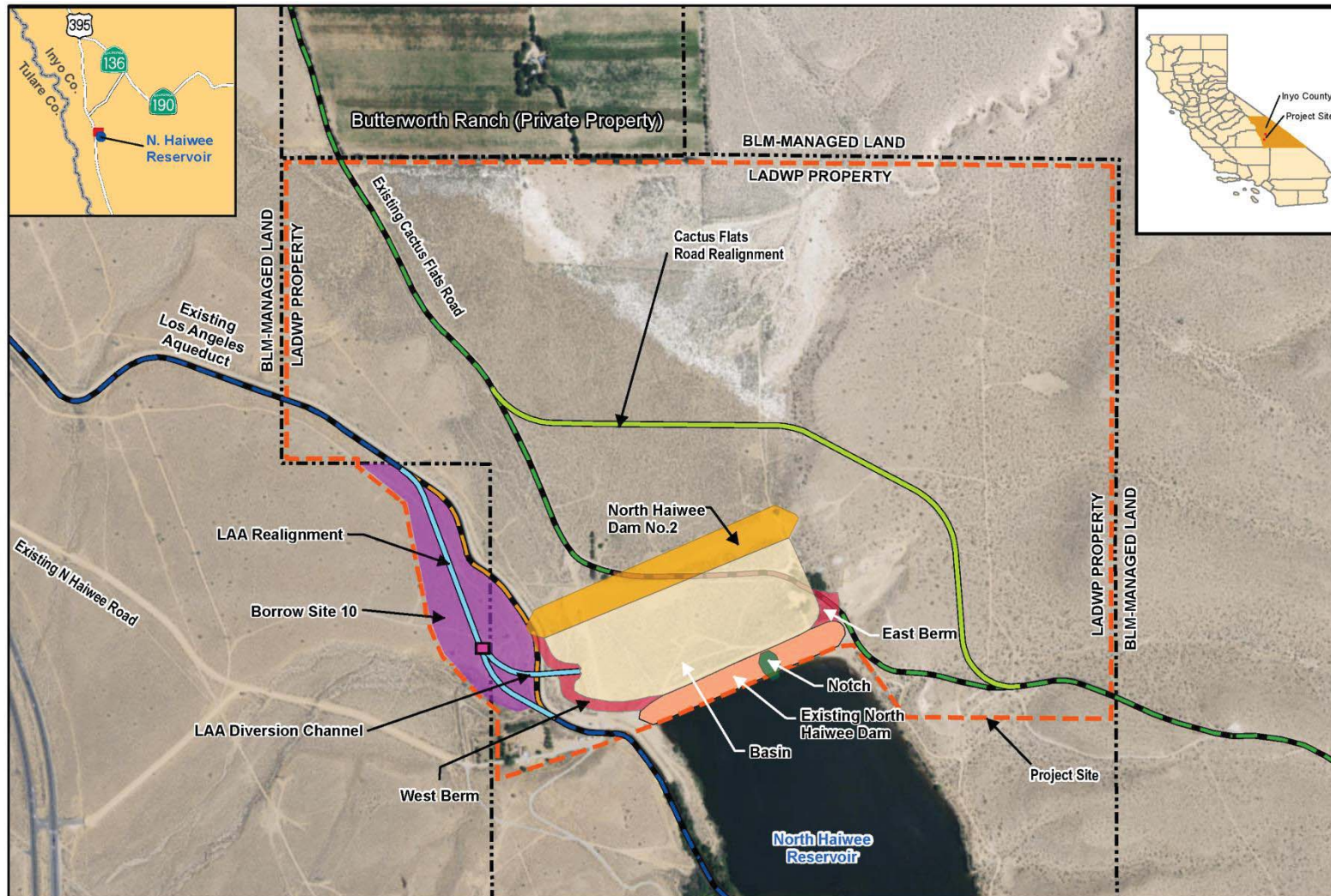
Section 6.7 of the Conservation/Open Space Element of the Inyo County General Plan addresses visual resources. The goal of the Visual Resource Section is to preserve and protect resources throughout the County that provide a unique visual experience and quality of life for County residents. Policies relevant to the Proposed Project include the re-vegetation of slopes within 60 days of grading (Inyo County General Plan, 2013).

5 Existing Conditions

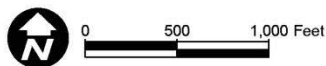
5.1 Project Site

The Proposed Project consists of the NHD2, including the Basin and East and West Berms, the LAA Realignment and diversion structure, the Cactus Flats Road Realignment, diversion channel and NHD modifications, and Borrow Sites 10 and 15. All of these Project components are in the same general vicinity, except for Borrow Site 15, which is located approximately 21 miles to the northeast of the Project Site. For purposes of clarity, the study area, or Project Site, will be defined as the area including all of the Project components other than the borrow sites. Figure 5-1 shows the location of the Proposed Project, including the Proposed Project components, and the surrounding study area for the Project Site. The discussion of the study area for the borrow sites will be defined by the name of the site. For example, Borrow Site 15 will be referred to as Borrow Site 15. Furthermore, the scope of Borrow Site 15 evaluated in the Visual Study is limited to the haul routes associated with this borrow site; Borrow Site 15 would remain the same as under existing conditions and materials would be purchased from the site. No new mining would occur.

The Project Site is located approximately 1.1 miles southeast of the community of Olancho in Inyo County, California and is approximately 393 acres in size. The Proposed Project is located approximately 0.6 miles east of United States Route (US) 395, which has been designated as a scenic highway by Inyo County (Eastern Sierra Scenic Byway) and is an eligible State Scenic Highway (not officially designated). The Project Site is located approximately 1.5 miles to the west of the Coso Range Wilderness Area, approximately 7.5 miles to the east of Inyo National Forest, approximately 12 miles south of Owens Lake, approximately 17 miles to the east of Sequoia National Park, and 100 miles to the west of Death Valley National Park.



Source: Esri Maps & Data, 2017; Prepared By: AECOM, 2017.



- LAA Diversion Structure
- Existing LA Aqueduct to Be Removed
- Existing LA Aqueduct to Remain in Place
- Existing Cactus Flats Road to Be Removed
- Existing Cactus Flats Road to Remain in Place

Figure 5-1

Proposed Project Components at Project Site

The Project Site is located approximately 25 miles to the south of Lone Pine and approximately 183 miles to the northeast of the City of Los Angeles. The Project Site is within the U.S. Geological Survey (USGS) 7.5-minute series, Haiwee Reservoirs, topographic quadrangle. The topography of the Project Site consists of primarily younger alluviums with older outcroppings from the Coso Formation in the Tertiary period. Elevation ranges between approximately 3,725 feet above mean sea level (MSL) to approximately 3,825 feet above MSL. The Project Site is located on lands managed and owned by BLM and LADWP. The Project Site is surrounded on the east and west by BLM-managed lands, on the south by LADWP lands, and on the north by BLM-managed and private lands. Beyond the BLM-managed lands to the west is the South Sierra Wilderness of Inyo National Forest. Owens Valley is located to the north, and the Coso Range Wilderness is located to the east and northeast. China Lake Naval Weapons Center is located further to the east and southeast, and Rose Valley and the Sacatar Trail Wilderness are located to the south. US-395 runs approximately 0.4 miles west of the Project Site and California State Route (SR) 190 is located approximately 3.4 miles north of the Project Site.

5.1.1 Borrow Site 10

Borrow Site 10 is located on the west side of the LAA, adjacent to the site of the new Dam. A portion of Borrow Site 10 is within the footprint of the realigned LAA. Borrow Site 10 is approximately 0.4 miles east of US-395. The soils in Borrow Site 10 consist of primarily younger alluviums, and the area is located 3,810 feet above MSL, which is approximately 50 feet above the proposed locations of the new Dam and the realigned Cactus Flats Road. Borrow Site 10 is at approximately the same altitude as US-395 and, therefore, visible to travelers along US-395. The landform surrounding Borrow Site 10 is covered with desert chaparral, Joshua Trees, and occasional cacti. Cultural modifications include disturbed areas from dirt roads which provide breaks in the visual lines of the landscape.

5.1.2 Borrow Site 15

Borrow Site 15 is located east of SR-136 in the foothills of the Inyo Mountains forming the western boundary of Death Valley National Park. Borrow Site 15 is located approximately 21 miles northeast of the Project Site and approximately 0.75 miles east of SR-136. Borrow Site 15 is located within a box canyon due east of Swansea, that is only accessible and visible from the south. The borrow site is accessed via an unnamed dirt road off of SR-136. As an existing mine, Borrow Site 15 itself would not be altered by the Proposed Project, which would be limited to truck travel to and from this location.

5.2 Visual Resources Inventory

5.2.1 Regional Setting

The visual setting is framed by the silhouette of varying triangular ridgelines appearing distinctly against the sky and rolling topography of the adjacent, scrub-covered transitional slopes. The visual texture of the Project vicinity is moderately coarse, with varying vegetation densities including smooth sandy patches formed by dirt roads and breaks in the vegetation. Vegetation communities within the Project site and surrounding area include Fourwing Saltbush Scrub, Allscale Scrub, Joshua Tree Woodland, and Tamarisk Thicket. An ephemeral wash intersects the northeastern portion of the Project Site and is dominated by the invasive prickly Russian thistle. Colors in this landscape tend to be muted, with tans, grays, and less frequent greens dominating the landscape. Though generally covered by high desert vegetation, the undulating topography throughout the Project vicinity and the Owens Valley is occasionally interrupted by existing access roads and disturbed soil. In addition to dirt access roads, several cultural modifications encroach the Project Site and its vicinity, most notably US-395, and multiple utility transmission lines.

5.2.2 Key Observation Points (KOP)

To better understand existing conditions and potential viewer response, KOPs were selected based on a composite evaluation of the Proposed Project and surrounding landscape. Six (6) KOPs were selected for

representation of existing conditions (Figure 5-2). Four (4) KOPs (KOPs 2, 3, 5, and 6) were then identified which best represented the visual effects of the Proposed Project and simulations were created to characterize the level of contrast and change.

