

# **Finding of No Significant Impact**

## **Final Environmental Assessment**

### **Minidoka South Gated Spillway Erosion Repair and Prevention Project**

#### **Minidoka County, Idaho**

**U.S. Department of the Interior**

**Bureau of Reclamation**

**Columbia-Pacific Northwest Region**

**Snake River Area Office**

**CPN FONSI # 22-04**

## **Introduction**

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

## **Location and Background**

Minidoka Powerplant and Dam is a combined diversion, storage, and power structure located on the Snake River east of Rupert, Idaho, on County Highway 400. A key structure in the initial development of the Minidoka Project, Minidoka Dam is an 86-foot-high zoned earthfill dam. The reservoir created by Minidoka Dam, Lake Walcott, has a total storage capacity of 95,200 acre-feet. During irrigation season, water is diverted at the dam into a canal on each side of the river.

In November 2011, a \$21.3 million multi-phase construction effort was initiated to modernize and straighten the spillway and replace two irrigation headworks. The new spillway design incorporated 12 gated bays, which comprise the south gated spillway (SGS), that are located just north of the south canal headworks and upstream of the existing pedestrian access bridge. The spillway replacement was officially completed in May 2015.

In November 2020, an inspection of the channel immediately downstream of the Minidoka Dam SGS was performed. This inspection identified multiple sites of severe erosion in the basalt rocks

downstream of several gates, in some cases undercutting the concrete apron structure. The damaged areas identified in that inspection included the following sites:

- Downstream of Gate 5, a 3-foot-deep, 24-foot by 13-foot hole
- Downstream between Gates 5 and 6, a 4-foot-wide, 1-foot-deep undercut of the apron
- Downstream of Gate 6, a 3-foot-deep, 15-foot by 9-foot hole which undercuts the apron
- Downstream of Gate 7, a 5-foot-deep, 10-foot by 10-foot hole which undercuts the apron
- Downstream between Gates 7 and 8, a 5-foot-deep, 12-foot by 17-foot hole which undercuts the apron
- Downstream of Gate 8, a 1.5-foot by 3-foot undercut of the apron
- Downstream of Gate 11, a 3-foot by 3-foot undercut of the apron

Due to this damage, Gates 5, 6, 7, and 8 have been placed out of regular service since the fall of 2020 and would only be used in the case of flood releases that exceed the capacity of the remaining gates and powerplant.

## **Purpose and Need**

Reclamation's purpose and need for the proposed action is to conduct ongoing repairs and reinforce bedrock at multiple damaged sites beneath and immediately downstream of the spillway apron below the south spillway gates, which would allow all spillway gates to be returned to regular service and would prevent further erosion.

The rate and extent of erosion that has already occurred indicates that further use of Gates 5, 6, 7, and 8 without first reinforcing the bedrock areas that are subjected to high hydraulic stress is likely to result in further erosive deterioration of the bedrock; this could compromise the structural stability of the spillway. It is anticipated that ongoing use of the spillway may continue to create conditions that necessitate spot-maintenance and repair activities of this nature, the need for which would be identified during future periodic inspections.

## **Alternatives Considered and Recommended Action**

The range of alternatives developed for this proposed action is based on the purpose and need for the project. The alternatives analyzed include a no-action alternative and the recommended action. The recommended action involves repairing areas of identified damage, which would necessitate the construction of a temporary access road into the spillway channel upstream from the pedestrian walkway, utilizing fill materials that have been cleaned of fine sediments; removal of loose rock from eroded areas using an excavator; cleaning and removal of organic material from remaining bedrock; installation of doweling (short steel bars that provide a mechanical connection between separate materials) drilled and epoxied into the bedrock; installation of a rebar mat; and permanent placement of concrete into eroded areas immediately downstream from spillway gates and adjacent to the dam structure. The project anticipates the above procedures to be performed in multiple separate areas adjacent to the downstream faces of gates where damage has been identified in previous inspections or areas that may be further identified in the course of the project. The no-action alternative does

not meet the defined purpose and need for action but was evaluated because it provides an appropriate basis to which the recommended action is compared.

## Summary of Environmental Effects

The following discussion summarizes the effects the proposed action (Alternative B) would have on each resource category analyzed in the Final EA. For a full analysis and explanation of how each resource was evaluated, readers may reference *Chapter 3 – Affected Environment and Environmental Consequences* in the Final EA.

### Biota – Vegetation, Wetlands, Fish, and Wildlife

Effects include anticipated short-term, spatially limited avoidant behavior by birds and terrestrial species due to increased human activity and noise in the immediate area during construction periods. Terrestrial animals that may be seasonally present in the spillway area during dewatered periods may be displaced to the greater surrounding landscape during construction activities. The proposed action would occur in seasonally dewatered timeframes and does not incorporate any changes to the timing, configuration, or quantities of water releases at Minidoka Dam; therefore, no effects to recreational fisheries or fish habitat are expected. No appreciable effect is anticipated to riparian vegetation, outside of temporary and limited disturbance of any vegetation present in the identified staging and access areas.

### Threatened and Endangered Species

Three federally listed species are potentially present in or adjacent to the action area: the monarch butterfly (*Danaus plexippus* – candidate for listing); the yellow-billed cuckoo (*Coccyzus americanus* – threatened); and the Snake River physa snail (*Physa natricina* – endangered). Analysis discussed in the Final EA concluded that the proposed action may affect, but is unlikely to adversely affect, these species. Construction is expected to occur outside the seasonal timeframe when yellow-billed cuckoo would be seasonally present and would therefore not affect the species. Minimal vegetation disturbance would be expected to result in no appreciable effect to monarch butterflies that could utilize nectaring and breeding habitat in or adjacent to the project area. In the case of Snake River physa, which are documented to be present in an area approximately 200 meters downstream of the proposed construction area, the species could experience short-term, minor effects from the mobilization of organic and fine sediments into the river channel when the area is rewatered seasonally; however, adherence to best management practices and guidelines from the forthcoming 404 permit associated with this project would limit the potential for any appreciable quantity of such materials to enter Snake River physa habitat.

### Recreation

Public parking would be limited during times when use of the public parking area adjacent to the construction area would be required for staging. Signage directing recreationists to other areas would minimize this impact. The seasonal nature of the proposed action, which would occur at times when

the area is regularly dewatered, precludes any appreciable effects to recreational fisheries. Boating access in all downstream areas would remain unrestricted, and visitors such as birders could still access most areas by foot. Recreational visitation along both sides of the river immediately adjacent to the project site may be temporarily affected by construction-related effects such as noise, dust, construction traffic, and temporary displacement of aquatic or terrestrial species that are normally present. However, these effects would be limited in duration to periods of active construction.

## **Water Quality**

The proposed action would not affect water quality in Lake Walcott because all construction is occurring immediately below Minidoka Dam. Construction effects to water quality on the Snake River downstream from the project area could include the introduction of airborne sediment from vehicle activity and moving of materials, which could increase turbidity. The extent of these effects would be minimized below an appreciable level by the implementation of erosion and sediment control measures as requested in scoping comments received from the State of Idaho Governor's Office of Energy and Mineral Resources. Such measures could include the placement of clean aggregate at all construction entrances or exits and the use of truck or wheel washes, if needed, when earth-moving equipment will be leaving the site and traveling on paved surfaces. Negligible effects to water quality are anticipated post-construction.

## **Unaffected Resources**

The proposed action would not cause any short- or long-term, direct or indirect effects to the following resource categories:

- Cultural resources
- Indian sacred sites
- Indian trust assets
- Treaty rights
- Environmental justice

## **Consultation, Coordination, and Public Involvement**

On January 11, 2022, Reclamation mailed a scoping document including a letter, project information, and a map to agencies, members of Congress, organizations, and individuals, soliciting their help in identifying any issues and concerns related to the proposed action. Reclamation received three comments during the scoping period, which have been incorporated into the proposed action and analyses in the Final EA.

Reclamation initiated consultation with the Idaho State Historic Preservation Office (SHPO) on March 15, 2022. SHPO concurrence with Reclamation's finding on No Effect to Historic Properties for the action area was received on June 15, 2022.

On April 19, 2022, Reclamation sent a memorandum requesting that the U.S. Fish and Wildlife Service (USFWS) provide documentation of concurrence with Reclamation's conclusion that the

proposed action may affect, but is not likely to adversely affect ESA-listed species. Reclamation received a letter of concurrence from USFWS dated May 24, 2022.

Reclamation mailed scoping letters to the Shoshone-Bannock Tribes and Shoshone-Paiute Tribes on January 7, 2022. No responses or concerns from the Tribes were brought forward during the scoping period.

Full records of each of these consultation actions are included in the appendices of the Final EA.

## Finding

Based on the analysis of the environmental effects presented in the Final EA and consultation with potentially affected agencies, Tribes, organizations, and the general public, Reclamation concludes that implementation of the proposed action will not have a significant impact on the quality of the human environment or natural and cultural resources. The effects of the proposed action will be minor, temporary, and localized. Therefore, preparation of an Environmental Impact Statement (EIS) is not required.

## Decision

Based on the analysis in the Final EA, it is my decision to select for implementation the proposed action (Alternative B). The proposed action will best meet the purpose and need identified in the Final EA.

## Recommended:

AMY GOODRICH

Digitally signed by AMY GOODRICH  
Date: 2022.08.01 17:52:57 -06'00'

Amy Goodrich  
Natural Resource Specialist  
Snake River Area Office, Boise, Idaho

Date

## Approved:

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Melanie Paquin  
Snake River Area Manager  
Columbia-Pacific Northwest Region, Boise, Idaho

Date



— BUREAU OF —  
RECLAMATION

# **Final Environmental Assessment Minidoka Dam South Gated Spillway Erosion Repair and Prevention Project**

**Minidoka Project**

**Columbia-Pacific Northwest Region**



## **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.

Cover photograph: Minidoka Dam South Gated Spillway, with pedestrian access bridge visible at left. Bureau of Reclamation photo.



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# Acronyms and Abbreviations

Acronym or Abbreviation	Definition
APE	Area of potential effect
BMP	Best management practice
BP	Before the present
CWA	Clean Water Act
DO	Dissolved oxygen
DOI	Department of the Interior
EA	Environmental assessment
EIS	Environmental impact statement
EO	Executive order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
GIS	Geographic information system
IBA	Important bird area
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
IPaC	Information for planning and conservation
ITAs	Indian Trust Assets
m/s	Meters per second
mg/L	Milligrams per liter
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NTU	Nephelometric turbidity units
O&M	Operations and maintenance
Reclamation	Bureau of Reclamation
ROD	Record of Decision
SGS	South Gated Spillway
SHPO	State Historic Preservation Officer
TMDL	Total maximum daily load

Acronym or Abbreviation	Definition
TP	Total phosphorous
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

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# Chapter 1 Purpose and Need

## 1.1 Introduction

The Bureau of Reclamation (Reclamation) prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). This EA analyzes the potential environmental effects that could result from the proposed construction activities at the South Gated Spillway (SGS) of Minidoka Dam.

This EA serves as a tool to aid the authorized official in making an informed decision that is in conformance with applicable federal laws and regulations. The proposed action and additional alternatives are described in Chapter 2 of this document, and the effects (direct, indirect, and cumulative; adverse and beneficial) to the environment and to public health and safety of each alternative are evaluated for each of the affected resource areas identified in Chapter 3 of this document.

The NEPA process requires analysis of any federal action that may have an impact on the human environment. This EA is being prepared to assist Reclamation in finalizing a decision on the proposed action, and to determine whether to issue a Finding of No Significant Impact (FONSI) or a notice of intent to prepare an Environmental Impact Statement (EIS).

## 1.2 Location, Background, and Action Area

### 1.2.1 Facility Overview

Minidoka Powerplant and Dam is a combined diversion, storage, and power structure located on the Snake River east of Rupert, Idaho, on County Highway 400. A key structure in the initial development of the project, Minidoka Dam is an 86-foot-high zoned earthfill dam. The reservoir created by Minidoka Dam, Lake Walcott, has a total storage capacity of 95,200 acre-feet. During irrigation season, water is diverted at the dam into a canal on each side of the river.

In November 2011, a \$21.3 million multi-phase construction effort was initiated to modernize and straighten the spillway and replace two irrigation headworks. The new spillway design incorporated 12 gated bays that are located just north of the south canal headworks, upstream of the existing pedestrian access bridge (pictured on cover). The spillway replacement was officially completed in May 2015.

A map of the proposed project area is provided in Figure 1.

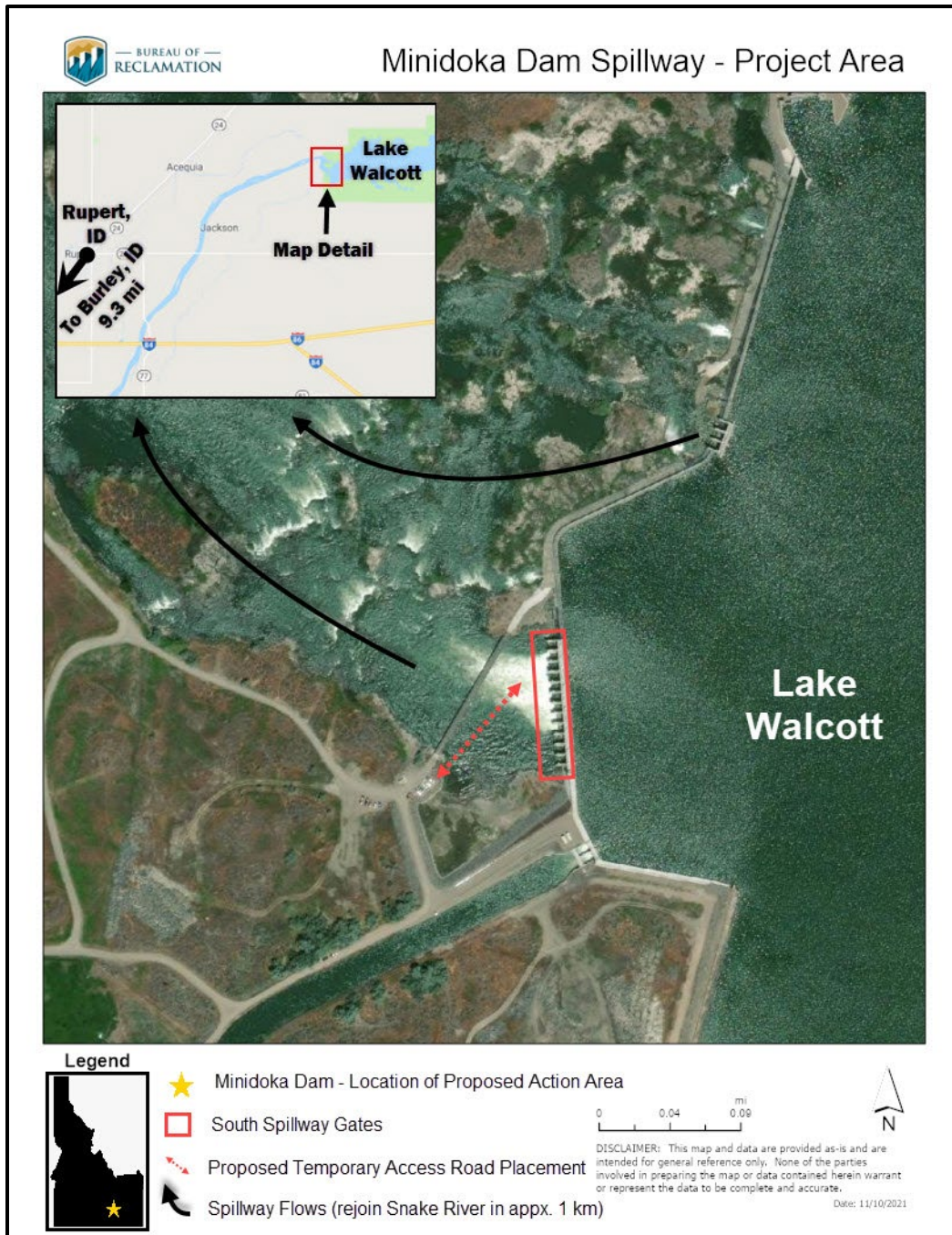


Figure 1. Map of the proposed project area downstream of Minidoka Dam on the Snake River in Minidoka County, Idaho. The South Gated Spillway gates and area identified for repairs are indicated in the red box; the approximate location of the proposed temporary access road is indicated by the dotted red arrow.

### 1.2.2 Existing Condition

In November 2020, an inspection of the channel immediately downstream of the Minidoka Dam SGS was performed. This inspection identified multiple sites of severe erosion in the basalt



rocks downstream of several gates, in some cases undercutting the concrete apron<sup>1</sup> structure. The damaged areas identified in that inspection included the following sites:

- Downstream of Gate 5, a 3-foot-deep, 24-foot by 13-foot hole (Figure 2)
- Downstream between Gates 5 and 6, a 4-foot-wide, 1-foot-deep undercut of the apron
- Downstream of Gate 6, a 3-foot-deep, 15-foot by 9-foot hole which undercuts the apron (Figure 3)
- Downstream of Gate 7, a 5-foot-deep, 10-foot by 10-foot hole which undercuts the apron (Figure 4)
- Downstream between Gates 7 and 8, a 5-foot-deep, 12-foot by 17-foot hole which undercuts the apron (Figure 5)
- Downstream of Gate 8, a 1.5-foot by 3-foot undercut of the apron
- Downstream of Gate 11, a 3-foot by 3-foot undercut of the apron (Figure 6)



Figure 2. Erosion damage downstream of Gate 5. Damage extending into the edge of the concrete spillway apron is visible at the top of the frame.

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<sup>1</sup> A spillway apron is the concrete or timber floor at the bottom of a spillway to prevent soil erosion from heavy or turbulent flow.



Figure 3. Erosion damage downstream of Gate 6. Damage extending into the edge of the concrete spillway apron is visible mid-photo.



Figure 4. Erosion damage downstream of Gate 7. Damage to and undercutting of the concrete spillway apron is visible.



Figure 5. Erosion damage downstream of Gates 7 (left bay) and 8 (right bay)



Figure 6. Erosion damage downstream of Gate 11. Undercutting of the concrete spillway apron is prominent.

Due to this damage, Gates 5, 6, 7, and 8 have been placed out of regular service since the fall of 2020 and would only be used in the case of flood releases that exceed the capacity of the remaining gates and powerplant.

## **1.3 Purpose and Need**

Reclamation's purpose and need for the proposed action is to conduct repairs and reinforce bedrock at multiple damaged sites beneath and immediately downstream of the spillway apron below the south spillway gates, which would allow all spillway gates to be returned to regular service and would prevent further erosion.

