

Environmental Assessment

Keno Dam Transfer

Klamath Project, Oregon/California Interior Region 10 - California Great Basin CGB-EA-2023-037



Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

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.

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Acronyms and Abbreviations

AIP Agreement in Principle APE Area of Potential Effect(s)

BiOp Biological Opinion

BMP Best management practices

CAA Clean Air Act

City of Klamath Falls

Copco California Oregon Power Company
CEQ Council on Environmental Quality
CFR Code of Federal Regulations

CFR Code of Federal Regula
Cfs Cubic feet per second
CWA Clean Water Act

Department Department of the Interior
DPS Distinct Population Segment
EA Environmental Assessment

EPA Environmental Protection Agency

ESA Endangered Species Act

FERC Federal Energy Regulatory Commission

GIS Geographic Information System

IPaC Information Planning and Consultation

ITA Indian Trust Asset(s)

IVM Integrated vegetation management

KBAO Klamath Basin Area Office

KHSA Klamath Hydroelectric Settlement Agreement
KPFA Klamath Power and Facilities Agreement
KRRC Klamath River Renewal Corporation
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NMFS National Marine Fisheries Service
NRHP National Register of Historic Places

O&M Operation and Maintenance

OQEQ Oregon Department of Environmental Quality

Pm Particulate matter
PP&L Pacific Power & Light
Project Klamath Project
Reclamation Bureau of Reclamation

SHPO State Historic Preservation Officer

TMDL Total Maximum Daily Load USFWS U.S. Fish and Wildlife Service

2019 BiOp Endangered Species Act Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery

Conservation and Management Act Essential Fish Habitat Response for Klamath Project

Operations from April 1, 2019 through March 31, 2024

2023 BiOp Biological Opinion on the Effects of the Proposed Interim Klamath Project Operations Plan,

effective October 1, 2023, through October 31, 2024, on the Lost River Sucker and the

Shortnose Sucker

Section 1 Introduction

This Environmental Assessment (EA) has been prepared to examine the potential impacts to the affected environment as a result of implementation of the Bureau of Reclamation's (Reclamation) Klamath Basin Area Office (KBAO) proposal to acquire Keno Dam and related real property interests, and subsequently operate the dam consistent with historical practices. In addition, for the purpose of operating Link River and Keno dams, Reclamation would also 1) acquire the Weed Bridge Gaging Station, 2) assume all of PacifiCorp's rights and obligations in certain landowner agreements along the Keno Reach of the Klamath River, including the releases in Exhibit A of those agreements, as well as acquire all the easements in Exhibit B of those agreements, and 3) acquire certain real property interests necessary for Reclamation's assumption of operation and maintenance (O&M) of Link River Dam. All properties would be acquired by donation from PacifiCorp to the United States.

The EA has been prepared in accordance with the National Environmental Policy Act (NEPA; 42 United States Code (§4321 et seq.), the Council on Environmental Quality (CEQ) Regulations for implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations (CFR) Parts 1500-1508), and the Department of the Interior (Department) regulations for the Implementation of the NEPA (43 CFR Part 46). If there are no significant environmental impacts identified as a result of the analyses, a Finding of No Significant Impact can be signed to complete the NEPA compliance process.

1.1 Background

Keno Dam is a re-regulating dam at river mile 233 on the Klamath River and is currently owned and operated by PacifiCorp, an electrical company in the western United States and a wholly owned subsidiary of Berkshire Hathaway Energy Company, as part of the Klamath Hydroelectric Project. The dam is currently licensed by the Federal Energy Regulatory Commission (FERC), as part of FERC Project No. 2082.

Completed in 1967 by PacifiCorp's predecessor, Pacific Power & Light (PP&L), the dam is a combination of earth embankment and reinforced-concrete sections, approximately 25 feet in height above the excavated foundation. The reinforced-concrete section is 680 feet long, with a 12-foot-wide roadway deck, and a 265-foot-wide, ogee-type spillway. The spillway consists of six bays, the flow through which is controlled by radial gates, each 40 feet wide by 17 feet tall. The dam is also equipped with a 36-inch-diameter sluice conduit and a fish ladder.

In the 2010 Klamath Hydroelectric Settlement Agreement (KHSA), the Department committed Reclamation to accepting title to Keno Dam from PacifiCorp, on behalf of the United States, as part of the planned removal of PacifiCorp's other four hydroelectric dams on the Klamath River (J.C. Boyle, Copco 1, Copco 2, and Iron Gate). The KHSA provides that transfer of Keno Dam will be in accordance with a conveyance agreement between Reclamation and PacifiCorp. In 2012, Reclamation and PacifiCorp signed an Agreement in Principle (AIP), which "memorializes broad principles designed to function as a framework for the development of a final agreement" between

PacifiCorp and Reclamation over transfer of Keno Dam. The AIP provides that PacifiCorp will transfer Keno Dam to the United States in fee title. In 2016, the KHSA was amended to provide for transfer of Keno Dam under FERC process rather than Congressional approval, and the Klamath Power and Facilities Agreement (KPFA) further committed Reclamation to operating Keno Dam following transfer consistent with historical operations and at no cost to Klamath Project water users. The donation agreement between Reclamation and PacifiCorp was signed in December of 2022, and it is anticipated that Reclamation would acquire Keno Dam and the related property interests from PacifiCorp by donation.

The KHSA also provides that the transfer agreement between Reclamation and PacifiCorp will address easements that Reclamation requires in connection with other Klamath Project facilities, including Link River Dam.

Concurrent with acquiring Keno Dam and the decommissioning of PacifiCorp's other four dams, Reclamation would assume control of Link River Dam from PacifiCorp. Link River Dam is a 100-year-old facility that regulates storage and releases from Upper Klamath Lake, and was built by PacifiCorp's predecessor, the California Oregon Power Company (Copco), on behalf of the United States. Although owned by the United States, the dam has always been operated and maintained by the power company. Reclamation acquired Link River Dam and most of the site on which it is built from the power company in 1930, but there are remaining real property interests that Reclamation would acquire by donation from PacifiCorp before it assumes operational control of the dam.

1.2 Need for Proposal

Once physical removal of PacifiCorp's four hydroelectric facilities associated with the Lower Klamath Project is complete, PacifiCorp will no longer have any need to own, operate, and maintain Keno Dam. The Proposed Action is needed to carry out Reclamation's obligations under the terms of the KHSA and KPFA. As such, while removal of the Lower Klamath Project facilities is underway, Reclamation would, under the Proposed Action, carry out these obligations and acquire Keno Dam and related interests on behalf of the United States for the purpose of operating the dam consistent with historical practices, which would allow PacifiCorp to divest its interests and obligations in this facility. Consequently, acquisition of Keno Dam and related interests is a discrete federal action, but also an integral component to the larger, multi-party, multi-agency dam removal process (see Section 1.5.2).

Similarly, while PacifiCorp currently operates and maintains Link River Dam under Letter Agreement Number 22-WC-20-6000, following removal of the facilities of the Lower Klamath Project, PacifiCorp would no longer have any need for operating and maintaining Link River Dam. Further, the current operating agreement between Reclamation and PacifiCorp is set to expire once the Keno Dam transfer is complete. As Reclamation currently holds title to Link River Dam, Reclamation has a need to resume O&M of the dam as needed for Klamath Project purposes, which Reclamation proposes to do consistent with historical practices, and proposes to acquire certain real property interests needed for that purpose.

1.3 Location

Keno Dam and the real property interest Reclamation proposes to acquire from PacifiCorp are located approximately 1.5 miles downstream (west) of where Oregon State Highway 66 crosses over the Klamath River, in Klamath County, Oregon, in the unincorporated town of Keno (Figure 1; Northwest Quarter of Township 39 North, Range 9 West, Section 7, of the Willamette Meridian).

The Weed Bridge Gaging Station Reclamation would acquire in conjunction with acquiring Keno Dam is located on the south side of the Klamath River beneath the existing Highway 97 (Weed) bridge within Section 18, Township 39 South, Range 9 East of the Willamette Meridian in Klamath County, Oregon (Figure 6 in Appendix A). The approximate coordinates of this location are North 42° 10′ 28.39 N" by 121° 47′ 55.78 W".

The landowner agreements Reclamation would acquire in relation to operation of Keno Dam are located within the Keno Reach of the Klamath River, spanning from Lake Ewauna at the outlet of the Link River to the Keno Dam (Figure 7 in Appendix A).

The real property interests Reclamation would acquire near Link River Dam as part of the overarching transfer of Keno Dam are located within the municipal boundaries of the City of Klamath Falls. The real property interests are located within sections 30, 31, and 32 of Township 38 South, Range 9 East, of the Willamette Meridian in Klamath County, Oregon (Figure 2, Figure 3, and Figure 4).

1.4 Legal and Statutory Authority

Through its delegated authority under the Fish and Wildlife Coordination Act (16 U.S.C. §661 et seq) as amended, Reclamation is authorized, among other activities, to cooperate with federal, state, and private entities and accept donations of land, "in the development, protection, rearing and stocking of all species of wildlife, resources thereof, and their habitat…" The Office of the Solicitor had previously advised Reclamation, by memorandum dated April 5, 2016, that the Fish and Wildlife Coordination Act, as amended, is appropriate authority for Reclamation to acquire Keno Dam from PacifiCorp in accordance with the terms of the KHSA. Additionally, the Reclamation Act of 1902, 32 Stat. 388, authorizes operation of the Klamath Project, of which Keno Dam would become a part once title transfer is complete.

1.5 Separate Related Existing and Future Actions

This EA is limited to the Proposed Action of Reclamation acquiring from PacifiCorp Keno Dam and related real property interests, including along the Link River, as well as the Keno Gage Station and certain landowner agreements in the Keno Reach of the Klamath River. Only actions within the scope of those anticipated under the KHSA and KPFA are addressed, specifically transfer of Keno Dam and related real property interests, followed by continued operation of the dam consistent with historical practices. Taking title to Keno Dam and operating the dam consistent with historical practices is a discrete action, necessary to satisfy Reclamation's obligations under the KHSA and KPFA, and not directly related to continued operation of the Klamath Project at this time, the

aspects of dam removal under the jurisdiction of the FERC, or other ongoing or anticipated federal activities in the Klamath Basin.

1.5.1 Klamath Project Reconsultation

The Klamath Project is a federal irrigation project authorized by the Secretary of the Interior in 1905 under the terms of the Reclamation Act of 1902 (32 Stat. 388). Through the various dams, canals and related distribution works, the Klamath Project serves approximately 230,000 acres of reclaimed lake beds and arid lands in southern Oregon and northern California.

Reclamation is currently undergoing consultation with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS; collectively, the Services), in accordance with Section 7 of the Endangered Species Act (ESA; 16 U.S.C. §1536), over ongoing O&M of the Klamath Project.

Current ESA compliance for operation of the Klamath Project is addressed in separate biological opinions (BiOp) issued by the NMFS in 2019¹ and USFWS in 2023². These BiOps evaluated Reclamation's proposed actions described in a Biological Assessment³ dated December 21, 2018, as modified by February, March, and October 2019 amendments, and subsequently, in letters from Reclamation to the Services dated March 27, 2020. Further temporary adjustments were necessary in response to drought conditions that occurred in 2021, 2022, and 2023, with the most recent year resulting in an updated BiOp from the USFWS.

The 2018 Biological Assessment, as modified, constitutes the "Interim Operations Plan" for the Klamath Project, which is expected to remain in effect until Reclamation completes the current consultation with the Services, anticipated to occur in October of 2024.

As part of the Interim Operations Plan, Reclamation operates the Klamath Project to meet specified flows in the Klamath River downstream of Iron Gate Dam, one of the four hydroelectric dams anticipated to be decommissioned and removed as part of the KHSA. These flows are presently provided by coordinated operation of Link River Dam, Keno Dam, and PacifiCorp's four downstream dams. Reclamation has been consulting with the NMFS on flows in the Klamath River at Iron Gate Dam since 1997.

Reclamation's current Section 7 ESA consultation includes as part of the operations under consideration the matter of flows in the Klamath River both upstream and downstream of Keno Dam. Given the ongoing consultation, this EA does not attempt to address or prescribe future flows in the Klamath River at Keno Dam following acquisition of Keno Dam. That matter will be addressed separately in Reclamation's long-term operations plan and associated consultation. PacifiCorp currently operates Keno Dam to meet Reclamation's prescribed flows in the Klamath River at Iron Gate Dam, and those operations are assumed to continue in accordance with the terms

¹ Endangered Species Act Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response issued on March 29, 2019.