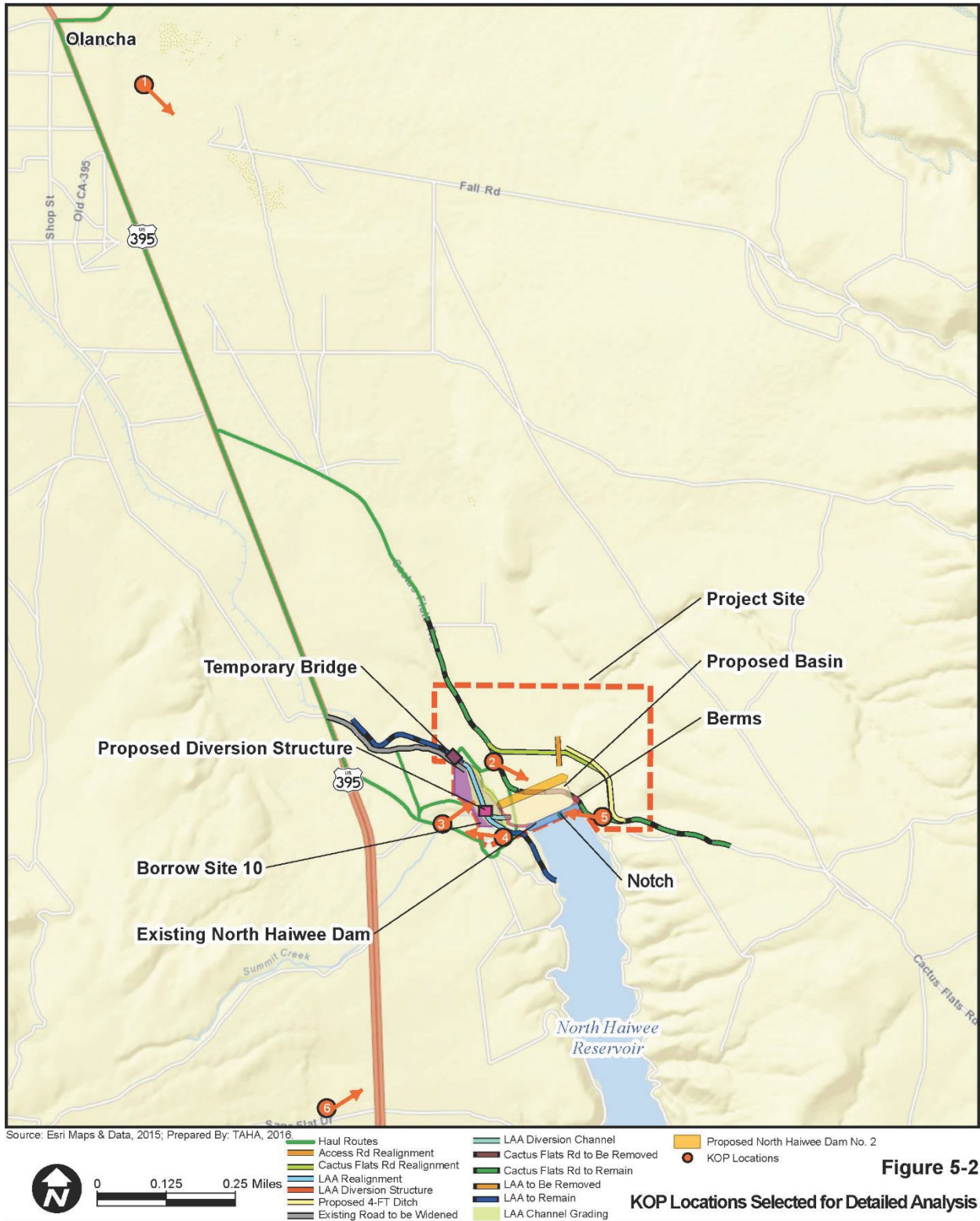
KOP 1. KOP 1 is located near the SR-190 and US-395 junction, near the community of Olancho (Figure 5-3). The KOP is located approximately 3.75 miles north of the Project Site. The directional view is south toward the Project Site. Seen from this position are immediate foreground and foreground-middleground views of the green farm areas (including Butterworth Ranch) that are located north of the Project Site. The Project Site is not visible from KOP 1 due to topography. A label in Figure 5-3 shows the approximate location of the Project Site. Also visible in the foreground are steel utility poles which run in a north-south direction and utility lines on wood poles running in an east-west direction, both of which are a common visual element in the surrounding landscape. The position of this KOP offers a view of the Sierra Nevada mountain range to the west and the Inyo Mountains to the east.

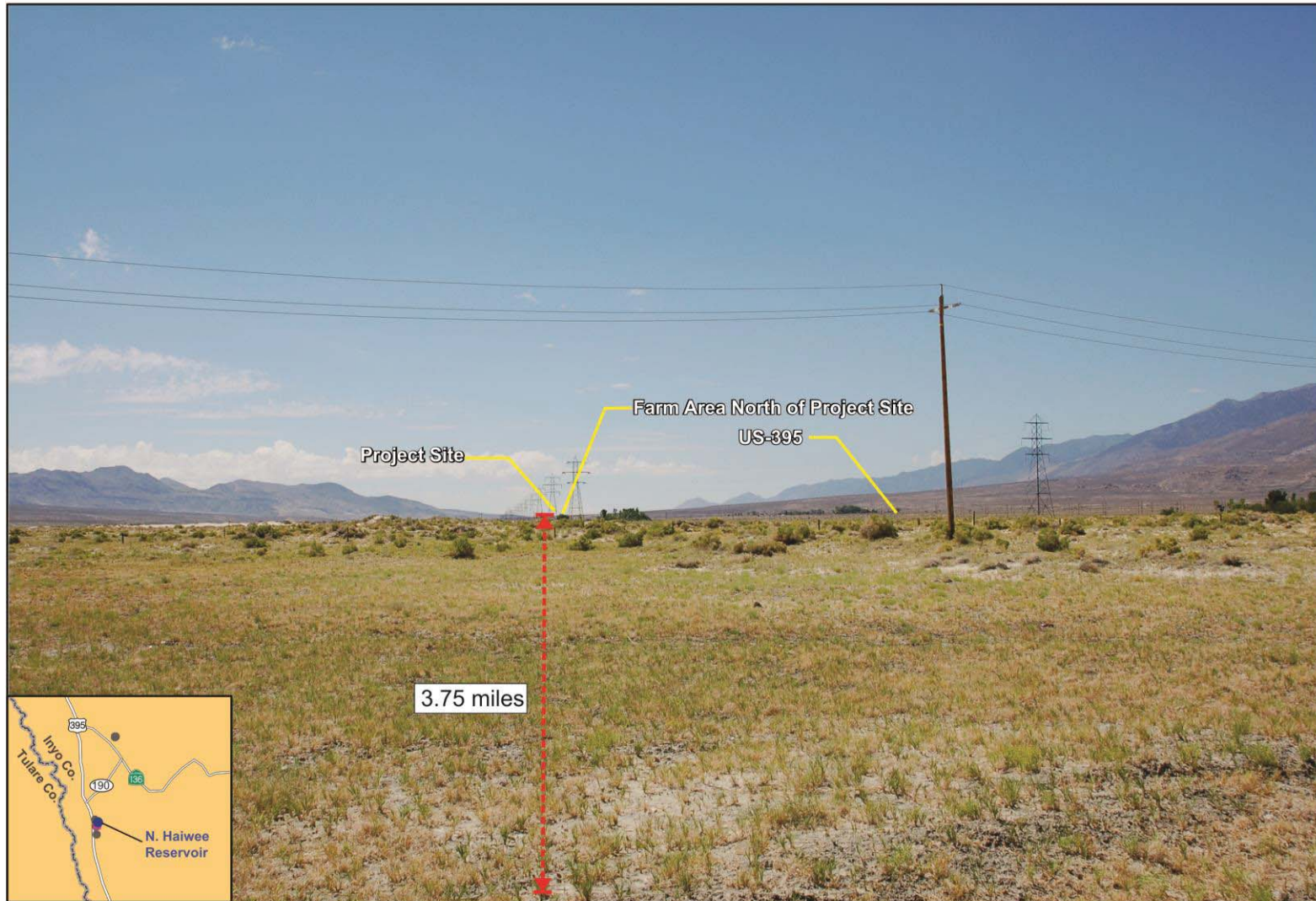
KOP 2. KOP 2 is located at the northern end of the Project Site on the north side of Cactus Flats Road (Figure 5-4). The directional view is southeast toward the existing Dam and new Dam site. This KOP provides the closest area from the north where the existing Dam is discernible, approximately 0.2 miles away from the Project components. There are existing residences further to the north, but the existing Dam is not visible from those residences. Seen from this position are immediate foreground and foreground-middleground views of the existing Dam. The LAA and Borrow Site 10 are located on the elevated terrain in the right of the Figure 5-4. Also visible in the foreground is an outcropping of trees which are just north of the eastern end of the existing Dam. The KOP 2 viewpoint is not located on BLM-managed land, but the viewshed includes BLM-managed land rated as VRM Class II.

KOP 3. KOP 3 is located along Haiwee Road, east of US-395 (Figure 5-5). The KOP is located approximately 0.5 miles west of the Project Site. The directional view is east toward the Project Site, which is minimally visible due to the topography. Seen from this position are immediate foreground and foreground-middleground views of areas immediately surrounding NHR and the Coso Wilderness Area. The KOP 3 viewpoint is located on BLM-managed land rated as VRM Class II and the viewshed includes BLM-managed land rated as VRM Classes II and III.