The rate and extent of erosion that has already occurred indicates that further use of Gates 5, 6, 7, and 8 without first reinforcing the bedrock areas that are subjected to high hydraulic stress is likely to result in further erosive deterioration of the bedrock; this could compromise the structural stability of the spillway. It is anticipated that ongoing use of the spillway may continue to create conditions that necessitate spot maintenance and repair activities of this nature, the need for which would be identified during future periodic inspections.

### **1.3.1 Decision to be Made**

Through the process of developing an EA, Reclamation determines whether the proposed project would significantly affect the quality of the human environment and thereby require the preparation of an EIS and, if not, whether the project qualifies for a FONSI. Reclamation then determines whether to do one of the following:

- Approve the proposed project
- Deny the proposed project
- Accept the proposed project with minor changes

## **1.4 Regulatory Compliance**

The following major laws, executive orders (EOs), and secretarial orders apply to the proposed project, and compliance with their requirements is documented in this EA:

- NEPA
- Endangered Species Act (ESA)
- National Historic Preservation Act (NHPA)
- Clean Water Act (CWA)
- EO 13007 Indian Sacred Sites
- EO 12898 Environmental Justice
- EO 13175 Consultation and Coordination with Tribal Governments
- Secretarial Order 3175 Department Responsibilities for Indian Trust Assets (ITAs)

- Secretarial Order 3398 Revocation of Secretary's Orders Inconsistent with Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis

## **1.5 Scoping Summary**

The scoping process provides an opportunity for the public, governmental agencies, and Tribes to identify their concerns or other issues and aids in developing a full range of potential alternatives that address meeting the project's purpose and need as stated in this document. To accomplish this, Reclamation provided information to the public through a mailed and electronically-delivered information package, and solicited comments from the public, governmental agencies, and potentially affected Tribes. Details regarding the public, agency, and Tribal scoping are presented in Chapter 4.

# Chapter 2 Description of Alternatives

## 2.1 Introduction

This chapter describes the two alternatives analyzed in this EA: Alternative A, the No Action alternative; and Alternative B, the Proposed Action alternative.

## 2.2 Alternative Development

The alternatives presented in this chapter were developed based on the purpose and need for the project, as described in Chapter 1, and the issues raised during internal, external, and Tribal scoping. The alternatives analyzed in this document are the No Action alternative and the Proposed Action alternative, which would involve the construction activities. A No Action alternative is evaluated because it provides an appropriate basis to which the other alternative is compared. No new alternatives were identified during the scoping process.

## 2.3 Alternative A – No Action

Under the No Action alternative, Reclamation would not perform the maintenance and repair construction activities described in the Proposed Action alternative. The SGS would continue to be operated with some gates removed from service, and further erosion below the concrete apron would be expected to occur with continued SGS operation.

## 2.4 Alternative B – Minidoka SGS Erosion Repair and Prevention Activities (Proposed Action)

The Proposed Action alternative involves repairing areas of identified damage, which would necessitate activities involving: the construction of a temporary access road into the spillway channel upstream from the pedestrian walkway utilizing fill materials that have been cleaned of fine sediments; removal of loose rock from eroded areas using an excavator; cleaning and removal of organic material from remaining bedrock; installation of doweling (short steel bars that provide a mechanical connection between separate materials) drilled and epoxied into the bedrock; installation of a rebar mat; and permanent placement of concrete into eroded areas immediately downstream from spillway gates and adjacent to the dam structure. It is expected that the above procedures would be performed in multiple separate areas adjacent to the downstream faces of gates where damage has been identified in previous inspections or that may be further identified in the course of the project.

If treatment of additional similarly-affected areas in this same general project location is deemed necessary once loose rock removal has been completed, it would follow the same basic steps described above. It is estimated that the total area to be treated at this time would not exceed 800 square feet of concrete placement. Preparation work outside of the river channel (i.e., staging, constructing the temporary access road for heavy equipment access) would likely begin in August 2022, and work within the river channel would take place after the conclusion of the 2022 flood control and irrigation season (between approximately mid-October and mid-December) when the project area is largely seasonally dewatered under normal operations. Construction activities for the project would last up to 8 months from start to completion, with in-waterway construction occurring between October and December. The project would require temporarily locking out spillway gates while in-waterway work would occur but would not necessitate any changes to overall water management or flows in the Snake River downstream from the project site. Work in any future years, if necessary, would occur during similar seasonal (post-irrigation) timeframes.

Since it is likely such spot-repairs and preventive maintenance may be sporadically necessary due to the hydraulic forces associated with use of the spillway, this project would allow for additional repairs of a similar nature to be performed in future years, if and when such need may be identified in future annual inspections. The total project duration would correspond to the 5-year timeframe considered by an associated 404 permit, which would be issued by the U.S. Army Corps of Engineers (USACE) in fulfillment of CWA requirements. If the need for additional work is identified beyond the 5-year scope considered by the 404 permit, analysis and applications for environmental compliance would be reinitiated at that time.

## **2.5 Alternatives Considered but Eliminated from Further Study**

NEPA encourages the consideration of alternatives developed through the scoping process. However, only those alternatives that are within the agency's authority that are reasonable and meet the purpose and need of the proposed action must be analyzed as per the Council on Environmental Quality's 2021 Proposed Rule titled "National Environmental Policy Act Implementing Regulations" (40 CFR Parts 1502, 1507, and 1508). There were no alternatives presented through the public and agency scoping process.

# Chapter 3 Affected Environment and Environmental Consequences

## 3.1 Introduction

This chapter evaluates the environmental consequences of implementing each of the alternatives described in Chapter 2. The level and depth of the environmental analysis corresponds to the potentially affected environment and the degree of the effects of the action anticipated for each environmental component (resource). The affected environment (proposed action area) addressed in this EA is defined in varying contexts, depending on the affected resource being analyzed.

Resources evaluated in this document and analyzed in this chapter were selected based on: Reclamation requirements; compliance with laws, statutes, and executive orders; public and internal scoping; and the potential for resources to be affected by the proposed project.

## 3.2 Biota – Vegetation, Wetlands, Fish and Wildlife

### 3.2.1 Affected Environment

The Proposed Action area, the Minidoka spillway, is on lands withdrawn by Reclamation located on the Snake River Plain in south-central Idaho, 12 miles northeast of the town of Rupert. As part of the Minidoka National Wildlife Refuge, the U.S. Fish and Wildlife Service (USFWS) manages the Proposed Action area as well as the area directly below the Minidoka dam spillway to approximately where the river convenes at Bishop's Hole a half mile downstream from the dam.

The Minidoka National Wildlife Refuge has been designated by the Audubon society as an Important Bird Area (IBA) of global importance for its colonial nesting bird populations and for the numbers of molting waterfowl that utilize the area. The Audubon Society identifies areas that have high value for birds throughout the world.

#### ***Habitat – Terrestrial and Riparian Vegetation***

##### **Terrestrial Vegetation**

Historically, the vegetation on uplands surrounding the Proposed Action area consisted of shrub-steppe habitat (Tisdale and Hironaka 1981). Shrub-steppe habitats in western North America are characterized by woody, mid-height shrubs, perennial bunchgrasses, and forbs (Daubenmire 1978; Dealy et al. 1981; Tisdale and Hironaka 1981; Short 1986). Periodic drought, extreme temperatures, wind, poor soil stability, and only fair soil quality (Wiens and Dyer 1975; Short 1986) create a stressful environment for biotic communities.



Currently, remaining terrestrial habitat within the Proposed Action area is limited. Much of the area is now concrete along with some weed species such as cheatgrass (*Bromus tectorum*). Some of the native plants that may be found in the limited open soil areas are Sandberg's bluegrass, squirreltail (*Sitanion hystrix*), bluebunch wheatgrass, western wheatgrass (*Agropyron smithii*), basin wildrye (*Elymus cinereus*), needlegrass, Indian ricegrass (*Oryzopsis hymenoides*), lupine, penstemon, phlox (*Phlox hoodii*), paintbrush, death camas (*Zigadenus spp.*), larkspur (*Delphinium spp.*), and gooseberryleaf globemallow (*Sphaeralcea grossulariifolia*).

Showy milkweed (*Asclepias speciosa Torr.*) is distributed from the central U.S. westward, occurs throughout Idaho, and can be found in the general area of the Proposed Action area. This species is frequently found growing in large colonies due to its ability to reproduce vegetatively via adventitious shoots produced on lateral roots or underground stems. Showy milkweed reaches up to 5 feet tall and has large ovate, gray-green leaves. Milkweed is vital to monarch survival, and, in arid climates, it can function as the sole nectar, oviposition, and larval feeding resource for the species (Kinter 2019).

### **Riparian Vegetation**

Riparian species that may exist in the Proposed Action area include skunkbush sumac, Wood's rose, and golden currant. There are few sizable patches of riparian habitat within the action area due to the spillway concrete structure.

The primary threat to riparian vegetation in the action area is invasive weeds. The riparian zone has been degraded by several invasive weeds, primarily Canada thistle, Scotch thistle, and poison hemlock. Other species in the Proposed Action area that are difficult to control are perennial pepperweed, hoary cress, and Russian and diffuse knapweeds.

### **Wildlife – Terrestrial and Aquatic Biota**

#### **Avian Communities**

The large expanse of reservoir and existing spillway with its dry surrounding uplands attracts numerous avian species including waterfowl, shorebirds, and wading birds. The Minidoka National Wildlife Refuge bird list currently shows 243 species, of which 85 species are known to nest on the refuge. More than 230 species of birds have been observed at the Minidoka National Wildlife Refuge since 1950, according to USFWS (2002). The more common breeding raptors are northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and burrowing owl (*Athene cunicularia*). Less common raptors that are present during migration or summer include prairie falcon (*E. mexicanus*), Swainson's hawk (*B. swainsoni*), ferruginous hawk (*B. regalis*), turkey vulture (*Cathartes aura*), short-eared owl (*Asio flammeus*), Osprey (*Pandion haliaetus*) and great horned owl (*Bubo virginianus*). The most abundant wintering raptors are the rough-legged hawk (*Buteo lagopus*), bald eagles (*Haliaeetus leucocephalus*), red-tailed hawk (*Buteo jamaicensis*), and prairie falcon (*Falco mexicanus*). Northern goshawks (*Accipiter gentilis*) may be present in the winter, especially near the Snake River, and golden eagles (*Aguila chrysaetos*) may also be present during winter.

The Minidoka National Wildlife Refuge bird lists (USFWS 1989 and 2002) indicate that the waterfowl species most likely to use wetlands present when the Proposed Action area is

inundated include mallards (*Anas platyrhynchos*), gadwalls (*A. strepera*), and cinnamon teal (*A. cyanoptera*). Lower numbers of redheads (*Aythya americana*), ruddy ducks (*Oxyura jamaicensis*), pintails (*Anas acuta*), American wigeon (*Anas americana*), and northern shovelers (*Anas chipeata*) breed in the refuge area. Wintering waterfowl that may utilize habitat near the Proposed Action area include Canada geese (*Branta canadensis*), mallards, pintails, gadwalls, American wigeon, northern shovelers, and green-winged teal (*Anas crecca*). Tundra swans (*Cygnus columbianus*) forage in nearby grain fields in relatively low numbers during migration.

Great blue herons (*Ardea herodias*), American avocets (*Recurvirostra americana*), long-billed curlews (*Numenius americanus*), killdeer (*Charadrius vociferous*), and other shorebirds would also be expected to use the spillway wetland, as would red-winged blackbirds (*Agelaius phoeniceus*). In addition, white pelicans (*Pelicanus erythrorhynchus*), grebes, Sabine's gull (*Xema sabini*), and several other species of gulls use the area just below the dam during the summer.

Peak bird species diversity on the reservoir/spillway occurs from June through September. Peak waterfowl numbers occur from August through October. Some of this peak could be due to reproduction during early summer, molt migration into the refuge later in summer, and migrating birds during fall.

Some of the conspicuous nongame birds that may reside in the Proposed Action area include common nighthawks (*Chordeiles minor*), western kingbirds (*Tyrannus verticalis*), sage thrashers (*Oreoscoptes montanus*), loggerhead shrikes (*Lanius ludovicianus*), and Brewer's sparrows (*Spizella breweri*).

Upland game birds known to use habitat near the area include the Chinese ringneck pheasant (*Phasianus colchicus*), gray partridge (*Perdix perdix*), mourning dove (*Zenaidura macroura*), and Nuttall's cottontail (*Sylvilagus nuttallii*). Sharp-tailed grouse (*Tympanuchus phasianellus*) and greater sage-grouse (*Centrocercus urophasianus*) both occur in low numbers near the reservoir/spillway, sharp-tails year-round and sage-grouse at least during the spring through the fall.

### **Mammalian Communities**

Large fur-bearing mammals that may occasionally be present in upland parts of the Proposed Action area include coyote (*Canis latrans*), red fox (*Vulpes vulpes*), badger (*Taxidea taxus*), and striped skunk (*Mephitis mephitis*). Raccoons (*Procyon lotor*), muskrats (*Ondatra zibethica*), long-tailed weasels (*Mustela frenata*), and mink (*Mustela vison*) occur below the existing spillway and around the reservoir shoreline and wetlands. Small mammals common to the area include black-tailed jackrabbits (*Lepus californicus*), montane voles (*Microtus montanus*), and deer mice (*Peromyscus maniculatus*).

According to USFWS survey records, pygmy rabbit (*Brachylagus idahoensis*) have never been detected within or near the Proposed Action area (Bouffard 2009).

### **Amphibian and Reptile Communities**

Amphibians and reptiles known to occur in or near the Proposed Action area include long-toed salamanders (*Ambystoma macrodactylum*), pacific treefrogs (*Hyla regilla*), leopard frogs (*Rana pipiens*), western chorus frogs (*Pseudacris triseriata*), longnose leopard lizards (*Gambelia wislizenii*), side-

blotched lizard (*Uta stansburiana*), racers (*Coluber constrictor*), gopher snakes (*Pituophis melanoleucus*), garter snakes (*Thamnophis spp.*), and western rattlesnakes (*Crotalus viridis*).

## **Fisheries**

### *Fish Populations and Habitat*

The spillway area and the Snake River immediately downstream of Minidoka Dam are an important fishery resource as cited by the Idaho Department of Fish and Game (IDFG). When water is released from the spillway, stream channels in the spillway area spread over a wide area and contain many riffles, pools, and runs for fish. Flows from the reservoir provide for vigorous growth of algae and aquatic invertebrates. The abundant food source of aquatic insects enhances the area's fish populations and sustains a valuable fishery (USFWS 1989). Many of the trout in the spillway area grow to be trophy-size, ranging from 2 to 6 pounds (IDFG 2007). The trout fishery in the spillway area is maintained primarily by hatchery fish planted each year in the reservoir. Grunder et al. (1987) reported rainbow trout were commonly entrained through Minidoka Dam, and Hiebert and Bjornn (1980) observed through tag returns that 80 percent of the trout stocked in the reservoir were recovered downstream from the release site.

Since the construction of the new spillway and Inman powerplant, Reclamation personnel have observed reductions in recreational fishing in the existing spillway, particularly below the existing radial gates; this has also been seen in data from IDFG surveys. This is mainly due to a more controlled spill of water below the radial gates than manual release through the old stoplog spill system. It is likely the new water operation protocol in place following this facility reconfiguration results in the entrainment of fewer fish, and thus a reduction of overall fish harvest.

Fish species detected in the spillway area include common carp, dace species, rainbow trout, redbreast shiner, sculpin species, smallmouth bass, Utah chub, sucker species, and yellow perch.

## **3.2.2 Environmental Consequences**

### ***Alternative A- No Action***

#### **Habitat – Terrestrial and Riparian Vegetation**

The basic hydrologic regime of the spillway would remain unchanged. It is therefore unlikely there would be much, if any, change to the existing riparian vegetation (primarily cattails, bulrushes, and reed canary grass).

#### **Avian, Mammalian, Amphibian and Reptile, and Fish Communities**

Avian, mammalian, amphibian and reptile, and fish communities would not be expected to be adversely impacted by the No Action alternative. The diversity, distribution, and relative abundance of species in these communities using the spillway area are expected to remain the same as current conditions under the No Action alternative.

## **Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)**

### **Habitat – Terrestrial and Riparian Vegetation**

Under Alternative B, the concrete spillway apron would be repaired and the area of construction would be dewatered while the project was taking place. Very little terrestrial and riparian vegetation in the area would be affected while the construction would occur. To keep the riparian area damage to a minimum, staging and access points would be placed in open, already-cleared upland parking and road access areas adjacent to the south spillway. If project work resulted in unavoidable vegetative disturbance, riparian and wetland vegetation would be expected to naturally reestablish once the area is seasonally rewatered. Additionally, if milkweed is located near the construction work area, there would be a temporary localized loss of these stands, which would be expected to grow back the season following disturbance.

### **Avian Communities**

Under Alternative B, the concrete spillway apron would be repaired. This area of the spillway has a long history of significant disturbance by humans due to ongoing operations and maintenance actions. It is expected that birds would exhibit avoidant behavior during construction activities, and that when the construction noise stopped in the immediate project area, the avian species using the areas directly below the spillway would return.

The expected impacts to specific species and avian communities existing around the construction zone of the spillway are as follows:

- Song birds: Since they are mostly terrestrial species, there would be little impact to these species during proposed operations.
- Shore birds: Red-necked phalaropes (in numbers up to several thousands) can be present in the fall and use the pool at Bishop's Hole. Due to this site's distance from the spillway, there would be little impact to these birds during project construction.
- Common loon: There are approximately 100 to 200 loons in the area during spring and fall migrations, mostly in the reservoir but also occasionally in the area below the dam. As these birds use deeper water for foraging, there would be little impact to them from project construction.
- American white pelican: Approximately 1,400 to 1,700 pelican nests have been recorded on islands throughout the reservoir and there are likely many nonbreeders also present. Since construction would occur when dewatered, there would be no displacement effects expected for these birds.
- Great blue heron: Herons forage in shallow water along the reservoir edge and the edge of the river below the dam and in the spillway area. Since construction would occur when the spillway area was dewatered, there would be no displacement effects expected for these birds.
- Black-crowned night-heron, snowy egret, and cattle egret: These birds forage in shallow water along the edge of the reservoir, below the spillway and below the dam, and in

down-river areas. Post-nesting, many birds roost in shrub willows near Bishop's Hole. The few that use the spillway area may be displaced during construction.