² Biological Opinion on the Effects of the Proposed Interim Klamath Project Operations Plan, effective October 1, 2023, through October 31, 2024, on the Lost River Sucker and the Shortnose Sucker issued on September 30, 2023.

³ Final Biological Assessment on the Effects of the Proposed Action to Operate the Klamath Project from April 1, 2019, through March 31, 2024

of the KHSA and KPFA once Reclamation obtains title to the dam.

1.5.2 Klamath Dam Removal

Consistent with the terms of the KHSA, in November of 2020, PacifiCorp and the Klamath River Renewal Corporation (KRRC) applied to the FERC for surrender of license and removal of project works for the Lower Klamath Hydroelectric Project No. 14803 which encompasses the four hydroelectric dams slated for removal (J.C. Boyle, Copco 1, Copco 2, and Iron Gate Dam).

In August of 2022, FERC issued an environmental impact statement discussing the environmental impacts of the proposed surrender and removal of the Lower Klamath Project No. 14803.

Reclamation aided in furnishing information related to Keno Dam and Klamath Project facilities and operations to support FERC's environmental impact statement and Biological Assessment and NMFS' BiOp, which included information pertaining to the fish ladders at Keno and Link River dams, anticipated flows at Keno Dam and downstream both during and after dam removal, and fish screening at Klamath Project diversions.

Removal of Copco 2 dam was initiated in July 2023.

Reclamation has been consulting with KRRC and its consultants regarding flows in the Klamath River and will coordinate its operations throughout the dam removal process, subject to additional environmental compliance as determine necessary.

Reclamation's involvement in the decommissioning of J.C. Boyle, Copco 1, Copco 2, and Iron Gate dams in terms of actual operations, is separate from Reclamation's other ongoing or anticipated actions in connection with Keno Dam.

Section 2 Alternatives

The EA considers two alternatives including the No Action Alternative and the Proposed Action Alternative. The No Action Alternative reflects conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment as a result of implementing the Proposed Action.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not acquire Keno Dam and related real property interests, violating its commitments under the KHSA and KPFA, with unknown legal and political consequences. Reclamation would therefore have no need to acquire landowner agreements in the Keno Reach of the Klamath River nor the Weed Bridge Gage Station needed for Keno Dam operational purposes. PacifiCorp would continue to own Keno Dam and operate it consistent with historical practices, in coordination with Reclamation, subject to some further action by PacifiCorp and approval by the FERC. Although Reclamation would not acquire from PacifiCorp additional properties along the Link River as necessary for O&M of Link River Dam, Reclamation would still assume O&M of Link River Dam from PacifiCorp (as the current operating agreement is set to

expire upon removal of the dams) but be limited in the real property interests it would possess to perform this work. Reclamation would continue to use PacifiCorp's property in relation to Link River Dam access as is done currently. As Reclamation would not be acquiring additional properties along the Link River, Reclamation would have no need to enter into a recreation Management Agreement with the City of Klamath Falls, nor seek permanent access easements through adjacent private properties. The recreation trail along the river would be managed and maintained as it is currently, by the City of Klamath Falls in coordination with PacifiCorp. Additionally, there would be no need for Reclamation to grant easements to PacifiCorp for O&M purposes, and PacifiCorp would continue to perform O&M of its facilities as currently carried out on its own property.

2.2 Proposed Action Alternative

Under the Proposed Action Alternative, Reclamation would:

- Take title to Keno Dam and related real property interests on behalf of the United States, and subsequently operate and maintain the dam consistent with historical practices, consistent with the terms of the KHSA and KPFA.
- Obtain ownership of the Weed Bridge Gaging Station, necessary to regulate levels of the Lake Ewauna impoundment and releases through Keno Dam.
- For the purpose of operating Link River and Keno dams: 1) assume all of PacifiCorp's rights and obligations in landowner agreements along the Keno Reach of the Klamath River, including the releases in Exhibit A of those agreements; and 2) acquire all the easements in Exhibit B of those agreements.
- Acquire certain real property interests along the Link River, to support O&M of Link River Dam, which Reclamation would assume from PacifiCorp concurrent with transfer of Keno Dam.
- Grant to PacifiCorp certain easements near Keno Dam and along the Link River necessary to support existing electric power facilities and access thereto and provide approval for PacifiCorp's proposed Operation and Maintenance Plan for said easements.
- Enter into a recreation Management Agreement with the City of Klamath Falls for the administration, operation, maintenance, and development of recreation uses and facilities at the Link River Trail.
- Obtain either a permanent or temporary Right of Use for Reclamation access through adjacent private and public land for the purpose of conducting O&M at Link River Dam.

2.2.1 Keno Dam Transfer

Under terms of the KHSA (Section 7.5.2), the United States would accept title to the Keno facility from PacifiCorp upon notification by the KRRC that removal of the J.C. Boyle Facility is ready to commence (anticipated to occur on January 31, 2024). Actions associated with the title transfer include the United States' acquisition of a number of different real and personal property interests, all from PacifiCorp via donation. Figure 1 below shows the location of the property interests the United States proposes to acquire.

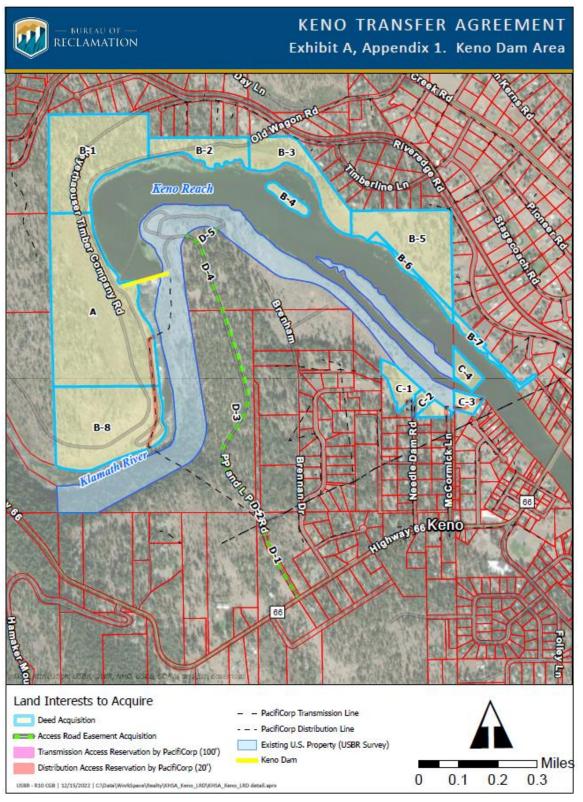


Figure 1. Real property interests anticipated to be acquired by Reclamation at Keno Dam.

2.2.1.1 Keno Dam Parcel (Parcel A)

Section 7.5.2 of the KHSA specifies that the United States shall take title to the "Keno facility", which section 1.4 defines as "Keno Dam, lands underlying Keno Dam, appurtenant works and PacifiCorp-owned property described as Klamath County Map Tax Lot R-3907-03600-00200-000 located in Klamath County, Oregon." This parcel is designated as "A" on Figure 1 above.

The parcel contains approximately 56.33 acres⁴ (as determined by Geographic Information System [GIS] analysis; the Klamath County parcel map does not show the acreage of this parcel) on the northwest side of the Klamath River and contains Keno Dam's westerly abutment. Reclamation previously acquired the tract on the opposite side of the river, historically referred to as the McCormick Tract (*see* Figure 1, lands highlighted in blue).

2.2.1.2 Keno Dam Fee Simple Parcels (Parcels B-1 through B-8 and C-1 through C-4)

43 CFR 8, Joint Policies of the Departments of the Interior and of the Army Relative to Reservoir Project Lands, requires Reclamation to acquire in fee title "adequate interest in lands necessary for the realization of optimum values for all purposes including additional land areas to assure full realization of optimum present and future outdoor recreational and fish and wildlife potentials of each reservoir." Accordingly, Reclamation would acquire in fee title from PacifiCorp the parcels labeled on Figure 1 as B-1 through B-8, all on the north side of the Klamath River, totaling approximately 127 acres, and parcels labeled C-1 through C-4, totaling approximately 13 acres on the south side of the Klamath River upstream of Keno Dam.

2.2.1.3 Keno Dam Access Easements (D-1 through D-5)

To perform O&M of Keno Dam, Reclamation would need legal access to the dam from both sides of the Klamath River. Section 7.5.2 of the KHSA contemplates that the agreement between Reclamation and PacifiCorp will include "ingress and egress agreements and easements required for O&M of the Klamath Reclamation Project, including but not necessarily limited to Lake Ewauna, Link River Dam, and Keno Dam."

Access to Keno Dam from the north side via Old Wagon Road is ensured through acquisition of the parcels listed above. On the south side, PP&L Park Road (an existing gravel road) provides access to the McCormick Tract and the east abutment of Keno Dam. PP&L Park Road is accessed from Green Springs Highway (Route 66). The road crosses four PacifiCorp-owned tracts of land, necessitating the acquisition of road easements designated D-1 through D-5 on Figure 1, totaling approximately 1.09 miles. At 20 feet wide, the easements would encompass 2.64 acres.

2.2.1.4 Operation of Keno Dam

The KHSA indicates (Section 7.5.4) that "following transfer of title to the Keno facility from PacifiCorp to Interior, Interior shall operate Keno in compliance with Applicable Law and to provide water levels upstream of Keno Dam for diversion and canal maintenance consistent with Contract #14-06-200-3579A executed on January 4, 1968, between Reclamation and PacifiCorp (then Copco) and historic practice."

Based on the contract, and consistent with the KHSA, historic operations are defined by average

⁴ All acreages have been determined by GIS analysis, may differ from official recorded acreages, and are subject to revision upon completion of land surveys.

daily Keno Reservoir water surface elevations between 4085 and 4086.5 feet⁵ (Reclamation datum) above mean sea level at the Weed Bridge (see Section 2.2.2 below). Reclamation would continue to manage water levels in the Keno Impoundment at these elevations, consistent with historic practice.

To the extent that the KHSA indicates that there will be no change in management of Keno Dam operations and resultant upstream water levels compared to current practice, Reclamation is not proposing any changes to operation of Keno dam under the Proposed Action, and thus, there will be no further discussion of Keno Dam operations in this EA. If Reclamation anticipates a need to change the operation of Keno Dam and/or upstream water levels in a way that deviates from Contract #14-06-200-3579A, that action and proposed changes would be analyzed and reported appropriately and further environmental compliance would be conducted, as necessary. Once the title transfer is final, Keno Dam would then be integrated into Klamath Project Operations; Reclamation intends to address any future changes in operation of Keno Dam, in conjunction with Klamath Project operations, in the upcoming consultation effort for Klamath Project Operations for the October 2024 through September 2029 period.

2.2.1.5 Maintenance of Keno Dam

Once the transfer of title to Keno Dam is complete, Reclamation would be responsible for certain maintenance activities as necessary to ensure functionality and to maintain the facility. Reclamation proposes to conduct maintenance at Keno Dam consistent with historic practice and does not propose as part of this Proposed Action to conduct maintenance activities beyond the routine activities that PacifiCorp currently performs. Current maintenance activities regularly performed by PacifiCorp (that Reclamation would assume) include:

- Removing debris from fish ladder intake screens
- Inspecting and replacing shear links on the fish ladder control gates
- Testing and inspecting the auxiliary generator
- Inspecting and exercising spillway gates
- Vegetation management and landscape maintenance (including removing trash)

Once transfer is complete, Reclamation would conduct necessary inspections to determine what future repairs and maintenance activities would be needed. At this time no new repairs and/or maintenance activities are proposed. Though not evaluated in this EA, future repairs and O&M activities needed to operate the dam would be identified and evaluated on a case-by-case basis and would undergo evaluation by Reclamation to determine if additional compliance with NEPA, the National Historic Preservation Act (NHPA), and other applicable laws are required prior to the activity(ies) being implemented.

2.2.1.6 PacifiCorp Reserved Interests

Upon PacifiCorp's conveyance of the fee simple parcels and access easements associated with Keno Dam, PacifiCorp asserts the need to reserve certain easements necessary to support existing electric

⁵ Although the historic operating range as defined within the contract consists of surface elevations between 4085 and 4086.5 feet, historic practice in recent years has been consistent with a range of 4085 – 4086 feet. Reclamation intends to continue operating consistent with the most recent historic operating range of 4085-4086 feet. Furthermore, while the contract specifies the gaging location as the intake at Keno Irrigation District, the gaging location was at some time in the past moved to the Weed Bridge where it currently resides.

power facilities, including distribution power lines, poles, structures, and access thereto for continued O&M of and future upgrades to the facilities. PacifiCorp's proposed O&M Plan for the Keno and Link River reserved easements, as described below, is available upon request. Once conveyance occurs, the properties would be under federal ownership and subject to federal laws and regulations.