KOP 4. KOP 4 is located at the end of Haiwee Road near the house adjacent to the existing Dam (reservoir keeper's residence). The KOP is located approximately 0.20 miles west of the Project Site and approximately 0.10 miles west of Borrow Site 10 (Figure 5-6). The directional view is west toward US-395, which is not visible due to the topography. Seen from this position is a foreground-middleground view of the Inyo National Forest, which is located approximately seven miles away. Also visible in the foreground are utility poles which run in a north-south direction and are a common visual element in the surrounding landscape. The KOP 4 viewpoint is located on BLM-managed land rated as VRM Class II and the viewshed includes BLM-managed land rated as VRM Classes II and III.

KOP 5. KOP 5 is located along Cactus Flats Road, just east of NHR (Figure 5-7). The KOP is located at the southeastern boundary of the Project Site, approximately 0.7 miles from the Project components. The directional view is northwest toward the Project Site, existing and new Dam locations. Seen from this elevated position is an unobstructed immediate foreground and foreground-middleground views of the existing Dam, NHR, and reservoir keeper's residence. Trucks traveling along US-395 and the Sierra Nevada Range, containing Inyo National Forest, are visible in the distance. The KOP 5 viewpoint is not located on BLM-managed land, but the viewshed includes BLM-managed land rated as VRM Classes II and III.



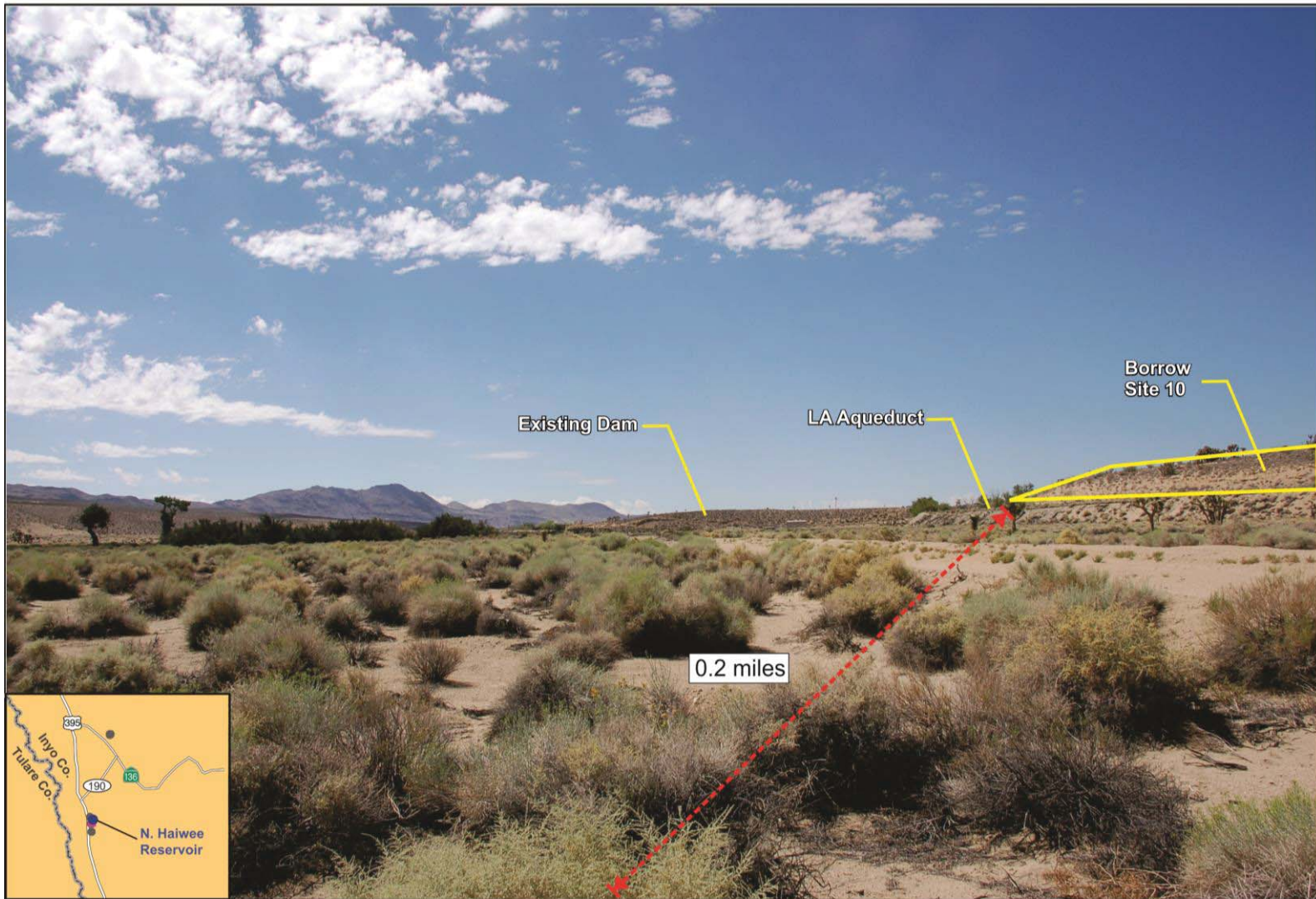


Source: TAHA 2015.



View looking south towards new Dam
from SR-190/US-395 (Olancha)

Figure 5-3
KOP 1



Source: TAHA 2015.



View looking south towards new Dam from
Cactus Flats Road (south of farm)

Figure 5-4
KOP 2

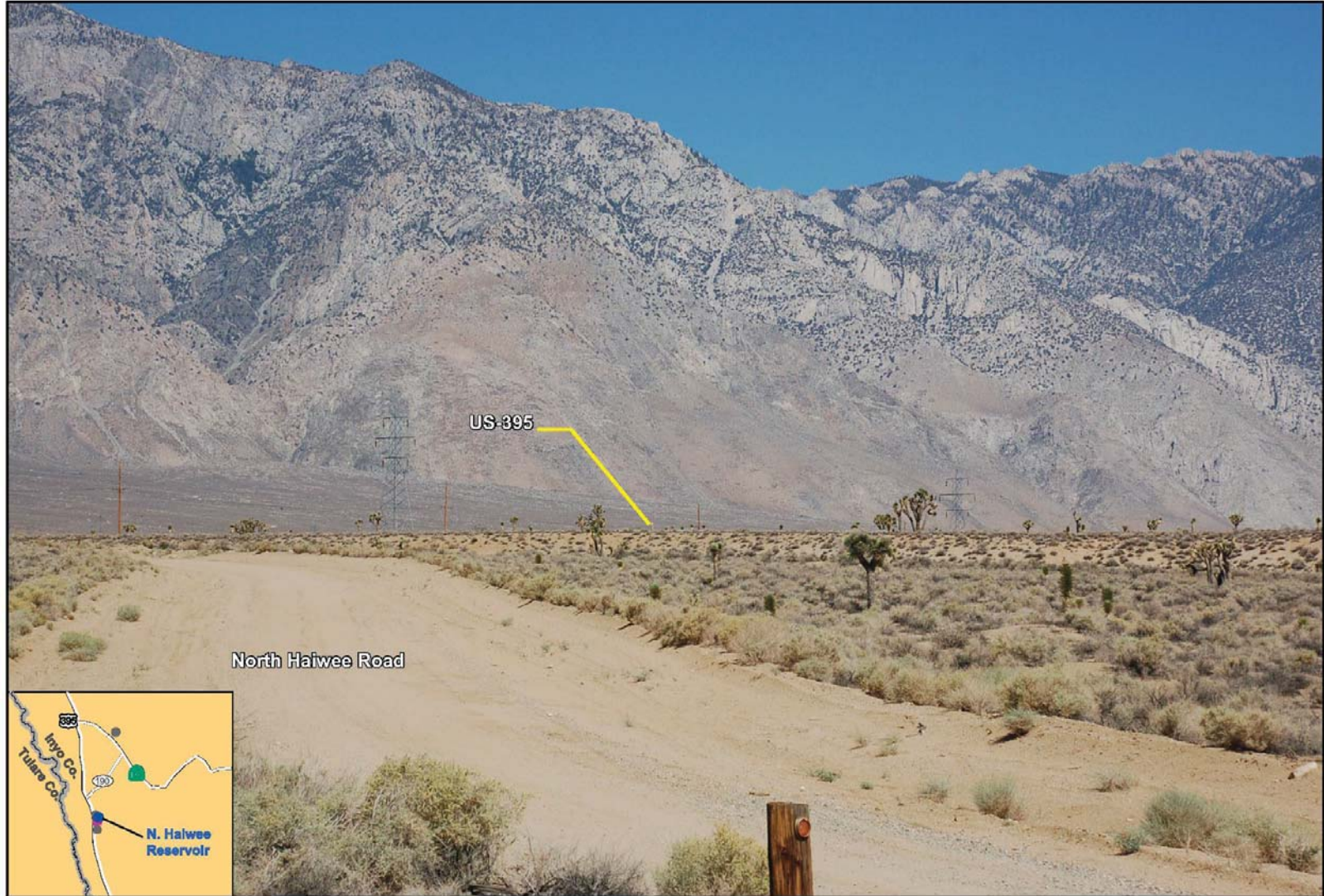


Source: TAHA 2015.



