FINDING OF NO SIGNIFICANT IMPACT

Rustic Cabins at Indian Creek Campground
Owyhee Reservoir, Owyhee Project, Oregon

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region

PN FONSI 17-05

Introduction

The Bureau of Reclamation (Reclamation) has prepared this Finding of No Significant Impact (FONSI) in compliance with the Council of Environmental Quality regulations for implementing procedural provisions of the National Environmental Policy Act (NEPA). This document briefly describes the proposed action, other alternatives considered, the scoping process, Reclamation's consultation and coordination activities, and Reclamation's finding. The Environmental Assessment (EA) fully documents the analyses for potential environmental impacts of implementing the changes proposed.

Proposed Action

OPRD proposes to construct two rustic cabins where four camping spurs now exist on Reclamation-administered land at the Indian Creek Campground at Lake Owyhee State Park (LOSP). The project would be funded solely by OPRD and no Reclamation funding would be used for this project. Reclamation's action is to decide whether to accept, accept with changes, or deny OPRD's proposal.

Purpose and Need

Reclamation's purpose for this action is to respond to OPRD's request to construct and improve facilities at the Indian Creek Campground at LOSP. OPRD has been managing the LOSP since 1958 under a lease agreement with Reclamation.

The need for this action is to enhance overnight camping opportunities at the Indian Creek Campground. The two proposed cabins would create a camping opportunity for visitors who would otherwise not camp overnight at LOSP. The proposed cabins would provide an additional opportunity for everyone to participate in a camping experience at Indian Creek.

Location and Background

Owyhee Reservoir is located approximately 20 miles southwest of Nyssa, Oregon, on Owyhee Lake Road in northeastern Malheur County, Oregon. Also known as Lake Owyhee, the water from the 1.12 million acre-foot reservoir is used for three private powerplants, flood protection, and recreation.

Recreational use of the reservoir increased as the population of the region increased. The road through the Lower Owyhee Canyon was extended 4.5 miles above the dam to Indian Creek. The Indian Creek Campground site has been managed for camping and boating since 1954 when a 50-year lease agreement was initiated with Lake Owyhee Resort, Inc. The lease authorized the concession to construct and maintain cabins, lodges, stores, and other recreational facilities. After Reclamation removed the resort in 1999, the site was added to the LOSP as the Indian Creek Campground and Boat Ramp. The State of Oregon had already developed McCormack Campground across the bay and the Gordon Gulch Day Use Area and Boat Ramp, farther north toward Owyhee Dam, under management agreements dating back to 1958.

Alternatives Considered and Recommended Action

The project scope is defined by the purpose and need, and the issues documented during scoping. The range of alternatives include a No Action alternative and the proposed action. The proposed action is to allow OPRD to construct two rustic cabins and associated features at LOSP campground on Reclamation administered land.

Consultation, Coordination, and Public Involvement

Reclamation consulted and coordinated with Oregon Parks and Recreation Department on multiple occasions:

- February 8, 2017—Received digital construction drawings.
- February 14–16, 2017—Coordinated archaeological and accessibility input for EA, and response to questions about the approval process for the plans.
- February 23, 2017—Obtained a photo of a similar cabin.
- February 27 and 28, 2017—Updated OPRD on need for EA and input already received from the Reclamation specialists that would be involved.
- March 14, 2017—Discussed occupancy norms for similar cabins in other parks and update on EA progress.
- March 23, 2017—Received revised construction drawings with accessibility updates integrated.
- April 3, 2017—Identified that the Accessibility Coordinator approved the revised construction drawings, and that construction deadline has been extended.
- April 7, 2017—Advised OPRD that the EA is expected to be signed by mid-May.
- April 9–10, 2017—Requested and received Indian Creek RV site occupancy rates data.

Summary of Environmental Effects

Overall resource effects from the proposed action implementation are minor and localized. Specific Resource effects are listed below.

- Recreation - Indian Creek campground would likely increase in visitation and recreation due to the new cabins. Overnight camping at the two cabins is projected to increase by 34 percent as compared to the previous four camping spurs. Park management is able to accommodate this level of visitation.
- Socioeconomics - Park camping fee revenue has little effect on the overall economic conditions in Malheur County because park fees go to the State's coffers, but any increase in visitation to the park would increase fuel, grocery, camping supply, and other sales in the nearby communities.

No effects were identified in: Threated and Endangered Species, Cultural Resources, Indian Trust Assets and Sacred Sites, Environmental Justice, Paleontological Resources, and Cumulative Effects. Affected environment description and analysis of the above resources are presented in Chapter 3 of the attached EA.

Finding

Based on the analysis of the environmental effects presented in the EA, Reclamation concludes that implementation of the proposed action will not have a significant effect on the quality of the human environment or natural and cultural resources. The effects of the proposed action will be minor and localized. Therefore, preparation of an Environmental Impact Statement (EIS) is not required.

Decision

Based on the analysis in the attached EA, it is my decision to select the Proposed Action (Alternative B) and permit OPRD to construct two rustic cabins and associated features at LOSP campground on Reclamation administered land. The Proposed Action will meet the Purpose and Need identified in the EA.

Recommended:

5-25-2017

Richard Jackson
Natural Resources Specialist
Snake River Area Office, Boise, Idaho

Date

Approved:

5/25/17

Roland K. Springer
Snake River Area Manager
Pacific Northwest Region, Boise Idaho

Date

RECLAMATION

Managing Water in the West

Environmental Assessment

Rustic Cabins at Indian Creek Campground

Owyhee Reservoir, Owyhee Project, Oregon

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Boise, Idaho

May 2017

U.S. DEPARTMENT OF THE INTERIOR

PROTECTING AMERICA'S GREAT OUTDOORS AND POWERING OUR FUTURE

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MISSION OF THE BUREAU OF RECLAMATION

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
BLM	U.S. Department of the Interior, Bureau of Land Management
B.P.	Before Present
BPA	Bonneville Power Administration
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIG	Climate Impacts Group
Corps	U.S. Army Corps of Engineers
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FY	Fiscal Year
IPaC	Information for Planning and Conservation
ITA	Indian Trust Asset
LOSP	Lake Owyhee State Park
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966, as amended
NOAA	National Marine Fisheries Service
NRHP	National Register of Historic Places
OPLMA	Omnibus Public Lands Management Act
OPRD	Oregon Parks and Recreation Department
P.L.	Public Law
PRPA	Paleontological Resources Preservation Act
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
RMP	Resource Management Plan
RMJOC	River Management Joint Operating Committee
RV	Recreational Vehicle (i.e., Motorhome)
SHPO	State Historic Preservation Office
T&E	Threatened and Endangered
USFWS	U.S. Fish and Wildlife Service

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Chapter 1 PURPOSE AND NEED

1.1. Introduction

The U.S. Department of the Interior, Bureau of Reclamation (Reclamation) prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This EA summarizes and evaluates an Oregon Parks and Recreation Department (OPRD) proposal to construct two rustic cabins at Lake Owyhee State Park (LOSP) campground on Reclamation administered land.

In LOSP, there are campsites that meet the requirements for being accessible to people with disabilities. The proposed cabins with ramps would provide enhanced camping opportunities to people who use wheelchairs or have difficulty using stairs on most recreational vehicles (RVs) or trailers. Cabins would also enhance camping opportunities to those who have difficulty sleeping on the ground in tents as well as those who do not have appropriate equipment for RV, trailer, or tent camping. The proposed cabins would make camping available to people who would otherwise be unlikely to participate in camping experiences.

This EA is being prepared to assist Reclamation in finalizing a decision on the recommended action alternative and to determine whether to issue a Finding of No Significant Impact (FONSI) or a notice of intent to prepare an environmental impact statement. NEPA requires an environmental analysis for any Federal action that may have a significant impact on the human environment.

1.2. Proposed Action

OPRD proposes to construct two rustic cabins where four camping spurs now exist on Reclamation-administered land at the Indian Creek Campground at LOSP. The project would be funded solely by OPRD and no Reclamation funding would be used for this project. Reclamation's action is to decide whether to accept, accept with changes, or deny OPRD's proposal.

Prior to construction, the four gravel camping spurs and existing underground water and electric lines associated with them would be removed. In addition, one small tree and three 8-foot-wide sections of gravel campground roads would be removed in preparation for construction (OPRD 2017).

The two cabins would be built in place with wood frame construction on a reinforced concrete foundation with footings and stem walls and buried perimeter drains. Each cabin would be 16 by 24 feet with a 6- by 16-foot front porch. The porch would be accessed by a 7-foot-wide accessible ramp with short block walls along its sides. A buried electrical power line would connect to the existing electrical panel and branch to each cabin. New buried water lines would be constructed from the existing potable water line to a water pedestal in a rock pad at each of the cabin's concrete picnic pads. Each picnic pad would have a table and grill.

Each cabin site would include accessible routes to the cabin's accessible concrete picnic and parking pads as well as to a new accessible compacted gravel route to the restroom. Concrete crossings would be constructed at the three locations where this route crosses the graveled interior

road of the campground. A block retaining wall would be constructed along a portion of this route to the restroom.

The route to the restroom would displace parking for four tent campsites, so four new graveled tent camping parking spaces would also be constructed in a previously disturbed area nearby. See Section 2.3.2 for construction details.

The proposed cabins would comply with Federal laws regarding the accessibility of facilities, including but not limited to the following, as amended or as may be amended during the term of this Agreement: Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, 87 Stat. 394, 29 U.S.C. 794); the Architectural Barriers Act of August 12, 1968 (P.L. 90-480, 82 Stat. 718, 42 U.S.C. 4151 et. Seq.); and the Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (ADAABAAG) of July 23, 2004 ("ADAABAAG 2004 Manual"), as supplemented by the Outdoor Developed Areas Final Rule (36 CFR Part 1191) dated September 26, 2013.

1.3. Purpose and Need for Action

Reclamation's purpose for this action is to respond to OPRD's request to construct and improve facilities at the Indian Creek Campground at LOSP. OPRD has been managing the LOSP since 1958 under a lease agreement with Reclamation.

The need for this action is to enhance overnight camping opportunities at the Indian Creek Campground. The two proposed cabins would create a camping opportunity for visitors who would otherwise not camp overnight at LOSP. Although the campground already has campsites that meet accessibility requirements for people with disabilities, most people who use wheelchairs and others with mobility impairments are not able to use RVs or trailers because the stairs are a barrier to them. Many people may not be willing or able to sleep on the ground in a tent. Others might enjoy RV or trailer camping, but cannot afford to own or rent one.

The proposed cabins would provide an additional opportunity for everyone to participate in a camping experience at Indian Creek. No other similar accessible camping opportunities exist at Lake Owyhee.

1.4. Location and Background

The Owyhee Project lies west of the Snake River in Malheur County, Oregon, (see Figure 1-1), and was authorized in 1926 for the sole purpose of irrigation. Ranked as the highest dam in the world when it was completed in 1932, Owyhee Dam extends 417 feet above the riverbed. The first irrigation water from Owyhee Reservoir was delivered in 1935, and the delivery system was completed in 1939. The water from the 1.12 million acre-foot reservoir is now also used for three private powerplants, flood protection, and recreation.