Typical activities PacifiCorp performs to operate and maintain transmission and distribution facilities are split into five different classes based on level of complexity, probability and magnitude of impacts, and notification and approval process required by Reclamation to complete the activity (Error! Reference source not found. below). The five classes are summarized below along with details on the associated notification and approval process. The sections below the table provide more detail on the types of activities included in each class.

Class I: Activities that are routine and generally result in no to de minimis impacts. Class I activities are analyzed herein and would not require additional advance notification or project-specific approval from Reclamation to occur.

Class II: Activities that are routine but may result in an environmental impact. Impacts are generally known for these types of activities and can be managed through standard best management practices (BMPs). PacifiCorp must submit notification packages to Reclamation that include a description of the activity, the location, resources that may be impacted, and BMPs to be implemented to avoid resource impacts, if necessary. Reclamation would respond to the notification package within 15 business days, including feedback and edits or comments on the notification package and the potential for additional environmental compliance work. PacifiCorp would obtain Reclamation approval prior to commencing work. These activities are outside the scope of this EA analysis.

Class III: Major corrective, non-routine activities larger in scope and scale than Class I or II that may result in an environmental impact. Specific resource protection measures or BMPs may be required to minimize impacts. PacifiCorp must submit notification packages to Reclamation in advance containing all the information typically included in Routine Maintenance notification (see Class II), as well as additional relevant project information. Reclamation would have 30 business days to determine whether additional environmental analysis or consultation with other agencies is required. Within said 30 business days, Reclamation would (1) approve the proposal as submitted; (2) approve the proposal after PacifiCorp adequately responds to any requests for additional information; or (3) provide guidance as to the process to be followed and a schedule for when Reclamation will review, analyze, and approve the activity. Written authorization from Reclamation is required before PacifiCorp proceeds with the proposed activity. These activities are also outside the scope of this EA analysis.

Class IV: Emergency activities necessary to repair a power line or prevent imminent damage to a line or address an imminent threat to public safety. In the event of an emergency, PacifiCorp may proceed with the activity without advance notification but must notify Reclamation as soon as reasonable (typically within 48 hours) of an identified need for or the start of any emergency repairs. The notice would include, if known, location of the facilities, scope of work, equipment used, access used, cause of the emergency, and any BMPs applied. Within 30 business days of completing the emergency activities PacifiCorp would provide

post-activity reporting that documents the work location, scope of work completed, resource impact analysis, and other information as may be requested by Reclamation. Reclamation and PacifiCorp would mutually inspect and agree on any restoration work required to repair emergency work areas on a case-by-case basis, which is outside the scope of this analysis.

Class V: An activity that is not covered by PacifiCorp's O&M Plan and would require project-specific approval, which is outside the scope of this analysis.

Table 1. Summary of operations and maintenance activities necessary to support operations of

transmission and distribution facilities along with designated activity class.

Section	Summary of Work Activ		
4.0	Minor repair of existing access routes	I	
	Removal of obstructions		
	Graveling		
	Addressing potholes		
4.0	Construction of new access route or major repair of existing access	III or V	
	route		
5.1	Routine Maintenance Inspections includes for example:	I or II	
	Visual Assurance Inspections (aerial or ground)		
	Detailed Inspection and Minor Repair Work (Ground)		
	Wood pole test and treat		
	 Outage cause investigation (aerial or ground) 		
	Vegetation inspection		
	Overland Travel within existing right-of-way		
5.2	Routine Corrective Maintenance includes for example:	Ι	
	Insulator replacement		
	Cross arm repair or lowering		
	Cross arm replacement		
	Hardware tightening		
	Conductor repair or replacement		
	Communications repair or replacement		
	Shoo-fly installations		
	Tower strengthening		
	Installation of bird line markers		
	Retrofitting poles to avian safe construction standards		
	Guy wire replacement or tightening (above ground only)		
	 Access road maintenance (removal of obstructions, potholes, etc.) 		
	Avian management in accordance with PacifiCorp-held		
	permits		
	Ground and aerial inspections		
5.2	Routine Corrective Maintenance includes for example:	II	
	Repair or replacement of underground facilities		
	Anchor replacement		

Section	Summary of Work	Activity Class		
	Access road grading or more substantive repairs			
	Pole test and treat program			
	Pole and tower replacement (In place and in-kind)			
5.3	Routine Vegetation Management: Tree removal within distribution			
	or transmission right-of-way (both routine and emergency)			
5.3	Routine Vegetation Management: Hazard Tree Removal II or IV			
5.4	Major Corrective Maintenance includes for example: III or V			
	Reconductoring projects			
	New powerline construction or alignment changes			
	New road and trail construction			
	New underground projects			
	Multiple structure relocation or replacement			
	Non-routine or specialized vegetation management			
	Large-scale wood product removal			
5.4	Construction of new facilities (e.g., new distribution or	III or V		
	transmission lines)			
5.5	Emergency Repairs	IV		

Access to Power Lines

PacifiCorp must have reasonable access for vehicles and personnel to the facilities for operation, maintenance, and emergency repair. This would be accomplished by using existing roads and trails (collectively, "Access Roads") but may also require overland travel or repair to existing access routes. Any overland travel would occur within the existing right of way between structures (up to 50 feet from centerline for transmission lines and up to 10 feet from centerline for distribution lines). The current condition of the Access Roads, as well as the area between structures, is adequate for routine line maintenance. However, minor repairs to existing access routes such as removal of obstructions, graveling, and pothole repair may be necessary. Permanent ground disturbing repair to access roads (such as grading, etc.) and construction of new access routes are outside the scope of this Proposed Action and would not be conducted without Reclamation's authorization, subject to compliance with applicable federal environmental laws and regulations as deemed necessary.

Operation and Maintenance Activities

Within the retained easements at the Keno Dam, there are approximately 2,589 feet of distribution lines (and no transmission line), nine (9) distribution poles, and one (1) transmission pole for which O&M activities may be necessary.

O&M activities consist of three components: Routine, Major Corrective, and Emergency.

Routine Maintenance Inspections

Visual Assurance Inspections - PacifiCorp is required to perform a visual assurance inspection of each transmission line on a cycle that varies from twice per year to every other year. This inspection is performed by an inspector generally via 4-wheel drive pickup or 4-wheel drive all-terrain vehicle (ATV) on existing access routes or otherwise in compliance with overland travel restrictions, or via helicopter. Additional support vehicle(s) may be required. In some cases, the inspector walks the

line. The inspector assesses the condition of the transmission line and hardware to determine if any components need to be repaired or replaced, or if other conditions exist that require maintenance or modification. The inspector would also note any encroachments and or other activities that could constitute a safety hazard or are unauthorized. Visual assurance inspections for distribution lines are conducted every other year.

Detail Inspection (ground) - PacifiCorp performs a detailed inspection of its transmission and distribution lines on a 1- to 20-year cycle dependent on the criticality of the line segment as determined by PacifiCorp management. The inspector would access all structures of the line on existing access routes and check all equipment and other components to determine if repairs or maintenance is required. Inspectors performing this work generally use conventional 4-wheel drive trucks, 4-wheel drive ATVs, snow cats, or the inspector may walk the line. Additional support vehicles may be required. These inspections may also be done using binoculars and spotting scopes. Minor repairs to structures (non-ground disturbing) may also be made during detailed ground inspections.

Wood Pole Test and Treat – PacifiCorp undertakes a wood pole test and treat program (Appendix B of the O&M Plan) in which each pole is tested on a 10- to 20-year cycle. This activity is subject to the notification and approval process outlined in Class II activities above and is outside the scope of this EA analysis.

Outage Caused Inspection – In the event of an outage or interruption in the transmission and distribution of electricity, PacifiCorp would conduct an aerial or ground inspection to determine the cause of the interruption. Outage caused inspections are performed utilizing similar equipment and points of access as for the other above listed inspections. In addition, linemen use service trucks (typically a 4-wheel drive truck with a personnel bucket to lift employees to the pole) to access the pole to determine the cause of the outage and make necessary repairs. This inspection may take place at any time of the day or night and result in emergency repairs. Additional support vehicle(s) may be required; all vehicles would use existing access routes or otherwise travel in compliance with overland travel restrictions.

Routine Corrective Maintenance

Routine maintenance activities are ordinary maintenance tasks carried out on a routine basis. The work is typically repair or replacement of individual components due to ordinary wear and tear, performed by a relatively small crew using a minimum of required equipment, and usually conducted within a period from a few hours up to a few days. Work requires access to the portion of the line requiring maintenance to allow for safe and efficient repair of the facility. Equipment required for this work may include a 4-wheel drive truck, material (flatbed) truck, bucket truck, boom truck, or man lift. Additional support vehicles, including helicopters, may be required. All vehicles would use existing access routes or otherwise travel in compliance with overland travel restrictions. This work is scheduled and is typically required to address issues found during inspections.

Examples of activities classified as routine maintenance include:

- Insulator replacement
- Cross arm repair or lowering
- Cross arm replacement
- Hardware tightening

- Conductor repair or replacement
- Repair or replacement of existing underground facilities (subject to notification/approval process)
- Internal communications repair and replacement
- Shoo-fly installations/interest installations
- Anchor replacement (subject to notification/approval process)
- Guy wire replacement (above ground only)
- Tower strengthening and hardware tightening
- Installation of bird line markers
- Retrofitting pole/structure(s) to avian safe construction standards
- Guy wire tightening or replacement (above ground only)
- Access road and trail maintenance (removal of obstructions, graveling, ensuring suitability to
 use; grading and/or other permanent, ground disturbing repairs subject to
 notification/approval process)
- Non-threatened and endangered species nest removal (in accordance with PacifiCorp-held permits and approvals related to avian management)
- Ground and aerial inspections
- Pole test and treat (subject to notification/approval process)
- Pole and tower replacement (subject to notification/approval process)
- Vegetation Management

Most routine maintenance activities typically have no potential to disturb or unduly affect natural resources or access roads. For those activities that involve ground disturbance (such as repair/replacement of existing underground facilities, anchor replacement, access road repair/maintenance, pole test and treat, and pole and tower replacements as identified above), PacifiCorp would provide Reclamation with a notification package including all proposed work, including a description of the activity, the locations, resources anticipated to be impacted, best management practices, etc. PacifiCorp would obtain Reclamation approval, subject to further environmental compliance, if necessary, prior to commencing work.

Routine Vegetation Management

PacifiCorp's Vegetation Management Program manages tall vegetation under or around PacifiCorp's power lines and is a critical component of PacifiCorp's wildfire mitigation program. PacifiCorp uses integrated vegetation management (IVM) techniques to remove trees and undesirable vegetation. The goal of IVM on utility rights-of-way is to establish sustainable, low-growing plant communities that are compatible with power lines and discourage undesirable tall vegetation that could pose potential safety, access, fuel load or reliability problems. IVM requires a combination of manual, mechanical and herbicide control methods. Equipment and materials used would vary with each control method selected. Access is required along the power line and is typically achieved on foot, by ATV, or vehicle from existing access roads with the choice made based on the terrain and work to be completed.

Integrated Vegetation Management techniques include but are not limited to:

 Manual and mechanical cutting, where wood debris is left on site to enrich the soil. Handoperated power tools (chainsaws), mechanical equipment, and hand tools are used to cut, clear, or prune herbaceous and woody target species. Cover type conversion, which uses herbicides in combination with manual/mechanical
cutting to remove incompatible tall-growing trees and other vegetation from the right-of-way
to establish a stable, low-growing plant community.

Tree Removal

PacifiCorp would remove trees under the circumstances described below. If non-emergency tree removal is necessary, PacifiCorp would provide advance notification to Reclamation by providing a notification package as described above and under Section 3 of the O&M Plan.

- 1) All fast-growing trees located directly below distribution lines and that could continually grow into the lines would be removed. Tree removal would be limited to the right of way corridor and would not exceed 15 feet on either side of the wires. Trees are typically cut within 6 inches of the ground and left onsite (Section 6.3.1 of the O&M Plan)
- 2) Tree removal on transmission lines varies depending on the height of the wires. A graphical representation of PacifiCorp's BMPs for tree removal on transmission line rights-of-way is provided in Figure 1 of the O&M Plan and further discussed in Section 6 of the O&M Plan, Best Management Practices.
- 3) Hazard trees are those larger trees that could interfere with the transmission or distribution system. These are identified through a specific hazard tree inspection. Removal of hazard trees would be coordinated with Reclamation per the notification and approval process discussed in above.