View looking southeast toward North Haiwee Reservoir
from North Haiwee Road

Figure 5-5
KOP 3

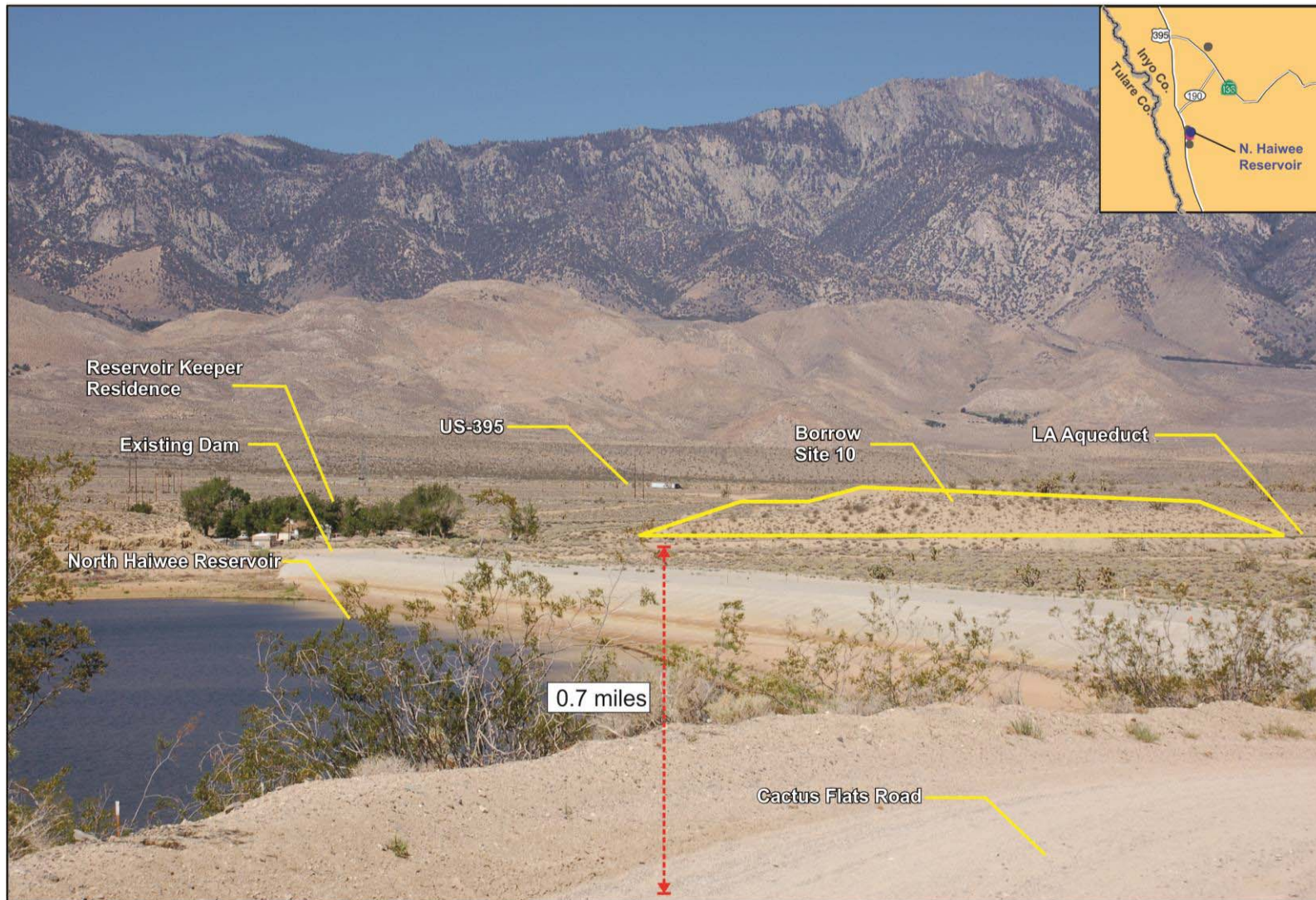


Source: TAHA 2015.



View looking west towards US-395
from North Haiwee Road

Figure 5-6
KOP 4



Source: TAHA 2015.



View looking west toward existing Dam
from Cactus Flats Road

Figure 5-7
KOP 5



Source: TAHA 2015.



View looking east toward new Dam and
Borrow Site 10 from Sage Flats Road

Figure 5-8
KOP 6

KOP 6. KOP 6 is located along Sage Flats Road, approximately 0.75 miles west of US-395 (Figure 5-8). The KOP is located approximately 3.5 miles south and 2 miles west of the Project Site. The directional view is east toward the existing Dam and Project Site. Seen from this elevated position are unobstructed immediate foreground and foreground-middleground views of NHR and the Project Site. Cactus Flats Road is also visible beyond NHR as it snakes its way up the hillside. Also visible in the foreground are utility lines on wood poles which run in an east-west direction along Sage Flats Road, and utility lines on larger steel structures which run in a north-south direction. The utility lines are a common visual element in the surrounding landscape. The location and direction of this KOP also offer an uninterrupted view in the distance of the mountains that are part of Coso Wilderness Area and the Death Valley National Park. The KOP 6 viewpoint is located on BLM-managed land rated as VRM Class III and the viewshed includes BLM-managed land rated as VRM Classes II and III.

5.2.3 Landscape Scenic Quality

Consistent with BLM methodology, lands are rated Class A, Class B, and Class C, for highest to lowest scenic quality, and are qualified by landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Each of these components plays important roles in the assessment of change caused by the Proposed Project on landscape scenery.

Each of these factors is ranked on a comparative basis with similar features within the physiographic province. The physiographic province that includes the Project Site and its vicinity is the Basin and Range Province. The Basin and Range province has a characteristic topography that includes steep climbs up elongate mountain ranges alternate with long treks across flat, dry deserts in a repetitive pattern. The evaluation of scenic value also prioritizes areas with the most variety and most harmonious composition and is done in relationship to the natural landscape. Man-made features that complement the natural landscape may enhance the scenic value.

The Project Site is at the lowest part of the Owens Valley and has limited views due to the topography. The DRECP Visual Resource Area identifies the Project Site as a Class C landscape. A Class C Scenic Quality rating classifies the surrounding landscape as “common areas where characteristic features have little variation in form, line color, or texture in relation to the surrounding region.” Areas surrounding the Project Site to the south, west, and east that are at higher elevations and have more panoramic views are identified as Class B and have VRM land classifications of II and III. The northern end of the Project Site and the surrounding area fall within the Olancho Greasewood Area of Critical Environmental Concern (ACEC), which is characterized by sand dunes and a greasewood (*sarcobatus vermiculatus*) plant community. The Class B Scenic Quality rating classifies the surrounding landscape as “above average areas in which features provide variety in form, line, color, and texture and, although the combinations are not rare in the surrounding region, they provide sufficient visual diversity to be considered moderately distinctive.” Table 5-2 shows the scenic quality rating for each of the six KOPs. None of the KOPs qualify for an A scenic quality rating. One KOP (KOP 5) qualifies for a B rating and the remaining five KOPs (KOP 1, 2, 3, 4, 6) were assigned a C rating. KOP 5 has a higher scenic quality ratings based on greater panoramic views and more variety in landform, color, and texture. The visual quality rating was verified during the visual field survey performed by Terry A. Hayes Associates, Inc.

**TABLE 5-2
SCENIC QUALITY RATING**

Location	Landform	Vegetation	Water	Color	Adjacent Scenery	Scarcity	Cultural Modification ^a	Total Score	Scenic Quality Rating
KOP 1	1	1	0	1	0	1	-3	1	C
KOP 2	2	2	0	1	0	1	0	6	C
KOP 3	2.5	2.5	0	1.5	1	1.5	-1	8	C
KOP 4	3	1	0	1.5	0	1	-1	6.5	C
KOP 5	4	2.5	3	2	4	2	1	18.5	B
KOP 6	3.5	1	1	2	0	1	-3	5.5	C

Notes: The rating system of each of the seven categories is given on a scale of 0 to 5, where a 0 rating is the lowest (or least quality) and a 5 rating is the highest quality. The highest value for Cultural Modifications is 2 so the maximum possible score is 32. The scenic quality ratings are scored as A, B, and C, with A being the highest scenic value. Scores above 19 equate to an A rating, scores between 19 and 11 receive a B rating, and 11 points or fewer results in a C rating.

^aCultural modifications include changes to the natural landscape such as roads or transmission lines. They may detract from the scenery in the form of a negative intrusion resulting in a negative value.

KOP = key observation point

Source: TAHA, 2015

5.2.4 Viewer Sensitivity

Sensitive viewers' analysis and mapping for the Proposed Project encompasses public and private viewers' concerns for landscape scenery. Sensitivity levels are defined by BLM as the measure of public concern for scenic quality. Public lands are assigned high, medium, or low sensitivity levels depending on how important the view is, importance to the type of user who experiences the view, how many users experience the view, whether maintaining the view is in the public interest, and whether there are particular land use objectives associated with the view. The Project Site is at the lowest part of the Owens Valley and has limited views due to the topography. The DRECP Visual Resource Area identifies the Project vicinity as having a high sensitivity due to its proximity to US-395, which is identified as a scenic byway, and due to the amount and type of users who travel along the scenic byway. The sensitivity along the US-395 corridor was verified by a field visit. However, viewer sensitivity within the Project Site would be considered low as there are a limited number of users (i.e., more sensitive recreational users compared to less sensitive residents/workers). The types of users are comprised primarily of workers at NHR and nearby residents. KOP 5 represents recreational users traveling US-395 and KOP 6 represents primarily recreational users accessing the Coso Wilderness Area. KOP 5 has a limited number of viewers from Cactus Flats Road. The Transportation/Traffic Technical Report, included as Appendix M of this Draft EIR/EA, reports very low traffic volumes on Cactus Flats Road. From the north of the existing Dam, there are no views of the water in NHR or of the US-395. The predominant foreground-middleground views within the Project Site are of continuous rolling hills spreading out from the valley floor. Table 5-3 shows the sensitivity levels for each of the six KOPs. KOP 6 has higher viewer sensitivity due to the type of users along Sage Flats Road who are accustomed to panoramic views of the valley from the elevated view.

