

RECLAMATION

Managing Water in the West

Draft Environmental Assessment

Lake Nighthorse Recreation Plan

Animas-La Plata Project
La Plata County, Colorado



U.S. Department of the Interior
Bureau of Reclamation
Western Colorado Area Office
Durango, Colorado

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TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	vi
1.0 PURPOSE AND NEED.....	1
1.1 Introduction	1
1.2 Background	1
1.3 Purpose and Need for Action	3
1.4 Project Location	3
1.5 Decision to Be Made	3
1.6 Public Involvement.....	3
1.6.1 Public and Agency Scoping	3
1.6.2 Preliminary Draft EA	7
2.0 DESCRIPTION OF ALTERNATIVES	8
2.1 Proposed action—2014 Recreation Plan.....	8
2.2 Action Alternative 1—2011 Recreation Plan.....	12
2.3 Action Alternative 2—2000 FSEIS Recreation Plan	15
2.4 No Action Alternative	15
2.5 Commitments Common to the Action Alternatives	17
2.6 Alternatives Considered But Eliminated.....	21
2.6.1 No Motorized Boats	21
2.6.2 Swim Beach Location at Open Meadow Day-use Area	22
2.6.3 Swim Beach Location along North Lakeshore and East of Inlet Structure	22
2.6.4 Swim Beach Location South of the Existing Boat Ramp	22
2.7 Summary of Alternatives.....	22
3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	34
3.1 Introduction	34
3.2 Recreation.....	34
3.2.1 Affected Environment.....	34
3.2.2 Environmental Consequences	35
3.3 Socioeconomics and Community	39
3.3.1 Affected Environment.....	39
3.3.2 Environmental Consequences	42
3.4 Environmental Justice	46
3.4.1 Affected Environment.....	46

3.4.2	Environmental Consequences	48
3.5	Cultural Resources	48
3.5.1	Affected Environment.....	48
3.5.2	Environmental Consequences	49
3.6	Indian Trust Assets	52
3.6.1	Affected Environment.....	52
3.6.2	Environmental Consequences	52
3.7	Brunot Treaty Rights	53
3.7.1	Affected Environment.....	53
3.7.2	Environmental Consequences	53
3.8	Noise.....	54
3.8.1	Affected Environment.....	54
3.8.2	Environmental Consequences	54
3.9	Natural Resources.....	56
3.9.1	Affected Environment.....	56
3.9.2	Environmental Consequences	59
3.10	Visual Quality/Aesthetics.....	64
3.10.1	Affected Environment.....	64
3.10.2	Environmental Consequences	64
3.11	Water Quality	66
3.11.1	Affected Environment.....	66
3.11.2	Environmental Consequences	66
3.12	Air Quality.....	68
3.12.1	Affected Environment.....	68
3.12.2	Environmental Consequences	69
3.13	Traffic	70
3.13.1	Affected Environment.....	70
3.13.2	Environmental Consequences	71
3.14	Public Health and Safety	73
3.14.1	Affected Environment.....	73
3.14.2	Environmental Consequences	74
4.0	CUMULATIVE EFFECTS	77
4.1	Recreation.....	77
4.2	Socioeconomics.....	77
4.3	Environmental Justice	78
4.4	Cultural Resources	78

4.5	Indian Trust Assets	78
4.6	Brunot Treaty Rights	79
4.7	Noise	79
4.8	Natural Resources	79
4.9	Visual Quality/Aesthetics	80
4.10	Water Quality	80
4.11	Air Quality	80
4.12	Traffic	80
4.13	Public Health and Safety	81
5.0	SUMMARY OF ENVIRONMENTAL COMMITMENTS	82
6.0	CONSULTATION AND COORDINATION	89
6.1	List of Agencies and Persons Contacted	89
6.1.1	Indian Communities/Agencies	89
6.1.2	Congressional Delegation	90
6.1.3	Local Government Agencies	90
6.1.4	State Agencies	90
6.1.5	Federal Agencies	90
6.1.6	Other Organizations	91
7.0	LIST OF PREPARERS	92
8.0	RELATED ENVIRONMENTAL LAWS/DIRECTIVES	93
9.0	LITERATURE CITED	99
10.0	APPENDICES	104
	Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment	105

LIST OF FIGURES

Figure 1.	Project vicinity.....	4
Figure 2.	Project area.....	5
Figure 3.	Proposed Action (2014 Recreation Plan).....	10
Figure 4.	Proposed Action (2014 Recreation Plan)—Swim beach area detail.	11
Figure 5.	Action Alternative 1 (2011 Recreation Plan).....	13
Figure 6.	Action Alternative 1 (2011 Recreation Plan)—Swim beach area detail.	14
Figure 7.	Action Alternative 2 (2000 FSEIS Recreation Plan).....	16
Figure 8.	Use restrictions common to all action alternatives.	18

LIST OF TABLES

Table 1.	Commitments common to the action alternatives.....	19
Table 2.	Summary of differences among alternatives under consideration.....	23
Table 3.	Summary of environmental consequences of alternatives analyzed in detail.....	25
Table 4.	Lake Nighthorse recreation market share.	36
Table 5.	La Plata County employment by industry in 2009.	40
Table 6.	La Plata County sales in retail trade sectors in 2011.	41
Table 7.	La Plata County sales in retail service sectors in 2005.	41
Table 8.	2010 Decennial Census total minority and 2009–2013 ACS below poverty level populations.	47
Table 9.	Cultural resources in the immediate vicinity of facilities proposed in the first phase of the 2011 Recreation Master Plan (Action Alternative 1).....	49
Table 10.	Summary of potential direct effects on cultural resources in the immediate vicinity of facilities proposed in the first phase of the 2011 Recreation Master Plan.	50
Table 11.	Threatened and endangered species and their potential for occurrence in the project area.....	59
Table 12.	Mitigation measures and commitments common to all action alternatives.....	82

ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
A.D.	Anno Domini
ADA	Americans with Disabilities Act
ALP	Animas-La Plata
ALPOMRA	Animas-La Plata Operations, Maintenance, and Replacement Association
ALPWCD	Animas-La Plata Water Conservancy District
ANS	aquatic nuisance species
B.C.	Before Christ
CAA	Clean Air Act
CDOT	Colorado Department of Transportation
CDNR	Colorado Department of Natural Resources
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO ₂ e	carbon dioxide–equivalent
Colorado Ute tribes	Ute Mountain Ute and the Southern Ute Indian tribes of southwestern Colorado
Corps	U.S. Army Corps of Engineers
CR	County Road
CPW	Colorado Parks and Wildlife
CT	census tract
CWA	Clean Water Act
dBA	decibels on the A-weighted scale
DM	Departmental Manual
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FSEIS	Final Supplemental Environmental Impact Statement
FWCA	Fish and Wildlife Coordination Act
GHG	greenhouse gas
IPaC	Information, Planning, and Conservation
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
P.L.	Public Law
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PM ₁₀	particulate matter less than 10 but more than 2.5 microns in diameter
Reclamation	Bureau of Reclamation
RV	recreational vehicle

SHPO
U.S.
USFWS
WQCD
WUS

State Historic Preservation Office
United States
U.S. Fish and Wildlife Service
Water Quality Control Division
Water of the United States

1.0 PURPOSE AND NEED

1.1 INTRODUCTION

The United States (U.S.) Bureau of Reclamation (Reclamation) is considering the development of recreational facilities at Lake Nighthorse near the City of Durango, La Plata County, Colorado. This Environmental Assessment (EA) has been prepared to analyze environmental effects associated with development, operation, and management of recreational facilities. This EA tiers from the Animas-La Plata (ALP) Project Final Supplemental Environmental Impact Statement (FSEIS), prepared by Reclamation in 2000 (Reclamation 2000a). The FSEIS addressed development of recreational facilities and amenities for Ridges Basin Reservoir, now referred to as Lake Nighthorse.

This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR] 1500–1508), and Department of the Interior NEPA regulations (43 CFR 46). Reclamation is the lead federal agency responsible for the preparation of this EA.

1.2 BACKGROUND

Lake Nighthorse is a component of the ALP Project. The ALP Project was built to fulfill the water rights settlement of the Ute Mountain Ute and the Southern Ute Indian tribes of southwestern Colorado (Colorado Ute tribes). The ALP Project was authorized by the Colorado River Basin Project Act of 1968 and was designed to provide irrigation, municipal, and industrial water supplies to the Colorado Ute tribes and other project beneficiaries. A Colorado Ute Indian Water Rights Final Settlement Agreement, signed in 1986, quantified the Colorado Ute tribes' rights to obtain water from several rivers and projects, including the ALP Project. Congress incorporated the ALP Project into the Colorado Ute Indian Water Rights Settlement Act of 1988 (Public Law [P.L.] 100-585) (Settlement Act) to settle Colorado Ute tribal water rights claims. In 2009, the Colorado Water Resources and Power Development Authority, the San Juan Water Commission, the La Plata Water Conservancy District, the Southern Ute Indian Tribe, the Navajo Nation, and the Ute Mountain Ute Tribe entered into an Intergovernmental Agreement to establish the Animas-La Plata Operation, Maintenance, and Replacement Association (ALPOMRA) who is responsible for operations, maintenance, and replacement activities under contract to Reclamation (Reclamation 2009).

The ALP Project has been the subject of public interest and environmental review since it was initially authorized. Reclamation, in compliance with NEPA, prepared a Final Environmental Statement for the ALP Project in 1980 (Reclamation 1980a), a Draft Supplement to the 1980 Final Environmental Statement in 1992 (Reclamation 1992), and a Final Supplement to the Final Environmental Statement in 1996 (Reclamation 1996).

In response to continuing public controversy, structural and nonstructural alternatives to the original proposed ALP Project were developed. Under the structural alternative, the initial stage of the project, as described in the 1996 Final Supplement to the Final Environmental Statement, would be constructed, including a proposed reservoir at Ridges Basin near Durango that would store water from the Animas River. In 1998, the U.S. Secretary of the Interior presented an

Administration Proposal to implement the Settlement Act through construction of a downsized dam and reservoir at Ridges Basin to supply water for only municipal and industrial uses to the Colorado Ute tribes and other project beneficiaries. Irrigation uses were eliminated with this proposal. Because the Administration Proposal represented a significant modification to the original project, Reclamation prepared a Draft Supplemental Environmental Impact Statement followed by the FSEIS in 2000. The Record of Decision identified Refined Alternative 4 of the FSEIS as the selected alternative (Reclamation 2000b). This alternative envisioned development and management of recreation by a nonfederal entity, including the following recreational developments and uses at the reservoir:

- 1,980 users at one time and 218,400 annual user days
- 10 miles of hiking trails
- 196 camping units, 37 picnic units, and one group site
- A four-lane boat ramp and 26 boat slips
- A two-lane county access road
- 591 parking stalls
- A public beach
- A fish-cleaning station, an entrance station, and an administrative building

In 2003, the Assistant Secretary of Water and Science determined that the U.S. (i.e., Reclamation) would build the major project components and that the State of Colorado or its citizens would be responsible for development and management of recreation at the reservoir. In 2004, Ridges Basin Reservoir was renamed as Lake Nighthorse, in honor of Ben Nighthorse Campbell, the former U.S. senator from Colorado who served as the primary author for the Settlement Act and its amendments. Construction of the ALP Project started in 2002, and reservoir filling was initiated in 2009 and completed in June 2011. The primary features of the ALP Project include Ridges Basin Dam and Reservoir, Durango Pumping Plant, and Ridges Basin Inlet Conduit. Reservoir storage at Lake Nighthorse currently totals 123,541 acre-feet, including 30,000 acre-feet of inactive storage to sustain a cold-water recreational trout fishery. Since 2003, the reservoir area and the area below the dam have been closed to public access.

In 2008, Colorado State Parks declined to accept the development and management of recreation at Lake Nighthorse and agreed to allow Reclamation to seek other nonfederal partners. The state gave Reclamation a \$3 million Motorboat Access grant for construction of a boat ramp, a parking area, a vault restroom, and an access road. Construction of the boat ramp project was completed in 2012. Recognizing the potential of the reservoir to serve as an important recreational amenity, the ALPWCD initiated public meetings in 2009 and contracted for the preparation of a recreation master plan in 2010 to evaluate and direct planning, development, and management of recreational facilities at Lake Nighthorse. At that time, the City of Durango expressed interest in serving as Reclamation's nonfederal partner responsible for development and management of recreation at Lake Nighthorse. Since development of a Draft Recreation Master Plan in 2011 (DHM Design 2011), in-depth discussions have been held with various stakeholders, primarily members of the ALPOMRA, including the ALPWCD, the Southern Ute Indian and Ute Mountain Ute tribes, and the City of Durango, regarding the scope of recreational

development at Lake Nighthorse. These discussions culminated in the development of a draft conceptual recreation plan by the City of Durango, in collaboration with Reclamation, in 2014 (Reclamation and City of Durango 2014).

1.3 PURPOSE AND NEED FOR ACTION

The purpose and need is to provide recreation at Lake Nighthorse while protecting water quality and sensitive natural, cultural, and other resources including Indian Trust Assets, and to ensure compatibility with the primary purpose of the ALP Project for municipal and industrial water supply. Recreation is an incidental or secondary purpose of the ALP Project and is subordinate to the primary purpose as mentioned above. Public involvement and participation conducted from March 2009 through April 2011 identified a public desire for a variety of recreational opportunities, including boating, swimming, multi-use trails, fishing, hunting, camping, picnicking, other activities, and special events (DHM Design 2011). Similarly, a market study completed in June 2010 identified local and regional demand for reservoir-based recreational activities, including boating, fishing, camping, swimming, and trail use. The percentage of the local or regional population that participates in these types of reservoir-based activities ranges from 26 percent to 87 percent, which is significantly higher than national rates (RPI Consulting 2010a).

1.4 PROJECT LOCATION

This EA addresses implementation of a recreation plan through the planning, development, and management of recreational facilities at Lake Nighthorse near Durango, La Plata County, Colorado (Figures 1 and 2). The study area includes the reservoir and the surrounding upland areas. The reservoir has a surface area of approximately 1,500 acres at full pool and 750 acres at minimum pool. The reservoir area and the area below the dam that fall under Reclamation jurisdiction total about 5,500 acres. For this analysis, the study area includes the reservoir area as well as adjacent private, tribal, municipal, and state lands (Figure 2). It is also anticipated that socioeconomic effects could extend to Durango and parts of La Plata County.

1.5 DECISION TO BE MADE

Implementation of a recreation plan at Lake Nighthorse, including the planning, development, and management of recreational facilities, is subject to compliance with NEPA because it is on federal land. The responsible official for this EA, the area manager for Reclamation's Western Colorado Area Office, must decide whether to approve an action alternative that meets the purpose and need stated in this EA. If an action alternative is selected, the proposed recreational facilities would be developed and administered through establishment of a management authority under contract with Reclamation. Reclamation would retain ownership and oversight responsibility for operation of the dam, reservoir, recreational facilities, and associated upland areas under its jurisdiction.

1.6 PUBLIC INVOLVEMENT

1.6.1 Public and Agency Scoping

The CEQ defines scoping as “an early and open process for determining the scope of issues to be addressed and for identifying significant issues related to a proposed action” (40 CFR 1501.7).

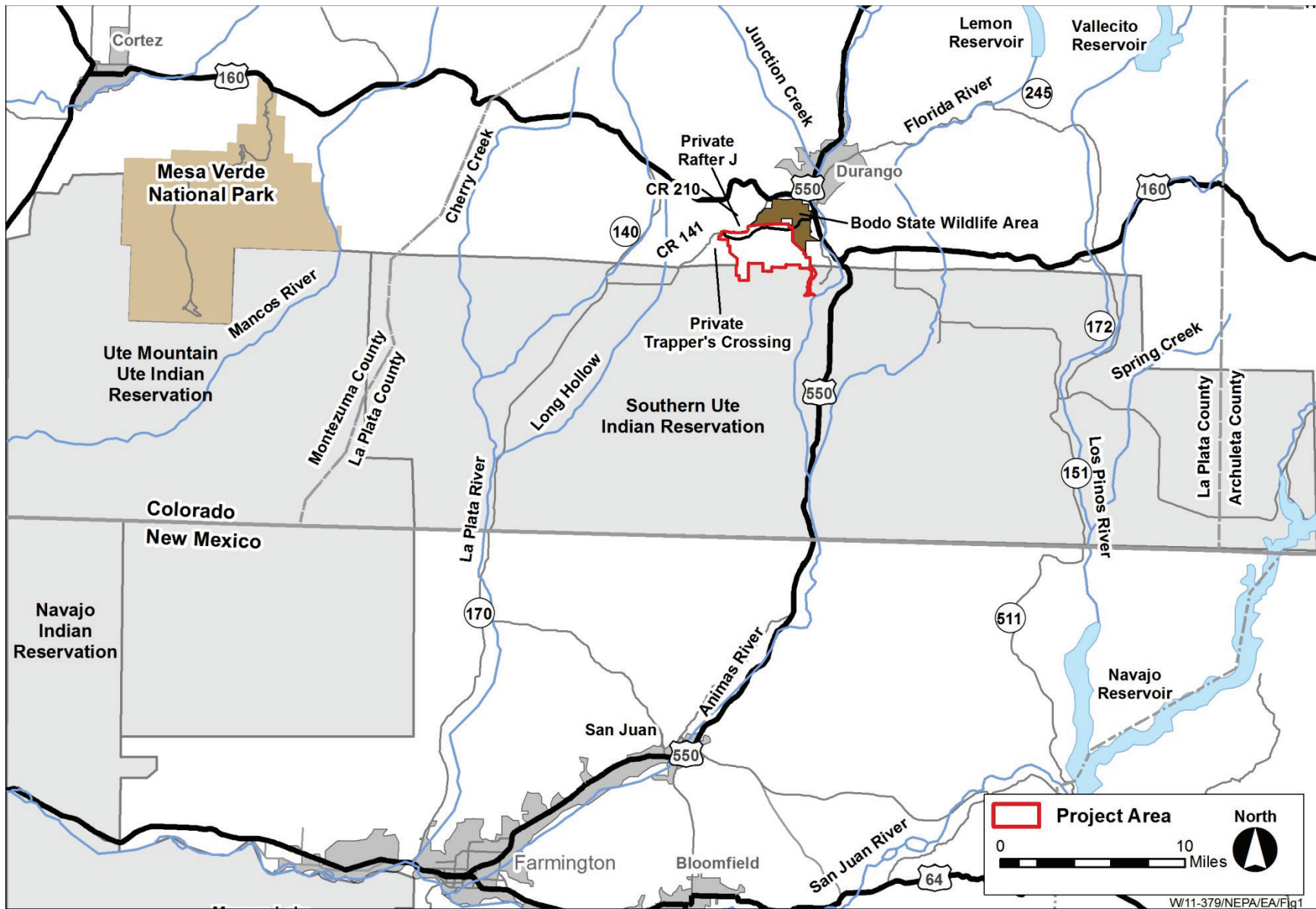


Figure 1. Project vicinity.

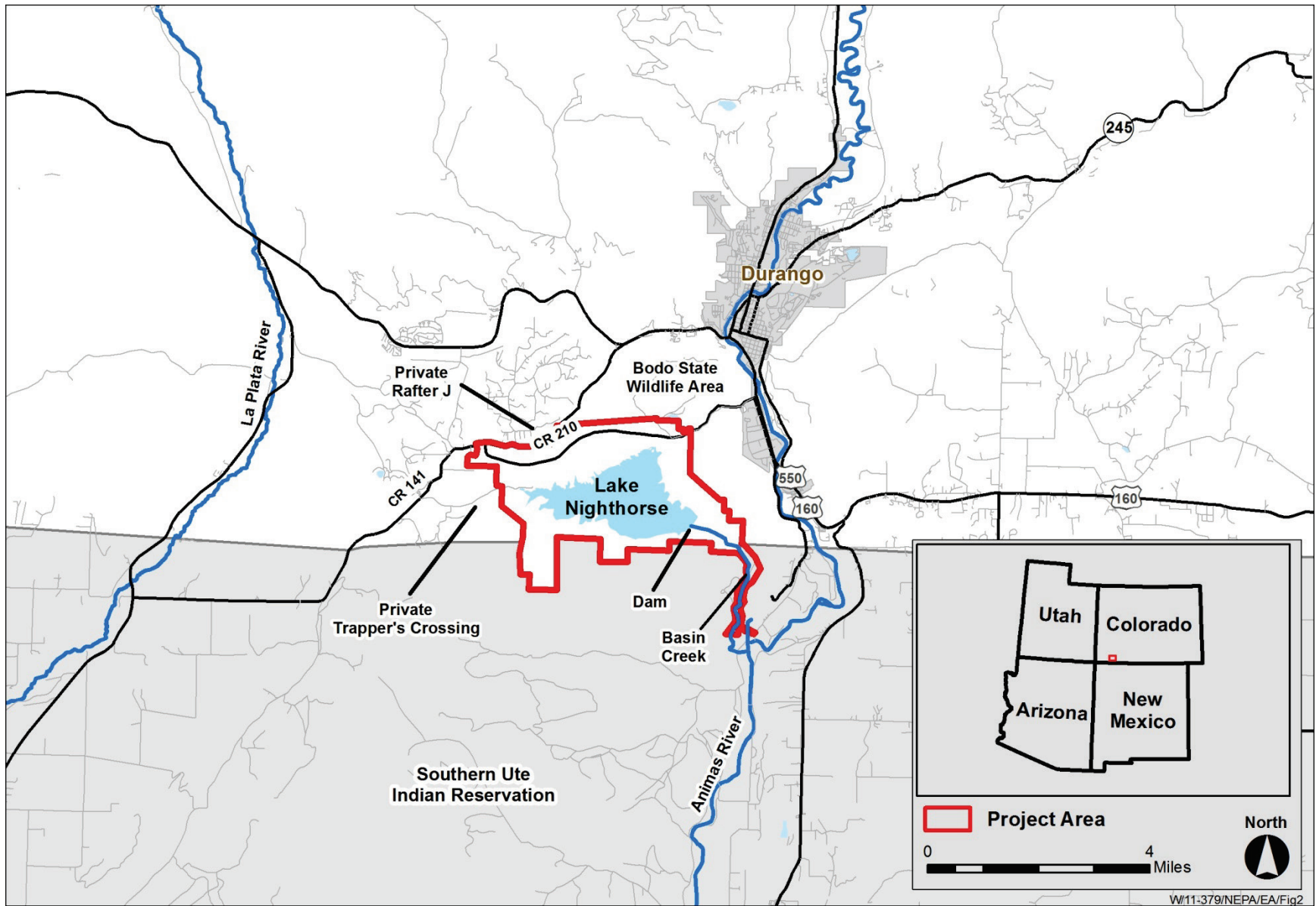


Figure 2. Project area.

Scoping, which encourages public input and helps focus the environmental analysis on relevant issues, is an important foundation to the NEPA process.

Public and agency scoping was initiated in March 2009 as part of the development of a Draft Recreation Master Plan for Lake Nighthorse. A collaborative public involvement process was undertaken that included open houses, a public forum, issues workshops, and a design workshop. The public was notified of each of these events through advertisements published in local newspapers and public service announcements on local radio stations. Email announcements were sent to interested parties and those individuals who previously contacted the planning team or provided contact information. Additionally, the public process calendar was advertised through posters, comment cards, and a website. Though no formal agency consultations occurred in the development of the Draft Recreation Master Plan, Colorado Parks and Wildlife (CPW) and the U.S. Army Corps of Engineers (Corps) were represented in the planning process because of their special expertise and Reclamation's existing commitments. The National Park Service facilitated the public process.

All public involvement events in 2009 and 2010 were held in Durango. Open houses were held on March 5, 2009, and November 10 and 11, 2010. At these open houses, project representatives provided the public with basic information, answered questions, and established a common baseline of factual information. A public forum was held on November 16, 2010, to allow interested persons to express concerns, share ideas, and identify issues related to the project. Workshops were held on December 7 and 8, 2010, to identify specific issues and develop shared solutions to water and shoreline recreation and land-based recreation, respectively. A two-day design workshop was held on January 11 and 12, 2011, to further develop recommendations for recreation at Lake Nighthorse. This workshop specifically addressed water-based recreation, trails, camping, shoreline recreation, education and interpretation, and financing and management of recreation. A public open house was held on April 11, 2011, to review the Draft Recreation Master Plan, answer questions, obtain recommendations from the community, and discuss the process for finalizing the plan.

The following issues were identified as a result of public scoping:

- Motorized vs. nonmotorized water-based recreation
- Noise effects on nearby residential areas and wildlife
- Public access to the area north of County Road (CR) 210
- Introduction and spread of invasive aquatic species
- Effects on water quality/pollution
- Impacts on nesting golden eagles
- Effects on wildlife habitat and wildlife corridors
- Desire for hunting opportunities
- Americans with Disabilities Act (ADA) accessibility
- Expanded fishing opportunities (stocking of warm-water species)

- Mountain bike and hiker effects on wildlife
- Noxious/invasive weed effects (from horses)
- Separate trail users (bikes vs. horses)
- Potential effects of introducing new fish species, invasive aquatic species, parasites, and diseases into the Animas River
- Light pollution
- Effects on property values
- Maintenance/operating costs
- Erosion
- Phased implementation
- Preservation of cultural resources

On June 18, 2014, a public open house/community meeting was held by Reclamation in Durango to provide an update on recreation planning at Lake Nighthorse. The majority of comments received inquired about the anticipated opening date of the recreational area and expressed a desire to open the area in the near future. Other comments inquired about specifics such as recreational vehicle (RV) access, cost, allowable length of stay, and allowable motorboat size. One commenter made a suggestion about automated fee collection and another questioned the need for stricter regulations compared with other recreational areas/lakes in the area. Comments also questioned the effects of recreational development on the reservoir's primary purpose (water storage and availability).

Following completion of the Lake Nighthorse Recreation Master Plan prepared and funded by the Animas-La Plata Water Conservancy District (ALPWCD)—Final Draft May 2011, discussions ensued with the member entities of the ALPOMRA and Reclamation. Consensus was reached to establish the framework for proceeding with recreation at Lake Nighthorse to ensure compatibility with the primary purpose of the project. These discussions led to the creation of the Lake Nighthorse Conceptual Recreation Plan—October 2014 Draft prepared by the City of Durango and Reclamation.

1.6.2 Preliminary Draft EA

The Preliminary Draft EA was made available for review by an ALP Project stakeholder group. Comments received on the Preliminary Draft EA and responses are included in Appendix A.

2.0 DESCRIPTION OF ALTERNATIVES

This chapter describes the range of alternatives considered for the development of recreational facilities at Lake Nighthorse. Three action alternatives are analyzed in detail in this EA. These consist of implementation of the Conceptual Recreation Plan developed in 2014 (Proposed Action—2014 Recreation Plan), the Draft Recreation Master Plan developed in 2011 (Action Alternative 1—2011 Recreation Plan), and additional recreational development described in the 2000 FSEIS (Action Alternative 2—2000 FSEIS Recreation Plan). As required by NEPA, a No Action Alternative is included, under which no recreational development would take place. The three action alternatives and the No Action Alternative are described in detail in the following sections. Section 2.5 lists commitments common to all action alternatives considered. Section 2.6 includes alternatives considered but eliminated from this EA. Section 2.7 summarizes and compares the alternatives under consideration with regard to proposed facilities and environmental consequences.

Recreation plans under all three action alternatives would incorporate use of existing and authorized facilities, specifically the existing boat ramp and associated parking area and access road, and a currently authorized (but not yet constructed) entrance station that includes an aquatic nuisance species (ANS) inspection station. Under the action alternatives and the No Action Alternative, Reclamation would maintain, in cooperation with CPW, a cold water (trout) fishery that has been established in Lake Nighthorse. Stocking of trout, in addition to fish tissue monitoring, and issuance of fish consumption advisories as needed, would reduce the potential for mercury consumption hazard. In addition, under the action alternatives and the No Action Alternative, Reclamation is responsible for protecting water quality and sensitive natural, cultural, and other resources including Indian Trust Assets, and to ensure compatibility with the primary purpose of the ALP Project for municipal and industrial water supply.

2.1 PROPOSED ACTION—2014 RECREATION PLAN

The Proposed Action would develop recreational facilities described in the 2014 conceptual recreation plan (Reclamation and City of Durango 2014). This plan was developed as a result of discussions initiated in 2011 with the City of Durango (City) exploring the feasibility of their development and management of recreation at Lake Nighthorse. These discussions led to a consensus among project stakeholders on development and management of recreation facilities to ensure compatibility with the primary purpose of the project (municipal and industrial water supply). This plan was developed in accordance with guiding principles and best management practices that include protection of cultural resources; compliance with standards and regulations; monitoring and protection of water quality; acknowledgement of Brunot Treaty Rights; promotion of ecological sustainability and protection of wildlife habitat; and to provide proper stewardship and law enforcement for public access. Under the Proposed Action, the City would serve as the non-federal recreation manager under contractual arrangement with Reclamation, and the City would annex the recreation footprint proposed under this alternative. Compared with the other two action alternatives, recreational development at Lake Nighthorse under the Proposed Action would be more limited in scope and extent.

Under the Proposed Action, development would be limited to the minimum facilities necessary to open the area to the public, including facilities for public health and safety, law enforcement,

and environmental protection. Specifically, these facilities would consist of an overflow parking area for the existing boat ramp, including a connecting trail, improvement of boat ramp access road by regrading and application of a chip seal surface, and development of a courtesy dock system at the existing boat ramp. Figure 3 depicts the proposed recreation footprint and the general location of the facilities proposed under this alternative. Figure 4 shows the location and configuration of the boat ramp access road realignment, boat ramp overflow parking area, and access/connector trail.

Possible future recreation development under this alternative may include interpretive displays and education, a natural surface trail connecting Lake Nighthorse to the Animas River Trail, a looped natural surface trail system on the east side of the reservoir, potential linkages with other trails outside the project area, a public swim beach and picnic area, a trail connecting the swim beach to the overflow parking area, breakwater structures at the boat ramp and swim beach, a public campground with access near the entrance station, a permanent entrance building, and day use picnic and/or parking areas along the east lakeshore. All future development would be subject to additional environmental review and approval by Reclamation.

To address Reclamation's concerns about safety and security associated with the dam and appurtenant facilities, there would be no public access to the dam and Basin Creek downstream of the dam to La Posta Road including certain areas associated with the Ridges Basin Inlet Conduit. A segment of the existing utility access road immediately northeast of the dam would be permanently closed to public access. The remaining segment of this road (from the point of permanent public access closure northeast of the dam to the existing boat ramp) would be closed to public vehicular access, though non-motorized access would be permitted. This alternative would allow public access within a 25-foot wide buffer along the entire reservoir shoreline, except for the face of the dam and subject to seasonal restrictions.

The lake and recreational area would be initially designated as day use only from sunrise to sunset, with seasonal restrictions in some areas. The lake would be closed to all motorized boating recreation from mid-November to mid-May (unless the CPW, U.S. Fish and Wildlife Service (USFWS), Reclamation, ALPOMRA, and the recreation manager agree to an earlier spring opening or later fall closure on an annual basis). Designated areas in the south and west portions of the project area would be closed to public access from mid-November to mid-May to protect wildlife habitat. All areas within $\frac{1}{4}$ mile of golden eagle nest sites would be closed to public access from December 1 to July 15. Temporary closures due to unforeseen events may occur periodically.

Funding for development, maintenance, and management of the recreational facilities (capital and operation costs) would come from user fees, grants, and subsidies. Low-impact commercial activities such as boat rentals, scuba lessons, rescue classes, and children's day camps would be allowed under the Proposed Action and would add revenue and expand the spectrum of recreational opportunities. Large events such as tournaments and music festivals would be reviewed on a case-by-case basis with the City, the ALPOMRA and its individual members, and Reclamation.