- Franklin's gull: These gulls roost on the reservoir and forage in a wide variety of habitats located mostly off-reservoir. Bishop's Hole, downstream from the Proposed Action area, is an important feeding area, especially during fall. The birds forage on caddisflies that emerge from late July through September in the river below the dam. The few that forage in the spillway area may be displaced during construction.
- Sabine's gull: Sabine's gulls are present in small numbers from late August through mid-September; they nest in the Arctic. This species is highly sought-after by Idaho birders and Bishop's Hole is the most reliable location to find this bird in the state. It feeds on the caddisfly hatch below the dam powerplant and roosts on the reservoir at night. Therefore, there would be no effects during project construction as long as flows through the dam continue to support the caddisfly population.
- Bald eagle: Bald eagles use the spillway in late fall and winter when the reservoir freezes and pushes waterfowl onto the river. During winter, up to 20 bald eagles can use the reservoir and spillway area, foraging on waterfowl concentrations. They hunt wherever there is open water to attract waterfowl. The resident eagles do not use the spillway area to any great degree during the summer. Since construction would occur when the spillway area was dewatered, there would be no displacement effects expected for the few birds that forage in the spillway area.
- Osprey: Ospreys are present in small numbers during spring and fall. They forage throughout the reservoir and on the river downstream. They have not been recorded nesting in the area. An artificial nest structure has been available for approximately 20 years but has never been used. Therefore, this project would be expected to have no effects to on ospreys.
- Peregrine Falcon: Falcons do not nest on the reservoir but are present in small numbers in the spring and in the fall (until ice formation). Most observations have occurred in the vicinity of the dam, the spillway, and Bishop's Hole. No effect is expected for these birds.

### **Mammalian Communities**

Under Alternative B, the concrete spillway apron repair could displace mammals seasonally present in the action area. Any displacement of mammals or loss of habitat during project construction would have a minimal impact since the area is small and the mammals using the larger general area are terrestrial and mobile.

Large vertebrates such as mule deer use the spillway area as a place to hide and feed. Some mule deer are resident below the existing spillway and others are migrant. Any effects on the ability of mule deer to access the spillway area from the Proposed Action are unlikely. Mule deer are mobile and there are no current or future barriers to habitat access.

Large fur-bearing mammals occasionally occurring in the spillway area, such as coyotes, red fox, badger, and striped skunk, would be expected to exhibit avoidance behavior of the area during

construction. Raccoons, muskrats, long-tailed weasels, and mink would be displaced during construction but would return once construction is concluded. Small mammals common to the spillway area, such as black-tailed jackrabbits, montane voles, and deer mice, do not regularly occupy the seasonally-inundated area and should not be affected by the project.

### **Amphibian and Reptile Communities**

Suitable amphibian (northern leopard frog and western chorus frog) habitat in the spillway area is not available due to the geological characteristics of the area. Rapidly flowing water is not prime leopard frog or chorus frog habitat. Habitat for western terrestrial garter snakes may be lost in the short term and some individuals may be killed in the construction phase.

The adjacent riparian zone with fractured basalt that is present near the spillway contains good habitat for western terrestrial garter snakes. As long as this fractured basalt and riparian habitat is available, these snakes are unlikely to relocate. Other snakes and lizards on the refuge use more upland habitats.

There would be no long-term change to amphibian habitat as a result of this project.

### **Fisheries**

Under Alternative B, normal seasonal discharge operations would remain unchanged and water would still flow through the wetland conduits. The construction project is not anticipated to result in negative impacts to the recreational fishery. Since the project would take place when the area is seasonally dewatered, the overall amount of habitat available for rainbow trout, smallmouth bass, and other fish species would remain the same.

## **3.3 Threatened and Endangered Species**

### **3.3.1 Affected Environment**

Reclamation's ongoing operation of facilities associated with the Minidoka Project is conducted in compliance with existing Biological Opinions and associated Terms and Conditions, which were issued by the USFWS under Section 7 Consultations in 2005 and 2015. The effects to listed species of ongoing operations and maintenance (O&M) activities at this facility are considered in those documents (USFWS 2005 and 2015).

For analysis of any additive effects specific to this project, a corridor along the Snake River was delineated for analysis, extending from the Minidoka SGS gates downstream through the spillway to where spillway flows meet flows from the powerhouses. This area was identified as the area of potential effect (APE) because the Proposed Action would affect the spillway channel and upland areas identified for material and equipment staging. Since the overall management of water diversions at Minidoka Dam would continue as it has historically been conducted, regardless of which alternative is selected, downstream habitat would not be expected to be affected and therefore was not analyzed.

A preliminary report generated through the USFWS Information for Planning and Consultation (IPaC) website indicated that two listed species and one candidate species could be present in or

near the action area for this proposed project: the Snake River physa snail (*Physa natricina*) (endangered); the yellow-billed cuckoo (*Coccyzus americanus*) (threatened); and the monarch butterfly (*Danaus plexippus*) (candidate for listing). No proposed or designated critical habitats associated with any listed species overlap with the project's area of influence. Each species identified is discussed in further detail below and the full IPaC report is included as Appendix A.

### **Monarch Butterfly (*Danaus plexippus*)**

#### **Species Life History and Distribution**

The monarch butterfly, as a candidate species, has not yet been proposed for listing. There are no requirements under Section 7 of the ESA for candidate species, but agencies are encouraged to take advantage of opportunities for conservation. No critical habitat has been designated for this species.

The monarch butterfly is a butterfly species that is globally distributed, with the North American populations being well-known for long-distance migration. They are obligate to their larval host plant, milkweed (primarily *Asclepias spp.*, ten species of which occur in Idaho) (USDA NRCS 2021), on which they lay eggs and larvae emerge in 2 to 5 days. Multiple generations of monarchs are produced in a breeding season; most individuals live approximately 2 to 5 weeks, but overwintering adults enter reproductive diapause (suspended reproduction) and may live 6 to 9 months.

Migratory individuals in western North America generally fly shorter distances south and west to overwintering groves along the California coast into northern Baja California. In the spring in western North America, monarchs migrate north and east over multiple generations from coastal California toward the Rockies and to the Pacific Northwest. Adult monarch butterflies during breeding and migration require a diversity of blooming nectar resources, which they feed on throughout their migration routes and breeding grounds (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat. The correct phenology, or timing, of both monarch presence as well as nectar plants and milkweed is important for monarch survival. In western North America, nectar and milkweed resources are often associated with riparian corridors, and milkweed may function as the principal nectar source for monarchs in more arid regions (USFWS 2020).

#### **Occurrence in Action Area**

The interagency Western Monarch Milkweed Mapper (<https://www.monarchmilkweedmapper.org/>) shows both milkweed and monarch documented around Lake Walcott, the reservoir created by Minidoka Dam (Figure 7). Milkweed, as well as adult and larval stages of monarchs, have been documented within 1 mile of the project area. Currently, only positive detections are listed on the website. It is unknown if the lack of detections below the dam is due to a lack of surveys or a lack of milkweed and monarchs. Some documentations of milkweed and monarch breeding around Lake Walcott are from the riparian area around the shoreline, while other documentations have been from relatively arid open areas. Monarch breeding in southern Idaho has been documented in all months from June through September. The greatest occurrence of documented breeding is in the month of July.

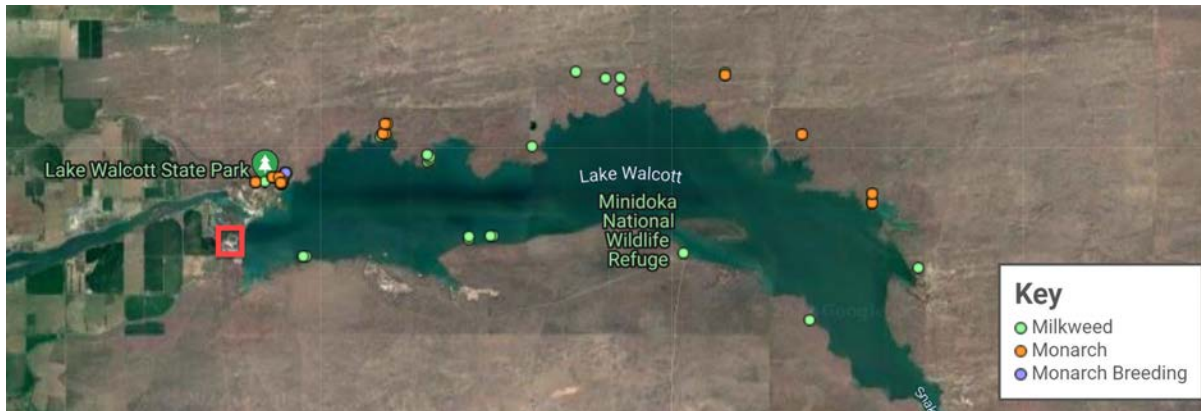


Figure 7. Screen shot from <https://www.monarchmilkweedmapper.org/> showing the project area in red. The figure also shows documented detections of milkweed, monarchs, and breeding around Lake Walcott. The mapper includes detection data from 1900 to present; however, all detections in the area shown occurred between 2015 and 2020.

### ***Yellow-Billed Cuckoo (Coccyzus americanus)***

#### **Species Life History and Distribution**

The yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a neo-tropical migrant bird that winters in South America and summers in North America, where breeding, nesting, and rearing occur from June through August. In the North American part of its range, the species is a riparian obligate, nesting exclusively in willow-cottonwood complexes greater than 50 acres (20 hectares) in extent that occur adjacent to water (Hughes 1999). Smaller patches of habitat are utilized in migration by this species as stopover and foraging habitat.

While the yellow-billed cuckoo is common east of the Continental Divide, biologists estimate that more than 90 percent of the species' riparian habitat in the west has been lost or degraded as a result of conversion to agriculture, the hydrologic effects of dams and river flow management, bank protection, overgrazing, and competition from exotic plants such as tamarisk. The Western Distinct Population Segment of this species currently listed as threatened (USFWS 2022). Critical habitat has been designated for this species, but no critical habitat units are located within or adjacent to the action area.

#### **Occurrence in Action Area**

Riparian habitat in southern Idaho represents the northernmost edge of the species' occupied breeding and nesting range. Although no reliable population trend data exist for the species, it has been theorized that from fewer than ten to a maximum of a few dozen breeding pairs of yellow-billed cuckoo breed annually in Idaho (Taylor 2000). A species assessment completed by USFWS concluded that "the yellow-billed cuckoo appears to be hanging on precariously in Idaho" and that it could easily become extirpated from the state (USFWS 2004).

The habitat in the immediate area of the project is not suitable for nesting. The closest critical habitat is found at the upstream end of American Falls Reservoir, 46 miles away from the Minidoka spillway. Due to migration timing, the species is only present in Idaho from June



through September. Construction would occur during the low-water period from October to December, outside of the seasonal timeframe when yellow-billed cuckoos would be present.

### ***Snake River Physa (Physa natricina)***

#### **Species Life History and Distribution**

The Snake River physa snail (*Haitia (Physa) natricina*) is a freshwater mollusk found in the middle Snake River of southern Idaho. While much information exists on the family Physidae, very little is known about the biology or ecology of this species. It is believed to be confined to the Snake River, inhabiting areas of swift current on sand- to boulder-sized substrate. While the species' current range is estimated to be over 300 river miles, the snail has been recorded in only 5 percent of over 1,000 samples collected within this area, and it has never been found in high densities. The recovery area for the species extends from Snake River mile 553 to Snake River mile 675. It is currently listed as endangered (USFWS 2022).

Gates and Kerans' (2011, pp. 8-36) detailed study sampled cross-sections of the river profile and characterized Snake River physa habitat as occurring in runs, glides, or pools, with moderate mean water velocity of 0.57 meters/second (m/s). Snake River physa have been collected on substrates from pebble through bedrock (Gates and Kerans 2011; Taylor 1982; Winslow et al. 2011 as cited in USFWS 2016). Although once more widespread, Snake River physa are currently only known to occur in an approximately 18-kilometer reach of river between Minidoka Dam and Milner Reservoir.

#### **Occurrence in Action Area**

This project is occurring in an area of the spillway channel that is frequently dewatered outside of irrigation season. When the area is inundated by flowing water during irrigation-season releases, velocities are too high to support Snake River physa. Snake River physa are known to exist in a large pool in the spillway channel, the upper edge of which is about 200 meters downstream from the proposed project area (Figure 8).



Figure 8. Aerial imagery of the seasonally-dewatered action area during previous construction activities in 2014, showing the location of previous temporary access road (red arrow), proposed construction area (blue box), and occupied Snake River physa habitat (yellow box)

### 3.3.2 Environmental Consequences

#### ***Alternative A – No Action***

Under the No Action alternative, overall water management operations at Minidoka Dam would remain unchanged and the effects of ongoing water management to the subject species would continue. The SGS would continue to be operated with some gates removed from service, and further erosion below the concrete apron would be expected to occur with continued SGS operation. Ongoing O&M at Minidoka Dam would continue to meet the terms of the existing Biological Opinion (USFWS 2005). No new effects to the species or habitat would be expected to occur.

#### ***Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)***

Construction activity pertaining to the staging area and temporary access road may disturb some vegetation that could be utilized by the subject species. The access road would be placed in the

same general location that was used for access during the Minidoka Spillway Replacement project (Figure 8). The 2010 Final EIS for the Minidoka Dam Spillway Replacement required reseeding of four of the five staging areas and all access areas used for spillway reconstruction. There is potential for milkweed and/or nectar sources for monarchs to be present in any vegetation disturbed for staging areas or temporary access road construction. Aerial imagery from June 2021 shows that limited vegetation has re-established in thin patches where the previous access road was located (Figure 9). Construction of the temporary road and staging area therefore should have a minimal impact, if any, on milkweed. Native milkweed would be included in any seed mix used to reestablish vegetation after the completion of the project.



Figure 9. Aerial imagery from June 2021, with red arrows showing the approximate location of the terrestrial portion of the proposed temporary access road

The immediate area around the staging and construction areas is not suitable for yellow-billed cuckoo nesting. The October to December time frame, during which the majority of construction activities would occur, is outside of the seasonal window when yellow-billed cuckoo are present in Idaho. Preparatory activities such as preparation of the staging area and placement of the upland portion of the temporary access road could occur while yellow-billed cuckoo could be migrating through the area. The habitat in these areas is not suitable for nesting, though migrating individuals could incidentally be present as they moved through the area. No impact is expected to yellow-billed cuckoo from the proposed project.

Snake River physa are not expected to occur in the immediate project area due to the high velocity of releases from the spillway. Temporary access road construction and removal and debris removal from the damaged bedrock areas have the potential to mobilize organic material and fine sediment; if carried downstream to Snake River physa habitat when the area is rewatered, this sediment could affect the species. Best management practices (BMPs) and the guidelines from the 404 permit would limit the potential for organic matter or fine sediment from the construction area to enter Snake River physa habitat. Material for the construction of the temporary access road would be free of fine sediment, and all roadbed fill would be removed from the channel prior to any releases from the spillway gates, as described in the Proposed Action. These measures would result in the project having no overall impact to Snake River physa downstream from the project area.

On April 19, 2022, Reclamation sent a memorandum requesting that the USFWS provide documentation of concurrence with Reclamation's conclusion that the Proposed Project may affect, but is not likely to adversely affect ESA-listed species. Reclamation received a letter of concurrence from USFWS dated May 24, 2022. Both items of correspondence are included in Appendix A.

## **3.4 Recreation**

### **3.4.1 Affected Environment**

#### ***Overview***

The area below Minidoka Dam is managed by Reclamation, although the USFWS has enforcement authority within the Minidoka National Wildlife Refuge. There are three primary recreation access points in the area below the dam and spillway: the Minidoka Boat Ramp on the north side of the river, the access bridge and parking at the south end of the spillway, and Bishop's Hole on the south side of the river. Minidoka Boat Ramp facilities include a concrete boat ramp, dock, accessible route, and parking. A vault toilet is located across the road from the ramp and is accessed from the 300 North Road on the north side. The spillway bridge and Bishop's Hole are accessed on the south side of the river; both sites offer a vault toilet and parking. All three sites allow for easy and fee-free access for a variety of recreation activities. The river below the dam can also be accessed by boat up to the buoy line when flows are sufficient to navigate the channel. The buoy line and terrain prevent running a boat to the spillway, although some fishermen use float tubes to fish the area below the spillway.

#### ***Fishing***

Information gathered in 2018 for the Minidoka Powerplant Unit 7 Structure Maintenance and Rehabilitation Environmental Analysis (Reclamation 2018) developed the following information about fishing, which still holds true in 2022. Fisherman primarily target rainbow trout in the river below the dam and spillway, but smallmouth bass, crayfish, and common carp are found in most areas and sturgeon are popular for fishing at Bishop's Hole. Fishing is particularly good just below the powerplant on the south side of the river because the water is well-aerated and

food is abundant. Some fishermen access the run below the powerplant by crossing the pedestrian bridge below the spillway then hiking the dry riverbed. When the water is low after irrigation season, the run below the powerplant and north part of the spillway can be accessed from the south side by crossing east from the Bishop's Hole area. Through the winter, most anglers below the dam seek out open water to fish, while ice fishing usually takes place on the reservoir. Low water in the river during winter flows allows users to access smaller pools along gravel bars or by hopping between dry rocks. All but a small portion in the west end of this area below the dam is included in the Minidoka National Wildlife Refuge. No game other than fish may be taken from this portion of the refuge. Although no formal visitation studies have occurred below the dam, it is estimated that approximately 80 percent of fishing visitation is local fishermen from Minidoka and Cassia Counties, 10 percent from other parts of the Snake River Plain, and 10 percent from out-of-state.

### ***Birding***

The following information was developed and analyzed in the Minidoka Powerplant Unit 7 Structure Maintenance and Rehabilitation Environmental Analysis in 2018 (Reclamation 2018) and is incorporated in whole as it pertains to 2022.

The area below the dam ranks high as a destination to watch unique birds, spring and fall migrations, and water birds in summer, especially Sabine's gulls. Sabine's gulls are transient in other areas in the region, but they reliably stay below the dam for about 2 weeks between late August and mid-September after nesting in the arctic. They are easily seen from the Minidoka Boat Ramp and Bishop's Hole, as are cormorants and pelicans (Bouffard 2009). Birders also enjoy observing ducks and geese in this area. Several aspects of the area are particularly attractive to birds, especially open water in winter and abundant food sources including a high invertebrate population, such as the caddisfly hatch in July, and fish injured going through the turbines (Bouffard 2009). The Minidoka National Wildlife Refuge is an IBA of global significance. In addition to Bishop's Hole and Minidoka Boat Ramp, good viewing and parking are available at the east end of East 300 North Road. Some birders drive the roads and park when they find birds they wish to observe. Others walk carrying binoculars or spotting scopes. Regardless of the flow level in the river, visitors use the same access points for birding. The only time the birds are normally disturbed is when there are several boats in the river (Bouffard 2009). Although far more birding occurs along the river below the dam because of the hatch, the biodiversity, and the ease of access, the area on the south side below the spillway is popular from July through September for observation of shorebirds that like mudflats. Typical water level fluctuations do not significantly affect the availability of shorebird observation opportunities below the existing spillway because there is nearly always some water present (Bouffard 2009). Birders from Minidoka and Cassia Counties are estimated to make up 70 percent of the birders below the dam. Another 20 percent of the birders are estimated to come from elsewhere in the Snake River Plain, with the balance from out-of-state. Birding below the dam and in the park historically has experienced steady increases in popularity (Bouffard 2009).