**TABLE 5-3
SENSITIVITY LEVEL RATING AND DISTANCE ZONE**

Location	Type of Users	Amount of Use	Public Interest	Adjacent Land Uses	Special Area Sensitivity	Other Factors	Overall Rating	Distance Zone
KOP 1	L	M	L	L	NP	NP	L	SS
KOP 2	L	L	L	L	NP	NP	L	SS
KOP 3	L	L	L	L	NP	NP	L	B
KOP 4	L	L	L	L	NP	NP	L	FM
KOP 5	M	L	L	L	NP	NP	L	FM
KOP 6	H	L	M	M	NP	NP	M	B

Notes:

KOP = key observation point; NP = Not Present; L = Low; M = Medium; H = High; SS = Seldom Seen; B = Background; FM = Foreground-middleground

Source: TAHA, 2015

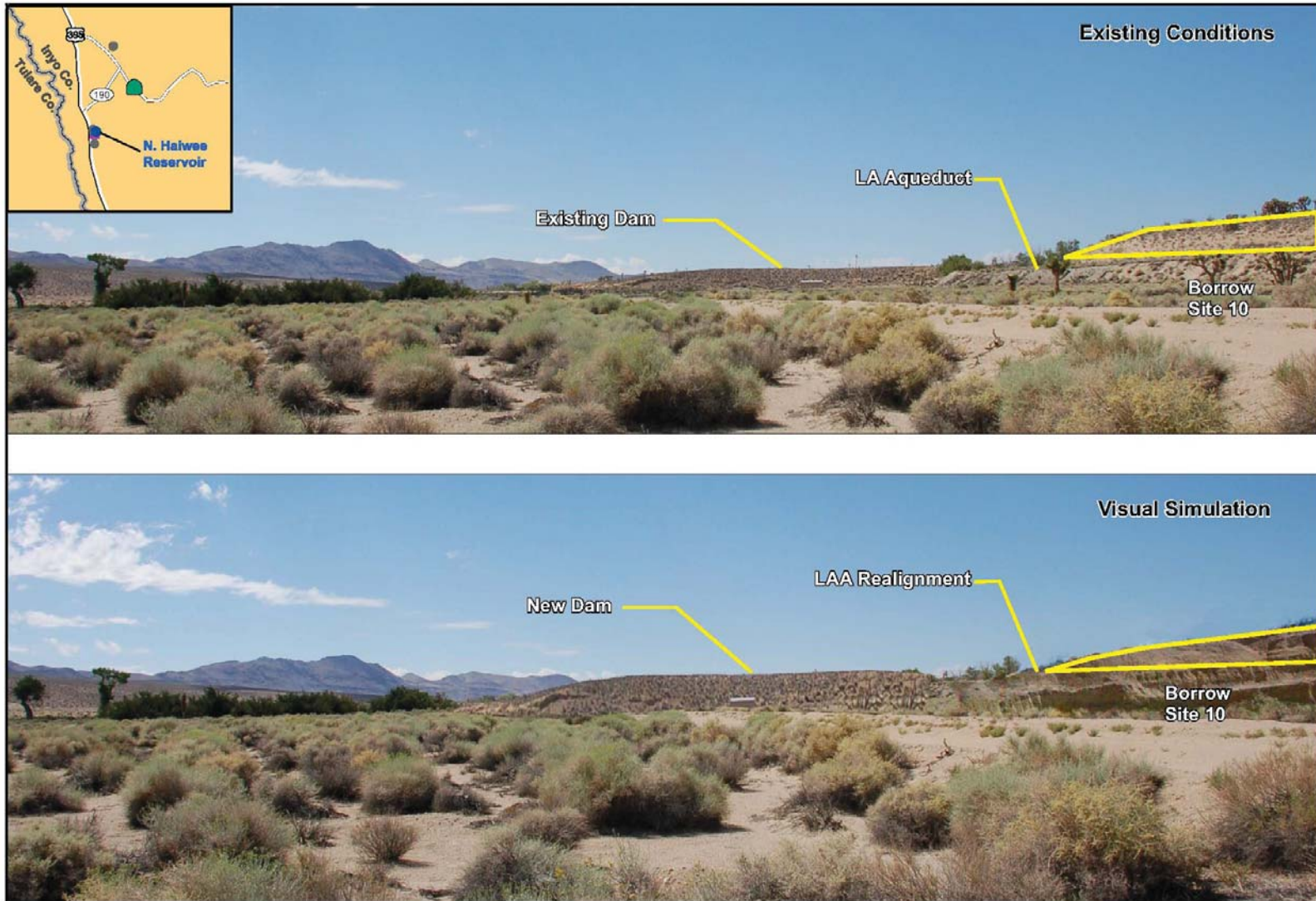
5.2.5 Distance Zones

Distance zones are typically delineated based on visibility, and are not a uniformly applied buffer. Because the Project Site has limited visibility due to topography, it would qualify as a seldom seen zone as it is not visible from US-395 or the closest residences to the north. The distance zones for each of the KOPs are also shown in Table 5-3.

6 Impact Analysis

6.1 Visual Contrast Rating and Impact Results

Four of the KOPs (KOP 2, 3, 5, 6) were selected to create visual simulations for the Proposed Project, as these locations would have discernible views of the new Dam and would be most representative of the potential visual changes resulting from the Proposed Project (Figures 6-1 through 6-4).

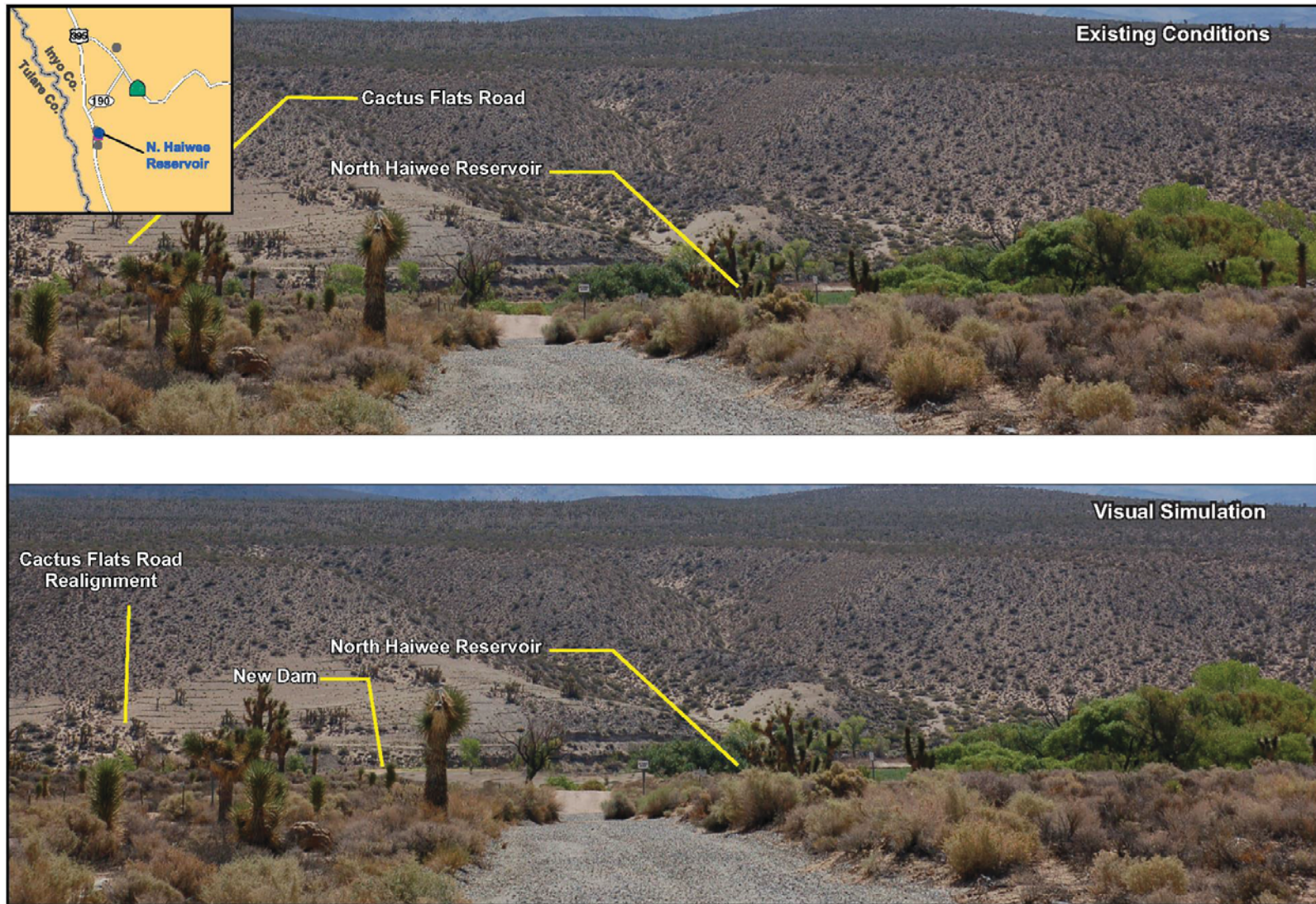


Source: TAHA 2015.



KOP 2- View looking south toward new Dam
from Cactus Flats Road (south of farm)