Major Corrective Maintenance Activities

Major corrective maintenance activities are relatively large-scale planned efforts that occur on an infrequent basis, including reconductoring, realigning, upgrading, rebuilding, relocating, or replacing an entire powerline facility or any segment of it, construction of new facilities, new road or trail construction, new underground projects, non-routine or special vegetation management, and/or large-scale wood product removal. Facilities may require replacement due to damage, age, or other factors. This type of work encompasses more work than defined by routine or under emergency activities. Major corrective maintenance activities are outside the scope of the Proposed Action within this NEPA analysis and as such, PacifiCorp would provide Reclamation ample notice of any plans for major corrective maintenance activities and recognizes that it must receive authorization, subject to federal environmental laws and regulations, prior to proceeding with implementation (Section 5.4 of PacifiCorp's O&M Plan).

Emergency Repair Activities

The implementation of routine O&M activities on power lines would minimize the need for most emergency repairs. However, a condition or situation that is imminently likely to endanger life or property or that is imminently likely to cause a material adverse effect on security or reliability of, or damage to, PacifiCorp's electrical system and/or the flow of electricity is considered an emergency. Emergency repair work would be required to resolve a situation that, if not corrected, could compromise the transmission or distribution facilities, electric system reliability, or could pose a wildfire ignition or other public safety risk.

Best Management Practices

PacifiCorp's Best Management Practices can be found in Section 6 of the O&M Plan, available upon

request.

Per Exhibit C Form of Warranty Deed and PacifiCorp Reserved Interests of the Transfer Agreement between PacifiCorp and Reclamation, PacifiCorp's operating plan "shall be reviewed and updated as necessary by Grantor and reapproved by the authorized officer at least every 10 years." Reapproval may be subject to additional environmental compliance efforts pursuant to federal laws and regulation, as necessary.

2.2.2 Keno Impoundment Gaging Station

In connection with Keno Dam, PacifiCorp owns and operates a gaging station (Weed Bridge Gaging Station; Figure 6 in Appendix A) in the Klamath River, which measures water levels in the impoundment upstream of Keno Dam (Keno Impoundment). This structure is located beneath the south abutment of Highway 97 (Weed)/Klamath River bridge, a state highway operated and maintained by the Oregon Department of Transportation.

This measuring station is necessary to regulate releases through Keno Dam and coordinate these operations with releases from Link River Dam and discharges from the Lost River Diversion Channel and Klamath Straits Drain.

The gaging station is a small, concrete building, with no associated real property interests. PacifiCorp would transfer to the United States its legal interest in this station as personal property.

2.2.3 Ewauna Reach Landowner Agreements

In addition to the interests that may be acquired as described in the previous sections, the Proposed Action would include the assumption and acquisition of certain agreements and interests to Reclamation.

PacifiCorp would assign and convey to Reclamation 49 agreements and easements, encompassing 15,750 acres of land between Keno Dam and the Link River (Figure 7, Appendix A).

The KHSA says (Section 7.5.5) that "the Secretary, upon acquisition of the Keno facility, will execute new agreements with landowners who currently have agreements in the Lake Ewauna to Keno reach, as the Secretary determines are necessary to avoid adverse impacts to the landowners resulting from the transfer, consistent with Applicable Law, operational requirements, and hydrologic conditions." Such acquisition(s) would be separate from the Proposed Action analyzed in the EA.

2.2.4 Link River Dam

Upon Keno Dam's removal from the Klamath Hydroelectric Project and its transfer to the United States, PacifiCorp would have greatly reduced interests in the Klamath Basin. As part of this proposed alternative, Reclamation anticipates resuming O&M of Link River Dam, which has been operated and maintained by PacifiCorp or its predecessor, Copco, since the dam's construction in 1921. To the extent that the United States has always owned Link River Dam and has arranged for PacifiCorp to act as its agent in the O&M of the facility, resumption of O&M by Reclamation does not represent an action to be analyzed under NEPA. However, the associated property transfers to facilitate Reclamation's O&M of the facility do and are further discussed below.

2.2.4.1 Upper Klamath Lake and Link River Dam

Reclamation owns the Link River Dam site in fee with the exception of a 155-foot-wide strip through the western half of the dam, which Reclamation inadvertently conveyed to Copco in 1934. Reclamation's existing property interests are depicted in figures 2 and 3, but these interests do not appear to be depicted in Klamath County's parcel map. Reclamation has a need to acquire in fee the 155-foot-wide strip of land through the dam site.

In addition to this strip of land through the existing dam site, Reclamation also needs to acquire in fee a section of the adjacent land, on which the fish ladder for Link River Dam was built in 2004 (see figures 2 and 3). Aerial imagery indicates that approximately 75 feet of the fish ladder is located off the dam site parcel that the United States presently owns.

As at Keno Dam, Reclamation is required by 43 CFR 8 to acquire in fee title interests adjoining Upper Klamath Lake, including parcels designated I-1-a, I-1-b, I-1-c, I-2, J-1, and J-2 in Figure 2. These interests total 17.74 acres and include the interests adjacent to the dam noted above. In addition, Reclamation would need to acquire an access easement, adjacent to the property labeled as J-1 (labeled as J-4 in Figure 8 in Appendix A), from a private landowner to gain access from the north side of the trail.

Parcels I-1-a and I-1-b constitute interests adjoining the A Canal Headworks and the east side access to Link River Dam. Parcel I-2 provides access to parcel I-1-b via California Avenue.

Parcels I-1-b and I-1-c would be split from Klamath County Parcel #R-3809-00000-05700-000 along a line parallel to and 200 feet downstream from the crest of Link River Dam, creating new parcels of 14.04 and 0.51 acres, respectively (parcel numbers pending completion of split). Parcel J-2 would be split from Klamath County Parcel #R-3809-00000-05900-000 in the same manner, creating a new parcel of 2.32 acres (parcel number pending completion of split).



Figure 2. Real property interests anticipated to be acquired by Reclamation above Link River Dam.



Figure 3. Real property interests anticipated to be acquired by Reclamation at Link River Dam.

2.2.4.2 Link River Dam Downstream Access Easements

To perform O&M of Link River Dam, Reclamation would need legal access to the dam from both sides of the Link River and from upstream and downstream. Upstream access would be ensured through acquisition of the parcels listed above. Downstream access would be ensured through acquisition of an access easement along the existing gravel road extending between Link River Dam and Riverside Drive (Figure 4 below).

The entire graveled road between Lakeshore Drive and Riverside Drive is used by the public as a walking trail and is commonly known as the Link River Trail. Locked gates at both ends restrict access to unauthorized vehicles. Reclamation would not acquire any interest or responsibility for the existing walking trail below Link River Dam, but only an easement along the trail's length for the purpose of access to the United States' existing and contemplated real property interests at Link River. Above Link River Dam, Reclamation would seek a recreation management agreement with the City of Klamath Falls, as further discussed below.



Figure 4. Real property interests anticipated to be acquired by Reclamation below Link River Dam.

2.2.4.3 Recreation Management Agreement for Link River Trail Above Link River Dam

The Link River Trail, located west and adjacent to the Link River, is a recreation trail currently managed by the City of Klamath Falls (City) on PacifiCorp's behalf.

The City has managed the public safety and recreational resources at Link River Trail under an informal agreement with PacifiCorp for the development and operation of lands and facilities in the public interest for recreation purposes.

As Reclamation would be acquiring from PacifiCorp the underlying property associated with the portion of the Link River Trail north of Link River Dam (see Figure 5 below), Reclamation proposes to enter into a Management Agreement between the United States and the City for the administration, operation, maintenance, and development of recreation uses and facilities at the Link River Trail (Contract Number 24-LC-20-3200) to provide a benefit to the public and to assist Reclamation in meeting authorized Project purposes including providing public health and safety, recreation, and protection of lands and surface waters pursuant to the agreement.

The primary purpose of the agreement includes provision of visitor management services, recreation opportunities and recreation facilities (those facilities constructed or installed at the Link River Trail for recreational purposes for the public or for support of such recreational use), provision of public safety and law enforcement, incident response and emergency services, and keeping recreation facilities and associated equipment in good repair and a usable working condition, and may also include preserving and managing resource values and conditions as opportunities and funding are available.

The management of Link River Trail would be consistent with a Resource Management Plan, subject to Reclamation approval, and all aspects of fire, hazardous materials, pest, and waste management activities, etc., would be in accordance with Reclamation policy, directives and standards, and in accordance with the terms and conditions identified within the agreement. The City would coordinate with Reclamation regarding any issues that have the potential to affect any Project water management, operation, and maintenance activities of Reclamation.

The scope of this action as related to the overall Proposed Action is limited to execution of the agreement. Any operation or maintenance activities involving development, replacement, or alterations of recreation facilities on Reclamation property, as well as any special use permits or use authorizations, would undergo coordination with Reclamation and require Reclamation's review, subject to applicable local, state, or federal laws, rules, regulations, and/or policies, and environmental compliance as determined necessary prior to approval. No such modifications of the environment shall be undertaken without prior approval from Reclamation in accordance with the agreement.

The agreement would be in effect as of the signature date of the agreement, last for a term of 25 years, and may be subject to renewal.



Figure 5. Map depicting managing partner agreement area as indicated by dashed lines.

2.2.4.4 Reserved PacifiCorp Easements

Upon PacifiCorp's conveyance of the fee simple parcels and access easements associated with Link River dam, similar to the Keno Dam location, PacifiCorp also asserts the need to reserve certain easements at this location necessary to support existing electric power facilities, including transmission (approximately 612 feet) and distribution (approximately 1,730 feet) power lines, poles (10 distribution poles and two (2) transmission poles), and structures, and access thereto for continued O&M of and future upgrades to the facilities. Once conveyance occurs, the properties would be under federal ownership and subject to federal laws and regulations.

*See Section 2.2.1.6 PacifiCorp Reserved Easements above for details pertaining to PacifiCorp's O&M activities associated with PacifiCorp's reserved easements at Link River Dam (activities at the Link River Dam location would be the same as noted in Section 2.2.1.6).

Section 3 Affected Environment and Environmental Consequences

This section describes the affected environment and evaluates the environmental consequences that could result from the No Action and Proposed Action alternatives. The No Action Alternative describes the conditions most likely to occur if the Proposed Action Alternative was not implemented and provides the basis for comparison to describe the environmental consequences of implementing the Proposed Action Alternative.

3.1 Resources Not Analyzed in Detail

Impacts to the following resources were considered and found to be either insignificant or absent, and as a result were eliminated from further discussion. Brief explanations for their elimination from further consideration are provided below.

3.1.1 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in assets that are held in trust by the United States for federally recognized Indian tribes or individuals. There are no Indian reservations, Rancherias or allotments in the Proposed Action areas. As shown in Appendix C, the nearest ITA to the proposed Keno Dam and Link River property acquisition areas is the Klamath Tribal Designated Statistical Area of the Klamath Indian Tribe of Oregon, which is located approximately 6.28 miles to the east-southwest of Keno Dam and encompasses the Link River Dam area (see maps in Appendix C).

The nature of the Proposed Action does not involve any new construction or change in operations, but merely a change in legal ownership of, and/or access to, various parcels and properties around Keno Dam and along the Link River, as well as operational agreements and approval of certain O&M activities related to PacifiCorp's retained easements. Both Keno and Link River dams would continue to be operated consistent with historical practices, and any future changes to Reclamation's operation and maintenance of the facilities would be analyzed separately.

On September 14, 2023, Reclamation's Klamath Basin Area Office ITA Coordinator, Mike Neuman stated: "Based on the nature and locations of the Proposed Action activities, it has been determined that the Proposed Action would not impact Indian hunting or fishing resources or water rights nor would the Proposed Action occur on actual Indian lands. It is reasonable to assume that the Proposed Action will not have any adverse impacts on ITAs."

To the extent that the contemplated change in legal ownership of these lands could affect Indian hunting or fishing resources or water rights, these ITAs would receive greater protection when the lands are owned and administered by the United States and subject to the United States' trust obligation to federally recognized Indian tribes or individuals.

3.1.2 Indian Sacred Sites

Sacred sites are defined in Executive Order 13007 (May 24, 1996) as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site."

The Eulalona Indian Village, a Native American settlement that once existed along both sides of the Link River in the Link River Canyon, has been identified as a significant historic site within the Proposed Action area near Link River Dam (Klamath Tribes, 2023). However, due to the largely administrative nature of the Proposed Action, as well as the limited above-ground maintenance activities that may occur as a result of the Proposed Action, Reclamation has determined that the Proposed Action would not affect nor prohibit access to or ceremonial use of Indian sacred sites. To the contrary, the proposed Federal acquisition of the lands in question from PacifiCorp may provide greater access to and use of the properties by any Indian tribe or Indian individual as most of the subject properties (aside from the dams themselves) would be open for public use.

