

RECLAMATION

Managing Water in the West

**Finding of No Significant Impact
Final Environmental Assessment
Cottonwood Creek Daylighting Project
Boise, Idaho**



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

February 2019

U.S. Department of the Interior

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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.

Finding of No Significant Impact

Final Environmental Assessment

Cottonwood Creek Daylighting Project

**U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Snake River Area Office**

PN-FONSI # 18-3

Introduction

The Bureau of Reclamation (Reclamation) has prepared this Finding of No Significant Impact (FONSI) to comply with the Council on 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, mitigation and Reclamation's finding. The Final Environmental Assessment (EA) fully documents the analyses of the potential environmental effects of implementing the changes proposed.

Location and Background

The U.S. Department of the Interior's (Department) WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong, diverse partnerships with states, tribes and local entities; and coordinate with other Department bureaus and offices on water conservation activities. The Cooperative Watershed Management Program contributes to the WaterSMART strategy by providing funding to watershed groups to encourage diverse stakeholders to form local solutions to address their water management needs.

Through the WaterSMART grants program, Reclamation provides 50 percent cost-share funding to entities and promotes the sustainable use of water resources, improving the ecological resilience of rivers and streams and conserving water for multiple uses through collaborative conservation efforts. Projects are selected through a competitive process, and the focus is on projects that can be completed within 24 months and would help provide sustainable water supplies in the western United States.

The Boise River Enhancement Network's (BREN) proposed project was selected as a new project in the western states to receive funding.

BREN is a diverse watershed group, comprising many member organizations, that has been selected as a potential recipient of Federal funding assistance through a 2017 WaterSMART grant in the amount of \$100,000. The grant would be used to restore 440 feet of Cottonwood Creek in downtown Boise, Idaho, to its natural function at its confluence with the Boise River. The stream channel would be constructed in the City of Boise's Julia Davis Park, and Cottonwood Creek would be diverted out of its current underground flume into the new channel, a process known as daylighting. Daylighting Cottonwood Creek has been in the master plan for the park and in the City's master plan for the Boise River for more than 15 years.

The project is located in Ada County on the Boise River in downtown Boise, Idaho. Cottonwood Creek drains an 8,000-acre watershed of the Boise Front, north of downtown Boise. At the point where the creek meets the valley floor, it enters an open flume for approximately 1.5 miles to its terminus in the Boise River underneath Julia Davis Park, near the intersection of Broadway Avenue and Myrtle Street in downtown Boise. The last 2,500 feet of the flume is covered, becoming a tunnel from Park Boulevard through Julia Davis Park to the Boise River, and of that, approximately 440 feet of the flume is practicable for daylighting due to its location in a public park.

Purpose and Need

Reclamation's purpose for the Proposed Action is to fulfill the WaterSMART grant and to improve ecological resiliency of the lower Boise River watershed by increasing habitat for fish and wildlife, enhancing floodplains and geomorphic function, restoring vegetation, and improving water quality. The project will improve the ecological resilience of the Boise River by creating a confluence zone where additional aquatic and riparian habitat can be established in the surrounding area.

Completion of this project would uphold the purpose of the WaterSMART grant by creating 0.35 acres of riparian and wetland habitat. BREN's purpose is to create new instream spawning, rearing, and overwintering fish habitat, all of which are limiting to the Boise River fishery. Ecological benefits include providing new habitat for native wildlife and improving water quality through the capture, filter, and removal of pollutants.

Alternatives Considered and Recommended Action

The range of alternatives developed for any proposed action is based on the purpose and need for the project, and the issues raised during internal, external and Tribal scoping. The alternatives analyzed include a no-action alternative, and the recommended action, which consists of providing funding, via a WaterSMART grant, to BREN for design and construction of the Cottonwood Creek Daylighting Project. The no-action alternative does not meet the defined purpose and need for action but was evaluated because it provides an appropriate basis by which the recommended action is compared.

NEPA requires Reclamation to consider alternatives developed through public scoping. However, only those alternatives that are reasonable and meet the purpose and need of the Proposed Action must be analyzed. Two alternatives were considered and eliminated during studies over the past two decades:

1. Daylight Cottonwood Creek using the present-day alignment of the existing flume. This option was eliminated in previous studies when it was determined that there is available space in the park for a new channel alignment. Removal of the entire flume was considered to be an unnecessary expense.
2. Route a daylighted Cottonwood Creek into the Julia Davis Park pond. This option was eliminated when it was determined that the outlet from the pond at Zoo Boise would be too small for additional flows from Cottonwood Creek in addition to the surface and groundwater sources for the pond. Without a major change to the outlet, the pond would expose major portions of Zoo Boise and its denizens to flooding risk. Subsequent actions including the creation of Julia Creek in 2007 between the pond outlet and the Boise River, and the construction of the Cancer Survivor pavilion on the east end of the pond make rerouting no longer feasible.

Summary of Environmental Effects

The following summarizes the effects of Proposed Action (Alternative B) would have on each resource category analyzed in the EA. For a full analysis and explanation of how each resource was evaluated, see EA Chapter 3 – Affected Environment and Environmental Consequences.

Biological Resources

The effects on park vegetation would equate to approximately 0.2 acres. This estimate is based on assuming a stream channel and riparian area 440 feet in length that creates 0.35 acres of riparian and stream habitat, offset by the portions of the paved driveway cul-de-sac that would be converted to manicured park conditions (some of the daylighted stream could replace the area currently under asphalt). Fish and wildlife species would have additional habitat in the area of the confluence of a daylighted Cottonwood Creek and the Boise River, as well as the 0.35 acres of channel and riparian area. Spawning and rearing habitat for rainbow and brown trout, whitefish, and non-game fish species would add habitat complexity to the Boise River.

Water Quality

Short-term effects to water quality could occur during and following construction because of the ground disturbance. Construction activities can lead to generation and delivery of sediment and/or contaminants to waterways and newly disturbed lands can be subject to erosion. Control of sediment delivery would be managed pursuant to a stormwater pollution protection plan and BMPs. A City of Boise permit would be obtained that would outline the requirements for pollution control and water quality protection.

In the long term, the proposed action would result in water quality improvements at the downstream end of Cottonwood Creek, at the confluence with the Boise River, and down the Boise River for a distance. Approximately 0.35 acres of healthy riparian vegetation would be established, along approximately 440 feet of channel some 35 feet in width (assuming an average of 17.5 feet of riparian width on each side of the stream), which would slow overland flows, trap sediment, and shade and cool stream water. Beneficial effects on water temperature from riparian shading of the stream are likely limited since the existing conveyance is a tunnel.

Land Use

Short-term effects to land uses would include construction activities temporarily displacing park uses. Pedestrian and bicycle use of the paved path would be detoured around the project site, similar to other construction projects along the Boise River Greenbelt. Use of the lawn and cul-de-sac for parking would be excluded, as the construction area would be fenced, but parking across the street from the project area would be unaffected except for parking use by construction crews and other project personnel. Long-term effects on land uses in the project area would include those associated with the daylighted Cottonwood Creek where individuals would interact with the stream and riparian area through observation and walking along the site. If interpretive signage is included at the project site this would add a new recreation activity in the project area. Loss of automobile use of the cul-de-sac for parking would be an additional effect of the Proposed Action; however, removal of the cul-de-sac has been in the master plan for the Julia Davis Park for more than a decade.

Cultural Resources

A portion of the eligible flume would be physically altered to allow the creek's flow to daylight, and the rest of the approximately 440-foot length of the flume would be abandoned in place. This would constitute an adverse effect to the flume. Mitigation for this effect, established within a Memorandum of Agreement with the Idaho State Historic Preservation Office and Reclamation, would be instituted to balance the impact. Interpretation about the flume would be included in planned signage to be installed during the project. Julia Davis Park, the second historic property, would benefit from the project activities as the daylighting of Cottonwood Creek will restore this section of the park back to conditions more similar to those of its origin.

If the current excellent condition of the Cottonwood Creek Flume is any indication, it is well-protected under the grounds of the park. Its discontinued use will probably not increase the likelihood of deterioration, although the passage of time and unforeseen impacts may cause it to erode and eventually collapse. Sealing the outlet against incursions by people, animals, or vegetation would also help to protect the condition of the flume. Julia Davis Park may experience increased visitation to this area with the daylighted creek because of more potential for interactions with nature.

Recreation

The proposed project would have short-term effects on recreation along the Greenbelt pathway where pedestrian and bicycle use would be detoured around the project area during construction. Recreational use of the lawn and parking in the cul-de-sac would be excluded by fencing during construction. Parking across the street from the project area would be affected by project personnel using available parking spaces when necessary. Longer-term effects on land uses in the project area would include those associated with the daylighted Cottonwood Creek where visitors will enjoy the stream and riparian area through observation, fishing, wading, and walking along the creek. Parents would be more likely to allow their children to play, wade, or fish in the creek than in the river because it would be safer due to lower flows and fewer hazards than the adjacent Boise River. Boise State University classes would be able to walk to the creek to use it for biological or botanical field work, especially during high-flow periods when access to the creek would be safer than access to the river.

Additional recreation use near the project area may occur in the Boise River during lower river flows, when the Boise River can be waded by anglers who may have an interest in fishing near the new confluence area created by the project.

Unaffected Resources

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

- Threatened and endangered species
- Indian sacred sites
- Indian trust assets
- Environmental justice
- Hazardous waste and materials

Environmental Commitments and Mitigation

Cultural Resources

Reclamation determined that the Cottonwood Creek Flume is significant under Criterion A for its contribution to early 20th century attempts to control natural waterways with human-made structures and is eligible for listing in the National Register of Historic Places. While it is likely not the last existing example of an underground masonry structure created to channel water flows in the city of Boise, it may be one of only a few still in use.

Reclamation recommended to consulting parties that there would be no adverse effect to Julia Davis Park with the proposed project because the actions would essentially restore this corner of the park to near-original conditions, with the Cottonwood Creek entering the Boise River as an open stream. Reclamation also recommended that altering at least one section of the flume and abandoning the length within the Area of Potential Effect will constitute an adverse effect to that historic property. Mitigation for the adverse effect will include interpretation about the flume in the anticipated signage installed in the project.

In addition, it is required that the BREN obtain services from a U.S. Secretary of the Interior Standards-qualified archaeologist to monitor all ground disturbance activities for this project and prepare a monitoring report for consultation. The monitoring activities are necessary due to the occurrence of materials previously found along the river consisting of old Boise dumps. BREN will prepare an inadvertent discovery plan that will outline the procedures followed by the archaeological monitor if cultural resources are found during the project activities.

Consultation, Coordination and Public Involvement

In compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended in 1992), Reclamation consulted with Idaho State Historic Preservation Officer (SHPO) to identify cultural and historic properties in the Area of Potential Effect. Consultation was initiated on November 29, 2018, and SHPO concurred with Reclamation's finding on Historic Properties for the project area on December 12, 2018 (EA Appendix C).