Figure 6-1
North Haiwee Dam No. 2 Project

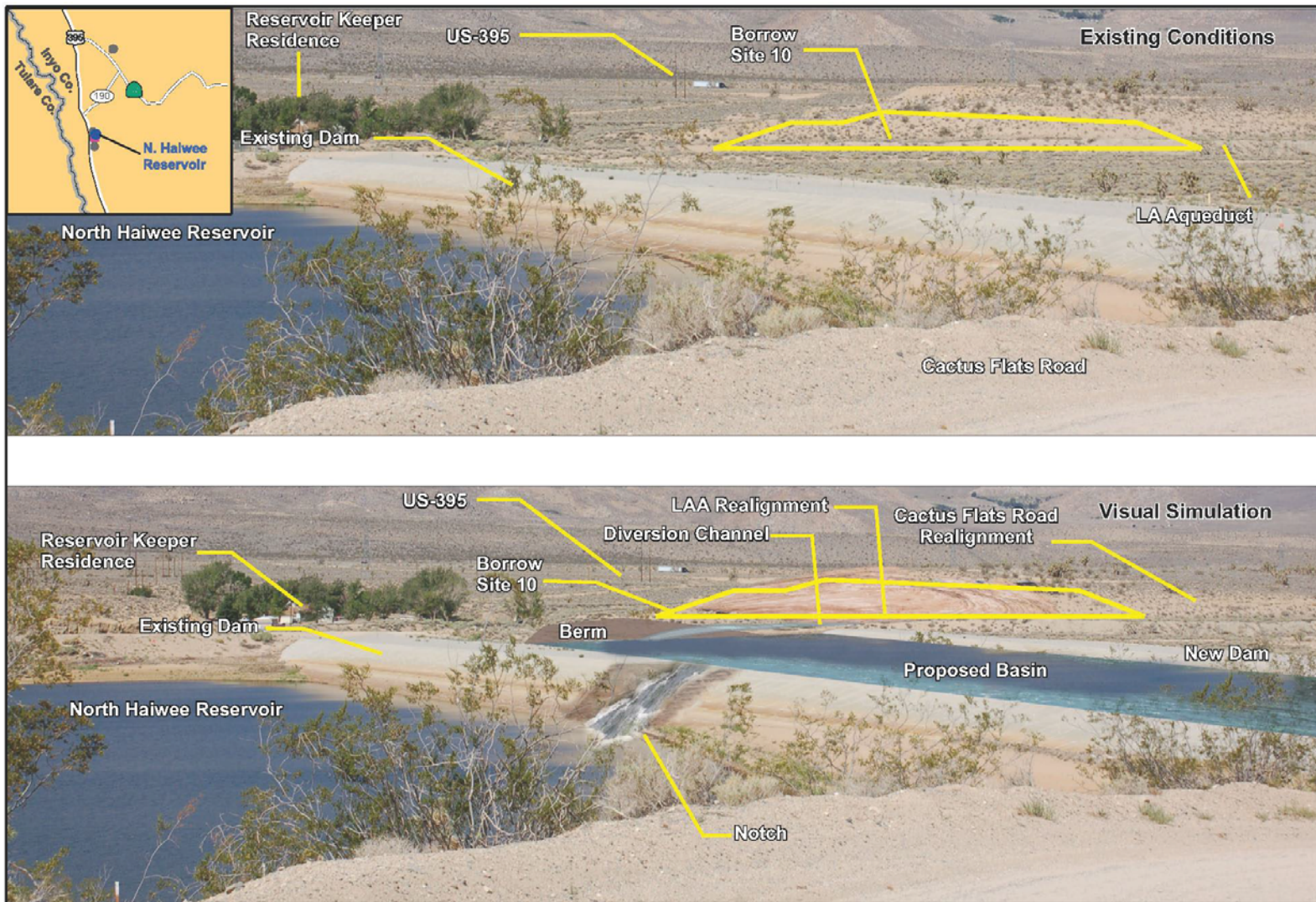


Source: TAHA 2015.



**KOP 3 - View looking southeast toward new Dam
(from North Haiwee Road)**

**Figure 6-2
North Haiwee Dam No. 2 Project**

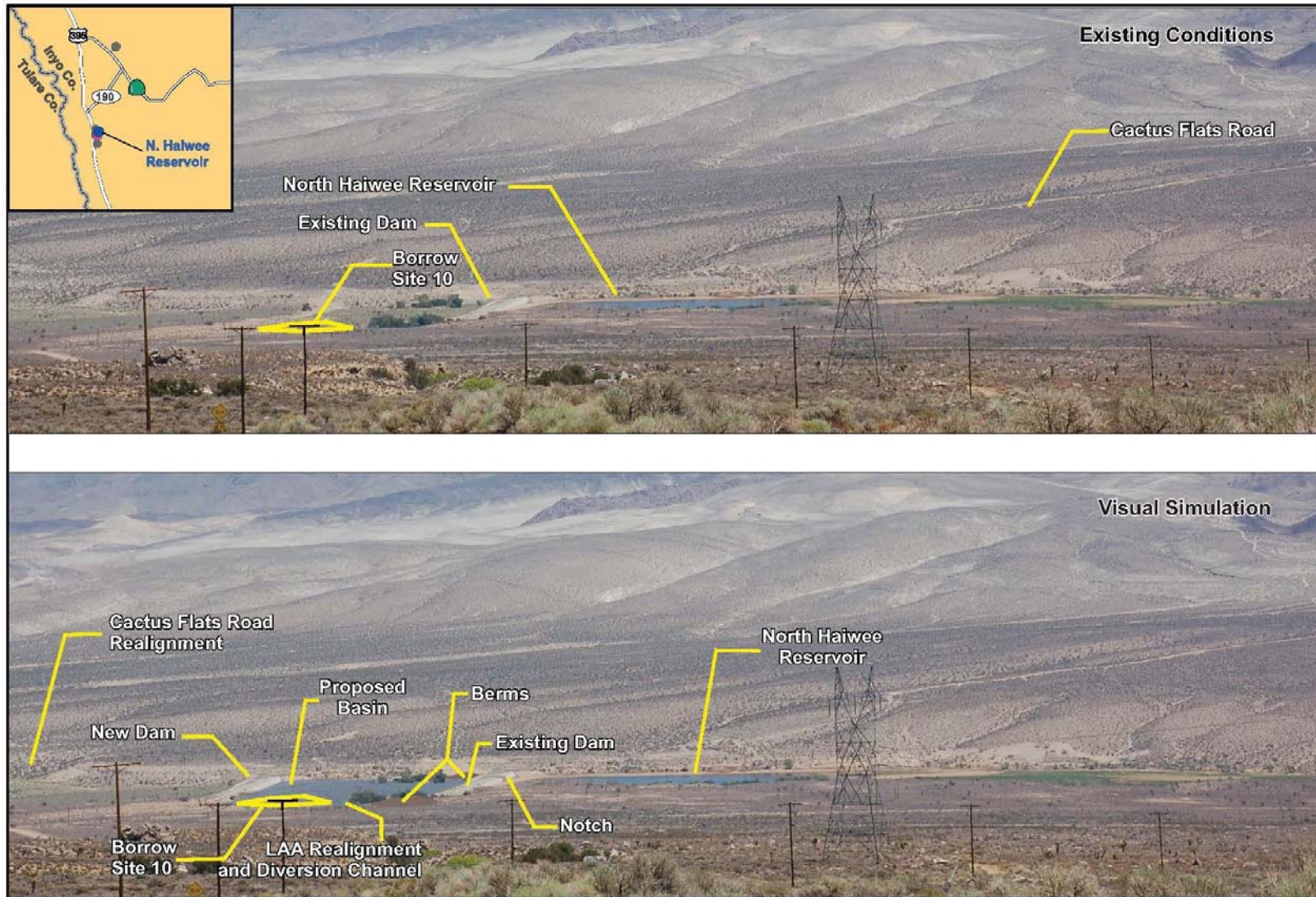


Source: TAHA 2015.



KOP 5 - View looking west toward existing and new Dams from Cactus Flats Road

**Figure 6-3
North Haiwee Dam No. 2 Project**



Source: TAHA 2015.



KOP 6 - View looking east toward existing and new Dams and proposed Borrow Site 10 from Sage Flats Road

**Figure 6-4
North Haiwee Dam No.2 Project**

Table 6-1 provides a summary of the VCR for the Proposed Project. Table 6-1 is based on the operational elements of the Proposed Project. Temporary construction effects are discussed independently in Section 6.1.1, Construction Impacts.

**TABLE 6-1
VISUAL CONTRAST RATING SUMMARY**

	Land/Water				Vegetation				Structures			
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
KOP 1												
Form			X				X				X	
Line			X				X				X	
Color			X				X				X	
Texture			X				X				X	
KOP 2												
Form			X				X				X	
Line			X				X				X	
Color			X				X				X	
Texture			X				X				X	
KOP 3												
Form			X					X				X
Line			X					X				X
Color			X					X				X
Texture			X					X				X
KOP 4												
Form			X				X				X	
Line			X				X				X	
Color			X				X				X	
Texture			X				X				X	
KOP 5												
Form			X				X				X	
Line			X				X				X	
Color			X				X				X	
Texture			X				X				X	
KOP 6												
Form				X				X				X
Line				X				X				X
Color				X				X				X
Texture				X				X				X

Source: TAHA, 2017

As described in the Section 3.2, Methodology, visual impacts from the Proposed Project are determined by the degree of contrast. Contrast ratings are noted as being none, weak, moderate, and strong depending on the degree of change. Contrast created by the Proposed Project is rated as follows:

- None – The contrast is not visible or not perceived.
- Weak – The contrast can be seen but does not attract attention.
- Moderate – The contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong – The contrast demands attention and would not be overlooked by the average observer, and is dominant in the landscape.

For contrast that is determined to be weak or not perceived, no significant visual impact would occur. When the degree of contrast is determined to be moderate or strong, the project would result in a visual impact and mitigation measures would be required to reduce the impact to not adverse.

6.1.1 Construction Impacts

Visual resources in the visual landscape would be affected by construction due to activities necessary for the realignment of the LAA and Cactus Flats Road, exporting earthen materials from Borrow Site 10, use of haul trucks and construction equipment, construction of the diversion channel, structure, and bridge, construction of the new Dam, and construction of the Basin with Berms. Viewshed disturbance, including Project visibility in the visual landscape includes cleared right-of ways, temporary buildings, fences, and debris storage, areas cleared for construction, material storage yards, and staging areas. Construction activities occurring in the immediate foreground of the viewer would cause greater contrast to the visual landscape than those appearing at a further distance, where construction would not likely be visible.