No other Indian sacred sites have been identified within the Proposed Action areas.

3.1.3 Environmental Justice Sites

Executive Order 12898 requires each Federal agency to identify and address disproportionately high and adverse human health or environmental effects, including social and economic effects of its programs, policies, and activities on minority populations and low-income populations. Reclamation has not identified adverse human health or environmental effects on any population as a result of implementing the Proposed Action. Since there would be no permanent impact to any populations, there would be no adverse human health or environmental effects to minority or low-income populations as a result of the Proposed Action.

3.1.4 Climate Change and Greenhouse Gases

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change (e.g., changes in sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels). Climate change implies a significant change having important economic, environmental, and social effects in a climatic condition such as temperature or precipitation.

Climate change is generally attributed directly or indirectly to human activity that alters the composition of the global atmosphere, additive to natural climate variability observed over comparable time periods.

Keno Dam and related properties, as well as properties along the Link River would continue to be operated and maintained consistent with historical practices. The Proposed Action does not involve any new construction or modification to the existing facilities; all that would change is legal ownership to the dam and the related properties. Therefore, there would be no impacts contributing to climate change or greenhouse gases under this aspect of the Proposed Action. Very minor and temporary impacts to climate change or greenhouse gases could occur from the use of vehicles and various equipment during both Reclamation's and PacifiCorp's proposed routine O&M activities; however, any impacts to climate change or increases in greenhouse gases would be expected to be consistent with what occurs under current O&M practices, and overall insignificant due to the scope and infrequency of such activities, and compliance with pollution related laws and regulations.

3.1.5 Air Quality

Section 176 (c) of the Clean Air Act (CAA) (42 U.S.C. §7506(c)) requires that any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan required under Section 110 (a) of the CAA (42 U.S.C. §7401(a)) before the action is otherwise approved.

Air quality in the State of Oregon is regulated by the Environmental Protection Agency (EPA) and administered by the Oregon Department of Environmental Quality (ODEQ). The National Ambient Air Quality Standards established by EPA under the CAA, specifies limits of air pollutant levels for several pollutants. Of those pollutants, particulate matter (PM)10 and PM2.5 have been identified and included in attainment plans for the Klamath Falls area (Klamath County, Oregon). Since 1994, Klamath Falls has attained the standards associated with PM10, though the area has been designated as in non-attainment (not meeting air quality standards) for PM2.5. In 2012, ODEQ adopted an attainment plan to meet PM2.5 standards.

As reported on the EPA's NEPAssist web tool (accessed September 15, 2023), the Link River Dam and surrounding areas remain in non-attainment status for PM2.5 24-hour and in maintenance status for PM10 and Carbon Monoxide. The Keno Dam and surrounding areas are not in non-attainment or maintenance status for any of the criteria air quality pollutants reporting in the EPA's NEPAssist. This includes Ozone 1-hr, Ozone 8-hr, Lead, Sulfur dioxide (SO₂) 1-hr, PM2.5. PM10, Carbon Dioxide (CO₂) and Nitrogen Dioxide (NO₂).

Routine O&M activities conducted by Reclamation and PacifiCorp may temporarily increase airborne dust particles and engine emissions; however, it is not anticipated that there would be any additional impacts beyond what occur under current O&M activities, and further, these impacts would be almost negligible. Emissions from vehicles and equipment would conform to federal and state standards and would not be expected to exceed any air quality regulatory standards. Due to the scope and limited frequency of proposed maintenance activities, any impacts to air quality would be insignificant.

3.1.6 Noise

The Proposed Action involves a change in legal ownership of Keno Dam and the related properties, including those adjacent the Link River. The dam and the associated properties are to be operated and maintained by Reclamation in their present condition, consistent with historical practices. No new facilities or modifications to the existing facilities, or their operations, are anticipated at this time, and would be analyzed on a separate basis should they occur.

In regard to PacifiCorp's retained easements, noise-making activities stemming from O&M would be generally limited to driving vehicles for access and maintenance purposes, which occur currently under PacifiCorp's present O&M activities. These activities would not significantly contribute to ambient noise levels in the area.

3.1.7 Socioeconomics

The Proposed Action would result in Reclamation's continuation of routine O&M activities at Keno and Link River dams as well as approval of certain O&M activities on PacifiCorp's easement properties. These activities are not expected to have a material effect on short-term demand for commercial products and services. For O&M activities related to PacifiCorp's facilities, it is anticipated that services and supplies would be provided by PacifiCorp, rather than local vendors and service providers. For those properties for which Reclamation will perform routine O&M, the same can be expected. Any future sizable construction projects in which supplies and services may be needed would be analyzed on a separate basis.

While the Proposed Action would result in the removal of parcels acquired in fee title from the Klamath County tax rolls, which would result in a very minor reduction in tax revenues to Klamath County, the Proposed Action is not expected to have any significant impact to local or regional economies.

3.2 Resources Analyzed in Detail

This EA analyzes the affected environment of the Proposed Action and No Action alternatives in order to determine the potential impacts and cumulative effects to the following environmental resources.

Reclamation has determined that components of the Proposed Action, consisting of acquiring landowner agreements along the Keno Reach of the Klamath River for the purpose of maintaining easements related to operation of Link River and Keno Dams, assuming ownership of the Weed Bridge Gaging Station, necessary to regulate releases through Keno Dam, and obtaining temporary Right of Use or permanent access easements through adjacent private and public land for the purpose of conducting O&M, are administrative actions and do not have the potential to cause effects to the human environment and will not be discussed further.

3.2.1 Water Resources

3.2.1.1 Affected Environment

Klamath and Link Rivers

Water resources potentially affected by the Proposed Action include surface waters in the Klamath and Link rivers.

Keno Dam is currently operated to regulate water levels in the 22-mile segment of the Klamath River between Keno and Klamath Falls (River Miles 233 to 253). For this document, "Keno impoundment" refers to the portion of the Klamath River upstream of Keno Dam to the mouth of Link River (a segment of the Klamath River), including Lake Ewauna, from approximately river mile 231 to 252. This portion of the river is also commonly known as the Keno Reservoir. Managing water levels in the Keno Impoundment requires close coordination with Reclamation in relation to releases from Upper Klamath Lake via Link River Dam and discharges to the Klamath River via the Lost River Diversion Channel and Klamath Straits Drain.

Under a 1968 agreement between Reclamation and PP&L (Contract No. 14-06-200-3579A), Keno Dam is required to be operated to maintain the water surface in the Klamath River at the Highway 66 Bridge in Keno at a minimum operating level of 4,085.0 feet (USBR datum) whenever flow at Keno Dam is at or below 6,000 cubic feet per second (cfs). When flows at Keno Dam exceed 6,000 cfs but releases from Link River Dam are at or less than 10,000 cfs, the agreement requires that Keno Dam be operated as to allow the discharge of up to 3,000 cfs from the Lost River Diversion Channel and 300 cfs from the Klamath Straits Drain at all times. The agreement further provides that Reclamation and PacifiCorp will coordinate their respective operations to attempt to maintain water levels in the Keno Impoundment at or below 4,086.5 feet (USBR datum).

Water released from Keno Dam enters the mainstem of the Klamath River, where it then passes/passed through PacifiCorp's four hydroelectric dams⁶ (J.C. Boyle, Copco 1, Copco 2, and Iron Gate). Since 1997, Reclamation has been managing releases from Link River Dam to produce designated water surface elevations in Upper Klamath Lake and flows in the Klamath River below Iron Gate Dam, in accordance with the ESA.

Reclamation's current operations and compliance with the ESA are provided for in Reclamation's 2020 Interim Operations Plan (and subsequent 2023 Interim Operations Plan⁷) and associated NMFS and USFWS BiOps. The Interim Operations Plan provides for specified flows in the Klamath River downstream of Iron Gate Dam. The designated flows are based upon current and forecasted hydrologic conditions in the Upper Klamath Basin, particularly water levels and inflows to Upper Klamath Lake. These flows are presently produced through PacifiCorp's coordinated operation of Link River Dam, Keno Dam, and downstream hydroelectric dams. The result is that releases from Upper Klamath Lake through Link River Dam are directly tied to the prescribed flows at Iron Gate Dam, after accounting for downstream diversions, other losses (e.g., evaporation,

⁶ As of the date of this document, Copco 2 has been removed and PacifiCorp's other three dams are slated for removal by the end of 2024.

⁷ Reclamation's 2020 Interim Operations Plan period of action ended in March of 2023, and as such, Reclamation carried forward the operating procedures identified within the 2020 Interim Operations Plan, with minor adjustments, from April 2023 to October 2024.

seepage), and tributary inflow (i.e., surface and groundwater).

Under the Interim Operations Plan, flows at Iron Gate Dam (and thus downstream Link River Dam) vary depending on hydrologic conditions. In general, lower flows are required in drier conditions, and higher flows in wetter conditions. There are, however, minimum prescribed flows at Iron Gate Dam, ranging from 950 cfs (December through February) to 1,325 cfs (April).

Water Quality

Water quality in the Link River and Keno Impoundment is affected by Upper Klamath Lake, which is a large, relatively shallow, highly eutrophic water body. Water quality is particularly compromised during late summer and early fall when water temperatures are warm and there are blooms of bluegreen algae (*Aphanizomenon flosaquae*). These conditions commonly result in large diurnal fluctuations in dissolved oxygen concentrations and pH levels, as well as a high level of ammonia. Water quality may also be reduced in Keno Reservoir by nutrient-rich agricultural return flows entering the reservoir at the Straits Drain and from the Lost River Diversion Channel in winter/spring.

Per the EPA's NEPAssist tool (accessed on September 25, 2023), the ODEQ has listed water quality in the Klamath River at Keno Dam and the Keno Impoundment as impaired (bodies of water that are too polluted or otherwise degraded to meet the water quality standards set by states) under section 303(d) of the federal Clean Water Act (CWA), and are required to develop a Total Maximum Daily Load (TMDL). Varying segments of the Klamath River, from the Oregon-California state line to Upper Klamath Lake are listed as impaired. The segment of the Klamath River from Keno Dam to Upper Klamath Lake is listed as impaired for algae, ammonia, chlorophyll a, dissolved oxygen, harmful algal blooms, pH, and temperature (EPA, 2023). Table 3.2.1 below shows the current portions of the Klamath River ODEQ has listed as impaired under section 303(d) of the CWA.

Table 2. Portions of the Klamath River designated as impaired by ODEQ under section 303(d) of the Clean Water Act. Source: ODEQ, 2019.

River Mile	Criteria	Applicable Period
231.5 to 253	Ammonia	Year round
231.5 to 253	Chlorophyll a	Summer
207 to 231.1	Dissolved Oxygen	Jan 1 – May 15 (Spawning)
207 to 231.1	Dissolved Oxygen	Year round (Nonspawning)
207 to 231.1	Temperature (20.0°C)	Jun 1 – Sep 30
231.1 to 251	Dissolved Oxygen	Year round (Nonspawning)
231.5 to 253	pН	Summer
231.1 to 254.9	Temperature (28.0°C)	Jun 1 – Sep 30
232.7 to 253.7	Ammonia Toxicity	Year round
232.7 to 253.7	Dissolved Oxygen	Year round
232.7 to 253.7	рН	Year round

Based on the section 303(d) listing as impaired, ODEQ has established TMDLs for the Klamath River. The TMDL sets a loading capacity that limits the amount of pollutant that can be discharged to achieve the biologically based numeric criteria and human use allowance. In conjunction with the TMDL, ODEQ has recently established Water Quality Management Plans for the Upper Klamath and Lost River subbasins for nutrient-related and temperature impairments.

Oregon's approach to TMDL implementation includes the designation of responsible management agencies with the legal authority over a sector or source contributing pollutants and is identified as such by ODEQ in a TMDL. Reclamation is currently one of the Designated Management Agencies in the Upper Klamath and Lost River subbasins. ODEQ has designated Keno Dam as a nonpoint source for water quality in the Klamath River. Based on Reclamation's present O&M of the Lost River Diversion Channel and Klamath Straits Drain, Reclamation is currently involved in a watershed stewardship framework approach under which entities named in the TMDLs will work as a group with the regulatory entities to plan and implement strategies and projects to meet TMDL requirements, which involves development of a stewardship plan through which participants will voluntarily participate in a planning process to identify and develop a consistent set of management actions to address water quality requirements.

3.2.1.2 Environmental Consequences

No Action Alternative

Keno and Link Rivers

Under the No Action Alternative, Reclamation would not acquire Keno Dam and the related property interests, including along the Link River. PacifiCorp would continue to own the dam and these properties and would continue to operate and maintain Keno Dam, consistent with historical practices, at least for some undetermined period of time.