### **Other Activities**

In addition to fishermen and birders, visitors below the dam include sightseers, photographers, and boaters. The area below the dam, including the affected area, is almost entirely within the Minidoka National Wildlife Refuge, which is closed to hunting and game retrieval except in designated areas on the south side and east end of Lake Walcott. Therefore, effects to hunting were not analyzed for this assessment.

### **Visitation**

Visitation below the spillway is popular for fishermen, birders, and sightseers. Visitation is estimated based on the number of vehicles at the various parking areas multiplied by a range of 2 to 2.5 visitors per vehicle average. As noted in the Minidoka Powerplant Unit 7 Structure Maintenance and Rehabilitation Environmental Analysis in 2018 (Reclamation 2018), during the peak season between May 1 and September 15, it is estimated that there are typically 6 to 10 people on weekdays and 9 to 20 people on weekend days at the Minidoka Boat Ramp. Observed visitation at Bishop's Hole is 10 to 12 people on weekdays and 15 to 25 people on weekend days. Many of these people move to other locations periodically during the day. Visitation on the south side below the spillway is popular during the summer due to mitigation efforts incorporated into the construction of the new spillway, completed in 2015, that improved the access and fishery. The south side of the spillway only has water outflow during the irrigation season and is typically dry and unfishable directly below the spillway starting in October until water releases start again near the beginning of April. On any given weekday during the summer, Reclamation employees have observed as many as 27 fishermen on the new bridge and another 10 on the bank below at one time. Both Minidoka Boat Ramp and Bishop's Hole accommodate fishing, birding, and launching boats. Boaters often have drivers shuttle them to the launch point and leave their vehicles and trailers at take-out points downstream. Fisherman also float tube the potholes below the spillway after the water is shut down on the south side of the spillway.

### **3.4.2 Environmental Consequences**

#### **Alternative A – No Action**

No additional effects to recreation, as described in the Affected Environment section, are anticipated under the No Action alternative. Recreationists would continue to use the area as they have in the past, experiencing the same access to fall and winter fishing below the spillway.

#### **Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)**

Although work would be taking place in the streambed above the fishing and access bridge, the closure of the area for construction would have a limited impact to normal use. During the proposed timeframe of construction, the spillway is generally dewatered and fishing is not actively taking place in most years. During the seasonal timeframe identified for construction, fishermen access the potholes of water below the project, the main river out of Bishop's Hole, or the boat ramp site, none of which would experience effects from the project. Boating access to the river would not be impacted and float tubers would still be able to access the popular

potholes in the lower spillway area without restriction. Birders and other visitors would be able to access and enjoy areas popular for those uses in the fall.

Parking would be limited during the construction phase, as the public parking area adjacent to the construction area would be utilized for staging purposes. However, signage would be installed directing visitors to other parking areas to minimize this impact. Access to the north side of the spillway across the bridge would be limited during construction, but with the reduced water levels normally experienced during the seasonal timeframe of the project, visitors can walk the stream bottom below the bridge, outside of the restricted area, to access the rest of the spillway area.

Construction-related effects such as noise, dust, construction traffic, and displacement of aquatic or terrestrial species that are normally present would likely affect the south side of the river more than the north side. Recreational visitation along both sides of the river immediately adjacent to the project site may be temporarily affected due to noise. Any effects considered intolerable to fishermen, birders, boaters, or others seeking solitude during the project construction would likely influence them to move temporarily to other locations farther downstream from the project site to avoid hearing construction noise while recreating. Due to the season, normal visitor use during the proposed construction period is significantly lessened in comparison to the high summer use levels.

## **3.5 Water Quality**

### **3.5.1 Affected Environment**

Lake Walcott and the Snake River water quality is managed by the State of Idaho under the framework of the CWA. Idaho has established water quality standards for specific physical and chemical parameters in order to provide suitable conditions to support beneficial uses, including irrigation water supply, public water supply, recreation, and aquatic life (IDEQ 2008). The designated beneficial uses of Lake Walcott include cold water aquatic life, primary contact recreation, agricultural/domestic/industrial water supply, aesthetics, and wildlife habitat. The beneficial uses designated for the segment of the Snake River below Lake Walcott are cold water aquatic life, primary contact recreation, agricultural/industrial water supply, aesthetics, wildlife habitat, and salmonid spawning.

Section 303(d) of the CWA requires states and Tribes to identify water bodies that do not meet water quality standards. The most recent approved 303(d) list is the 2018/2020 Integrated Report (IDEQ 2020). For lakes, rivers, and streams identified on this list, states and Tribes must develop water quality improvement plans known as total maximum daily loads (TMDLs). These TMDLs establish the amount of a pollutant a water body can carry and still meet water quality standards.

### **Applicable Water Quality Standards**

The water quality criteria (narrative and numeric) that protect the designated and existing beneficial uses for Lake Walcott and the Snake River downstream of Minidoka Dam Spillway are discussed below.

Numeric water quality standards have been developed by IDEQ (2008) for temperature and dissolved oxygen, and turbidity, among other water quality properties:

- Water temperature standard
  - Cold water aquatic life
    - Maximum daily maximum temperature no greater than 22°C (71.6°F)
    - Maximum daily average temperature no greater than 19°C (66.2°F)
  - Salmonid spawning
    - Maximum daily maximum temperature no greater than 13°C (55.4°F)
    - Maximum daily average temperature no greater than 9°C (48.2°F)
- The dissolved oxygen (DO) standard for cold-water aquatic life indicates that DO concentrations should be greater than or equal to 6 mg/L at all times
- The turbidity standard for cold water aquatic life indicates that turbidity below any applicable mixing zone shall not exceed background turbidity by more than 50 nephelometric turbidity units (NTU) instantaneously or more than 25 NTU for more than 10 consecutive days

The standards for nutrients and sediment are narrative standards which state that the level of a pollutant cannot exceed quantities that impair beneficial uses (IDEQ 2008). Because these pollutants do not have numeric standards, surrogate numeric targets are often proposed in TMDLs or water quality assessments.

- The standard for excess nutrients indicates that “surface waters shall be free from excess nutrients that can cause visible slime growth or other nuisance aquatic growths impairing designated beneficial uses”
- The standard for excess sediment indicates that “sediment shall not exceed quantities which impair designated beneficial uses”

### **Lake Walcott (Reservoir)**

Flows into Lake Walcott are controlled by upstream releases from American Falls Dam and are targeted to meet downstream demands for delivery of irrigation and other water rights. Sediment carried into Lake Walcott by the Snake River and other tributary streams generally deposits in the upstream portions of the reservoir where it transitions from river-like to lake-like conditions. This transitional area begins approximately 4 river miles downstream from the confluence with Raft River. Sediment deposited in this area may be redistributed to lower areas of Lake Walcott each year when the reservoir is drawn down in the winter for spillway protection. Lake Walcott also retains much of the nutrient load passing through from American Falls Reservoir as well as the nutrient loads from tributary streams and other point and nonpoint sources located upstream from the reservoir.



As part of an ongoing reservoir monitoring program for operating projects, Reclamation collects water quality data every 3 years from Lake Walcott. These samples are analyzed for chemical, physical, biological, and trace metal parameters. Data can be retrieved and reviewed at the Environmental Protection Agency (EPA) water quality database STORET located at <https://www.waterqualitydata.us/>.

As indicated in Table 1, water quality parameters are generally within the beneficial use standards. However, IDEQ has determined that water quality conditions in Lake Walcott do not support cold water aquatic life and primary contact recreation beneficial uses due to mercury (IDEQ 2020). This was determined from a 2005 smallmouth bass sample that was found to contain a mercury concentration of 0.332 mg/kg, which exceeded the human health criterion of 0.3 mg/kg.

Table 1. Water quality beneficial use standards and minimum, average, median, and maximum turbidity, dissolved oxygen, and temperature data collected from Lake Walcott sampling for the period of record 2016-2020

Parameter	Turbidity (NTUs) <sup>1</sup>	Dissolved Oxygen (mg/L) <sup>2,3</sup>	Water Temperature (°C) <sup>3,4</sup>
IDEQ Standard	>50 over background or >25 over background for 10 days	>6 at all times	For cold-water aquatic life: ≤22; daily average ≤19 For salmonid spawning: ≤13; daily average ≤9°C
Minimum	1	2.4	13.9
Average	5.6	7.4	19.3
Median	5	7.7	20.1
Maximum	25.1	11.6	22.6
Sample count	47	135	135

<sup>1</sup> NTU = nephelometric turbidity units

<sup>2</sup> mg/L = milligrams per liter

<sup>3</sup> instantaneous measurement conducted in the field

<sup>4</sup> °C = degrees Celsius

### ***Snake River Downstream of Minidoka Dam Spillway***

Water passing from Lake Walcott through Minidoka Dam is typically of excellent quality due to the sediment and nutrient retention that naturally occurs as water moves through the reservoir. Water quality tends to degrade downstream due to several large point sources as well as many smaller agricultural drains and tributaries which carry nonpoint source loads of nutrients. As a result, IDEQ designated the Snake River from Minidoka Dam to the Heyburn/Burley Bridge as not meeting the cold water aquatic life beneficial use standards due to total phosphorus (IDEQ 2020). Waste load and load allocations for total phosphorous (TP) were developed by the State and are prescribed in the Lake Walcott Subbasin Assessment and TMDL. TP targets for the

Snake River downstream from Minidoka Dam are set at an average annual concentration of 0.08 mg/L of TP and a 0.128 mg/L TP daily maximum concentration to allow for natural variability.

Due to its proximity to the project area, an area referred to as the Snail Pool is used as a representative area for water quality. During 2012-2017 *Physa natricina* monitoring efforts, instantaneous water temperature, DO, and turbidity measurements were taken at the Snail Pool with a handheld water quality meter (see Table 2). These water quality constituents are generally within Idaho State standards and are viewed as representative of water quality at the project site due to its close proximity to Minidoka Dam (approximately 1,200 feet downstream).

Table 2. Water quality beneficial use standards and minimum, average, median, and maximum turbidity, dissolved oxygen, and temperature data collected with a handheld water quality meter from the Snail Pool area during August *Physa natricina* sampling for the period of record 2012-2017

Parameter	Turbidity (NTUs) <sup>1</sup>	(mg/L) <sup>2,3</sup>	(°C) <sup>3,4</sup>
IDEQ Standard	>50 over background or >25 over background for 10 days	>6 at all times	For cold-water aquatic life: ≤22; daily average ≤19 For salmonid spawning: ≤13; daily average ≤9°C
Minimum	4.4	7.2	19.9
Average	17.1	7.9	21.1
Median	15.3	7.9	20.7
Maximum	46.0	9.0	23.3
Sample count	135	156	216

<sup>1</sup> NTU = nephelometric turbidity units

<sup>2</sup> mg/L = milligrams per liter

<sup>3</sup> instantaneous measurement conducted in the field

<sup>4</sup> °C = degrees Celsius

### 3.5.2 Environmental Consequences

#### **Alternative A- No Action**

Effects to water quality would continue to follow the same patterns as those described in the Affected Environment section. Lake Walcott water quality would continue to change based on anthropogenic and natural upstream watershed inputs, snow pack/precipitation events, reservoir drawdowns, drought, and cyclic changes in reservoir biology. The reservoir's sediments likely serve as a nutrient/contaminant sink, where nutrients/contaminants are buried under depositing sediments and continually removed from the water column as long as the sediments are not disturbed. If sediments are disturbed, the buried nutrients/contaminants could become

bioavailable and reintroduced into the water column. Mercury impairment is expected to continue to be an issue into the future.

The Snake River immediately below Minidoka Dam is directly affected by the water released from Lake Walcott. Sediment and nutrient/contaminant retention in Lake Walcott would continue to occur and water released from Minidoka Dam would continue to be of excellent quality. Snake River water quality further down would continue to be affected by agriculture and, through the TMDL process, nutrients such as TP would decrease in the long-term due to implementation of BMPs to meet future TMDLs.

***Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)***

The Proposed Action should not affect water quality in Lake Walcott because all construction is occurring immediately below Minidoka Dam. Water quality effects (short- and long-term) for Lake Walcott would be the same as those identified above for Alternative A.

Snake River water quality effects are split into two categories, those from construction activities that are mostly short-term effects and those occurring post-construction that are mostly long-term effects. The greatest threat to water quality from this action is the input of sediment from the staging area and the temporary road construction and removal. Both construction and post-construction effects are discussed below.

Construction activities include actions associated with the staging area, construction and removal of the temporary access road, removal of loose rock and debris, and actual repair of the damaged areas including concrete placement. Adjacent to the waterway, the staging area is unpaved and could produce dust from vehicle activity and the moving of materials; this could introduce airborne sediment that would increase turbidity in the Snake River. These effects would be minimized by the incorporation of erosion and sediment control measures, as suggested by the State in a comment submitted during the development of the proposed project. Such measures would be incorporated into the final project practices, e.g., “placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces” (see comments received from the State of Idaho – Appendix B). Incorporation of these requested measures would minimize the potential for dust and sediment to enter the Snake River during staging of materials. No appreciable increase in turbidity would be expected in the river.

Construction of a temporary access road into the spillway channel would not occur until that area is seasonally dewatered, limiting direct sediment input into the waterway. The stone and gravel used would be washed before placement for the temporary road (as identified in In-Water Work section of the comments received from the State of Idaho – Appendix B). When that series of construction activities is completed, the temporary road would be removed and the stone/gravel stockpiled for subsequent years’ use, if necessary. The cleaning of the stone/gravel before initial placement would limit sediment entering the waterway. It is unlikely that all stone/gravel would be recovered; however, the trace amounts of material that would be submerged during higher summer and fall flows would not affect turbidity or overall water quality.

Removal of loose rock and debris, and actual repairs of damaged areas with concrete placement, would not likely affect water quality. These actions would be performed when the area is dewatered, limiting direct sediment input into the waterway. When removing loose rock and debris, it is likely that small rock and debris particles would be left behind. If not later encased in concrete from the repair, these particles would remain in the waterway when flows increased. Although the particle size of any remaining debris would be too big to affect turbidity, they could be small enough to be washed down river. A very minor amount of debris would be expected to remain available to wash down the river because most would likely be encased in concrete placed during repairs. The repairs themselves are not expected to affect water quality. The installation of doweling drilled and epoxied into the bedrock, installation of a rebar mat, and permanent placement of concrete would be completed before water re-inundated the area. Drilling activities could release small quantities of dust, but these small amounts would not be expected to increase turbidity for the limited amount of drilling that would be done.

Post-construction water quality effects for the Snake River immediately below Minidoka Dam would be the same as those identified in the No-Action alternative. No appreciable effects to water quality are expected during construction, and BMPs to be implemented as identified in scoping response comments received from the State of Idaho Governor's Office of Energy and Mineral Resources (Appendix B) would reduce any effects to negligible levels.

## **3.6 Cultural Resources**

### **3.6.1 Affected Environment**

A record search was completed with the Idaho State Historical Society on February 23, 2022. A total of 15 previously recorded sites have been recorded within a mile of the project (Table 3). These include the Minidoka Dam and Powerplant (Dam), which is listed on the National Register of Historic Places (National Register), the associated shop, the Northside Alternate Oregon Trail, Howell Diversion Structure, Walcott Park, Minidoka Gravity Division Historic District, two canals, transmission line, ferry location, gage station, three artifact scatters, and an isolated flake. Of these, only the Dam is located within the project area. All resources are identified in Table 3. In addition to resources, 25 previous surveys have occurred in the local area, including a survey for the access road to the Minidoka Spillway (Ross 1988) and recordation of the Howell Diversion Structure (Polson 2020) just east of the project.

Table 3. Cultural resources within 1 mile of the APE

Site No.	Description	Age	Eligibility	In APE?
10CA540	Isolated flake	precontact	not eligible	no
10CA541	Artifact scatter	historic	undetermined	no
10MA3	Lithic scatter	precontact	undetermined	no
10MA48	Artifact scatter	precontact	not eligible	no
10MA49	Walcott Park	historic	eligible	no
10MA273	Northside Alternate Oregon Trail	historic	eligible	no
31-553/67-554/ 74000746	Minidoka Dam, Powerplant and Spillway Gates	historic	listed	yes
31-4990	Story (Howell's) Ferry	historic	undetermined	no
31-13759	Main South Side Canal	historic	eligible	no
31-13766	Minidoka PH-Unity No. 1 Transmission Line	1969	eligible	no
67-789	Main Northside Canal	historic	eligible	no
67-14748	Minidoka shop	historic	eligible	no
67-14916	Gage station at Howell's Ferry	historic	not eligible	no
67-14924	Minidoka Gravity Division Historic District	historic	eligible	no
Not Assigned	Howell's Diversion Structure	historic	eligible	no

### ***Minidoka Dam and Powerplant***

The Minidoka Dam was built between 1904 and 1906 and a temporary powerhouse was in use through early 1909. In 1909, most of the construction work on the powerplant building was completed and a single unit was installed at the powerplant in preparation of selling power to the local communities (Fogg 1915; Reclamation n.d.). The powerplant was mostly completed in 1910. The powerplant was built primarily for the purpose of supplying power to pump water for irrigation. A secondary purpose was to sell it to the local communities of Rupert, Heyburn, and Burley.

Two additional generating units were added later. Work to install a sixth generator began in 1926 and construction on Unit 7, including a new wing of the powerhouse, was finished in 1942. While all power units are operational, only Units 6 and 7 have been actively used since the completion of the Inman Powerplant in the 1990s. The Inman construction represents one of two major renovations to the Dam site. It included constructing a new intake through the Minidoka Dam, a new powerhouse, and new shop.

The second major construction event occurred between 2011 and 2015, when the entirety of the more than 100-year-old spillway was demolished and replaced. The old spillway consisted of a

spill and stoplogs which had to be manually placed/removed from an overhead walkway. The new spillway was realigned, removing some of the bends and shortening the overall length. The new spillway also incorporates radial gates rather than stoplogs, which can be operated remotely.

### ***Cultural Resources Investigations***

No pedestrian survey was completed for this project as the project is almost entirely within an active spillway; the remaining portion is a developed parking area that has been leveled and graded in the past. Instead, Reclamation examined existing recorded resources, historic aerial photographs, and maps to identify historic properties within the project. Reclamation has identified the Dam within the project area.

### **Minidoka Spillway**

The Minidoka Spillway is the only portion of the Dam within the project area. The spillway is completely modern. The original spillway was demolished and replaced between 2011 and 2015. The new spillway was completely redesigned and modernized and in no way resembles the original spillway. It was also realigned, removing many of the bends.