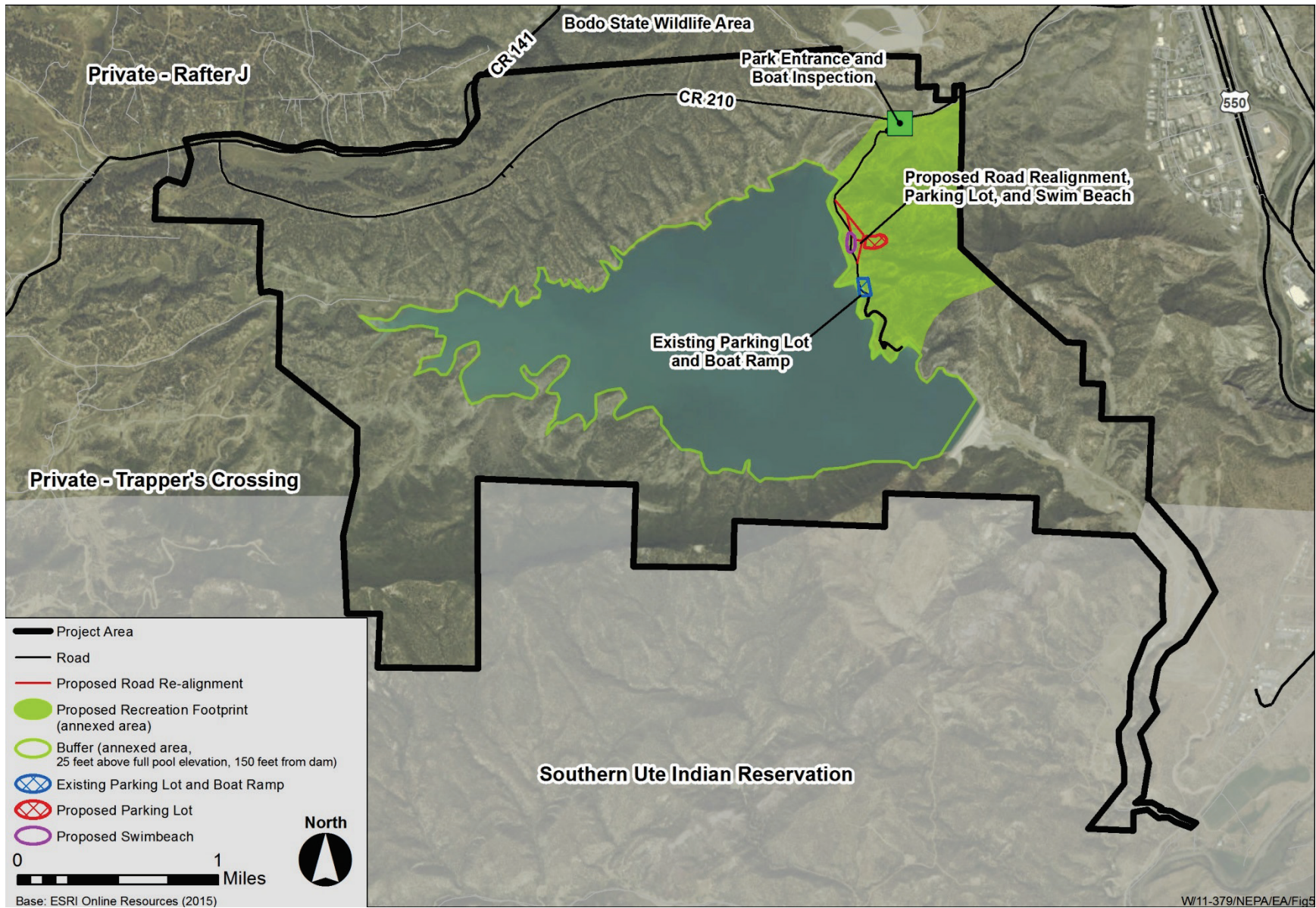


Figure 3. Proposed Action (2014 Recreation Plan).

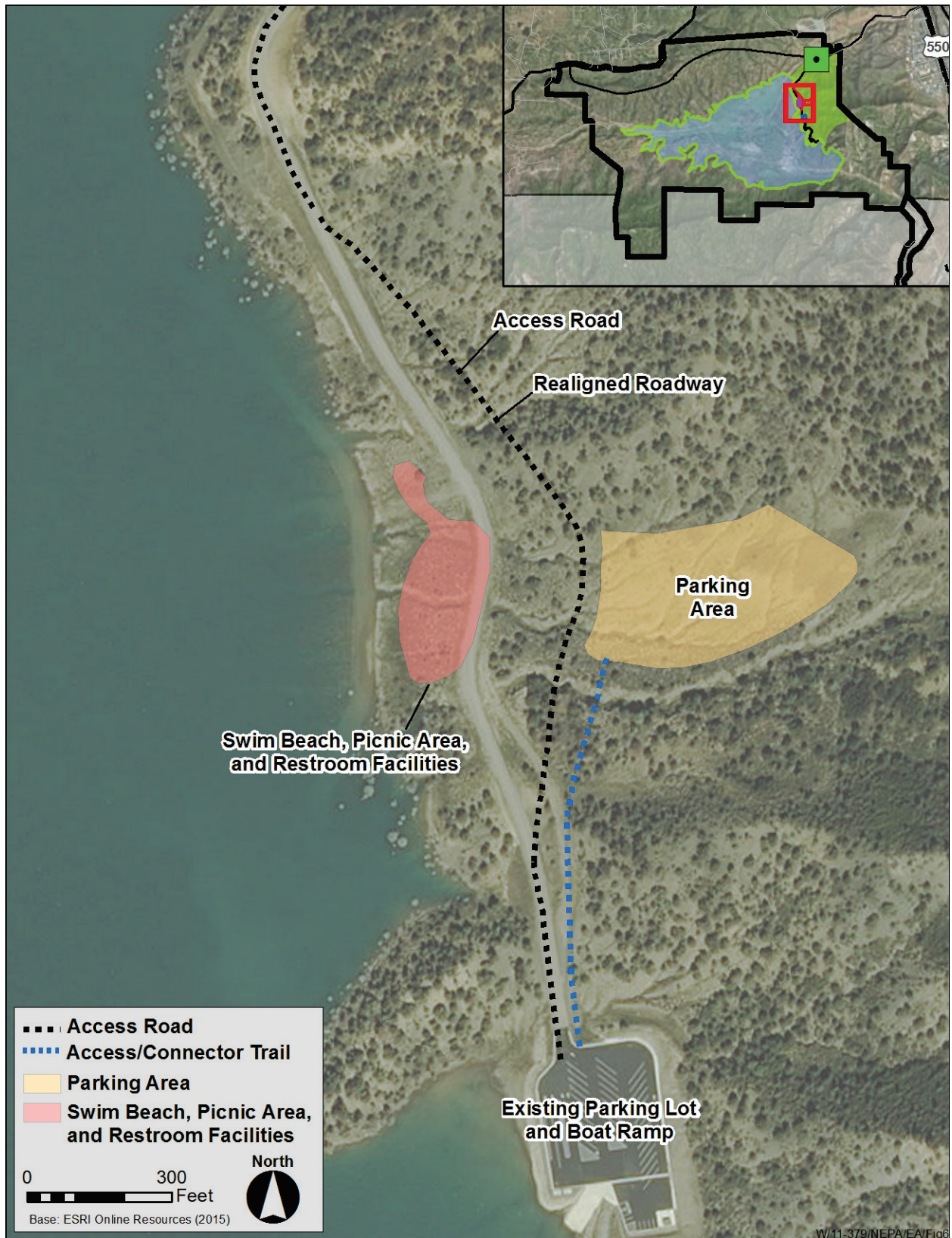


Figure 4. Proposed Action (2014 Recreation Plan)—Swim beach area detail.

Reclamation acknowledges the Tribes' Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights.

2.2 ACTION ALTERNATIVE 1—2011 RECREATION PLAN

This alternative would implement the Draft Recreation Master Plan developed for Lake Nighthorse in 2011 (DHM Design 2011). This draft plan was initiated by ALPWCD and developed through a collaborative public involvement process that took place from March 2009 through April 2011 and included open houses, a public forum, issues and design workshops, which identified a public desire for a variety of recreational opportunities, including boating, swimming, multi-use trails, fishing, hunting, camping, picnicking, other activities, and special events. Under this alternative, implementation of the improvements would occur in phases, as available funding allowed. For the initial phase, specific locations are identified for a 2.4-mile ADA-accessible trail and trailhead; a nonmotorized boat launch area; a swim beach; a parking area to service the proposed swim beach, trail, and nonmotorized boat launch area; a vehicle turnaround and limited ADA parking at the end of the swim beach area access road; and a courtesy dock and breakwater at the existing boat ramp. For subsequent phases, proposed facilities include a boat ramp overflow parking area; a proposed fishing and picnic area with access road, parking area, and trail; multi-use trails; a trailhead on the north side of CR 210; a trailhead at the west end of the lake off CR 211; three campgrounds; 40 boat slips for campers at the existing boat ramp; and a day-use area south of the existing boat ramp. Figure 5 depicts the general location of the facilities proposed under all phases. Figure 6 shows the location and configuration of the swim beach, the ADA-accessible trailhead, the nonmotorized boat launch, and associated parking areas under this alternative.

As under the Proposed Action, development and operation of recreational facilities under Action Alternative 1 would occur through the establishment of a management authority under contract with Reclamation. Funding for development, maintenance, and management of the recreational facilities would come from user fees, grants, and subsidies. Low-impact commercial activities such as boat rentals, scuba lessons, rescue classes, and children's day camps would be allowed under this alternative and would add revenue and expand the spectrum of recreational opportunities. Large events such as tournaments and music festivals would be reviewed on a case-by-case basis with the recreation manager, the ALPOMRA and its individual members, and Reclamation. Capital improvements would occur in phases, contingent on funding availability. Funding sources would be the same as under the Proposed Action, and other activities and events would be allowed contingent on review and approval by the recreation manager, the ALPOMRA, and Reclamation.

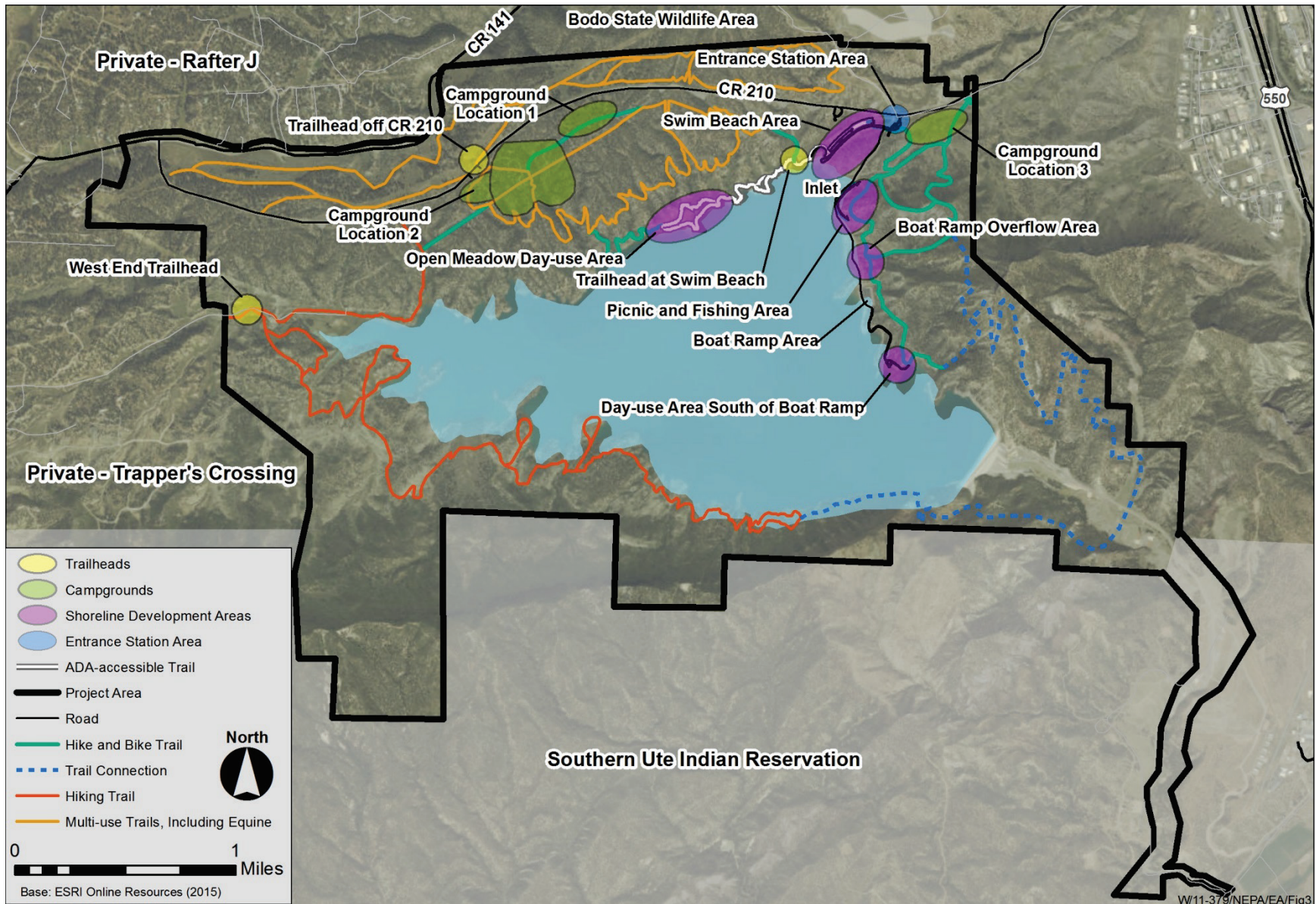


Figure 5. Action Alternative 1 (2011 Recreation Plan).

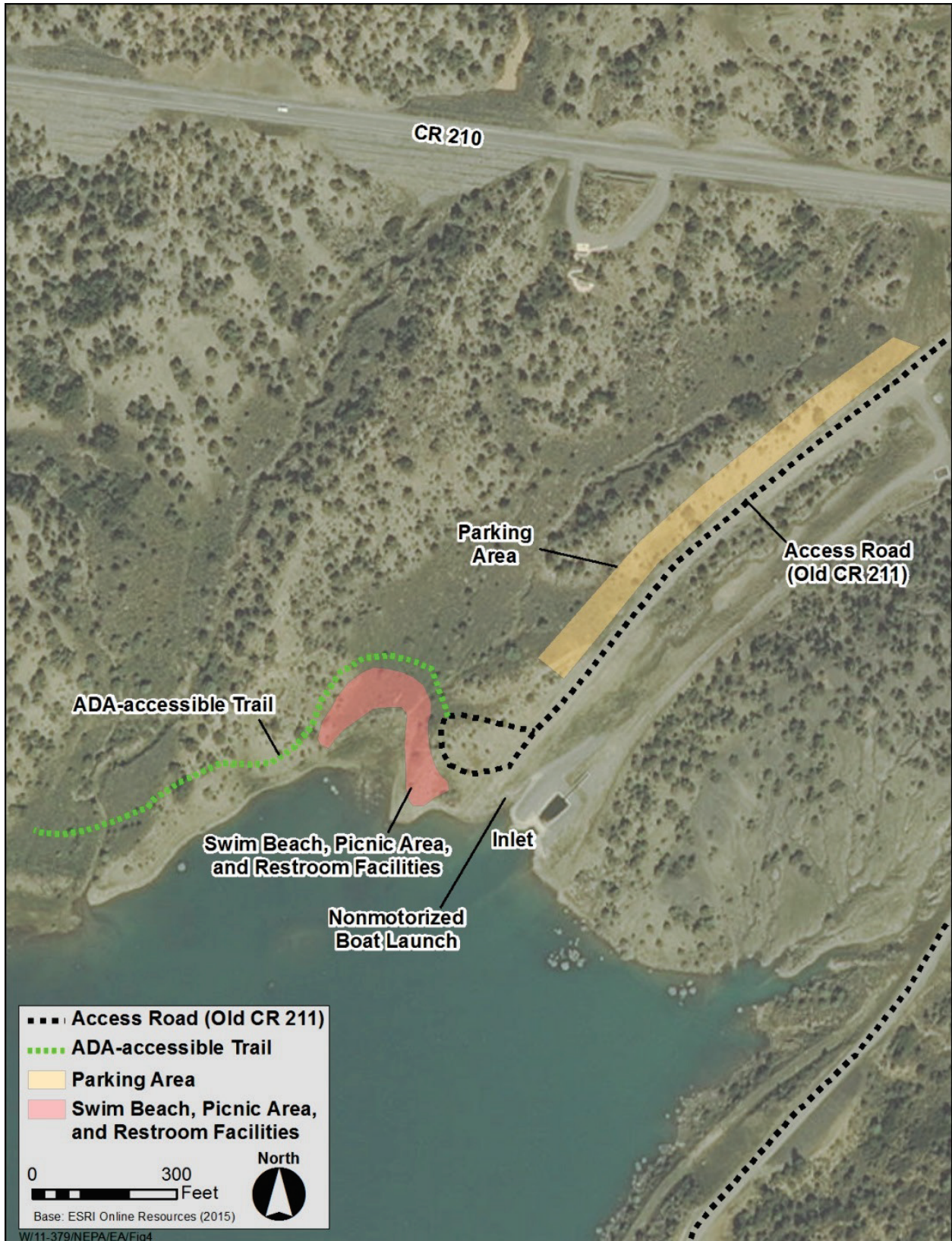


Figure 6. Action Alternative 1 (2011 Recreation Plan)—Swim beach area detail.

The lake and recreational area would be initially designated as day use only from sunrise to sunset, with seasonal restrictions in some areas. The lake would be closed to all motorized boating recreation from mid-November to mid-May (unless the CPW, USFWS, Reclamation, ALPOMRA, and the recreation manager agree to an earlier spring opening or later fall closure on an annual basis). Designated areas in the south and west portions of the project area would be closed to public access from mid-November to mid-May to protect wildlife habitat. All areas within ¼ mile of golden eagle nest sites would be closed to public access from December 1 to July 15.

Same as the Proposed Action, to address Reclamation's concerns about safety and security associated with the dam and appurtenant facilities, there would be no public access to the dam and Basin Creek downstream of the dam to La Posta Road including certain areas associated with the Ridges Basin Inlet Conduit under Action Alternative 1. A segment of the existing utility access road immediately northeast of the dam would be permanently closed to public access. The remaining segment of this road (from the point of permanent public access closure northeast of the dam to the existing boat ramp) would be closed to public vehicular access, though non-motorized access would be permitted.

Reclamation acknowledges the Tribes' Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights.

2.3 ACTION ALTERNATIVE 2—2000 FSEIS RECREATION PLAN

Action Alternative 2 would develop recreational facilities as contemplated in the 2000 FSEIS (Reclamation 2000a) and described originally in the 1980 Final Environmental Statement and the associated 1980 Definite Plan Report (Reclamation 1980b). The scope and extent of recreational development would be similar to that of Action Alternative 1, but facilities would be located primarily along the north lakeshore rather than the east lakeshore (Figure 7). These would include hiking trails, a campground, picnic area, marina, boat ramp and parking, a public beach for swimming, and a fisherman access area. Some facilities proposed under Action Alternative 1 would not be developed under Action Alternative 2—the boat ramp courtesy dock and an overflow parking area for the existing boat ramp on the east lakeshore, the ADA-accessible trail, the nonmotorized boat launch and parking area, and the fishing/picnic/day-use areas on the east lakeshore.

Same as the Proposed Action and Action Alternative 1, to address Reclamation's concerns about safety and security associated with the dam and appurtenant facilities, there would be no public access to the dam and Basin Creek downstream of the dam to La Posta Road including certain areas associated with the Ridges Basin Inlet Conduit under Action Alternative 2. A segment of the existing utility access road immediately northeast of the dam would be permanently closed to public access. The remaining segment of this road (from the point of permanent public access closure northeast of the dam to the existing boat ramp) would be closed to public vehicular access, though non-motorized access would be permitted.

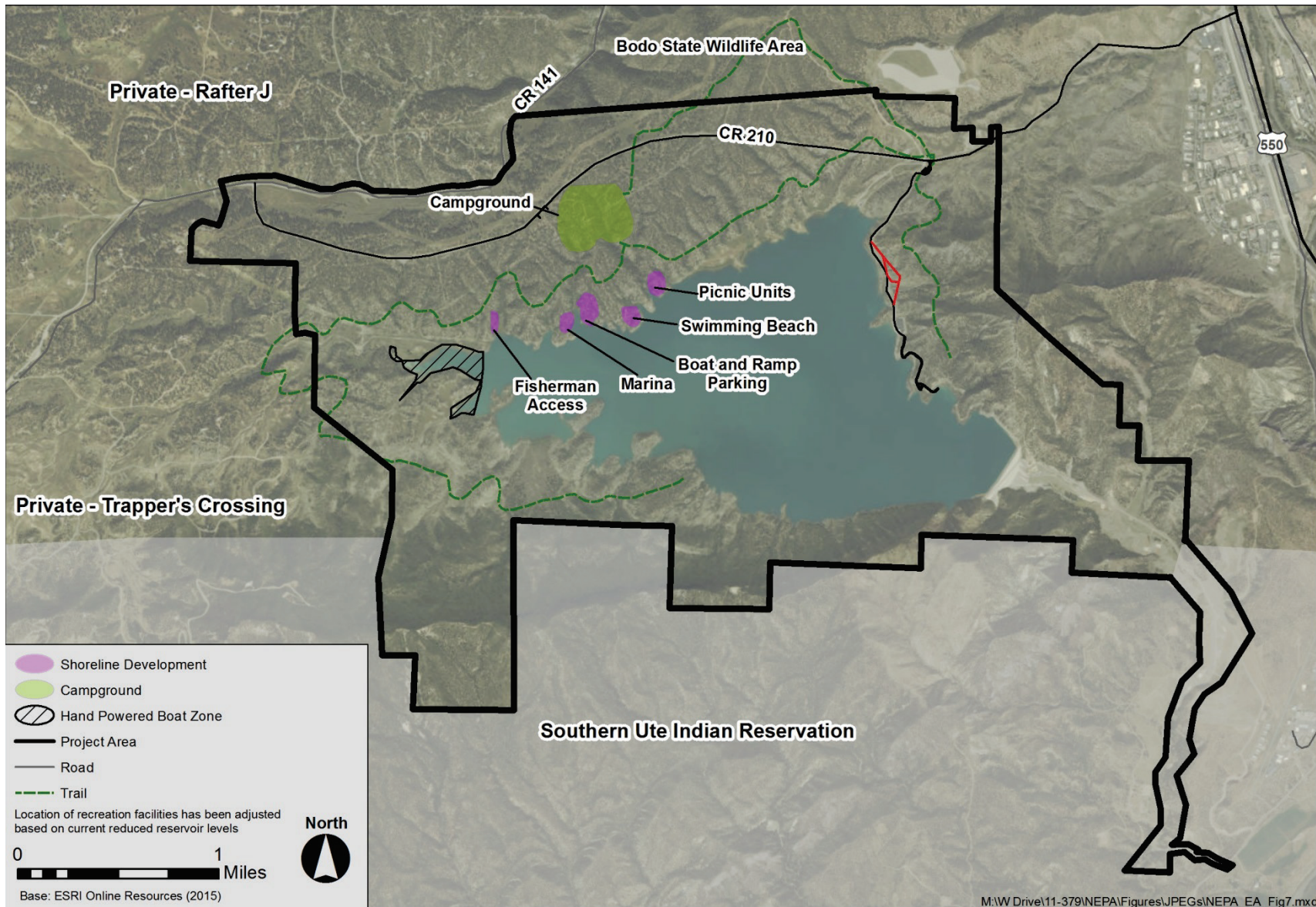


Figure 7. Action Alternative 2 (2000 FSEIS Recreation Plan).

Reclamation acknowledges the Tribes' Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights.

2.4 NO ACTION ALTERNATIVE

NEPA requires evaluation of a No Action Alternative (40 CFR 1502.14). "No action" is generally interpreted as the resulting outcome if the proposed federal action, or its action alternatives, are not implemented. The No Action Alternative provides a baseline for comparison of the environmental effects associated with the action alternatives.

Under the No Action Alternative, the reservoir area and area below the dam would remain closed to the public. The reservoir would be managed solely for water storage as part of the ALP Project. Fencing and gates that currently prevent public access would be maintained by Reclamation, and patrolling of the site by Reclamation and the La Plata County Sheriff's Office would continue to prevent or minimize unauthorized entry. Under the No Action Alternative, development of appropriate recreational facilities at Lake Nighthorse, as authorized by the Colorado Ute Settlement Act Amendments of 2000 (P.L. 106-554, Section 302[a][1][A][i][IV]), would not occur. This alternative would not meet the intent of the Motorboat Access Grant issued by the State of Colorado.

Reclamation acknowledges the Tribes' Brunot Treaty Rights; however, the reservoir area will remain closed to all activities under the No Action Alternative.

2.5 COMMITMENTS COMMON TO THE ACTION ALTERNATIVES

Table 1 lists commitments associated with the action alternatives. The commitments pertain to all three action alternatives (Proposed Action, Action Alternative 1, and Action Alternative 2), except where otherwise noted. These commitments represent measures identified as mitigation in the FSEIS or developed to address specific issues identified from public outreach and agency coordination during the 2011 recreation master planning process. Some of these measures have been adapted or modified based on the analysis in this document. Geographic boundaries of use restrictions common to the action alternatives are depicted in Figure 8.

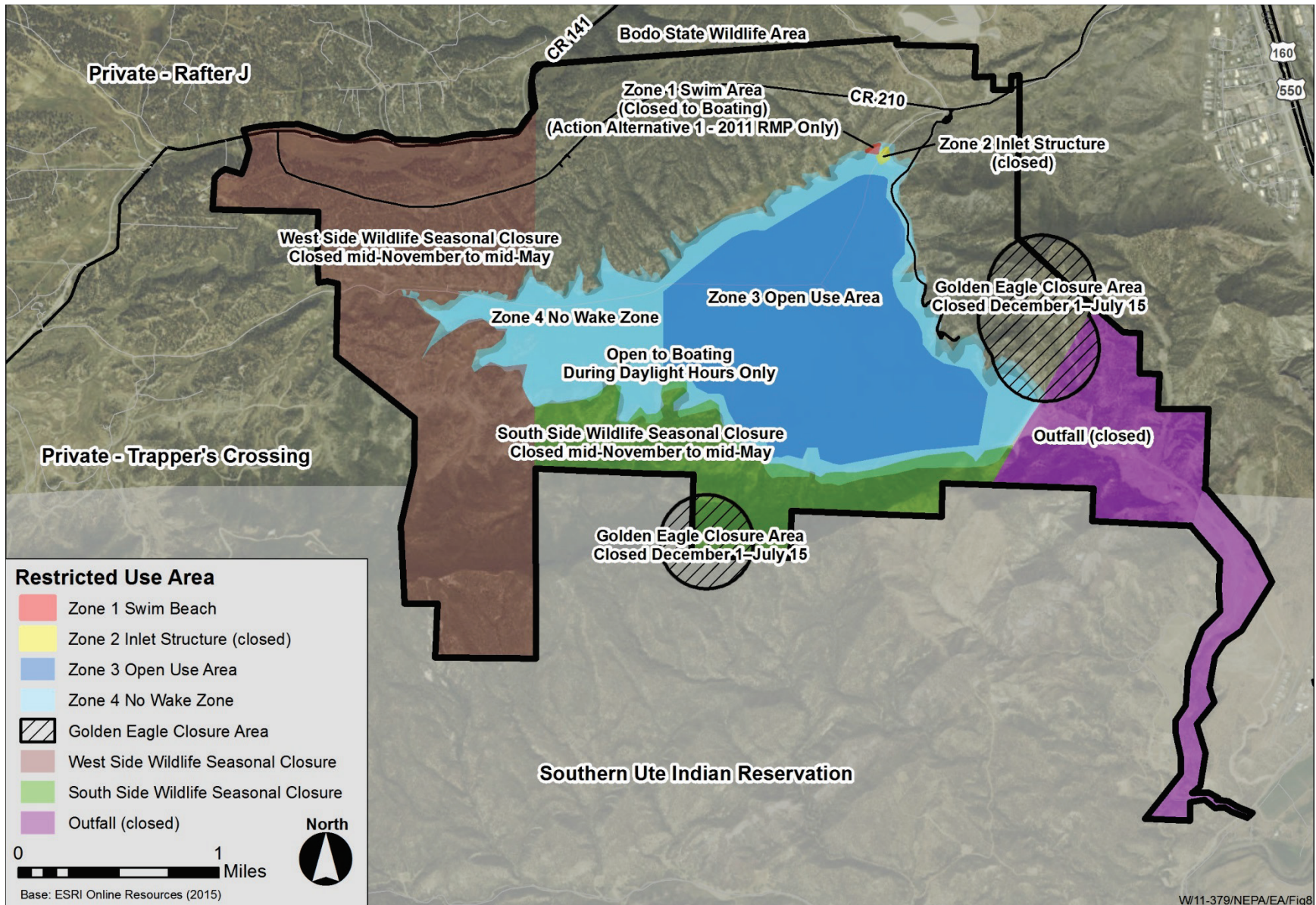


Figure 8. Use restrictions common to all action alternatives.

Table 1. Commitments common to the action alternatives.

Measures	Issues/Resource(s) Targeted
The lake shall be closed to all motorized boating recreation from mid-November to mid-May. The lake may open earlier in the spring or stay open later in the fall if agreed by the CPW, Reclamation, and the recreation manager. ^{1,2}	Wildlife (impacts to elk and deer winter range), noise
No boats shall be operated on the lake from sunset to sunrise. ³	Wildlife, noise, public safety
An ANS monitoring, education, and inspection program shall be implemented. ³	Aquatic resources, water quality
All motor boats shall be required to be equipped with mufflers that maintain sound levels below 86 decibels on the A-weighted scale (dBA) at 50 feet from the boat and below 55 dBA in neighboring residential areas (measured outdoors). ³	Noise (impacts on nearby private residences)
The lake shall be zoned and marked with buoys to denote no boating near any swim beach, the inlet, and the dam; no wake zones at the west end of the lake and around the shoreline; and open use areas where motorized boat travel up to 40 miles per hour (mph) would be allowed. At minimum pool (750 acres), the entire lake would be zoned as a no wake zone. ³	Noise (impacts on nearby private residences), user conflicts, public safety
Breakwaters shall be constructed at any swim beach and boat ramp areas. ³	User conflicts, public safety
Swimming, wading, snorkeling, scuba diving, rafting, or tubing shall be prohibited within 300 yards of the dam and inlet structure; within 100 yards of buoys or barriers marking public access limits; at the boat dock and boat launch site; and in designated mooring areas.	User conflicts, public safety
Motorized personal watercraft (e.g., jet skis) with open-air exhaust and two-stroke engines; houseboats that are used as a human dwelling; cabin cruisers with full living quarters on board, including plumbing; and open-air-exhaust boats shall not be allowed on the lake. ³	Noise (impacts on nearby private residences), user conflicts, public safety
All boats shall be required to operate at safe speeds, not exceeding 40 mph in open use zones and not exceeding 5 mph in no wake zones. ³	Public safety
No fueling shall be allowed on the lake, and all fueling shall occur in designated areas only. ³	Water quality
Scuba diving shall require the use of a diver's flag to warn other boaters. ³	Public safety
Water-skiing shall be allowed only in areas of the lake zoned for open use. ³	User conflicts, public safety
Flotation devices shall be required for all persons being pulled or towed by a boat, and this activity shall be prohibited within 500 feet of entrances, swimming beaches, and mooring areas, and within 100 feet of any person swimming, fishing, or diving; motorized boat travel shall be required to proceed in a counterclockwise direction. ³	Public safety, user conflicts
The south and west portions of the project area shall be closed to public access from mid-November to mid-May and open only to foot traffic outside the seasonal closure period. No recreational facilities or other facilities, such as cabin sites, shall be developed in the project area under any of the action alternatives. ^{1,2}	Wildlife (impacts to elk and deer winter range)
All areas within ¼ mile of historic and current golden eagle nest sites shall be closed to public access from December 1 to July 15. ^{1,3}	Wildlife (impacts to golden eagle nesting habitat)
Efforts shall be made to avoid construction from May–July in the vicinity of elk calving areas. ¹	Wildlife (impacts to elk calving areas)

Table 1. Commitments common to the action alternatives.