Project Site (NHD2, Basin, Diversion Components, Berms, Notch, LAA Realignment, and Cactus Flats Road Realignment)

Given the topography and lack of visibility of the Project Site, temporary visual construction effects on-site would be limited to the residences to the north of the Project Site, which are represented by KOP 2. Views of construction activity would be limited to primarily dust and large construction equipment which may be visible at a distance of approximately 0.5 mile. The primary visual effects during construction (where the greatest contrasts in visual character would occur) would be along the haul truck routes for the new Dam, which would be in proximity to a small number of residences (less than ten) north of the Project Site along Cactus Flats Road. The haul truck routes would create dust and would place trucks on a dirt road that usually has little or no vehicle activity. However, dust from vehicles traveling on a dirt road is a component of the existing visual character, such that, increasing the frequency of vehicles would not substantially contrast with or alter the visual character of the area. Potential increases in dust are not anticipated to dominate the characteristic landscape. The Proposed Project would implement Rule 401 and 431 as dust and particulate matter control measures required by the Great Basin Unified Air Pollution Control District and the State Implementation Plan. These measures require frequent watering of dirt roads and disturbed land and would minimize effects of dust dispersion to the greatest extent feasible. Refer to Section 2.6, Best Management Practices in Chapter 2.0, Project Description, of the EIR/EA While truck activity along haul routes would involve temporary visual disruptions, there are no established views or high viewer sensitivity along the haul routes, other than the state routes, which would provide a substantial contrast and result in an adverse effect. The presence of haul trucks along portions of the state routes, would also not contrast with the existing visual environment as they are well traveled roads. The addition of haul trucks along these state routes would not alter or substantially change the visual character of these locations with higher viewer sensitivity. Therefore, these temporary visual effects would not create moderate or strong contrast that would result in adverse impacts.

Borrow Sites

Similar to the Project Site, the location of the borrow sites are in areas with low visibility and viewer sensitivity. The exception is KOP 6, which has a view of Borrow Site 10 experienced by more frequent or sensitive users, resulting in higher viewer sensitivity, as described in Table 5-3. Temporary visual construction effects on-site would be limited to nearby residences, and would be limited to primarily dust and large construction equipment. The haul truck routes near Borrow Site 10 would affect the same residences as discussed under the Project Site (fewer than 10). The primary visual effects during construction (where the greatest contrasts in visual character would occur) would be along the haul truck routes traveling to and from the borrow sites. The presence of haul trucks along portions of the state routes, would not contrast with the existing visual environment as they are well traveled roads. The

addition of haul trucks along these state routes would not alter or substantially change the visual character of these locations with higher viewer sensitivity.

Haul trucks near Borrow Site 15 would not affect any nearby residences. Therefore, these temporary visual effects would not create moderate or strong contrast that would result in adverse impacts.

6.1.2 Operational Impacts

Project Site

Visual resources could be impacted during the operation of the Proposed Project from an obstruction to a viewshed from the location of the new Dam, Basin, or Berms, resulting in a moderate or strong contrast. Indirect viewshed impacts could result from vehicles accessing the realigned portion of Cactus Flats Road due to its closer proximity to residences to the north.

KOPs 1 and 4 would not have discernible views of the Project Site and no potential contrast would occur from the Proposed Project. Figure 6-1 through Figure 6-4 show visual simulations of KOPs 2, 3, 5, and 6 in order to facilitate the identification of contrast created by the Proposed Project.

As shown in Figure 6-1, the view from KOP 2 of the new Dam would replace the view of the existing dam and would be closer overall. The change in position of the LAA and Cactus Flats Road is anticipated to be slightly to not discernible from this position. Upon completion of the Proposed Project, Borrow Site 10 would no longer be active. The construction activities at Borrow Site 10 would result in disturbed land, which would result in some contrast with the surrounding visual environment. However, due to the low viewer sensitivity and low activity along Cactus Flats Road, the change in views from the disturbed land would be less than significant. While the new Dam would be incrementally larger in size, none of the surrounding views would be substantially altered such that a moderate or strong contrast would be created compared to the existing views. The resulting change in contrast would be weak and, therefore, no adverse impact would occur from KOP 2.

As shown in Figure 6-2, the view from KOP 3 of the new Dam would be only slightly discernible from this position. None of the surrounding views would be substantially altered such that a moderate or strong contrast would be created compared to the existing views. There would be no resulting change in contrast and, therefore, no adverse impact would occur from KOP 3.

As shown in Figure 6-3, the view from KOP 5 of the new Dam, Basin, Berms and other Project components would be readily apparent from this elevated position. This segment of Cactus Flats Road has low activity and the viewer sensitivity is low. None of the surrounding views would be substantially altered such that a moderate or strong contrast would be created compared to the existing views. The resulting change in contrast would be weak and, therefore, no adverse impact would occur from KOP 5.

As shown in Figure 6-4, the view from KOP 6 of the new Dam, Basin, Berms and other Project components would be apparent from this elevated position. This segment of Sage Flats Road has low activity; however, the established views are considered important and the viewer sensitivity is considered medium. From this distance, the Project components do not substantially contrast with the existing visual environment as the Project components are consistent with both the horizontal and vertical elements of the topographical transitions sloping to and from the valley and diagonal drainage lines that run toward the mountains in the background. Although the water within the proposed Basin would be a change for the area between the new and existing Dams, it would be consistent with the views of the existing NHR. None of the surrounding views would be substantially altered such that a moderate or strong contrast would be created compared to the existing views. The resulting change in contrast would be weak and, therefore, no adverse impact would occur from KOP 6.

As described above, due to the low topography of the Project Site and location of Project components, the Proposed Project would not obstruct existing viewsheds or result in a significant contrast with the existing

visual setting. Therefore, no substantial adverse impacts are anticipated to occur with implementation of the Proposed Project.

Borrow Sites

Upon completion of the Proposed Project, Borrow Site 10 would no longer be active. The residual effects at Borrow Site 10 would result in disturbed land, which would result in some contrast with the surrounding visual environment. However, due to the low viewer sensitivity and existing topography, the views of the disturbed land would not be prominent, except in close proximity to the borrow site. This viewer population would be limited to people accessing the vacated borrow site and Haiwee Reservoirs, or from elevated distances to the west or east of the borrow site. Additionally, Borrow Site 10 would be restored to its approximate natural state per the topsoil salvage and revegetation plan that will be prepared for this Proposed Project.

Figures 6-1, 6-2, and 6-4 show views from which Borrow Site 10 would be visible upon implementation of the Proposed Project. The excavation at this site would potentially lower the landform and result in disturbed land. Due to the low viewer sensitivity of this area, limited vegetation, slope of topography, and relative inaccessibility and view distance to this area, it is anticipated that the level of contrast created by disturbed soil and lowered landform would be low. Therefore, no adverse visual impacts are anticipated with Borrow Site 10.

Borrow Site 15 is visible from the community of Keeler and along SR-136. However, since the site is already disturbed due to current mining operations, there would be no change in visual contrast. Therefore, no adverse visual impacts are anticipated with Borrow Site 15.

6.1.3 Cumulative Impacts

It is not anticipated that the construction of a new Dam, the realignment of Cactus Flats Road and LAA, Basin, Berms and other Project components, or the excavation at the borrow sites would increase capacity or use, such that a substantial contrast would result in a cumulatively considerable visual effect from additional development of the area. The Project Site is within the jurisdiction of BLM and LADWP, and the development or disruption of undisturbed land is not anticipated given both agencies' management objectives of protecting the land (BLM) and preventing public access to the LAA and Haiwee Reservoirs (LADWP). Therefore, no significant cumulative visual impacts are anticipated to result as a result of the Proposed Project.

7 Mitigation Measures

7.1 Mitigation Measures Related to Construction Impacts

There are no significant impacts related to the construction of the Proposed Project, and therefore, no mitigation measures are proposed.

7.2 Mitigation Measures Related to Operational Impacts

There are no significant impacts related to the operations of the Proposed Project, and therefore, no mitigation measures are proposed.

7.3 Mitigation Measures Related to Cumulative Impacts

There are no significant impacts related to the cumulative effects of the Proposed Project, and therefore, no mitigation measures are proposed.

8 Residual Impacts After Mitigation

No mitigation measures are proposed because there are no significant impacts related to the construction, operations, or cumulative effects of the Proposed Project. Impacts would be less than significant.

9 CEQA Significance Conclusions

Consistent with Appendix G of the CEQA Guidelines, the Proposed Project would result in a significant impact to visual resources if it would:

- Adversely affect a scenic resource;
- Substantially damage a scenic resource, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; and/or
- Create a new source of light or glare which would adversely affect day or nighttime views in the area.

Construction activity is not anticipated to significantly degrade the existing visual character or quality of the site and surroundings. The primary visual changes to sensitive receptors near the Project Site would result from the presence of haul trucks and construction vehicles accessing the site, as the Proposed Project components, including Borrow Site 10, would not be discernible at these locations. Construction related vehicles accessing the site would primarily travel along existing roads, and would not result in headlights being directed onto residences or disrupting views from US-395 or other elevated locations, such as along east Sage Flats Road, depicted in Figure 5-8. While construction would normally occur during daytime hours, it is anticipated that construction scheduling may require nighttime construction work for one or more of the Proposed Project components. In addition, some lighting may be required for security purposes. Should security lighting or other lighting be required for construction activities, LADWP would implement appropriate BMPs in which lights would be shielded to prevent light spillover onto sensitive receptors. Any light or glare generated from construction-related vehicles would be brief and intermittent, and would occur at distances such that views in the area would not be substantially affected. Therefore, construction of the Proposed Project would result in a less than significant impact related to visual resources.

An appropriate combination of monitoring and resource impact avoidance measures would be employed during construction of the Proposed Project to avoid and reduce impacts, including the implementation of the following BMPs:

- 1) Should lighting be required for construction activities, lights would be shielded (e.g., downward facing light visors) and focused directionally on work areas to prevent light spillover onto sensitive receptors and to avoid creating a distraction for drivers along US-395.
- 2) Should nighttime construction lighting be visible from the US-395 corridor, LADWP would issue a public notice to local residences and newspapers (e.g., Inyo Register and Mammoth Times) and inform law enforcement of construction plans. Noticing would be similar to the process used for public hearings.