Its replacement affected the design, workmanship, materials, and location of the feature and the entire site. The integrity of setting, feeling, and association are less affected, but in the absence of a historic feature, these factors no longer apply to the spillway. As a modern construct, in a new location, using a completely different design, the current spillway no longer contributes to the historic integrity and eligibility of the Dam.

## **3.6.2 Environmental Consequences**

### ***Alternative A- No Action***

The damaged area falls almost entirely within the historic boundary of the Minidoka Dam and Powerplant site, which is listed on the National Register. However, the area does not include any of the historic features still present within the boundary and would not make any noticeable changes to the overall setting. Continued erosion within the Dam site could ultimately lead to adverse impacts to the historic integrity of the resource.

### ***Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)***

The project area falls almost entirely within the historic boundary of the Minidoka Dam and Powerplant site, which is listed on the National Register. However, the area does not include any of the historic features still present within the boundary and will not make any noticeable changes to the overall setting. As there are no physical elements of the Dam within the project area, Alternative B will have no adverse effect on historic properties.

## 3.7 Indian Sacred Sites

### 3.7.1 Affected Environment

The following section was adapted from a 2004 EA completed for a Resource Management Plan in the area of Minidoka Dam (Reclamation 2004). Evidence of human occupation in southcentral Idaho dates as early as 14,500 years before the present (BP). The three major prehistoric cultural periods that have been identified for southeastern Idaho also apply to south central Idaho:

- Early Prehistoric Period (15,000 to 7,500 BP)
- Middle Prehistoric Period (7,400 to 1,300 BP)
- Late Prehistoric Period (1,300 to 150 BP)

These periods reflect a shift over time from a highly mobile lifestyle involving hunting and gathering (such as seeds, roots, mammals, and fish) to reduced mobility and intensified use of certain highly productive resources (such as camas and salmon). The project area is within the Snake River Basin, which was traditionally used by the Shoshone and Bannock Tribes for gathering plants for food and medicine, hunting, fishing, trading, and for ceremonial purposes.

The Shoshone and Bannock Tribes of the Fort Hall Reservation, Idaho, represent two linguistically distinct populations of people. The length of time these Tribes have occupied southern Idaho is a subject of long-standing debate among scholars. Subsistence practices and lifestyles were similar to other Great Basin cultural groups. Because the environment could not sustain large populations, people moved from one resource to the next, relying on a wide variety of resources including roots, berries, nuts, marmots, squirrels, rabbits, insects, large game, and fish. By the time of the earliest Euroamerican contact in the early 1800s, the Shoshone and Bannock Tribes had acquired the horse, making it easier to procure bison and other resources and to trade.

No known Indian Sacred Sites are within or near the project area.

### 3.7.2 Environmental Consequences

#### ***Alternative A- No Action and Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)***

There are no known Indian Sacred Sites identified in or near the project area and therefore no effects would occur to the resources.

## 3.8 Indian Trust Assets

ITAs are legal interests in property held in trust by the United States for Indian Tribes or individual Indian trust landowners. ITAs include trust lands, natural resources, trust funds, or other assets held by the federal government in trust. An Indian trust asset has three components:

(1) the trustee, (2) the beneficiary, and (3) the trust asset. Treaty-reserved rights – for instance, fishing, hunting, and gathering rights on and off reservation – are usufructuary rights that do not meet the Department of the Interior (DOI) definition of an ITA (a usufruct is the legal right to use and derive profit or benefit from property that belongs to another person). The United States does not own or otherwise hold these resources in trust. ITAs do not normally include usufructuary rights alone, i.e., rights to access for hunting or fishing. Rather, they require first a possessory interest; that is, the asset must be held or owned by the federal government as trustee.

The DOI requires that all impacts to trust assets, even those considered nonsignificant, must be discussed in a trust analysis in NEPA documents and appropriate compensation and/or mitigation implemented. Additionally, Reclamation's NEPA Handbook (Reclamation 2012) recommends a separate ITA section in all NEPA documents including a Record of Decision (ROD). These sections should be prepared in consultation with potentially affected Tribal and other trust beneficiaries.

### **3.8.1 Affected Environment**

No Indian trust land assets were identified in the Proposed Action area or staging areas during the scoping process, such as those held in trust by the Bureau of Indian Affairs for the benefit of Tribes or individual Indian trust landowners. As part of the scoping process, Reclamation researched Tessel, a federal geographic information system (GIS) land database that includes federal lands held in trust for Tribes and Individual Indian trust landowners. This research indicated there are no Indian trust land assets in the Proposed Action area or staging areas. The Proposed Action area including staging areas are contained wholly within a federally-owned project.

ITAs in the closest proximity to the Proposed Action area are the Shoshone-Bannock Tribes of the Fort Hall Reservation, which is situated approximately 38 miles east of the Proposed Action area. The Shoshone-Bannock Tribes have a water right in that portion of the Snake River Basin upstream from the Hells Canyon Dam, the lowest of the three dams authorized as Federal Energy Regulatory Commission (FERC) Project No. 1971 (Fort Hall Indian Water Rights Act of 1990; 104 Stat 3059 (1990)). The Shoshone-Bannock have water storage rights in Palisades Reservoir and American Falls Reservoir, which are reserved under the Michaud Flats Project for irrigation in the State of Idaho (68 Stat. 741 at 1027 (1954)).

ITAs in the second closest proximity to the Proposed Action area are the Shoshone-Paiute Tribes of the Duck Valley Reservation, which is situated approximately 121 miles southwest of the Proposed Action area. The Shoshone-Paiute Tribes have a water right in the East Fork of the Owyhee River, a tributary of the Snake River (Public Law 111-11 §10801; 123 Stat. 1411 (2009)).

The Nez Perce Tribe, situated approximately 261 miles northwest of the Proposed Action area, has a water right in the Snake River Basin as described in the Snake River Basin Adjudication, Case No. 39576, paragraph 3 of the Commencement Order issued by the Snake River Basin Adjudication Court on November 19, 1987 (118 Stat. 3433 (2004)).



## **3.8.2 Environmental Consequences**

### ***Alternative A- No Action***

Under the No Action alternative, Reclamation would not perform the maintenance and repair construction activities. The SGS would continue to be operated with some gates removed from service, and further erosion below the concrete apron would be expected to occur with continued SGS operation. Existing short-term or long-term effects, either beneficial or adverse, or effects on public health and safety in relationship to nearby ITAs would remain unchanged.

### ***Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)***

Under Alternative B, the Proposed Action involves repairing areas of identified damage. If the Proposed Action occurs, there are no known beneficial or adverse effects to ITAs. There are no known or anticipated short or long-term effects to ITAs by way of potential increases to power production.

Reclamation solicited comments on the proposed project from the Shoshone-Paiute Tribes of the Duck Valley Reservation and the Shoshone-Bannock Tribes of the Fort Hall Reservation, who traditionally or currently use the area under their reserved treaty rights; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to Tribes. With no specific responses, Reclamation assumes that there would be no effects to ITAs such as adverse impacts to water, water rights, or land held in trust for the Tribes.

## **3.9 Treaty Rights**

### **3.9.1 Affected Environment**

The United States has a fiduciary responsibility to protect and maintain rights reserved by Indian Tribes or Indian individuals by treaties, statues, executive orders, and allotments. These rights are sometimes further interpreted through court decisions and regulations.

The Proposed Action area is surrounded by areas historically used by many Tribes. Treaty rights at issue here are access and impacts to off-reservation hunting, fishing, gathering rights, livestock grazing rights, and cultural or ceremonial use rights. Although the Proposed Action area is wholly situated within a federally-owned project, courts have ruled that members of federally recognized Tribes with reserved treaty rights have the right to cross private or state lands in order to gain access to treaty areas (United States v. Winans, 1905).

The Shoshone-Bannock Tribes of the Fort Hall Reservation are federally recognized Tribes in southeast Idaho; Fort Hall Reservation is situated approximately 38 miles east of the Proposed Action area.

On July 3, 1868, the Fort Bridger Treaty was signed and agreed to by the eastern and western bands of the Northern Shoshone and the Bannock (or Northern Paiute Bands). Article IV of the

treaty states that members of the Shoshone-Bannock Tribes "...shall have the right to hunt on the unoccupied lands of the United States..." Courts interpreted this to mean "unoccupied federal lands."

In the case of *State of Idaho v. Tinno*, an off-reservation fishing case in Idaho, the Idaho Supreme Court interpreted the Fort Bridger Treaty of the Shoshone-Bannock Tribes. The Court determined that the Shoshone word for "hunt" also included to "fish." Under *Tinno*, the Court affirmed the Tribal members' right to take fish off-reservation pursuant to the Fort Bridger Treaty. The Court also recognized "that treaty Indians have subsistence and cultural interests in hunting and fishing..." and "The Fort Bridger Treaty ... contains a unified hunting and fishing right, which...is unequivocal." The treaty did not grant a hunting, fishing, or gathering right; it reserved a right the Shoshone-Bannock Tribes have always exercised.

The Shoshone-Paiute Tribes of the Duck Valley Reservation are federally recognized Tribes in southern Idaho and northern Nevada; Duck Valley Reservation is situated approximately 121 miles southwest of the Proposed Action area. The reservation was established by EOs dated April 16, 1877; May 4, 1886; and July 1, 1910. The Shoshone-Paiute sometimes claim the interests of the Tribes that are reflected in the Bruneau, Boise, Fort Bridger, Box Elder, Ruby Valley, and other treaties and EOs that the Tribes' ancestors agreed to with the United States. The Tribes continue to observe these treaties and executive orders in good faith; however, the federal government did not ratify treaties that reserved off-reservation hunting and fishing rights. The Tribes assert they have aboriginal title and rights to those areas. All such treaties and executive orders recognize the need for the Tribes to continue to have access to off-reservation resources because most of the reservations established were and continue to be incapable of sustaining Tribal populations. This need continues and has not diminished from the time of the first treaties and EOs that established the Duck Valley Reservation (*Cherokee Nation of Oklahoma and Shoshone-Paiute Tribes of the Duck Valley Reservation v. Leavitt*, 2005).

The Northwestern Band of the Shoshone Indians, a federally recognized Tribe located near Washakie, Utah situated approximately 80 miles southeast of the Proposed Action area, maintains reserved treaty-protected hunting, fishing, and gathering rights, also pursuant to the 1868 Treaty of Fort Bridger. As noted above, these reserved rights may be exercised on unoccupied lands within the area acquired by the United States.

The Nez Perce Tribe of the Nez Perce Reservation is a federally recognized Tribe in northern Idaho; the Nez Perce Reservation is situated approximately 261 miles northwest of the Proposed Action area. The United States and the Tribe entered into three treaties (Treaty of 1855, Treaty of 1863, and Treaty of 1868) and one agreement (Agreement of 1893). The rights of the Nez Perce Tribe include the right to hunt, gather and graze livestock on open and unclaimed lands, and fish in all usual and accustomed places.

The Northern Arapaho of the Wind River Reservation are a federally recognized Tribe located in central Wyoming; the Wind River Reservation is situated approximately 205 miles east of the Proposed Action area. The United States and the Northern Arapaho entered into the Fort Laramie Treaty of 1851 (Horse Creek Treaty), which reserves the right of the Northern Arapaho "to roam and hunt while game shall be found in sufficient quantities to justify the chase."

### **3.9.2 Environmental Consequences**

The United States Supreme Court has ruled that treaties with Indian Tribes are to be construed liberally in favor of Tribes, as the Tribes would have understood the language of the treaty at the time the treaty was signed. It is likely that the ratified or unratified treaties listed above include areas surrounding Minidoka Dam, such as the Proposed Action area.

#### ***Alternative A- No Action***

Under the No Action alternative, Reclamation would not perform the maintenance and repair construction activities. The SGS would continue to be operated with some gates removed from service, and further erosion below the concrete apron would be expected to occur with continued SGS operation. There would be no short-term or long-term effects, either beneficial or adverse to existing reserved treaty rights for Tribal hunting, fishing, or gathering in traditional or customary places or for livestock grazing in the area.

#### ***Alternative B – Minidoka SGS Erosion Repair and Prevention Activities (Proposed Action)***

Under Alternative B, there are anticipated beneficial long-term effects to reserved treaty rights such as access to or impacts to traditional or customary places for hunting, fishing, or gathering, or for livestock grazing in the area. The anticipated benefit of the repaired areas of Minidoka Dam is stable water access for wild game and livestock grazing in the area.

The proposed repair construction ingress and egress routes may cause a temporary, short-term adverse effect on access to traditional or customary hunting, fishing, or gathering sites, or for livestock grazing areas during the construction periods.

Reclamation requested comments from the Shoshone-Bannock Tribes, who traditionally and currently use the area for hunting, fishing, and gathering of plants; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to Tribes. With no specific response, Reclamation assumes that there would be no adverse effects to reserved treaty rights such as access or impacts to areas for hunting, fishing, or gathering or for livestock grazing.

### **3.10 Environmental Justice**

EO 12898 (59 FR 7629) requires each federal agency to achieve environmental justice by addressing disproportionately high and adverse human health and environmental effects on minority and low-income populations. The demographics of the action area are examined to determine whether minority populations, low-income populations, and/or Native American Tribes are present in the area impacted by a proposed action. If present, the agency must determine if implementation of the proposed action would cause disproportionately high and adverse human health or environmental effects on the populations.

### 3.10.1 Affected Environment

#### ***Racial Minorities***

The project construction area is located in Minidoka County. The general proportions of race and ethnicity in Minidoka County are similar to Idaho as a whole, with a white population of more than 94 percent according to the Census Bureau’s Quick Facts statistics as of July 1, 2021 (Table 4).

Table 4. Summary of Racial and Ethnic Minority Distribution in Idaho and Minidoka County, July 1, 2021 (U.S. Census Bureau 2022)

Race or Ethnicity	Idaho	Minidoka County
White	93.0%	94.2%
Black or African American	0.9%	0.8%
Asian	1.6%	0.6%
Native Hawaiian and Other Pacific Islander	0.2%	0.1%
American Indian and Alaska Native	1.7%	2.3%
<i>Two or More Races</i>	2.6%	1.9%
<i>Hispanic or Latino (any race)<sup>1</sup></i>	12.8%	36.0%

<sup>1</sup>By definition (Federal Office of Management and Budget), race and Hispanic or Latino origin are two separate categories. People who report themselves as Hispanic or Latino can be of any race.

#### ***Low-Income Populations***

Low-income populations are identified by several socioeconomic characteristics. As categorized by the 2000 Census, specific characteristics include income (median family and per capita), percentage of population below poverty (individuals), and unemployment rates. The Census Bureau’s 2015- 2019 American Community Survey shows a slightly lower median household income of \$53,370 for Minidoka County than the median of \$55,785 for Idaho (U.S. Census Bureau 2022). The Census Bureau reports that about 14 percent of the population of Minidoka County and 10.1 percent of the state of Idaho’s population were living in poverty as of 2020 (U.S. Census Bureau 2022). Relevant data are summarized in Table 5.

Table 5. Summary of income and poverty status (July 2021 data) and unemployment status (January 2022 data) in Idaho and in Minidoka County

Socioeconomic Statistic	Idaho	Minidoka County
Median household income (in 2019 dollars), 2015-2019	\$55,785	\$53,370
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$27,970	\$24,262
Persons in poverty, percent <sup>1</sup>	10.1%	14%
Persons unemployed (Dec 2021 <sup>2</sup> ), percent	2.4%	1.5% <sup>3</sup>

<sup>1</sup> Source: 2020 Small Area Income and Poverty Estimates (U.S. Census Bureau 2022)

<sup>2</sup> Source: Idaho Department of Labor data: <https://lmi.idaho.gov/oes>

<sup>3</sup> Data from Idaho Department of Labor “Minidoka County Labor Force and Economic Profile, January 2022 (IDOL 2022)

Other measures of low income, such as unemployment, characterize demographic data in relation to environmental justice. The 1.5 percent unemployed in Minidoka County is slightly lower than the State of Idaho’s 2.4 percent of unemployed (IDOL 2022).

### 3.10.2 Environmental Consequences

#### **Alternative A – No Action**

The No Action alternative would not alter the current regional environmental justice status based on the lack of action occurring and the information presented above. Trends identified in the Affected Environment section would continue. Therefore, the No Action alternative would have no additional environmental justice effects than those described in the Affected Environment section.

#### **Alternative B – Minidoka Dam SGS Erosion Repair and Prevention Activities (Proposed Action)**

No minority or low-income groups, as identified for further analysis by EO 12898, were identified that would be disproportionately affected by health or environmental effects as the result of the implementation of the Proposed Action. Because the Proposed Action is a small, localized action with a relatively unpopulated area of effect, there would be no significant effect to the greater area’s low-income or minority populations.

# Chapter 4 Consultation and Coordination

On January 11, 2022, Reclamation mailed a scoping document, including a letter, project information, and map, to agencies, members of Congress, organizations, and individuals, soliciting their help in identifying any issues and concerns related to the Proposed Action. Reclamation received three comments during the scoping period, one from the USACE, one from the Idaho Department of Lands (IDL), and one from the State of Idaho Governor's Office of Energy and Mineral Resources. The comments addressed issues as summarized below:

- USACE provided BMP recommendations and requirements for CWA permitting approval
- IDL raised an outstanding easement issue that is being addressed separately from this project
- The State of Idaho provided consolidated comments from State agencies, including BMP recommendations and requirements related to compliance with IDEQ water quality standards, and a recommendation for implementation of certain vegetation management practices beneficial to the preservation and promotion of habitat for the monarch butterfly

These comments have been incorporated into the Proposed Action and analyses in the Final EA. The mailing list, scoping letters, and complete comments received are presented in Appendix B.

## 4.1 Agency Consultation and Coordination

### 4.1.1 National Historic Preservation Act

Reclamation initiated consultation with the Idaho State Historic Preservation Officer (SHPO) on March 15, 2022. SHPO concurrence with Reclamation's finding on No Effect to Historic Properties for the action area was received on June 15, 2022 (Appendix C).

### 4.1.2 Endangered Species Act

Reclamation generated a preliminary endangered species report through the USFWS IPaC site (Appendix A). The report indicated that two listed species and one candidate species could be present in or near the action area for this proposed project: the Snake River physa snail (*Physa natricina*) (endangered); the yellow-billed cuckoo (*Coccyzus americanus*) (threatened); and the monarch butterfly (*Danaus plexippus*) (candidate for listing). No proposed or designated critical habitats associated with any listed species overlap with the project's area of influence. Since the Proposed Action would not be likely to adversely affect any listed species, no need exists for formal Section 7 consultation under the ESA. On April 19, 2022, Reclamation sent a memorandum requesting that the USFWS provide documentation of concurrence with Reclamation's conclusion that the Proposed Project may affect, but is not likely to adversely

affect ESA-listed species. Reclamation received a letter of concurrence from USFWS dated May 24, 2022. Both items of correspondence are included in Appendix A.