Reclamation mailed Tribal and public recipients scoping letters with a project information package enclosed on March 12 and March 19, 2018, respectively (Appendix A). Reclamation issued a press release to announce this Final EA and FONSI was ready to access and could be obtained upon request.

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 and localized. Therefore, preparation of an Environmental Impact Statement (EIS) is not required.

Decision

Based on the analysis in the 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 EA.

Recommended:



Rochelle Ochoa

Natural Resources Specialist

Snake River Area Office, Boise, Idaho



Date

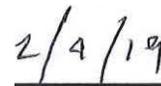
Approved:



Roland K. Springer

Snake River Area Manager

Pacific Northwest Region, Boise, Idaho



Date

RECLAMATION

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Final Environmental Assessment Cottonwood Creek Daylighting Project Boise, Idaho



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Pacific Northwest Region
Boise, Idaho

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Acronyms and Abbreviations

Acronym or Abbreviation	Description
APE	Area of Potential Effect
BMPs	Best Management Practices
B.P.	Before Present
BREN	Boise River Enhancement Network
°C	Degrees Celsius
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFS	cubic feet per second
Cfu/100mL	colony-forming-units per milliliter
CWA	Clean Water Act
Department	Department of Interior
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IFWIS	Idaho Fish and Wildlife Information System
IPaC	Information for Planning and Conservation
ISHS	Idaho State Historical Society
ITA	Indian Trust Asset
ITD	Idaho Transportation Department
MDAT	Maximum Daily Average Temperature
MDMT	Maximum Daily Maximum Temperature
mg/L	Milligrams per liter
mg/m ²	Milligrams per square meter
mS/cm	Millisiemens per centimeter
MWMT	Maximum Weekly Maximum Temperature
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
National Register	National Register of Historic Places
NTU	Nephelometric Turbidity Unit
O&M	Operation and maintenance
Reclamation	Bureau of Reclamation
S	Siemens
SS	Salmon Spawning
SHPO	State Historic Preservation Office
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers

Acronym or Abbreviation	Description
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
% Violations	Percent violations
WaterSMART	Water Sustain and Manage America's Resources for Tomorrow

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Appendix B – Threatened and Endangered Species Data: USFWS Information for Planning and Consultation (IPaC) Report

Appendix C – SHPO Concurrence Letter

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Chapter 1. Introduction

The Bureau of Reclamation (Reclamation) has prepared this Environmental Assessment (EA) pursuant to the National Environmental Policy Act of 1969 (NEPA). This EA analyzes potential effects associated with the fulfillment of a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant. Reclamation proposes to provide a grant to the Boise River Enhancement Network (BREN) for the Cottonwood Creek Daylighting Project, exposing 440 feet of stream in Julia Davis Park in Boise, Idaho, that currently flows underground.

1.1 Background

The U.S. Department of the Interior's (Department) WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities; and coordinate with other Department bureaus and offices on water conservation activities. The Cooperative Watershed Management Program contributes to the WaterSMART strategy by providing funding to watershed groups to encourage diverse stakeholders to form local solutions to address their water management needs.

Through the WaterSMART Grants, Reclamation provides 50 percent cost-share funding to entities and promotes the sustainable use of water resources, improving the ecological resilience of rivers and streams and conserving water for multiple uses through collaborative conservation efforts. Projects are selected through a competitive process, and the focus is on projects that can be completed within 24 months and would help provide sustainable water supplies in the western United States.

BREN is a diverse watershed group, with many member organizations, that has been selected as a potential recipient of Federal funding assistance through a 2017 WaterSMART grant in the amount of \$100,000. The grant would be used to restore 440 feet of Cottonwood Creek in downtown Boise, Idaho, to its natural function at its confluence with the Boise River. The stream channel would be constructed in the City of Boise's Julia Davis Park, and Cottonwood Creek would be diverted out of its current underground flume into the new channel, a process known as daylighting. Daylighting Cottonwood Creek has been in the master plan for the park and in the City's master plan for the Boise River for more than 15 years.

1.2 Purpose and Need for Action

Reclamation's purpose for the Proposed Action is to fulfill the WaterSMART grant and to improve ecological resiliency of the lower Boise River watershed by increasing habitat for

fish and wildlife, enhancing floodplains and geomorphic function, restoring vegetation, and improving water quality. The project will improve the ecological resilience of the Boise River by creating a confluence zone where additional aquatic and riparian habitat can be established in the surrounding area.

Completion of this project would uphold the purpose of the WaterSMART grant by creating 0.35 acres of riparian and wetland habitat. BREN’s purpose is to create new instream spawning, rearing, and over-wintering fish habitat, all of which are limiting to the Boise River fishery. Ecological benefits include providing new habitat for native wildlife and improving water quality through the capture, filter, and removal of pollutants.

1.3 Project Location

The project is located in Ada County on the Boise River in downtown Boise, Idaho. Cottonwood Creek drains an 8,000-acre watershed of the Boise Front, north of downtown Boise. At the point where the creek meets the valley floor, it enters an open flume for approximately 1.5 miles to its terminus in the Boise River underneath Julia Davis Park, near the intersection of Broadway Avenue and Myrtle Street in downtown Boise (Figure 1 and Figure 2). The last 2,500 feet of the flume is covered, becoming a tunnel from Park Boulevard through Julia Davis Park to the Boise River, and of that, approximately 440 feet of the flume is practicable for daylighting due to its location in a public park.

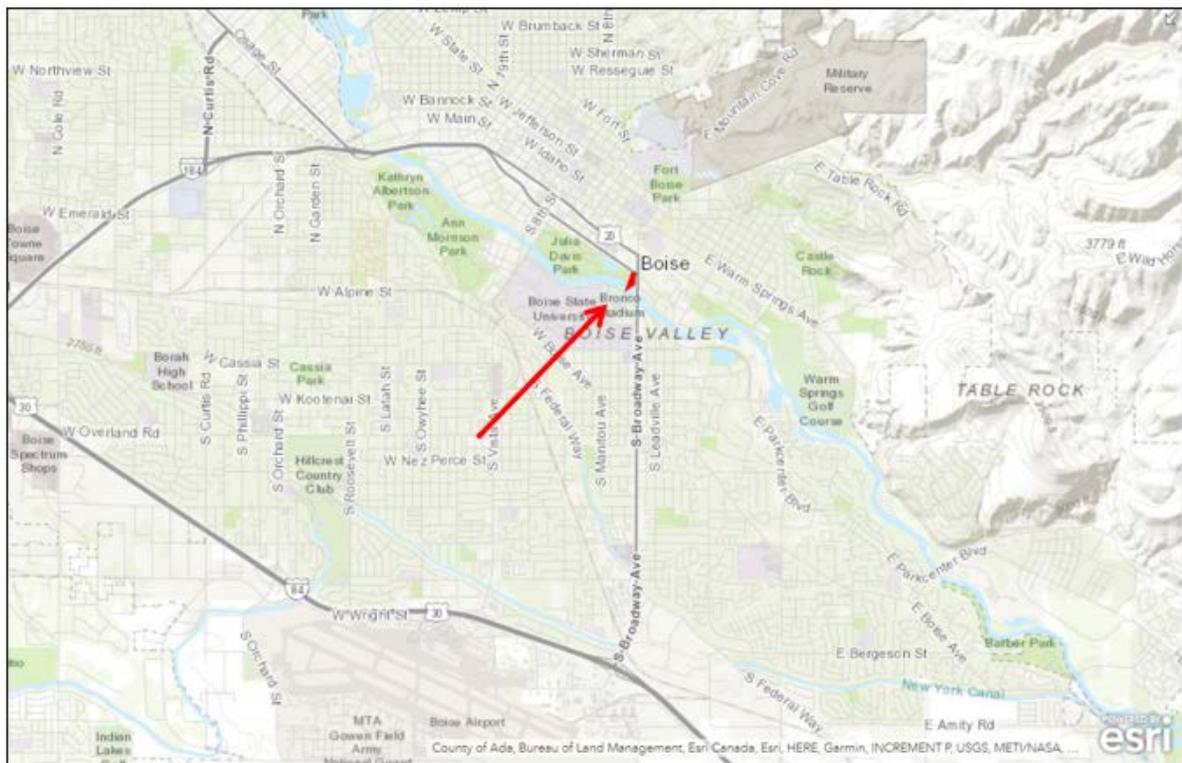


Figure 1. City of Boise with Julia Davis Park indicated, located in Ada County, Idaho

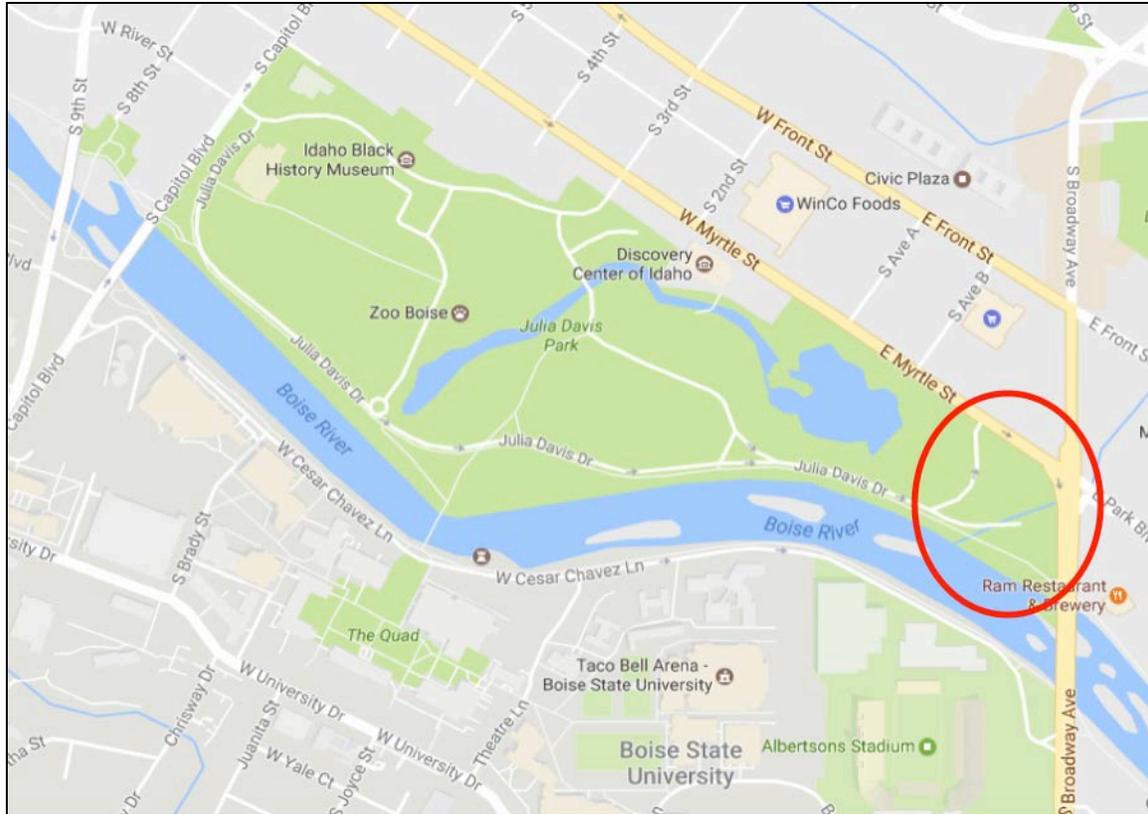


Figure 2. Julia Davis Park, with the project area indicated in the oval.