Measures	Issues/Resource(s) Targeted
Snowmobiles, off-road vehicles, and aircraft shall be prohibited.	Wildlife (impacts to elk and deer), noise, natural resources
Facilities, including trails, shall be designed to prevent future erosion and sedimentation. A Storm Water Management Plan, if necessary, shall be prepared and implemented, and best management practices shall be installed prior to all construction activities in accordance with state and federal regulations. ^{1,2}	Water quality
All lighting shall be dark-sky compliant. Lighting shall be solar-powered, to the extent feasible. ²	Visual quality
All roadways open to public and other use shall be graveled initially and improved as need arises and funding allows. ²	Air quality
All structures shall complement the existing landscape through the use of natural materials; parking lots and campgrounds shall be tucked into existing landforms; and utilities shall be installed underground. ²	Visual quality
All landscaping shall consist of native and adapted vegetation pre-approved by Reclamation. ²	Natural resources, visual quality
Structures shall be constructed of fire-resistant materials, and locations of existing utilities shall be verified prior to construction. ^{1,2}	Public health and safety
Design and construction of trails shall minimize erosion and sedimentation through construction in dry periods only, diversion of runoff across trails, maintenance of existing drainages, stabilization of all disturbed slopes with vegetation after construction, installation of signage and fencing to discourage social (undesigned) trails as needed. Under Action Alternatives 1 and 2, any trails north of CR 210 shall incorporate existing ranch and service roads. ^{1,2}	Water quality, natural resources
Under Action Alternatives 1 and 2, any trails on the south and west sides of the reservoir shall be designated for foot traffic only. ^{1,3}	Wildlife
Disturbance and removal of slow-growing trees, such as pinyon pine, juniper, and ponderosa pine, shall be minimized to the extent possible.	Vegetation
Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off leash dogs would be permitted. ²	Public health and safety
Trail development in the project area shall be coordinated with the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Trails 2000, the City of Durango, La Plata County, ALPOMRA, and the CPW, and opportunities for linkage with other trail systems outside the project area may also be considered. ²	Recreation
Wildlife-resistant trash receptacles shall be used. ²	Public health and safety, wildlife
Campgrounds shall have hosts and shall be managed and patrolled 24 hours a day and seven days a week when open. Quiet hours shall be designated from 10 p.m. to 6 a.m. ³	Public health and safety
Fire hazard mitigation plans shall be developed and implemented for each campground and shall specify, at a minimum, no fires outside grills or fire rings, no unattended fires, and no discharge or use of fireworks. ³	Public health and safety

Table 1. Commitments common to the action alternatives.

Measures	Issues/Resource(s) Targeted
The recreation manager, Reclamation, and the ALPOMRA shall continue to coordinate with the Colorado Department of Public Health and Environment (CDPHE) regarding inclusion of Lake Nighthorse in a statewide fish tissue monitoring program to assess bioaccumulation of mercury and to develop protective measures, if warranted. ¹	Public health and safety, water quality, wildlife
Reclamation shall commit to providing trout to be stocked in Lake Nighthorse to provide a recreational fishery. ¹	Recreation
Effects on cultural resources shall be evaluated through the process outlined in an approved Cultural Resource Management Plan (CRMP) in compliance with the National Historic Preservation Act Section 106. As needed, cultural resource surveys shall be completed prior to future development to determine impacts on other cultural resource sites, potential for avoidance, or need for testing and data recovery. ¹ As needed, an archaeologist shall be available during all construction activities in the project area. The recreation manager shall assign staff to monitor recreational activities and enforce rules, regulations, and/or measures for the protection of cultural resources. Shoreline monitoring will be conducted pursuant to an approved CRMP.	Cultural resources
Reclamation acknowledges the Tribes' Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights.	Brunot Treaty Rights
Construction contractors shall be required to implement measures to control fugitive dust and exhaust emissions during construction, such as water spraying of access roads and materials storage piles. ¹	Air quality
Reclamation shall ensure that construction contractors provide blasting notification to residents, sound pre-blast alarms, and follow the construction safety plan as described in the FSEIS. Construction activities shall be scheduled to avoid or minimize loud activities in the vicinity of golden eagle nesting areas during the nesting season. ¹	Noise, wildlife

¹ Environmental commitments identified in the FSEIS.

² Design guidelines identified in the 2011 Draft Recreation Master Plan.

³ Rules and regulations, including closures and use restrictions, identified in or adapted from the 2011 Draft Recreation Master Plan.

2.6 ALTERNATIVES CONSIDERED BUT ELIMINATED

2.6.1 No Motorized Boats

In response to public input, closure of the lake to motorized boats was considered early in the planning process. This alternative was eliminated from further consideration because it would not meet the projected demand for this type of activity. Motorized boating is anticipated to be one of the primary drivers of recreation at Lake Nighthorse, representing 18 percent of the total estimated annual user days (nearly 29,000 of the projected 163,197 annual user days) (RPI Consulting 2010a). Elimination of motorized boating would reduce visitor spending during

the May to October (summer tourism) period. Visitor spending represents 20 percent of all spending in La Plata County during this period (RPI Consulting 2010b).

Concerns identified by the public with regard to noise and conflicts with other users are addressed in the action alternatives through requirements for sound muffling of engines, proposed establishment of no wake zones, construction of breakwaters, and prohibition of use by motorized personal watercraft, houseboats, cabin cruisers, and open-air-exhaust boats. Furthermore, funding for the existing boat ramp was obtained through a grant from Colorado State Parks (currently known as the CPW).¹ The associated funding is derived from motorboat fuel taxes administered by the U.S. Fish and Wildlife Service (USFWS) Sport Fish Restoration Program to develop motorized boating recreation.

2.6.2 Swim Beach Location at Open Meadow Day-use Area

This alternative would implement Action Alternative 1 but would locate the swim beach in the open meadow day-use area along the north lakeshore, near the end of the proposed 2.4-mile ADA-accessible trail. This alternative would require approximately 3,500 linear feet of new road construction to access the site. It was eliminated because of the cost associated with additional roadway development and greater impacts on cultural and natural resources along the north lakeshore.

2.6.3 Swim Beach Location along North Lakeshore and East of Inlet Structure

This alternative would implement Action Alternative 1 but would locate the swim beach in a cove along the north lakeshore, approximately 1/10 mile east of the inlet structure and old CR 211. The swim beach would be accessed from the north end of the boat access road. This alternative was eliminated from further consideration due to concerns with steep topography and conflicts with the existing drainage patterns.

2.6.4 Swim Beach Location South of the Existing Boat Ramp

This alternative would implement Action Alternative 1 but would locate the swim beach in a large cove along the east lakeshore between the existing boat ramp and the dam, approximately ½ mile south of the boat ramp. This alternative was eliminated from further consideration due to steep topography, the proximity of identified cultural resource sites, required access through the existing boat ramp area and parking lot, and lack of suitable space for the development of parking adjacent to the site.

2.7 SUMMARY OF ALTERNATIVES

Table 2 summarizes the differences between the alternatives under consideration with regard to recreational facilities developed and their location. Table 3 summarizes the environmental consequences, by resource topic, of each of the alternatives under consideration.

¹ In 2011, Colorado State Parks and Colorado Division of Wildlife were merged to create one agency—CPW.

Table 2. Summary of differences among alternatives under consideration.

Elements	Proposed Action—2014 Recreation Plan	Action Alternative 1—2011 Recreation Plan	Action Alternative 2—2000 FSEIS Recreation Plan	No Action Alternative
Access	Day use. Land-based access limited to east portion of recreational area/lakeshore and a 25-foot buffer around the entire lakeshore. Picnicking allowed along shoreline, swimming and fishing allowed from shoreline and boats. Entire lake open to boating with seasonal restriction. Seasonal closures on west side for wildlife. Possible future recreational development may include overnight use.	Day use and overnight. Land-based access to most of recreational area/lakeshore, except area near/below dam. Entire lake open to boating with seasonal restriction. Seasonal closures on west side for wildlife and south and east sides for eagle nesting.	Same as Action Alternative 1.	No public access.
Trails	Trail development limited to a short trail segment connecting the proposed overflow parking area with the existing boat ramp and the parking area on the east lakeshore. Possible future recreational development may include a trail connecting Lake Nighthorse to the Animas River Trail, a looped trail system on east side of reservoir, and potential linkages with other trails outside project area.	2–4 miles of ADA-accessible trail in initial phase. Additional multi-use trails in possible future phases, resulting in a total of 28.6 miles of trail, forming complete loop around lake.	10 miles of trail on east, north, west, and south sides of lake; only partial loop around lake.	No trails developed.
Camping	None. Possible future recreational development may include one campground near entry area.	No campgrounds developed in initial phase. Future phases would include two campgrounds in north portion of recreational area and one in northeast portion near entry area.	One campground in the north portion of the recreational area.	No campgrounds developed.
Picnic/day-use sites	None. Possible future recreational development may include public swim beach and picnic area, trail connecting swim beach to overflow parking area, and day use picnic area along east lakeshore.	Open meadow day-use area on north lakeshore; swim beach/picnic sites on northeast lakeshore; picnic and fishing area on east lakeshore; and day-use area on east lakeshore south of boat ramp.	Swim beach, picnic sites, and fishing access on north lakeshore.	No picnic/day use sites developed.

Table 2. Summary of differences among alternatives under consideration.

Elements	Proposed Action—2014 Recreation Plan	Action Alternative 1—2011 Recreation Plan	Action Alternative 2—2000 FSEIS Recreation Plan	No Action Alternative
Other recreational facilities	None. Possible future recreational development may include breakwaters at boat ramp and swim beach and permanent entrance building/station.	Nonmotorized boat launch on north lakeshore, courtesy dock and breakwater at existing boat ramp, and permanent entrance building/station.	None developed.	None developed.

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Recreation	<p>Estimated 86,308 total annual user-days initially. Total user days would increase if campground, trails, swim beach, and separate day-use area are developed as part of possible future development, but would be less than the 163,197 annual user days estimated for Action Alternative 1 due to fewer campsites, trail miles, and day-use areas overall.</p> <p>Development of facilities to support recreational opportunities including boating, fishing, and swimming. Public use of cold water fishery established and maintained in reservoir. Possible future recreational development for camping, other day use, and trails.</p> <p>Potential user conflicts are higher compared with Action Alternative 1 due to fewer overall facilities and concentration of recreational uses on the east lakeshore.</p> <p>Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.</p>	<p>Estimated 163,197 annual user days by recreationists, primarily from May through October, increasing to 197,353 user days annually by 2025.</p> <p>Development of facilities to support recreational opportunities, including boating, fishing, camping, swimming, and trail use. Public use of cold water fishery established and maintained in reservoir.</p> <p>Potential for user conflicts among pedestrians, bicyclists, and equestrians on multi-use trails and between motorized and nonmotorized boaters but would be addressed through posting and implementation of rules and regulations. Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.</p>	<p>Estimated 218,400 annual user days by recreationists, primarily from May through October, increasing to 264,264 user days annually by 2015.</p> <p>Same recreational facilities as Action Alternative 1, except fewer miles of hiking trail, fewer separate day-use areas, more picnic sites, fewer campgrounds (but more total campsites), and no ADA-accessible trail or nonmotorized boat launch. Public use of cold water fishery established and maintained in reservoir.</p> <p>Potential user conflicts are higher compared with Action Alternative 1 due to less dispersal of recreational facilities throughout the project area. Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.</p>	<p>No additional recreational facilities developed. Project area remains closed to public. No effects on recreational use patterns or distribution of market share across region.</p> <p>No public use of cold water fishery established in lake.</p> <p>Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.</p>

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Socioeconomics and Community	<p>Would contribute to continued growth of tourism sector by providing additional recreational opportunities resulting in direct, indirect, and induced economic benefits from increased employment opportunities, retail sales, and economic output.</p> <p>Additional employment opportunities would contribute to increased population growth and demand for affordable housing, transportation/ utility infrastructure, and government services.</p>	<p>Increased recreational facilities development would result in greater economic benefits (employment opportunities, retail sales, economic output) compared with the Proposed Action.</p> <p>Larger increase in population growth and demand for affordable housing, transportation/utility infrastructure, and government services compared with Proposed Action.</p>	<p>More employment opportunities, higher retail sales and economic output, more population growth and higher demand on housing, infrastructure, and government services compared with Action Alternative 1 due to higher estimated recreation user days.</p>	<p>No increase in recreational opportunities and associated economic benefits in Durango and La Plata County.</p> <p>Would not generate additional jobs in tourism or related sectors and would not contribute to population growth or existing and future demands on affordable housing, transportation/utility infrastructure, or government services.</p>
Environmental Justice	<p>No impact on populations or communities defined under Executive Order (EO) 12898 due to their absence in project area.</p>	<p>Same as Proposed Action.</p>	<p>Same as Proposed Action.</p>	<p>Same as Proposed Action.</p>

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Cultural Resources	<p>No direct effects to cultural resources from initial development. Effects of possible future recreational development would be addressed per an approved CRMP.</p> <p>Opening of the project area to public use would result in increased human presence and use, and may indirectly impact some sites through incidental discovery and illegal collection of artifacts and/or trampling by recreationists venturing away from developed recreational facilities.</p> <p>Monitoring and oversight by recreation manager and law enforcement agencies would reduce impacts from unauthorized access or trespass compared with No Action Alternative.</p>	<p>Initial implementation phase would result in direct or indirect effects to 12 eligible or potentially eligible sites and would require intensive data recovery at one site.</p> <p>Subsequent implementation phases would potentially affect some of the up to 170 cultural resources identified in project area. These effects would be addressed through avoidance or mitigation following an approved CRMP.</p> <p>Similar to the Proposed Action, opening of project area to public use has the potential to result in indirect effects on cultural resources (e.g., disturbance, illegal collection, trampling).</p> <p>Monitoring and oversight by recreation manager and law enforcement agencies would reduce impacts from unauthorized access or trespass compared with No Action Alternative.</p>	<p>May affect some of the up to 170 cultural resource sites remaining in the project area. These effects would be addressed through avoidance or mitigation per an approved CRMP.</p> <p>Opening of the project area to public use would result in increased human presence and use, and may indirectly impact some sites through incidental discovery and illegal collection of artifacts and/or trampling by recreationists venturing away from developed recreational facilities. The extent of potential indirect effects would be similar to Action Alternative 1 but greater in extent compared with the Proposed Action because more facilities would be developed and larger area would be opened to the public.</p> <p>Monitoring and oversight by recreation manager and law enforcement agencies would reduce impacts from unauthorized access or trespass compared with No Action Alternative.</p>	<p>Cultural resources in the project area would be managed under an approved CRMP.</p> <p>Project area would remain closed to public access and no recreational facilities would be developed. Potential impacts to cultural resource sites such as incidental site discovery, illegal collection of artifacts, and/or trampling from unauthorized access or trespass in the absence of oversight by a recreation manager or law enforcement agencies.</p> <p>Any trespass or unauthorized use that occurs will be dealt with by the appropriate law enforcement agencies.</p>

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Indian Trust Assets	No effect on assets associated with water rights assigned to the Colorado Ute tribes under the Colorado Ute Indian Water Rights Settlement Act.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Brunot Treaty Rights	<p>The proposed recreation footprint (as shown in Figure 3) would be subject to annexation.</p> <p>Public access to the project area would allow tribal members to fish in the project area.</p> <p>Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.</p>	<p>Public access to the project area would allow tribal members to fish in the project area.</p> <p>Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.</p>	Same as Action Alternative 1.	The project area would remain closed to tribal members and the public for hunting and fishing. Reclamation acknowledges the Tribes’ Brunot Treaty Rights; however, the reservoir area will remain closed to all activities under the No Action Alternative.

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Noise	Operation of construction equipment would result in temporary noise increases. Operation of motorboats and motor vehicles and use of recreational facilities would result in long-term increases in ambient noise levels. Noise increases would not exceed Environmental Protection Agency (EPA) or municipal standards.	Same as Proposed Action except for higher noise effects on sensitive receptors (residential subdivisions) due to increase in recreational facilities developed and development would not be limited to the east lakeshore. As with Proposed Action, noise increases would not exceed EPA or municipal standards.	Same as Proposed Action and Action Alternative 1, except the siting of most recreational facilities along the north lakeshore would result in higher noise levels at sensitive receptors during and after construction due to recreational use of these facilities and associated increases in traffic on CR 210.	No construction- or recreation-related increase in noise levels.

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Natural Resources	<p>Removal or disturbance of 4 acres of vegetation as part of initial development and additional acres as part of possible future development; indirect effects on vegetation from recreational use.</p> <p>Direct and indirect effects on wildlife, including removal and disturbance of habitat for deer, elk, and other species. Effects on nesting eagles mitigated through seasonal closures.</p> <p>No recreation-related effects on threatened, endangered, proposed, or candidate species.</p>	<p>Removal or disturbance of up to 128 acres of vegetation; indirect effects on vegetation from recreational use.</p> <p>Direct and indirect effects on wildlife, including removal and disturbance of habitat for deer, elk, and other species and additional traffic on CR 210. Development of trail segments through golden eagle buffer zones, but restricted from use during nesting season.</p> <p>More direct and indirect effects on wildlife and wildlife habitat compared with Proposed Action Alternative 1 due to more development of recreational facilities.</p> <p>No recreation-related effects on threatened, endangered, proposed, or candidate species.</p>	<p>Similar to Action Alternative 1, except more effects on wildlife due to siting of recreational facilities primarily on the north lakeshore, resulting in increased recreation-related traffic and associated vehicle-wildlife collisions on CR 210 and greater impacts to mule deer fawning and elk calving areas. Indirect effects on natural resources similar to Action Alternative 1.</p> <p>No recreation-related effects on threatened, endangered, proposed, or candidate species.</p>	<p>No recreation-related effects on vegetation, wildlife, or threatened, endangered, proposed, or candidate species.</p>

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Visual Quality/ Aesthetics	Modification of natural setting with development of recreational facilities on the east lakeshore, resulting in limited visual effects (in background views) for residential areas and motorists on CR 210 and CR 141. No additional sources of light would be added in the project area during nighttime hours.	Modification of natural setting with development of recreational facilities, including campgrounds (partly visible from CR 210 in foreground views and residential areas in midground views), day-use areas and parking lots (partly visible from CR 210, CR 141, and residential areas in background views), and trails (foreground views). Additional light emissions at night from recreational facilities and use.	Effects similar to Action Alternative 1, except the siting of most recreational facilities on the north lakeshore would potentially make these more visible from CR 141, CR 210, and from residential subdivisions.	No change to visual characteristics of project area.
Water Quality	Potential impacts from erosion or sedimentation and discharge of other pollutants from development/use of shoreline recreational facilities, motorized boating, and other water-based recreational facilities to WUS including wetlands that may form. These would be addressed through best management practices during construction, permanent water quality control features at developed sites, and water quality monitoring.	Similar to Proposed Action, except increased area of disturbance subject to erosion and sedimentation and greater potential impacts to WUS, including wetlands.	Same as Action Alternative 1.	No construction- or recreation-related effects on water quality.

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Air Quality	Construction of recreational facilities would result in temporary emissions of fugitive dust and engine combustion products but would be addressed by the CDPHE requirements/best management practices. Recreational activities would result in increased emissions of engine combustion products from vehicles and motorized boats but would not lead to or substantially contribute to nonattainment of air quality standards. Recreational use would contribute to greenhouse gas emissions but would not exceed the CEQ threshold.	Temporary effects from fugitive dust emissions during construction would be greater due to more ground disturbance compared with Proposed Action. Emissions from motorized boats would be similar to Proposed Action but there would be higher emissions from vehicles with Action Alternative 1.	Same as Action Alternative 1, except for higher vehicle emission compared with Action Alternative 1 due to more recreation annual user days.	No construction- or recreation-related effects on air quality.
Traffic	Increase in recreation-related traffic on roads and intersections affected by project, mostly on weekends. Development and anticipated use of recreational facilities would ultimately result in queuing issues on the eastbound leg of U.S. 550-160 and Frontage Road intersection and would begin to affect the functionality of the CR 210 and Frontage Road intersection.	Similar to Proposed Action but higher recreation-related traffic generated due to more recreational facilities developed at Lake Nighthorse.	Similar to Action Alternative 1, but higher traffic volumes due to more recreation annual user days.	No recreation-related increase in traffic or effects on the levels of service (LOS) on roadways or at intersections. Substandard LOS would still occur at U.S. 550-160 intersection in 2020 due to projected population growth.

Table 3. Summary of environmental consequences of alternatives analyzed in detail.

Resource Topic	Proposed Action— 2014 Recreation Plan	Action Alternative 1— 2011 Recreation Plan	Action Alternative 2— 2000 FSEIS Recreation Plan	No Action Alternative
Public Health and Safety	Increased demand on law enforcement, fire protection, and emergency services. Increased potential for boating accidents, drowning, and other water-related incidents. These would be addressed through boating/use regulations. Motorized boating would create potential for hazardous materials spills. Recreation-related increase in traffic accidents.	Same as Proposed Action except larger increase in the demand on law enforcement, fire protection, and emergency services; higher potential occurrence of water-related accidents; and higher number of traffic accidents.	Similar to Proposed Action and Action Alternative 1, except higher demand on law enforcement, fire protection, and emergency services and potentially more traffic accidents due to higher recreation annual user days.	No recreation-related increase in water-related or traffic accidents and no additional demands on local law enforcement, fire protection, and emergency services. Reclamation and La Plata County Sheriff’s Office would continue patrolling project area to monitor and enforce closure and maintain fencing and gates.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

This chapter analyzes the direct and indirect effects of the alternatives on relevant resource topics. For each resource topic, the affected environment, environmental consequences, and mitigation measures (if applicable) are described. The analysis of effects is based on full build-out (initial and future phases or possible future development) under each of the action alternatives. Mitigation measures apply to all action alternatives considered, unless otherwise noted, and are additional to the commitments identified in Table 1. Cumulative effects are discussed in Chapter 4.

3.2 RECREATION

3.2.1 Affected Environment

The following discussion on recreation focuses on recreational activities considered integral to developed reservoir recreation: power/non-powerboating, fishing, camping, swimming, and trail use. The Recreation Market Assessment, Lake Nighthorse, Durango, Colorado (RPI Consulting 2010a) completed in June 2010 for the ALPWCD is the source of the estimates and projections reported. This assessment was completed for the 2011 Recreation Master Plan (Action Alternative 1). The results are discussed relative to the Proposed Action and Action Alternative 2, to the extent possible.

Existing Reservoir-based Recreational Facilities

Twelve major reservoirs, dozens of campgrounds, stocked lakes/managed fisheries, and 60 major trailheads are within the 100-mile driving radius of Lake Nighthorse. Seven of these reservoirs have recreational facilities and/or use patterns comparable to those proposed at Lake Nighthorse: Navajo, McPhee, Ridgway, Lemon, Vallecito, Mancos State Park, and Haviland Lake (RPI Consulting 2010a). Lake Nighthorse is currently not open to the public for recreational use.

Market Size and Characteristics

Based on local and regional populations, visitor populations, and existing recreational use patterns, the size of the potential recreation market for Lake Nighthorse was estimated. The recreation market is made up of a resident market and a tourist market. Travel distance between recreational facilities and regional recreationists is the primary factor in estimating the geographic extent of the resident market for recreational facilities (RPI Consulting 2010a). The results of a 2007 scientific random-sample survey indicate that 82 percent of recreationists drive 100 miles or less, and the remaining 18 percent drive more than 100 miles for weekend activities. Based on these travel tolerances, resident markets were defined for Lake Nighthorse. The local market was defined as the population within the 25-mile driving radius and coincided with the La Plata County boundaries. The regional market was defined as the population within the 25- to 100-mile driving radius. The regional market can be generally described as Southwest Colorado and Northwest New Mexico, and extends into several sovereign nations: the Navajo Nation, the Ute Mountain Ute tribal lands, and the Southern Ute Indian tribal lands (RPI Consulting 2010a).

The population within the 100-mile driving radius of Lake Nighthorse is estimated to generate more than 3 million user days annually, with users participating in the activities integral to reservoir-based recreation. Roughly 70 percent of these reservoir-based user days are spent outside of the market reach. The remaining 30 percent, or 1,016,619 user days, are spent within the market reach (RPI Consulting 2010a).

Tourism, which draws from areas outside of the 100-mile driving radius, also generates reservoir-based recreation user days. Twenty-three percent of tourists to the region visit lakes. The potential tourist days associated with reservoir-based recreation for the Lake Nighthorse market reach is estimated at 123,039 user days annually. Combining visitor user days with resident user days reflects a user-day total of 1,139,658. Taken together, the existing area reservoirs alone account for an estimated 86 percent of the total annual user days. These represent the current use patterns at existing reservoirs in the area. These existing uses are expected to continue into the foreseeable future.

3.2.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Lake Nighthorse Market Share

Based on the recreation market study completed for the 2011 Recreation Master Plan (i.e., Action Alternative 1), the Proposed Action would result in an estimated 86,308 total annual user-days initially. This estimate was obtained by subtracting annual user days attributed to non-RV and RV camping, outdoor swimming, and trail use from the total annual user days estimated in the recreation market study for the 2011 recreation market study, since these facilities would not be included as part of initial recreational development under the Proposed Action. Total user days would increase if a campground, trails, a swim beach, and a separate day-use area are developed as part of possible future development, but would be less than the 163,197 annual user days estimated for the 2011 Recreation Master Plan (i.e., Action Alternative 1) due to fewer campsites, trail miles, and day-use areas overall.

Seasonality

Water sports activities can be seasonal due to air temperature, water temperature, and traditional vacation patterns. Temperature patterns in the Durango area suggest that Lake Nighthorse would have a use season that starts in May and ends in October (or 5–6 months) (RPI Consulting 2010a).

Future Growth in Market Share for Lake Nighthorse

A general increase in user days over time under the Proposed Action is based on the assumptions that (1) recreation trends will continue into the future and (2) regional user days will increase at the same rate as the population (RPI Consulting 2010a). Assuming a 21percent increase in user-days (based on the recreation market study completed for the 2011 Recreation Master Plan), a total of 104,433 annual user-days would be expected by 2025 based on initial development under the Proposed Action. If a campground, trails, a swim beach, and a separate day-use area are developed in the future, the market share for Lake Nighthorse would increase but would likely remain below the 197,353 annual user days projected under full build-out of the 2011 Recreation

Master Plan because fewer campsites, trail miles, and day-use areas overall would be developed under the Proposed Action.

Recreational Amenities and Opportunities

The Proposed Action would develop recreational amenities and opportunities at Lake Nighthorse, which is currently closed to public use. These amenities and opportunities would be limited to day use, primarily boating and fishing. Proposed development of overflow parking near the existing boat ramp, improvement of the boat ramp access road, and installation of a courtesy dock system at the boat ramp would facilitate these uses. In addition, possible future amenities and opportunities, would be anticipated to include interpretive displays and education, trails, a swim beach with picnic sites, breakwaters at the boat ramp and swim beach, a campground, and a separate day-use picnic area. These amenities and opportunities would be similar to some of the other lakes and reservoirs in La Plata County. Though the Proposed Action would not add new types of recreation to the market, it would provide additional facilities in a new location, which would be in close proximity to Durango, the largest population base in La Plata County.

Recreational Use Conflicts

The Proposed Action would result in the potential for recreational use conflicts due to the concentration of users within the proposed recreation footprint (annexed area). Specifically, a lack of amenities for non-boaters would result in conflicts between boating and other recreation activities (i.e., fishing, parking, picnicking and swimming).

Action Alternative 1—2011 Recreation Plan

Lake Nighthorse Market Share

Under this alternative, subtracting the user days associated with the existing area reservoirs from the total user days within the region results in an estimated 163,197 remaining user days annually for Lake Nighthorse. Approximately 70 percent of these user days would be expected to originate from residents living within a 50-mile radius—37 percent from the 25- to 50-mile driving radius, and 33 percent from within a 25-mile radius. Tourism would contribute only 11 percent of usage (17,619 user days). Thirty-three percent of all visits (53,112 user days) would originate within La Plata County. Table 4 breaks down the 163,197 annual user days by activity, based on the recreation market study (RPI Consulting 2010a).

Table 4. Lake Nighthorse recreation market share.

Activity Type	Estimated Annual User Days	Approximate Percent of Total
Fishing	38,276	23.5
Non-RV camping	34,469	21.1
Powerboating	28,770	17.6
Outdoor swimming	19,969	12.2
Non-powerboating	19,262	11.8
RV camping	16,911	10.4
Trail use	5,540	3.4
Total	163,197	100

Fishing, boating, and non-RV camping would be expected to be the primary drivers of recreation at Lake Nighthorse under this alternative. Camping is projected to generate more than 50,000 user days, or an average of 44 camping parties in the recreational area per night, with peaks during weekends. User days associated with powerboating are projected at 9,000 powerboats, or an average of about 50 boats per day.

Seasonality

As with the Proposed Action, the seasonality of recreational use under Action Alternative 1 would extend from May through October.

Future Growth in Market Share for Lake Nighthorse

User-day projections were performed through 2025 for this alternative. Local and regional user days at Lake Nighthorse would increase by more than 18 percent between 2010 and 2025 (more than 170,000 user days annually). Not including tourist use, this reflects an increase of more than 25,000 user days annually. By 2025, tourist visitation to Lake Nighthorse under this alternative would increase by approximately 8,000 visits to more than 26,000 user days annually, assuming tourist trends remain static.

With resident and tourist use combined, the future growth projections of the recreation market share for Lake Nighthorse under this alternative would yield an estimated user-day total of 197,353 annually for 2025, or a 21 percent increase over estimates based on 2008 data (RPI Consulting 2010a). A slight shift in the ratio of geographic origin is also projected, with an increase in the number of visitors originating within the 25- to 100-mile radius, and proportionately less visitation from the immediate local region and tourism.

Recreational Amenities and Opportunities

As with the Proposed Action, Action Alternative 1 would develop recreational amenities and opportunities at Lake Nighthorse, which is currently closed to public use. These amenities and opportunities would include, power/non-powerboating, fishing, camping, swimming, and trail use, and would be similar to some of the other lakes and reservoirs in La Plata County. As with the Proposed Action, Action Alternative 1 would not add new types of recreation to the market, but would provide additional facilities in a new location, which would be in close proximity to Durango, the largest population base in La Plata County.

Because the development of recreational facilities would be phased over time, not all facilities would be available to the public at its initial opening. The initial development would include motorized and nonmotorized boat ramps and associated parking facilities, vault restrooms, and the first 2.4 miles of proposed hiking trail, which would be ADA-accessible. These facilities, along with the nearly 1,500 acres of surface water, would primarily support boating, fishing, and, to a somewhat lesser extent, hiking activities. Future phases would expand these recreational facilities to accommodate additional types of use and a greater number of users. In later phases, facilities to support picnicking and RV and non-RV camping would be added at Lake Nighthorse. By full build-out, there would be three day-use areas with 12 picnic shelters, 309 parking spaces, and three campgrounds with up to 130 campsites and eight picnic shelters. The trail system started in the initial phase of implementation would ultimately form a complete loop around the reservoir. Some trails would be designated for pedestrian use only or pedestrian and

bike use only; others would be designated as multi-use and would accommodate pedestrians, bicyclists, and equestrians.

Recreational Use Conflicts

Action Alternative 1 would result in the potential for recreational use conflicts at some facilities, particularly those designated for multiple users. Multi-use trails would be expected to encounter conflicts between pedestrians, bicyclists, and equestrians. Conflicts could also be expected between motorized and nonmotorized boaters. Compared with the Proposed Action, Action Alternative 1 would result in fewer potential conflicts between some users due to greater dispersal of recreational amenities.

Action Alternative 2—2000 FSEIS Recreation Plan

Lake Nighthorse Market Share

Estimated total annual user days per year would be higher under Action Alternative 2 (estimated 218,400) than under Action Alternative 1 (estimated 163,197) or the Proposed Action (estimated 86,308). User days by activity type (fishing, boating, camping, etc.) and source (local, regional, tourist) would likely be similar to Action Alternative 1.

Seasonality

The seasonality of recreational use would be the same as under the Proposed Action and Action Alternative 1, extending from May through October.

Future Growth in Market Share for Lake Nighthorse

Future growth in market share for Lake Nighthorse under Action Alternative 2 would be similar to the Proposed Action and Action Alternative 1. Assuming a 21 percent increase in user days, this would result in a total estimated 264,264 annual user days by 2025.

Recreational Amenities and Opportunities

There would be more recreational amenities and opportunities under Action Alternative 2 compared with the Proposed Action. The amenities and opportunities would differ somewhat from those under Action Alternative 1. All recreational facilities listed under Action Alternative 1 would be included with Action Alternative 2, except that there would be fewer miles of hiking trail (10 vs. 28.6), fewer separate day-use areas (one vs. three) but more picnic sites (37 vs. 20), fewer campgrounds (one vs. three) but more total campsites (196 vs. 130), and no ADA-accessible trail or nonmotorized boat launch.

Recreational Use Conflicts

Action Alternative 2 would result in fewer recreational use conflicts than the Proposed Action, but more than Action Alternative 1. Compared with the Proposed Action, greater dispersal of recreational uses under Action Alternative 2 would result in fewer conflicts between boating and other recreational activities. Unlike Action Alternative 1, Action Alternative 2 would concentrate non-boating uses along the north lakeshore, including all overnight use into one campground rather than three. This would result in higher frequency of encounters between recreationists compared with the more dispersed distribution of recreational facilities under Action Alternative 1.