## **4.2 Tribal Consultation and Coordination**

Reclamation mailed scoping letters to the Shoshone-Bannock Tribes and Shoshone-Paiute Tribes on January 7, 2022 (Appendix B). No responses or concerns from the Tribes were brought forward during the scoping period.

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## Chapter 5 References

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# **Appendix A**

## **Endangered Species Act Documentation**

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# IPaC resource list

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

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

## Project information

### NAME

Minidoka Dam South Gated Spillway Erosion Repair and Prevention Project

### LOCATION

Cassia County, Idaho




### DESCRIPTION


Some(The Proposed Action Alternative involves repairing areas of identified damage, which would necessitate the construction of a temporary access road into the spillway channel above the pedestrian walkway, removal of loose rock from eroded areas using an excavator, cleaning and removal of organic material from remaining bedrock, installation of dowling drilled and epoxied into the bedrock, installation of a rebar mat, and permanent placement of concrete into eroded areas immediately downstream from spillway gates and adjacent to the dam structure. The project anticipates the above procedures to be performed in multiple separate areas

adjacent to the downstream faces of gates where damage has been identified in previous inspections or may be further identified in the course of the project.)

## Local office

Idaho Fish And Wildlife Office

 (208) 378-5243

 (208) 378-5262

1387 South Vinnell Way, Suite 368

Boise, ID 83709-1657

NOT FOR CONSULTATION



# Endangered species

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

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

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

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

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

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

## Birds

NAME	STATUS
------	--------

Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

There is **no** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3911>

## Snails

NAME	STATUS
Snake River Physa Snail <i>Physa natricina</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/305">https://ecos.fws.gov/ecp/species/305</a>	Endangered

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur on the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20
Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9462">https://ecos.fws.gov/ecp/species/9462</a>	Breeds May 15 to Jul 15
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a>	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	Breeds May 20 to Aug 31
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8002">https://ecos.fws.gov/ecp/species/8002</a>	Breeds Apr 15 to Jul 15
Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9433">https://ecos.fws.gov/ecp/species/9433</a>	Breeds Apr 15 to Aug 10

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Evening Grosbeak  
 BCC Rangewide  
 (CON) (This is a  
 Bird of  
 Conservation  
 Concern (BCC)  
 throughout its  
 range in the  
 continental USA  
 and Alaska.)



Franklin's Gull  
 BCC Rangewide  
 (CON) (This is a  
 Bird of  
 Conservation  
 Concern (BCC)  
 throughout its  
 range in the  
 continental USA  
 and Alaska.)



Lewis's  
 Woodpecker  
 BCC Rangewide  
 (CON) (This is a  
 Bird of  
 Conservation  
 Concern (BCC)  
 throughout its  
 range in the  
 continental USA  
 and Alaska.)



Olive-sided  
 Flycatcher  
 BCC Rangewide  
 (CON) (This is a  
 Bird of  
 Conservation  
 Concern (BCC)  
 throughout its  
 range in the  
 continental USA  
 and Alaska.)



Rufous  
 Hummingbird  
 BCC Rangewide  
 (CON) (This is a  
 Bird of  
 Conservation  
 Concern (BCC)  
 throughout its  
 range in the  
 continental USA  
 and Alaska.)



NOT FOR CONSULTATION

Sage Thrasher  
 BCC - BCR (This is a  
 Bird of  
 Conservation  
 Concern (BCC) only  
 in particular Bird  
 Conservation  
 Regions (BCRs) in  
 the continental  
 USA)



**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds](#)



[guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

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

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid

or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

### Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1Ax](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PSS1Ax](#)

FRESHWATER POND

[PUSCh](#)

LAKE

[L1UBHh](#)

RIVERINE

[R3UBH](#)

[R3UBHx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

#### Data limitations

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

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

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

#### Data exclusions

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

#### Data precautions

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



# United States Department of the Interior

## BUREAU OF RECLAMATION

Snake River Area Office

230 Collins Road

Boise, ID 83702-4520



IN REPLY REFER TO:

SRA-1212

2.2.1.06

VIA ELECTRONIC MAIL ONLY

### Memorandum

To: Hydropower Branch Chief, U.S. Fish and Wildlife Service, 1387 South Vinnell Way,  
Suite 368, Boise, ID 83709  
Attention: Ms. Erin Kenison (erin\_kenison@fws.gov)

From: Melanie Paquin  
Area Manager

MELANIE PAQUIN

Digitally signed by MELANIE  
PAQUIN  
Date: 2022.04.18 17:31:05 -06'00'

Subject: Request for Endangered Species Act Concurrence Related to the Minidoka Dam South Gated Spillway Erosion Repair and Prevention Project, Minidoka County, Idaho

The Bureau of Reclamation is working to address unexpected erosion just downstream of the Minidoka Dam South Gated Spillway (SGS). In November of 2020, an inspection of the channel immediately downstream of the Minidoka Dam SGS was performed. This inspection identified multiple sites of severe erosion in the basalt rocks downstream of several gates, in some cases undercutting the concrete apron structure. Due to this damage, Gates 5, 6, 7, and 8 have been placed out of regular service since the fall of 2020 and would only be used in the case of flood releases that exceed the capacity of the remaining gates and powerplant. Reclamation seeks to repair areas of identified damage, which would necessitate the construction of a temporary access road into the spillway channel above the pedestrian walkway. The majority of project activities would occur in the seasonally dewatered channel. The upland portions of work would re-establish a temporary access road and staging area in areas that were previously disturbed during spillway reconstruction that was completed in 2015. More details on this project can be found in the attached Scoping Information Package.

The U.S. Fish and Wildlife Service has oversight of two species (Snake River physa; *Physa natricina* and the yellow-billed cuckoo; *Coccyzus americanus*) listed under the Endangered Species Act (ESA) that have the potential to occur within the action area. No proposed or designated critical habitats associated with any ESA-listed species overlap with the project's footprint. Snake River physa are known to exist in a large pool in the spillway channel, the upstream edge of which starts about 200 meters downstream from the proposed project area (Figure 1).

Deposition of fine sediment in the Snake River physa habitat below the project could impact individual physa. In compliance with U.S Army Corps of Engineers' 404 permitting for the project, mitigation measures will be in place to minimize sediment that could potentially be

flushed downstream. Due to the rough natural surface of the bedrock underlying the temporary access road within the spillway channel, not all of the cleaned gravel will be able to be removed when the road is removed. Some of this gravel and insignificant amounts of fine sediment from other construction activities may be flushed downstream to the known Snake River physa habitat. This small volume of gravel and fine sediment is expected to have an insignificant effect to Snake River physa.



*Figure 1. Aerial imagery of the seasonally dewatered action area during previous construction activities in 2014, showing the location of previous temporary access road (red arrow), proposed construction area (blue box), and known Snake River physa habitat (yellow box).*

The yellow-billed cuckoo is a riparian obligate, nesting exclusively in willow-cottonwood complexes greater than 50 acres (20 hectares) in extent that occur adjacent to water. Smaller patches of habitat are utilized during migration by this species as stopover and foraging habitat. Very little vegetation has re-established in these areas. The closest critical habitat is found at the upstream end of American Falls Reservoir, 46 miles away from the Minidoka Spillway. Construction would occur during the low water period from October to December, outside of the seasonal timeframe when yellow-billed cuckoos would be present. Therefore, the yellow-billed cuckoo will not be impacted by the proposed action.

Reclamation has determined that no ESA-listed species occur in the project footprint, however Snake River physa habitat exists within 200 meters downstream. Potential effects to Snake River physa are determined to be insignificant. Therefore, in accordance with the requirements of Section 7 of the ESA, Reclamation is requesting U.S. Fish and Wildlife Service concurrence that the implementation of the Minidoka Dam SGS Erosion Repair and Prevention Project will not affect the yellow-billed cuckoo and may affect but is not likely to adversely affect Snake River physa. Reclamation greatly appreciates the helpful coordination with your staff in preparation of this analysis. If you have any questions, please contact Mr. Anthony Prisciandaro, Fisheries Biologist, at [APrisciandaro@usbr.gov](mailto:APrisciandaro@usbr.gov) or (208) 383-2233.

Attachment

cc: SRA-1200 (JBTaylor), SRA-1212 (APrisciandaro), SRA-1216 (AGoodrich),  
USF-2000 (MHilliard) (w/o att to each)



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Idaho Fish and Wildlife Office  
1387 S. Vinnell Way, Suite 378  
Boise, Idaho 83709

<https://www.fws.gov/office/idaho-fish-and-wildlife>



In Reply Refer To:  
FWS/IR9/ES/IFWO/2022-0038260

May 24, 2022

Melanie Paquin, Area Manager  
Bureau of Reclamation  
Snake River Area Office  
230 Collins Road  
Boise, Idaho 83702-4520

Subject: Minidoka Dam south Gated Spillway Erosion Repair and Prevention Project –  
Minidoka County, Idaho – Concurrence

Dear Melanie Paquin:

This letter responds to the Bureau of Reclamation, Snake River Area Office's (Reclamation) request for the U.S. Fish and Wildlife Service's (Service) concurrence on effects of the subject action to species and habitats listed under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.; [Act]). The Reclamation's request dated April 18, 2022, and received by the Service on the same day, included an assessment for Snake River physa and yellow-billed cuckoo entitled *Request for Endangered Species Act Concurrence Related to the Minidoka Dam South Gated Spillway Erosion Repair and Prevention Project, Minidoka County, Idaho* (Assessment) and a scoping package describing the proposed action. Information contained in the Assessment and scoping package is incorporated here by reference.

Through the Assessment, Reclamation determined that the proposed action may affect but is not likely to adversely affect Snake River physa (*Physa natricina*). The Service concurs with Reclamation's determination for Snake River physa and presents our rationale below.

Reclamation also determined that the proposed action would have no effect on the yellow-billed cuckoo (*Coccyzus americanus*). The regulations implementing section 7 of the Act do not require the Service to review or concur with no effect determinations. However, given the nature and location of the proposed action, the Service has no reason to disagree with your no effect determination for this species.

### Proposed Action

The Minidoka Powerplant and Dam, located on the Snake River east of Rupert, Idaho has a diversion, storage, and power plant. A key feature is the 86-foot tall earthfill dam and reservoir. The reservoir, Lake Walcott, has a storage capacity of 95,200 acre-feet. During irrigation season water is diverted at the dam into canals on each side of the river. The Minidoka Dam South Gated Spillway (SGS) is in need of repair due to erosion just downstream of the spillway.

INTERIOR REGION 9  
COLUMBIA-PACIFIC NORTHWEST

IDAHO, MONTANA\*, OREGON\*, WASHINGTON  
\*PARTIAL

INTERIOR REGION 12  
PACIFIC ISLANDS

AMERICAN SAMOA, GUAM, HAWAII, NORTHERN  
MARIANA ISLANDS

In November of 2020 an inspection of the channel immediately downstream of the SGS identified multiple sites of severe erosion at gates 5 through 8 and gate 11. The erosion includes loss of basalt rock and undercutting of the concrete apron of the gates. As a result of the erosion, four of the spill gates have been out of service since the fall of 2020. Work to repair and prevent further erosion would include a temporary access road into the spillway channel and a staging area outside of the channel. The SGS area will be cleaned and removal of organic material and loose rocks will be done by hand or by excavator as needed. Instillation of a rebar mat and concrete into eroded areas will be done immediately downstream of the SGS and adjacent to the dam. Work is planned to start in 2022 with a potential of up to five years of preventative maintenance of a similar nature with all in-channel work to be done during the dry season (mid-October through mid-December). The additional need for work will be assessed through annual inspections. The project will require temporarily locking out spillway gates while in-channel work is done for safety reasons and to prohibit water to flow over the gated spillway. Due to the seasonality, it will not create changes to the flows in the Snake River downstream from the project site. The proposed action is fully described in Reclamation's scoping package (pp. 1-3).

The proposed conservation measures and best management practices are intended to minimize effects to Snake River physa. The following measures include but are not limited to:

1. Use previously disturbed upland areas for staging and temporary access road from 2015 reconstruction project
2. All in channel work will be done when the channel is dry, approximately between mid-October and mid-December
3. Use clean gravel on staging area and access road, remove cleaned gravel at the completion of the project and minimize sediment movement into the channel

#### Species and Habitat Presence in the Action Area

Snake River physa (*Physa natricina*) is a locally endemic species and is known to occur within 500 meters downstream of the SGS. The species numbers vary from year to year and appear to be confined to a large pool area mostly on the south side of the channel. Snake River physa do not have critical habitat designated, and therefore, designated critical habitat is not present within the action area.

#### Potential Impacts and Effects from the Proposed Action

Snake River physa (*Physa natricina*) may be affected but are not likely to be adversely affected by the proposed action as all in channel work will be done when the channel is dry, typically between mid-October and mid-December. Snake River physa are believed to prefer clean gravel and rock substrates as snails can be sensitive to fine sediment inputs or disturbance from loose fill, gravel, and rocks, which can disrupt their habitat and displace them (USFWS 2021). To reduce additional sediment inputs to the system, cleaned gravel will be used for the proposed project and any remaining gravel will be removed from the staging area once work is completed. The staging area proposed for the project will be a previously disturbed area used for SGS



maintenance in 2015; using a previously compacted area will further reduce the potential for fine sediments to erode into the channel. Organic material will also be removed from the project site before repairs are made. Removing organic material that can serve as nutrients to macrophytes that grow in the occupied pool will reduce the amount of vegetation present and their potential to trap fine sediments that can disrupt Snake River physa. Although the proposed project may move sediment into the stream channel, the Service expects the overall amount of sediment to be insignificant as work will occur when the channel is dry; clean gravel will be used on project repairs; conservation measures will minimize the movement of fill, gravel, and organics; and SGS repairs will help reduce future erosion.

### Concurrence

Based on the Service's review of the Assessment, we concur with Reclamation's determination that the action outlined in the Assessment, scoping package, and this letter, may affect, but is not likely to adversely affect Snake River physa. This concurrence is based on the best management practices and conservation measures that reduce impacts of the proposed action Snake River physa to an insignificant level of effects.

This concludes informal consultation. Further consultation pursuant to section 7(a)(2) of the Act is not required. Reinitiation of consultation on this action may be necessary if: (1) new information reveals effects of the action that may affect listed species or designated critical habitat in a manner or to an extent not considered in the assessment, (2) the action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the analysis, or (3) a new species is listed or critical habitat designated that may be affected by the proposed action.

### Clean Water Act

This concurrence also addresses section 7 consultation requirements for the issuance of any proposed action-related permits required under section 404 of the Clean Water Act. Use of this associated concurrence to document that the U.S. Army Corps of Engineers (Corps) has fulfilled its responsibilities under section 7 of the Act is contingent upon the following conditions:

1. The action considered by the Corps in their 404 permitting processes must be consistent with the proposed action as described in the Assessment such that no detectable difference in the effects of the action on listed species will occur.
2. Any terms applied to the 404 permits must also be consistent with conservation measures as described in the Assessment and addressed in this concurrence.

Thank you for your continued interest in the conservation of threatened and endangered species. If you have any questions regarding this consultation, please contact Kim Frymire of this office at [kimberly\\_frymire@fws.gov](mailto:kimberly_frymire@fws.gov).

Sincerely,

*for* Christopher Swanson  
State Supervisor

cc:  
BOR, Boise, ID (Prisciandaro)  
ACOE (CENWW-RD-BOI-SE@usace.army.mil)

Literature Cited

USFWS (U.S. Fish and Wildlife Service). 2021. 2021 Snake River Physa Monitoring Annual Report. Idaho Fish and Wildlife Service. Boise, Idaho.

## **Appendix B**

### **Scoping List, Materials, and Response Comments Received**

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First Name	Last Name	Organization	C/O / Position Title	Address	City	State	Zip	Type
Tonya	Page	Minidoka County	Clerk of the District Court	P.O Box 368	Rupert	ID	83350	Local Agency
Kerry	McMurray	Cassia County	Administrator	1459 Overland Ave., Room 210	Burley	ID	83318	Local Agency
Jeffery	Krueger	USFWS - Minidoka NWR	Manager	961 Minidoka Dam Rd	Rupert	ID	83350	Federal Agency
Dave	Hopper	USFWS - Ecological Services Boise (ESA-snails)	Biologist	1387 S Vinnel Way, Suite 368	Boise	ID	83709	Federal Agency
Michelle	Chappell	USFWS - Regional Office in Chubbuck	Manager	4425 Burley Drive, Suite A	Chubbuck	ID	83202	Federal Agency
Mike	McDonald	Idaho Fish and Game	Biologist	324 South 417 East, Suite 1	Jerome	ID	83338	State Agency
John	Lind	Burley Irrigation District	General Manager	246 East 100 South	Burley	ID	83318	Local Agency
Dan	Davidson	Minidoka Irrigation District	General Manager	98 West 50 South	Rupert	ID	83350	Local Agency
Jay	Barlogi	Twin Falls Canal Company	Manager	P.O. Box 326	Twin Falls	ID	83303	Local Agency
Alan	Hansten	North Side Canal Company Ltd.	Assistant Manager	921 North Lincoln Ave.	Jerome	ID	83338	Local Agency
Walt	Mullins	Milner Irrigation District	Manager	5294 East 3610 North	Murtaugh	ID	83344	Local Agency
Dean	Johnson	Idaho Dept. of Lands		8355 W State St.	Boise	ID	83714	State Agency
		Idaho DEQ - Twin Falls Regional Office	Regional Water Quality Manager	650 Addison Ave West	Twin Falls	ID	83301	State Agency
Dan	Temple	A&B Irrigation District	Manager	P.O. Box 675	Rupert	ID	83350	Local Agency
Christen Marve	Griffith	U.S. Army Corps of Engineers	Regulatory Project Manager	720 E PARK BLVD SUITE 245	BOISE	ID	83712	Federal Agency
		American Falls Reservoir District No. 2	Manager	409 North Apple St.	Shoshone	ID	83352	Local Agency
John	Chatburn	Governors Office of Energy & Mineral Resources	Administrator	PO Box 83720	Boise	ID	83720-0199	State Agency

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# **Scoping Information Package**

## **Proposal to Repair and Prevent Further Downstream Erosion at Spillway Gates, Minidoka Dam, Minidoka County, Idaho**

This information package summarizes the proposal from the Bureau of Reclamation to perform construction activities necessary to repair erosional damage to the channel below the South Gated Spillway (SGS), adjacent to the concrete apron below the south spillway gates. Hydraulic damage to the rock in this area has resulted in undercutting of the concrete spillway apron and, if allowed to continue, could compromise the structural integrity of the spillway. Due to known erosion issues, Gates 5, 6, 7, and 8 have been placed out of regular service since the fall of 2020, except for the passage of flood flows that exceed of the capacity of the remaining gates and powerplant. This project would repair existing damage, prevent further erosion, and allow Gates 5, 6, 7, and 8 to be returned to regular service. It would also allow for similar spot-repairs and preventative maintenance of a similar nature to be performed for a period of up to 5 years (as covered under forthcoming Clean Water Act permitting from the U.S. Army Corps of Engineers), if and when such need may be identified in future annual inspections.