1.4 Regulatory Compliance

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

- National Environmental Policy Act
- Endangered Species Act (ESA)
- National Historic Preservation Act (NHPA)
- Clean Water Act (CWA)
- Clean Air Act (CAA)
- Executive Order (EO) 11990 Wetlands
- 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)

1.4 Scoping of Issues and Concerns

Scoping is an early and open process used to obtain information that helps identify issues and concerns related to a proposed action, the affected public and geographical area, and alternatives in the NEPA process.

On March 19, 2018, Reclamation mailed a scoping document, including a letter, project information package, and map, to more than 500 agencies, Indian Tribes, members of Congress, organizations, and individuals, soliciting their help in identifying any issues and concerns related to the proposed action. Reclamation received comments from one entity. The mailing list, scoping letters, and comments received are presented in Appendix A.

Chapter 2. Description of the Alternatives

2.1 Introduction

This chapter describes the No Action alternative and the Proposed Action.

2.2 Development of the Alternatives

The alternatives presented in this chapter were based on the purpose and need for the project, as described in Chapter 1, and the issues developed during internal, external, and Tribal scoping. The range of developed alternatives include Alternative A – No Action and Alternative B – Proposed Action, Daylighting Cottonwood Creek. A No Action alternative is evaluated because it provides an appropriate basis by which the other alternative can be compared.

2.3 Description of Alternatives

2.3.1 Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. Without the Reclamation grant, BREN and its associated organizations and agencies would likely continue with their proposed project, using alternative funding sources, which would cause a delay in the implementation of the project. For purposes of this analysis, the assumption is that the project would not go forward, so that the environmental effects associated with taking no action can be compared to the current conditions, as required under NEPA.

2.3.2 Alternative B – Cottonwood Creek Daylighting (Proposed Action)

Reclamation proposes to provide funding, via a WaterSMART grant, to BREN for design and construction of the Cottonwood Creek Daylighting Project. BREN's proposed project is as described below.

Cottonwood Creek is currently confined in an open-air flume starting where it enters the city from the Boise foothills, and, after approximately ½-mile, is buried in a concrete and stone tunnel that empties into the Boise River. This project would restore the natural function of the last 440 feet of Cottonwood Creek where it enters the Boise River in Julia Davis Park in downtown Boise.

Construction would involve site preparation, such as tree removal, asphalt demolition and disposal, temporary relocation of the irrigation main, relocation of power poles, adjustment of the irrigation system, water diversion and control, and a detour of pedestrian and bicycle

use of the Boise Greenbelt paved pathway. Excavation of a portion of the existing flume and the new channel would follow site preparation. Post-construction activities include re-connection of the Greenbelt with a pedestrian/bicycle bridge crossing the new channel, re-installation of irrigation systems, and planting of native species.

Applicable permits to construct the project would be obtained, and include a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (USACE), a CWA Section 401 certification from the Idaho Department of Environmental Quality (IDEQ), a stream channel alteration permit from the Idaho Department of Water Resources, a Boise River System Ordinance permit from the City of Boise, and an erosion and sediment control plan from the City of Boise.

Specifically, the project would aim to achieve 10 to 30 percent of suitable spawning gravels in the channel; the remaining 70 to 90 percent would be juvenile rearing space. The project would also create 0.35 acres of riparian and wetland habitat along the approximately 440-foot-long restored channel. Some additional park area (approximately 0.15 acres) would be converted from asphalt to turf and other vegetation not part of the daylighted stream and riparian area.

Along the Greenbelt walking path in Julia Davis Park, interpretive signage would be placed that describes the project and the role of daylighting Cottonwood Creek.

2.4 Alternatives Considered but Eliminated from Further Study

NEPA requires Reclamation to consider alternatives developed through public scoping. However, only those alternatives that are reasonable and meet the purpose and need of the proposed action must be analyzed. Two alternatives were considered and eliminated during studies over the past two decades:

1. Daylight Cottonwood Creek using the present-day alignment of the existing flume. This option was eliminated in previous studies when it was determined there is available space in the park for a new channel alignment. Removal of the entire flume was considered to be an unnecessary expense.
2. Route a daylighted Cottonwood Creek into the Julia Davis Park pond. This option was eliminated when it was determined the outlet from the pond at Zoo Boise would be too small for additional flows from Cottonwood Creek in addition to the surface and groundwater sources for the pond. Without a major change to the outlet, the pond would expose major portions of Zoo Boise and its denizens to flooding risk. Subsequent actions, including the creation of Julia Creek in 2007 between the pond outlet and the Boise River, and the construction of the Cancer Survivor Pavilion on the east end of the pond, make rerouting no longer feasible.

2.5 Actions Considered for Cumulative Impacts

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

Past, present, and reasonably foreseeable actions identified in the area (public or private) that would adversely impact the same resource area evaluated in this EA would be additive effects to the proposed project. Results of the past and present actions form the affected environments of the various resources described in Chapter 3. Reasonably foreseeable actions considered for cumulative impacts are identified by location below.

The cumulative effects analysis identified one reasonably foreseeable future project, the construction of restroom facilities west of the project site next to the Cancer Survivor Pavilion. Other lands to the north and east of the project area, which are commercial uses, have been built out in the past 5 to 15 years. Aside from one parcel northwest of the project area (separated by a five-lane road), there are no other developable lands in the area, and nothing is proposed for construction on that site that makes it reasonably foreseeable at this time.

Chapter 3. Affected Environment and Environmental Consequences

The analysis in this EA identifies and evaluates potential environmental effects resulting specifically from the proposed action detailed in Chapter 2. The affected environment (action area) addressed in this EA includes 3 acres of Julia Davis Park, bordered by Broadway Avenue to the east, the Boise River to the south, Julia Davis Drive to the west, and Myrtle Street to the north. Within the 3-acre project area, a stream of approximately 440 feet in length will be excavated into which the waters flowing through the Cottonwood Creek tunnel will be diverted, then flow into the Boise River approximately at River Mile 53.55.



Figure 3. Julia Davis Park with project area bounded by roads on three sides and Boise River to the south. Yellow dashed lines show the approximate location of flume/tunnel.

Resources evaluated in this document and analyzed in Chapter 3 were selected based on Reclamation requirements, compliance with laws, statutes, executive orders, public and internal scoping, and on their potential to be affected by the proposed action.

3.1 Biological Resources

3.1.1 Affected Environment

The project area encompasses approximately 3 acres in Julia Davis Park and the Boise River and numerous plant and animal species. The proposed project represents a minor fraction of the total area along the Boise River that presently provides limited habitat for plant and animal species. The vicinity surrounding the project site is characterized by commercial and business development to the north and east, Julia Davis Park to the west, and Boise State University on the south side of the Boise River.

The current confluence of Cottonwood Creek and the Boise River is limited to a stone and concrete flume approximately 6 feet in width and 4 feet tall, with additional perimeter in the flume structure. This area constitutes less than 20 feet of stream bank on the north side of the Boise River and is bounded by mature cottonwood trees and underbrush on each side of the flume. Above the flume is park area consisting of manicured lawn and an asphalt pathway for pedestrians and bicyclists. The lawn is mowed on a regular basis during the growing season, and a sprinkler system waters the lawn.

Information was gathered from recent environmental assessments on plant and animal species that occur within or adjacent to the project site to identify species that might be affected by the Proposed Action. Federally listed threatened and endangered species and state species of concern are addressed in Section 3.2. Relevant information has been obtained through literature reviews, consultation with local, State, and Federal agencies, and prior experience with the habitat characteristics of the affected area.

Vegetation

Although this area contains wetland plant species such as cottonwood (*Populus sp*), willow (*salix sp*) and other plant species, natural habitat in the project area is limited to the Boise River riparian zone (DOE 2010). Most of the project site is dominated by the landscaping elements in Julia Davis Park, which include a paved walking and bicycle pathway near the river and a paved asphalt cul-de-sac, irrigated turf, and landscaping trees of various ages and size common to urban parkland. Plant communities within the affected area include both native and non-native/introduced species. Vegetation in the park is largely classified in the latter category due to historic habitat alteration through construction, operation, maintenance, and management activities. Introduced plant species within the affected area are generally non-native or invasive species.

The turf is a mix of different types, including bent grass (*Agrostis palustris*) and Kentucky bluegrass/perennial rye mix (*Poa/Lolium* species). Tree species present in the proposed project area include native black cottonwood (*Populus trichocarpa*), Pacific willow (*Salix*

lucida ssp. *Lasiandra*), box elder (*Acer negundo*), Sitka alder (*Alnus viridis* ssp. *sinuata*), black locust (*Robinia pseudoacacia*), crabapple (*Malus* species), and honey locust (*Gleditsia* species). Introduced landscaping/ornamental tree species present include Norway maple (*Acer platanoides*), silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), pin oak (*Quercus palustris*), red oak (*Quercus rubra*), white oak (*Quercus alba*), Japanese Pagoda Tree (*Sophora japonica*), Northern catalpa (*Catalpa speciosa*), Oregon ash (*Fraxinus latifolia*), and American elm (*Ulmus americana*). Other shrubs, forbs, and graminoids observed along the river in the vicinity of the flume include false indigo (*Amorpha fruticosa*), red-osier dogwood (*Cornus sericea* ssp. *sericea*), flixweed (*Descurainia sophia*), Oregon grape (*Mahonia repens*), Virginia creeper (*Parthenocissus quinquefolia*), reed canarygrass (*Phalaris arundinacea*), golden currant (*Ribes aureum*), Himalayan blackberry (*Rubus armeniacus*), bittersweet nightshade (*Solanum dulcamara*), Canada goldenrod (*Solidago canadensis*), western snowberry (*Symphoricarpos occidentalis*), and common mullein (*Verbascum thapsus*).

Invasive and Noxious Weeds

Noxious weeds are non-native plants that have been designated noxious by State law because of their potential harm to the Idaho economy. Vegetation in the park and along the river was inventoried and no noxious weeds were found in the project area (Binggeli, 2018 personal communication).

Wildlife

Wildlife species present in the project area are those commonly associated with the Boise River, Julia Davis Park, and Boise State University campus. The Boise River provides habitat for songbirds, deer, fox, raccoon, rodents, rabbits, beaver, muskrats, and snakes. Several birds of prey, including bald eagles and osprey, have been observed in the project area. Eagles winter along the Boise River. In the project area, bald eagles have been observed perching in cottonwood trees and hunting in and along the Boise River. The Julia Davis Park pond west of the project site provides habitat for waterfowl, including grebes (*Podicipediformes*), gulls (*Laridae*), ducks and geese (*Anatidae*), domestic swans (*Cygnus*), and small shore birds of the order Charadriiformes. The most robust heron rookeries in Idaho occur downstream at Eagle Island, and heron are observed traveling through the project site and hunting for fish (Corps 2013).