The existing 1968 agreement between Reclamation and PP&L for Keno Dam would remain in place, requiring that the dam be operated to not interfere with operation of Reclamation's Lost River Diversion Channel and Klamath Straits Drain. Based on the 1968 agreement, water levels would continue to be managed at an elevation between a minimum and maximum operating level of 4,085.0 and 4,086.5 feet, respectively. There would be no change in operating levels between the No Action and Proposed Action alternatives.

As discussed above, flows in the Klamath River below Keno Dam would continue to be dictated by the required flows at Iron Gate Dam under Reclamation's Interim Operations Plan, pending completion of the current section 7 ESA consultation.

Water Quality

The Klamath River would continue to be listed by ODEQ as impaired under section 303(d) of the CWA, with corresponding TMDLs. Reclamation and other Designated Management Agencies would still be responsible for developing TMDL Implementation Plans.

Proposed Action Alternative

Keno and Link Rivers

Under the Proposed Action, Reclamation would acquire from PacifiCorp Keno Dam and the related real property interests, including along the Link River, in accordance with the terms of the KHSA

and KPFA. Title would be conveyed from PacifiCorp to the United States in early 2024.

Following transfer, the KHSA and KPFA further obligate Reclamation to continue to operate Keno Dam consistent with historical practices (between a minimum of 4,085.00 ft and a maximum of 4,086.5 ft). Accordingly, Reclamation would continue to manage water levels in the Keno Impoundment between a minimum of 4,085.00 and a maximum of 4,086.00, as per recent historic practice. Reclamation would also continue to coordinate dam operations with releases made from Link River Dam, the Lost River Diversion Channel, and the Klamath Straits Drain. These coordinated operations would attempt to manage water levels in the Keno Impoundment similar to what occurs now under the 1968 agreement with PP&L.

In terms of gate operations, similar to the No Action Alternative, flows in the Klamath River below Keno Dam would continue to be dictated by the required flows below Iron Gate Dam under Reclamation's current Interim Operations Plan through September of 2024.

For purposes of this EA, it is assumed that pending completion of Reclamation's current on-going ESA Section 7 consultation for long-term (post dam removal) Klamath Project operations (including Keno Dam)⁸, which will include prescribed flows in the Link River and Klamath River, and will also necessarily dictate flows at Keno Dam, flows in the Klamath River below Iron Gate Dam (and by consequence, upstream at Keno Dam) will be consistent with current operations and in accordance with the existing Interim Operations Plan. Any decision by Reclamation to change or alter those flows would be made at a later date and in accordance with appropriate processes, subject to federal laws, regulations, and compliance requirements, as determined necessary.

As changes in operations are not a part of this Proposed Action, no changes over baseline in relation to water resources are anticipated from resuming O&M of Keno Dam consistent with historic practice.

Water Quality

As operations under the Proposed Action would not change, the Klamath River would continue to be listed by ODEQ as impaired under section 303(d) of the CWA, with corresponding TMDLs, and Keno Dam would remain a designated non-point source for water pollutants. Reclamation and other Designated Management Agencies would still be responsible for developing watershed stewardship plans.

3.2.2 Biological Resources

3.2.2.1 Affected Environment

Biological resources potentially affected by the Proposed Action consist of fish and wildlife in the Klamath River Basin, both above and below Keno Dam.

Upper Klamath River Basin (Upstream of Iron Gate Dam)

There are 27 species of fish, from eight taxonomic families, known to be present in the Klamath

⁸ Reclamation's current Section 7 consultation for long-term Klamath Project operations is beyond the scope of the Proposed Action addressed in this EA and will be further addressed in Reclamation's long-term operations and associated compliance documents.

River and reservoirs upstream of Iron Gate dam (PacifiCorp, 2004). These fish include lampreys (family *Petromyzontindae*), carp and minnows (family *Cyprinidae*), suckers (family *Catostomidae*), bullhead catfish (family *Ictaluridae*), trout (family *Salmonidae*), sculpin (family *Cottidae*), sunfish (family *Centrarchidae*), and perch (family *Percidae*). Over half (14) of these species, including two species of carps and minnows, all three species of bullhead catfish, one species of trout (brown trout, *Salmo trutta*), all seven species of sunfish, and the one species of perch are non-native, having been introduced by humans. Native fish include two species of lampreys, three species of carp and minnows, four species of suckers, one species of trout (redband trout, *Oncorhynchus mykiss gairdneri*), and three species of sculpins.

Lower Klamath River Basin (Downstream of Iron Gate Dam)

45 fish species, representing 16 taxonomic families, are known to be present in the Klamath River downstream of Iron Gate dam (PacifiCorp, 2004). These fish include the same taxonomic families known to be present upstream of Iron Gate Dam, as noted above, and also include sturgeons (family *Acipenseridae*), herrings (family *Clupeidae*), smelts (family *Osmeridae*), salmon (family *Salmonidae*), silversides (family *Atherinidae*), sticklebacks (family *Gasterosteidae*), surfperches (family *Embiotocidae*), gobies (family *Gobiidae*), and righteye flounders (family *Pleuronectidae*). A large majority of these species (30) are native species, with the remaining 15 being non-native. Of these species, 11 are anadromous, including pacific lamprey (*Lampetra tridentata*), green sturgeon (*Acipenser medirostris*), white sturgeon (*Acipenser transmontanus*), American shad (*Alosa sapidissima*), eulachon (*Thaleichthys pacificus*), pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*Oncorhynchus keta*), coho salmon (*Oncorhynchus kisutch*), steelhead trout (*Oncorhynchus mykiss*), sockeye salmon (*Oncorhyncus nerka*), and Chinook salmon (*Oncorhynchus tshanytscha*).

Other Species

The Proposed Action area is home to a large number of wildlife species with great diversity, including amphibians, reptiles, mammals, and birds. Non-ESA listed species that may be present within the Proposed Action areas include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer catenifer*), common garter snake (*Thamnophis sirtalis*, western pond turtle (*Actinemys marmorata*), black-tailed jackrabbit (*Lepus californicus*), mule deer (*Odocoileus hemionus*), California ground squirrel (*Otospermophilus beecheyi*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), beaver (*Castor*), muskrat (*Ondatra zibethicus*), mink (*Neovison vison*), and river otter (*Lontra canadensis*), American white pelicans (*Pelecanus erythrorhynchos*), double-crested cormorants (*Phalacrocorax auritus*), eared, Western, and Clark's grebes (*Phalacrocorax auritus*, *Aechmophorus occidentalis*, and *Aechmophorus clarkii*), great egret (*Ardea alba*), ring-billed gull (*Larus delawarensis*), and California gull (*Larus californicus*), among many others.

Special Status Species

Two of the native fish species upstream of Iron Gate Dam, the shortnose sucker (*Chasmistes brevirostris*) and the Lost River sucker (*Deltistes luxatus*) are listed as endangered under the federal ESA and by the States of Oregon and California. Additionally, one species of lamprey (Klamath lamprey, *Lampetra similis*), one species of carp and minnow (Blue chub, *Gila coerulea*), one species of sucker (Klamath largescale sucker, *Catostomus snyderi*), one species of trout (Redband rainbow trout), and one species of sculpin (Slender sculpin, *Cottus tenuis*) are known to be federal and/or state sensitive species or species of concern.

Four of the 45 species present downstream of Iron Gate dam have protected status under the

federal ESA and/or considered for evaluation under the Magnuson-Stevens Fishery Conservation Management Act. Specifically, shortnose sucker (endangered under ESA), delta smelt (*Hypomesus transpacificus*; threatened under ESA), coho salmon (threatened under ESA), Southern Distinct Population Segment (DPS) Eulachon (*Thaleichthys pacificus*; threatened under ESA), the southern DPS of green sturgeon (threatened under the ESA), and Chinook salmon (subject to Magnuson Stevens Act and under consideration for listing under the ESA). Pacific lamprey, green sturgeon, blue chub, Klamath largescale sucker, and steelhead trout are also considered a federal and/or state sensitive species or species of concern downstream of Iron Gate Dam.

In addition to the special status species listed above, the USFWS Information for Planning and Consultation (IPaC) web tool lists a number of candidate, proposed, threatened, and endangered species that may occur in Klamath County and the Proposed Action Area which can be found in Appendix B.

As previously discussed, water quality in the Link River and the Keno Impoundment is impaired and frequently limiting to many fish species during late summer and early fall as a result of warm water temperatures, low levels of dissolved oxygen, and excessive algal growth and associated algal toxins. Poor water quality conditions and resulting diurnal fluctuations in dissolved oxygen and pH adversely affect aquatic life, often resulting in disease and even die-offs. Similarly, major water quality problems also regularly occur in other areas of the Klamath River (downstream), in part due to the existence of dams on the mainstem.

The four hydroelectric dams⁹ on the Klamath River have contributed to the degradation and decline of fish stocks by degrading and obstructing aquatic habitat. These dams alter the natural flow regime and sediment transport of the Klamath River, thereby exacerbating poor water quality conditions, increasing water temperatures in the summer and fall months, modifying the channel, allowing for the establishment of invasive species, and increasing the exposure of salmon to disease.

As a result of the degradation and lack of access to habitat, current conditions have led to severely degraded fish stocks within the Klamath River. Annual runs of anadromous fish on the Klamath River have significantly declined over the last century below historical levels. Large fish die-offs, particularly downstream of Iron Gate Dam, have become an annual threat. Commercial fishing of salmon associated with the Klamath River has at times been restricted, and the ability of Native American tribes in the Klamath Basin to rely on salmon for subsistence has been compromised. The State of California currently operates a fish hatchery below Iron Gate Dam to help maintain salmon and steelhead stocks.

Wetland and Riparian Areas (Link and Klamath Rivers)

There are riparian wetland areas of varying sizes within the existing floodplain of the Link and Klamath rivers. The National Wetland Inventory describes the floodplain vegetation along the Link and Klamath Rivers (down to the lower Klamath River below Iron Gate Dam) as ribbons of freshwater emergent wetlands (dominated by hardstem bulrush, cattail, sedges, and rushes) along the shorelines of the reservoirs and mixed with freshwater forested/shrub wetlands on the slopes beyond the Link and Klamath rivers (EPA, 2023).

⁹ Copco 2 has been removed as of the date of this document.

3.2.2.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, Reclamation would not acquire ownership of Keno Dam and the related property interests, including along the Link River. Keno Dam would continue to be owned, operated, and maintained by PacifiCorp in its current state, consistent with historical practices. Aforementioned issues such as poor water quality, lack of access to habitat, and degraded fish stocks would likely continue at least until dam removal is complete. Reclamation would continue to coordinate Klamath River flows, as required by the BiOps related to Klamath Project operations, with PacifiCorp, pending completion of the current Section 7 ESA consultation.

As Reclamation would not acquire property surrounding Keno and Link River dam necessary for O&M, there would be no need for Reclamation to grant to PacifiCorp certain easements to support O&M of existing electric power facilities and access thereto. As such, there would be no need for Reclamation to approve of PacifiCorp's O&M plan and activities, and PacifiCorp would carry out these actions as needed at their own volition, on their own property, without the need for Reclamation approval and federal regulation considerations.

Proposed Action Alternative

As stated previously, this EA assumes that under either Alternative, Keno Dam would continue to be operated in its current state, consistent with historical practices. Under the Proposed Action Alternative, Reclamation would take ownership of Keno Dam, anticipated to occur in January of 2024, and be responsible for its continued operation and maintenance.

As the Proposed Action merely involves a change in ownership of Keno Dam, with operational and maintenance activities remaining as they are presently, Reclamation does not anticipate any effects to upper Klamath River basin species, lower Klamath River basin species, species status species, or wetland and riparian areas beyond those experienced under the current existing baseline.

Transfer of Keno Dam is incidental to the related but separate action of de-commissioning and removal of J.C. Boyle, Copco 1, Copco 2, and Iron Gate dams, which is not under Reclamation's administrative jurisdiction. Once decommissioning and removal of PacifiCorp's four dams is complete, it is anticipated that baseline conditions will indeed change, and Reclamation may then propose altered operations at Keno Dam to address changing conditions. Any decision to change or alter flows at Keno Dam would be made through Reclamation's ongoing Section 7 ESA consultation process. As stated previously, Reclamation is currently undergoing the ESA Section 7 consultation process for long-term (post dam removal) operations, which will include proposed operations at Keno Dam and subsequent effects analysis. Pending completion of the current consultation, flows in the Klamath River at Keno Dam (and downstream) will be dictated by Reclamation's Interim Operations Plan for the Klamath Project, which Reclamation has extended through water year 2024 (ending September 30). ESA coverage is provided for in a NMFS concurrence letter dated October 2022, within which NMFS concurs that extending Interim Operations Plan operations is expected to result in effects consistent with the anticipated effects of the proposed action analyzed in NMFS 2019 BiOp through March 31, 2024¹⁰. Similarly, in response to Reclamation's extension of the existing Interim Operations Plan, the USFWS responded with an

¹⁰ Reclamation is currently coordinating with NMFS on how to best address ESA requirements for operations that will occur from April 1 through October 1, 2024.

updated BiOp in September 2023, extending ESA coverage under the existing Interim Operations Plan through October 31, 2024. The BiOp covers Reclamation's maintenance of a Keno Reservoir surface elevation of 4,086.5, which is consistent with historic operations as discussed above in Reclamation's proposed action.