Federal actions must be analyzed in accordance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations to determine potential environmental consequences. Reclamation is seeking input to better identify issues and concerns associated with this proposal, further detailed below.

### **Background**

Minidoka Powerplant and Dam is a combined diversion, storage, and power structure located on the Snake River east of Rupert, Idaho, on County Highway 400. A key structure in the initial development of the project, Minidoka Dam is an 86-foot high zoned earthfill dam. The reservoir created by Minidoka Dam, Lake Walcott, has a total storage capacity of 95,200 acre-feet. During irrigation season, water is diverted at the dam into a canal on each side of the river.

In November 2011, a \$21.3 million multi-phase construction effort was initiated to modernize and straighten the spillway and replace two irrigation headworks. The new spillway design incorporated 12 gated bays that are located just north of the south canal headworks, and upstream of the existing pedestrian access bridge (see enclosed map of the project area). The spillway replacement was officially completed in May of 2015.

In November of 2020, an inspection of the channel immediately downstream of the Minidoka Dam SGS was performed. This inspection identified multiple sites of severe erosion in the basalt rocks downstream of several gates, in some cases undercutting the concrete apron structure. The damages identified in that inspection included the following sites:

- Downstream of Gate 5: a 3' deep, 24'x13' hole
- Downstream between Gates 5 and 6: a 4' wide, 1' deep undercut of the apron
- Downstream of Gate 6: a 3' deep, 15'x9' hole which undercuts the apron
- Downstream of Gate 7: a 5' deep, 10'x10' hole which undercuts the apron
- Downstream between Gates 7 and 8: a 5' deep, 12'x17' hole which undercuts the apron

- Downstream of Gate 8: a 1.5'x3' undercut of the apron
- Downstream of Gate 11: a 3'x3' undercut of the apron

### **Existing Condition and Need for Action**

Inspection has indicated that release of flows from the south spillway gates has resulted in significant erosion in the basalt rock immediately downstream from the spillway concrete apron, in some cases undercutting the apron structure. Due to this damage, Gates 5, 6, 7, and 8 have been placed out of service since the fall of 2020 with the exception of passing flood flows that exceed of the capacity of the remaining gates and powerplant. The rate and extent of erosion that has already occurred indicates that further use of these four gates without first reinforcing the bedrock areas that are subjected to high hydraulic stress is likely to result in further erosive deterioration of the bedrock, which could compromise the structural stability of the spillway. Therefore, the need exists to repair and reinforce bedrock at multiple damaged sites beneath and immediately downstream from the spillway apron below the south spillway gates to prevent further erosion. Since it is likely such spot-repairs and preventative maintenance may be sporadically necessary due to the hydraulic forces associated with use of the spillway, this project would allow for additional repairs of a similar nature to be performed in future years, if and when such need may be identified in future annual inspections. The project duration would correspond to the timeframe covered by the associated permit which would be issued by the U.S. Army Corps of Engineers in fulfillment of Clean Water Act requirements.

***Decision to be made*** – Through the process of developing an Environmental Assessment, Reclamation will determine whether the proposed project would significantly affect the quality of the human environment and thereby require the preparation of an Environmental Impact Statement, and if not, whether the project qualifies for a Finding of No Significant Impact. Reclamation will then determine whether to do one of the following:

- Approve the proposed project
- Deny the proposed project
- Accept the proposed project with minor changes

### **Proposed Action**

The Proposed Action Alternative involves repairing areas of identified damage, which would necessitate the construction of a temporary access road into the spillway channel above the pedestrian walkway, removal of loose rock from eroded areas using an excavator, cleaning and removal of organic material from remaining bedrock, installation of dowling drilled and epoxied into the bedrock, installation of a rebar mat, and permanent placement of concrete into eroded areas immediately downstream from spillway gates and adjacent to the dam structure. The project anticipates the above procedures to be performed in multiple separate areas adjacent to the downstream faces of gates where damage has been identified in previous inspections or may be further identified in the course of the project.

If treatment of additional similarly affected areas in this same general project location is deemed necessary once loose rock removal has been completed, it would follow the same basic steps



described above. It is estimated that the total area to be treated at this time would not exceed 800 square feet of concrete placement. Preparation work outside of the river channel (i.e., staging, constructing the temporary access road for heavy equipment access) would begin in the summer of 2022, and work within the river channel would take place after the conclusion of the 2022 flood control and irrigation season (between approximately mid-October and mid-December). Construction activities for the project would last up to 8 months from start to completion, with in-waterway construction occurring between October and December. The project would require temporarily locking out spillway gates while in-waterway work would occur but would not necessitate any changes to overall water management or flows in the Snake River downstream from the project site. Future years' work, if necessary, would occur within similar seasonal timeframes.

### ***Special Considerations***

#### ***Proximity to Minidoka Wildlife Refuge***

The Minidoka Wildlife Refuge extends upstream approximately 25 miles from Minidoka Dam along both shores of the Snake River, encompassing a total of 20,699 acres, of which 11,300 acres are the open water of Lake Walcott, the Snake River, and some small marsh areas. Minidoka Refuge has been designated under the Important Bird Area Program as an area of global significance because of its colonial nesting bird populations and for the numbers of molting waterfowl. Potential effects of this project to the biological resources of the Minidoka Wildlife Refuge will be analyzed in the forthcoming Environmental Assessment for this project.

#### ***Potential effects to species listed under the Endangered Species Act***

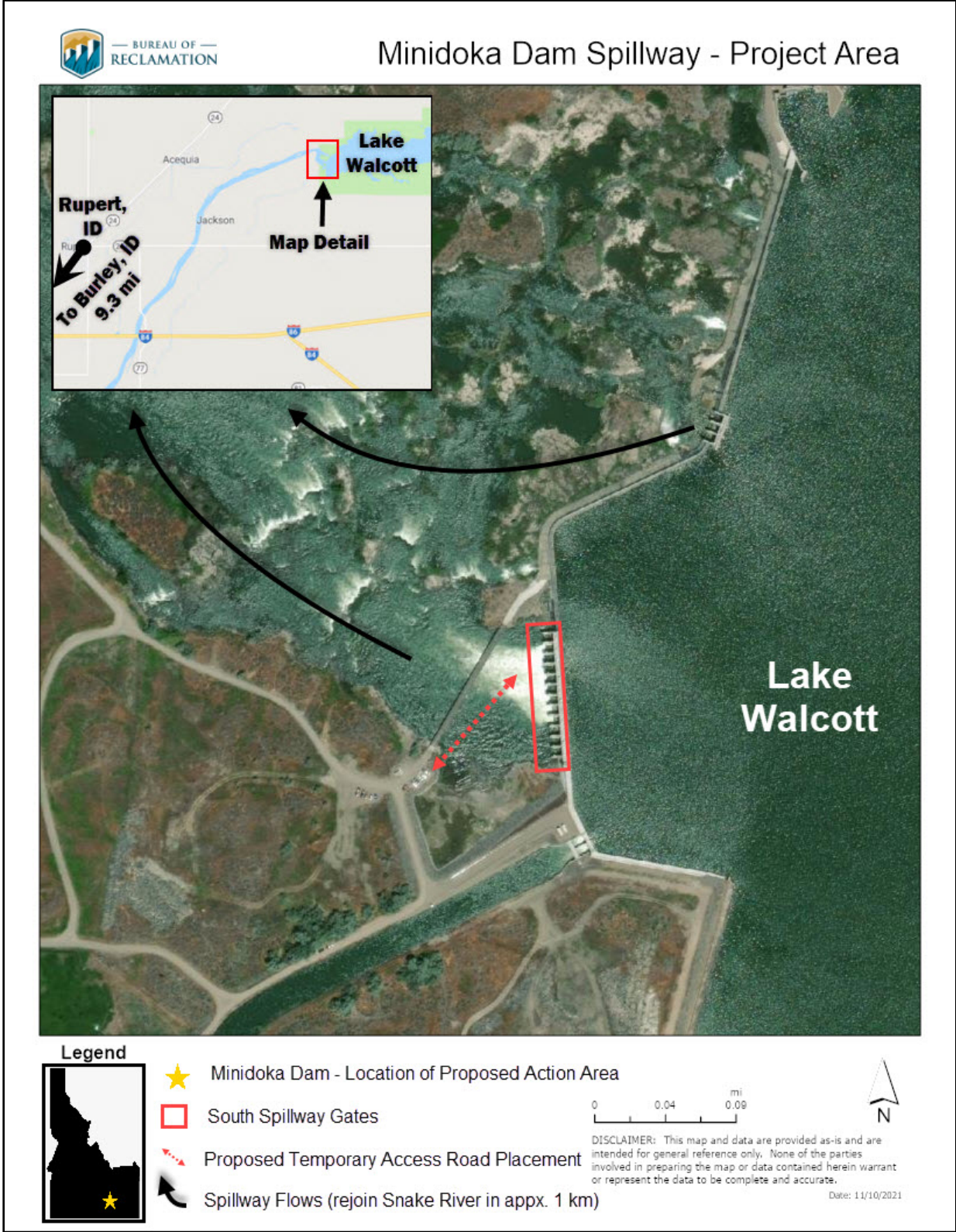
The USFWS Information for Planning and Consultation online tool identifies that two Federally listed species occur in or could potentially occur near the area of effect: the Snake River physa snail (*Physa natricina*), designated as endangered in 1992, and yellow-billed cuckoo (*Coccyzus americanus*), designated as threatened in 2014. Critical habitat has been designated for the yellow-billed cuckoo but does not intersect with the proposed project area; no critical habitat has been designated for the Snake River physa. Historic surveys have shown Snake River physa to occur at varying densities in proximity to the spillway, with detections confined to a large pool approximately 500 meters downstream from the proposed project site. Potential effects of this project to these species and their habitats will be analyzed in the forthcoming Environmental Assessment for this project.

### **Preliminary Alternative Development**

The environmental assessment would include consideration of two alternatives: the Proposed Action and a No Action Alternative. The No Action Alternative would include Reclamation's continued operation of Minidoka Dam in its present condition, with Gates 5, 6, 7, and 8 removed from regular service to avoid further erosion, except in the case of passage of flood flows that exceed of the capacity of the remaining gates and powerplant. The proposed erosion repair and prevention activities would not occur, and further erosion of the downstream bedrock would be expected to continue at times these gates must be utilized and would likely occur at additional locations in future years. Additional alternatives would be developed commensurate with the issues identified throughout the NEPA process.

**Exhibits**

1. Project Area Map



**EASTERN SUPERVISORY AREA**

**Jerome Office**

324 South 417 East, Ste. 2  
Jerome, ID 83338  
Phone (208) 324-2561  
Fax (208) 324-2917  
mlomkin@idl.idaho.gov



**STATE BOARD OF LAND COMMISSIONERS**

*Brad Little, Governor*  
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*Sherri Ybarra, Sup't of Public Instruction*

February 4, 2022

Via Email: sra-nepa-comments@usbr.gov

Ms. Amy Goodrich  
Natural Resources Specialist  
Snake River Area Office  
Bureau of Reclamation  
230 Collins Road  
Boise, ID 83702

Subject: SRA-1216 2.1.4.17

Comments Regarding the Proposed Repair of Downstream Erosion at Spillway Gates,  
Minidoka Dam, Minidoka County, Idaho

Dear Ms. Goodrich:

Idaho Department of Lands (IDL) administers the submerged lands of Navigable Waterways in the State of Idaho. The Snake River is considered a Navigable Waterway and therefore IDL administers the submerged lands lying below the natural or ordinary high water mark of the Snake River in the vicinity of Minidoka Dam.

As I reviewed your scoping letter and IDL's records near Minidoka Dam, I was not able to find record of a submerged land easement from the State of Idaho for Minidoka Dam. I will keep looking, but if there is no easement for the dam, one should be obtained as described in the Idaho Administrative Practices Act 20.03.09 – Easements on State-Owned Submerged Lands and Formerly Submerged Lands.

IDL does not wish to complicate or delay the proposed repair project because of this easement question, we simply want to bring the possibility that a submerged land easement may be needed to your attention. IDL supports the proposed repair project as described.

Please keep Idaho Department of Lands, Jerome Office on your contact list for this project.

If you have any questions, please contact me at 208-324-2561.

Sincerely,

Meribeth Lomkin,  
Sr. Resource Specialist

# IDAHO GOVERNOR'S OFFICE OF ENERGY & MINERAL RESOURCES

**BRAD LITTLE**  
Governor



304 N. 8<sup>th</sup> Street, Suite 250, P.O. Box 83720  
Boise, Idaho 83720-0199

**LORI WOLFF**  
Interim Administrator

(208) 332-1660  
FAX (208) 332-1661

February 7, 2022

Ms. Amy Goodrich  
Natural Resources Specialist  
Snake River Area Office  
Bureau of Reclamation  
230 Collins Road  
Boise, Idaho 83702

## **RE: Request for Comments Regarding the Proposed Repair of Downstream Erosion at Spillway Gates, Minidoka Dam, Minidoka County, Idaho**

Thank you for the opportunity to provide comments on the proposal to repair and prevent further downstream erosion at the Minidoka Dam spillway gates. The State of Idaho provides these comments to help the Bureau of Reclamation identify important issues and concerns regarding the proposed action. The following comments are developed in coordination with the Idaho Department of Environmental Quality (DEQ), the Idaho Governor's Office of Species Conservation (OSC), and the Idaho Governor's Office of Energy and Mineral Resources (OEMR). OEMR submits these comments on behalf of the State of Idaho pursuant to its responsibility to coordinate all state comments involving energy resources in accordance with Executive Order 2020-17.

### **The following comments refer to Project impact on Monarch butterfly:**

Monarchs have been observed near the Minidoka Dam and along the banks of Lake Walcott. Monarch's host plant, milkweed, grow along the banks of the reservoir as well as the riverbanks downstream of the dam. Monarch received a warranted but precluded status under the ESA in December of 2020. OSC recommends that a botanist, entomologist, and vegetation management specialist should work together to implement a vegetation management design to improve monarch habitat and promote milkweed in applicable areas.

### **The following comments refer to the DEQ's 401 certification:**

#### **Fill Material**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.210, IDAPA 58.01.02.250, IDAPA 58.01.02.251, IDAPA 58.01.02.252, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Fill material subject to suspension will be free of easily suspended fine material. Only clean material may be placed as fill. If dredged material is proposed to be used as fill material and there is a possibility the material may be contaminated, then the permittee must assess and characterize sediment to determine the suitability of dredge material for unconfined-aquatic placement; determine the suitability of post dredge surfaces; and to predict effect on water quality during dredging. Sediment assessment and characterization done in accordance with the procedures in the Sediment Evaluation Framework for the Pacific Northwest<sup>[1]</sup> (RSET, 2018) satisfies the above requirement. A different assessment and characterization methodology may be used if the Department approves the methodology in writing.

All temporary fills will be removed in their entirety on or before construction completion. Excavated or staged fill material must be placed so it is isolated from the water edge or wetlands, and not placed where it could re-enter waters of the state.

### **Erosion and Sediment Control**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Best management practice (BMP) for sediment and erosion control suitable to prevent exceedances of state water quality standards (WQS) and total maximum daily loads (TMDLs) shall be selected and installed before starting construction at the site. One resource that may be used in evaluating appropriate BMPs is DEQ's Idaho Catalog of Storm Water Best Management Practices<sup>[2]</sup>. Other resources may also be used for selecting appropriate BMPs.
  - Permanent erosion and sediment control measures will be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.
  - Permanent erosion and sediment control measures will be installed at the earliest practicable time consistent with good construction practices and will be maintained as necessary throughout project operation.
  - Structural fill or bank protection will consist of materials that are placed and maintained to withstand predictable high flows in the waters of the state.
  - A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation and be replaced or augmented if they are not effective.
  - All construction debris, scraps, particles, and other associated materials will be properly captured and disposed of so they cannot enter waters of the state or cause water quality degradation.

---

<sup>[1]</sup> Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. *Prepared by* the RSET Agencies, May 2018, 183pp plus appendices

<sup>[2]</sup> Idaho Catalog of Storm Water Best Management Practices, *Prepared by* the State of Idaho Department of Environmental Quality, April 2020.

- Disturbed areas suitable for vegetation will be seeded or revegetated to prevent subsequent soil erosion (2020 Catalog of Storm Water BMPs 3.5.1.4).
- Maximum fill slopes will be such that material is structurally stable once placed and does not slough into the stream channel during construction, during periods prior to revegetation, or after vegetation is established.
- Sediment from disturbed areas or sediment that is able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.

## **Turbidity**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.200.08, IDAPA 58.01.02.250.02.e, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standards as stipulated under the Idaho WQS. Any violation of this standard must be reported to the DEQ regional office immediately.
  - Containment measures such as silt curtains, geotextile fabrics, and silt fences must be implemented and properly maintained to minimize instream sediment suspension and resulting turbidity. One resource that may be used in evaluating appropriate BMPs is DEQ's Idaho Catalog of Storm Water Best Management Practices. Other resources may also be used for selecting appropriate BMPs.
  - All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity. Visual observation is acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS, and the permittee must inspect the condition of the project BMPs. If the BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).
  - If the project continues to have a visual plume after BMPs have been inspected and modified, turbidity monitoring is required.

## **In-Water Work**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Work in open water is to be kept at a minimum and only when necessary. Equipment shall work from an upland site to minimize disturbance of waters of the state. If this is not practicable, appropriate measures must be taken to ensure disturbance to the waters of the state is minimized.
  - Construction affecting the bed or banks shall take place only during periods of low flow.
  - Forging of the channel is not permitted. Temporary bridges or other structures shall be built if crossings are necessary.

- Temporary crossings must be perpendicular to channels and located in areas with the least impact. The temporary crossings must be supplemented with clean gravel or treated with other mitigation methods at least as effective in reducing impacts. Temporary crossings must be removed as soon as possible after the project is completed or the crossing is no longer needed.
- Heavy equipment working in wetlands shall be placed on mats or suitably designed pads to prevent damage to the wetlands.
- Activities in spawning areas must be avoided to the maximum extent practicable.
- Work in waters of the state shall be restricted to areas specified in the application.
- Measures shall be taken to prevent wet concrete from entering into waters of the state when placed in forms and/or from truck washing.
- Activities that include constructing and maintaining intake structures must include adequate fish screening devices to prevent fish entrainment or capture.
- Stranded fish found in dewatered segments should be moved to a location (preferably downstream) with water.
- To minimize sediment transport, stream channel or stream bank stabilization must be completed prior to returning water to a dewatered segment

### **Vegetation Protection and Restoration**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
  - Fencing and other barriers should be used to mark the construction areas.
  - Where possible, alternative equipment should be used (e.g., spider hoe or crane).
  - If authorized work results in unavoidable vegetative disturbance, riparian and wetland vegetation shall be successfully reestablished to function for water quality benefit at pre-project levels or improved at the completion of authorized work.