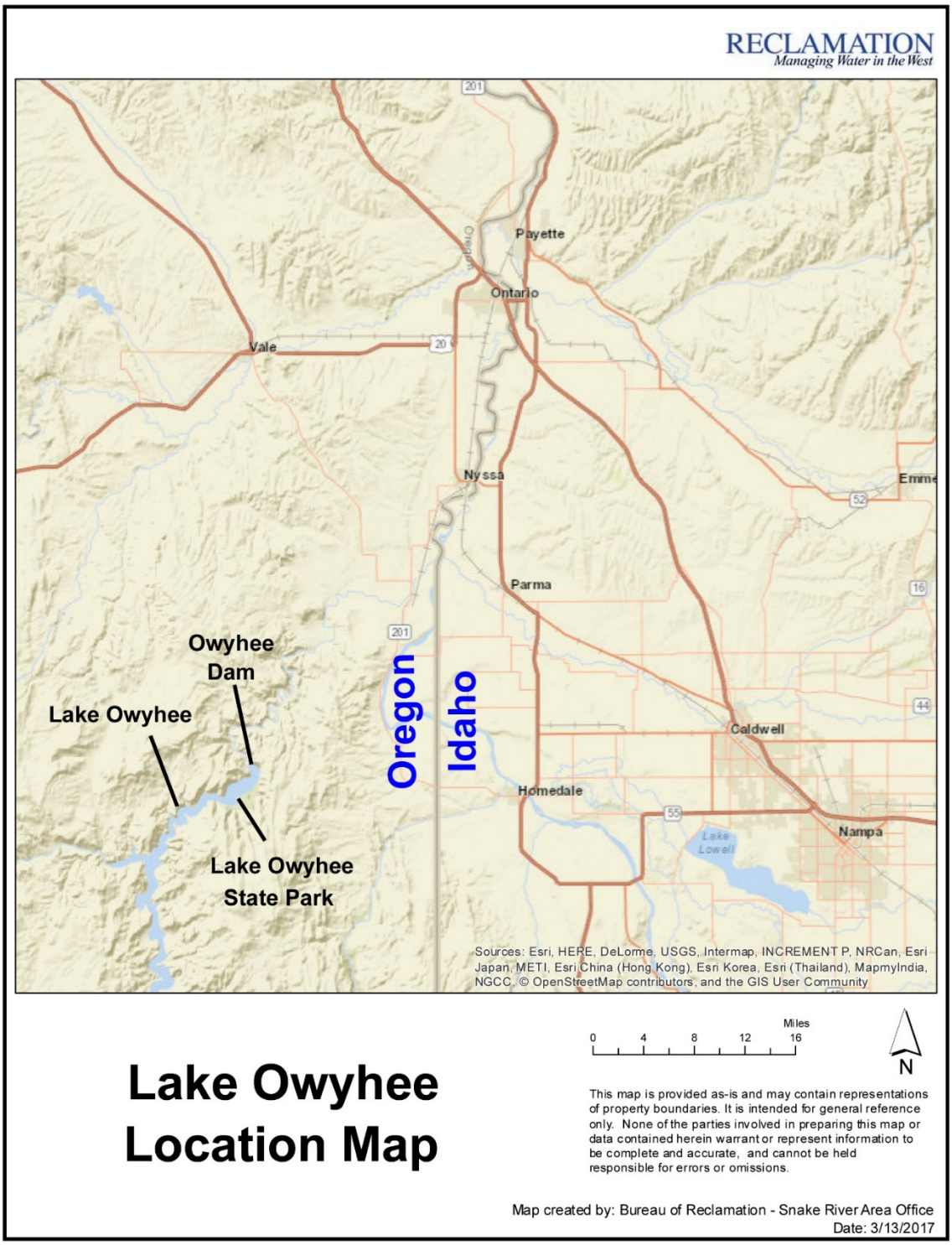


Figure 1-1. Lake Owyhee Location Map

Now called Lake Owyhee, recreational use of the reservoir increased as the population of the region increased. Eventually the road through the Lower Owyhee Canyon was extended beyond the dam to Indian Creek which is 4.5 miles above the dam on the east side of the reservoir.

The Indian Creek Campground site has been managed for camping and boating since 1954 when a 50-year lease agreement was initiated with Lake Owyhee Resort, Inc. The lease authorized the

concession to construct and maintain cabins, lodges, stores, and other recreational facilities. After Reclamation removed the resort in 1999, the site was added to the LOSP as the Indian Creek Campground and Boat Ramp. The State of Oregon had already developed McCormack Campground across the bay and the Gordon Gulch Day Use Area and Boat Ramp, farther north toward Owyhee Dam, under management agreements dating back to 1958. Recreational use area locations are presented in Figure 1-2.

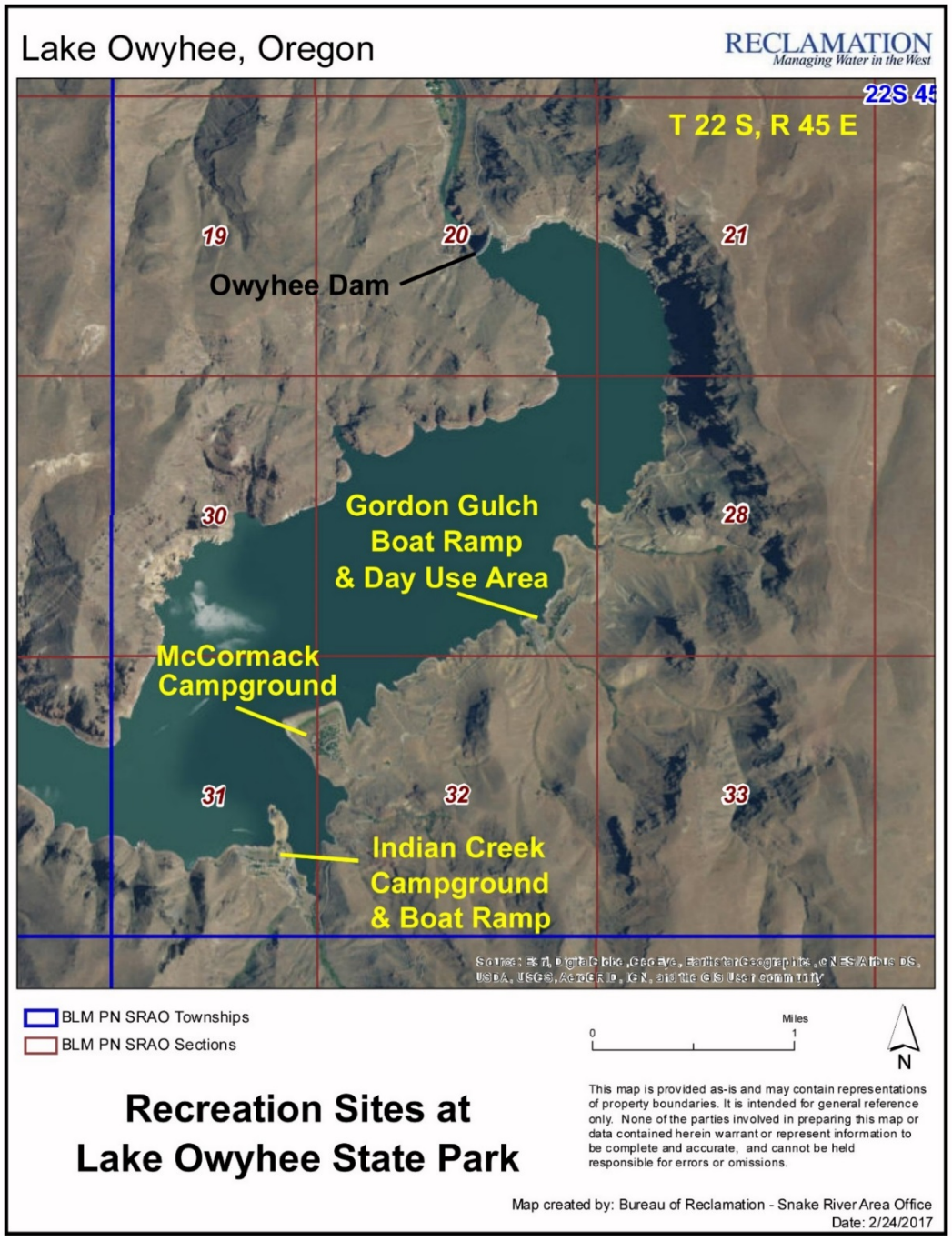


Figure 1-2. Location of Developed Recreation Sites at Lake Owyhee State Park

OPRD has made a substantial investment in the Indian Creek Campground by improving more than 25 RV sites with water and electrical hookups (of which two and the camp host site meet accessibility requirements); five tent sites; turf between campsites; four vault toilets; marine fuel sales; and a small convenience store. OPRD also recently reconstructed the boat ramp and boat ramp parking area, and installed a large fish cleaning station with a septic system at the Indian Creek Campground. Many of these improvements have been accomplished using Reclamation cost-share funding.

The two teepees at nearby McCormack Campground have proven to be problematic for maintenance and have had the occasional presence of snakes and rodents. They are also unsuited to the niche of visitors who neither have nor want to bring all the equipment necessary to camp in a tent or teepee. Use of the cabins would be less weather dependent than the teepees, so they are expected to have more stable occupancy rates than the teepees. For these reasons, OPRD plans to stop offering teepee rentals at the park. The proposed cabins at the Indian Creek Campground are expected to provide a more desirable alternative to traditional camping in RVs, trailers, and tents than the teepees. Similar cabins at other units of Oregon State Parks have been quite popular with visitors.

1.5. Legal Authority

The United States constructed Owyhee Dam and Reservoir, in Malheur County, Oregon, under the provisions of section 4 of the Act of June 25, 1910 (36 Stat. 836) and subsection B of section 4 of the Act of December 5, 1924 (43 Stat. 702), primarily for irrigation purposes.

Under the authority of Public Law 89-72, the Secretary of the Interior is authorized to arrange for the operation and maintenance of recreation facilities by a non-Federal public entity.

1.6. Regulatory Compliance

Various laws, executive orders (EOs), and secretarial orders apply to the Proposed Action and are summarized below.

1.6.1. National Environmental Policy Act (1970)

NEPA requires that the action agency determine whether there are any environmental impacts associated with proposed Federal actions. If there are no significant environmental impacts, a FONSI can be signed to complete the NEPA compliance.

1.6.2. National Historic Preservation Act (1966)

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires that Federal agencies consider the effects that their projects have on properties eligible for or listed on the National Register of Historic Places (NRHP). The 36 Code of Federal Regulations (CFR) 800 provide procedures that Federal agencies must follow to comply with the NHPA. For any undertaking, Federal agencies must determine if there are properties of National Register quality in the project area, the effects of the project on those properties, and the appropriate mitigation for adverse effects. In making these determinations, Federal agencies are required to consult with the State Historic Preservation Office (SHPO), Native American Tribes with a traditional or culturally-

significant religious interest in the study area, the interested public, and in certain cases, the Advisory Council on Historic Preservation (ACHP).