No Action Alternative

Under the No Action Alternative, no additional recreational facilities would be developed. The project area would remain closed to the public. The No Action Alternative would have no effects on recreational use patterns or distribution of market share across the region. There would be no public use of the cold water fishery established in the lake.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- To notify all users of the potential presence of others and to minimize conflicts between users, signs shall be posted and maintained at all trailheads specifying allowable uses (hiking, biking, or multi-use) and identifying basic trail etiquette.
- User rules and regulations and designations of special use areas (e.g., no wake zones along the shore and the west end of lake) would reduce the potential for conflicts.
- Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off-leash dogs would be permitted.
- Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.

3.3 SOCIOECONOMICS AND COMMUNITY

3.3.1 Affected Environment

Economic Setting

The project area is in La Plata County, which supports a diverse and growing population. The county comprises 1,081,616 acres: 17.8 percent tribal reservation land, 41.1 percent federal land, and 41.1 percent private land (Reclamation 2000a). Historically, La Plata County was supported by the mining, cattle, and timber industries. The economy diversified with the discovery and development of energy resources (oil and gas), the establishment of Fort Lewis College as a four-year college, the development of the Purgatory Ski Resort and the Durango and Silverton Narrow Gauge Railroad, and the emergence of tourism and resort development as a leading industry (Reclamation 2000a, Region 9 Economic Development District of Southwest Colorado 2011).

Tourism in La Plata County centers on the area's natural environment. Skiing at Purgatory Ski Resort is a major attraction in winter. Summer is the busiest season for tourism, and the area attracts visitors with opportunities for a variety of recreational activities such as whitewater rafting, kayaking, golf, fishing, hiking, rock climbing, and mountain biking. Regional tourist attractions include the Durango and Silverton Narrow Gauge Railroad, Mesa Verde National Park, and historic mining features (Reclamation 2000a).

Durango, with an estimated population of 16,965 in 2011, is the county seat and the largest community in La Plata County. Durango has developed as a tourist crossroads and a regional trade center. The second-largest community in La Plata County is Bayfield, with an estimated

population of 2,449 in 2011. Bayfield developed as a supply town and a social center for farmers and ranchers and a bedroom community. The third-largest community, Ignacio, with an estimated population of 702 in 2011, developed as a supply center for surrounding reservations and ranches and a crossroads for the oil and gas industry (Region 9 Economic Development District of Southwest Colorado 2013).

Jobs and Income

The majority of employment in La Plata County is in the services, government, wholesale and retail trade, and construction sectors. Table 5 lists employment by sector for the county in 2009 (Region 9 Economic Development District of Southwest Colorado 2011). The top 10 employers in La Plata County in 2010 were the Southern Ute Indian Tribe, Mercy Medical, Durango School District 9R, Fort Lewis College, the City of Durango, Mercury Payment Systems Inc., La Plata County, Purgatory Ski Resort, Wal-Mart Stores Inc., and San Juan Basin Health (Region 9 Economic Development District of Southwest Colorado 2011).

Table 5. La Plata County employment by industry in 2009.

Sector	Total Employed	Percent of Total Employed
Services	13,136	40.5
Government	6,060	18.7
Wholesale and retail trade	4,236	13.1
Construction	3,227	9.9
Finance, insurance, real estate	2,178	6.7
Mining and utilities	924	2.8
Transportation and warehousing	812	2.5
Agriculture	738	2.3
Manufacturing	621	1.9
Information	514	1.6
Total	32,446	100

The service sector employs about 41 percent of workers in the county and represents 34 percent of the earnings. This sector includes many types of jobs and wage scales (from highly paid professionals to entry-level wage earners). Many of the service jobs in the county support tourism—in recreation, accommodations (lodging), and food services (Region 9 Economic Development District of Southwest Colorado 2011). In 2008, tourism was estimated to directly generate 28 percent of the total employment in La Plata County and was responsible for 18 percent of all jobs in the County. (RPI Consulting 2010b), though it has been estimated that as much as 57 percent of the county’s economy is dependent on the tourism industry (La Plata County 2001). In La Plata County in 2008, the impact of hunting and fishing was estimated at approximately \$25 million in direct expenditures and more than \$43 million in direct and secondary expenditures, supporting 477 jobs (BBC Research and Consulting 2008). Hunting, fishing, wildlife viewing, and other wildlife-related recreation are also important traditionally and culturally in La Plata County.

Based on an American Community Survey (ACS) five-year estimate (2009–2013), median household income in La Plata County was \$54,649 in 2013, which was lower than the median household income for Colorado that year (\$58,433) (U.S. Census Bureau 2013a). Based on ACS data, the percentage of La Plata County residents living below the poverty line in 2013 was

9.8 percent, slightly higher than the percentage for the State of Colorado (9.4 percent) that year (U.S. Census Bureau 2013).

Retail Sales and Economic Output

Retail sales in La Plata County totaled \$1.3 billion in 2005, of which 52 percent consisted of retail trade and 48 percent retail services. In 2011, retail sales in La Plata County totaled \$2.1 billion; the percentage of retail trade vs. retail services is not published for that year. In 2011, food/beverage stores accounted for 19 percent and motor vehicles/parts and gas stations each accounted for 10 percent of total sales in the retail trade sector (Table 6) (Region 9 Economic Development District of Southwest Colorado 2013).

Table 6. La Plata County sales in retail trade sectors in 2011.

Sector	Actual Sales	Percent of Total Actual Sales
Motor vehicles/parts	\$114,687,000	15.5
General merchandisers	Not disclosed	Not disclosed
Food/beverage stores	\$139,315,000	18.8
Building materials/gardening	\$75,194,000	10.2
Gas stations	\$111,068,000	15.0
Sport/hobby shops	\$36,072,000	4.9
Miscellaneous retail stores	\$36,455,000	4.9
Nonstore outlets	\$21,486,000	2.9
Clothing	\$30,107,000	4.1
Furniture, etc.	\$14,024,000	1.9
Electronics/appliances	Not disclosed	Not disclosed
Health care products	\$34,231,000	4.5
Confidential sectors	\$127,353,000	17.2
Total	\$739,992,000	100

In 2005, eating/drinking services and lodging accounted for 12 percent and 6 percent of total sales, respectively, in the retail service sector (Table 7) (Region 9 Economic Development District of Southwest Colorado 2006).

Table 7. La Plata County sales in retail service sectors in 2005.

Sector	Actual Sales	Percent of Total Actual Sales
Wholesale	\$134,499,000	21.6
Eating/drinking services	\$76,545,000	12.3
Information	\$53,472,000	8.6
Construction	\$50,774,000	8.1
Real estate/rentals	\$49,535,000	8.0
Manufacturing	\$40,960,000	6.6
Lodging	\$39,085,000	6.3
Other services	\$31,048,000	5.0
Confidential sectors	\$30,280,000	4.9
Professional/technical	\$24,983,000	4.0
Mining	\$24,650,000	3.9
Transportation/warehousing	\$21,614,000	3.5
Administration/support/waste	\$14,392,000	2.3
Health/social assistance	\$10,763,000	1.7
Finance/insurance	\$7,998,000	1.3
Arts/entertainment	\$6,422,000	1.0

Table 7. La Plata County sales in retail service sectors in 2005.

Sector	Actual Sales	Percent of Total Actual Sales
Education	\$3,894,000	0.6
Agricultural	\$1,740,000	0.3
Total	\$622,654,000	100

Population and Growth

The population of La Plata County was estimated at 52,039 people in 2013 (U.S. Census Bureau 2013). During the 1990s, La Plata experienced an average annual population growth rate of 3.1 percent and Durango a rate of 1.1 percent. By 2030, the population of La Plata County is projected at 80,921 people, an 84 percent increase from 2010. The Durango population is projected at 33,995 by 2030, a 95 percent increase from 2000 (City of Durango 2007). Durango faces several service and infrastructure challenges, including accommodating visitor and residential growth within the city limits, providing sufficient affordable housing, improving traffic circulation, and providing water and sewer services in potential service areas outside of the city (Reclamation 2000a, City of Durango 2007, Region 9 Economic Development District of Southwest Colorado 2011).

3.3.2 Environmental Consequences

Proposed Action —2014 Recreation Plan

Economic Setting

The Proposed Action would enhance tourism, one of the main economic drivers in La Plata County, by providing additional recreational opportunities for visitors and local residents. The Proposed Action would generate fewer than the 163,197 user days projected for the 2011 Recreation Master Plan (Action Alternative 1). Based on the recreation market study for the latter, user days would be expected to increase annually. The Proposed Action would support continued growth of the tourism sector and would provide additional opportunities for water-based recreation for visitors and local residents, resulting in direct, indirect, and induced economic benefits.

Jobs and Income

Initial recreational development under the Proposed Action would create an estimated 80 full-time-equivalent jobs. This is based on the facilities to be developed and application of a ratio of visitor to local user-days and employment multipliers identified in the recreation market study completed for the 2011 Recreation Master Plan (Action Alternative 1)(RPI Consulting 2010b). If no additional facilities were developed, future growth in the market would result in an estimated 112 full-time jobs by 2025. Possible future development of additional recreational facilities would result in additional jobs, though less than the 165 full-time equivalent jobs projected for the 2011 Recreation Master Plan (Action Alternative 1).

Jobs in the tourism industry in 2006 accounted for 23 percent of all employment in the county but were responsible for only 12 percent of total earnings. This disparity between employment and income suggests that the jobs directly created in the tourism sector would be lower-paying, though they would indirectly generate higher-paying jobs that provide services for residents (RPI Consulting 2010b).

Retail Sales and Economic Output

The Proposed Action would result in direct, indirect, and induced economic benefits to La Plata County from visitation to Lake Nighthorse by recreationists, primarily through an increase in retail sales. An economic impact study (RPI Consulting 2010b) estimated that implementation of the 2011 Recreation Master Plan would result in an additional \$7,798,000 in average annual expenditures in the county based on direct impacts and a total annual economic output of \$12,718,000 when a multiplier is applied for indirect and induced effects. Due to fewer campsites, trail miles, and day-use areas overall, the Proposed Action would result in less annual expenditures and a smaller total annual economic output.

Increased economic output under the Proposed Action would stem primarily from increased tourist spending in the warm season, and the majority of additional spending would be for retail goods. Increased tourism spending would also result from recreation sales occurring on-site at Lake Nighthorse, and sales at local restaurants and lodging establishments. Due to fewer campsites, trail miles, and day-use areas overall, the Proposed Action would result less direct spending and smaller total economic output compared with the 2011 Recreation Master Plan (Action Alternative 1). Durango would capture most of the economic activity generated under this alternative, with only a small percentage of economic activity captured by Bayfield, Ignacio, and unincorporated areas of the county.

Population and Growth

Economic benefits to La Plata County under the Proposed Action would contribute to population growth by providing new employment opportunities and new revenue to local businesses and government. Employment generated under the Proposed Action would be primarily lower-paying jobs in the tourism sector, though some higher-paying jobs that provide services to residents would also be created. An increase in lower-paying jobs would result in greater demand for affordable housing. It would also place additional demands on transportation/utility infrastructure and government services. The contribution of this alternative to increased local population growth would be limited.

Action Alternative 1—2011 Recreation Plan

Economic Setting

Action Alternative 1 would enhance tourism, one of the main economic drivers in La Plata County, by providing additional recreational opportunities for visitors and local residents. As discussed under Section 3.2—Recreation, this alternative would generate an estimated 163,197 average annual user days at Lake Nighthorse, representing about 14 percent of the regional market share (RPI Consulting 2010a). User days would be expected to increase at an average annual rate of 1.3 percent to nearly 200,000 estimated annual user days by 2025 (RPI Consulting 2010a). This alternative would support continued growth of the tourism sector and would provide additional opportunities for water-based recreation for visitors and local residents, resulting in direct, indirect, and induced economic benefits.

Jobs and Income

Action Alternative 1 would result in the creation of an estimated 165 full-time-equivalent jobs, which is anticipated to increase to 230 full-time jobs by 2025. This would represent a 4 percent

increase in summer or warm-season tourism employment compared with 2008. Jobs in the tourism industry in 2006 accounted for 23 percent of all employment in the county but were responsible for only 12 percent of total earnings. This disparity between employment and income suggests that the jobs directly created in the tourism sector would be lower-paying, though they would indirectly generate higher-paying jobs that provide services for residents (RPI Consulting 2010b).

Retail Sales and Economic Output

Action Alternative 1 would result in direct, indirect, and induced economic benefits to La Plata County from visitation to Lake Nighthorse by recreationists, primarily through an increase in retail sales. An economic impact study (RPI Consulting 2010b) estimated that implementation of the 2011 recreation plan would result in an additional \$7,798,000 (in 2010 dollars) in average annual expenditures in the county based on direct impacts (jobs and earnings for lodges, restaurants, and businesses where visitors spend their money) and a total annual economic output of \$12,718,000 when a multiplier is applied for indirect and induced effects (jobs and earnings for linen services, food distributors, maintenance contractors, and other businesses that support primary tourism industries).

Increased economic output under this alternative would stem primarily from increased tourist spending in the warm season, and the majority of additional spending (57 percent) would be for retail goods, estimated at \$4,440,000 annually. This represents 0.2 percent of the total retail sales in La Plata County in 2012 (Region 9 Economic Development District of Southwest Colorado 2013). Recreation sales occurring on-site at Lake Nighthorse would total up to \$1.8 million, and local restaurants could see an additional \$888,000 in sales. Local lodging establishments would experience an increase in sales by an estimated \$666,000 (RPI Consulting 2010b). By 2025, this alternative would generate an estimated \$10.8 million in direct spending and \$17.7 million of total economic output in 2010 dollars.² Durango would capture most of the economic activity generated under this alternative, with only a small percentage of economic activity captured by Bayfield, Ignacio, and unincorporated areas of the county.

Increased economic activity under this alternative would contribute an additional \$160,000 and \$143,000 in annual sales tax revenue for the City of Durango and La Plata County, respectively. (RPI Consulting 2010b).

Population and Growth

Economic benefits to La Plata County under Action Alternative 1 would contribute to population growth by providing new employment opportunities and new revenue to local businesses and government. Employment generated under this alternative would be primarily lower-paying jobs in the tourism sector, though some higher-paying jobs that provide services to residents would also be created. An increase in lower-paying jobs would result in greater demand for affordable housing. It would also place additional demands on transportation/utility infrastructure and government services. The contribution of this alternative to increased local population growth would be limited because recreation at Lake Nighthorse would generate an estimated 4 percent

² By comparison, the estimated recreational value associated with Ridges Basin before the construction of Lake Nighthorse was primarily related to hunting and was estimated at \$15,000 in 2000 dollars (Reclamation 2000a).

of all warm-season tourism jobs and 0.6 percent of all jobs in La Plata County (RPI Consulting 2010b).

Action Alternative 2—2000 FSEIS Recreation Plan

Economic Setting

Action Alternative 2 would further enhance tourism compared with the Proposed Action and Action Alternative 1. Recreational development under this alternative was anticipated to result in 218,400 annual user days, more than the Proposed Action and 34 percent more than Action Alternative 1. Based on the recreation market study completed in 2010 (RPI Consulting 2010a), the 218,400 user days projected under Action Alternative 2 would represent about 19 percent of the regional market share. Assuming a 21 percent increase in user days (same as Action Alternative 1), a total estimated 264,264 annual user days would be expected by 2025 under this alternative.

Jobs and Income

Recreational development under Action Alternative 2 would create an estimated 203 full-time-equivalent jobs, more than the Proposed Action and 23 percent more than Action Alternative 1. Future growth in the market would result in an estimated 283 full-time jobs by 2025. This would represent a 5 percent increase in summer or warm-season tourism employment compared with 2008. Similar to the Proposed Action and Action Alternative 1, employment created under this alternative would be lower-paying jobs in the tourism sector, with some higher-paying indirect jobs created providing services to residents.

Retail Sales and Economic Output

Action Alternative 2 would result in higher retail sales and therefore more direct, indirect, and induced economic benefits to La Plata County compared with the Proposed Action and Action Alternative 1. Based on the assumptions and multipliers used in the 2010 economic impact study (RPI Consulting 2010b), this alternative would result in an estimated additional \$10,363,000 (in 2010 dollars) in average annual expenditures in the county. This would translate to a total annual economic output of \$15,651,000 when a multiplier is applied for indirect and induced effects.

Similar to the Proposed Action and Action Alternative 1, increased economic output under this alternative would stem primarily from increased tourist spending in the warm season, and the majority of additional spending would be for retail goods, estimated at \$5,897,000 annually. This represents 0.3 percent of the total retail sales in La Plata County in 2012. Recreation sales occurring on-site at Lake Nighthorse would total \$1,622,000, and local restaurants could see an additional \$1,179,000 in sales. Local lodging establishments would experience an increase in sales by an estimated \$885,000. By 2025, this alternative would generate an estimated \$13.2 million in direct spending and \$20 million of total economic output in 2010 dollars.

Similar to the Proposed Action and Action Alternative 1, Durango would capture most of the economic activity generated under this alternative, with only a small percentage of economic activity captured by Bayfield, Ignacio, and unincorporated areas of the county.

Estimated tax revenue under this alternative would be higher than those projected under the Proposed Action and Action Alternative 1. Increased economic activity resulting from initial

recreational development would contribute an additional \$213,000 and \$189,000 in annual sales tax revenue for the City of Durango and La Plata County, respectively. Lodging tax revenue would increase annually by \$13,000 in the city and \$4,000 in the county.

Population and Growth

Action Alternative 2 would have a greater effect on population and growth compared with the Proposed Action and Action Alternative 1. It would provide more new employment opportunities and a higher level of new revenue to local businesses and government compared with the Proposed Action and Action Alternative 1. Similar to the Proposed Action and Action Alternative 1, employment generated under this alternative would be primarily lower-paying direct jobs in the tourism sector, with some higher-paying indirect jobs that provide services to residents. Demands on affordable housing, transportation/utility infrastructure, and government services, and contribution to population growth would be higher compared with the Proposed Action and Action Alternative 1.

No Action Alternative

Under the No Action Alternative, there would be no increase in recreational opportunities and associated economic benefits in Durango and La Plata County because the reservoir area would remain closed to public use. This alternative would not generate any additional jobs in tourism or related sectors and would not contribute to population growth or existing and future demands on affordable housing, transportation and utility infrastructure, or government services.

Mitigation Measures (Action Alternatives)

None.

3.4 ENVIRONMENTAL JUSTICE

3.4.1 Affected Environment

Title VI of the Civil Rights Act of 1964 and related statutes ensure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, and disability. EO 12898 directs that federal programs, policies, and activities do not have disproportionately high and adverse human health and environmental effects on minority and low-income populations.

Data from the U.S. 2010 Decennial Census (2010 Census) were used to provide the most current information on the presence of protected minority populations. However, due to changes in the format of the Decennial Census, the 2010 Census did not collect all the information previously collected during the 2000 U.S. Decennial Census. Therefore, an additional source of data was needed to fill in the gap left by the changed format.

The most recent data available were used for each population category of interest, as follows:

- The 2009–2013 ACS³ was used to obtain information on the presence of persons living below the poverty level (U.S. Census Bureau 2013).
- Data used in this environmental justice analysis were obtained for the census tracts adjacent to or overlapping the study area—census tracts 9707.01 and 9711. These tracts are referred to in this document as selected tracts. Socioeconomic data for La Plata County and the State of Colorado were used as comparison populations (Table 8).

For this analysis, the term “moderately higher” means that the percentage of a population of interest in any one census tract is higher than the comparison population but comparable (i.e., not enough difference to be distinguished as a protected population). When the percentage of a population of interest is comparable to that of the comparison population and does not represent a majority of the population in that census tract, it is not defined as a protected population.

Table 8. 2010 Decennial Census total minority and 2009–2013 ACS below poverty level populations.

Area	Total Population	Total Minority ^a		Total Population for Whom Poverty Is Determined	Below Poverty Level	
		#	%		#	%
CT (9707.01)	4,478	878	19.6	4,478	314	7.0
CT (9711)	4,521	692	15.3	4,297	910	21.2
La Plata County	51,334	6,788	13.2	48,415	5,687	11.4
State of Colorado	5,029,196	1,508,403	30.0	5,002,598	560,874	13.2

Source: U.S. Census Bureau 2010, 2013.

= number, % = percentage, CT = census tract. ^a “Total Minority” is composed of all people who consider themselves Nonwhite racially plus those who consider themselves White Hispanic.

Total Minority (2010 Census Data)

For this environmental justice review, a racial or ethnic minority population is an aggregate composed of the following categories: Black/African-American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Other Races, Two or More Races, and Hispanic. Data from the 2010 Census indicate that minorities are present in the selected tracts. Both the percentage minority for Tracts 9707.01 (9.6 percent) and 9711 (15.3 percent) is moderately higher than the corresponding percentage for La Plata County (13.2 percent) but lower than the State of Colorado (30.0 percent). Furthermore, the minority percentages in these tracts do not represent a majority of the population for the tract. For these reasons, these populations do not warrant further environmental justice analysis.

Below Poverty Level (ACS Data)

Data from the ACS indicate that individuals living below the poverty level reside in the selected tracts. The percentage minority for Tract 9707.01 (7.0 percent) is lower than the corresponding

³ The ACS is sent every year by the U.S. Census Bureau to a subset of the U.S. population and is intended to monitor social and economic trends. Data from the ACS are only available at the census tract level as a five-year collective estimate. The latest five-year ACS data set at the time of this analysis was 2009–2013. The ACS is used in this document to supplement the Decennial Census by providing information about persons living below the poverty level.

percentages for La Plata County (11.4 percent) and the State of Colorado (13.2 percent). However, the percentage of persons living below the poverty level in Tract 9711 (21.2 percent) is higher than the comparison population for La Plata County and the State of Colorado. The percentages of persons living below the poverty level in these tracts do not represent a majority of the population for the tract. These populations do not warrant further environmental justice analysis. Based on these data, no concentrations of minorities or residents below the poverty level were identified. No populations protected by EO 12898 are present in the study area or vicinity.

3.4.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Because there are no protected populations in the study area or proximity, the Proposed Action would not result in a disproportionate effect on populations protected under EO 12898.

Action Alternative 1—2011 Recreation Plan

As with the Proposed Action, there would not be a disproportionate effect on populations protected under EO 12898.

Action Alternative 2—2000 FSEIS Recreation Plan

As with the Proposed Action, there would not be a disproportionate effect on populations protected under EO 12898.

No Action Alternative

Under the No Action Alternative, there would be no impact on populations or communities defined under EO 12898 due to their absence in the study area.

Mitigation Measures (Action Alternatives)

None.

3.5 CULTURAL RESOURCES

3.5.1 Affected Environment

The project area is within Ridges Basin, which is potentially eligible as a district under the National Register of Historic Places (NRHP). Approximately 200 archaeological sites have been identified in the Ridges Basin District; they span from the prehistoric to the protohistoric and include four discrete periods of occupation and historic contexts: Archaic (6500 Before Christ [B.C.] to Anno Domini [A.D.] 1), Basketmaker II (A.D. 1 to 500), Pueblo I (A.D. 700 to 900), and Protohistoric (A.D. 1300 to 1895). The project area also supports historical (Euro-American) archaeological sites in three subcontexts: *Railroading in Ridges Basin, 1890 to 1951*; *Coal Mining in Ridges Basin, 1886 to circa 1930*; and *Agriculture in Ridges Basin, circa 1880 to the Present*. Sites considered to have traditional cultural/religious value (i.e., Traditional Cultural Properties) include the Puebloan habitation and ceremonial archaeological sites in the basin, a segment of the Old Ute Trail that passes through the basin, and a mineral collecting area (SWCA Environmental Consultants 2010, Reclamation 2000a). Sixteen cultural sites are below

the minimum pool elevation of the reservoir and are not subject to any form of future impacts from recreation, reservoir management, or other forces. An unknown number of other sites have been completely impacted in borrow pits, the dam construction area, or other heavily impacted construction areas. Up to 170 sites remain above minimum pool elevation of the reservoir in the project area (Steven Fuller, La Plata Archaeological Consultants, personal communication 2011). At least 67 cultural sites in the project area were treated, primarily those affected by construction of the dam and reservoir or potentially affected by wave action on the shoreline, but also sites affected by construction of CR 210 and other access roads and relocation of utility lines (SWCA Environmental Consultants 2010). Few cultural sites in the project area have official determinations of eligibility (or if official, the determinations may be obsolete or very old), and even the fully treated sites may remain eligible.

As shown in Table 9, a Class III cultural resources inventory completed in 2011 identified 12 cultural resource sites in the immediate vicinity of facilities proposed under the first phase of the 2011 Recreation Master Plan (Action Alternative 1). Testing of one of these sites in 2012 (5LP172) resulted in a recommendation of eligibility.

Table 9. Cultural resources in the immediate vicinity of facilities proposed in the first phase of the 2011 Recreation Master Plan (Action Alternative 1).

Site Number	Type	Determination of Eligibility and Date
5LP169	Basketmaker II occupation	Officially eligible 2009.
5LP170	Basketmaker II/III, Pueblo I/II/III open camp	Field eligible 1986. Currently recommended as eligible.
5LP172	Pueblo I/II/III open architectural	Field eligible 1986. Testing conducted in April 2012 found an intact structure, and this site is recommended as eligible.
5LP173	Basketmaker II/III, Pueblo I/II/III open architectural	Field eligible 1986. Currently recommended as eligible.
5LP187	Pueblo I habitation	Field eligible 1986. Will be recommended as eligible.
5LP237	Pueblo I habitation	Officially eligible 2009.
5LP238	Pueblo I habitation	Field eligible 1986. Will be recommended as eligible.
5LP489	Basketmaker II/III open architectural	Field eligible 1986. Will be recommended as “need data.”
5LP490	Basketmaker II/III open camp	Field eligible 1986. Will be recommended as eligible.
5LP568	Basketmaker II/III open camp	Field eligible 1986. Will be recommended as “need data.”
5LP569	Pueblo I limited activity	Field eligible 1986. Will be recommended as ineligible.
5LP6656.2	Historic	Segment 1 officially eligible 2009. Segment 2 will be recommended as eligible.

3.5.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Under the Proposed Action, initial recreational development would avoid direct impacts to cultural resources. Possible future development of additional recreational facilities would potentially affect some of the cultural resource sites remaining in the project area. The opening of the project area to public use would result in increased human presence and use and may indirectly impact some sites through incidental discovery and illegal collection of artifacts and/or trampling by recreationists venturing away from developed recreational facilities.

Action Alternative 1—2011 Recreation Plan

Construction of recreational facilities during the first phase of development under Action Alternative 1 would directly or indirectly affect 12 cultural resource sites that are eligible or potentially eligible for inclusion in the NRHP. Four of these sites would be directly impacted by construction of the swim beach parking lot, the swim beach, and/or the ADA-accessible trail (Table 10). The proposed location of the swim beach area parking lot on the north reservoir shore would impact Site 5LP172. The ADA-accessible trail and a portion of the swim beach would impact the southern periphery of Site 5LP238, where there are moderate artifact scatters that extend down to the full pool elevation of the reservoir. The ADA-accessible trail would be constructed through the south half of Site 5LP569 and the historic linear irrigation ditch that represents Site 5LP6656.2 would be beneath or immediately adjacent to much of this trail.

Table 10. Summary of potential direct effects on cultural resources in the immediate vicinity of facilities proposed in the first phase of the 2011 Recreation Master Plan.

Site Number	Determination of Eligibility and Date	Potential Effect
5LP169	Officially eligible (2009)	ADA-accessible trail alignment would avoid this site.
5LP170	Field eligible (1986)	Site avoided. ADA-accessible trail would be located just north of the site boundary.
5LP172	Field eligible (1986 and 2012)	Site would be impacted by swim beach parking area and initial segment of the ADA-accessible trail. Based on testing, this site has been determined to be eligible and would require data recovery.
5LP173	Field eligible (1986)	Site avoided. Swim beach parking area and initial segment of ADA-accessible trail would be constructed south of this site.
5LP187	Field eligible (1986)	ADA-accessible trail alignment would avoid this site.
5LP237	Officially eligible (2009)	ADA-accessible trail alignment would avoid this site.
5LP238	Additional data needed (1986)	ADA-accessible trail and a portion of the proposed swim beach would impact the southern periphery of this site, where moderate artifact scatters extend down to the full pool elevation of the reservoir. Limited data recovery recommended.
5LP489	Field eligible (1986)	ADA-accessible trail alignment would avoid this site.
5LP490	Field eligible (1986)	Site avoided. ADA-accessible trail would be located approximately 40 feet southwest of the site boundary.
5LP568	Field eligible (1986)	Site avoided. ADA-accessible trail would be located approximately 25 feet southwest of the site boundary.
5LP569	Field eligible (1986)	ADA-accessible trail would impact south half of this site. Site appears to have been completely treated with research potential exhausted.
5LP6656.2	Officially eligible (2009)	This historic linear irrigation ditch would be beneath or immediately adjacent to much of the ADA-accessible trail. Impacts may be mitigated by interpretive signage/education.

The remainder of the cultural resource sites recorded during the Class III survey would be avoided (Table 10) but would be subject to potential indirect effects from development and use of recreational facilities in their immediate vicinity. Increased human presence and use of the area would potentially result in disturbance of some sites through incidental discovery and illegal collection of artifacts and/or trampling by recreationists venturing off the developed trail alignment.

Development of recreational facilities during future phases of the project would potentially affect some of the up to 170 cultural resource sites remaining in the project area.

Action Alternative 2—2000 FSEIS Recreation Plan

Recreational facilities proposed under Action Alternative 2 have not been precisely sited or designed at this time. As such, this alternative may affect some of the up to 170 cultural resource sites remaining in the project area. Similar to the Proposed Action and Action Alternative 1, this alternative would indirectly affect cultural resources located in the vicinity of developed recreational facilities and trails and elsewhere in the project area. The extent of potential indirect effects would be similar to Action Alternative 1.

No Action Alternative

Under the No Action Alternative, the project area would remain closed to public access, and no recreational facilities would be developed. Potential direct and indirect impacts to cultural resource sites, such as incidental site discovery, illegal collection of artifacts, and/or trampling, could result from unauthorized access or trespass in the absence of monitoring or oversight in the project area by a recreation manager or law enforcement agencies. An approved CRMP would be implemented by Reclamation to monitor cultural resources, and any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- Effects on cultural resources shall be evaluated through the process outlined in an approved Cultural Resource Management Plan (CRMP) in compliance with the National Historic Preservation Act Section 106.
- To reduce indirect impacts to cultural resource sites from visitors traveling off designated trails and day-use areas, educational and interpretive signage shall be developed and maintained at developed recreational facilities to explain the general significance of cultural resources and the protection afforded them by law.
- As needed, cultural resource surveys shall be completed prior to future development to determine impacts on other cultural resource sites, potential for avoidance, or need for testing and data recovery.
- As needed, an archaeologist shall be available during all construction activities in the project area. The recreation manager shall assign staff to monitor recreational activities and enforce rules, regulations, and/or measures for the protection of cultural resources. Shoreline

monitoring will be conducted once every two months, as weather allows, by a Reclamation archaeologist.

- Monitoring and oversight by a recreation manager and law enforcement agencies would reduce impacts from unauthorized access or trespass.

3.6 INDIAN TRUST ASSETS

3.6.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the United States for Native American tribes or individual Native Americans. These assets are held by the Secretary of the Interior as the trustee. ITAs can include, but are not limited to, land resources, water rights, minerals, and hunting and fishing rights. The United States, including all of its bureaus and agencies, has a fiduciary responsibility to protect and maintain rights reserved by or granted to Indian tribes or individual tribal members by treaties, statutes, and EOs. This trust responsibility requires that all federal agencies, including Reclamation, ensure their actions protect trust assets. Secretarial Order 3175 (incorporated into the Departmental Manual [DM] at 512 DM 2) requires that the potential impacts of U.S. Department of the Interior bureau actions on ITAs must be addressed in planning and decision documents, such as this EA.

A Colorado Ute Indian Water Rights Final Settlement Agreement, signed in 1986, quantified the Colorado Ute tribes' rights to obtain water from several rivers and projects, including the ALP Project. Congress incorporated the ALP Project into the Colorado Ute Indian Water Rights Settlement Act of 1988 (P.L. 100-585) (Settlement Act) to settle Colorado Ute tribal water rights claims.