### **Management of Hazardous or Deleterious Materials**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation: IDAPA 58.01.02.051, IDAPA 58.01.02.080, IDAPA 58.01.02.200, IDAPA 58.01.02.400, IDAPA 58.01.02.800, IDAPA 58.01.02.850.

1. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.
  - Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.

- Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. A logbook of these inspections shall be kept on site and provided to DEQ upon request.
- Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
- Equipment and machinery shall be steam cleaned of oils and grease in an upland location or staging area with appropriate wastewater controls and treatment prior to entering a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state.
- Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).
- In the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must:
  - a. Make every reasonable effort to abate and stop a continuing spill.
  - b. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
  - c. Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).
  - d. Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

### **Treated Wood (or Wood Preservatives)**

The following condition is necessary to meet water quality requirements including without limitation IDAPA 58.01.02.200 and IDAPA 58.01.02.210.

DEQ's [Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments](#) must be considered when using treated wood materials in the aquatic environment. Within this guidance document DEQ references the [Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments](#)<sup>[3]</sup>. This best management practices document provides recommended guidelines for the production and installation of treated wood products destined for use in sensitive environments. This condition is necessary to ensure that toxic chemicals are not introduced into waters of the state.

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[3] Western Wood Preservers Institute, Wood Preservation Canada, Southern Pressure Treaters' Association, and Southern Forest Products Association. 2011. "Best Management Practices: For the Use of Treated Wood in Aquatic and Wetland Environments" Vancouver, WA: Western Wood Preservers Institute.



## **Dredge Material Management**

Upland disposal of dredged material must be done in a manner that prevents the material from re-entering waters of the state.

This condition is necessary to ensure that there is no unauthorized discharge from upland disposal sites in accordance with 33 U.S.C. § 1311(a) and Idaho water quality requirements, including without limitation Idaho Code § 39-108, IDAPA 58.01.02.080, and IDAPA 58.01.02.400

## **Pollutants/Toxins**

In conformance with IDAPA 58.01.02.200, the use of chemicals such as soil stabilizers, dust palliatives, sterilants, growth inhibitors, fertilizers, and deicing salts during construction and operation should be limited to the best estimate of optimum application rates. All reasonable measures shall be taken to avoid excess application and introduction of chemicals into waters of the state.

The State of Idaho appreciates the opportunity to submit these comments. Please feel free to contact me should you have any questions or need clarification.

Sincerely,



Marissa Warren  
(208) 332-1676

## [EXTERNAL] SRA-1216 2.1.4.17 Request for Comments Regarding the Proposed Repair of Downstream Erosion at Spillway Gates, Minidoka Dam, Minidoka County, Idaho

Sean Woodhead <Sean.Woodhead@deq.idaho.gov>

Fri 1/28/2022 2:54 PM

To: NEPA Mailbox, BOR SRA <sra-nepa-comments@usbr.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Ms. Amy Goodrich,

These are the standard comments that DEQ uses in most of our 401 cerficc aon le ers:

### **Fill Material**

The following condions ar e necessary for the protecon of bene ficial uses in accordance with Idaho water quality requirements including without limitaon ID APA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.210, IDAPA 58.01.02.250, IDAPA 58.01.02.251, IDAPA 58.01.02.252, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Fill material subject to suspension will be free of easily suspended fine material. Only clean material may be placed as fill. If dredged material is proposed to be used as fill material and there is a possibility the material may be contaminated, then the permi ee must assess and characterize sediment to determine the suitability of dredge material for unconfined-aquac placemen t; determine the suitability of post dredge surfaces; and to predict effect on water quality during dredging. Sediment assessment and characterizaon done in acc ordance with the procedures in the Sediment Evaluaon Fr amework for the Pacific Northwest <sup>[1]</sup> (RSET, 2018) sas fies the above requirement. A different assessment and characterizaon me thodology may be used if the Department approves the methodology in wring.

All temporary fills will be removed in their enr ety on or before construcon c ompleon.

Excavated or staged fill material must be placed so it is isolated from the water edge or wetlands, and not placed where it could re-enter waters of the state.

### **Erosion and Sediment Control**

The following condions ar e necessary for the protecon of bene ficial uses in accordance with Idaho water quality requirements including without limitaon ID APA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. BMPs for sediment and erosion control suitable to prevent exceedances of state WQS and TMDLs shall be selected and installed before starnng c onstrucon a t the site. One resource that may be used in evaluang appr opriate BMPs is DEQ's Idaho Catalog of Storm Water Best Management Praces <sup>[2]</sup>. Other resources may also be used for selecng appr opriate BMPs.

Permanent erosion and sediment control measures will be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.

Permanent erosion and sediment control measures will be installed at the earliest practicable time consistent with good construction practices and will be maintained as necessary throughout project operation.

Structural fill or bank protection will consist of materials that are placed and maintained to withstand predictable high flows in the waters of the state.

A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation and be replaced or augmented if they are not effective.

All construction debris, scraps, parcels, and other associated materials will be properly captured and disposed of so they cannot enter waters of the state or cause water quality degradation.

Disturbed areas suitable for vegetation will be seeded or revegetated to prevent subsequent soil erosion (2020 Catalog of Storm Water BMPs 3.5.1.4).

Maximum fill slopes will be such that material is structurally stable once placed and does not slough into the stream channel during construction, during periods prior to revegetation, or after vegetation is established.

Sediment from disturbed areas or sediment that is able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.

## **Turbidity**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation IDAPA 58.01.02.051, IDAPA 58.01.02.200.08, IDAPA 58.01.02.250.02.e, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standards as stipulated under the Idaho WQS. Any violation of this standard must be reported to the DEQ regional office immediately.

Containment measures such as silt curtains, geotextile fabrics, and silt fences must be implemented and properly maintained to minimize instream sediment suspension and resulting turbidity. One resource that may be used in evaluating appropriate BMPs is DEQ's Idaho Catalog of Storm Water Best Management Practices. Other resources may also be used for selecting appropriate BMPs.

All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity. Visual observation is acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS, and the permittee must inspect the condition of the project BMPs. If the BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

If the project continues to have a visual plume after BMPs have been inspected and modified, turbidity monitoring is required.

## **In-Water Work**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400

1. Work in open water is to be kept at a minimum and only when necessary. Equipment shall work from an upland site to minimize disturbance of waters of the state. If this is not practicable, appropriate measures must be taken to ensure disturbance to the waters of the state is minimized.

Construction affecting the bed or banks shall take place only during periods of low flow.

Fording of the channel is not permitted. Temporary bridges or other structures shall be built if crossings are necessary.

Temporary crossings must be perpendicular to channels and located in areas with the least impact. The temporary crossings must be supplemented with clean gravel or treated with other mitigation methods at least as effective in reducing impacts. Temporary crossings must be removed as soon as possible after the project is completed or the crossing is no longer needed.

Heavy equipment working in wetlands shall be placed on mats or suitably designed pads to prevent damage to the wetlands.

Activities in spawning areas must be avoided to the maximum extent practicable.

Work in waters of the state shall be restricted to areas specified in the application.

Measures shall be taken to prevent wet concrete from entering into waters of the state when placed in forms and/or from truck washing.

Activities that include constructing and maintaining intake structures must include adequate fish screening devices to prevent fish entrainment or capture.

Stranded fish found in dewatered segments should be moved to a location (preferably downstream) with water.

To minimize sediment transport, stream channel or stream bank stabilization must be completed prior to returning water to a dewatered segment.

## **Vegetation Protection and Restoration**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation IDAPA 58.01.02.051, IDAPA 58.01.02.200, IDAPA 58.01.02.250, IDAPA 58.01.02.253, IDAPA 58.01.02.400.

1. To the maximum extent practicable, staging areas and access points should be placed in open, upland areas.

Fencing and other barriers should be used to mark the construction areas.

Where possible, alternative equipment should be used (e.g., spider hoe or crane).

If authorized work results in unavoidable vegetation disturbance, riparian and wetland vegetation shall be successfully reestablished to function for water quality benefit at pre-project levels or improved at the completion of authorized work.

## **Management of Hazardous or Deleterious Materials**

The following conditions are necessary for the protection of beneficial uses in accordance with Idaho water quality requirements including without limitation IDAPA 58.01.02.051, IDAPA 58.01.02.080, IDAPA 58.01.02.200, IDAPA 58.01.02.400, IDAPA 58.01.02.800, IDAPA 58.01.02.850.

1. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.

Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.

Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. A logbook of these inspections shall be kept on site and provided to DEQ upon request.

Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.

Equipment and machinery shall be steam cleaned of oils and grease in an upland location or staging area with appropriate wastewater controls and treatment prior to entering a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state.

Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).

In the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must:

- a. Make every reasonable effort to abate and stop a continuing spill.

Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.

Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).

Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

### **Treated Wood (or Wood Preservatives?)**

The following condition is necessary to meet water quality requirements including without limitation IDAPA 58.01.02.200 and IDAPA 58.01.02.210.

DEQ's [Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments](#) must be considered when using treated wood materials in the aquatic environment.

Within this guidance document DEQ references the [Best Management Practices for the Use of Treated](#)

[Wood in Aquatic and Wetland Environments](#) <sup>[3]</sup>. This best management practices document provides recommended guidelines for the production and installation of treated wood products designed for use in sensitive environments. This condition is necessary to ensure that toxic chemicals are not introduced into waters of the state.

### **Dredge Material Management**

Upland disposal of dredged material must be done in a manner that prevents the material from re-entering waters of the state.

This condition is necessary to ensure that there is no unauthorized discharge from upland disposal sites in accordance with 33 U.S.C. § 1311(a) and Idaho water quality requirements, including without limitation Idaho Code § 39-108, IDAPA 58.01.02.080, and IDAPA 58.01.02.400

### **Pollutants/Toxins**

In conformance with IDAPA 58.01.02.200, the use of chemicals such as soil stabilizers, dust palliatives, sterilants, growth inhibitors, fertilizers, and deicing salts during construction and operation should be limited to the best estimate of optimum application rates. All reasonable measures shall be taken to avoid excess application and introduction of chemicals into waters of the state.

Sincerely,



**Sean Woodhead | Water Quality Manager**  
 Idaho Department of Environmental Quality  
 650 Addison Avenue West, Suite 110  
 Office: (208) 736-2190  
<http://www.deq.idaho.gov/>  
[Sean.woodhead@deq.idaho.gov](mailto:Sean.woodhead@deq.idaho.gov)

*Our mission is to protect human health and the quality of Idaho's air, land, and water.*

- [1] Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. Prepared by the RSET Agencies, May 2018, 183pp plus appendices
- [2] Idaho Catalog of Storm Water Best Management Practices, Prepared by the State of Idaho Department of Environmental Quality, April 2020.
- [3] Western Wood Preservers Institute, Wood Preservation Canada, Southern Pressure Treaters' Association, and Southern Forest Products Association. 2011. "Best Management Practices: For the Use of Treated Wood in Aquatic and Wetland Environments" Vancouver, WA: Western Wood Preservers Institute.

# **Appendix C**

## **Cultural Resources and Sacred Sites Consultation with State Historic Preservation Office and Shoshone-Bannock and Shoshone-Paiute Tribes**

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# United States Department of the Interior

BUREAU OF RECLAMATION

Snake River Area Office

230 Collins Road

Boise, ID 83702-4520



IN REPLY REFER TO:

SRA-1216

2.1.4.17

VIA FEDERAL EXPRESS

Honorable Devon Boyer  
Chairman, Fort Hall Business Council  
Shoshone-Bannock Tribes  
85 W. Agency Rd., Building #82  
Fort Hall, ID 83203

Subject: Request for Comments Regarding the Proposed Repair of Downstream Erosion at  
Spillway Gates, Minidoka Dam, Minidoka County, Idaho

Dear Chairman Boyer:

The Bureau of Reclamation is proposing to perform construction activities necessary for the repair of erosion of basalt bedrock in the South Gated Spillway channel below the spillway gates at Minidoka Dam, Minidoka County, Idaho. The purpose of this letter is to inform interested and affected Tribes of the proposal and to solicit comments pursuant to the National Environmental Policy Act of 1969. Enclosed is a Scoping Information Package describing the project proposal.

Analysis of the proposal is ongoing and will be documented in an environmental assessment with an estimated completion in the spring of 2022. Comments received in response to this solicitation will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

Please help us identify important issues and concerns regarding the proposed action by providing your written comments by **February 11, 2022**. Written comments should be submitted electronically to [sra-nepa-comments@usbr.gov](mailto:sra-nepa-comments@usbr.gov), or mailed or hand-delivered to:

Ms. Amy Goodrich  
Natural Resource Specialist  
Bureau of Reclamation  
Snake River Area Office  
230 Collins Road  
Boise, Idaho 83702

If you have additional questions about this proposal or its analysis, please contact Ms. Goodrich at the address above or by phone at (208) 383-2250.

Sincerely,

**MELANIE  
PAQUIN**

Digitally signed by  
MELANIE PAQUIN  
Date: 2022.01.06 18:18:14  
-07'00'

Melanie Paquin  
Area Manager

Enclosure

cc: Ms. Christina Cutler  
Environmental Specialist  
Shoshone-Bannock Tribes  
85 W. Agency Rd, Building #82  
Fort Hall, ID 83203-0306

Mr. Wes Jones  
Emergency Manager  
Shoshone-Bannock Tribes  
85 W. Agency Rd., Building #82  
Fort Hall, ID 83203-0306

Mr. Cleve Davis  
Environmental Program Manager  
Shoshone-Bannock Tribes  
85 W. Agency Rd., Building #82  
Fort Hall, ID 83203-0306

Mr. Chad Colter  
Fish and Wildlife Director  
Shoshone-Bannock Tribes  
85 W. Agency Rd., Building #82  
Fort Hall, ID 83203-0306

Mr. Spence Ward  
Tribal Water Engineer  
Water Resources Department  
Shoshone-Bannock Tribes  
85 W. Agency Rd., Building #82  
Fort Hall, ID 83203-0306  
(w/encl to each)



# United States Department of the Interior

BUREAU OF RECLAMATION

Snake River Area Office

230 Collins Road

Boise, ID 83702-4520



IN REPLY REFER TO:

SRA-1216

2.1.4.17

VIA FEDERAL EXPRESS

Honorable Brian Thomas  
Tribal Chairman  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Subject: Request for Comments Regarding the Proposed Repair of Downstream Erosion at  
Spillway Gates, Minidoka Dam, Minidoka County, Idaho

Dear Chairman Thomas:

The Bureau of Reclamation is proposing to perform construction activities necessary for the repair of erosion of basalt bedrock in the South Gated Spillway channel below the spillway gates at Minidoka Dam, Minidoka County, Idaho. The purpose of this letter is to inform interested and affected Tribes of the proposal and to solicit comments pursuant to the National Environmental Policy Act of 1969. Enclosed is a Scoping Information Package describing the project proposal.

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Ms. Amy Goodrich  
Natural Resource Specialist  
Bureau of Reclamation  
Snake River Area Office  
230 Collins Road  
Boise, Idaho 83702

If you have additional questions about this proposal or its analysis, please contact Ms. Goodrich at the address above or by phone at (208) 383-2250.

Sincerely,

**MELANIE  
PAQUIN**

Digitally signed by MELANIE  
PAQUIN  
Date: 2022.01.06 18:17:37  
-07'00'

Melanie Paquin  
Area Manager

Enclosure

cc: Ms. Nancy Egan  
Interim Chief Executive Officer  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Pawan Upadhyay, PhD  
Water Resources Director  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Ms. Lynneil A. Brady  
Acting Cultural Resources Director  
Shoshone-Paiute Tribes  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Ms. Marissa Snapp  
Environmental Director  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Mr. Buster Gibson  
Fish, Wildlife, and Parks Director  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832

Ms. Maurissa Bigjohn  
Tribal Administrator  
Shoshone-Paiute Tribes  
Tribal Headquarters  
1036 Idaho State Highway 51  
Owyhee, NV 89832  
(w/encl to each)



IDAHO STATE  
HISTORICAL  
SOCIETY

15 June 2022



**Brad Little**  
Governor of Idaho

**Janet Gallimore**  
Executive Director  
State Historic  
Preservation Officer

**Administration:**  
2205 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2682  
Fax: 208.334.2774

**Idaho State Museum:**  
610 Julia Davis Dr.  
Boise, Idaho 83702  
208.334.2120

**Idaho State Archives  
and State Records  
Center:**  
2205 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2620

**State Historic  
Preservation Office:**  
210 Main St.  
Boise, Idaho 83702  
208.334.3861

**Old Idaho Penitentiary  
and Historic Sites:**  
2445 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2844

HISTORY.IDAHO.GOV

Melanie Paquin  
US Department of the Interior  
230 Collins Road  
Boise, Idaho 83702  
npolson@usbr.gov

Via Email

**RE: Invitation to Consult on the Proposed Spillway Repairs at  
Minidoka Dam, Cassia County, Minidoka Project, Idaho / USF-  
1219 / 2.1.1.04 / SHPO Rev. No. 2022-433**

Dear Ms. Paquin:

Thank you for consulting with our office on the above-referenced project. The State Historic Preservation Office (SHPO) is providing comments to the Bureau of Reclamation (Reclamation) pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR § 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

It is our understanding that the scope of the undertaking will include repairing areas of current and future identified damage to the new spillway at the Minidoka Dam and Powerplant in Cassia County, Idaho as detailed in the *Cultural Resources Inventory for the Proposed Spillway Erosion Repair Project at Minidoka Dam*, date February 2022.

Pursuant to 36 CFR § 800.5, we have applied the criteria of effect to the proposed undertaking. Based on the information received on 15 March and 26 May 2022, we concur the proposed project actions will have **no adverse effect to historic properties**.

We look forward to reviewing the updated documentation and the National Register of Historic Places nomination for Minidoka Dam and Powerplant in the upcoming year or two.

If cultural material is inadvertently encountered during the implementation of this project, work shall be halted in the vicinity of the finds until they can be inspected and assessed by the appropriate consulting parties.

Thank you for the opportunity to comment. Please note that our response does not affect the review timelines afforded to other consulting parties. If you have any questions, please contact me via phone or email at 208.488.7463 or [ashley.molloy@ishs.idaho.gov](mailto:ashley.molloy@ishs.idaho.gov).

Sincerely,

**Ashley L. Molloy, M.A.**  
**Historical Review Officer**  
**Idaho State Historic Preservation Office**