1.6.3. Paleontological Resources Preservation Act (2009)

The Paleontological Resources Preservation Act (PRPA) became law when the Omnibus Public Land Management Act (OPLMA) was signed in 2009. The Act states that the Secretary of the Interior and the Secretary of Agriculture shall manage and protect paleontological resources on Federal land using scientific principles and expertise. Both Secretaries shall develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources in accordance with applicable agency laws, regulations, and policies. These plans shall emphasize interagency coordination and collaborative efforts with non-Federal partners, the scientific community, and the public, where possible.

1.6.4. Endangered Species Act (1973)

Section 7 of the Endangered Species Act (ESA) requires Federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries), as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species, or destroy or adversely modify their critical habitat. In accordance with Section 7 of the ESA, an agency must request information from the USFWS and the NOAA Fisheries about whether any threatened and endangered species occur within or near the action area. The agency must then evaluate impacts to those species.

1.6.5. Executive Order 13007 Indian Sacred Sites

EO 13007, dated May 24, 1996, instructs Federal agencies to promote accommodation of access to and protect the physical integrity of American Indian sacred sites. A sacred site is a specific, discrete, and narrowly delineated location on Federal land. An Indian Tribe or an Indian individual determined to be an appropriately authoritative representative of an Indian religion must identify a site as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion. However, this is provided that the Tribe or authoritative representative has informed the agency of the existence of such a site.

1.6.6. Secretarial Order 3175: Department Responsibilities for Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States (with the Secretary of the Interior acting as trustee) for Indian Tribes or Indian individuals. Examples of ITAs are lands, minerals, hunting and fishing rights, and water rights. In many cases, ITAs are on-reservation; however, they may also be found off-reservation.

The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes or Indian individuals by treaties, statutes, and EOs. These rights are sometimes further interpreted through court decisions and regulations. This trust responsibility requires that officials from Federal agencies, including Reclamation, take all actions reasonably necessary to protect ITAs when administering programs under their control.

1.6.7. Executive Order 12898 Environmental Justice

EO 12898, dated February 11, 1994, instructs Federal agencies, to the greatest extent practicable and permitted by law, to make achieving environmental justice part of its mission by addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority populations and low income populations. Environmental justice means the fair treatment of people of all races, income, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative environmental impacts resulting from the execution of Federal agency programs, policies, and activities.

1.7. Scoping of Issues and Concerns

Scoping is an early and open process used to obtain information that helps identify issues and concerns related to a Proposed Action, the affected public and geographical area, alternatives, and constraints in the NEPA process. Internal scoping with Reclamation personnel occurred in March 2017.

Chapter 2 ALTERNATIVES

2.1. Introduction

This chapter describes the alternatives analyzed in this EA, the No Action alternative and the Proposed Action alternative.

2.2. Alternative Development

The alternatives presented in this chapter were determined by the scope of analysis. The scope of the project was defined by the purpose and need for the project, as described in Chapter 1, and the issues developed during internal scoping. Using this information, the range of developed alternatives include a No Action alternative and the proposal to permit construct two rustic cabins in place of four camping spurs at the Indian Creek Campground.

2.3. Description of Alternatives

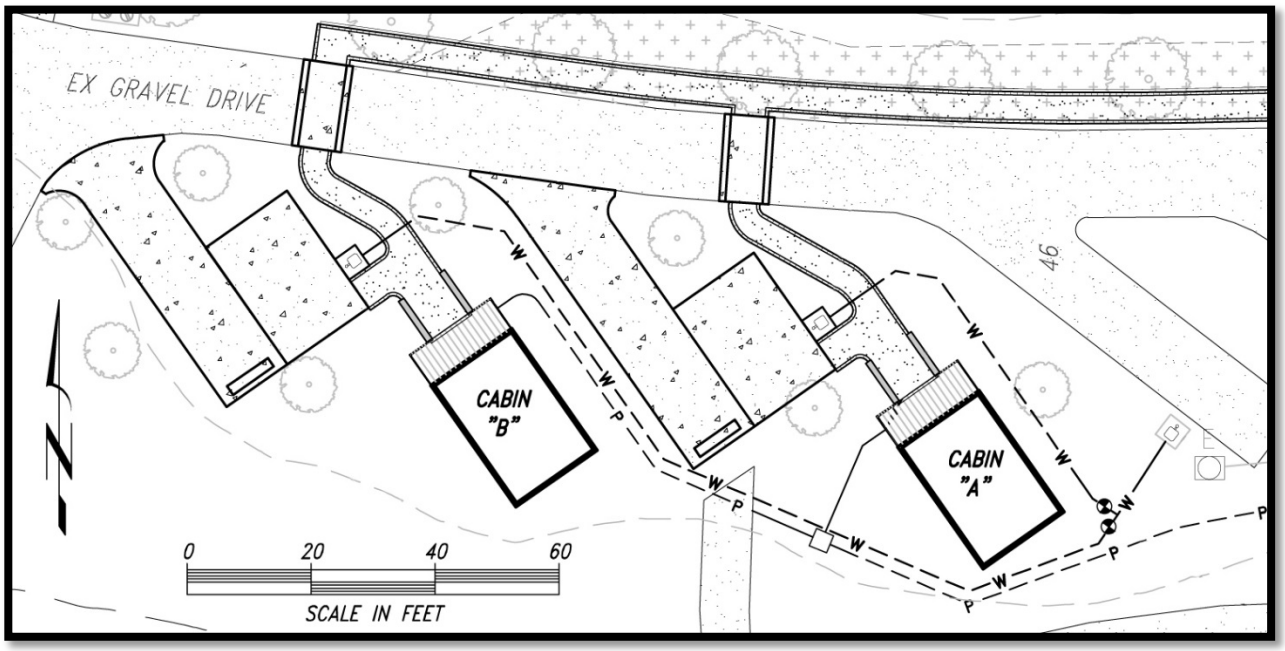
2.3.1. Alternative A—No Action

Under the No Action alternative, the proposed construction of two rustic cabins in place of four camping spurs at the Indian Creek Campground would not occur. OPRD would continue to manage the Indian Creek Campground at LOSP as it has been operated in the past. Only RV, trailer, or tent camping facilities would be available in the campground. See Figure 2-1 for a view of the existing site.

Figure 2-1. Existing camping spurs where proposed cabins would be constructed.

2.3.2. Alternative B—Proposed Action

OPRD proposes to construct two accessible rustic cabins where four non-accessible camping spurs now exist at the Indian Creek Campground (see Figure 2-2). The two cabins would be of wood frame construction on a reinforced concrete foundation with footings and stem walls. Each cabin would be 16 feet by 24 feet with a 6-foot front porch accessed by an accessible ramp. Each would be insulated and have a metal roof (see Figure 2-3)



*OPRD, 2017.

Figure 2-2. Proposed Cabin Site Plan

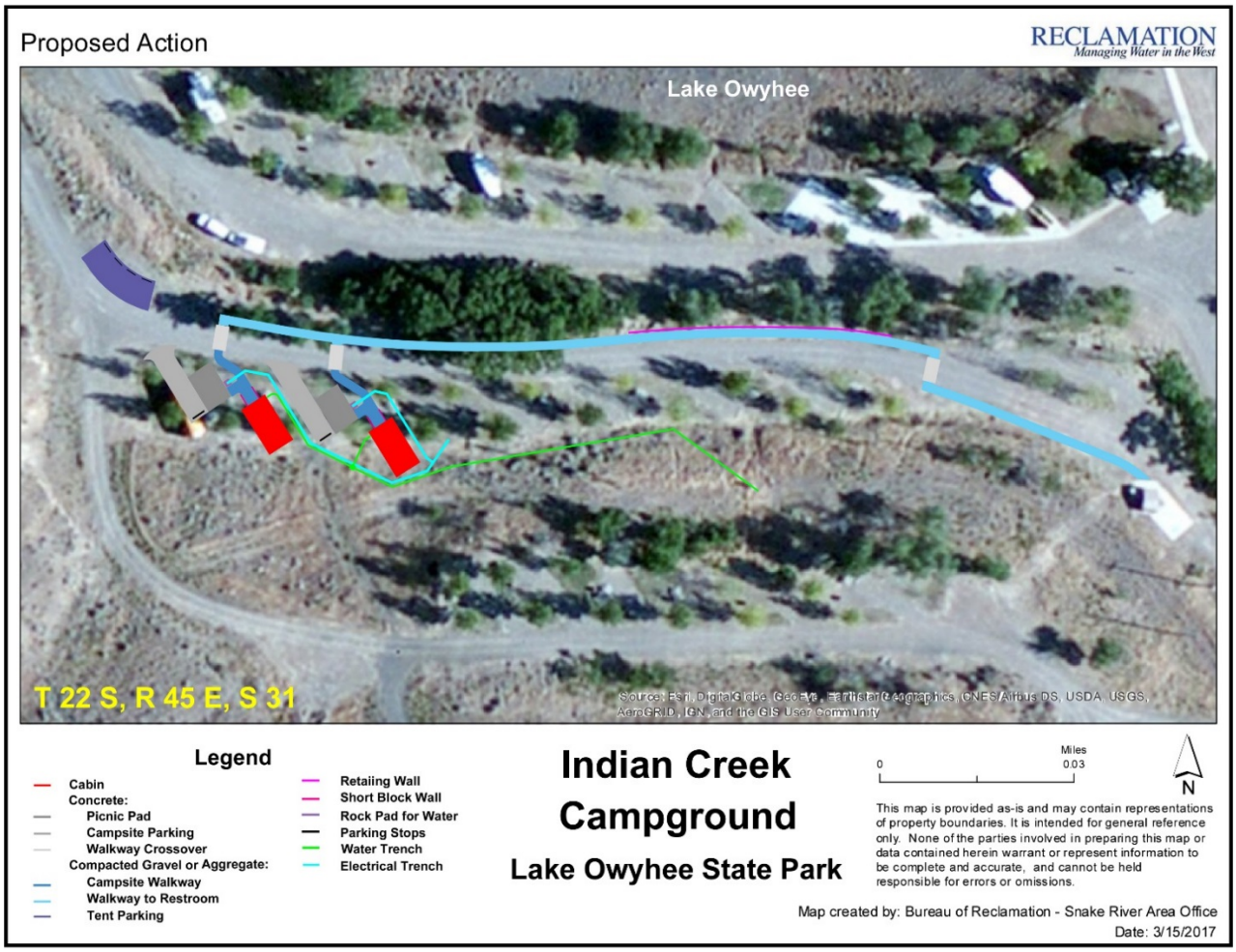
*OPRD Photo, 2017

Figure 2-3. Cabins similar to this one would be built at the Indian Creek Campground, but they would have accessible ramps at their fronts, rather than stairs, leading to the other campsite amenities.

While electricity would be available for lights, fans, air conditioning, and outlets inside the cabins, there would be no plumbing in the cabins. Potable water would be available from a water pedestal at the picnic pad outside. Sanitary needs would be provided by a vault toilet at the east end of the row of campsites.

Each cabin site would include an accessible picnic pad with a table; fire ring; water pedestal; an accessible parking area; and a compacted gravel pathway to the parking area, picnic pad, and vault toilet.

Since the pathway to the vault toilet would take the place of parking in the tent sites, four compacted gravel tent site parking spaces would be constructed west of the tent sites that lie across from the cabins. The portions of the pathway to the vault toilet that cross the campground's gravel road would be concrete in order to maintain an accessible surface. See Figure 2-4 for proposed cabin site layout and associated improvements.