Fish

Twenty-two species of fish distributed among seven families have been identified in the lower Boise River: three *Salmonidae* (two trout and one whitefish), two sculpin (*Cottidae*), three suckers (*Catostomidae*), seven minnows (*Cyprinidae*), four sunfishes (*Centrarchidae*), two catfishes (*Ictaluridae*), and one cobitidae (loach, a fish from Asia that is an invasive species) (USGS 2006). Most of the warm-water species are found in the lower reaches of the Boise River below Middleton. Of the salmonid species, mountain whitefish (*Prosopium williamsoni*) are found throughout the lower Boise River, while rainbow trout (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*) are found upstream of Eagle Road. Generally, the

Idaho Department of Fish and Game (IDFG) manages the lower Boise River as a put-and-take fishery, which allows an angler to keep up to six trout per day with no special restrictions on gear (Corps 2013). Within the city of Boise limits, IDFG also manages the urban fishery to include a reach of the Boise River with quality regulations, which require an angler keep no more than two trout and that the trout kept need to be more than 14 inches in length. The regulation is designed to promote the opportunity to catch larger fish and potentially result in a larger population of fish in the area, since fewer would be harvested.

A 2015 fall survey for young-of-year (age 0) trout in the lower Boise River found that side channels and tributaries had three times the densities of age-0 rainbow trout and nine times the densities of age-0 brown trout than mainstem sites (IDFG 2017). However, the density of age-0 rainbow trout (0.09 fish per meter) was substantially lower than estimates in the South Fork Boise River, where fall densities average two fish per meter (Butts et al. 2016, IDFG 2017). This is likely because the lower Boise River has been extensively developed and channelized, lacking adequate side channel habitat and spawning substrates, than a more naturally functioning river.

Special Status Species

According to the Idaho Fish and Wildlife Information System (IFWIS), there are 11 listed species of concern observed to occur within ½-mile of the project vicinity:

- Cooper's hawk (*Accipiter cooperii*)
- Merlin (*Falco columbarius*)
- Western small-footed myotis (*Myotis ciliolabrum*)
- Silver-haired bat (*Lasiurus noctivagans*)
- Hoary bat (*Lasiurus cinereus*)
- Muskrat (*Ondatra zibethicus*)
- Montane vole (*Microtus montanus*)
- Townsend's pocket gopher (*Thomomys townsendii*)
- American bullfrog (*Lithobates catesbeianus*)
- Northern leopard frog (*Rana pipiens*)
- Long-toed salamander (*Ambystoma macrodactylum*)

Of the species observed, only one species, the merlin (a migratory bird), was documented within the area of the proposed project. The merlin is a small falcon that breeds throughout the northern forests and prairies of North America, Europe and Asia. The merlin raises one brood each breeding season, laying its eggs in the abandoned nests of crows or other raptors. It feeds predominantly on small birds, which it generally catches in short, quick flights. Within the last 30 years, breeding populations have colonized an increasing number of urban centers (ITD 2015).

Muskrat are commonly observed by anglers along the Boise River, typically within 1 or 2 miles of the project vicinity.

3.1.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide funding. BREN and its associated organizations and agencies would likely continue with their proposed project using alternative funding sources, but implementation would be uncertain. If alternative funding were not obtained, there would be no change to the existing conditions. Current vegetation management activities and treatment methods in Julia Davis Park would continue as part of the Boise Parks Department's normal operations and maintenance (O&M). Conditions in the park under this continued management would remain nearly or entirely the same.

Alternative B – Proposed Action

Under the Proposed Action alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. The effects on park vegetation would take place on approximately 0.2 acres. This estimate is based on assuming a stream channel and riparian area 440 feet in length that creates 0.35 acres of riparian and stream habitat, off-set by the portions of the paved driveway cul-de-sac that would be converted to manicured park conditions (some of the daylighted stream could replace the area currently under asphalt). Plant species in the new riparian area would be an expansion of those found along the banks of the Boise River, replacing the turf and park trees.

Fish and wildlife species would have additional habitat in the area of the confluence of a daylighted Cottonwood Creek and the Boise River, as well as the 0.35 acres of channel and riparian area. Spawning and rearing habitat for rainbow and brown trout, whitefish, and non-game fish species would add habitat complexity to the Boise River.

The increase in connected aquatic habitat in the confluence of Cottonwood Creek and the Boise River, as well as the 440 feet of the daylighted creek, should create additional habitat for young-of-year trout, similar to that found in other side channels in the Boise River such as Loggers Creek and Heron Creek, where off-channel habitat exhibits higher densities of young-of-year trout (IDFG 2017). As riparian vegetation is established and grows over time, some additional habitat for wildlife species may create opportunities for species to use the area of the daylighted stream.

3.1.3 Cumulative Effects

The proposed restroom facility west of the project area is not expected to impact park vegetation in the project area because of the limited footprint for the structure and its distance from the project area, separated by Julia Davis Drive and the parking lot.

3.2 Threatened and Endangered Species

This section discusses the potential occurrence of and effects to Federally designated threatened and endangered species in the affected environment. Information regarding species protected under the ESA that have the potential to occur in the project area and vicinity was obtained through the U.S. Fish and Wildlife Service (USFWS) Environmental Conservation online database application (ITD 2015). Additionally, the USFWS Information for Planning and Consultation (IPaC) identified that two listed species occur in or could potentially occur near the area of effect: the yellow-billed cuckoo (*Coccyzus americanus*), designated as threatened in 2014 and slickspot peppergrass (*Lepidium papilliferum*), designated as threatened in 2009. There is proposed critical habitat for this species as published in the Federal register in 2011, but this location is outside the critical habitat. The full IPaC report is included in Appendix B.

3.2.1 Affected Environment

Slickspot Peppergrass

Slickspot peppergrass is a small, tap-rooted, flowering plant in the mustard (Brassicaceae) family that is endemic to the sagebrush steppe environment of southwestern Idaho. Slickspot peppergrass occurrence is restricted to microhabitats known as slickspots, which are small-scale sites of water accumulation in the gently undulating landscape of the sagebrush steppe vegetation of the Snake River Plains of southwestern Idaho. Slickspots are visually distinct, small-scale (mostly between 10 to 20 square feet) depressions in the soil that collect water. It is believed that slickspots take several thousand years to form; therefore, once degraded, they cannot be recreated. Due to the species' dependence upon these spatially scattered microsites, individual populations of slickspot peppergrass tend to be spatially isolated. Slickspot peppergrass is adapted to an environment characterized by high year-to-year variability in precipitation, existing as a short-lived, ephemeral species with both annual and biennial, but not perennial, life-history strategies. As such, slickspot peppergrass is likely dependent on a long-lived dormant seed bank for population persistence (Brown and Venable 1986). Seed bank and germination studies of slickspot peppergrass have indicated rapidly declining rates of seed viability beyond 12 years (Meyer et al. 2006). It is currently listed as Threatened (USFWS 2017).

Occurrence within affected area

Because of the restriction of this species to the specific microhabitat conditions of slickspots, which do not form spontaneously and would not be present on developed or mechanically altered surfaces, the likelihood of this species currently occurring within the affected area is extremely low to none. Due to the known temporal limitation of this plant's capacity for seed dormancy, it is also highly unlikely that any viable seed bank might still exist from before the establishment of the infrastructure currently present in the affected area.

Yellow-billed Cuckoo

Yellow-billed cuckoos require contiguous blocks of riparian habitat (typically greater than 20 acres) for nesting and breeding. Suitable habitat is usually characterized by dense stands of willow and successive cottonwoods that form a canopy. Dense understory foliage creates a microclimate for higher humidity, which the yellow-billed cuckoo prefers. It is the combination of secondary and tertiary understory (typically willows) succeeded by mature cottonwoods of high enough density to create a sustained canopy over the willows that creates a more temperate and humid microclimate. This microclimate plays an important role in suitable nesting, foraging, and rearing habitat opportunities necessary for sustaining yellow-billed cuckoos when the habitat patch is of sufficient size (ITD 2015).

Occurrence within affected area

Willows and cottonwoods are found in the riparian stream bank area of the Boise River at the southern end of the project site. However, because the vegetation structure is limited, and habitat patch sizes are small and non-contiguous, yellow-billed cuckoo would not be expected to use the area for nesting (ITD 2015).

The Idaho Department of Transportation (ITD) (2015) asserts that any observations near the project site would be birds passing through the area to suitable habitats upstream and downstream along the Boise River. The nearest best habitats are downstream past Glenwood Bridge and within the Eagle Island State Park area and upstream in the Barber Pool area. Both locations are 3 or more miles away.

3.2.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would likely continue with their proposed project using alternative funding sources, but implementation would be uncertain. If alternative funding were not obtained, there would be no change to the existing conditions. Since the project is located in an area with no sagebrush steppe habitat and is miles from known populations of the species slickspot peppergrass, there would be no effect on this species or its proposed critical habitat. Based on the lack of suitable nesting habitat and corresponding lack of detection of yellow-billed cuckoos in the project area, it is unlikely the yellow-billed cuckoo would re-establish in the area under current management conditions.

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. Direct and indirect effects to threatened and endangered species under the proposed action would be the same as those described above for the No Action alternative. Since the project is located in an area with no sagebrush steppe habitat, and is miles distant from known populations of the slickspot peppergrass, the proposed project

would have no effect on this species or its proposed critical habitat. Based on the lack of suitable nesting habitat and corresponding lack of detection of yellow-billed cuckoos in the project area, the proposed project would have no effect on this species.

Cumulative Effects

In the context of the other related actions listed in Section 2.5 of this document, the Proposed Action would not be expected to have any effects to threatened or endangered species or their critical habitats for the same reasons cited above (lack of species presence and lack of habitat in the proposed project area). The restroom proposed for construction west of the project area is on managed parklands with no habitat for either listed species or critical habitat.

3.3 Water Quality and Hydrology

3.3.1 Affected Environment

Cottonwood Creek

The project area consists of Cottonwood Creek and the Boise River, immediately up and downstream of the confluence with Cottonwood Creek. Cottonwood Creek drains an 8,000-acre watershed of the Boise front, north of downtown Boise. Its highest elevation does not exceed 6,000 feet mean sea level (msl). At the point where Cottonwood Creek meets the valley floor, it enters a flume for approximately 1.5 miles to its confluence with the Boise River. The final 2,500 feet of Cottonwood Creek is buried and the water flows through a tunnel, which is located underneath Julia Davis Park near the intersection of Broadway Avenue and Myrtle Street in downtown Boise (Figure 2 and Figure 3).

Peak flows occur in early April, as the Cottonwood Creek watershed is a low-elevation area compared to the mountainous terrain of Idaho. Cottonwood Creek flooded most recently in 1986, and in 1959 it was subject to a large flood event following a wildfire that summer. A similar wildfire in 1996 resulted in additional watershed rehabilitation efforts and construction of settling ponds that also function to improve water quality and remove sediment from the stream.