In addition, it is anticipated that once dam removal occurs, modifications to Keno Dam may need occur to accommodate the reintroduction of anadromous fish into the Upper Klamath Basin. Once transfer of ownership occurs, Reclamation would conduct necessary assessment and investigation activities to further inform modification needs. Any future facility modifications are outside the scope of this Proposed Action and EA, and would be analyzed on a separate basis, as necessary.

Under the Proposed Action, Reclamation would approve of certain O&M activities necessary for PacifiCorp to perform routine O&M activities on their existing facilities at both Keno and Link River locations. These actions, as noted above in Section 2.2.16, are above-ground activities. Due to the scope of PacifiCorp's proposed O&M activities, the infrequency and location of the proposed actions (see Figure 1, 2, and 3 above), the use of existing access roads, and the BMPs proposed, Reclamation expects no impacts to terrestrial biological resources as a result of PacifiCorp's proposed O&M activities.

3.2.3 Recreation

3.4. 3. the first ed Engirement day use area (Keno Camp/Keno Recreation Area) exists adjacent to Keno Dam and is currently owned and operated by PacifiCorp. The campground is generally open mid-May through early October and has 26 campsites, 12 picnic sites, and various other amenities including restrooms and showers. The site also includes a boat ramp and dock, under Reclamation ownership, for boating and fishing opportunities.

At Link River, PacifiCorp maintains a 1.5-mile-long trail along the west side of the river, commonly known as the Link River Trail. The trail is affiliated with the USA National Trails System, as well being part of the Link River Bird Sanctuary and Small Game Refuge. The Link River Trail is open year-round, with no use feed, and remains a popular location for walking, bird watching, and trail running. The trail is closed to vehicle access by the public, but PacifiCorp and Reclamation have historically used the trail for access to the west abutment of Link River Dam, generally from the north side, off Lakeshore Avenue, where there is a paved parking lot.

3.2.3.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, PacifiCorp would retain ownership of Keno Dam and the related properties. In that event, it is anticipated that PacifiCorp would continue to operate and maintain the Keno Recreation Area, and the existing boat ramp and dock would continue to be under Reclamation ownership. It is assumed that no changes in operation of the campground or dock and boat ramp would occur, and use would continue as it does currently.

Reclamation would not acquire property nor easements encompassing the Link River Trail adjacent to the Link River for access to Link River Dam; however, both Reclamation and PacifiCorp's use of the trail for this purpose would likely continue unchanged. As Reclamation would not acquire

ownership or an easement on lands involving the Link River Trail, Reclamation would have no need to execute a Recreation Agreement with the City of Klamath Falls. The amount of vehicle traffic across the trail would continue at its current level and there would be no changes in recreational use of the trail.

Proposed Action Alternative

While Reclamation currently owns the lands associated with the existing boat ramp and dock at Keno Recreation Area, the transfer of lands under the Proposed Action does not include the lands underlying the campground, and as such, Reclamation would not be involved in any direct change in the ownership or operation of the campground.

As part of the KHSA, it was anticipated that the campground and the underlying properties would be transferred from PacifiCorp to the State of Oregon. However, it has been determined that the State of Oregon no longer has an interest in acquiring the recreation area. As such, transfer of ownership, operation, and maintenance of the Keno Recreation Area following transfer of Keno Dam from PacifiCorp to Reclamation is unresolved at this time. Although Reclamation would have no ownership or operational control of the campground, it is anticipated that public assess, use, and enjoyment of the area, including the boat ramp and dock area would be unchanged.

The Proposed Action involves no physical change to Link River Trail. Reclamation's acquisition of lands and easements along the Link River trail for access to Link River Dam would continue the present use of the trail for this purpose. No new construction or modification to the trail are currently anticipated to occur in connection with acquiring these properties. The amount of vehicle traffic across the trail for accessing Link River Dam (and for PacifiCorp to access their facilities) is not anticipated to change. Reclamation's proposal to enter into a Recreation Management Agreement with the City of Klamath Falls for the administration, operation, maintenance, and development of recreation uses and facilities at the Link River Trail is merely an administrative action in which the City of Klamath Falls would take over recreation management of the trail for Reclamation rather than for PacifiCorp, as it does currently. Any future changes to the trail would undergo Reclamation approval, subject to environmental compliance as necessary.

3.2.4 Cultural Resources

3.2.4.1 Affected Environment

The broad term "cultural resources" includes prehistoric, historic, architectural, and traditional cultural properties. Title 54 U.S.C. section 300101 et seq., commonly known as the National Historic Preservation Act (NHPA) is the primary legislation for federal historic preservation. Section 106 of the NHPA (54 U.S.C. §306108) requires federal agencies to take into consideration the effects of their undertakings on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment. Historic properties are those cultural resources that are listed on or eligible for inclusion in the National Register of Historic Places (National Register).

The Section 106 process, as outlined in the federal regulations at 36 CFR section 800, describes the steps that the federal agency must take to identify cultural resources and the level of effect that the proposed undertaking would have on historic properties.

3.2.4.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, Reclamation would not take title to Keno Dam and related real property interests, and subsequently operate and maintain the dam consistent with historical practices. Ownership would remain with PacifiCorp and the dam would be operated and maintained as it is presently. Reclamation would not acquire certain real property interests along the Link River to support O&M of Link River Dam. As such, there would be no need for Reclamation to approve of an O&M Plan for PacifiCorp actions on Reclamation land. PacifiCorp would resume O&M activities as related to their facilities on their own land. Activities on the lands at Keno and Link River dams would remain as they are presently.

Proposed Action Alternative

Reclamation proposes to acquire from PacifiCorp Keno Dam and related real property interests, as well as certain properties in connection with operation and maintenance of Link River Dam, all by donation. This action would only result in a change in ownership of the lands and existing facilities located on them; operational activities would remain consistent with historical practice and no new construction or facility modifications would occur. In addition, Reclamation would provide approval for certain above-ground O&M activities, as related to PacifiCorp facilities, to occur on Reclamation land.

Reclamation assumes that cultural resources are likely within the lands proposed for acquisition; however, the mere action of acquiring these properties, without any change in their use, modification of existing facilities, or new constriction, will not affect these resources pursuant to 36 CFR section 800.4(d)(1). This undertaking is primarily administrative in nature and does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the Title 54 U.S.C. § 306108, commonly known as Section 106 of the NHPA regulations codified at 36 CFR § 800.3(a)(1). This project would not result in construction, ground disturbance, or modification to federal facilities. Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1). Additional actions beyond the transfer and identified operations may require additional NHPA Section 106 review, including consultation with the State Historic Preservation Officer (SHPO).

3.3 Cumulative Effects

According to the CEQ regulations for implementing the procedural provisions of NEPA, a cumulative effect is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7).

As the Proposed Action is largely administrative in nature, with the addition of limited operation and maintenance activities, no significant individual effects on any resources were identified when evaluating the Proposed Action Alternative. It has been determined that activities under the Proposed Action would not incrementally contribute to cumulative impacts, whether direct or

indirect, when added to other reasonably foreseeable future actions, especially given that any impacts resulting from Proposed Action activities would be very minor and isolated to the lands surrounding Keno and Link River Dams.

Section 4 Environmental Commitments

The following environmental commitments and permitting conditions have been and/or would be implemented before, during, and/or after the Proposed Action.

- Hazardous Materials In accordance with Department regulations, in August 2023, the
 properties were inspected by a qualified environmental specialist via a Phase I
 Environmental Site Assessment to verify that no hazardous materials are located on the
 properties. In addition, a record search and thorough review of historic site conditions were
 conducted. If any such substances were encountered, proper mitigation recommendations
 were included in the report, which is available upon request.
- Cultural Resources If subsurface deposits believed to be cultural or human in origin are
 discovered during acquisition of any of the properties involved, then all activities must halt
 within a 50-foot radius of the discovery. Reclamation's Regional Cultural Resources Officer
 will need to be contacted immediately and no work may continue within the 50-foot buffer
 until authorized by Reclamation.
- Environmental Permitting As contemplated in the KHSA, PacifiCorp would obtain all necessary state and federal regulatory approvals for transferring Keno Dam to the United States.

Section 5 Consultation and Coordination

This section presents the agencies and parties that were coordinated or consulted with during development of the document and presents a summary of necessary permits and approvals that either have been acquired or are in the process of being acquired.

5.1 Persons/Agencies Consulted During EA Development

- PacifiCorp Reclamation has undergone extensive coordination with PacifiCorp throughout
 the process of planning for the Proposed Action on items including but not limited to
 development of the Donation Agreement, PacifiCorp's O&M Plan for reserved easements,
 survey work, Phase I Environmental Site Assessment needs, and site visits as necessary.
- City of Klamath Falls Reclamation has been coordinating with the City of Klamath Falls on the planning and development of the proposed Recreation Management Agreement for the Link River Trail, as discussed above in Section 2.2.4.3.
- Private property owner Reclamation has been coordinating with a private property owner on the proposed access easement through private property necessary for access from the north end of the Link River trail as discussed above in Section 2.2.4.1.

5.2 Public Involvement

In accordance with 40 CFR section 1506.6, Reclamation is providing the public with an opportunity to comment on the EA during a 14-day review period beginning on November 15, 2023. An electronic version of the EA will be available at

https://www.usbr.gov/mp/nepa/nepa_base.php?location=kbao. Comments and questions related to the Proposed Action or EA may be submitted to Amanda Babcock at ababcock@usbr.gov.

Section 6 References

- Environmental Protection Agency. 2023. NEPAssist. https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=klamath+falls%2C+oregon. Accessed September 25, 2023.
- Klamath Tribes. 2023. Honoring Tribal Heritage. https://klamathtribes.org/honoring-tribal-heritage/. Accessed September 25, 2023.
- Oregon Department of Environmental Quality. 2019. Upper Klamath and Lost River subbasins Nutrient TMDL and Water Quality Management Plan.
- PacifiCorp. 2004. Final Technical Report, Klamath Hydroelectric Project, Fish Resources (prepared in connection with FERC relicensing proceedings).
- U.S. Fish and Wildlife Service. 2023. Information for Planning and Consultation. https://ipac.ecosphere.fws.gov/. Accessed

Section 7 Appendices

Appendix A: Maps

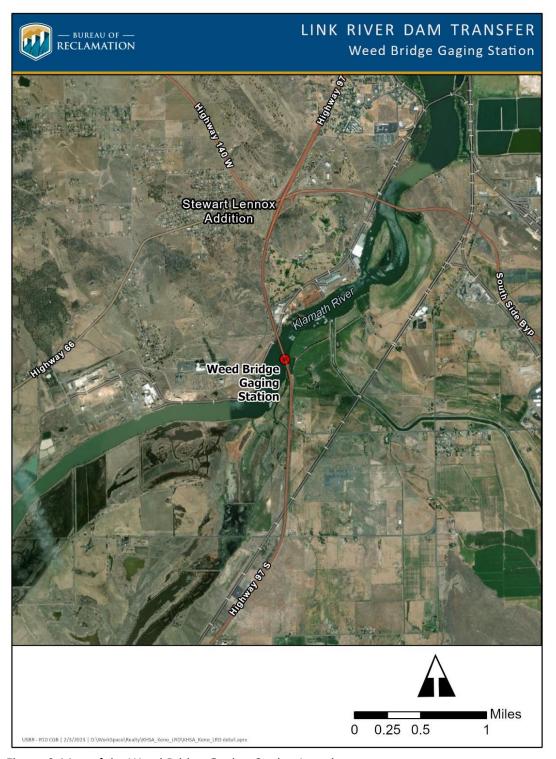


Figure 6. Map of the Weed Bridge Gaging Station Location.