*Interpolation of OPRD, 2017, Construction Drawings

Figure 2-4. Approximate location of proposed improvements at Indian Creek Campground.

Construction

Construction of the two cabins would consist of the following actions in the location now covered by Campsites 47 through 50 of Indian Creek Campground (see Figure 2-4):

1) Remove these existing features:
    a. Four water pedestals and associated 160-foot underground water line
    b. Four electrical pedestals and associated 160-foot underground power line
    c. One small tree
    d. Three 8-foot-wide sections of graveled roadway
    e. Four graveled camping parking spurs
2) Construct the following surfacing conditions within the boundaries of the four existing camping spurs:
    a. Two accessible concrete picnic pads 4 to 6 inches thick
    b. Two accessible concrete parking pads 6 inches thick
    c. Two concrete parking pads
    d. One 40-foot and one 30-foot accessible compacted aggregate walkway
    e. Two 8-foot-long, short block walls adjacent to the sides of the ramp into each cabin

3) Construct the following surfacing conditions outside the boundaries of the four existing camping spurs:
    a. Three 8-foot-wide concrete accessible crossings
    b. Four 10- by 18-foot tent camping parking spaces
    c. 560 feet of 4-foot-wide accessible walkway from cabins to restroom
    d. 160 feet retaining wall adjacent to a portion of said accessible pathway

Conformance with Land-Use Plan

The Proposed Alternative is in conformance with the 1994 Owyhee Reservoir Resource Management Plan (RMP) excerpted below.

Recreation Objectives in the RMP include:

1) Identify, designate, and manage an appropriate range of recreation sites including: 1) day and overnight; and 2) developed and undeveloped.
2) Provide an appropriate variety and/or level of recreational opportunities (including secluded and primitive), locations (both on the river and reservoir), facility development, and opportunities accessible to the physically challenged.
3) Complement existing recreational uses (fishing, hunting, camping, hiking, and sightseeing) by providing developed and undeveloped sites.
4) Provide for a continuation of the facilities and services offered at LOSP.

Recreation Management Guidelines in the RMP include:

1) Designate a system of environmentally suitable areas for overnight use and promote camping in those areas.
2) Design campsites and other recreation facilities for access and use by the physically challenged whenever possible.

Plan Implementation guidelines include:

1) Support efforts to upgrade facilities at Lake Owyhee Resort (now Indian Creek Campground).
2) Harden all high use campgrounds and day use sites with gravel or asphalt.

The project area is previously disturbed and within an established campground. All Best Management Practices would be applied including care to avoid dispersing noxious weeds, reseeding the disturbed areas with grass/forbs comparable to the grasses/forbs existing within the campground.

Operations and Maintenance

OPRD manages and maintains the existing facilities within the LOSP and would maintain all new facilities created by this project. Maintenance activities associated with this project would consist of litter pickup; cabin cleaning and repairs; weed management; cleaning out fire rings; keeping accessible walkways and maneuvering spaces maintained and free of debris and obstructions; turf and tree maintenance; repair of the retaining wall; and seasonal winterizing/opening for use.

2.4. Alternatives Eliminated from Consideration

No other alternatives are proposed or considered at this time.

Chapter 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1. Introduction

The Affected Environment Chapter evaluates the environmental consequences of implementing each of the alternatives described in Chapter 2. The level and depth of the environmental analysis corresponds to the context and intensity of the impacts anticipated for each environmental component. Where the alternatives would have the same impacts on an environmental component, the analysis is presented once and summarized or referenced in subsequent analyses to eliminate redundancy. The No Action alternative describes current conditions and provides the basis to which the proposed alternative is compared.

Discussions are arranged by resources in the following order:

- Recreation
- Threatened and Endangered Species
- Cultural Resources
- Indian Trust Assets and Sacred Sites
- Socioeconomics
- Environmental Justice
- Paleontological Resources
- Cumulative Effects

The following resources are not significantly affected by the alternatives and are not discussed in detail in this EA:

- Air Quality
- Soils
- Hydrology
- Aquatic and Terrestrial Biota
- Prime and Unique Farmlands
- Climate Change

3.2. Recreation

3.2.1 Affected Environment

Lake Owyhee is located approximately 20 miles southwest of Nyssa, Oregon, on Owyhee Lake Road in northeastern Malheur County, Oregon. Below the dam, in Lower Owyhee Canyon, Owyhee Lake Road is paved but in need of maintenance and improvements such as defined parking pullouts and information kiosks. Fishermen often park beside the road, creating hazards for passing vehicles, particularly those pulling trailers. Improvements to the road are limited by Bureau of Land Management's (BLM) Owyhee Below Dam Area of Critical Environmental Concern (ACEC) land use designation that restricts development.

Wade fishing and primitive dispersed camping are quite popular on BLM public lands in Lower Owyhee Canyon below the dam. This stretch of river has good-sized brown trout (catch and release only) and rainbow trout, both of which make for very good seasonal fly fishing. While locals (defined as being from 30 miles away or less) from nearby towns in Oregon such as Adrian, Nyssa, and Ontario, frequently fish the river, the majority of fishermen along this river stretch come from the metropolitan areas 45 to 75 road miles to the east between Caldwell and Boise, Idaho.

Owyhee Lake Road narrows as it approaches Owyhee Dam, and remains narrow and winding with nearly vertical cliffs above and below the road after passing the dam. Malheur County maintains the road, which is often littered with rockfall after storms. Some visitors express discontent that the road has not been widened to make it safer for those pulling trailers, but the terrain makes potential improvements extremely difficult as well as expensive.

Lake Owyhee, tucked in a long, remote and rugged canyon, offers excellent fishing and boating as well as waterfowl and upland game bird hunting, although access is limited without a boat. Wildlife viewers may see a variety of species, such as golden eagles, pelicans, cormorants, and bighorn sheep. Surrounded by spectacular rock formations, the 53-mile-long reservoir has 150 miles of shoreline allowing boaters ample room to find solitude (OPRD 2017).

Within the 5 miles at the northeast end of the reservoir, along Owyhee Lake Road, OPRD manages two developed campgrounds, two boat ramps, and a wooded day use area in the 1,090-acre LOSP. OPRD entered into a Reclamation lease for development and management of the park in 1958. In the past 20 years, OPRD has worked with Reclamation to make the recreation sites accessible to people with disabilities.

Gordon Gulch Day Use Area, in the park approximately 2.5 miles upstream of the dam, offers two accessible roadside picnic sites, several dispersed picnic sites on irrigated turf, a vault toilet, a large paved parking area and trash collection in one of the few wooded settings around the reservoir. Adjacent to the day use area is Gordon Gulch Boat Ramp with a dock and vault toilet, parking for over 50 vehicles with trailers, and four single vehicle spaces.

McCormack Campground, a mile farther up the road, has 29 RV sites with electrical pedestals and water, 8 tent sites with water, 2 teepees, paved interior roads, an RV dump station and restrooms with flush toilets and showers. As the oldest of the LOSP campgrounds, McCormack has mature shade trees and irrigated turf that provide an oasis in an arid region.

Indian Creek Campground and Boat Ramp are at the end of Owyhee Lake Road, another mile past McCormack Campground. The boat ramp was recently reconstructed to provide better traffic flow and easier boat launching. It now has about 28 spaces for vehicles with trailers and 12 spaces for single vehicles, as well as a graveled overflow parking area, a fish cleaning station and a vault toilet. Marine fuel and ice are available at a small OPRD store near the ramp.

Indian Creek Campground has 25 RV sites with electric and water hookups and 5 tent sites. OPRD began directly managing Indian Creek long after McCormack was developed, so the trees are much younger and do not provide a significant amount of shade yet. Also, the turf is not as robust as McCormack's turf. Indian Creek Campground's interior roads and camping spurs are graveled and not paved. There are only vault toilets.

Visitor Use

OPRD published Terry Bergerson and Jennifer Johnson's "Visitor Survey of Day Use and

Overnight Visitors at Lake Owyhee State Park Final Report" in 2016. Objectives of the survey were to describe day and overnight user activities; demographic characteristics and opinions about conditions and management at the park; and provide recommendations for maintaining or improving conditions at the park. Although the report did not specify which of the recreation sites visitors were commenting on in their responses to the survey, the report provides relevant insights to visitor opinions of the park in general.

Of 516 responses, 274 were from campers (overnight users) with a 51 percent response rate, and 242 from day users with a 73 percent response rate. Campers who made reservations for their campsites online were surveyed online after their visits. Day users were approached and intercepted at the park. The survey concluded that campers represent 4 percent of the average visitation for the 2013 through 2015 use seasons (see Table 3-1).

Table 3-1. Lake Owyhee State Park Estimated Visitation 2013 Through 2015

Year	2013	2014	2015
Day Users	151,636	113,830	113,806
Overnight Users	6,366	5,861	5,313

*Bergerson, 2016

While 34 percent of day users and 42 percent of campers reported that they had not visited the park before, a surprising number of those who had been to the park before had made numerous visits to the park during the previous year (see Table 3-2).

Table 3-2. Percentage of Visitors Who Made Repeat Visits to the Park During the Previous Year

Previous Visits During the Past Year	Day Users (%)	Overnight Users (%)
0 Visits	13	12
1 Visit	18	47
2 Visits	15	15
3 to 5 Visits	32	20
6 to 12 Visits	14	5
13 to 24 Visits	4	1
Over 24 Visits	4	0

*Bergerson, 2016

Sociodemographic characteristics of the visitors varied between day users and campers. The average day user was 42 years old, while the average camper was 53 years old. 52 percent of the visitors were male and 48 percent female, mostly from Oregon and Idaho, for both day users and campers. Most survey respondents were white (76 percent) or Hispanic/Latino (18 percent). There were more Hispanic day users (18 percent) than campers (1 percent). Average LOSP visitors are wealthier than the average Oregonian ($54,148 median annual household income). LOSP day users averaged $54,600 and campers averaged $81,200. Nineteen percent of users stated at least one person in their party had a disability, by far most often associated with walking. Some of the survey

respondents did request cabins be added, perhaps because of the walking impairments. Identified in Table 3-3, day users and campers differed in their preferred activities at LOSP.

Table 3-3. Visitor Activity Preference and Participation at LOSP.

Activity	Day Users (%)		Overnight Users (%)	
	Did at LOSP on most recent visit	Visitor's Favorite Activity	Did at LOSP on most recent visit	Visitor's Favorite Activity
Picnicking/Barbequing	66	19	35	0
Swimming/Wading	63	24	45	4
Sightseeing	60	13	38	1
Hiking/Walking	45	4	48	3
Fishing	42	18	55	34
Boating	34	12	54	16
Photography	30	<1	25	0
Wildlife Viewing	21	<1	22	1
Dog Walking	18	<1	22	1
Water Skiing/Wake Boarding	13	2	20	6
Running/Jogging	6	<1	3	0
Bicycling Locally	2	0	6	0

*Bergerson, 2016

The survey found that day users spent an average of 5 hours in the park, while campers averaged just over 3 nights per visit. Group size averaged 7.1 for day users and 5.26 for campers. Only 13 percent of day users and 12 percent of campers had not visited the park prior to the visit for which they were surveyed.