The flow gage above Fivemile Creek, *USGS 13204640 Cottonwood Creek below Fivemile Creek near Boise, ID*, was installed in 2000 and measures flows from the upper 6-square-mile portion of the watershed. This station is higher in the watershed, at elevation 3,780 msl, or approximately 1,000 feet higher than the valley floor. The watershed area measured is 6.1 square miles, roughly 3,900 acres or slightly less than half of the entire watershed. Flows generally range from 0 to a high of 20 cubic feet per second (cfs). Peak flows in the creek occur anytime from January to April, depending on the water year (Figure 5) and are usually less than 10 cfs. Baseflows in the creek for most of the year are less than 1 cfs.

Streamflow data at *USGS 13205000 Cottonwood Gulch at Boise, ID* were measured from January 1939 to December 1941 (Figure 4). The gage was located at the point where Cottonwood Creek enters the flume on Mountain Cove Road. The 3 years of recorded data

show high flows of 51 cfs in March 1939, 34 cfs in April 1940, and 9.8 cfs in January 1941. The gage recorded peak flows of 62 cfs in March 1939 and March 1940. Baseflows after these spring runoff values were less than 1 cfs. While these data are nearly 80 years old, the stream gage was located at a low point in the watershed where Cottonwood Creek meets the valley floor and is representative of the flows that enter the flume.

A map of the beneficial use reconnaissance locations and United States Geological Society (USGS) streamflow monitoring stations is shown in Figure 4.

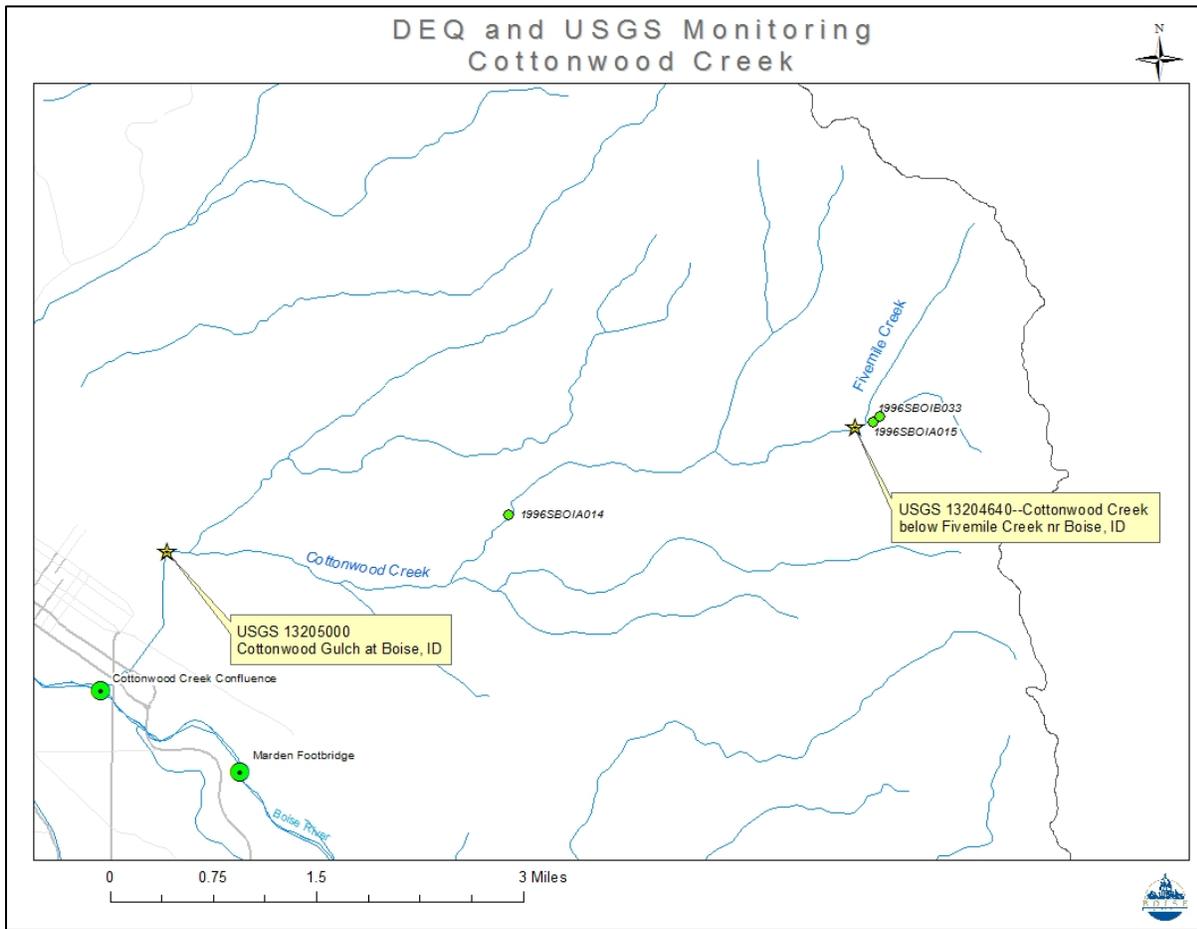


Figure 4. Monitoring locations in the Cottonwood Creek watershed

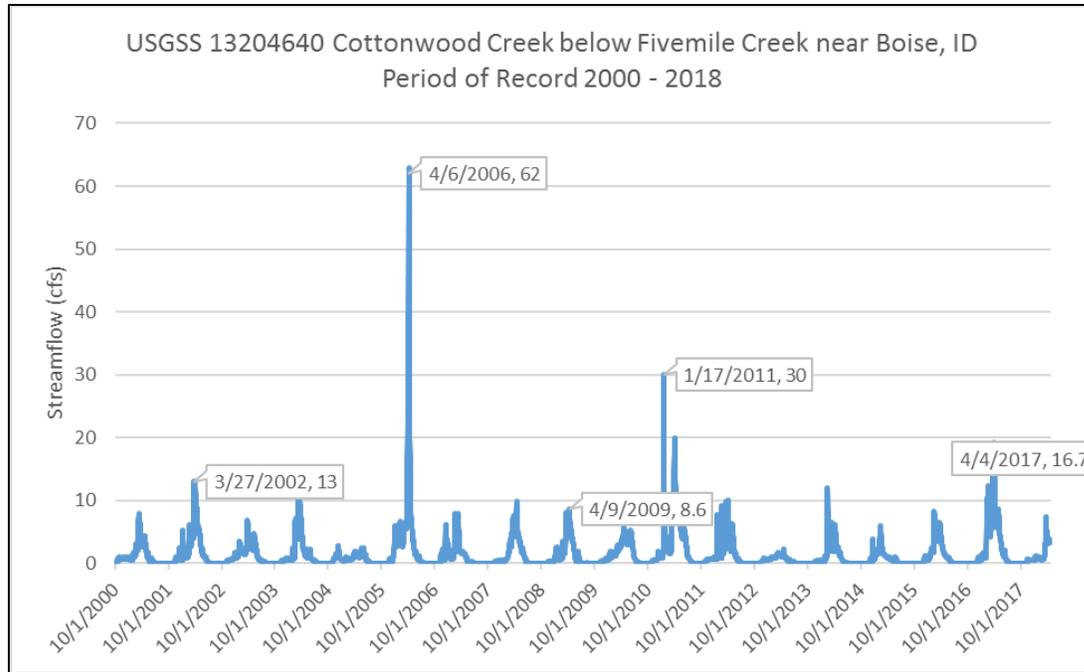


Figure 5. Streamflow data for Cottonwood Creek

Cottonwood Creek Beneficial Uses and Impairments

Water quality standards are set by the IDEQ and established under the Idaho Administrative Procedure Act (IDAPA) § 58.01.02. Waters that do not meet these standards are added to the Section 303(d) list and a Total Maximum Daily Load (TMDL) pollutant management plan is developed, as required by the Clean Water Act (U.S. EPA 2015 and Ecosystem Sciences 2015). Water quality standards were established to protect beneficial uses of the state's waters. These beneficial uses include aquatic life support – cold water, seasonal cold water, warm water, salmonid spawning, and modified; contact recreation – primary (swimming) or secondary (boating); water supply – domestic, agricultural, and industrial; wildlife habitats; and aesthetics.

The upper portion of Cottonwood Creek was assessed as not meeting the cold-water aquatic life and secondary contact recreation beneficial uses due to poor habitat bioassessments and *Escherichia coli* bacteria, respectively. The Cottonwood Creek watershed has a TMDL for *Escherichia coli*. IDEQ collected bacteria data in 2014, which resulted in a geometric mean of 404 cfu/100 mL (colony-forming units per milliliter); the applicable criterion is 126 cfu/100 mL. The bacteria TMDL requires a 69 percent reduction to be in compliance (IDEQ 2015).

The lower portion of Cottonwood Creek (Fivemile Creek to the Boise River) was identified as not meeting cold-water aquatic life needs due to poor habitat bioassessments.

Lower Boise River

The lower Boise watershed drains a total of 1,290 square miles of range (48 percent), agricultural (33 percent), urban land (16 percent), and forest (1 percent) in Ada and Canyon

Counties (Fry et al. 2011). Populations in Ada and Canyon Counties increased by 91 and 110 percent, respectively, between 1990 and 2010 (U.S. Census Bureau 2013). The changes in demographics have led to the conversion of agricultural land to urban land in the watershed. The Boise River is one of the few rivers within a major city that provide naturally spawning rainbow and brown trout fishery in addition to a put-and-take fishery. Habitat studies of the Boise River have found the river lacks suitable spawning and rearing habitat (ESF 2016 and DEQ 2014). Aside from this limiting factor, the river through town supports trout and whitefish populations with adequate cool-water temperatures.

Lower Boise River Beneficial Uses and Impairments

The Boise River segments upstream and downstream from the Cottonwood Creek confluence were assessed as not fully supporting cold-water aquatic life, salmonid spawning, and fully supporting primary contact recreation beneficial uses. The causes for these findings include low-flow alterations, physical substrate habitat alterations, and higher water temperatures at certain times of the year (IDEQ 2015 and Ecosystem Sciences 2015).

Since November 11, 2013, the City of Boise has monitored the continuous water quality parameters of dissolved oxygen, pH, specific conductance, turbidity, and water temperature at the Veterans Bridge location downstream of the Cottonwood Creek confluence with the Boise River. The values at Veterans Bridge are compared to applicable water quality standards and the percent violations (% violations) of the water quality standards are presented in Table 1. The data indicates that this portion of the Boise River is well oxygenated, is relatively neutral (pH around 7), and has some periods of increased turbidity. This river section can have temperature fluctuations from warm to cold but stays between 8 and 10° C on average.