3.6.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

The Proposed Action will not affect ITAs associated with water rights assigned to the Colorado Ute tribes under the Colorado Ute Indian Water Rights Settlement Act.

Action Alternative 1—2011 Recreation Plan

Action Alternative 1 will not affect ITAs associated with water rights assigned to the Colorado Ute tribes under the Colorado Ute Indian Water Rights Settlement Act.

Action Alternative 2—2000 FSEIS Recreation Plan

Action Alternative 2 will not affect ITAs associated with water rights assigned to the Colorado Ute tribes under the Colorado Ute Indian Water Rights Settlement Act.

No Action Alternative

The No Action Alternative will not affect ITAs associated with water rights assigned to the Colorado Ute tribes under the Colorado Ute Indian Water Rights Settlement Act.

Mitigation Measures (Action Alternatives)

None.

3.7 BRUNOT TREATY RIGHTS

3.7.1 Affected Environment

In 1873, the United States negotiated the Brunot Agreement (aka Brunot Treaty), by which the confederated bands of the Colorado Ute tribes ceded 3.7 million acres in the San Juan Mountain region of the 1868 Ute reservation. In return, the Colorado Ute tribes reserved the right to “hunt upon said land so long as the game lasts and the Indians are at peace with the white people.” This reserved right has been interpreted to include not only hunting but also fishing, trapping, and gathering activities by which tribal members supported themselves in the region for centuries prior to the agreement. The 1873 agreement (ratified by Congress in 1874) is commonly known as the “Brunot Treaty” or “Brunot Agreement,” and the ceded land is often referred to as the “Brunot Area.”

In September 2008 and January 2013 respectively, the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe each signed a Memorandum of Understanding (MOU) with the State of Colorado that preserved the tribes’ reserved rights under the Brunot Agreement, outlined an approach to Brunot Area hunting and wildlife law enforcement, and expressed the intent of the tribes and the State of Colorado to work cooperatively toward the long-term conservation of wildlife in the Brunot Area. The MOUs allow tribal members to exercise long-held rights to hunt and fish within the Brunot Area, in accordance with regulations established by each tribe.

Reclamation acknowledges the Tribes’ Brunot Treaty Rights; however, the reservoir area is currently closed to all activities. Reclamation is involved in ongoing government-to-government discussions with the tribes regarding the application of Brunot Treaty Rights in the project area.

3.7.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

As shown in Figure 3, the proposed recreation footprint would be subject to annexation. This alternative includes the water surface and a 25-foot shoreline buffer around the lake, with the exception of the dam area. This alternative would allow tribal and non-tribal members to engage in fishing in the lake. Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.

Action Alternative 1—2011 Recreation Plan

Action Alternative 1 would allow public access to Reclamation lands comprising the project area. This would allow tribal and non-tribal members to engage in fishing in the lake. Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.

Action Alternative 2—2000 FSEIS Recreation Plan

The effects of this alternative on Brunot Rights would be the same as those described for the Proposed Action and Action Alternative 1.

No Action Alternative

Reclamation acknowledges the Tribes' Brunot Treaty Rights; however, the reservoir area will remain closed to all activities under the No Action Alternative.

Mitigation Measures (Action Alternatives)

None.

3.8 NOISE

3.8.1 Affected Environment

The project area is in a largely undeveloped and rural setting. Background noise is primarily from traffic on CR 210 and CR 141 (Wildcat Canyon Road) and natural sources such as wind. Ambient noise levels are estimated to range from 30 to 40 dBA at residences nearest to the project area (Hankard Environmental 2011). Sensitive noise receptors are primarily private residences in subdivisions immediately southwest (Trapper's Crossing) and northwest (Rafter J) of the project area. Wildlife habitat areas that may be sensitive to changes in ambient noise levels include wintering and migration areas for mule deer and elk on the south and west sides of the project area, elk calving habitat on the north end of the project area, and golden eagle nesting sites on Carbon Mountain and Basin Mountain on the east and south ends of the project area, respectively.

Acceptable noise levels vary based on the type and characteristics of the source and the receptor. The U.S. EPA considers outdoor noise levels of 55 dBA or less averaged over a 24-hour period as protective of public health and welfare for indoor living (EPA 1978). By comparison, the City of Durango municipal code defines permissible noise in residential areas from stationary sources as 55 dBA during daytime hours (7 a.m. to 7 p.m.) and 50 dBA during nighttime hours (7 p.m. to 7 a.m.).

3.8.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Construction of recreational facilities under the Proposed Action would result in temporary noise from operation of machinery and vehicles that may be audible in the project area and adjacent residential areas. Construction activities associated with recreational development along the east lakeshore would not exceed EPA or municipal standards (55 dBA),⁴ and would be temporary in nature. Construction-related noise levels would be lower at residences in the more distant Trapper's Crossing subdivision and for recreationists using the area, but would likely be inaudible in Durango. Construction-related noise from development of facilities would be

⁴ Construction noise is estimated at 90 dBA at 50 feet. Based on an estimated distance of 6,000 feet from the nearest campground along CR 210 and a standard distance attenuation of 6.0 dBA per doubling of distance, noise levels at nearest residences in the Rafter J subdivision would be between 40 and 50 dBA.

audible to recreationists using the area. These noise effects would be temporary in nature—limited to the period of construction.

Public use of recreational facilities under this alternative would result in increased noise levels at sensitive receptors in and near the project area. Operation of motorboats on the reservoir would result in a predicted noise level of 37 dBA at the nearest residences (Hankard Environmental 2011).⁵ This would be below EPA and municipal standards (55 dBA) and would be limited to daylight hours between May 15 and November 15. Effects of noise from temporary construction activities and recreational use on wildlife are discussed in Section 3.9—Natural Resources (Wildlife).

Action Alternative 1—2011 Recreation Plan

Construction of recreational facilities under Action Alternative 1 would result in temporary noise from operation of machinery and vehicles that may be audible in the project area and adjacent residential areas. Construction activities associated with development of campgrounds along CR 210 would likely be audible at the nearest residences in the Rafter J private subdivision. This construction-related noise would be similar to levels from existing traffic on CR 210, would not exceed EPA or municipal standards (55 dBA), and would be temporary in nature. Construction-related noise levels may also be audible but would be lower at residences in the more distant Trapper's Crossing subdivision and for recreationists using the area, but would likely be inaudible in Durango. Construction-related noise from development of facilities during various phases of the project would be audible to recreationists using the area. These noise effects would be temporary in nature—limited to the period of construction.

Public use of recreational facilities under this alternative would result in increased noise levels at sensitive receptors in and near the project area. Operation of motorboats on the reservoir would result in a predicted noise level of 37 dBA at the nearest residences (Hankard Environmental 2011). This would be below EPA and municipal standards (55 dBA) and would be limited to daylight hours between May 15 and November 15. Additional traffic on CR 210 and use of proposed campgrounds adjacent to this roadway would increase noise levels in nearby residential areas, primarily the Rafter J subdivision. During calm or downwind conditions, campground noise would be audible from at least some residences in this subdivision during periods outside of the designated quiet hours from 10 p.m. to 6 a.m. Noise levels would be well below EPA and municipal standards and would be limited during nighttime hours. Effects of noise from temporary construction activities and recreational use on wildlife are discussed in Section 3.9—Natural Resources (Wildlife).

Action Alternative 2—2000 FSEIS Recreation Plan

Effects of Action Alternative 2 on noise would be similar to Action Alternative 1. Motorboat use would be similar to that under the Proposed Action and Alternative 1 and predicted noise levels would not exceed EPA and municipal standards. Siting of most of the recreational facilities along the north lakeshore would result in higher noise levels at sensitive receptors (residential subdivisions), both during construction and after construction due to recreational use of these

⁵ Based on 10 motorboats scattered across the reservoir traveling at high speed and conditions where winds are calm or sensitive receptors (residences) are downwind from the source.

facilities and associated increases in traffic on CR 210. Noise levels at residential areas would not be expected to exceed EPA or municipal standards.

No Action Alternative

Under the No Action Alternative, noise levels in the project area would remain at current ambient levels, which are estimated to range from 30 to 40 dBA.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measure would apply to the action alternatives:
- Construction noise shall be monitored and remain below allowable levels (i.e., 55 dBA during daytime hours and 50 dBA during nighttime hours [measured outdoors] at the nearest residences).

3.9 NATURAL RESOURCES

3.9.1 Affected Environment

Lake Nighthorse is along the Basin Creek drainage in the Ridges Basin area southwest of Durango. The project area is bordered to the north by the Bodo State Wildlife Area and to the south by Southern Ute Indian tribal lands. Areas to the west consist of relatively low density and dispersed residential developments. The U.S. 550-160 transportation corridor, Durango and outlying areas, and the Animas River corridor are east of the project area.

Full pool elevation of the reservoir is 6,882 feet above mean sea level, with an approximate surface area of 1,500 acres. The uplands surrounding Lake Nighthorse in the project area vary from moderate to steeply sloped hillsides, bluffs, and cliffs, up to an elevation of approximately 8,245 feet.

Vegetation

The project area occurs in the lower montane climatic zone, and the vegetation type is mapped as ponderosa pine forest and pinyon-juniper woodland (Colorado Natural Heritage Program 2004). Upland areas surrounding the lake are dominated by Colorado pinyon (*Pinus edulis*), Utah juniper (*Juniperus osteosperma*), Rocky Mountain juniper (*J. scopulorum*), and scattered Gambel oak (*Quercus gambellii*). Ponderosa pine (*Pinus ponderosa*) is more prominent at higher elevations away from the reservoir. More open areas along the edge of the reservoir are dominated by sagebrush (*Artemisia tridentata*) and support other larger shrubs such as rabbitbrush (*Chrysothamnus nauseosus*), skunkbush sumac (*Rhus trilobata*), antelope bitterbrush (*Purshia tridentata*), wild crab apple (*Peraphyllum ramosissimum*), and mountain mahogany (*Cercocarpus montanus*). Smaller shrubs and forbs include snakeweed (*Gutierrezia sarothrae*), prairie sagewort (*Artemisia frigida*), white sagebrush (*A. ludoviciana*), James' buckwheat (*Eriogonum jamesii*), spearleaf buckwheat (*Eriogonum lonchophyllum*), winged buckwheat (*Eriogonum alatum*), hairy false golden aster (*Heterotheca villosa*), spreading fleabane (*Erigeron divergens*), lupine (*Lupinus* sp.), common yarrow (*Achillea millefolium*), curlycup gumweed (*Grindelia squarrosa*), and scarlet beeblossom (*Gaura coccinea*). Succulents include plains pricklypear (*Opuntia polyacantha*) and mountain ball cactus (*Pediocactus simpsonii*). Grasses include sand dropseed (*Sporobolus cryptandrus*), smooth brome (*Bromus inermis*), crested

wheatgrass (*Agropyron cristatum*), blue grama (*Bouteloua gracilis*), and Indian ricegrass (*Achnatherum hymenoides*). Over time, shoreline areas may develop and support emergent wetland and or riparian plant communities.

State-listed noxious weed species that have been recorded in the project area are musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), Scotch thistle (*Onopordum acanthium*), spotted knapweed (*Centaurea stoebe*), houndstongue (*Cynoglossum officinale*), hoary cress (*Cardaria draba*), yellow toadflax (*Linaria vulgaris*), downy brome (*Bromus tectorum*), common mullein (*Verbascum thapsus*), and bindweed (*Convolvulus arvensis*) (Horizon Environmental Services 2010).

Wildlife

Wildlife in the project area is expected to be representative of ponderosa pine and pinyon-juniper habitats. Upland areas support habitat for a variety of birds, mammals, smaller reptiles, and invertebrates. Though wetland and riparian vegetation does not occur at this time, the reservoir is currently used by water birds such as grebes, ducks, geese, herons, cormorants, and shorebirds. Lake Nighthorse was stocked with nonnative rainbow trout (*Oncorhynchus mykiss*) in 2010.

The project area supports winter range for mule deer (*Odocoileus hemionus*) and serves as a migration area during spring and fall. An estimated 300 mule deer use the Bodo State Wildlife Area in winter, including lands acquired by Reclamation for construction and operation of Lake Nighthorse (i.e., the project area). It is estimated that about 1,000 mule deer migrate through the project area from winter range on Southern Ute Indian tribal lands to the south to summer range to the north (Reclamation 2000a).

The project area serves as year-round and migration habitat for elk (*Cervus elaphus*). In 1996, it was estimated that 100 elk resided in the Bodo State Wildlife Area and the project area year-round and that an estimated 400 elk migrated through the area in the winter and spring. Elk calving occurs in May and June in the northern portions of the project area in pinyon-juniper woodland. In 2000, the resident elk herd around Ridges Basin was estimated at 75 animals, and it was estimated that 400 elk used the basin and surrounding area as winter range. In 2011, Reclamation estimated that the resident elk herd consisted of 65 cows and eight bulls (Molly Thrash, Reclamation Environmental Protection Specialist, personal communication 2011). A movement corridor used by elk to migrate from winter range on the Southern Ute Indian tribal lands to summer range in the San Juan Mountains to the north was identified at the west end of Ridges Basin (Reclamation 2000a).

The project area supports habitat for birds of prey (raptors), including eagles. Raptor species observed include osprey (*Pandion haliaetus*), peregrine falcon (*Falco peregrinus*), golden eagle (*Aquila chrysaetos*), and bald eagle (*Haliaeetus leucocephalus*). Peregrine falcons were recorded as successfully nesting in the project area in 2011 (Ecosphere Environmental Services 2011a). A pair of golden eagles has historically nested on Carbon Mountain in the project area. Since 2003, successful nesting was documented in 2004–2006 and in 2010 and 2011 (Ecosphere Environmental Services 2011b). In 2003 and 2009, no evidence of nesting was found. In 2007, golden eagles nested but did not successfully fledge young (Graber 2010). This eagle territory was not monitored for occupancy or nest success in 2008. A new, active golden eagle nest was discovered in early 2011 along the southern project area boundary and successfully fledged one

young. Bald eagles, estimated at 18 individuals, were observed foraging on the lake in the winter and early spring of 2010/2011 (Molly Thrash, Reclamation Environmental Protection Specialist, personal communication 2011). Bald eagles were recorded in the project area during 11 of 14 field surveys from April to the end of June 2011 (Ecosphere Environmental Services 2011b).

Other bird species protected from take under the Migratory Bird Treaty Act that have been found nesting in the project area include Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), mourning dove (*Zenaida macroura*), black-chinned hummingbird (*Archilochus alexandri*), broad-tailed hummingbird (*Selasphorus platycercus*), red-shafted flicker (*Colaptes auratus*), violet-green swallow (*Tachycineta thalassina*), black-billed magpie (*Pica pica*), mountain bluebird (*Sialia currucoides*), blue-gray gnatcatcher (*Polioptila caerulea*), green-tailed towhee (*Pipilo chlorurus*), vesper sparrow (*Pooecetes gramineus*), Brewer's sparrow (*Spizella breweri*), Western meadowlark (*Sturnella neglecta*), and Brewer's blackbird (*Euphagus carolinus*) (Ecosphere Environmental Services 2011a and 2011c). Additional protected bird species are anticipated to nest in the project area.

Threatened and Endangered Species

Effects of the ALP Project, including the construction of Lake Nighthorse, on federally listed, proposed, and candidate species were addressed in the FSEIS (Reclamation 2000a). A USFWS Information, Planning, and Conservation (IPaC) Trust Resource Report was generated for the project area on June 1, 2015, to obtain an updated list of species. Table 11 lists species identified in the IPaC report and summarizes their potential for occurrence in the project area.

Table 11. Threatened and endangered species and their potential for occurrence in the project area.

Species	Status	Potential for Occurrence in Project Area
Birds		
Mexican spotted owl <i>Strix occidentalis lucida</i>	T	Inhabits old-growth or mature forests with uneven-aged stands, high canopy closure, multistoried levels, and high tree density. No individuals were detected during surveys completed in the project area in 1992. No suitable or designated critical habitat is present in the project area.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	E	Found in dense riparian habitats along streams and reservoirs. No suitable or designated critical habitat is present in the project area.
Yellow-billed cuckoo <i>Coccyzus americanus</i>	T	Typically found in gallery riparian forests with cottonwood and willow. No suitable or proposed critical habitat is present in the project area.
Colorado pikeminnow <i>Ptychocheilus lucius</i>	E	Found in large riverine habitats. No suitable or designated critical habitat occurs in the project area, and this species is not known to occur in downstream reaches of the Animas River.
Razorback sucker <i>Xyrauchen texanus</i>	E	Found in large riverine habitats. No suitable or designated critical habitat occurs in the project area, and this species is not known to occur in downstream reaches of the Animas River.
Mammals		
New Mexico meadow jumping mouse <i>Zapus hudsonius luteus</i>	E	Found only in persistent emergent herbaceous wetlands and scrub-shrub wetlands along perennial streams. Potential habitat may occur along the lakeshore in the project area.
Plants		
Knowlton's cactus <i>Pediocactus knowltonii</i>	E	Known only from type locality in San Juan County, New Mexico, where it grows on gravelly soils in pinyon-juniper-sagebrush communities between 6,200 and 6,300 feet in elevation. This species has not been found in the project area, which is outside the known range.

E = federally listed as endangered, T = federally listed as threatened.

3.9.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Vegetation

Development of recreational facilities under the Proposed Action would remove or disturb about 4 acres of vegetation as part of initial development and additional acres of vegetation as part of possible future development. Vegetation affected would be primarily pinyon-juniper woodland and sagebrush, shrub, and herbaceous vegetation in relatively open areas along the reservoir shoreline. Disturbance associated with construction of facilities and their use would reduce or eliminate vegetation cover, change plant species composition, and increase potential dispersal of weedy plant species in the project area. Indirect effects to vegetation would occur from recreationists venturing away from developed recreational sites or facilities.

Wildlife

The Proposed Action would result in direct and indirect effects on wildlife. Direct effects from human presence would include localized disturbance/displacement of wildlife, changes in

foraging and other behavior, reduced reproductive success, changes in community structure, and fragmentation of habitat (Barber et al. 2009). Indirect effects of recreation on wildlife habitat include impacts on soils (e.g., compaction, loss of surface horizons, increased runoff and erosion) and impacts to vegetation that provides food or cover (Cole and Landres 1995). These effects would be most pronounced in the direct vicinity of developed recreational facilities or sites. Some indirect effects would also occur farther removed from developed recreational sites or facilities.

Development and public use of recreational facilities under the Proposed Action would affect mule deer and elk that reside year-round in the project area. Development and use of recreational facilities would result in disturbance, localized displacement, and changes in habitat use by resident mule deer and elk. Seasonal closures on the south and west portions of the project area (from mid-November to mid-May) would reduce impacts to mule deer and elk using this portion of the project area during the more critical winter period and those migrating between summer and winter ranges during fall and spring. Development and use of recreational facilities under the Proposed Action may affect raptors nesting or foraging in the project area.

Effects on nesting eagles would be mitigated through seasonal closure (from December 1 to July 15) of areas within ¼-mile of active and historical nest sites. Studies conducted on the effects of human activity (including boating) on nesting bald eagles show minimal flush rates beyond 400 meters (1,312 feet)(Grubb and King 1991, McGarigal et al. 1991), which corresponds to the recommended ¼ mile (1,320-foot) buffer around historical and currently used golden eagle nest sites. Greater human presence and recreational development under this alternative may reduce foraging areas for golden eagles. Seasonal closure of the reservoir (from mid-November to mid-May) to boating would reduce disturbance impacts to wintering bald eagles that forage on the reservoir. Due to the establishment of a recreational fishery, the potential exists for bald eagles and ospreys to nest in the project area in the future. Future nesting by these species may warrant seasonal closures for areas surrounding nest sites.

Development and use of recreational facilities is unlikely to affect nesting peregrine falcons, whose eyries are typically found on steep cliff sites, and is unlikely to impact foraging habitat for this species. Stocking of trout in Lake Nighthorse to maintain a recreational fishery could negatively affect bald eagles through bioaccumulation of mercury and/or other trace elements. Mercury has the potential to negatively affect growth, survival, reproductive success, and behavior (EPA 1997). A nationwide study published in 1997 suggests that bald eagles have not suffered adverse toxic effects due to airborne mercury emissions (EPA 1997). A subsequent study in South Carolina found accumulation of mercury in nestling bald eagles and suggested that older birds accumulate substantially more, though it could not be determined whether measured levels were negatively impacting growth, reproduction, or development (Jagoe et al. 2002). In Maine, a negative correlation between mercury and productivity was found to be most pronounced at lakes, where mercury concentrations were highest. This study suggested that a portion of Maine's eagle population may be experiencing some reproductive impacts due to mercury exposure despite continuous growth of the bald eagle population (DeSorbo et al. 2009).

Threatened and Endangered Species

The Proposed Action would not affect federally listed threatened or endangered species.

Action Alternative 1—2011 Recreation Plan

Vegetation

Development of recreational facilities under Action Alternative 1 would remove or disturb up to 58 acres of vegetation as part of the first phase of development and up to 70 additional acres of vegetation as part of subsequent phases. Vegetation affected would be primarily ponderosa pine forest, pinyon-juniper woodland and sagebrush, shrub, and herbaceous vegetation in relatively open areas along the reservoir shoreline. Disturbance associated with construction of facilities and public use of trails (including equestrian), campgrounds, and other amenities would reduce or eliminate vegetation cover, change plant species composition, and increase potential dispersal of weedy plant species in the project area. Effects on vegetation resulting from firewood collection by campers and public use of recreational facilities and surrounding areas (e.g., trampling) would also occur. Indirect effects to vegetation would occur from recreationists venturing away from developed recreational sites or facilities, though the development of trails and signage would limit these impacts.

Wildlife

Action Alternative 1 would result in direct and indirect effects on wildlife. Direct effects from human presence would include localized disturbance/displacement of wildlife, changes in foraging and other behavior, reduced reproductive success, changes in community structure, and fragmentation of habitat. Indirect effects of recreation on wildlife habitat include impacts on soils and impacts to vegetation that provides food or cover. These effects would be most pronounced in the direct vicinity of roadways, trails, day-use areas, and campgrounds; along the shoreline of the reservoir; and along trails outside seasonal closure areas. Some indirect effects would also occur farther removed from developed recreational sites or facilities, though the development of trails and signage would limit these impacts.

Development and public use of recreational facilities under this alternative would affect mule deer and elk that reside year-round in the project area. Increased traffic on CR 210 from recreationists would likely result in some increase in vehicle-wildlife collisions. Development and use of trails, campgrounds, and day-use areas would result in disturbance, localized displacement, and changes in habitat use by resident mule deer and elk. Development of multi-use trails (including equestrian) north of CR 210 would likely eliminate or reduce any mule deer fawning and elk calving areas in this portion of the project area and may result in loss of breeding or nesting habitat for other wildlife species. This would also affect the southern, adjoining portion of the Bodo State Wildlife Area. Seasonal closures on the south and west portions of the project area (from mid-November to mid-May) would reduce impacts to mule deer and elk using this portion of the project area during the more critical winter period and those migrating between summer and winter ranges during fall and spring. Development of two campgrounds, a trailhead, and multi-use trails may reduce or eliminate elk calving habitat in the northern portion of the project area. Development and use of recreational facilities under this alternative may affect raptors nesting or foraging in the project area.

As with the Proposed Action, effects on nesting eagles would be mitigated through seasonal closure (from December 1 to July 15) of areas within .25 mile of active and historical nest sites. Greater human presence and recreational development under this alternative may reduce foraging areas for golden eagles. Seasonal closure of the reservoir (from mid-November to mid-

May) to boating would reduce disturbance impacts to wintering bald eagles that forage on the reservoir. Recreational use of trails during this period (e.g., hiking, snowshoeing, cross-country skiing) may result in some localized displacement of bald eagles but would not substantially reduce foraging opportunities. Wintering bald eagles in Washington rarely flushed at distances beyond about 400 feet (Becker 2002). Due to the establishment of a recreational fishery, the potential exists for bald eagles and ospreys to nest in the project area in the future. Future nesting by these species may warrant seasonal closures for areas surrounding nest sites.

As with the Proposed Action, development and use of recreational facilities under Action Alternative 1 is unlikely to affect nesting peregrine falcons, and stocking of trout in Lake Nighthorse to maintain a recreational fishery could negatively affect bald eagles through bioaccumulation of mercury and/or other trace elements.

Threatened and Endangered Species

Action Alternative 1 would not affect federally listed threatened or endangered species.

Action Alternative 2—2000 FSEIS Recreation Plan

Vegetation

Development of recreational facilities under Action Alternative 2 would remove or disturb 128 acres of ponderosa forest, pinyon-juniper woodland and sagebrush, shrub, and herbaceous vegetation. Other effects on vegetation from recreational use, including the potential spread of noxious weeds, would be similar to the Proposed Action and Action Alternative 1.

Wildlife

Action Alternative 2 would have more direct and indirect effects on wildlife compared with the Proposed Action and Action Alternative 1. Because the same total acreage would be affected by recreational development, effects such as disturbance/displacement of wildlife; changes in behavior, reproductive success, community structure; habitat fragmentation; and indirect effects on soils would not differ substantially from Action Alternative 1. Siting of recreational facilities primarily on the north lakeshore under this alternative would have more effects on wildlife compared with Action Alternative 1 by increasing recreation-related traffic and associated vehicle-wildlife collisions on CR 210 and through greater impacts to mule deer fawning and elk calving areas. Indirect effects from recreationists venturing beyond the vicinity of developed recreational sites would be similar to Action Alternative 1.

As with the Proposed Action and Action Alternative 1, effects on nesting golden eagles and wintering bald eagles would be mitigated through seasonal closures, and this alternative would be unlikely to affect nesting or foraging peregrine falcons. The potential for indirect effects on bald eagles from stocking of trout would be the same as under the Proposed Action and Action Alternative 1.

Threatened and Endangered Species

As with the Proposed Action and Action Alternative 1, Action Alternative 2 would not affect federally listed threatened or endangered, proposed, or candidate species.

No Action Alternative

Vegetation

Under the No Action Alternative, no recreational facilities would be developed. The project area would remain closed to public access and would continue to be administered by Reclamation for dam/reservoir operations only. No currently undisturbed plant communities would be affected. Reclamation would continue its integrated weed management program. Human-caused dispersal of noxious weeds would be largely limited to the existing access roads to the inlet structure, boat ramp, and dam.

Wildlife

Under the No Action Alternative, the project area would remain closed to public use and largely undeveloped. Impacts to wildlife would be limited to disturbance associated with maintenance of existing facilities (i.e., existing access roads, the inlet structure, dam, and associated infrastructure). No impacts to elk calving habitat in the north portion of the project area would occur, and vehicle-wildlife collisions on CR 210 related to recreational development and use would not occur. Under this alternative, no recreation-related disturbance of foraging golden and bald eagles or raptor species that may nest in the project area in the future, such as bald eagles and ospreys, would occur.

Threatened and Endangered Species

The No Action Alternative would not affect federally listed threatened or endangered species.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas.
- The recreation manager, in coordination with Reclamation, the CPW, ALPOMRA, and La Plata County, shall implement an integrated weed management plan that includes annual monitoring of the project area and areas subject to recreational development for the presence and spread of state-listed noxious weed species, development and implementation of appropriate treatments, and annual reporting. Areas near the lake shall be treated only with herbicides approved for use in or near aquatic habitats.
- Under Action Alternative 1, a horse grooming station shall be constructed and maintained at the proposed multi-use trailhead along CR 210 prior to opening the trail system for equestrian use. Signage shall be maintained that provides information on the potential spread of noxious weeds and associated impacts and certified weed-free forage, and encourages the grooming of horses.
- The recreation manager shall provide staff and/or shall coordinate with the CPW, ALPOMRA, and local law enforcement to patrol the lake and the surrounding upland areas on a year-round

basis and to enforce regulations. This shall include enforcement of seasonal closures for wildlife and use restrictions in the south and west portions of the project area, and enforcement of no wake and no boating zones, boat speed limits, boat size/type restrictions, time-of-day restrictions, and other regulations. No wake zones and no boating zones shall be clearly demarcated on the lake, and buoys demarcating any dedicated swim beach areas shall be maintained during periods when the lake is open to boating.

- Signs shall be placed along CR 210 through the project area warning motorists of potential crossings of the roadway by deer and elk.
- If new active raptor nests or nest locations are discovered, the recreation manager, in coordination with Reclamation, shall consult with the CPW and the USFWS to determine whether designation of buffers and closure to public access during the nesting season are warranted to minimize closure of recreational area(s).
- For construction activities that take place between May 15 and August 31, a qualified biologist shall survey affected areas in advance of construction to determine the presence or absence of nesting birds.
- Under Action Alternatives 1 and 2, Reclamation shall coordinate with the CPW regarding any additional measures that may be necessary to control or minimize resource damage in the portion of the project area north of CR 210.

3.10 VISUAL QUALITY/AESTHETICS

3.10.1 Affected Environment

Aesthetics, scenic resources, and visual quality associated with rugged mountainous terrain and other natural features are integral in defining the high quality of life for year-round residents of Durango, La Plata County, and the surrounding communities. The scenery that is characteristic of southwestern Colorado also attracts thousands of recreational visitors and, therefore, is economically valuable for maintaining tourism and recreational revenue (Reclamation 2000a). The scenic characteristics of the project area reflect a predominantly natural setting. The viewshed is dominated by open water (Lake Nighthorse), woodlands and forest, and the mountainous terrain of Carbon Mountain and Basin Mountain east and south of the reservoir, respectively. Existing developed features that modify the natural landscape include the dam and reservoir, the boat ramp, the inlet structure, access roads, fencing, and gates. The dam and reservoir are visible along segments of CR 210, CR 219, CR 141, U.S. 160, and U.S. 550, as well as from some residences in private subdivisions immediately southwest (Trapper's Crossing) and northwest (Rafter J) of the project area.

3.10.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Development of recreational facilities under the Proposed Action would further modify the natural setting in the project area. All of the facilities proposed would be located along the east lakeshore and, therefore, would have limited visual effects in background views for residents of the Trapper' Crossing and Rafter J private subdivisions and for motorists on CR 210 and CR 141. There would be no additional sources of light in the project area during nighttime hours.

Visual impacts from permanent facilities would be reduced by the use of natural materials, siting of parking lots to conform to existing landforms, and the burying of utilities underground. Over the long-term, this would retain visual quality with a largely natural setting with limited modification. The effects of land clearing, disturbance of natural vegetation, and cut and fill associated with construction of proposed facilities would be more visible in the short term.

Action Alternative 1—2011 Recreation Plan

Development of recreational facilities under Action Alternative 1 would further modify the natural setting in the project area. Proposed campgrounds would be in primarily forested areas and would be partially visible to motorists using CR 210 (in foreground views) and potentially visible to some residences in the Rafter J subdivision (in midground views). Most of the facilities proposed would be located along the east and north shore of the reservoir. Day-use areas and parking lots would be at least partially visible from segments of CR 210 and CR 141 and from the Trapper's Crossing and Rafter J private subdivisions, primarily in background views. Trails would likely be visible only in foreground views and would not affect visual quality from more distant vantage points. Development and use of recreation facilities would result in additional sources of light in the project area during nighttime hours.

Visual impacts from permanent facilities would be reduced by the use of natural materials, siting of parking lots and campgrounds to conform to existing landforms, and the undergrounding of utilities. Over the long-term, this would retain visual quality with a largely natural setting with limited modification. The effects of land clearing, disturbance of natural vegetation, and cut and fill associated with construction of proposed facilities would be more visible in the short term.

Action Alternative 2—2000 FSEIS Recreation Plan

Effects of Action Alternative 2 on visual quality would be similar to Action Alternative 1. Siting of most of the recreational facilities on the north lakeshore would potentially make these more visible from CR 141 and from the Rafter J and Trapper's Crossing private subdivisions in midground or background views.

No Action Alternative

Under the No Action Alternative, visual characteristics of project area would remain unchanged.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas.
- Final siting and design of facilities by the recreation manager shall be coordinated with Reclamation to minimize cut and fill and to ensure the use of native and complementary construction materials and dark-sky-friendly lighting.