Visitors reported that the outstanding features of the park include activities on the reservoir, the surrounding landscape and scenic beauty, the fishing, the water itself, the remote location and the camping and relaxing experience the park offers. Primary benefits of visiting the park were the same for day users and campers. Most visitors acknowledged that visitation benefits included stress reduction, anxiety reduction and improvement of mental health.

The survey concluded that 28 percent of day users and 46 percent of campers felt crowded at the park. For campers, these results are considered "low normal," meaning problems with crowding are unlikely to exist. This could be attributed to the close proximity of other campers. For day users, these results are considered "suppressed crowding," where crowding is likely limited by management, situational factors or natural factors, such as the terrain restricting the visitors' ability to disperse more effectively.

A large percentage of overnight visitors traveled over 250 miles to camp (see Table 3-4).

Table 3-4. Distance Traveled by Visitors to LOSP

Distance Traveled to LOSP	Day Users (%)	Overnight Users (%)
30 miles or less (locals)	11	1
31 to 60 miles	57	11
61 to 90 miles	17	18
91 to 120 miles	3	5
121 to 150 miles	1	4
151 to 250 miles	1	9
251 to 500 miles	6	43
501 miles or more	5	9

*Bergerson, 2016

Both day users and campers contribute money to the local economy, although for non-locals, 17 percent of day user money spent and 36 percent of camper money spent was used on park entry, parking, or recreation user fees that do not contribute directly to the local economy. Most users reported spending some money on gasoline and oil (87 percent) and groceries (72 percent). See Table 3-5 for dollars spent locally by local and non-local visitors.

Table 3-5. Dollars Spent Locally by Groups per Trip

Local Spending by Groups per Trip to LOSP	Local Groups		Non-local Groups	
	Day Users (%)	Overnight Users (%)	Day Users (%)	Overnight Users (%)
Spent no money	0	-	5	1
$1 - $25	6	-	11	1
$26 - $50	12	-	15	4
$51 - $150	59	-	40	27
$151 - $350	18	-	21	37
$351 - $550	6	-	4	17
$551 - $1,000	0	-	4	13

*Bergerson, 2016

Visual resources in proximity to the campground are outstanding. The scenery is characterized by steep, rocky slopes. Deep ravines, tall buttes, and fragmented canyons are broken into spires and intricately eroded walls. Soils are colorful, ranging from light brown to bright orange-brown. Vegetation varies the view in some areas with a mosaic of open sagebrush, bunch grasses, and other high desert species typical of the region. Scenic views of the northwestern cliffs above the reservoir are available from several turnouts along Owyhee Lake Road.

Other than the dam, siphon, LOSP, the development associated with the irrigation intake structures, and the powerplant along the northeastern-most 4.5 miles of shoreline following Owyhee Lake Road, one would have to travel at least 7 miles by boat to find any significant human impacts visible from the water at the reservoir. In combination with extremely rugged terrain, BLM land

management ACECs designation adjacent to the reservoir are effective at limiting human impacts in the area.

3.2.2 Environmental Consequences

3.2.2.1 Alternative A—No Action

Management of LOSP would continue and recreation opportunities and experiences at LOSP and Malheur County would remain unchanged.

3.2.2.2 Alternative B—Proposed Action

Using an example from a nearby area to forecast potential occupancy of the proposed cabins, the Unity Lake State Recreation Area has cabins comparable to those proposed for Indian Creek that are quite popular, with an overall occupancy rate of 75 to 80 percent (personal communication with Jim Hutton, OPRD, March 14, 2017). RV site use at Unity is heaviest in the spring when the fishing is best, and drops off as the reservoir level goes down and fishing success declines. Cabin use remains popular after the water level goes down because the visitors seek an experience that does not include fishing.

Bergerson reported an average of 5.26 campers per group. Based on this, the two cabins would theoretically average 10.5 campers per night when both are occupied. Conversely, the four RV sites currently in place would average 21 campers per night when all four are occupied. Therefore, converting the four RV sites to two cabin sites would effectively reduce campground capacity.

Occupancy rates in the four RV spaces where the cabins would be constructed was 12 percent in 2015 and 28 percent in 2016 (a better water year for the reservoir, and hence a better boating and fishing year). The teepees at McCormack Campground had 38 percent and 50 percent occupancy rates in 2015 and 2016, respectively. Since the cabins are expected to be more desirable than the teepees, OPRD anticipates that cabin occupancy rates would be comparable to those of the cabins at Unity (75–80%).

Using the occupancy rates of a good water year, a camping season 200 days long and an average group size of 5.25 campers per RV, the four RV sites that would be replaced would theoretically provide 1,176 nights of camping in a season (21 campers x 200 nights x 0.28 occupancy).

Using a 75 percent cabin occupancy rate and the same variables otherwise, the two cabins would provide 1,575 nights of camping in a season (10.5 campers x 200 nights x 0.75 occupancy). The cabins would therefore theoretically provide 399 more nights of camping (34 percent more) in a season than the RV spaces despite reducing campground capacity.

Short and long-term effects to recreation would likely result in an increase in LOSP visitation because the cabins would provide a new camping opportunity to roughly 400 people who would otherwise be unlikely to stay at the park overnight. It's also possible that some visitors might use the cabins to avoid making the long drive to and from their residences twice in one day, although Bergerson did not include this question in the survey. For fishermen, this would allow them to fish during the most productive fishing hours.

An increase in visitation would have a small effect on management of the park. It would result in greater volumes being pumped from the vault toilets; more potable water from the well being consumed; more time spent by park staff cleaning the cabins than they would have spent cleaning

the RV campsites; and a probable increase in sales at the small store run by the OPRD at the site. OPRD Park operations would be able to accommodate these changes.

Increased visitation would also result in more traffic on the road and potentially more congestion at the boat ramp because 55 percent of campers that responded to OPRD's 2016 survey said they boated while camping at the park. Average camper group size would potentially change because some groups that boat as well as camp would no longer need to bring both an RV or trailer and a boat (using two motorized vehicles and drivers). They could use one vehicle pulling a boat and stay in a cabin instead of bringing a second vehicle (an RV or pulled a trailer), so it would likely be easier to plan a camping/boating trip to the park. If it was easier to plan a trip, visitors would potentially camp more frequently at the site.

Four RV spurs would be removed from the campground, thereby reducing the potential for spills or leakage of RV effluents in the campground. Campers using the cabins for a three-day visit to the park would be expected to drive far fewer miles than if they were visiting the park for those same three days but staying at the closest motel which is 38 miles away. Thus the cabins would likely reduce environmental degradation at the park in minor ways.

The cabins would have very little visual effect because topography and vegetation in the campground would screen them from view from key observation points such as the reservoir, McCormack Campground, and the boat ramp area. The wooden cabins would have brown metal roofs and the concrete picnic and parking pads would be stained brown to help reduce their visual impact. The retaining wall coloration and texture would also blend well with the surrounding environment including adjacent features such as the interior campground roads and contours that mirror its linear configuration.

Recreation opportunities at LOSP would be beneficially diversified by providing new camping facilities that serve a greater range of visitors, including those with mobility impairments.

Visitor experience effects in the rest of the park associated with an increase in camping visitation due to the addition of the cabins would include a potential increase in both boat ramp use and participation in recreation activities above and below the dam.

The construction of the cabins would likely increase camping visitation and stabilize visitation levels later in the summer when boating is either less desirable or the water is too low to use the boat ramp. This would incrementally improve the seasonal distribution of cash flow in the park as well as in the local communities.

3.3. Threatened and Endangered Species

3.3.1 Affected Environment

Federal protection is afforded to those species listed or proposed as threatened or endangered by the USFWS under the ESA of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884). The USFWS website for Oregon identifies all listed, proposed, and candidate species for each county, as well as links to recent updates in respective species listing status and, where relevant, designation of Critical Habitat (USFWS 2015).

The yellow-billed cuckoo (Coccyzus americanus) is listed as a threatened species but not expected to occur at this site

(https://ecos.fws.gov/ipac/location/3RHS4TG5FVFL5B2EIF67TCRJTY/resources). Additionally, the USFWS Information for Planning and Conservation (IPaC) Trust Resource website on March 28, 2017, identified no critical habitats within the project area. See Appendix 1. The yellow-billed cuckoo may seasonally occur along the river corridor downstream of Owyhee Dam; however, the increased visitor traffic that could occur as a result of the Proposed Action is not expected to affect the bird or its habitat.

3.3.2 Environmental Consequences

3.3.2.1 Alternative A—No Action and Alternative B—Proposed Action

Under both Alternatives A and B, there would be no direct or indirect effects to threatened and/or endangered (T&E) species because no T&E species have been found in the project area. The existing environmental conditions would remain intact and would not be affected with current management or with construction of the proposed project.

3.4. Cultural Resources

3.4.1 Affected Environment

Prehistory

The province of the Owyhee Upland is contained within the Great Basin culture area. To date, the prehistoric era of the Great Basin culture area has been subdivided into defined culture periods by a host of anthropological researchers. As summarized by Jennings (1986:115) a chronological time sequence starting with the earliest and dated as years before the present (B.P.), includes the Pre-Archaic (before 10,000 B.P.), the Early Archaic (10,000–4,000 B.P.),the Middle Archaic (4,000–2,700 B.P.), and the Late Archaic (after 2,700 B.P.). Past archaeological investigations in the Fort Rock Basin, Alvord Basin, Dirty Shame Rockshelter, the broader Western Snake River Basin, and the Upper Snake and Salmon River areas have contributed to a fuller understanding of Great Basin prehistory, a time period which extends backward at least 12,000 years B.P.

Variation in the region's paleoenvironment has influenced much of the previous archaeological site interpretation and areal syntheses of the Great Basin. Long-term, as well as short-term, climatic change has certainly modified natural habitat and the resulting human adaptation to this environment. By Euro-American contact, the Owyhee River Country was occupied by Northern Paiute bands whose subsistence activities included fishing; root and seed gathering; and hunting. These Western Numic speakers followed a seasonal round which capitalized on changing food resource opportunities. According to Steward and Wheeler-Voegelin (1974:212-216), aboriginal populations along the Owyhee River were small at the beginning of the settlement period, after about 1860.

Northern Paiute bands may have only occupied the lands in present-day Oregon for circa 1,000 years B.P. (Pettigrew 1982:3, 4), and they were not equally dispersed within the interior "Oregon Country" at the time of Euro-American contact. Stewart (1938:404) identifies the Northern Paiute group that occupied the Owyhee River Region as the Tago, while Blyth (1938:404) names Northern Paiute inhabitants of the Owyhee River as the Tagu tika, the tuber or root-eaters (Lomatium sp.). As

illustrated by Fowler and Liljeblad (1986:437), the region containing the Owyhee River should probably be considered a joint-use area. Nearby aboriginal neighbors included other Northern Paiutes and Northern Shoshone peoples to the east of the Owyhee River. Northern Paiute and Shoshone groups both produced and utilized pottery, a tradition recognized today as "Paiute-Shoshone" ceramics.