Table 1. City of Boise continuous water quality data summary for Boise River at Veterans Bridge.¹

	Dissolved Oxygen (mg/L)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Water Temperature (°C)
Minimum	8.3	7.4	0.027	1	-0.1
Maximum	13.6	8.7	0.346	1219	20.0
Mean	10.7	7.9	0.093	19	9.5

¹ Dissolved oxygen is measured in milligrams per liter (mg/L). This measurement is the mass of a chemical per unit volume of water. The term pH is a figure expressing the acidity or alkalinity of a solution on a logarithmic scale on which 7 is neutral, lower values are more acid, and higher values more alkaline. The conductivity of water, or how well it conducts electricity, is measured within a certain distance thus the input is in S/cm or mS/cm where Siemens (S) is a unit of the electrical conductivity. Clarity of water is measured in Nephelometric Turbidity Unit (NTU) in that both measure scattered light at 90 degrees from the incident light beam. Finally, temperature is measured on a Celsius scale, previously known as the centigrade scale.

	Dissolved Oxygen (mg/L)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Water Temperature (°C)
Median	10.8	7.9	0.094	4	8.7
% violations	0%	0%	No standard	2% Instantaneous 5% Consecutive	<1% MDAT (CWAL) 0% MDMT (CWAL) 11% MWMT (SS)

The USGS monitors periphyton (benthic chlorophyll-a) at Eckert Bridge and Veterans Bridge (USGS sites 13203760 and 13205642, respectively). Periphyton growth is an important indicator of phosphorus pollutant levels (IDEQ 2015). The 1995 through 2018 periphyton data from these two sites range between 0 and 241 milligrams per square meter (mg/m^2). In October 2015, there was one exceedance of the $150 \text{ mg}/\text{m}^2$ of benthic chlorophyll-a target and it was $241 \text{ mg}/\text{m}^2$.

3.3.2 Environmental Consequences

Alternative A – No Action

In this alternative, WaterSMART funding would not be provided. BREN and its associated organizations and agencies would continue with the proposed project using alternative funding sources, but implementation would be uncertain. If alternative funding were not obtained, there would be no change to the existing conditions in the short term. No immediate direct or indirect effects to water quality would occur in the Boise River or in Cottonwood Creek in the project area. However, in the long term, due to continuing improvements in water quality best management practices (BMPs) and the TMDL process that limits pollution over time, water quality should slowly improve in Cottonwood Creek and the Boise River. Poor aquatic habitat would likely continue and affect cold-water aquatic life beneficial use in Cottonwood Creek in the upper and lower portions of the watershed.

If BREN were able to implement the Proposed Action without funding from Reclamation, direct and indirect effects would be the same as those identified in the description of effects for Alternative B.

Alternative B – Proposed Action

Reclamation would provide funding under a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. Short-term effects to water quality could occur during and following construction due to ground disturbance. Construction activities can lead to generation and delivery of sediment and/or contaminants to waterways, and newly disturbed lands can be subject to erosion. Control of sediment delivery would be managed pursuant to a stormwater pollution protection plan and BMPs. A City of Boise permit would be obtained that would outline the requirements for pollution control and water quality protection.

In the long term, the Proposed Action would result in water quality improvements at the downstream end of Cottonwood Creek, at the confluence with the Boise River, and down the Boise River for a distance. Approximately 0.35 acres of healthy riparian vegetation would be established along approximately 440 feet of channel some 35 feet in width (assuming an average of 17.5 feet of riparian width on each side of the stream), which would slow overland flows, trap sediment, and shade and cool stream water. Beneficial effects on water temperature from riparian shading of the stream are likely limited since the existing conveyance is a tunnel.

Reestablishing a natural stream channel will allow waters of Cottonwood Creek to interact with stream substrates and the hyporheic zone, and in turn allow for some processing or exchange of nutrients from the water column by riparian plants (e.g., cottonwood and willow, periphyton, and stream-dwelling macroinvertebrates). An exact quantitative estimate of these ecological processes cannot be easily measured, but the effects to water quality would be positive. Stream-bottom and channel complexity would influence routing of sediments and substrates in a daylighted Cottonwood Creek and at the confluence with the Boise River. Variation in channel width, depth, gradient, and substrate size and character would influence water velocity, slowing it in locations to promote exchange of nutrients and other constituents in the water column (Lawrence et al. 2013, American Rivers 2014, Beaulieu et al. 2015).

Cumulative Effects

Effects from water quality and hydrology when added to the effects from reasonably foreseeable projects, would not likely have a cumulative effect. The restroom construction would be in accordance with City of Boise regulations for erosion and sediment control plans, specifications, and BMPs. The facility is also distant from the project area and channel that would be excavated.

3.4 Land Use

3.4.1 Affected Environment

The project area is located in Julia Davis Park, owned by the City of Boise. Most of the project site is dominated by the elements in Julia Davis Park, which are typical for a developed park in an urban area: impervious surfaces of a pedestrian and bicycle pathway near the river and a paved asphalt cul-de-sac for automobiles, irrigated turf, and landscaping trees of various ages and sizes common to urban parkland

Jurisdiction over land use and development within the project area is held by the City of Boise. The Boise Parks and Recreation Department manages the park. A Boise Parks Board oversees the Department. The Mayor, with City Council approval, appoints board members. A comprehensive plan for all parks and lands under the jurisdiction of the Department guides the management of Julia Davis Park. A specific plan has been adopted for Julia Davis Park and was part of the centennial celebration for the park in 2008. A third planning document,

the Boise River Resource Management and Master Plan, addresses management of the Boise River and city lands along the River (City of Boise 2014). All three of these documents have included daylighting Cottonwood Creek as a future project and desired condition for Julia Davis Park and the Boise River.

Park plans are also adopted into the City of Boise Comprehensive Plan. Additional legal jurisdiction lies with zoning and other ordinances as adopted by the City Council from time to time, which are in Boise City Code.

Recreation Trail and Other Park Uses

A paved 12-foot-wide pathway traverses the project site. The paved path is part of the Boise River Greenbelt, the waters and setback lands along the Boise River. This section of pathway receives high levels of public use, given its location in the center of the city and across the river from Boise State University. Other public use activities in the project area include vehicle parking along the cul-de-sac and driveway and some picnic use.

3.4.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. If alternative funding were not obtained, there would be no change to the existing conditions. No direct or indirect effects to land use in the project area would occur with this alternative.

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. Short-term effects to land uses would include construction activities temporarily displacing park uses. Pedestrian and bicycle use of the paved path would be detoured around the project site, similar to other construction projects along the Boise River Greenbelt. Use of the lawn and cul-de-sac for parking would be excluded, as the construction area would be fenced, but parking across the street from the project area would be unaffected except for parking use by construction crews and other project personnel.

Longer-term effects on land uses in the project area would include those associated with the daylighted Cottonwood Creek where individuals interact with the stream and riparian area through observation and walking along the site. If interpretive signage is included at the project site, this would add a new recreation activity in the project area. Loss of automobile use of the cul-de-sac for parking would be an additional effect of the Proposed Action.

Removal of the cul-de-sac has been in the master plan for the Julia Davis Park for more than a decade.²

Cumulative Effects

Reasonably foreseeable projects in and near the project area, such as additional commercial building construction north of the project site separated by the five-lane Myrtle Street and a restroom facility in Julia Davis Park between the project site and the Julia Davis Park pond next to the Cancer Survivor Pavilion, would add to the attractions on the east end of the park. These additional park elements resulting from the Proposed Action and reasonably foreseeable projects may increase visitor use of this portion of the park.

3.5 Cultural Resources

Cultural resources are prehistoric, historic, and traditional cultural properties that reflect a group's heritage. Cultural resources are considered an important part of the human environment. Numerous laws and regulations require agencies to identify cultural resources located on Federal lands or that would be impacted by a Federal undertaking, and to take action to address the effects of undertakings on properties eligible for listing in the National Register of Historic Places (National Register). The Archaeological and Historic Resources Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resources Protection Act (1979), and the Native American Graves Protection and Repatriation Act (1990) are several examples of these laws. In addition, coordination with Federally recognized Native American Tribes must occur in accordance with Executive Order 13084, Consultation and Coordination with Indian Tribal Governments.

The National Historic Preservation Act of 1966, as amended (NHPA) is the principal law defining Federal cultural resource management responsibilities. Section 106 of the NHPA (54 U.S.C. § 306108) and its implementing regulation (36 CFR 800) define a phased, consultative process to implement responsibilities for Federal undertakings. The NHPA is concerned with significant cultural resources called historic properties. The term *historic property* is defined in the NHPA as “any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion on the National Register.” Historic properties include traditional cultural properties, locations that have special heritage value to contemporary communities because they are associated with historical practices or beliefs needed to maintain cultural identity.

Because the funding provided in a WaterSMART grant qualifies as a Federal undertaking, Reclamation must consider the potential effects of the Proposed Action on cultural resources that are listed in or eligible for listing in the National Register. Pursuant to Section 106 of the NHPA and its implementing regulations at 36 CFR 800, Reclamation conducted consultation with the Idaho State Historic Preservation Office and associated Tribes. As required under

² Julia Davis Park Mast Plan Map dated April 2002, https://parks.cityofboise.org/media/4295/mp_julia_davis.pdf accessed July 8, 2018.

the NHPA, Reclamation identified historic properties within the area of potential effects (or the affected environment under NEPA), applied the National Register criteria (36 CFR 63) to evaluate eligibility, and determined whether the activities resulting from the WaterSMART grant funding would adversely affect historic properties.

3.5.1 Affected Environment

The affected environment includes the geographic area where the proposed project may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The Boise River was the site of Native American settlement for thousands of years prior to contact with Euro-Americans. TEC (2014) provides a summary of the human history relevant to the Boise River and thus the project area:

The prehistoric record for the area is divided into three chronological periods. The Early Prehistoric Period, also known as the Paleo-Indian, dates from at least 12,000 years Before Present (B.P.) to circa 7,500 B.P. This period is defined by fluted and stemmed projectile point types often found in association with now extinct megafauna and other large game. These hunter-gatherers, along with those of the following period, were highly mobile and practiced seasonal rounds that followed the migrations of large game herds. The settlement patterns of the Middle Prehistoric Period (7,500 B.P. to 1,500 B.P.) followed the more localized movements of game and the seasonal availability of plant resources. This period is also defined by distinct projectile point types and by a subsistence strategy that placed a greater emphasis on the procurement of small game and plant foods. The Late Prehistoric Period (1,500 to 700 B.P.) is characterized by the development and use of the bow and arrow and small corner-notched projectile points. Groups became more sedentary in this period, as evidenced by village occupations typically located in riverine contexts. The appearance of utilitarian pottery, although late in the period, is also a distinguishing feature. Prehistoric inhabitants of the Boise area subsisted on local salmon, camas, and bitterroot (Wells and Hart 2000).

The introduction of the horse in the 1700s brought significant changes that included bison hunting parties, often composed of members from different bands and tribes, in Wyoming and Utah. At the time of Euro-American contact in 1811, when the first Euro-Americans traveled through southwestern Idaho, the area was primarily occupied by Western Shoshone and Northern Paiute (Arrington 1994, Derig 1996, Plew 2000, as reported in TEC 2014). The Boise Valley was a meeting place for trade and social activity among groups including the Shoshone, Bannock, and Paiute. These groups represent two distinct linguistic populations. Though both belong to the larger Numic language family, the groups spoke different languages. The data suggest that the territories of these groups overlapped in southwestern Idaho, with the territory of the Western Shoshone and Bannock extending eastward and that of the Northern Paiute extending westward. These groups employed similar tool

assemblages, sociopolitical organization, religious practices, and subsistence systems. The Boise Valley was known by a name that may have meant “cottonwood feast valley” or “cottonwood meeting place” (Davis 1990:3).