3.11 WATER QUALITY

3.11.1 Affected Environment

Water quality in Lake Nighthorse is currently affected by water quality in the Animas River (the water supply source), other contributing drainages such as Basin Creek, and conditions in and around the reservoir. Water is conveyed to Lake Nighthorse from the Animas River via the Durango Pumping Plant and the Ridges Basin Inlet Conduit. The Animas River from Junction Creek to the Southern Ute Indian Reservation boundary (which includes the intake structure for the Durango Pumping Plant for Lake Nighthorse) has been assessed as fully supporting agriculture and primary contact recreational uses,⁶ not supporting water supply use, and having insufficient information to assess aquatic life (CDPHE 2012). The reach of the Animas River from Baker’s Bridge in Durango to the Southern Ute Indian Reservation boundary is listed as impaired due to manganese (CDPHE 2014). Water quality in Lake Nighthorse is further affected by sedimentation and nutrient loading from drainages flowing into the reservoir and chemical, biological, and physical changes over time from inundation of soils and vegetation on the reservoir bottom (Reclamation 2000a).

Lake Nighthorse—up to the full pool elevation of the reservoir—is considered a Water of the United States (WUS) under jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (CWA). Due to relatively recent filling/inundation, no wetlands or other special aquatic sites are currently associated with the reservoir.

3.11.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Under the Proposed Action, water quality in Lake Nighthorse would be potentially affected by development and use of shoreline recreational facilities, motorized boating, and other water-based recreational facilities. Construction of recreational facilities and use of shoreline sites and trails by recreationists has the potential to result in increased erosion and sedimentation and discharge of sediment, nutrients, heavy metals, hydrocarbons, and other pollutants into the reservoir. Motorized boating on the reservoir could result in the occasional discharge or spills of hydrocarbon pollutants and impacts are likely to be minimal due to the large volume of water contained in the lake. Construction of shoreline recreational facilities has the potential to impact WUS and wetlands that may develop at the reservoir over time. Shoreline access by anglers and other recreationists may also impact future wetland areas.

The Proposed Action would have fewer potential effects on water quality than Action Alternative 1 and Action Alternative 2, and would limit recreational facility development to realignment of a section of the boat ramp access road and construction of a boat ramp overflow parking area. Future development would be limited to the east side of the reservoir. Therefore, compared with Action Alternative 1 and Action Alternative 2, this alternative would have a reduced area of disturbance subject to potential for erosion and sedimentation. Effects of motorized boat use would be the same as Action Alternative 1 and Action Alternative 2. Possible

⁶ A water body supporting the designated use “Recreation Primary Contact” is considered suitable for activities where ingestion of small quantities of water is likely to occur (e.g., swimming, boating, windsurfing, water-skiing).

future development of a swim beach and day-use areas along the east lakeshore would have the potential to impact WUS, including wetlands.

Action Alternative 1—2011 Recreation Plan

Action Alternative 1 would have more potential effects on water quality compared with the Proposed Action due to development of more recreational facilities and associated disturbance that may impact WUS, including wetlands that may develop at the reservoir over time.

Action Alternative 2—2000 FSEIS Recreation Plan

Effects on water quality under this alternative would be the same as Action Alternative 1.

No Action Alternative

Under the No Action Alternative, water quality in Lake Nighthorse would not be subject to erosion, sedimentation, and discharge of other pollutants related to recreational development or use.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- Water quality monitoring shall be undertaken by Reclamation in coordination with the recreation manager, ALPOMRA, and other stakeholders. The results of water quality monitoring shall be reviewed periodically to determine whether additional control measures need to be developed and implemented.
- The recreation manager shall enforce regulations that protect water quality (e.g., the 5 mph maximum boat speeds in no wake zones to minimize turbidity and shoreline erosion, and prohibition of discharge of sewage, organic material, or garbage into the reservoir). The recreation manager shall coordinate with the CPW to monitor and enforce boating and fishing regulations.
- The recreation manager shall implement and monitor applicable best management practices and recommendations for the protection of water quality. The recreation manager shall provide training to its staff and shall provide and store, on-site, a boat, other equipment, and materials to address hazardous material spills (either by staff or by emergency services personnel). The boat shall be stored on-site when the lake is open for public use.
- Measures to control storm water runoff from temporary disturbance areas and permanent improvements shall be implemented and monitored in accordance with CDPHE requirements for storm water management.
- Prior to design and construction of any recreational facilities at the reservoir, the presence of jurisdictional wetlands and/or WUS shall be assessed and, if necessary, avoided or mitigated. If applicable, facilities will be designed and constructed in compliance with Reclamation's CWA Section 404 authorization for the ALP Project and/or filing an application for a Colorado discharge permit with CDPHE.

3.12 AIR QUALITY

3.12.1 Affected Environment

As directed by the federal Clean Air Act (CAA), the EPA established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants in Title 40, CFR, Part 50. These standards were adopted by the EPA to protect the public health and welfare. The six pollutants of concern are carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, and particulate matter (PM₁₀, inhalable coarse particles less than 10 but more than 2.5 microns in diameter, and PM_{2.5}, fine particles less than 2.5 microns in diameter). States are required to adopt standards that are at least as stringent as the NAAQS.

The CAA requires that states classify air basins (or portions thereof) as either “attainment” or “nonattainment” with respect to criteria pollutants. If an air basin does not meet the NAAQS for one or more pollutants, then the area is classified as “nonattainment” for that pollutant. For nonattainment areas, states are required to formulate and submit State Implementation Plans to the EPA that outline those measures the state will use to attain and maintain compliance with the NAAQS (40 CFR Part 51). La Plata County is currently an attainment area for all criteria pollutants, and the project area is not within a Class I Airshed.

The CDPHE Air Quality Control Division monitors and regulates air quality in Colorado. Construction projects less than 25 acres in size and less than six months in duration are exempt from permitting and do not need to report air emissions, but operators must use appropriate control measures to minimize the release of fugitive dust. Development projects that range from 25 acres to 1,850 acres can qualify for a Land Development General Permit, which is subject to emissions guidelines and implementation of control measures.

EO 13514 directs federal agencies to promote pollution prevention and reduce emissions of greenhouse gases (GHGs) that result from their actions. In accordance with Section 19(i) of this EO, the CEQ defines GHGs as carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The CEQ has proposed an annual reference threshold of 25,000 metric tons of carbon dioxide–equivalent (CO₂e) GHG emissions as a useful indicator for agencies to consider when analyzing potential action-specific GHG emissions in NEPA documents (CEQ 2010). This threshold was considered relevant by CEQ because it is a minimum standard for reporting GHG emissions from specified industries under the CAA (EPA’s Mandatory Reporting of Greenhouse Gases Final Rule, 74 Federal Register 56260). According to the CEQ draft guidance, no quantitative analysis of GHGs is necessary if emissions from a proposed action are not likely to exceed the annual presumptive threshold of 25,000 metric tons of CO₂-equivalent GHGs. Globally, sources of human-induced emissions of CO₂e GHGs include mainly burning of fossil fuels for power generation and transportation, with significant contributions from clearing of forests, agricultural practices, and other similar activities. In the study area, principal local sources of CO₂e GHGs include combustion emissions from heavy equipment and light vehicles used in farming, construction, and personal and commercial transportation.

3.12.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Construction activities associated with development of recreational facilities under the Proposed Action would generate fugitive dust, primarily from operation of earthmoving equipment, excavation, travel of construction vehicles and other equipment on unimproved access roads, and stockpiling of construction materials. This would represent a minor transient effect on ambient air quality in the study area. The temporary operation of construction equipment and motor vehicles would generate minor amounts of engine combustion products, including nitrogen and nitrous oxides, carbon dioxide, carbon monoxide, and reactive organic gases.

Recreational activities at Lake Nighthorse would result in an increase in emissions of engine combustion products from vehicles and motorized boats. Increased emissions would be more concentrated when recreational use is highest (mid-May to mid-November and on weekends) but would not be expected to lead to, or substantially contribute to, nonattainment for any criteria pollutant.

The CEQ has proposed an annual reference threshold of 25,000 metric tons of direct CO₂e GHG emissions as a useful indicator for agencies to consider when analyzing potential action-specific GHG in NEPA documents (CEQ 2010).⁷ The primary sources for the generation of GHG emissions with the development of recreational facilities under this alternative would be from the operation of motor vehicles by the recreational manager's operations and maintenance staff, the operation of motor vehicles by recreationists traveling to and from the site, the operation of motorized watercraft on the lake, and the burning of campfires in designated areas.

The annual emission of CO₂e GHG from the Proposed Action would be substantially below the threshold proposed by the CEQ as relevant to the decision-making process. The Proposed Action would be considered to have little to no effect on climate change.

Action Alternative 1—2011 Recreation Plan

Under Action Alternative 1, effects on air quality would be similar to the Proposed Action. Temporary effects from fugitive dust emissions during construction would be greater due to the more limited extent of ground disturbance under this alternative. Due to more development of recreational facilities, there would be greater emissions of engine combustion products from vehicles compared with the Proposed Action. Emissions from motor boats would be similar to those under the Proposed Action. As with the Proposed Action, Action Alternative 1 would not be expected to lead to, or substantially contribute to, nonattainment for any criteria pollutant; exceed the annual CO₂e GHG emission threshold proposed by the CEQ; or substantially affect climate change.

⁷ Executive Order 13514 directs federal agencies to promote pollution prevention and reduce emissions of greenhouse gases from actions under their control.

Action Alternative 2—2000 FSEIS Recreation Plan

Effects of Action Alternative 2 on air quality would be the same as Action Alternative 1, except that higher vehicle emissions would be anticipated due to more recreation annual user days under this alternative.

No Action Alternative

Under the No Action Alternative, there would be no potential for emissions of fugitive dust or GHGs related to the development and use of recreational facilities at Lake Nighthorse. Existing access roads would experience minimal travel, due to the reservoir area being closed to the public.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- As needed, construction contractors shall obtain permit coverage from the CDPHE Air Pollution Control Division and implement best management practices.
- All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Only certified weed-free seed and mulch shall be used. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas.
- Gravel entryways shall be used to prevent mud and dirt carryout onto paved surfaces. Any mud and dirt carryout onto paved surfaces shall be cleaned up daily.
- All roadways open to public and other use shall be graveled initially and improved as need arises and funding allows.

3.13 TRAFFIC

3.13.1 Affected Environment

The project area is southwest of Durango on CR 210 and is accessed from the east via CR 210 (off U.S. 550-160) or from the west via CR 210 (from CR 141/Wildcat Canyon Road). U.S. 550-160 is a four-lane, non-rural principal highway that serves as a primary route to and through Durango. U.S. 550-160 has a speed limit of 50 mph at its intersection with Frontage Road, the primary access from Durango to CR 210. Frontage Road is a four-lane road at the intersection of CR 210 that decreases to a two-lane road south of the intersection. It is used primarily to serve businesses and retail shops in Bodo Industrial Park and has a speed limit of 35 mph. The intersection of Frontage Road and U.S. 550-160 is approximately 200 feet north of the intersection of Frontage Road and CR 210. CR 210 is a two-lane rural highway composed of chip seal on top of gravel. The speed limit on CR 210 is 45 mph west of the proposed Lake Nighthorse main entrance, decreases to 35 mph east of the main entrance, and decreases again to 25 mph within approximately ½ mile of Frontage Road. CR 141 is a two-lane rural

highway with a speed limit of 40 mph at the CR 210 intersection (Russell Planning and Engineering 2011).

A traffic impact study (Russell Planning and Engineering 2011) has identified four intersections as being potentially affected by the project: (1) the U.S. 550-160/Frontage Road intersection, (2) the Frontage Road/CR 210 intersection, (3) the CR 210/CR 141 intersection, and (4) the proposed Lake Nighthorse main entrance/CR 210 intersection. All of these intersections currently function at acceptable LOS and are projected to function at acceptable LOS through 2032, with the exception of the U.S. 550-160/Frontage Road intersection. This intersection is anticipated to reach an unacceptable LOS at the Friday evening peak hour by 2020 (Russell Planning and Engineering 2011).

Improvements to three intersections have been recently completed or are planned for the near future. In August 2012, the Colorado Department of Transportation (CDOT) restriped the intersection at Frontage Road and CR 210 to provide a left-turn pocket for northbound Frontage Road traffic, as well as a dedicated right-turn pocket for southbound Frontage Road traffic. This was completed in conjunction with a maintenance patch overlay (Rick Routh, Traffic Engineer, CDOT Region 5, personal communication 2012). In the summer of 2012, La Plata County redesigned and improved the intersection at CR 210 and CR 141 to provide a left-turn deceleration lane and a right-turn deceleration lane on CR 141 for movements onto CR 210. The county also plans to provide a left-turn deceleration lane at the proposed Lake Nighthorse main entrance/CR 210 intersection (Russell Planning and Engineering 2011).

3.13.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Based on a traffic study completed for the 2011 Recreation Master Plan (Action Alternative 1) (Russell Planning and Engineering 2011), the Proposed Action would result in an increase in recreation-related traffic on the roads and intersections affected by the project. Most of this increase would occur on weekends, with peak hours on Friday evenings and Monday mornings. The U.S. 550-160/Frontage Road intersection is anticipated to reach substandard LOS in 2020 in the Friday evening peak hour. Substandard LOS is anticipated at this intersection and along the entire U.S. 550-160 corridor in the Durango area even if no recreation plan is implemented (see No Action Alternative). The Frontage Road/CR 210 and the CR 210/CR 141 intersections are projected to function at an acceptable LOS through 2032, with or without implementation of a recreation plan or planned intersection improvements by CDOT and La Plata County. development and anticipated use of recreational facilities under the Proposed Action would ultimately result in queuing issues on the eastbound leg of the U.S. 550-160 and Frontage Road intersection and would begin to affect the functionality of the CR 210 and Frontage Road intersection.

Action Alternative 1—2011 Recreation Plan

Effects on traffic from Action Alternative 1 would be similar to the Proposed Action except that there would be more recreation-related traffic on the roads and more intersections affected by the project. As with the Proposed Action, most of this increase would occur on weekends, with peak hours on Friday evenings and Monday mornings and the U.S. 550-160/Frontage Road intersection is anticipated to reach substandard LOS in 2020 in the Friday evening peak hour. If

all proposed phases of the recreation plan are completed by 2020, project traffic would contribute approximately 9 percent of the Friday evening peak hour traffic on the eastbound leg of this intersection (the lowest LOS movement). As with the Proposed Action, substandard LOS at this intersection is anticipated even if this recreation plan is not implemented (see No Action Alternative), and similar issues are anticipated along the entire U.S. 550-160 corridor in the Durango area. The Frontage Road/CR 210 and the CR 210/CR 141 intersections are projected to function at an acceptable LOS through 2032, with or without implementation of a recreation plan or planned intersection improvements by CDOT and La Plata County. With development of the swim beach under this alternative, completion of a left-turn deceleration lane at the proposed Lake Nighthorse main entrance/CR 210 intersection would maintain traffic flow on CR 210. Development and anticipated use of recreational facilities under Action Alternative 1 would result in queuing issues on the eastbound leg of the U.S. 550-160 and Frontage Road intersection. This would begin to affect the functionality of the CR 210 and Frontage Road intersection, specifically for traffic traveling from Lake Nighthorse into Durango, with the addition of traffic generated from development of the swim beach area and associated facilities (Russell Planning and Engineering 2011).⁸

Action Alternative 2—2000 FSEIS Recreation Plan

Effects of Action Alternative 2 on traffic would be the similar to the Proposed Action and Action Alternative 1, except that higher annual user days would result in higher traffic volumes.

No Action Alternative

Under the No Action Alternative, a recreation plan would not be implemented and the area would not be opened to public use; therefore, no associated increase in traffic on affected roadways and intersections would occur. However, substandard LOS would be expected to occur at the U.S. 550-160 intersection in 2020 due to projected population growth. This alternative would not result in queuing issues at the U.S. 550-160/Frontage Road intersection or the CR 210/Frontage Road intersection, and traffic traveling eastbound from CR 210 into Durango would not be affected.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- A traffic monitoring plan may be implemented to verify the assumptions of the completed traffic study, update the study as necessary, and identify when corrective actions are required. Design and implementation of the traffic monitoring plan and development of corrective actions would be coordinated with Reclamation, the City of Durango, La Plata County, and CDOT.
- A left-turn deceleration lane shall be developed at the Lake Nighthorse main entrance/CR 210 intersection prior to completion of Phase II of the recreation plan under Action Alternative 1 and prior to full build-out under Action Alternative 2.

⁸ The traffic impact study assumed that this would occur in 2016, though this would be contingent on funding and other factors.

3.14 PUBLIC HEALTH AND SAFETY

3.14.1 Affected Environment

The project area is currently closed to public access, with public safety in the surrounding areas provided by the La Plata County Sheriff's Office. The Sheriff's Office Public Safety Division employs 29 deputies and is divided into four districts covering about 1,800 square miles. Patrol deputies conduct initial criminal investigations, enforce driving under the influence and traffic offense violations on county roads and state highways, and assist the local fire, ambulance, and law enforcement agencies in the county. In 2009, deputies responded to more than 20,000 calls for service. In 2011, the Sheriff's Office responded to 483 calls along CR 210, primarily for extra patrols, security calls, and traffic complaints, including two or three criminal complaints (Lieutenant Ed Aber, La Plata County Sheriff's Office Public Safety Division, personal communication 2011).

Fire protection and emergency services are coordinated by the Durango Fire Protection District, which manages 16 stations (three staffed by paid firefighters and medics and 13 crewed by dedicated volunteers) and serves a primary response area of 325 square miles. The Animas Fire District, La Plata County's largest, had 78 calls in 1978, 800 calls in 1999, and an estimated 1,000 calls in 2000. The project area falls within the service area of Fire Station No. 1 (Bodo Park Station), which is staffed by paid firefighters. The Sheriff's Department is the designated fire warden in La Plata County and is ultimately responsible for all wildfire on private and state land. The project area is not under a fire district jurisdiction due to federal and state ownership. Per a MOU, control of any fires that occur would be the responsibility of the Bureau of Indian Affairs under the Southern Ute Agency's Fire Management Plan.

Fatalities and injuries occur yearly in Colorado from water transport and nonwater transport activities on open bodies of water. Water transport deaths and injuries result from falls and burns on a watercraft, being struck or crushed by watercraft, water-skier or swimmer collisions with watercraft, and other injuries resulting from the use of watercraft. Six deaths and 25 hospitalizations occur each year, on average, in Colorado from water transport incidents, which involve primarily males ages 15 to 44 (CDPHE 2005a).

In Colorado, 91 percent of drowning deaths and 98 percent of near-drowning hospitalizations result from recreational activities not related to water transport, such as water-skiing, diving, swimming, or playing in or near open water bodies (CDPHE 2005b). Drowning is the second leading cause of unintentional injury-related death among Colorado children ages 14 and under (death rate of 4.6 per 100,000 population), with only motor vehicle crashes causing more fatalities. In Colorado, nearly one-third (32 percent) of drowning deaths involving children 14 and younger occurred in larger outdoor bodies of water, such as lakes or rivers (CDPHE 2004). At this time, there are few flat-water-related incident calls at the main reservoirs in and near La Plata County (Vallecito Reservoir, Lemon Reservoir, and Navajo Reservoir) (Butch Knowlton, La Plata County Office of Emergency Management Director, personal communication 2011). The low number of calls is partially due to the remote nature of the existing reservoirs and their relatively low usage by the population of La Plata County. This situation makes La Plata County response agencies less experienced and ill-equipped for flat-water response (Courtney Krueger, La Plata County Natural Resources Planner, written communication dated December 15, 2011). The La Plata County Sheriff's Department would be

responsible for search and rescue operations in the project area. Durango Fire Protection District would most likely be the most immediate and primary responder to any life safety or medical incident at or near Lake Nighthorse. However, on federal land, the Sheriff's Department would also be a primary response agency.

On average, more than 2,500 forest fires occur in Colorado each year, about two-thirds of which are lightning-caused, with the remainder caused by humans (e.g., discarded cigarettes, abandoned campfires) (Denver Museum of Nature and Science 2011). In Colorado, wildfire response is coordinated through six interagency dispatch centers, and large wildfire costs can exceed \$1 million per day (Colorado State Forest Service 2011). A recent lightning-caused wildfire occurred south of Lake Nighthorse, near the Southern Ute Indian tribal boundary (Karola Hanks, Durango Fire Protection District, personal communication 2011).

The CDPHE Water Quality Control Division (WQCD) works closely with the Colorado Department of Natural Resources (CDNR) CPW and the CDPHE Disease Control and Environmental Epidemiology Division in the collection and analysis of data and the determination of human health risks from consumption of locally caught fish. The WQCD currently tests fish tissue samples from 120 water bodies in the state for mercury, selenium, and arsenic, including Lake Nighthorse. Fish consumption advisories are issued to protect public health and to address human health risk questions associated with consuming potentially contaminated fish. Twenty-four water bodies (approximately one in five) have required fish consumption advisories for mercury (CDPHE 2011).

The CDPHE WQCD regulates natural swim areas with regard to water quality and levels of fecal coliform that could present a hazard to public health (CDPHE 1998).

3.14.2 Environmental Consequences

Proposed Action—2014 Recreation Plan

Development and operation of recreational facilities under the Proposed Action would increase demand on law enforcement, fire protection, and emergency services. The La Plata County Sheriff's Office anticipates an increase in call activity requiring dispatch of deputies to the area, though this increase would depend on the role of the nonfederal recreation manager in law enforcement in the recreational area. At this time, the Sheriff's Office anticipates it would handle additional calls with its existing staff of deputies (Lieutenant Ed Aber, La Plata County Sheriff's Office Public Safety Division, personal communication 2011). There would also be an increase in calls to Fire Station No. 1 for fire protection and other emergency services.

The Proposed Action would provide public access and opportunity for water-based recreation at Lake Nighthorse and would increase the potential for boating accidents, drowning, and other water-related incidents. The potential for boating accidents and drowning would be reduced through boating regulations, including speed limits, no wake zones, and no boating access zones (including the swim beach area), and requirements for the use of flotation devices on watercraft. Though the lake would be closed to boating in the winter months, winter use of trails or shoreline areas may lead to some drowning or near-drowning incidents from people attempting to cross lake ice and falling through. The occurrence of water-based incidents would likely be higher at Lake Nighthorse compared with other reservoirs in the vicinity (Vallecito Reservoir, Lemon

Reservoir, and Navajo Reservoir) because, being closer to Durango, it would experience heavier use by recreationists (Butch Knowlton, La Plata County Office of Emergency Management Director, personal communication 2011). For the same reason, it may also have a higher percentage of inexperienced users compared with other reservoirs in the area.

Motorized boating on Lake Nighthorse would create the potential for hazardous materials spills (fuel, oil). Neither Durango Fire Protection District nor La Plata County Office of Emergency Management currently have boats for flat-water rescue or equipment to handle hazardous materials spills (Karola Hanks, Durango Fire Protection District, and Butch Knowlton, La Plata County Office of Emergency Management Director, personal communication 2011).

Recreational use of the project area would generate additional traffic on CR 210, U.S. 550-160, Frontage Road, and the associated intersections, which would likely increase the number of traffic accidents. Maintenance of a recreational fishery would create the potential for fish consumption hazards, if the accumulation of mercury levels in fish tissue exceeds levels considered safe for human consumption. Prior to filling, vegetation was cleared from the reservoir bottom to limit mercury methylation potential. Stocking of only trout would reduce the potential for bioaccumulation of high levels of mercury in fish tissue because trout are not at the top of the fish food chain (Reclamation 2000a). Potential effects on public health would be reduced through planned monitoring for trace elements in fish tissue for the first two years after the reservoir has filled and the issuance of fish consumption advisories, as needed.

Action Alternative 1—2011 Recreation Plan

Additional recreational facility development under Action Alternative 1 would result in a greater increase in the demand on law enforcement, fire protection, and emergency services compared with the Proposed Action. The potential for accidents and hazardous materials spills related to boating would be similar to that of the Proposed Action. Due to development of more recreational facilities, this alternative would have a higher number of traffic accidents compared with the Proposed Action. Potential effects on public health from mercury in fish tissues would be the same as under the Proposed Action.

Action Alternative 2—2000 FSEIS Recreation Plan

Effects of Action Alternative 2 on public health and safety would be the similar to the Proposed Action and Action Alternative 1 except higher recreation annual user days would result in higher demand on law enforcement, fire protection, and emergency services and potentially more traffic accidents.

No Action Alternative

Under the No Action Alternative, Lake Nighthorse would remain closed to public access, and no resultant increase in water-related accidents or traffic accidents and no additional demands on local law enforcement, fire protection, and emergency services providers would occur. The potential for consumption of fish from the lake with elevated levels of mercury or other trace elements would be limited to that resulting from trespass and unauthorized fishing activities. Under this alternative, Reclamation and the La Plata County Sheriff's Office would continue patrolling the project area to monitor and enforce the closure and maintain fencing and gates.

Mitigation Measures (Action Alternatives)

- In addition to the commitments listed in Table 1, the following mitigation measures would apply to the action alternatives:
- The recreation manager shall provide staff or will coordinate with law enforcement agencies to patrol the lake and the surrounding areas and to enforce regulations. No wake zones and no boating zones shall be clearly demarcated on the lake, and buoys demarcating any dedicated swim beach area shall be maintained during periods when the lake is open to boating.
- The recreation manager shall provide training to its staff and shall provide and store, on-site, a boat, other equipment, and materials to conduct rescue operations and to address hazardous materials spills (either by staff or emergency services personnel). The boat shall be stored on-site when the lake is open for public use.
- The recreation manager shall, in coordination with Reclamation, develop and maintain a swim beach management plan for compliance with the CDPHE, Water Quality Control Division, 5 CCR 1003-5, State Board of Health Regulations Pertaining to Swimming Pools and Mineral Baths (Section 4.6, Water Quality Standards for Natural Swimming Areas). This plan shall include testing for fecal coliform (*E. coli*) concentrations at a minimum of once every seven days and no less than five times in a calendar month during use periods. At least one time per calendar month, samples shall be taken at least 24 hours prior to the beginning of a peak use period and within 24 hours after the end of the same peak use period. The first sample of the swimming season shall be taken at least five days prior to opening the swim beach area. The swim beach shall be closed and notices shall be posted when fecal coliform concentrations exceed 235 organisms per 100 milliliters. The swim beach shall not be reopened until samples show concentrations below this threshold level. The swim beach management plan shall identify testing procedures and protocols that are in compliance with the above-referenced regulations.
- Motorized watercraft shall adhere to current CPW standards to carry required safety equipment on the vessel.

4.0 CUMULATIVE EFFECTS

Cumulative effects result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). The level and scale of the cumulative analysis should be commensurate with the proposed project's potential impacts, scale, and other factors. NEPA documents should consider those past, present, and future actions that incrementally contribute to the cumulative effects on resources affected by the proposed action (CEQ 1997).

Past, present, and reasonably foreseeable future actions that substantially contribute to the cumulative effects of the action alternatives include past rural and urban development and growth of the tourism industry in La Plata County, construction and operation of Lake Nighthorse and associated facilities as a component of the ALP Project, and anticipated future growth in La Plata County and Durango. Cumulative effects on resource topics affected by the action alternatives are discussed in this chapter.

4.1 RECREATION

A variety of recreational facilities and opportunities exist in La Plata County and the surrounding areas, including 12 major reservoirs, dozens of campgrounds, stocked lakes/managed fisheries, and 60 major trailheads within a 100-mile driving radius of Lake Nighthorse. Recreational facilities comparable to those proposed at Lake Nighthorse have been developed at seven of these reservoirs. Construction of Lake Nighthorse as a component of the ALP Project was anticipated to result in a loss of up to 7,000 annual user days (3,500 hunting and 3,500 nature observation) in the project area (Reclamation 2000a). Implementation of a recreation plan would result in an estimated 86,308 to 218,400 annual user days, depending on the alternative. This would represent 7 percent to 19 percent of the regional market share.

4.2 SOCIOECONOMICS

Cumulative effects on socioeconomics are related to past and present rural and urban development and projected future growth in the project vicinity. The population in La Plata County has experienced strong growth as a result of (among other factors) oil and gas industries, mining, and growth of tourism in the area. The availability of municipal and industrial project water from the ALP Project is anticipated to contribute to future growth, including growth on Ute Mountain Ute and Southern Ute Indian tribal lands as a result of a secure and reliable water supply. The development of recreational facilities could also stimulate growth by making the area more attractive for tourism and retirement, and by providing additional opportunities for employment (La Plata County 2001).

Cumulative effects of increased growth include economic benefits (e.g., more employment opportunities, increased retail sales, and overall economic output) and greater demand for affordable housing and public services. Availability of affordable housing has been identified as a growth challenge, and median home sales price in Durango experienced a 220 percent increase from 2000 to 2007 (City of Durango 2007). Home and land prices in La Plata County have also

continued to increase substantially while most wages have remained relatively low, a function of the tourist-based economy that relies heavily on traditionally low-paying service jobs. This has compromised the ability of many longtime residents and young adults to obtain reasonably affordable housing and has resulted in a tendency for people to move to the outlying, less-developed areas of the county where land costs less (La Plata County 2001). Population growth in Durango as well as other parts of La Plata County will continue to place greater demands on public services such as the transportation and utility infrastructure, public safety and emergency services, education, social services, animal control, and other services. Implementation of a recreation plan would contribute to population growth by creating an estimated 80 to 203 full-time jobs, depending on the alternative. This would represent 2 percent to 5 percent of all warm-season or summer tourism jobs and 0.3 percent to 0.7 percent of all jobs in La Plata County, depending on the alternative.

4.3 ENVIRONMENTAL JUSTICE

The action alternatives would not affect environmental justice and, therefore, no cumulative effects are identified.

4.4 CULTURAL RESOURCES

Past urban and rural development, land management and other activities on public and private lands, and resource extraction (mining, oil and gas development) have contributed to effects on historic and archaeological resources in La Plata County. In the project area, construction of Lake Nighthorse and its associated structural components (including relocation of CR 211 and utility lines) has impacted historic and archaeological resources. The filling of Lake Nighthorse inundated 16 cultural resource sites located below the minimum pool elevation of the reservoir. Construction of the dam impacted other sites, and reservoir wave action has the potential to impact additional sites in the future; the FSEIS anticipated impacts to 80 to 90 cultural sites from dam construction, inundation, and reservoir wave action combined (Reclamation 2000a).

No cultural resource sites would be directly impacted by initial recreational development under the Proposed Action. The first phase of the 2011 recreation plan (Action Alternative 1) would directly or indirectly impact 12 cultural resource sites that are eligible or potentially eligible for inclusion in the NRHP. Possible future development of recreational facilities under the Proposed Action and development of recreational facilities under subsequent phases under Action Alternative 1 could result in impacts to additional sites, though impacts would be avoided to the extent feasible or mitigated through data recovery or other measures, as needed. Action Alternative 2 would impact an undetermined number of cultural resource sites, though impacts would be avoided to the extent feasible or mitigated through data recovery or other measures, as needed. Indirect impacts have the potential to occur under all action alternatives considered.

4.5 INDIAN TRUST ASSETS

No cumulative effects to ITAs have been identified.

4.6 BRUNOT TREATY RIGHTS

Reclamation acknowledges the Tribes' Brunot Treaty Rights; however, the reservoir area is currently closed to all activities. Reclamation is involved in ongoing government-to-government discussions with the tribes regarding the application of Brunot Treaty Rights in the project area.

4.7 NOISE

Past growth in rural development in the project vicinity has contributed to increased traffic volumes on CR 210 and associated increases in ambient noise levels. The development of recreational facilities at Lake Nighthorse would further increase ambient noise levels, though cumulative noise levels would not be expected to exceed EPA standards, La Plata County standards, or City of Durango ordinances.

4.8 NATURAL RESOURCES

Past urban and rural development on private and tribal lands and land management and other activities on public lands have reduced native vegetation and wildlife habitat and have affected wildlife movement corridors in the project vicinity. Future growth in La Plata County and Durango is expected to contribute additional impacts to vegetation and wildlife resources, though these effects would be mitigated by the federal, state, and local emphasis on protection of natural resources and wildlife movement corridors as part of their planning strategies (La Plata County 2001, City of Durango 2007).

Construction, filling, and operation of Lake Nighthorse were expected to impact 134 acres of wetlands/riparian vegetation and 1,487 acres of upland vegetation. Construction of the Durango Pumping Plant, relocation of CR 211, and construction of new access and maintenance roads were expected to impact an additional 158 acres of upland vegetation and result in minor impacts to riparian vegetation near Wildcat Creek. Development of recreational facilities under the action alternatives would not impact wetlands/riparian vegetation but would result in the removal of between 5 and 128 additional acres of upland vegetation in the project area, depending on the alternative. These effects were considered in the FSEIS, which required replacement and enhancement of 2,700–2,900 acres to compensate for losses of wetlands and riparian and upland vegetation as part of the ALP Project. Reclamation has acquired almost 6,000 acres of upland areas and 232 acres of riparian areas and buffers. Management of these areas has included seeding on 200 acres and implementation of an Integrated Vegetation Management Plan, including weed control efforts (Reclamation 2008).