History

Historic development in the vicinity of Lake Owyhee Reservoir paralleled development of other arid portions of the interior Pacific Northwest, especially that which characterized much of central and eastern Oregon, and southern Idaho. The earliest Euro-American sojourners into the area were engaged in the fur trade (Roper Wickstrom 1993:4-1). They, in turn, were followed by geographical surveyors and explorers (military and miscellaneous others), missionaries, and the region's earliest immigrants, circa 1825-1845. The latter represented an advance guard composed of miners and settlers. As immigration into Oregon Territory increased on the Oregon Trail after 1842 (Dicken and Dicken 1979:72), aboriginal land use was compromised by historical activities as diverse as mining, stock raising, farming, and town building. Indian wars would ultimately reduce Native American populations, and the creation of the reservation system further restricted native peoples' access to traditional use areas.

On those lands located adjacent to the Owyhee River and now flooded beneath Lake Owyhee Reservoir, late nineteenth-century homesteaders concentrated on ranching and farming. Due to the xeric nature of the region in general, incoming settlers developed those lands that could be most easily irrigated. Utilizing waterwheels and hand-dug irrigation ditches, Owyhee River ranchers and farmers cultivated pastures and alfalfa, the most common crop. Corn, grain, "sudon" grass, and fruit orchards were also cultivated (USBR 1924, 1925). Sheep, cows, and horses were the primary livestock. Agricultural acreage was normally situated on flats and benches, appearing as narrow, shoestring-like configurations that hugged the Owyhee River. Near the south end of the reservoir, the farming population was considered large enough that a post office was initiated at Watson in 1898 (Landis 1969:80).

Watson was a scattered community that included about 37 individuals in 1911 (W.A. Jefferies & Co. 1911:65), a post office, a cemetery, and a school district. In comparison to the larger town sites of Malheur County, Watson was one of "several post offices of less importance, to which mails are delivered at irregular intervals" (Anonymous 1902:553). Small as it was, Watson maintained a status as the most vital community center for surrounding agriculturists until U.S. government appraisers bought out local landowners prior to the completion of Owyhee Dam and rising reservoir waters inundated riverine homesteads and ranch properties (Landis 1969:80). The Watson Post Office was closed on March 6, 1936.

Throughout the West after 1900, additional settlement of the drier western lands and increased agricultural production followed in the wake of federally promoted and financed large-scale irrigation projects. Locally, reconnaissance along the Owyhee River was undertaken by the U.S. Reclamation Service (later renamed the U.S. Bureau of Reclamation) during 1903-1905 for the "Owyhee Project" (Whistler and Lewis 1916:161). The Owyhee Project was planned to water the vast level lands located above and away from the Owyhee River Canyon. A construction site for the Hole-in-the-Ground Dam was chosen in Section 20, T22S, R45E, at the location of the present day Owyhee Dam.

Dam building began in 1928, with construction completed in 1932 (Quivik and Slaton 1991:3). Reservoir filling was finalized in 1935, an event that made possible the future of many thousands of hitherto undeveloped acres. Additionally, the holding reservoir guaranteed a steady flow of water power for limited electrical power generation. While dam construction and reservoir impoundment greatly expanded the development potential in the local area, it did so at the expense of pioneer ranchers and farmers who had previously occupied riverine lands and were forced to relocate.

This pattern was duplicated throughout the West with the use of federal Reclamation dollars, as successful subsistence operations were bought, their improvements razed and/or removed, and the land then flooded. Yields from these earliest agricultural efforts were subsequently superseded by large commercial endeavors on newly reclaimed lands that were often located in distant settings. The availability of abundant irrigation water ultimately promoted the cultivation of many new cash crops. Reservoir water regulation and irrigation dispersal are overseen by the Owyhee Irrigation District which maintains an office in Nyssa, and live-in dam operators at Government Camp, an historic construction camp located immediately below Owyhee Dam.

Beyond it regional value to agricultural development and electrical power supplies, Lake Owyhee Reservoir is also significant as one of the area's most popular recreational destinations. The primary uses of irrigation, electrical production, and recreation have characterized the utilization of Lake Owyhee Reservoir from 1935 to the present day.

3.4.2 Environmental Consequences

3.4.2.1 Alternative A—No Action and Alternative B—Proposed Action

Previous cultural resource surveys and archaeological investigations in the proposed project area were reviewed and summarized by OPRD personnel. A number of studies have been accomplished in and near the current project area. In 1994–1995, Eastern Washington University (EWU) conducted a pedestrian survey on Reclamation administered lands located throughout the Lake Owyhee Reservoir (Luttrell 2000:4.9) including the current Indian Creek Campground Project area of potential effect (APE) as part of the EWU Lake Owyhee Resort survey parcel, identifying no cultural resources.

In 2011, the University of Oregon Museum of Natural and Cultural History inventoried the Indian Creek Campground Project, finding no cultural resources within what is now the current project APE (Knowles et al. 2011:11.1-11.22). The nearest site to the project area is 35ML01629, a historic refuse scatter containing fragmentary container glass, cans, and structural debris dating from the mid-1950s to the early 1960s. The site is likely associated with the former resort located to the northeast of the current project area. Site 35ML01629 is currently unevaluated for inclusion to the National Register of Historic Places, but will in no way be impacted by project activities.

In 2005, Reclamation monitored the installation of a new water pipeline and improvements to the well at the Indian Creek Campground (Leicht 2005). The project was located on the east side of the campground, just outside of the current project APE. Monitoring noted significant disturbance in the area from construction of various roads and other park improvements. No historic or pre-contact cultural materials were observed.

In 2012, the Confederated Tribes of the Umatilla Indian Reservation Cultural Resources Protection Program monitored the excavation of one soil test pit in May 2012, and an additional six soil test

pits in July of the same year located in the south central and eastern portion of the Indian Creek Campground (Miller 2012). The pits were located approximately 75 meters southeast of the current project APE and were excavated to a maximum depth of 1.5 meters. No historic or pre-contact cultural materials were observed.

In December 2015 and January 2016, the Burns Paiute Tribe Cultural and Heritage Department conducted archaeological monitoring in association with the Indian Creek Campground Launch Ramp Improvements Project (Teeman 2016). No historic or pre-contact cultural materials were identified during monitoring. Soils encountered during monitoring were described as primarily disturbed with no clear stratigraphy, much containing contemporary trash and debris.

Previous survey and monitoring described both campgrounds and the surrounding area as heavily disturbed from road, campground, and past site development. Proposed work within the Indian Creek Campground is located within previously developed areas of the campground, and project activities would not be impacting any pristine ground. Therefore, the proposed project has No Potential to Affect Historic Properties and no cultural resources would be affected under Alternatives A and B. If artifacts, skeletal materials, or other archeological or historical materials are discovered during project implementation, work in the immediate area of the discovery will cease and appropriate Reclamation authorities would be contacted for further instructions.

3.5. Indian Trust Assets and Sacred Sites

3.5.1 Affected Environment

ITAs are legal interests in property held in trust by the United States for Indian Tribes and individuals. The Secretary of the Interior, acting as trustee, holds many assets in trust for Indian Tribes and individuals. Examples of trust assets are lands, minerals, grazing, hunting, fishing, and water rights. While most ITAs are on-reservation, they may also be found off-reservation on Federally-managed unoccupied lands.

The United States has a responsibility to protect and maintain rights reserved by or granted to Indian Tribes and Indian individuals by treaties, statutes, and EOs. These are sometimes further interpreted through court decisions and regulations.

There is no information on any specific Indian sacred sites within any portion of the project area. However, because information about Indian sacred sites is not widely shared outside of traditional communities, the potential for their existence in any location exists and must be taken into consideration. Sacred sites can be various natural features and locations on the landscape that hold spiritual or religious significance to aboriginal Tribes, and may be in the form of various physical and natural features. Examples of such features include mountains, foothills, buttes, springs, lakes, rivers, and rock shelters, among others. Additionally, specific cultural sites may be regarded as sacred to Tribes, such as altars; vision question sites; water sources, springs, and headwaters; burial sites; historical places where significant events occurred; and others.

Federally-recognized Tribes are the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Shoshone-Paiute Tribes of the Duck Valley Reservation located on the Idaho/Nevada border, and the Burns Paiute near Burns, Oregon. These Tribes could have cultural and religious interests in the project area. These interests are protected under historic preservation laws, Native American Graves Protection and Repatriation Act (NAGPRA), and EO 13007—Indian Sacred Sites.

3.5.2 Environmental Consequences

3.5.2.1 Alternative A—No Action and Alternative B—Proposed Action

No known ITAs or sacred sites exist within the activity area. Under Alternatives A and B, based on its general knowledge of the area, Reclamation assumes that there would be no adverse effects to ITAs in the direct vicinity of the proposed project.

3.6. Socioeconomics

3.6.1 Affected Environment

Population

As presented in Table 3-6, Malheur County's population in recent years has declined (U.S. Census Bureau 2015).

Table 3-6. Demographics for Malheur County and the State of Oregon

Population Category	Malheur County	State of Oregon
2015 Vintage Year Total Population Estimate	30,380	4,028,977
Population, percent change – April 1, 2010, to July 1, 2015	-3.0%	5.2%
Persons under 5 years, percent	7.0%	5.7%
Persons under 18 years, percent	25.2%	21.4%
Persons 65 years and over, percent	16.0%	16.4%
Female persons, percent	45.5%	50.5%

* Information taken from U.S. Census Bureau: State and County QuickFacts for years 2010-2015 (U.S Census Bureau 2015)

Labor Force and Employment

In January and February of 2016, unemployment in Malheur County was 7 percent, which was a record low since 1990 (see Table 3-7). The average unemployment rate over the previous 26 years was 10.4 percent. Malheur County nonfarm employment typically is lowest in July, peaks in the fall, and recovers somewhat in the spring (Rich 2016).

Table 3-7. Malheur County Employment Status

Malheur County Labor Force & Industry Employment		
Labor Force Status (Household Data)		
	February 2016	**February 2015**
Civilian labor force	12,011	11,616
Unemployed	809	864
Unemployment rate	6.7	7.4
Unemployment rate (seasonally adjusted)	5.6	6.9
Employed	11,202	10,752
Nonfarm Payroll Employment (Establishment Data)		
Total nonfarm payroll employment	11,570	11,380
Total private	8,180	8,010
Mining, logging and construction	310	300
Manufacturing	920	800
Trade, transportation and utilities	2,890	2,920
Information	190	190
Financial activities	300	310
Professional and business services	430	430
Education and health services	1,740	1,630
Leisure and hospitality	1,060	1,110
Other services	340	320
Government	3,390	3,370
Federal government	210	200
State government	1,240	1,260
Local government	1,940	1,910

* https://www.qualityinfo.org/documents/10182/89830/Eastern+Oregon+Local+Labor+Trends?version=1.19

The private sector accounted for 90 percent of the job growth over the year, primarily in manufacturing and the educational and health services sectors.

There was a 55.3 percent growth rate in total government employment in Malheur County (1,283 jobs) between 1990 and 2000, attributed almost entirely to the State government's addition of the Snake River Correctional Institution. This facility accounted for roughly 70 percent of the State employees in the county. From 2001 to 2016, however, the public sector had an overall downward trend of 8 percent (Rich 2016).