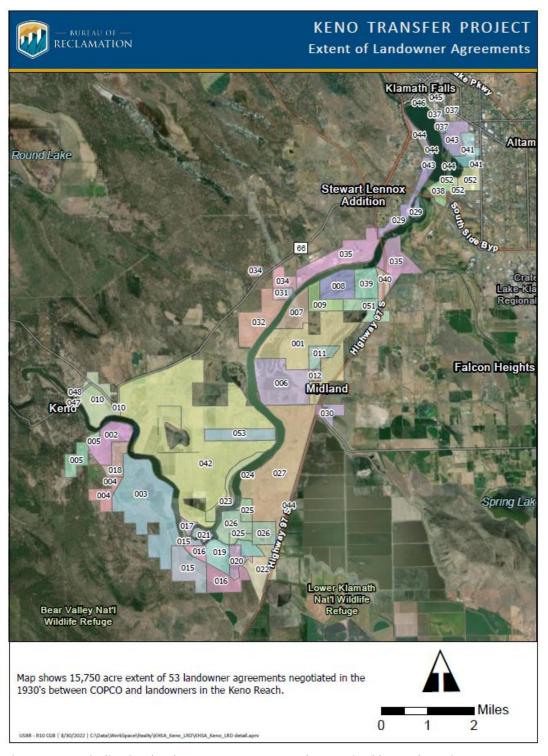


Figure 7. Map indicating landowner agreements to be acquired by Reclamation.

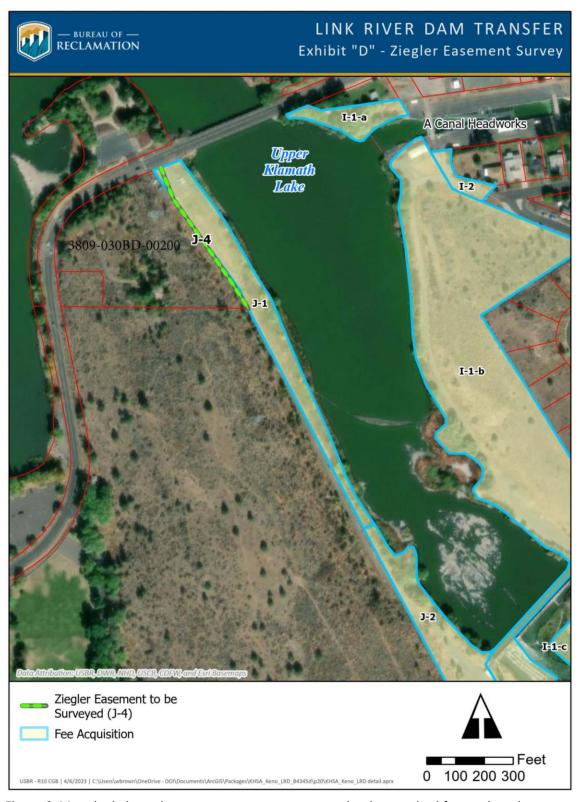
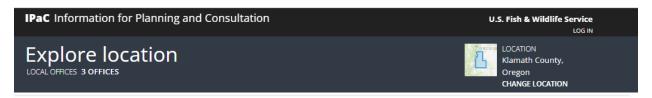


Figure 8. Map depicting private access easement proposed to be acquired for north end access.

Appendix B: Special Status Species that may Occur within Klamath County and the Proposed Action Areas.



Endangered species

Listed species and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

Additional information on endangered species data is provided below.

The following species are potentially affected by activities in this location:

##THUMBNAILS ##LIST	
Mammals NAME	STATUS
Canada Lynx (CH) Lynx canadensis	Threatened
Gray Wolf CH Canis lupus	Endangered
North American Wolverine Gulo gulo luscus Wherever found	Proposed Threatened
Birds NAME	STATUS
Northern Spotted Owl CH Strix occidentalis caurina Wherever found	Threatened
Yellow-billed Cuckoo CH Coccyzus americanus	Threatened

Amphibians

NAME	STATUS
Oregon Spotted Frog CH Rana pretiosa Wherever found	Threatened
Fishes NAME	STATUS
Bull Trout CH Salvelinus confluentus	Threatened
Lost River Sucker CH Deltistes luxatus Wherever found	Endangered
Shortnose Sucker CH Chasmistes brevirostris Wherever found	Endangered
Insects	STATUS
Franklin's Bumble Bee Bombus franklini Wherever found	Endangered
Monarch Butterfly Danaus plexippus Wherever found	Candidate
Crustaceans	STATUS
Conservancy Fairy Shrimp (CH) Branchinecta conservatio Wherever found	Endangered
Vernal Pool Fairy Shrimp CH Branchinecta lynchi Wherever found	Threatened
Vernal Pool Tadpole Shrimp CH Lepidurus packardi Wherever found	Endangered

Flowering Plants

NAME	STATUS
Applegate's Milk-vetch Astragalus applegatei Wherever found	Endangered
Greene's Tuctoria (CH) Tuctoria greenei Wherever found	Endangered
Slender Orcutt Grass CH Orcuttia tenuis Wherever found	Threatened
Conifers and Cycads	STATUS
Whitebark Pine	Threatened

Critical habitats

Pinus albicaulis Wherever found

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Bull Trout Salvelinus confluentus	Final
Lost River Sucker Deltistes luxatus	Final
Northern Spotted Owl Strix occidentalis caurina	Final
Oregon Spotted Frog Rana pretiosa	Final
Shortnose Sucker Chasmistes brevirostris	Final

Appendix C: Indian Trust Asset Coordination

Indian Trust Assets Request Form

(Interior Region 10 – California Great Basin)

Submit your request to your office's ITA designee or to CGB-400, attention Deputy Regional Resources Manager.

Date: 9/14/2023

Requested by (office/program)	Amanda Babcock, Natural Resource Specialist, Klamath Basin Area Office
Fund	23XR0680A2
WBS	RX0012L1041003000
Fund Cost Center	25320000
Region # (if other than IR10- CGB)	
Project Name	Keno Dam Transfer Agreement
CEC or EA Number	CGB-EA-2023-037/KBAO-EA-2023-002
Project Description	 Under the Proposed Action, Reclamation would: Take title to Keno Dam and related real property interests on behalf of the United States, and subsequently operate and maintain the dam consistent with historical practices, consistent with the terms of the Klamath Hydroelectric Settlement Agreement and Klamath Power and Facilities Agreement. Acquire certain landowner agreements along the Keno Reach of the Klamath River, associated with taking title of Keno Dam, for the purpose of maintaining easements related to operation of Link River and Keno dams. Obtain ownership of the Weed Bridge Gaging Station, necessary to regulate releases through Keno Dam. Grant to PacifiCorp certain easements near Keno Dam and along the Link River necessary to support existing electric power facilities and access thereto and provide approval for PacifiCorp's proposed Operation and Maintenance Plan for said easements. Acquire certain real property interests along the Link River, to support operation and maintenance of Link River Dam, which Reclamation is set to assume from PacifiCorp concurrent with transfer of Keno Dam.

- Enter into a recreation Management Agreement with the City of Klamath Falls for the administration, operation, maintenance, and development of recreation uses and facilities at the Link River Trail.
- Obtain either a permanent or temporary Right of Use for Reclamation access through adjacent private and public land for the purpose of conducting operation and maintenance at Link River Dam.

*Project Location (Township, Range, Section, e.g., T12 R5E S10, or Lat/Long cords, DD-MM-SS or decimal degrees). Include map(s) Project Location: Keno Dam (Latitude: 42° 8'4.74"N, Longitude: 121°56'55.98"W) and the real property interest Reclamation proposes to acquire from PacifiCorp are located approximately 1.5 miles downstream (west) of where Oregon State Highway 66 crosses over the Klamath River, in Klamath County, Oregon, in the unincorporated town of Keno (Northwest Quarter of Township 39 North, Range 9 West, Section 7, of the Willamette Meridian).

The real property interests Reclamation would acquire near Link River Dam (Latitude: 42°14'2.07"N, Longitude: 121°48'7.43"W) as part of the overarching transfer of Keno Dam and resumption of Link River Dam O&M are located within the municipal boundaries of the City of Klamath Falls. The real property interests are located within Sections 30, 31, and 32 of Township 38 South, Range 9 East, of the Willamette Meridian in Klamath County, Oregon.

The Weed Bridge Gaging Station Reclamation would acquire in conjunction with acquiring Keno Dam is located on the south side of the Klamath River beneath the existing Highway 97 (Weed) bridge within Section 18, Township 39 South, Range 9 East of the Willamette Meridian in Klamath County, Oregon. The approximate coordinates of this location are North 42° 10' 28.39" by West 121° 47' 55.78".

The landowner agreements Reclamation would acquire in relation to operation of Keno Dam are located within the Keno Reach of the Klamath River, spanning from Lake Ewauna at the outlet of the Link River to the Keno Dam.

AMANDA
BABCOCK
BABCOCK

Signature

Digitally signed by
AMANDA BABCOCK
Date: 2023.09 144
16:09.33-07'00'

Name of Preparer

ITA Determination:

The nearest ITA to the proposed Keno Dam and Link River property acquisition areas is the Klamath Tribal Designated Statistical Area of the Klamath Indian Tribe of Oregon located approximately 6.28 miles to the east-southeast of Keno Dam (see attached image in Exhibit A) and encompasses the Link River Dam area (see attached image in Exhibit B).

The nature of the Proposed Action does not involve any new construction, but merely a change in legal ownership of various parcels around Keno Dam and along the Link River, as well as approval of certain above-ground operation and maintenance activities related to PacifiCorp's retained easements. Both Keno and Link River dams will continue to be operated consistent with historical practices, and any future changes to Reclamation's operation and maintenance of the facilities would be analyzed separately.

Based on the nature and locations of the Proposed Action activities, it has been determined that the Proposed Action would not impact Indian hunting or fishing resources or water rights nor would the Proposed Action occur on actual Indian lands. It is reasonable to assume that the proposed action will not have any adverse impacts on ITAs.

MICHAEL NEUMAN	Digitally signed by MICHAEL NEUMAN Date: 2023.09.15 08:11:52 -07'00'	Mike Neuman	
Się	gnature	Name of Approver	

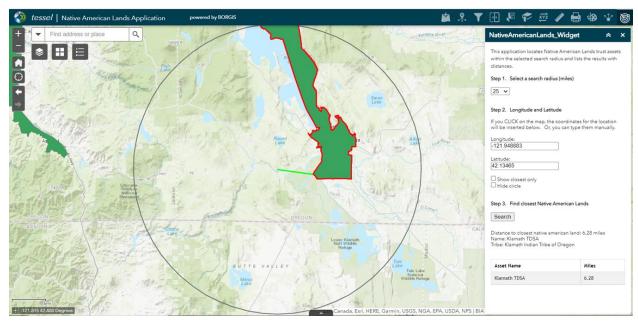


Figure 9. Closest ITA to the Proposed Keno Dam Acquisition.

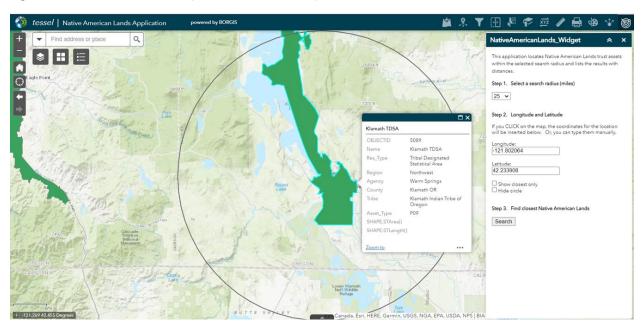


Figure 10. Closest ITA to the Proposed Link River Dam Property Acquisition.

Appendix D: Cultural Resources Compliance

CULTURAL RESOURCES COMPLIANCE Division of Environmental Affairs Cultural Resources Branch (CGB-153)

CGB-153 Tracking Number: 22-KBAO-058

Project Name: Keno Dam Transfer

NEPA Contact: Amanda Babcock

NEPA Document: CGB-EA-2023-037

CGB-153 Cultural Resources Reviewer: Mark Carper, Archaeologist

Digitally signed by MARK CARPER Date: 2023.11.08 15:48:42 - 08'00'

Date: November 8, 2023

Reclamation proposes to acquire Keno Dam and related real property interests, and subsequently operate the dam consistent with historical practices. This is the type of undertaking that does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the Title 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA) regulations codified at 36 CFR § 800.3(a)(1). Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1).

The proposed project is primarily an administrative action and does not entail any construction, ground disturbance activities, or modifications to Reclamation facilities.

This document is intended to convey the completion of the NHPA Section 106 process for this undertaking. As defined, this action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by Reclamation (LND 02-01) (43 CFR 46.215 (g). Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer (SHPO), may be necessary. Thank you for providing the opportunity to comment.