Euro-Americans first entered the Boise Valley in the 1700s and 1800s as fur trappers. Early relations in the Treasure Valley between Euro-Americans and Native Americans were strained due to the large number of Euro-American immigrants settling in traditional Shoshone territory (Derig 1996, as reported in TEC 2014). The British established Old Fort Boise in 1834 but abandoned it in 1852. The U.S. Army built Fort Boise in 1863. In 1864, when the territorial legislature held its second session in Lewiston, Boise was incorporated as a city and proclaimed the capital of the Idaho Territory. After the gold rush, Boise’s population declined from 1,658 citizens in 1864 to 995 in 1870. With new construction, including the territorial prison in 1869 and the U.S. Assay Office in 1872, Boise began to grow again. The capitol building was completed in 1886 and 1887. In 1890, Idaho became a state. In the early 1900s, Boise once again enjoyed rapid growth. This growth came with the expansion of irrigation in the valley during 1902-1912. This led to the construction of Arrowrock Dam on the Boise River, the tallest dam in the world from 1915 to 1932. Just prior to this, on November 22, 1907 prominent Boise businessman Thomas Davis deeded a portion of his land along the Boise River near downtown to the City of Boise for use as a public park. Davis’s gift was left to the city in perpetuity as long as it was named and always known as Julia Davis Park (see below). The park has expanded in physical size and number of features during the century since its inception.

As part of the cultural resources identification efforts of the Section 106 process, a records search was conducted with the State Historic Preservation Office (SHPO) regarding the area of potential effect (APE) of the Cottonwood Creek Daylighting Project (Record Search #18376). Five previously identified cultural resources exist within or immediately adjacent to the project’s APE. Site 10AA645, the old Julia Davis Dump, exists about 300 meters west of the current APE. It would not be affected by the proposed project. The Broadway Bridge over the Boise River (Idaho State Historical Society (ISHS) 01-21782) on U.S. Highway 20 (01-22138) (Broadway Avenue) is adjacent to the APE to the east and southeast. The bridge was constructed in between 1956-57 and was determined to be eligible for listing in the National Register in 2003. In 2016, the bridge was entirely replaced. The proposed project would have no impact to the bridge structure or Broadway Avenue. The Boise and Interurban Railway (01-23301) was mapped to have run along the easternmost edge of the current APE but was determined ineligible for listing in the National Register. Because the railroad no longer exists, the proposed project would have no effect on this resource.

The entire APE lies within the fifth previously identified cultural resource, Julia Davis Park (ISHS 01-23290), a prominent green and recreation space in downtown Boise. The park consists of a large open space featuring several museums, a zoo, playgrounds, a pond, and part of the Boise Greenbelt system. The park came into existence early in the 20th century when prominent Boise businessman Thomas Davis deeded 43 acres of his land along the Boise River to the City of Boise for use as a public park. Regular flood events of the Boise

River led to the construction of walls and berms to hold the waters back from the park. Additional structures and features were created within the park over the decades, and the final expansion of the park in 1940-41 saw the borders of the park moved to Broadway Avenue. Currently, Julia Davis Park includes 89.4 acres. The park was determined eligible for listing in the National Register on September 29, 2014.

The current identification effort also documented the Cottonwood Creek Flume (Field No. MSFO-19-01) and evaluated its historic significance. The exact location of Cottonwood Creek at the time of European settlement in the 1860s is not well established, and review of the 1867 cadastral survey did not place it with certainty (MacCoy and Blew 2005). It is known that the creek was prone to flooding, and after the area became a public park, efforts were made to control effects from seasonal and episodic flooding events. Most efforts were effective for only a year or two due to hydraulic forces that could not be controlled by wooden flume designs (November 21, 1938, aerial photo)³. Channel confinement using more permanent stone materials date from 1881 in some sections of Cottonwood Creek near Fort Boise. The channel first entered the Boise River through the flume at the project site in 1939. Newspaper articles reporting the flume construction mention that crews had to dig through dump materials during their work, indicating that dumping may have been used to create berms at this area of the river.

Currently, the interior of the flume at its outlet measures 6 feet wide by 4 feet in height. The flume is composed of stone walls approximately 1 foot in thickness that support a concrete ceiling. Reclamation determined that the Cottonwood Creek Flume is significant under Criterion A for its contribution to early 20th century attempts to control natural waterways with human-made structures and is eligible for listing in the National Register. While it is likely not the last existing example of an underground masonry structure created to channel water flows in the city of Boise, it may be one of only a few still in use within Ada County.

Reclamation recommended to consulting parties that there would be no adverse effect to Julia Davis Park with the proposed project because the actions would essentially restore this corner of the park to near-original conditions with the Cottonwood Creek entering the Boise River as an open stream. Reclamation also recommended that altering at least one section of the flume and abandoning the length within the APE will constitute an adverse effect to that historic property. Mitigation for the adverse effect would include interpretation about the flume in the anticipated signage installed in the project.

In addition, it is required that BREN obtain services from a U.S. Secretary of the Interior Standards qualified archaeologist to monitor all ground disturbance activities for this project and prepare a monitoring report for consultation. The monitoring activities are necessary due to the occurrence of materials previously found along the river consisting of old Boise dumps. BREN will prepare an inadvertent discovery plan that will outline the procedures followed by the archaeological monitor if cultural resources are found during the project activities.

³ See <http://digital.boisestate.edu/cdm/singleitem/collection/p15948coll4/id/165/rec/2> accessed July 26, 2017.

3.5.2 Environmental Consequences

A proposed action or alternative affects a significant cultural resource when it alters the property's characteristics, including relevant features of the environment or uses that qualify it as significant under National Register criteria. Impacts may be the result of transferring it out of Federal ownership; physically altering, damaging, or destroying all or part of a resource; or altering characteristics of the surrounding environment that contribute to the importance of the resource. In addition to affecting National Register-listed or eligible resources, a proposed action or alternative could affect traditional cultural properties that are protected under a number of other Federal laws.

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding to BREN for the completion of this project. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. As such, Reclamation's Federal nexus would not be tied to the project, and there would be no change to the existing conditions, including those related to cultural resources. The Cottonwood Creek Flume would continue to operate as it does now, and Julia Davis Park would not be altered to daylight the creek.

Alternative B – Proposed Action

Under the Proposed Action, Reclamation would provide funding to BREN for design and construction of the Cottonwood Creek Daylighting Project through a WaterSMART grant. A portion of the eligible flume would be physically altered to expose the creek's flow to daylight, and the rest of the approximately 440-foot length of the flume would be abandoned in place. This would constitute an adverse effect to the flume, and mitigation, established within a Memorandum of Agreement with the Idaho SHPO and Reclamation, would be instituted to balance the impact. Interpretation about the flume would be included in planned signage to be installed during the project. Julia Davis Park, the second historic property, would benefit from the project activities, as the daylighting of Cottonwood Creek will restore this section of the park to conditions similar to those of its origin.

Cumulative Effects

If the current excellent condition of the Cottonwood Creek Flume is any indication, it is well-protected under the grounds of the park. Its discontinued use will probably not increase the likelihood of deterioration, although the passage of time and unforeseen impacts may cause it to erode and eventually collapse. Sealing the outlet against incursions by people, animals, or vegetation would also help to protect the condition of the flume. Julia Davis Park may experience increased visitation to this area with the daylighted creek because of more potential for interactions with nature.

3.6 Indian Sacred Sites

Federal responsibility for Indian sacred sites is defined in Executive Order 13007 and identifies Indian sacred sites as specific, discrete, narrowly delineated locations on Federal land identified by Indian Tribes or knowledgeable practitioners as sacred by virtue of their religious significance to, or ceremonial use by, an Indian religion. Executive Order 13007 grants tribal access to sacred sites on Federal land.

3.6.1 Affected Environment

Involved Indian Tribes, including the Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho and the Shoshone-Paiute Tribes of the Duck Valley Reservation, were informed of the proposed WaterSMART grant through the NEPA scoping process. No information indicating issues related to Indian sacred sites was offered by the Tribes.

Reclamation is not aware of any Indian sacred sites on these lands or within the project site. Due to the extent of disturbance and present usage of Julia Davis Park and character of surrounding land uses, Reclamation believes it is highly unlikely that Indian sacred sites would be present. The lands of the project area have served as a city park for eight decades, preceded by decades as a household solid waste dump site and an orchard. The area was periodically inundated by seasonal flooding in the era prior to the construction of Reclamation water storage facilities in the upper Boise River Basin and surrounded by either urban or suburban development. The existing landscape bears no resemblance to the one present before the Boise Valley was settled (MacCoy and Blew 2005). The conditions of privacy and natural landscape integrity normally required for Indian religious purposes are no longer present.

3.6.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. No ground disturbance or extraction would occur. Existing conditions would remain intact and would not be affected.

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. No Indian sacred sites have been identified at or near the project area. Therefore, the Proposed Action would not have a direct or indirect effect.

Cumulative Effects

Because no Indian sacred sites exist within the project area, no direct or indirect cumulative effects would be realized.

3.7 Indian Trust Assets

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

The United States has a responsibility to protect and maintain rights reserved by or granted to Indian Tribes and Indian individuals by treaties, statutes, and executive orders. These are sometimes further interpreted through court decisions and regulations. Any anticipated effects to ITAs from a proposed project or action must be explicitly addressed in a NEPA document.

3.7.1 Affected Environment

The Shoshone-Bannock Tribes, which are Federally recognized tribes and are located at the Fort Hall Indian Reservation in southeastern Idaho, have trust assets both on and off reservation lands. The Fort Bridger Treaty was signed and agreed to by the Bannock and Shoshone headman on July 3, 1868. The treaty states in Article 4 that members of the Shoshone-Bannock Tribes "...shall have the right to hunt on unoccupied Federal lands of the United States..." This has been interpreted to mean unoccupied Federal lands and to include fishing as a form of hunting.

The Tribes included fishing after the case of *State of Idaho vs. Tinno*⁴, an off-reservation fishing case in Idaho. The Idaho Supreme court determined that the Shoshone word for *hunt* also included *fish*. Under *Tinno*, the court affirmed the Tribal Members' right to take fish off-reservation pursuant to the Fort Bridger Treaty.

3.7.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. Under Alternative A, there would be no direct or indirect effects to ITAs.

⁴ *State v. Tinno*, 497 P.2d 1386, filed in Idaho Supreme Court on June 8, 1972, Docket No. 10737

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. Alternative B would not affect any known ITAs of land, minerals, water rights, monetary holdings, or gathering rights in the direct vicinity of the project area. As part of the scoping process, Reclamation requested information from tribes that traditionally and currently use the area; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to the Tribes. With no specific response, Reclamation assumes that there would be no effects to ITAs such as lands, minerals, water rights, monetary holdings and gathering rights in the project area.