There was growth between 1990 and 1999 in local government, when it grew by 20.7 percent. It then leveled out for about a decade before beginning a decline. In 2016, roughly 71 percent of local public sector employees were from school districts or Treasure Valley Community College. From 1990 to 2016, local government employment grew overall by 4.7 percent. In 2016, local government accounted for 54.6 percent of government employment, while the State government accounted for 38.6 percent. Local education made up 42 percent of the government jobs in the county, and the correctional institution accounted for roughly another 24 percent.

Federal Government employment also grew 4.7 percent between 1990 and 2016, adding only 10 jobs in the county.

Industry Employment and Wages

Average weekly wages in Malheur County in the 4th quarter of 2015 were $699 or less. The U.S. weekly average is $1,082 (BLS 2016). The most common jobs in the county are management, administration, farming/fishing, sales, and production. In 2015, the best (median) paid jobs in the county are in life/physical and social science disciplines with yearly incomes of $68,750 and health practitioners at $53,636 (Rich 2016).

3.6.2 Environmental Consequences

3.6.2.1 Alternative A—No Action

Under the No Action alternative, economic development as described in the Affected Environment section would continue to follow similar past patterns.

3.6.2.2 Alternative B—Proposed Action

The proposed project would have very small short-term direct and indirect effects on socioeconomics in Malheur County. If a local business wins the contract to construct the cabins, there would be a small increase in local commerce involving goods and services associated with this project for a brief period in the summer of 2017.

The campground would be operated as it has been in the past, except that instead of only cleaning campsites after visitors leave, the park staff would also have to clean the inside of the two cabins. The park would incur increased expenses for vault toilet pumping if visitation increased in response to the availability of cabins. The park's electric bill would potentially increase not only because cabin users could potentially use more electricity than RV or trailer users, but also because the electric pump at the well would have to pump more often to accommodate increased demand for potable water if visitation increased. These increases in park overhead would be offset by increased fee revenues associated with increased visitation.

Park revenues associated with the cabins would likely be greater than that of the four existing RV sites as discussed in Recreation 3.2.2, especially after water levels in the reservoir recede. The 34 percent increase in nights of camping visitors associated with the two cabins versus the four RV sites would not only increase camping fee income, but would also increase OPRD store and marine fuel sales as well as local merchant sales.

While the cost of renting a cabin is roughly twice that of an RV site with electric service and water, some visitors might prefer using a cabin. If these visitors did not need to pull or drive an RV, they might use a smaller vehicle with lesser emissions and fuel consumption to visit the park. While these visitors would be reducing impacts to the environment by not bringing a larger vehicle, they would also not be purchasing as much fuel from local merchants.

The revenue generated by park camping fees has little effect on the overall economic conditions in Malheur County because park fees go to the State's coffers, but any increase in visitation to the park would potentially increase fuel, grocery, camping supply, and other sales in nearby communities.

3.7. Environmental Justice

3.7.1 Affected Environment

EO 12898 (59 FR 7629) requires Federal agencies to achieve environmental justice by addressing disproportionately high and adverse human health and environmental effects on minority and low-income populations. To determine if environmental justice populations are present, the Federal agency examines the demographics of the affected area to determine if minority (including Native American) and/or low-income populations are present. If present, the agency must determine if implementation of the Proposed Action alternative would cause disproportionately high and adverse human health or environmental effects on the populations.

Table 3-8 summarizes the populations of Malheur County and the State of Oregon overall. Information contained in the 2010 Census of Population, vintage year 2015, was used to identify these populations (U.S. Census Bureau 2015).

Table 3-8. Racial Representation in Malheur County

Population Category	Malheur County	State of Oregon
2015 Total Population Estimate	30,380	4,028,977
White, percent (a)	92.2	87.6
Black or African American, percent	1.5	2.1
American Indian and Alaska Native, percent	2.1	1.8
Asian, percent	1.7	4.4
Native Hawaiian or Pacific Islander, percent	0.2	0.4
Two or More Races, percent	2.3	3.7
Hispanic or Latino, percent (b)	33.2	12.7
White alone, not Hispanic or Latino, percent	61.7	76.6

*U.S. Census Bureau. 2015

(a) Includes persons reporting only one race

(b) Hispanics may be of any race, so are also included in applicable race categories

By definition from the U.S. Office of Management and Budget, race and Hispanic or Latino origin are two separate categories. People who report themselves as Hispanic or Latino can be of any race. For example, Hispanics and Latinos who are white are counted in the total of white category, and Hispanics who are black or African American are counted in that category.

The majority of Malheur County residents identify themselves as white, which follows similar racial population percentages for the State of Oregon. However, Malheur County has a much larger Hispanic or Latino population compared to the State.

Low-income populations are identified by several socioeconomic characteristics. Specific characteristics used in this description of the existing environment, as categorized by the 2010 Census, vintage year 2015, are income (per capita income and median household income) and percentage of the population below poverty. Table 3-9 provides income and poverty information for Malheur County and the State of Oregon.

Table 3-9. Income and poverty levels in Malheur County and the State of Oregon

Geographic Area	Per Capita Income	Median Household Income	Population Below the Poverty Level
Malheur County	$16,867	$35,418	24.9%
State of Oregon	$27,684	$51,243	15.4%

*U.S. Census Bureau. 2015

U.S. Census Bureau data identify that residents of Malheur County have not only a lower per capita income and median household income compared to the State of Oregon, but Malheur County also has larger percentage of people who live below the poverty line than the State overall.

3.7.2 Environmental Consequences

3.7.2.1 Alternative A—No Action and Alternative B—Proposed Action

Under both Alternatives A and B, there would be no direct or indirect effects on minority and low-income populations due to limited project size and associated effects. The effects associated with either alternative would affect persons of all races and incomes in the same manner and would not result in any disproportionately high and adverse impacts on a particular population.

3.8. Paleontological Resources

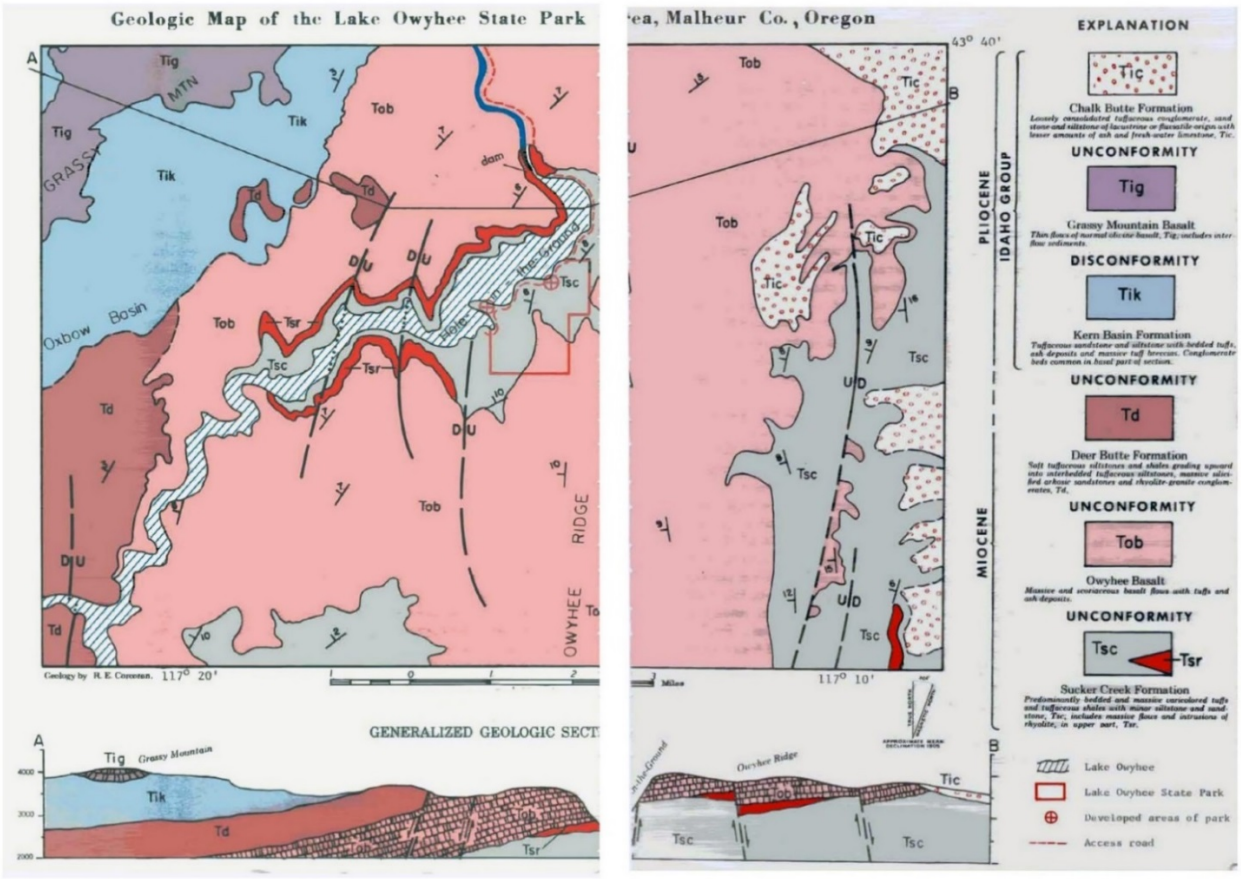
3.8.1. Affected Environment

The park is located in the "Owyhee Upland" physiographic province of southeastern Oregon. Owyhee Ridge, which runs north-south to the east of the park, reaches almost 5,000 feet in elevation, about 2,300 feet above the reservoir's full pool. The uplands have moderately to highly dissected surfaces with few perennial streams (Corcoran, R. E. 1965).

The present climate is typical of high desert which is characterized by a wide range of daily temperatures, little precipitation, cloudless skies, hot and dry summers, and moderately cold winters with some rain and snow.

The river has cut a deep canyon, with high relief in the park area, presenting an excellent surface exposure of the geologic stratigraphy. Each of the formations exposed represents disposition within a separate basin and contains fossil fauna and flora representing different ages, environments, and ecosystems.

The oldest sediment now exposed in proximity to the proposed project is from the late Tertiary period (upper Miocene, 16 million years ago). These Miocene strata have been tilted, while Pliocene strata are only slightly disturbed in the area. See Figure 3-2 for a map of strata.



*Corcoran, R. E. 1965.

Figure 3-1. Geologic Strata of Lake Owyhee State Park Area

McCormack Campground sits on the sediments of the Sucker Creek Formation from the upper Miocene age. This formation overlays the Owyhee Basalt and is also exposed near the dam, but the reservoir now covers most of it. The formation is also exposed 8 miles southeast of the park in a Sucker Creek canyon where it cuts through resistant volcanic tuffs. Thunder eggs, agates, and fossils have been found in this canyon. Fossilized leaves and bones found in the Sucker Creek Formation indicate a warm to cool climate with over 20 inches of annual rainfall supporting an upland forest dominated by oaks and lakes or swamps in the lowlands. Ancestral fauna, including horses, deer, camels, and pronghorn indicate there were also extensive grasslands. Beaver were common in the swampy lowlands. Elephant and rhinoceros remains are also present.