Construction and filling of Lake Nighthorse was anticipated to result in the loss of 1,487 acres of elk and deer winter range due to inundation of habitat. It was also anticipated to displace up to 500 elk and several hundred mule deer, either directly through loss of habitat or indirectly by interruption of migration routes (Reclamation 2000a). Implementation of the recreation plan under the action alternatives would result in an additional loss of between 4 and 128 acres of wildlife habitat. Increased use of the area by humans would disrupt habitat utilization and behavior and would reduce use of the project area by elk, deer, and other wildlife during the summer. Restriction of recreational uses in winter, including seasonal closures on the south and west ends of the reservoir and closure of the reservoir to boating, would protect winter use and migration corridors for elk and deer. These effects on wildlife were considered in the FSEIS and

have been mitigated through the acquisition of nearly 6,000 acres of upland areas and 232 acres of riparian areas and buffers, as described previously. Management of these areas has included operation of two water wells in upland areas for wildlife enhancement purposes (Reclamation 2008).

4.9 VISUAL QUALITY/AESTHETICS

Past, ongoing, and future urban and rural development have and will continue to modify the natural landscape in the project vicinity. Construction of Ridges Basin Dam and Lake Nighthorse, and other associated features has altered the visual characteristics of the project area by modifying the predominantly natural landscape and making the reservoir the dominant visual element. Implementation of a recreation plan would further modify the visual setting through construction and maintenance of the proposed recreational facilities under each of the action alternatives but would retain a predominantly natural setting.

4.10 WATER QUALITY

Past effects on water quality are related primarily to historic mining activity in the Animas River watershed. Mitigation of mining impacts has improved water quality and is anticipated to improve water quality in the future (Reclamation 2000a). Potential effects on water quality in Lake Nighthorse would be addressed through monitoring and implementation of protective measures, as needed.

4.11 AIR QUALITY

La Plata County is currently in attainment status for criteria air pollutants and implementation of a recreation plan under the action alternatives would not contribute substantially to potential nonattainment in the future. The action alternatives would contribute to emissions of GHGs from operation of heavy equipment and vehicles during construction, operation of vehicles and watercraft for maintenance and operation of the recreational area, from passenger vehicles used by visitors to travel to and from the recreational area, from recreational use of motorized boats on Lake Nighthorse, and from other sources. The annual emission of CO₂e GHGs from the project would be substantially below the 25,000 metric ton threshold proposed by the CEQ as relevant to the decision-making process. The action alternatives would be considered to have little to no effect on climate change.

4.12 TRAFFIC

Factors influencing cumulative effects on traffic include a seasonal influx of a significant visitor population, the convergence of federal and state highways and county roads, topographical constraints, and continued growth. Increased future development along the U.S. 550-160 corridor and in parts of the county are anticipated to result in more prevalent delays at traffic signals, resulting in LOS E and F. In January 2000, the County Planning Commission adopted the La Plata County Transportation Plan as an element of the La Plata County Comprehensive Plan. Improvements to the U.S. 550-160 corridor contemplated in this plan would improve traffic conditions but are contingent on funding (La Plata County 2001). Implementation of a recreation plan under the action alternatives would contribute to a substandard LOS in 2020 of the U.S. 550-160/Frontage Road intersection. The contribution of the action alternatives to Friday evening peak hour traffic at this intersection would be up to approximately 9 percent, and this

intersection is expected to reach a substandard LOS in 2020 even if no recreation plan is implemented (Russell Planning and Engineering 2011).

4.13 PUBLIC HEALTH AND SAFETY

Population growth in La Plata County has resulted in greater demands on agencies providing public safety and emergency services. Between 1997 and 2000, the number of incidents investigated by the La Plata County Sheriff's Office increased by 25 percent from 17,737 incidents investigated to an estimated 22,100. To meet service demands, a number of additional deputy positions in the detentions division and the public safety division were added in 2000 (La Plata County 2001). Demand for fire protection services will also continue to increase as La Plata County grows. The Animas Fire District, the county's largest, had 78 calls in 1978, 800 calls in 1999, and an estimated 1,000 calls in 2000 (La Plata County 2001). Implementation of a recreation plan under the action alternatives would result in additional calls to the La Plata County Sheriff's Office and the Durango Fire Protection District for public safety and fire protection, though additional staffing is not being considered at this time.

5.0 SUMMARY OF ENVIRONMENTAL COMMITMENTS

Table 12 lists mitigation measures described in Chapter 3 that address specific effects to resource topics as well as commitments stemming from the FSEIS and 2011 Recreation Master Plan (the latter are listed in Table 1 in Chapter 2). The mitigation measures and commitments listed in Table 12 apply to all of the action alternatives analyzed, unless indicated otherwise.

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • Trail development in the project area shall be coordinated with the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Trails 2000, the City of Durango, La Plata County, ALPOMRA, and the CPW, and opportunities for linkage with other trail systems outside the project area may also be considered. • Reclamation shall commit to providing trout to be stocked in Lake Nighthorse to provide a recreational fishery. • To notify all users of the potential presence of others and to minimize conflicts between users, signs shall be posted and maintained at all trailheads specifying allowable uses (hiking, biking, or multi-use) and identifying basic trail etiquette. <ul style="list-style-type: none"> • User rules and regulations and designations of special use areas (e.g., no wake zones along the shore and the west end of lake) would reduce the potential for conflicts. • Any trespass or unauthorized use will be dealt with by the appropriate law enforcement agencies. • Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off leash dogs would be permitted. 	Recreation
<ul style="list-style-type: none"> • Effects on cultural resources shall be evaluated through the process outlined in an approved Cultural Resource Management Plan (CRMP) in compliance with the National Historic Preservation Act Section 106. • To reduce indirect impacts to cultural resource sites from visitors traveling off designated trails and day-use areas, educational and interpretive signage shall be developed and maintained explaining the general significance of cultural resources and the protection afforded them by law. • As needed, cultural resource surveys shall be completed prior to future development to determine impacts on other cultural resource sites, potential for avoidance, or need for testing and data recovery. • As needed, an archaeologist shall be available during all construction activities in the project area. The recreation manager shall assign staff to monitor recreational activities and enforce rules, regulations, and/or measures for the protection of cultural resources. Shoreline monitoring will be conducted pursuant to an approved CRMP. • Monitoring and oversight by a recreation manager and law enforcement agencies would reduce impacts from unauthorized access or trespass. 	Cultural resources
<ul style="list-style-type: none"> • Reclamation acknowledges the Tribes' Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights. 	Brunot Treaty Rights

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • No boats shall be operated on the lake from sunset to sunrise. • All motor boats shall be required to be equipped with mufflers that maintain sound levels below 86 decibels on the A-weighted scale (dBA) at 50 feet from the boat and below 55 dBA in neighboring residential areas (measured outdoors). • The lake shall be zoned and marked with buoys to denote no boating near any swim beach, the inlet, and the dam; no wake zones at the west end of the lake and around the shoreline; and open-use areas where motorized boat travel up to 40 mph shall be allowed. At minimum pool (750 acres), the entire lake shall be zoned as a no wake zone. • Motorized personal watercraft (e.g., jet skis) with open-air exhaust and two-stroke engines; houseboats that are used as a human dwelling; cabin cruisers with full living quarters on board, including plumbing; and open-air-exhaust boats shall not be allowed on the lake. • Snowmobiles, off-road vehicles, and aircraft shall be prohibited. • Reclamation shall ensure that construction contractors provide blasting notification to residents, sound pre-blast alarms, and follow the construction safety plan as described in the FSEIS. • Construction noise shall be monitored and remain below allowable levels (i.e., 55 dBA during daytime hours and 50 dBA during nighttime hours [measured outdoors] at the nearest residences). 	<p>Noise</p>
<ul style="list-style-type: none"> • The lake shall be closed to all motorized boating recreation from mid-November to mid-May. The lake may open earlier in the spring or stay open later in the fall if approved by the CPW, Reclamation, and the recreation manager. During the open season, no boats shall be operated on the lake from sunset to sunrise. • An ANS monitoring, education, and inspection program shall be implemented. • The south and west portions of the project area shall be closed to public access from mid-November to mid-May and open only to foot traffic outside the seasonal closure period. No recreational facilities or other facilities, such as cabin sites, shall be developed in the project area under any of the action alternatives. • All areas within ¼ mile of historic and current golden eagle nest sites shall be closed to public access from December 1 to July 15. • Efforts shall be made to avoid construction from May–July in the vicinity of elk calving areas. • Snowmobiles, off-road vehicles, and aircraft shall be prohibited. • All landscaping shall consist of native and adapted vegetation. • Design and construction of trails shall minimize erosion and sedimentation through construction in dry periods only, diversion of runoff across trails, maintenance of existing drainages, stabilization of all disturbed slopes with vegetation after construction, installation of signage and fencing to discourage social (undesignated) trails as needed. Under Action Alternatives 1 and 2, any trails north of CR 210 shall incorporate existing ranch and service roads. • Under Action Alternatives 1 and 2, any trails on the south and west sides of the reservoir shall be designated for foot traffic only. • Disturbance and removal of slow-growing trees, such as pinyon pine, juniper, and ponderosa pine, shall be minimized to the extent possible. • Wildlife-resistant trash receptacles shall be used. 	<p>Natural resources (vegetation and wildlife)</p>

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • Lake Nighthorse shall continue to be part of a statewide fish tissue monitoring program administered by the CDPHE. If significant bioaccumulation effects are identified, Reclamation and/or the recreation manager shall work with the appropriate local, state, or federal agencies to minimize the impact or otherwise offer protection to potentially impacted fish and wildlife species and to possibly post human fish consumption advisories at the reservoir. • Construction activities shall be scheduled to avoid or minimize loud activities in the vicinity of golden eagle nesting areas during the nesting season. • The recreation manager, in coordination with Reclamation, the CPW, ALPOMRA, and La Plata County shall implement an integrated weed management plan that includes annual monitoring of the project area and areas subject to recreational development for the presence and spread of state-listed noxious weed species, development and implementation of appropriate treatments, and annual reporting. Areas near the lake shall be treated only with herbicides approved for use in or near aquatic habitats. • Under Action Alternative 1, a horse grooming station shall be constructed at the proposed multi-use trailhead along County Road 210 prior to opening the trail system for equestrian use. Signage shall be maintained that provides information on the potential spread of noxious weeds and associated impacts, provides information on certified weed-free forage, and encourages the grooming of horses. • The recreation manager shall provide staff and/or shall coordinate with Reclamation, CPW, ALPOMRA, and local law enforcement to patrol the lake and the surrounding areas and to enforce regulations. This shall include enforcement of seasonal closures for wildlife and use restrictions in the south and west portions of the project area, and enforcement of no wake and no boating zones, boat speed limits, boat size/type restrictions, time-of-day restrictions, and other regulations. No wake zones and no boating zones shall be clearly demarcated on the lake, and buoys demarcating any dedicated swim beach area shall be maintained during periods when the lake is open to boating. • Signs shall be placed along County Road 210 through the project area warning motorists of potential crossings of the roadway by deer and elk. • If new active raptor nests or nest locations are discovered, the recreation manager, in coordination with Reclamation, shall consult with the CPW and the USFWS to determine whether designation of buffers and closure to public access during the nesting season are warranted to minimize closure of recreational area(s). • For construction activities that take place between May 15 and August 31, a qualified biologist shall survey affected areas in advance of construction to determine the presence or absence of nesting birds. • Under Action Alternatives 1 and 2, Reclamation shall coordinate with the CPW and ALPOMRA regarding any additional measures that may be necessary to control or minimize resource damage in the portion of the project area north of CR 210. • All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Only certified weed-free seed and mulch shall be used. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas. 	<p>Natural resources (vegetation and wildlife) (continued)</p>

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • All lighting shall be dark-sky compliant. Lighting shall be solar-powered, to the extent feasible. • All structures shall complement the existing landscape through the use of natural materials; parking lots and campgrounds shall be tucked into existing landforms; and utilities shall be installed underground. • All landscaping shall consist of native or other vegetation pre-approved by Reclamation. • All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Only certified weed-free seed and mulch shall be used. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas. • Final siting and design of facilities by the recreation manager shall be coordinated with Reclamation to minimize cut and fill and to ensure the use of native and complementary construction materials and dark-sky-friendly lighting. 	<p>Visual quality/aesthetics</p>
<ul style="list-style-type: none"> • An ANS monitoring, education, and inspection program shall be implemented. • No fueling shall be allowed on the lake, and all fueling shall occur in designated areas only. • Facilities, including trails, shall be designed to prevent future erosion and sedimentation. A Storm Water Management Plan, if necessary, shall be prepared and implemented, and best management practices shall be installed prior to all construction activities in accordance with state and federal regulations. • Design and construction of trails shall minimize erosion and sedimentation through construction in dry periods only, diversion of runoff across trails, maintenance of existing drainages, stabilization of all disturbed slopes with vegetation after construction, installation of signage and fencing to discourage social (undesignated) trails as needed. Under Action Alternatives 1 and 2, any trails north of CR 210 shall incorporate existing ranch and service roads. • Reclamation, the recreation manager, and the ALPOMRA shall continue to coordinate with the CDPHE regarding inclusion of Lake Nighthorse in the statewide fish tissue monitoring program to assess bioaccumulation of mercury and to develop protective measures, if warranted. • Water quality monitoring shall be undertaken by Reclamation in coordination with the recreation manager, ALPOMRA, and other stakeholders. The results of water quality monitoring shall be reviewed periodically to determine whether additional control measures need to be developed and implemented. • The recreation manager shall enforce regulations that protect water quality (e.g., the 5 mph maximum boat speeds in no wake zones to minimize turbidity and shoreline erosion, and prohibition of discharge of sewage, organic material, or garbage into the reservoir). The recreation manager shall coordinate with the CPW to monitor and enforce boating and fishing regulations. 	<p>Water quality</p>

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • The recreation manager shall implement and monitor applicable best management practices and recommendations for the protection of water quality. The recreation manager shall provide training to its staff and shall provide and store, on-site, a boat, other equipment, and materials to address hazardous materials spills (either by staff or by emergency services personnel). The boat shall be stored on-site when the lake is open to public use. • Measures to control storm water runoff from temporary disturbance areas and permanent improvements shall be implemented and monitored in accordance with CDPHE requirements for storm water management. • Prior to design and construction of any recreational facilities at the reservoir shore, the presence of jurisdictional wetlands and/or other WUS shall be assessed and, if necessary, avoided or mitigated. If applicable, facilities will be designed and constructed in compliance with Reclamation’s CWA Section 404 authorization for the ALP Project and/or filing an application for a Colorado discharge permit with CDPHE. 	Water quality (continued)
<ul style="list-style-type: none"> • All roadways open to public and other use shall be graveled initially and improved as need arises and funding allows. • Construction contractors shall be required to implement measures to control fugitive dust and exhaust emissions during construction, such as water spraying of access roads and materials storage piles. • As needed, construction contractors shall obtain permit coverage from CDPHE Air Pollution Control Division, and implement best management practices. • All areas disturbed by construction activities shall be stabilized immediately following construction through surface roughening, mulching, and/or application of soil binders. All disturbed areas shall be seeded with plant species native to the region within one year of completion of construction. Only certified weed-free seed and mulch shall be used. Construction contractors shall be held to standards set by Reclamation at the time for establishment of vegetation cover in disturbed areas. • Gravel entryways shall be used to prevent mud and dirt carryout onto paved surfaces. Any mud and dirt carryout onto paved surfaces shall be cleaned up daily. 	Air quality
<ul style="list-style-type: none"> • A traffic monitoring plan may be implemented to verify the assumptions of the completed traffic study, update the study as necessary, and identify when corrective actions are required. Design and implementation of the traffic monitoring plan and development of corrective actions would be coordinated with Reclamation, ALPOMRA, the City of Durango, La Plata County, and CDOT. • A left-turn deceleration lane shall be developed at the Lake Nighthorse main entrance/CR 210 intersection prior to completion of Phase II of the recreation plan under Action Alternative 1 and prior to full build-out under Action Alternative 2. 	Traffic

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • No boats shall be operated on the lake from sunset to sunrise. • The lake shall be zoned and marked with buoys to denote no boating near the swim beach, the inlet, and the dam; no wake zones at the west end of the lake and around the lakeshore; and open use areas where motorized boat travel up to 40 mph shall be allowed. At minimum pool (750 acres), the entire lake shall be zoned as a no wake zone. • Breakwaters shall be constructed at the swim beach and boat ramp areas. • Swimming, wading, snorkeling, scuba diving, rafting, or tubing shall be prohibited within 300 yards of the dam and inlet structure; within 100 yards of buoys or barriers marking public access limits; at the boat dock and boat launch site; and in designated mooring areas. • Motorized personal watercraft (e.g., jet skis) with open-air exhaust and two-stroke engines; houseboats that are used as a human dwelling; cabin cruisers with full living quarters on board, including plumbing; and open-air-exhaust boats shall not be allowed on the lake. • All boats shall be required to operate at safe speeds, not exceeding 40 mph in open use zones and not exceeding 5 mph in no wake zones. • Scuba diving shall require the use of a diver’s flag to warn other boaters. • Water-skiing shall be allowed only in areas of the lake zoned for open use. • Flotation devices shall be required for all persons being pulled or towed by a boat, and this activity would be prohibited within 500 feet of entrances, swimming beaches, and mooring areas, and within 100 feet of any person swimming, fishing, or diving; motorized boat travel shall be required to proceed in a counterclockwise direction. • Structures shall be constructed of fire-resistant materials, and locations of existing utilities shall be verified prior to construction. • Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off leash dogs would be permitted. • Wildlife-resistant trash receptacles shall be used in all campgrounds. • Campgrounds shall have hosts and shall be managed and patrolled 24 hours a day and seven days a week when open. Quiet hours shall be designated from 10 p.m. to 6 a.m. • Fire hazard mitigation plans shall be developed and implemented for each campground and shall specify, at a minimum, no fires outside grills or fire rings, no unattended fires, and no discharge or use of fireworks. 	<p>Public health and safety</p>

Table 12. Mitigation measures and commitments common to all action alternatives.

Mitigation Measures and Commitments	Issues/Resources Targeted
<ul style="list-style-type: none"> • The recreation manager, Reclamation, and the ALPOMRA shall continue to coordinate with the CDPHE regarding inclusion of Lake Nighthorse in a statewide fish tissue monitoring program to assess bioaccumulation of mercury and to develop protective measures, if warranted. • The recreation manager shall provide staff and/or coordinate with law enforcement agencies to patrol the lake and the surrounding areas and to enforce regulations. No wake zones and no boating zones shall be clearly demarcated on the lake, and buoys demarcating the dedicated swim beach area shall be maintained during periods when the lake is open to boating. • The recreation manager shall provide training to its staff and shall provide and store, on-site, a boat, other equipment, and materials to conduct rescue operations and to address hazardous materials spills (either by staff or emergency services personnel). The boat shall be stored on-site when the lake is open for public use. • In coordination with Reclamation, the recreation manager shall develop and maintain a swim beach management plan for compliance with the CDPHE, Water Quality Control Division, 5 CCR 1003-5, State Board of Health Regulations Pertaining to Swimming Pools and Mineral Baths (Section 4.6, Water Quality Standards for Natural Swimming Areas). This plan shall include testing for fecal coliform (<i>E. coli</i>) concentrations at a minimum of once every seven days and no less than five times in a calendar month during use periods. At least one time per calendar month, samples shall be taken at least 24 hours prior to the beginning of a peak use period and within 24 hours after the end of the same peak use period. The first sample of the swimming season shall be taken at least five days prior to opening the swim beach area. The swim beach shall be closed and notices posted when fecal coliform concentrations exceed 235 organisms per 100 milliliters. The swim beach shall not be reopened until samples show concentrations below this threshold level. The swim beach management plan shall identify testing procedures and protocols that are in compliance with the above-referenced regulations. • Motorized watercraft shall adhere to current CPW standards to carry required safety equipment on the vessel. 	<p>Public health and safety (continued)</p>

6.0 CONSULTATION AND COORDINATION

6.1 LIST OF AGENCIES AND PERSONS CONTACTED

Information was provided on the project proposal to the following entities during the development of the 2011 Recreation Plan, the 2014 Recreation Plan, and this EA. The names of the individuals are retained in the administrative record.

6.1.1 Indian Communities/Agencies

- Hopi Tribe
- Jicarilla Apache Nation
- Navajo Nation
- Ohkay Owingeh Pueblo
- Pueblo of Isleta
- Pueblo of Acoma
- Pueblo of Cochiti
- Pueblo of Jemez
- Pueblo of Laguna
- Pueblo of Nambe
- Pueblo of Picuris
- Pueblo of Pojoaque
- Pueblo of San Felipe
- Pueblo of San Ildefonso
- Pueblo of Sandia
- Pueblo of Santa Ana
- Pueblo of Santa Clara
- Pueblo of Taos
- Pueblo of Tesuque
- Pueblo of Zia
- Pueblo of Zuni
- Southern Ute Indian Tribe
- Ute Indian Tribe
- Ute Mountain Ute Tribe

6.1.2 Congressional Delegation

- Senator Michael Bennet
- Senator Cory Gardner
- Representative Scott Tipton

6.1.3 Local Government Agencies

- City of Durango Administration
- City of Durango Parks and Recreation
- City of Durango Police Department
- Durango Fire Protection District
- La Plata County Administration
- La Plata County Engineering Department
- La Plata County Office of Emergency Management
- La Plata County Planning Department
- La Plata County Sheriff's Office

6.1.4 State Agencies

- Colorado Department of Public Health and Environment
- Colorado Department of Transportation
- Colorado Parks and Wildlife
- Colorado State Historic Preservation Office
- Colorado Water Conservation Board
- New Mexico State Historic Preservation Office

6.1.5 Federal Agencies

- Advisory Council on Historic Preservation
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Reclamation
- National Park Service
- San Juan National Forest
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

6.1.6 Other Organizations

- Animas-La Plata Operations, Maintenance, and Replacement Association
- Animas-La Plata Water Conservancy District
- Colorado Water Resources and Power Development Authority
- La Plata Conservancy District
- San Juan Water Commission
- Trails 2000

7.0 LIST OF PREPARERS

This EA has been prepared by Reclamation with the assistance of EcoPlan Associates, Inc.

The following individuals participated in the development of this document:

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- Steven Fuller, La Plata Archaeological Consultants
- Katie Nelson, Associate, DHM Design

8.0 RELATED ENVIRONMENTAL LAWS/DIRECTIVES

The CEQ regulations encourage agencies to “integrate the requirements of NEPA with other planning and environmental review procedures required by law.” Coordinating NEPA procedures with those of other federal environmental statutes and EOs facilitates NEPA objectives by promoting efficiencies in environmental planning and development of relevant information on which to base agency decisions. This integrative approach to NEPA ensures planning, review, and compliance processes run concurrently rather than consecutively with procedures required by other environmental laws.

The following is a list of federal laws, EOs, and other directives that apply to the action alternatives discussed in this EA:

The National Environmental Policy Act of 1969, as amended, requires federal agencies to evaluate the potential environmental consequences of major federal actions. An action becomes “federalized” when it is implemented, wholly or partially funded, or requires authorization by a federal agency. The intent of NEPA is to promote consideration of environmental impacts in the planning and decision-making process prior to project implementation. NEPA also encourages full public disclosure of the proposed action, accompanying alternatives, potential environmental effects, and mitigation.

Public and agency scoping was initiated in March 2009 as part of the development of a Draft Recreation Master Plan. The public involvement process included open houses, a public forum, issues workshops, and a design workshop. All public involvement events were held in Durango. The public was notified of each of these events through advertisements published in local newspapers and public service announcements on local radio stations. Email announcements were sent to interested parties and those individuals who previously contacted the planning team or provided contact information. The public process calendar was also advertised through posters, comment cards, and a website. Interested agencies, individuals, and organizations were notified by letter on October 31, 2011, regarding preparation of a Draft EA. Subsequently, Reclamation coordinated with various project stakeholders regarding recreation planning at Lake Nighthorse, including the City of Durango, the ALPOMRA, the Southern Ute Indian Tribe, and the Ute Mountain Ute Tribe. On June 18, 2014, a public open house/community meeting was held by Reclamation in Durango to provide an update on recreation planning at Lake Nighthorse. The Draft EA has been made available for review on the website established for the project—<http://www.usbr.gov/uc/progact/animas/index.html>, under the “Environmental Compliance” tab.

The Fish and Wildlife Coordination Act (FWCA) of 1958, as amended, provides a procedural framework for the consideration of fish and wildlife conservation measures in federal water resource development projects. The USFWS and the CPW were contacted during the preparation of the FSEIS, the 2011 Recreation Plan, the 2014 Recreation Plan, and this EA. Scoping information and this Draft EA have been provided to both agencies for comment on mitigating losses to wildlife that may result from the project. This review process will satisfy the coordination requirements of the FWCA.

The Endangered Species Act of 1973, as amended, provides protection for plants and animals that are currently in danger of extinction (endangered) and those that may become so in the

foreseeable future (threatened). Section 7 of this law requires federal agencies to ensure that their activities do not jeopardize the continued existence of threatened or endangered species or adversely modify designated critical habitat. The USFWS issued a Biological Opinion in 1999 for the Animas-La Plata Project, which made a determination of “may affect ... not likely to adversely affect” on the endangered Southwestern willow flycatcher and determinations of “may affect” on the endangered Colorado pikeminnow and razorback sucker and the currently delisted bald eagle. The Biological Opinion determined that no other federally listed species would be affected.

In 2011, the USFWS list of endangered, threatened, proposed, and candidate species for La Plata County was reviewed by a qualified biologist to determine which listed species may occur in the Lake Nighthorse project vicinity. This review was updated in June 2015 using the USFWS IPaC system. Table 11 summarizes the potential occurrence of species currently listed as threatened or endangered or that are candidates for listing in La Plata County. With the exception of the bald eagle, no listed, proposed, or candidate species have the potential to occur in the project area. Because the bald eagle has been delisted, effects on this species are analyzed under the Natural Resources—Wildlife section.

The Migratory Bird Treaty Act of 1918, as amended (MBTA), implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. The MBTA prohibits the take, possession, import, export, transport, selling, or purchase of any migratory bird, their eggs, parts, or nests.

Bird species protected from take under the MBTA found nesting in the project area include golden eagle, peregrine falcon, red-shafted flicker, green-tailed towhee, mountain bluebird, blue-gray gnatcatcher, and vesper sparrow. Additional protected bird species are anticipated to nest in the project area. Mitigation measures have been included to avoid take of bird species protected under the MBTA.

The Clean Air Act of 1963, as amended, requires any federal entity engaged in an activity that may result in the discharge of air pollutants to comply with all applicable air pollution control laws and regulations (federal, state, or local). It also directs the attainment and maintenance of NAAQS for six different criteria pollutants: carbon monoxide, ozone, particulate matter, sulfur oxides, oxides of nitrogen, and lead. Air quality in the project area is in attainment of NAAQS.

Short-term construction emissions (particulate matter and engine combustion products) associated with the proposed project would have localized and minor effects on the air quality in the project vicinity. The project is not located in a nonattainment area or Class I Airshed.

The Clean Water Act of 1977, as amended, strives to restore and maintain the chemical, physical, and biological integrity of the nation’s waters by controlling the discharge of pollutants. The basic means to achieve the goals of the CWA is through a system of water quality standards, discharge limitations, and permits. Section 404 of the CWA identifies conditions under which a permit is required for actions that result in placement of fill or dredged material into jurisdictional WUS. In addition, a Section 401 water quality certification and a Section 402 National Pollutant Discharge Elimination System (NPDES) permit are required for activities that

discharge pollutants to WUS. The EPA has delegated the responsibility to administer water quality certification and NPDES programs in Colorado to CDPHE.

Construction of recreational facilities in the project area may require compliance with CWA Sections 401 and 404. The specific permits that may be required would be determined based on a final or substantially complete design. Permits or authorization would be obtained from the Corps prior to construction of all facilities that would result in placement of dredged or fill material in WUS. To determine impacts to WUS, a Preliminary Jurisdictional Delineation (including wetlands) would be prepared and submitted to the Corps for its concurrence. A Colorado Discharge Permit System application would be filed with the CDPHE, and a Storm Water Management Plan would be developed and implemented during project construction.

The National Historic Preservation Act of 1966, as amended, mandates that all federally funded undertakings that have the potential to affect historic properties are subject to Section 106 of the National Historic Preservation Act. Federal agencies are responsible for the identification, management, and nomination to the NRHP of cultural resources that could be affected by federal actions. Consultation with the Advisory Council on Historic Preservation and SHPO is required when a federal action may affect cultural resources in, or eligible for inclusion in, the NRHP.

La Plata Archaeological Consulting completed a Class III survey for the first phase of recreational development under Action Alternative 1. Twelve cultural properties were recorded (Table 10). Two of these sites were determined officially eligible for inclusion in the NRHP in 2009, and the remaining 10 sites were determined field eligible in 1986. One of these 10 sites was determined to be officially eligible in 2012. None of these sites would be impacted by initial recreational development under the Proposed Action. Four of these sites may be directly impacted by construction of recreational facilities during the first phase of development under Action Alternative 1. The remainder of the cultural resource sites recorded during the Class III survey would be avoided during construction but would be subject to potential indirect effects from development and use of recreational facilities in their immediate vicinity. Mitigation has been included to address these indirect impacts. Possible future development of recreational facilities under the Proposed Action, development of recreational facilities during future phases of the project under Action Alternative 1 and possible future development of facilities under Action Alternative 2 would potentially affect some of the up to 170 cultural resource sites remaining in the project area. An approved CRMP will address potential impacts to cultural resource sites in the project area determined to be eligible or potentially eligible. Through implementation of the CRMP, impacts to such sites would be avoided, as feasible, or mitigated through testing and data recovery.

The Archaeological Resources Protection Act of 1979, as amended, was enacted to “protect irreplaceable archaeological resources and sites on federal, public, and Indian lands.” This act applies to archaeological resources, defined as material remains of past human life of archaeological interest, over 100 years old, and including, but not limited to, pottery, basketry, bottles, weapons, projectiles, tools, structures, pit houses, rock paintings, graves, and human skeletal materials. The act basically prohibits (1) excavating, removing, damaging, altering, or defacing an archaeological resource or attempt to do so and (2) selling, purchasing, exchanging, transporting, or receiving an archaeological resource or offering to do so. Under the Archaeological Resources Protection Act’s Excavation and Removal provision, a permit is

required, notification must be sent to any tribes that may consider the site as having religious or cultural importance, and the consent of the tribes involved must be received when the site is on Indian land.

An approved CRMP will reflect the alternative selected. This plan will include a provision for continued monitoring of archaeological sites near proposed recreational facilities and in the project area in general by Reclamation. Reclamation will provide training to recreation manager staff to monitor and enforce the provisions of the Archaeological Resources Protection Act.

The Native American Graves Protection and Repatriation Act of 1990, as amended, contains definitions and procedures for repatriation, pertaining especially to museums that receive some federal funding and may possess applicable material, including remains of Native Americans. This act focuses on (1) restitution of human remains and cultural items located in museums that receive federal funds, (2) restitution to Native Americans of newly discovered human remains and associated burial items, and (3) anti-trafficking provisions dealing both with human remains and communally owned sacred and cultural objects.

The approved CRMP will outline procedures to be implemented during development of recreational facilities for the identification of resources protected by this act, notification of affected Native American tribes, and repatriation of remains to the appropriate tribe(s). This plan will require the presence of one or more archaeological monitors during any ground-disturbing activities to identify any remains and, in coordination with the Reclamation archaeologist, help ensure implementation of notification and repatriation procedures and compliance with provisions of the Native American Graves Protection and Repatriation Act.

The Resource Conservation and Recovery Act, as amended, establishes thresholds and protocols for managing and disposing of solid waste. Solid wastes that exhibit the characteristic of hazardous waste, or are listed by regulation as hazardous waste, are subject to strict accumulation, treatment, storage, and disposal controls.

The action alternatives include mitigation to address incidental spill of hazardous materials and to provide long-term monitoring of water quality for potential contaminants from recreational activities such as motorized boating.

Executive Order 11988 (Floodplain Management) requires federal agencies to avoid, where practicable alternatives exist, the short- and long-term adverse impacts associated with floodplain development. Federal agencies are required to reduce the risk of flood loss; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains in carrying out agency responsibility.