The operations of the Proposed Project would not disturb or adversely affect any of the scenic resources identified in the surrounding visual environment. The Project components are topographically situated in the bottom of a valley and would not obstruct views or affect any visual resources along the eligible State Scenic US-395. While some road improvements may occur in connection to US-395, these alterations would improve existing cultural modifications, and would not damage scenic resources or degrade the visual quality associated with US-395. As described above, the visual character and quality of the landscape within the Project Site and surrounding the Proposed Project components has a low level of scenic quality, and the contrast between the Proposed Project components and existing visual setting

would not be substantial. The Proposed Project does not include features that would be visible, or result in the creation of substantial light or glare, which could disturb views in the area. As previously discussed, limited lighting may be necessary for security purposes; however, this level of lighting is not anticipated to disrupt views, especially at the distances where it could potentially be visible. Therefore, operation of the Proposed Project would result in a less than significant impact related to visual resources.

10 NEPA Summary

The NEPA analysis uses the BLM VRM methodology as well as the BLM DRECP LUPA as a basis of impact assessment. The visual contrast process used in assessing the CEQA thresholds also supports compliance with the DRECP LUPA. The Proposed Project is consistent with applicable CMAs of the DRECP LUPA, such as LUPA-VRM-1, which requires management of visual resources in accordance with the VRM classes, and with LUPA-VRM-2, which ensures activities within each VRM class meet the objectives of the VRM class through the visual contrast rating process. The Proposed Project is also consistent with LUPA-CUL-7, which requires coordination to ensure VRM classes for the Project Site consider cultural resources and tribal consultation to include landmarks of cultural significance to Native Americans. As described above, the Proposed Project, given its low viewer sensitivity, would not substantially contrast with the existing visual environment during construction or operation, or when taken as a cumulative consideration.

11 References

Bureau of Land Management (BLM), *BLM Handbook H-8410-1, Visual Resource Inventory*, January 1986

_____, *Federal Land Policy and Management Act*, Codified at Title 43 United States Code, Sections 102, 201, and 505, January, 1976, and amended October 2001.

_____, *California Desert Conservation Area Plan*, Chapter 3, 1981

County of Inyo, *General Plan Update, Conservation/Open Space Element*, Section 6.7, May 2013.

United States Environmental Protection Agency (EPA), *National Environmental Protection Act*, Codified at Title 42 United States Code, Section 4321, January, 1970

12 List of Abbreviations and Acronyms

BLM	Bureau of Land Management
CDD	California Desert District
CDSM	Cement Deep Soil Mixing
CEQA	California Environmental Quality Act
CMA	Conservation Management Action
DRECP	Desert Renewable Energy Conservation Plan
FLMPA	Federal Land Management Policy Act of 1976
KOPs	Key Observation Points
LAA	Los Angeles Aqueduct
LADWP	Los Angeles Department of Water and Power
LUPA	Land Use Amendment Plan
MSL	Mean Sea Level
NEPA	National Environmental Policy Act

NHD	North Haiwee Dam or existing Dam
NHD2	North Haiwee Dam No. 2 or new Dam
NHR	North Haiwee Reservoir
Proposed Project	North Haiwee Dam No. 2 Project
SR-	State Route
US-	U.S. Highway
Visual Study	Visual Impacts Assessment Technical Report
VCR	Visual Resource Contrast Rating
VRI	Visual Resource Inventory
VRM	Visual Resource Management

13 Preparer Qualifications

13.1 Terry A. Hayes Associates

Sam Silverman, Visual Technical Lead
Mike Sullivan, Senior Environmental Planner
Kieran Bartholow, Assistant Planner
Rosa Soria, Graphic Artist

Appendix

Visual Contrast Rating Worksheets

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date September 22, 2015

District California Desert District

Resource Area DRECP

Activity (program) Project Site

SECTION A. PROJECT INFORMATION

1. Project Name North Haiwee Dam #2	4. Location Township T19S Range R37E Section S17	5. Location Sketch View looking south towards new dam from SR-190/US-395 CAT19SR37E
2. Key Observation Point KOP 1		
3. VRM Class None Visible		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat, gentle sloping in midground	low relatively uniform vegetation, some scattered shrubs	Linear and geometric
LINE	horizontal and vertical, some irregular (mountains)	horizontal to irregular	Transmission lines add verticality
COLOR	beige	tans to greens	browns, tans, to blue hues (mountains)
TEXTURE	smooth to coarse	uniform to irregular	smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat, gentle sloping in midground	low relatively uniform vegetation, some scattered shrubs	Linear and geometric
LINE	horizontal and vertical, some irregular (mountains)	horizontal to irregular	Transmission lines add verticality
COLOR	beige	tans to greens	browns, tans, to blue hues (mountains)
TEXTURE	smooth to coarse	uniform to irregular	smooth

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
		LANDWATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
				X				X				X		
				X				X				X		
ELEMENTS	Form			X				X				X		3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)
	Line			X				X				X		
	Color			X				X				X		
	Texture			X				X				X		
Evaluator's Names											Date			
Kieran Bartholow											9-22-15			

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Date September 22, 2015

District California Desert District

Resource Area DRECP

Activity (program) Borrow Site 10

VISUAL CONTRAST RATING WORKSHEET

SECTION A. PROJECT INFORMATION

1. Project Name North Haiwee Dam #2	4. Location Township T19S Range R37E Section S33	5. Location Sketch View looking south towards new dam from Cactus Flats Road
2. Key Observation Point KOP 2		
3. VRM Class II		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Mountain Peaks are visible in the background, flat valley in the foreground.	Scattered low-growing vegetation	Linear and geometric.
LINE	Soft ridge lines, horizon not visible, dam contributes to line of landscape	Irregular	Vertical and horizontal
COLOR	Hues of beige	Grasses: tan to pale yellow, shrubs: dark green to tan	Tan to hues of blue
TEXTURE	granular	coarse	smooth to granular

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Mountain Peaks are visible in the background, flat valley in the foreground.	minor vegetation loss	Linear and geometric, some irregular.
LINE	Line recedes into the background	more Irregular	Broken, line now drawn to background
COLOR	Hues of beige	Similar	Similar
TEXTURE	granular	Similar	smooth to rough

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
		LANDWATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
				X				X				X		
				X				X				X		
ELEMENTS	Form			X				X				X		3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)
	Line			X				X				X		
	Color			X				X				X		
	Texture			X				X				X		
Evaluator's Names												Date		
Kieran Bartholow												9-22-15		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date September 22, 2015

District California Desert District

Resource Area DRECP

Activity (program) New Dam, Cactus Flats Road

SECTION A. PROJECT INFORMATION

1. Project Name North Haiwee Dam #2	4. Location Township T120S Range R37E Section S4	5. Location Sketch View looking southeast toward North Haiwee Reservoir from North Haiwee Road
2. Key Observation Point KOP 3		
3. VRM Class II		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Gradual sloping down into basin, north haiwee road in center	irregular scattered growing vegetation, with some uniformity in the midground	organic and linear
LINE	curved slope downwards into basin, horizontal	irregular	horizontal
COLOR	Hues of beige	Grasses: tan to pale yellow, shrubs: dark green to tan	tans to dark green
TEXTURE	granular	coarse	smooth to granular

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Gradual sloping down into basin, North Haiwee Road in center	Same	Same
LINE	curved slope downwards into basin, horizontal, new line from realignment	Same	Same
COLOR	Hues of beige, new reservoir blue	Same	Same
TEXTURE	granular	Same	Same

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1. DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
	LANDWATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)
			X					X				X	
			X					X				X	
		X					X				X		
ELEMENTS	Form			X				X				X	Evaluator's Names Kieran Bartholow Date 9-22-15
	Line			X				X				X	
	Color			X				X				X	
	Texture			X				X				X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date September 22, 2015

District California Desert District

Resource Area DRECP

Activity (program) None Visible

SECTION A. PROJECT INFORMATION

1. Project Name North Haiwee Dam #2	4. Location Township T120S Range R37E Section S4	5. Location Sketch View looking west towards US-395 from North Haiwee Road
2. Key Observation Point KOP 4		
3. VRM Class II and III		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat in foreground and midground, rapid rise in background (mountains)	scattered grasses and shrubs	linear, geomteric, organic (mountains)
LINE	horizontal, vertical, irregular (mountains)	horizontal, limited verticality	verticality (mountains and transmissions lines), horizontal
COLOR	beige to tan	tans to greens	browns, tans, to blue hues (mountains)
TEXTURE	smooth	coarse to smooth	smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat in foreground and midground, rapid rise in background (mountains)	scattered grasses and shrubs	linear, geomteric, organic (mountains)
LINE	horizontal, vertical, irregular (mountains)	horizontal, limited verticality	verticality (mountains and transmissions lines), horizontal
COLOR	beige to tan	tans to greens	browns, tans, to blue hues (mountains)
TEXTURE	smooth	coarse to smooth	smooth

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
		LANDWATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
				X				X				X		
				X				X				X		
ELEMENTS	Form			X				X				X		3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)
	Line			X				X				X		
	Color			X				X				X		
	Texture			X				X				X		
Evaluator's Names												Date		
Kieran Bartholow												9-22-15		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Date September 22, 2015

District California Desert District

Resource Area DRECP

Activity (program) Dam, borrow site 10, realignments

VISUAL CONTRAST RATING WORKSHEET

SECTION A. PROJECT INFORMATION

1. Project Name North Haiwee Dam #2		4. Location Township T120S Range R37E Section S3		5. Location Sketch View looking west towards existing dam from Cactus Flats Road
2. Key Observation Point KOP 5				
3. VRM Class II and III				

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat and terraced	grasses/shrubs, clump of trees in midground	linear, geomteric
LINE	horizontal	horizontal, limited verticality	horizontal
COLOR	tans and blue (water)	tans to greens	tans
TEXTURE	coarse to smooth	coarse to smooth	smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	flat and terraced, with additional terracing from new reservoir	Similar	Similar
LINE	more horizontal (new reservoir)	Similar	Similar
COLOR	more blue (new reservoir)	Similar	Similar
TEXTURE	Same	Similar	Similar

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
		LANDWATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
				X				X				X		
				X				X				X		
ELEMENTS	Form			X				X				X		3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)
	Line			X				X				X		
	Color			X				X				X		
	Texture			X				X				X		
Evaluator's Names												Date		
Kieran Bartholow												9-22-15		