Flows and intrusions of rhyolite occurred later, and are exposed along the eastern scarp of Owyhee Ridge, east of the dam as well as along the sides of the canyon in the reservoir area. The rhyolitic activity was interspersed with periods of erosion and sedimentation, as well as a lowering of the base level or general uplift of the area. Ultimately erosion produced a rugged relief.

Great thicknesses of the Owyhee Basalt flowed into the eroded relief of the Sucker Creek Formation, creating a comparatively featureless volcanic plateau that was several thousand feet thick in some areas. Much of this volcanic surface was eroded away, but it crops out in the vicinity of the park and on down to the lower end of the river canyon. These flows form a large part of Owyhee Ridge, east of the park. In areas of thinner basalt flows, later upwarp and erosion occurred

that stripped away the entire volcanic layer in places. This allowed a fairly rugged surface to develop in the underlying Sucker Creek Formation.

The Deer Butte Formation was formed by a series of depositional periods with lava flows interspersed in the late Miocene epoch. This formation is not exposed in proximity to the park, but can be accessed by boat several miles to the southwest along Dry Creek. The fine-grain sediments in the lower part of the formation are known to contain well-preserved fossils of leaves and fresh-water snails, as well as calcite veins. Vertebrate remains indicate that the climate at the time of sedimentation was similar to that of the Sucker Creek Formation's development. Horse, camel, pronghorn, and various rodent fossils have been found in the Deer Butte Formation.

Portions of the Sucker Creek and Deer Butte Formations are considered highly paleontologically sensitive, while portions of the Owyhee Basalt are considered moderately sensitive.

Three paleontological localities were identified by Lutrell (1994), but all three are considerable distances upstream from the current project area. No other published paleontological sites exist within one mile of the current project area, nor has the area been systematically surveyed by professional paleontologists. Poor access rather than lack of fossil-preserving geological conditions is likely the reason for the lack of recorded sites (see Figure 3-3). BLM land management designations adjacent to the reservoir, in combination with extremely rugged terrain, effectively limit human exploration and impacts in proximity to the reservoir. Rock-hounding and fossil hunting were not listed as preferred activities by visitors who participated in the "Visitor Survey of Day Use and Overnight Visitors at Lake Owyhee State Park Final Report" published by OPRD in 2016.

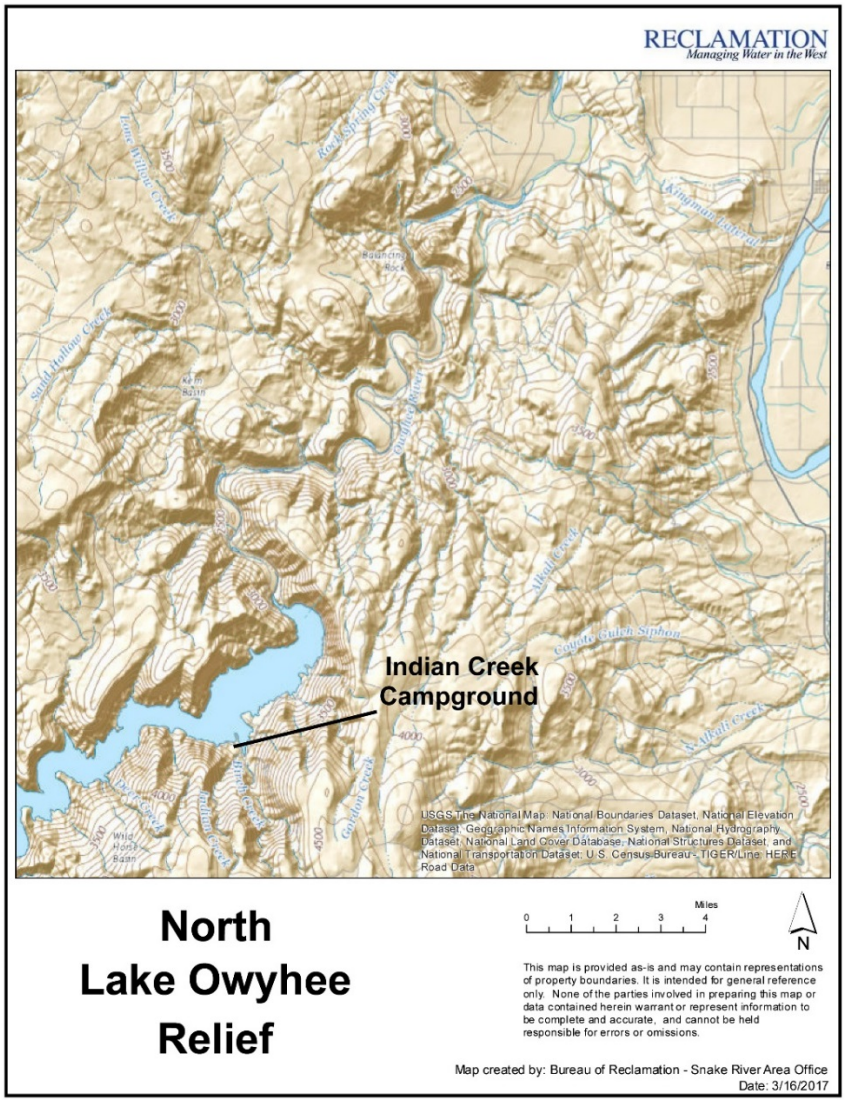


Figure 3-2. Relief Illustration Showing Rugged Terrain.

3.8.2. Environmental Consequences

3.8.2.1. Alternative A—No Action and Alternative B—Proposed Action

No paleontological resources exist within the project area, thus no paleontological resources would be affected under Alternatives A and B. If fossils, bones, or other paleontological resources are discovered during project implementation, work in the immediate area of the discovery will cease and appropriate Reclamation authorities would be contacted for further instructions.

3.9. Cumulative Effects

Cumulative Effect of Impact is defined as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR 1508.7). The Council on Environmental Quality interprets this regulation as referring only to the cumulative impact of the direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time.

Past, present, and reasonably foreseeable actions identified in the area (public or private) that would adversely impact the same resource area evaluated in this EA, would be additive effects to the proposed project. Past and present actions were described in the Background section in Chapter 1 and Affected Environment sections in Chapter 3. Reasonably foreseeable future actions considered for cumulative impacts are identified by location below.

PacifiCorp, Bonneville Power Administration (BPA), and Idaho Power jointly propose to design, construct, operate and maintain a new 500 kilovolt, single-circuit electric transmission line from a proposed substation near Boardman, Oregon, to the Hemingway Substation near Melba, Idaho—known as the Boardman to Hemingway Transmission Line Project or B2H Project. Idaho Power is leading the permitting process for the project. The B2H Project would provide additional capacity for exchanging energy between the Pacific Northwest and the Intermountain West, depending on which region is experiencing the highest demand. The powerline corridor would occur just north of Lake Owyhee Reservoir

No other reasonably foreseeable projects have been identified.

3.9.1. Environmental Consequences

3.9.1.1. Alternative A—No Action and Alternative B—Proposed Action

Due to project size and the limited minor effects identified in the Environmental Consequences sections in Chapter 3, there are no cumulative effects.

Chapter 4 CONSULTATION AND COORDINATION

4.1. Consultation and Coordination

Oregon Parks and Recreation Department, February 8, 2017—Received digital construction drawings.

Oregon Parks and Recreation Department, February 14–16, 2017—Coordinated archaeological and accessibility input for EA, and response to questions about the approval process for the plans.

Oregon Parks and Recreation Department, February 23, 2017—Obtained a photo of a similar cabin.

Oregon Parks and Recreation Department, February 27 and 28, 2017—Updated OPRD on need for EA and input already received from the Reclamation specialists that would be involved.

Oregon Parks and Recreation Department, March 14, 2017—Discussed occupancy norms for similar cabins in other parks and update on EA progress.

Oregon Parks and Recreation Department, March 23, 2017—Received revised construction drawings with accessibility updates integrated.

Oregon Parks and Recreation Department, April 3, 2017— Identified that the Accessibility Coordinator approved the revised construction drawings, and that construction deadline has been extended.

Oregon Parks and Recreation Department, April 7, 2017—Advised OPRD that the EA is expected to be signed by mid-May.

Oregon Parks and Recreation Department, April 9–10, 2017—Requested and received Indian Creek RV site occupancy rates data.

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APPENDIX — IPaC Trust Report

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

Rustic cabins at Indian Creek - Owyhee State Park

LOCATION

Malheur County, Oregon

DESCRIPTION

OPRD
proposes to construct two rustic cabins where four camping spurs now exist on Reclamation administered land at Indian Creek Campground at Lake Owyhee, Oregon. Prior to construction, the four gravel camping spurs and existing underground water and electric lines associated with them would be removed. In addition, one small tree and 3 eight foot wide sections of gravel campground roads would be removed in preparation for construction

Local office

Oregon Fish And Wildlife Office

(503) 231-6179
(503) 231-6195

2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398

https://www.fws.gov/oregonfwo/articles.cfm?id=149489416

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list

which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

[1] are managed by the Endangered Species Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service

[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Bald Eagle Haliaeetus leucocephalus https://ecos.fws.gov/ecp/species/1626	Wintering
Black Rosy-finch Leucosticte atrata https://ecos.fws.gov/ecp/species/9460	Year-round
Brewer's Sparrow Spizella breweri https://ecos.fws.gov/ecp/species/9291	Breeding
Calliope Hummingbird Stellula calliope https://ecos.fws.gov/ecp/species/9526	Breeding
Cassin's Finch Carpodacus cassinii https://ecos.fws.gov/ecp/species/9462	Year-round
Eared Grebe Podiceps nigricollis	Breeding

Ferruginous Hawk Buteo regalis https://ecos.fws.gov/ecp/species/6038	Year-round
Fox Sparrow Passerella iliaca	Breeding
Greater Sage-grouse Centrocercus urophasianus https://ecos.fws.gov/ecp/species/8159	Year-round
Green-tailed Towhee Pipilo chlorurus https://ecos.fws.gov/ecp/species/9444	Breeding
Lewis's Woodpecker Melanerpes lewis https://ecos.fws.gov/ecp/species/9408	Breeding
Loggerhead Shrike Lanius ludovicianus https://ecos.fws.gov/ecp/species/8833	Breeding
Long-billed Curlew Numenius americanus https://ecos.fws.gov/ecp/species/5511	Breeding
Peregrine Falcon Falco peregrinus https://ecos.fws.gov/ecp/species/8831	Breeding
Rufous Hummingbird selasphorus rufus https://ecos.fws.gov/ecp/species/8002	Breeding
Sage Thrasher Oreoscoptes montanus https://ecos.fws.gov/ecp/species/9433	Breeding
Short-eared Owl Asio flammeus https://ecos.fws.gov/ecp/species/9295	Year-round
Swainson's Hawk Buteo swainsoni https://ecos.fws.gov/ecp/species/1098	Breeding

Western Grebe aechmophorus occidentalis https://ecos.fws.gov/ecp/species/6743	Breeding
Willow Flycatcher Empidonax traillii https://ecos.fws.gov/ecp/species/3482	Breeding

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Facilities

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

- PEMC
- PEMB

FRESHWATER FORESTED/SHRUB WETLAND

- PSSC
- PSSB

LAKE

- L1UBHh

RIVERINE

- R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website: https://ecos.fws.gov/ipac/wetlands/decoder

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.