The project area is located outside any designated 100-year floodplain.

Executive Order 11990 (Wetlands) requires federal agencies, in carrying out their land management responsibilities, to take action that would minimize the destruction, loss, or degradation of wetlands and take action to preserve and enhance the natural and beneficial values of wetlands.

No wetlands are known to occur in the project area at this time. Delineation, avoidance, and/or mitigation of impacts to wetlands would be required for any development activities that affect wetland areas that may form in the future.

Executive Order 12898 (Environmental Justice) requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health and environmental effects of their programs, policies, and activities on minority and low-income populations.

Because the project would not introduce disproportionately high and adverse human health and environmental effects on minority and low-income populations, there would be no adverse effect as defined by this EO.

Executive Order 13514 directs federal agencies to promote pollution prevention and reduce emissions of GHGs from actions under their control. In accordance with EO 13514, the CEQ defines GHGs as carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The action alternatives would contribute to emissions of GHGs from construction activities, maintenance and operation of the recreational area, and visitor travel and use of the recreational area. The amount of GHGs generated by these sources would be substantially less than 25,000 metric tons of CO₂-equivalent annual threshold proposed by the CEQ as relevant to the decision-making process.

Secretarial Order 3175 (incorporated into DM at 512 DM 2) requires that if any Department of the Interior actions impact Indian Trust Assets, the agency must explicitly address those impacts in planning and decision-making, and the agency must consult with the tribal government whose trust resources are potentially affected by the federal action.

Lake Nighthorse is a component of the ALP Project, which is being built to fulfill the water rights settlement of the Ute Mountain and Southern Ute Indian tribes of southwestern Colorado. The ALP Project was authorized by the Colorado River Basin Project Act of 1968 and was designed to provide irrigation, municipal, and industrial water supplies to the Colorado Ute tribes and other project beneficiaries. A Colorado Ute Indian Water Rights Final Settlement Agreement, signed in 1986, quantified the Colorado Ute tribes' rights to obtain water from several rivers and projects, including the ALP Project. Congress incorporated the ALP Project into the Colorado Ute Indian Water Rights Settlement Act of 1988 (P.L. 100-585) (Settlement Act) to settle Colorado Ute tribal water rights claims. The ALP Project has been the subject of public interest and environmental review since it was initially authorized. The FSEIS for the project was completed in 2000 and included extensive coordination with the affected tribes. Though the implementation of the ALP Project has a beneficial effect, implementation of the action alternatives does not affect these Indian Trust Assets.

In 1873 the United States negotiated the Brunot Agreement, by which the confederated bands of the Colorado Ute tribes ceded 3.7 million acres in the San Juan Mountain region of the 1868 Ute reservation. In return, the Colorado Ute tribes reserved the right to "hunt upon said land so long as the game lasts and the Indians are at peace with the white people." This reserved right has been interpreted to include not only hunting but also fishing, trapping, and gathering activities by

which tribal members supported themselves in the region for centuries prior to the agreement. The 1873 agreement (ratified by Congress in 1874) is commonly known as the “Brunot Treaty” or “Brunot Agreement,” and the ceded land is often referred to as the “Brunot Area.”

Though within the geographic extent of lands covered by the Brunot Treaty, the project area is currently closed to public access and, therefore, also closed to hunting and fishing by tribal members. Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.

The Farmland Protection Policy Act and 7 CFR 658 are intended to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural purposes. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, and oilseed crops and is available for these uses. In general, prime farmland has acceptable soil conditions with few rocks, a favorable temperature and growing season, and an adequate and dependable water supply from precipitation or irrigation. Unique farmland is land other than prime farmland that is used for production of specific high-value foods and fiber crops.

No prime or unique farmlands occur in the project area; therefore, the project is in compliance with the Farmland Protection Policy Act.

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10.0 APPENDICES

**APPENDIX A – COMMENT RESOLUTION TABLE FOR ANIMAS-LA
PLATA PROJECT STAKEHOLDER GROUP REVIEW OF
PRELIMINARY DRAFT ENVIRONMENTAL ASSESSMENT**

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/ Paragraph	Action/Response
SUBSTANTIVE COMMENTS				
1	Ute Mountain Ute Tribe (UMUT) (1-21-2015) ⁹	Tribe favors the No Action alternative due to impacts of proposed action on cultural resources but objects to failure to include Brunot hunting rights under the No Action alternative.	Page 8, Section 2.1	<p>Reclamation acknowledges the Tribes’ Brunot Treaty Rights; however, the reservoir area will remain closed to all activities under the No Action Alternative.</p> <p>The Bureau of Reclamation recognizes there are significant cultural resources present in the project area that will require protection regardless of future development plans. Reclamation, in consultation with the Animas La Plata Programmatic Agreement consulting parties, is developing a Cultural Resource Management Plan (CRMP) for Ridges Basin. The Ridges Basin CRMP will provide protocols for the monitoring and preservation of existing cultural resource sites, as well as a process for analyzing and implementing any future development. Reclamation acknowledges that it is the preference of UMUT that the No Action Alternative be selected as the preferred alternative due to the minimal impacts to sensitive cultural resources. However, regardless of the chosen alternative, Reclamation will consult with the UMUT and other interested parties under the approved CRMP and the National Historic Preservation Act prior to implementing the alternative.</p>
2	UMUT (1-21-2015) ⁹	Tribe next favors Alternative 2 due to next greatest protection of cultural resources but objects to failure to include Brunot hunting rights under this alternative.	Page 12, Section 2.3	Reclamation acknowledges the Tribes’ Brunot Treaty Rights. However, the regulation of hunting (tribal and non-tribal) on any or all parts of the project lands is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential extent of hunting activities, applicable regulations, and consistency with the tribes’ Brunot Treaty Rights.
3	UMUT (1-21-2015) ⁹	Tribe feels that Brunot hunting rights should be allowed until further consultation and formulation, not before.	Page 21, Section 2.6.5	See response to Comments No. 1 and 2.

⁹ Presumably, the correct date of this letter should be January 21, 2016

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
4	Ute Mountain Ute Tribe (1-21-2015) ⁹	Tribe states that their response to the EA does not constitute consultation and that BOR should continue to consult with the Tribe on all issues related to Lake Nighthorse.	N/A (general)	We agree with your comment.
5	UMUT (1-21-2015) ⁹	Tribe states that "...there should never be any recreation on Lake Nighthorse and the area should be protected and valued as an important part of the history of these lands and the peoples who have occupied these lands since human occupation first began."	N/A (general)	Thank you for your comment.
6	UMUT (1-21-2015) ⁹	Tribe states that no agreement exists with regard to implementation of Brunot rights between the Tribe and the U.S. for lands within federal jurisdiction. Tribe therefore feels that regulations with regard to hunting on federal lands should be developed in consultation and in mutual agreement, not through imposition of regulations contained in an EA.	Page 21, Section 2.6.5 and page 48, Section 3.6.1	See response to Comment No. 2.
7	UMUT (1-21-2015) ⁹	BOR must ensure Tribal Members are able to access the federal lands for hunting so long as the hunting does not violate federal law, regardless of the annexation footprint. In other words, the guiding principal for determining whether Tribal Members are permitted to exercise their treaty hunting rights within the Project Area should only be a matter of federal law and restrictions based on the annexation footprint and other consideration should only be relevant if they are relevant under federal law.	Page 8, Section 2.0 and page 48, Section 3.6.1	See response to Comment No. 2.
8	UMUT (1-21-2015) ⁹	Tribe disfavors any action which would jeopardize water and air quality.	N/A (general)	We agree with your comment.
9	UMUT (1-21-2015) ⁹	The Indian Trust Assets, or Brunot Treaty Hunting Rights specifically, should be listed as a resource to be protected in the first sentence in the purpose and need statement.	Page 3, Section 1.3	The document has been modified to address your comment.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
10	UMUT (1-21-2015) ⁹	With regard to Action Alternative 1 (2011 Recreation Plan), the Tribe objects to the conclusion that hunting cannot occur within the annexed area (presumably unless further agreement can be reached). Such prohibition should only occur if hunting under such circumstances would be a violation of federal law. Either this provision must delineate the federal laws that would presumably be violated by having hunting within the annexed area, or the prohibition should be removed.	Page 8, Section 2.2	Under the Action Alternative 1 (2011 Recreation Plan), annexation is not discussed nor is a specific recreation manager identified. Regarding hunting, see response to Comments No. 1 and 2.
11	UMUT (1-21-2015) ⁹	The Tribe should be included in future discussions about trail expansion.	Page 19, Table 1	The table has been modified to address your comment.
12	UMUT (1-21-2015) ⁹	The Tribe objects to any restriction on hunting rights that are not contained in federal law. This provision should state that hunting will be allowed unless further consultation or federal law restricts hunting rights.	Page 21, Section 2.6.5	See response to Comments No. 1 and 2.
13	UMUT (1-21-2015) ⁹	Tribe questions basis for setting the four delineated restrictions on the legal exercise of Brunot hunting rights. If there is no federal law establishing these restrictions, then they must be eliminated.	Page 48, Section 36.1	The document has been modified and the 4 delineated restrictions removed.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
14	Southern Ute Indian Tribe (SUIT) (1-21-16)	The PDEA does not adequately describe the Tribe's Brunot rights, the risk of additional trespass to tribal lands from recreation development, or Reclamation's need to protect the primary project purposes. The PDEA also fails to convey the significance of the cultural resources in the area and the sensitivity of those resources to inappropriate disturbances.	N/A (general)	<p>See responses to Comments No. 1 and 2 regarding Brunot Treaty Rights.</p> <p>Regarding the risk of additional trespass to tribal lands, the Table 3 of the document has been modified. Any additional trespass that occurs will be dealt with by the proper law enforcement agencies and the document has been modified accordingly.</p> <p>Regarding project purposes, compatibility with the primary purpose of the ALP Project (municipal and industrial water supply) is identified as part of the purpose and need statement in section 1.3 of the document. The alternative selected will be consistent with the purpose and need. The purpose and need includes a statement that it will “ensure compatibility with the primary purpose of the ALP Project for municipal and industrial water supply.” Recreation is incidental and subordinate to the primary purpose of the project.</p> <p>We agree that the cultural resources present are significant and need protection. Implementation of the Cultural Resources Management Plan (CRMP) and subsequent National Historic Preservation Act consultation will address cultural resource protection through pre-construction surveys, avoidance, mitigation, and long-term monitoring. Potential recreational impacts will be addressed through interpretive/educational signage, regular archaeological monitoring, and oversight by Reclamation staff, Tribal partners, the recreation manager and law enforcement agencies.</p>

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
15	SUIT (1-21-16)	<p>The description of the Tribe's rights to hunt, fish and gather under federal law, commonly referred to as Brunot rights, is deeply flawed. The PDEA erroneously describes the ALP lands as closed to the exercise of Brunot rights as though such rights do not apply to the Project lands. However, the Project lands are subject to such rights and it is only through the Tribe's exercise of its sovereign powers to self-regulate that tribal members are not currently exercising such rights on Project lands. The Tribe is willing to work with the other affected entities to find common ground on the most appropriate ways in which the Tribe and its members exercise the Tribe's Brunot rights in a mutually agreeable fashion. It is important to understand that any closure of the lands to tribal hunting, fishing and gathering will be as a result of the Tribe's decision, not that such lands are not subject to such rights. As I am sure you understand, the distinction between the scope of the rights and the manner in which the Tribe chooses to exercise those rights is extremely important to the Tribe. The PDEA fails to grasp that distinction.</p>	N/A (general)	See response to Comments No. 1 and 2.
16	SUIT (1-21-16)	<p>The PDEA is also lacking in its recognition of the potential increased risk of trespass to the Tribe's land from recreation development at ALP. The Project lands are directly adjacent to the Tribe's Reservation. The more intense the level of recreation development, the more likely it will be that visitors will trespass on the nearby tribal lands. This issue needs to be further developed in the PDEA and it needs to be clearly stated that recreation activities may be curtailed in the event such activities result in trespass to tribal lands.</p>	N/A (general)	See response to Comment No. 14.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
17	SUIT (1-21-16)	The PDEA also fails to adequately develop the extent to which recreation development may interfere with the primary Project purposes of settling the Tribe's and the Ute Mountain Ute Tribe's (collectively "Ute Tribes") water rights on the Animas and La Plata Rivers and to provide a municipal and industrial water supply to other entities in Colorado and New Mexico. While the PDEA indirectly addresses many of the issues that might adversely affect the ability of the Project to meet its primary purposes, there should be a direct recognition of the need to meet those purposes and an explicit retention of the ability to limit any activity that interferes with such purposes.		See response to Comment No. 14.
18	SUIT (1-21-16)	Finally, the Tribe cannot emphasize too strongly the significance of the cultural resources on the Project lands and the need to fully protect those resources from disturbance. Indeed, given the sensitivity of those resources, many members of the Ute Tribes believe that recreation activities on Project lands is not appropriate. Again, Reclamation needs to be sure that it retains authority to halt any activity that threatens the ability to protect and respect these resources.		We agree that the cultural resources present are significant and need protection. Implementation of the Cultural Resources Management Plan (CRMP) and subsequent National Historic Preservation Act consultation will address cultural resource protection through pre-construction surveys, avoidance, mitigation, and long-term monitoring. Potential recreational impacts will be addressed through interpretive/educational signage, regular archaeological monitoring, and oversight by Reclamation staff, Tribal partners, the recreation manager and law enforcement agencies.
19	SUIT (1-21-16)	Tribe does not believe that hunting has, or can be eliminated from the alternatives. Tribe's Brunot rights extend to the project lands although the Tribe has agreed to work with the other affected parties to determine the appropriate means for the exercise of those rights on the lands at issue.	Page 2, Section 2.6.5	See response to Comments No. 1 and 2.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/ Paragraph	Action/Response
20	SUIT (1-21-16)	The use of the term "initially" in this table may be read to suggest that additional activities are contemplated and may be acceptable to the Tribe and other project participants. There is no agreement on any future activities or any reason to believe at this time that any such activities would be compatible with the primary project purposes or the protection of cultural and natural resources important to the Tribe.	Page 22, Table 2	The term “initially”, in Table 2, has been removed. When additional activities or future facilities are planned, these will be coordinated with the Tribes and other stakeholders pursuant to the planning and development Memorandum of Understanding. Development of future facilities would be subject to additional public review and review under the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and other applicable Federal laws and regulations.
21	SUIT (1-21-16)	The issues associated with the cultural resources on the project lands are difficult and do not lend themselves to drawing bright lines between direct and indirect effects. There is no question that recreation is not compatible with the significance and nature of certain of the cultural resources found on the ALP lands. The need to respect those resources is very important.	Page 26, Table 3	Reclamation will attempt to address any direct and indirect effects to significant cultural resources through implementation of the Cultural Resource Management Plan (CRMP) and consultation under Section 106 of the National Historic Preservation Act (NHPA). Reclamation also recognizes that there are other potentially applicable statutes such as the Native American Graves Protection and Repatriation Act (NAGPRA) and the American Indian Religious Freedom Act (AIRFA), and Reclamation will consider these when consulting on the preferred alternative. Furthermore, Reclamation acknowledges that the concerns being expressed go beyond simple potential adverse effects under the NHPA. Reclamation is committed to treating the cultural resources with respect and dignity in light of the deep cultural affiliation established by the consulting Tribes and Pueblos.
22	SUIT (1-21-16)	The table fundamentally mistakes the nature of Brunot rights which apply to all ALP lands whether annexed or not. The table needs to be rewritten to reflect the previous comments about the scope of the Tribe's rights.	Page 27, Table 3.	Table 3 has been modified.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
23	SUIT (1-21-16)	It is not clear that a smaller and less ambitious recreation plan would increase recreational use conflicts. A smaller plan and footprint may simply reduce the number of visitors to the area. After all, there are a multitude of similar water body recreation sites in the vicinity and there is no reason to believe that a smaller plan at ALP would attract the same number of visitors as a larger plan.	Page 35 Recreational Use Conflicts	It is agreed a smaller plan would likely reduce total number of visitors -- there is no reason a smaller plan would attract the same number of visitors as a larger plan. However, Reclamation believes that even a reduced recreational footprint would nevertheless result in greater concentration of recreation users. It is not anticipated that a reduction of amenities would necessarily reduce visitors proportionately. And, specifically, a lack of amenities for non-boaters would result in conflicts between boaters and other users (i.e., parking for picnicking and swimming); and, reducing other users disbursement would cause greater concentrations in areas most accessible to parking and waterfront activities.
24	SUIT (1-21-16)	The potential economic benefits from recreation at ALP to the community appear to be vastly overstated. As noted above, there are a multitude of similar water body recreation opportunities in the area. While ALP is closer to the population center of Durango, it is not clear that recreation will engender new recreation related expenditures instead of simply redirecting activities from existing sites with no or limited increase in overall expenditures in the Durango area.	Page 40	The economic impact study and the recreation market assessment prepared consider the market share captured by this project in light of the overall regional market demand.
25	SUIT (1-21-16)	The Tribe continues to believe that the most sensitive issue associated with recreation at ALP remains the protection of the cultural resources. While the PDEA adequately describes the technical issues associated with the protection of these resources, it does not adequately emphasize the significance of the need to protect and respect these resources.	Page 47, Table 10	See response to Comment No. 18.
26	SUIT (1-21-16)	Once again, the PDEA misstates the nature of the Tribe's Brunot rights	P. 49, Section 3.6.1.	Section 3.6.1 has been modified. Also, see response to Comments No. 1 and 2.
27	SUIT (1-21-16)	Once again, the PDEA misstates the Tribe's Brunot rights and the fact that the existence of certain closures is only because the Tribe has chosen to close the areas, not because the rights don't exist.	P. 50, Section 3.6.2.	Section 3.6.2 has been modified. Also, see response to Comments No. 1 and 2.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
28	SUIT (1-21-16)	We are concerned with the lack of capacity to handle hazardous spills. We assume that proceeding with recreation development will require the City to provide assurances that it now has the proper equipment and training.	P. 71, Section 3.13.2.	Table 12 on page 84 includes the following mitigation measure that addresses this concern: <i>“The recreation manager shall provide training to its staff and shall provide and store, on-site, a boat, other equipment, and materials to conduct rescue operations and to address hazardous materials spills (either by staff or emergency services personnel). The boat shall be stored on-site when the lake is open for public use”.</i>
29	Animas-La Plata Operation Maintenance and Replacement Association (ALPOMRA) (1-22-16)	All boat fueling should occur outside the entrance station.	Page 18, Table 1 Page 81, Table 12	This mitigation measure has been revised to state: <i>“No fueling shall be allowed on the lake, and all fueling shall occur in designated areas only.”</i>
30	ALPOMRA (1-22-16)	Whenever there is coordination or notice required with other parties, the Association should be included as one of those parties.	Pages 78-84, Table 12	The ALPOMRA has been added whenever notice or coordination is required with other parties.
31	City of Durango (1-20-16)	City requests insertion of the following paragraph describing the evolution of the 2014 conceptual recreation plan: <i>“Following the release of the Lake Nighthorse Recreation Master Plan prepared by the Animas-La Plata Water Conservancy District – Final Draft May 2011, discussions ensued with the member entities of the Animas-La Plata Operation, Maintenance and Replacement Association and the Bureau of Reclamation. Consensus was reached to establish the framework for proceeding with recreation at Lake Nighthorse to minimize impacts on the primary purposes of the project. These discussions led to the creation of the Lake Nighthorse Conceptual Recreation Plan – October 2014 Draft prepared by the City of Durango and the Bureau of Reclamation.”</i>	Page 7, Section 1.6	Section 1.6 has been modified and the language added.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/ Paragraph	Action/Response
32	City of Durango (1-20-16)	City requests revision to the environmental commitments as follows: <i>“Motorized personal watercraft (e.g., jet skis) with open-air exhaust and two-stroke engines; houseboats that are used as a human dwelling; cabin cruisers with full living quarters on board, including plumbing; and open-air-exhaust boats shall not be allowed on the lake”.</i>	Page 18, Table 1	Table 1 has been modified and the required measure has been added.
33	City of Durango (1-20-16)	City requests the following environmental commitment be added to Table 1: <i>“Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off leash dogs would be permitted.”</i>	Pages 18-19, Table 1	Table 1 lists measures identified as mitigation in the FSEIS or developed to address specific issues identified from public outreach and agency coordination during the 2011 recreation master planning process. Therefore, the requested new measure has been added to Section 3.2.2 and Table 12 (Chapter 5) of the document.
34	City of Durango (1-20-16)	City requests the following environmental commitment be added to Table 1: <i>“Motorized watercraft shall adhere to current State of Colorado Parks and Wildlife standards to carry required safety equipment on the vessel.”</i>		Table 1 lists measures identified as mitigation in the FSEIS or developed to address specific issues identified from public outreach and agency coordination during the 2011 recreation master planning process. Therefore, the requested new measure has been added to Section 3.13.2 and Table 12 (Chapter 5) of the document.
35	City of Durango (1-20-16)	City requests that the mitigation measure on nesting raptors be revised to state: <i>“If new raptor nests or nest locations are discovered, the recreation manager, in coordination with Reclamation, shall consult with the CPW and the USFWS to determine whether designation of buffers and closure to public access during the nesting season are warranted to minimize closures of future recreational improvement areas.”</i>	Page 60, Section 3.8.2	The requested revision has been made to Section 3.8.2 of the text and in Table 12 (Chapter 5).
36	City of Durango (1-20-16)	City requests to add a bullet to mitigation measures to clarify the opportunity to use the Reclamation wetland bank associated with the construction of the Animas-La Plata Project for future improvements in areas where wetlands emerge over time.	Page 63, Section 3.10.2	Reclamation does not have a wetland bank associated with the ALP project.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/ Paragraph	Action/Response
37	City of Durango (1-20-16)	Add an additional bullet to clarify current and future planned water quality testing to be routinely performed by Reclamation.	Page 72, Section 3.13.2	This requested revision was not made. Section 3.10.3 and Table 12 (Chapter 5) already includes the following measure: “ <i>Water quality monitoring shall be undertaken on at least an annual basis by Reclamation in coordination with the recreation manager and the ALPOMRA. The results of water quality monitoring shall be reviewed on an annual basis to determine whether additional control measures need to be developed and implemented (e.g., limiting the number of boats on the reservoir at one time, regulating carbureted and electronic injection two-stroke engines).</i> ”
38	City of Durango (1-20-16)	Insert comments in the table previously noted. The language pertaining to jet skis includes: “ <i>Motorized personal watercraft (e.g., jet skis) with open-air-exhaust and two-stroke engines; houseboats that are used as a human dwelling; cabin cruisers with full living quarters on board, including plumbing; and open-air-exhaust boats shall not be allowed on the lake</i> ”. The language pertaining to dogs on leash includes: “ <i>Dogs shall be required to be kept on a 6-foot-maximum leash, unless a designated dog play/swim area is established where off leash dogs would be permitted.</i> ”	Pages 78-84, Section 5.0, Table 12	The document and Table has been modified and the requested language included.
39	Colorado Parks and Wildlife (CPW) (1-19-15) ¹⁰	Portions of Action Alternative 1 (2011 Recreation Plan) do not conform to the FEIS; and thus, the anticipated recreational and facility development impacts cannot be tiered to that NEPA document. Please refer to previous comments for more discussion regarding Action Alternative 1 (Attachment 1).	N/A (general)	Thank you for your comment. The purpose of tiered NEPA documents is to analyze changes to the previous document(s).

¹⁰ Presumably the correct date for this letter should be January 19, 2016.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
40	CPW (1-19-15) ¹⁰	The Mitigation Area (MA) acquired by Reclamation to offset loss of wildlife habitat from the Animas-La Plata (ALP) project has never been opened for public hunting. Portion of the Bodo State Wildlife Area (SWA) have been closed to the public and sportsmen for over 15 years. If the MA cannot be opened for public hunting, Reclamation should seek other opportunities to restore to sportsmen this unique public land hunting opportunity in GMU 741.	N/A (general)	Thank you for your comment. Reclamation is continuing to work toward providing access to the Mitigation Area.
41	CPW (1-19-15) ²	The Recreation Plan for Lake Nighthorse needs to include recreational hunting opportunities. Depending on the alternative selected, Lake Nighthorse could support waterfowl hunting and the surrounding Reclamation lands could support small game and some limited big game opportunity. Hunting can occur at Lake Nighthorse and the surrounding Reclamation lands in a manner that is safe, benefits the community, helps achieve the project's purpose, and is compatible with other recreational opportunities.	N/A (general)	The regulation of hunting (tribal and non-tribal) is being deferred because it requires further discussion and coordination between Reclamation, the recreation manager, the Tribes, CPW, and other stakeholders to determine the potential scope and extent of hunting activities, applicable regulations, and consistency with the tribes' Brunot Treaty Rights.
42	CPW (1-19-15) ¹⁰	CPW would like to see, at a minimum, waterfowl hunting added into all of the action alternatives prior to the EA going out for public review and comment. CPW, USFWS, SUI, UMUT, and the public have made numerous requests to Reclamation to allow hunting at Lake Nighthorse. Reclamation recognized and advocated for hunting in its response (1997) to the USFWS recommendation under the Fish and Wildlife Coordination Act. The public has a desire to hunt in this area; it was committed to in the FEIS and should be a central focus of any recreation plan for Lake Nighthorse.	N/A (general)	See response to Comment No. 41.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
43	CPW (1-19-15) ¹⁰	CPW recognizes that SUIT and UMUT wish to exercise their hunting and fishing rights under Brunot at Lake Nighthorse and on the surrounding BOR lands. CPW supports hunting and fishing activities in these areas and feels that it's Reclamation's responsibility that these activities continue and are promoted to the benefit of tribal members and the public.	N/A (general)	See response to Comments No. 1 and No. 2.
44	CPW (1-19-15) ¹⁰	CPW supports seasonal closures on west and south sides and golden eagle nesting areas. However, CPW questions the rationale for closing the lake to recreationists from November 16 to May 15 and encourages Reclamation to modify the EA to allow lake use during this time.	Pages 15-20, Section 2.5	Recommendations made by the U.S. Fish and Wildlife Service in the Fish and Wildlife Coordination Act Report for the ALP project, prepared in 2000, include the closure of all recreational facilities from November 15 to May 1. Consequently, under the Preferred Alternative, the surrounding lands and lake are closed from November to May. Any change will need to incur further discussion.
45	CPW (1-19-15) ¹⁰	Some trail development in the action alternatives exceeds impacts disclosed in the FEIS. If trail are developed north of CR210, CPW requests that Reclamation fence its boundary with Bodo SWA. Land north of CR 210 should have extended seasonal closures to protect wintering deer and elk. If trails are constructed and open seasonally, CPW recommends mitigation measures such as setbacks, use of natural barriers (vegetation, topography), wildlife friendly fencing to preserve Bodo SWA habitat values.	N/A (general)	The Preferred Alternative does not include any recreation development north of County Road 210.
46	San Juan Water Commission and La Plata Conservancy District (SJWC-LPCD) (1-21-16)	Request to insert following text: <i>"The Animas-La Plata Project was built to provide municipal and industrial water supplies to project beneficiaries, protecting water quality interests is an essential part of a recreation plan at Lake Nighthorse."</i>	Page 3, Section 1.5	Document not modified because the suggested text is already included in Section 1.3 of the document (Purpose and Need for Action).
47	SJWC-LPCD (1-21-16)	Commenter asks if in environmental commitments there is a boat length limit and requests that "off-road" vehicles be defined, for example ATV, UTV, motorized bikes, etc.	Page 18, Table 1	No limit on boat length is identified. The term "off-road vehicles" will not be defined, in order to capture any type of vehicle that may be used off-road.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
48	SJWC-LPCD (1-21-16)	Commenter states that environmental commitments should specify that fueling should be required to occur outside entrance station.	Page 18, Table 1	This mitigation measure has been revised to state: <i>“No fueling shall be allowed on the lake, and all fueling shall occur in designated areas only.”</i>
49	SJWC-LPCD (1-21-16)	Commenter states that environmental commitments should be revised to state that <i>“All roadways open to public and other use shall be graveled initially and paved or <u>chipped sealed</u> as need arises and funding allows.”</i>	Page 19, Table 1	This measure has been revised to state: <i>“All roadways open to public and other use shall be graveled initially and improved as need arises and funding allows.”</i>
50	SJWC-LPCD (1-21-16)	ALPOMRA should be included as a party under “Trail Development”.	Page 78, Table 12	Table 12 has been modified in include ALPOMRA under “Trail Development”.
51	SJWC-LPCD (1-21-16)	“Off-road vehicles” definition should be updated in noise and natural resource sections.	Page 79, Table 12	See response to Comment No. 47.
52	SJWC-LPCD (1-21-16)	ALPOMRA should be included or notified if lake may open earlier in the spring.	Page 79, Table 12	Document has been modified to include ALPOMRA in the notification process.
53	SJWC-LPCD (1-21-16)	ALPOMRA should be included as a party or notified under the majority of the bullet points on natural resources.	Page 80, Table 12	Document has been modified: ALPOMRA was added to the applicable bullet points.
54	SJWC-LPCD (1-21-16)	ALPOMRA should be included as a party or notified under the majority of the bullet point on visual quality /aesthetics.	Page 81, Table 12	Document has been modified: ALPOMRA was added to the applicable bullet points.
55	SJWC-LPCD (1-21-16)	Fueling should be required to occur <u>outside</u> entrance station under water quality.	Page 81, Table 12	Document has been modified and the mitigation measure revised to state: <i>“No fueling shall be allowed on the lake, and all fueling shall occur in designated areas only.”</i>
56	SJWC-LPCD (1-21-16)	ALPOMRA should be included as a party or notified under the traffic monitoring plan.	Page 83, Table 12	Table 12 has been modified in include notifying ALPOMRA under the traffic monitoring plan.
57	Tom Brossia Animas-La Plata Water Conservancy District	Commenter requests that waterfowl hunting be added in the current EA.	N/A (general)	See response to Comment No. 41.
MINOR COMMENTS				
58	City of Durango (1-20-16)	Correct spelling of “Haviland Lake”	Page 31, Section 3.2	Document has been modified to reflect correct spelling.
59	City of Durango (1-20-16)	Replace “Durango Mountain Resort” with “Purgatory Ski Resort”	Pages 36 and 37, Section 3.3.1	Document has been modified to reflect the correct name throughout the document.

Appendix A – Comment Resolution Table for Animas-La Plata Project Stakeholder Group Review of Preliminary Draft Environmental Assessment

No.	Reviewer/Date	Comment/Proposed Revision	Page/Section/Paragraph	Action/Response
60	City of Durango (1-20-16)	Correct typo, bullet should state: <i>“The 2009 – 2013 ACS was used....”</i>	Page 43, Section 3.4.1	The bullet has been corrected.
61	City of Durango (1-20-16)	Remove extra period.	Page 46, first paragraph under “No Action Alternative”	The extra period was removed.
62	City of Durango (1-20-16)	Correct typo to read “(Russell Planning and Engineering 2011).”	Page 67, Section 3.12.1	The spelling has been corrected.
63	City of Durango (1-20-16)	Replace “Durango Fire and Rescue Authority” with “Durango Fire Protection District”	Pages 69, 70, 71, 77	Document has been modified to reflect the correct name throughout the document.
64	City of Durango (1-20-16)	Statement regarding water related incidents is confusing as it appears that these activities are water transport-related rather than nonwater transport-related recreational activities. The suggested revision is: <i>“In Colorado, 91 percent of drowning deaths and 98 percent of near-drowning hospitalizations result from water transport-related recreational activities such as water-skiing, diving, swimming or playing in or near open water bodies.”</i>	Page 69, Section 3.13.1	The suggested revision is not correct. The statement refers to water-related recreational activities not associated with water transport. Statement clarified as follows: <i>“In Colorado, 91 percent of drowning deaths and 98 percent of near-drowning hospitalizations result from recreational activities not related to water transport, such as water-skiing, diving, swimming or playing in or near open water bodies.”</i>
65	City of Durango (1-20-16)	On page 79, at the bottom of the page, there is an extra period on the last bullet sentence which should be removed “Wildlife-resistant trash receptacles shall be used.”	Page 79, Section 5.0, Table 12	The extra period has been removed.
66	U.S. Fish and Wildlife Service (1-26-16, verbal comments to Kathleen Ozga, BOR)	No USFWS related issues as long as the FSEIS environmental commitments are maintained. USFWS supports keeping recreation development to a minimum and would thus support Action Alternative 2 as the preferred alternative.	N/A (general)	We acknowledge your comment.