Cumulative Effects

There are no direct or indirect effects and therefore would be no anticipated cumulative effects to ITAs as a result of Alternative B.

3.8 Environmental Justice

Environmental justice relates to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Executive Order 12898 requires that Federal actions address environmental justice in minority and low-income populations and take appropriate and necessary steps to identify and address disproportionately high and adverse effects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

3.8.1 Affected Environment

In most cases, analyzing census data related to community makeup and economic status can provide information to determine potential effects to protected groups, specifically information on race and/or ethnic breakdowns and on median household incomes. If potentially disadvantaged communities exist within the project footprint or sphere of influence of the project actions, they should be identified and addressed.

Data from the 2010 U.S. Census Bureau poverty guidelines were used to document minority and low-income populations. This document references ITD 2015, which analyzes racial composition, household medium income, and poverty thresholds for tract and block group identification numbers 1002, 8043, 9001, 9002, and 7013. These tract and block groups are located within the City of Boise and adjacent to the project area within ½-mile. Using Executive Order 12898 definitions for a minority individual and minority populations, Table 2 displays racial composition within ½-mile of the project area.

Table 2. Racial composition of census tract/block groups adjacent to project area

Race	Ada County, Idaho	7013	8043	9002	9001	1002
White Alone	86%	90%	84%	80%	80%	90%
Black Alone	1%	1%	1%	1%	2%	1%
American Indian or Alaskan Native	1%	1%	1%	1%	1%	1%
Asian Alone	3%	2%	3%	4%	4%	2%
Hispanic or Latino	7%	4%	7%	11%	9%	4%
Two or more races	2%	2%	4%	2%	3%	2%
Hawaiian/Pacific Islander Alone or other race alone	-	-	-	1%	1%	-

There are slightly higher rates of minority populations in block groups 9001 and 9002, due to the presence of Boise State University. Other block groups and census track data show the minority racial compositions found in those areas were similar to the minority racial composition for Ada County.

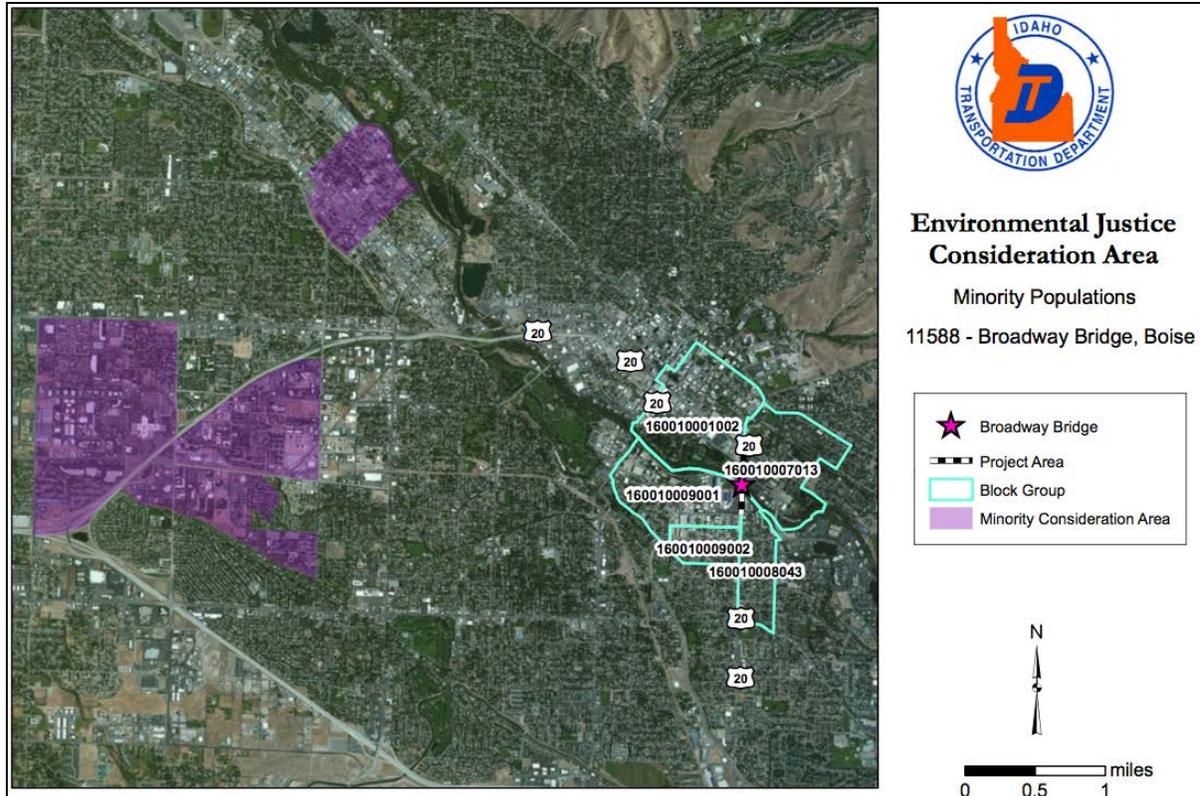


Figure 6. Minority population areas and the location of the Cottonwood Creek Daylighting Project near the Broadway Bridge

Overall, there are no tract or block groups located within or near the project area or identified as having minority populations. The closest minority populations are 3 miles away from the project area, as shown in Figure 6.

Table 3 and Table 4 show data related to income and poverty rates within Ada County compared to the rest of the state. These data indicate that for the county, income is higher than state averages.

Low-income populations are any readily identifiable groups of low-income persons who live in geographic proximity of each another. Executive Order 12898 defines a low-income individual as a person with a median household income at or below the Department of Health and Human Services poverty guidelines.

Census data indicate the presence of low-income populations within tract and block groups located adjacent to the project area. Low-income populations are in block groups 1002, 9001, and 9002. Poverty rate is displayed by census tract.

Table 3. 2010 Income and poverty data for Ada County compared to block groups adjacent to project area.

	Ada County, ID	7013	8043	9002	9001	1002
Household Median Income (based on a family of four)	\$55,304	\$40,193	\$35,492	\$22,426	\$27,152	\$24,038

Table 4. 2010 Tract Group percent of population below poverty rate near the project area.

	Ada County, ID	701	804	900	100
Population Below Poverty	12%	11%	12%	32%	29%

The illustration below shows low-income areas in proximity to the project area. Block groups both north and south of the Boise River and west of Broadway Avenue are highlighted.

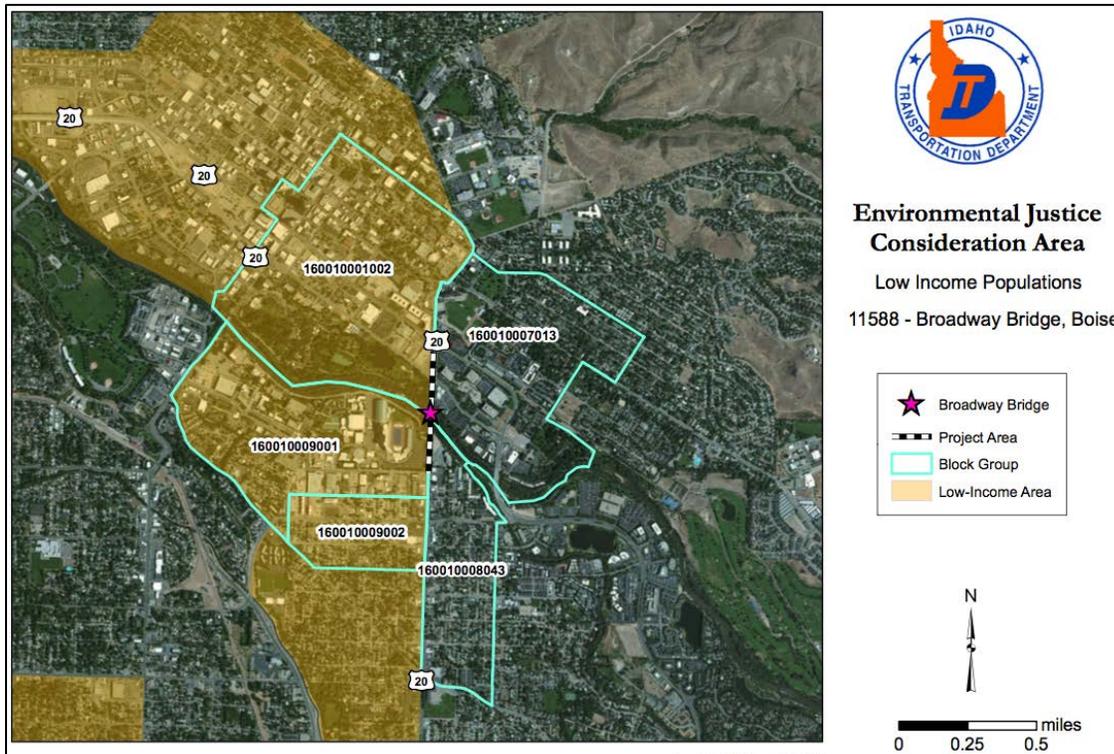


Figure 7. Low-income areas in the area of the Cottonwood Creek project area.

3.8.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. Assuming no project implementation, the No Action alternative would not alter the current regional environmental justice status parameters in Ada County.

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. No minority or low-income groups, as identified for further analysis by Executive Order 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 an area of effect within a public park, there would be no significant effect to the greater area's low-income populations.

Cumulative Effects

The potential for cumulative effects on environmental justice conditions in Ada County would not be a concern with the Proposed Action because no substantial direct or indirect effects on environmental justice conditions would accompany the Proposed Action.

3.9 Hazardous Materials and Waste

This section describes hazardous materials and waste surveys conducted for the affected environment and the potential for environmental and health impacts associated with the proposed action.

Hazardous materials are generally defined as usable products or substances that may cause harm to humans, natural resources, or the environment when spilled, released, or contacted. Hazardous materials are used in everyday activities and may be in the form of solid, liquid, or gas. Regardless of their physical state, hazardous materials may be toxic, flammable, combustible, reactive, and/or corrosive. When used and stored properly, associated risks are minimized or eliminated.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provides the Environmental Protection Agency (EPA) with a tool to prevent and/or seek out parties responsible for cleanup of uncontrolled or abandoned hazardous waste sites, as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment (EPA 2017).

3.9.1 Affected Environment

A hazardous materials/waste site assessment and review was conducted as part of the replacement of Broadway Bridge (ITD 2015). This assessment and a previous review for the proposed expansion of a geothermal line in the same area (DOE 2010) provide a basis to describe the existing conditions with respect to hazardous and solid waste in the project area.

There is some evidence that some portions of the project site were used for solid waste dumping. A local newspaper account states the flume was built “through bits of debris piled up in the area when that part of the park was a trash heap” (Idaho Statesman 1939). Recent boring for a water main along Broadway Avenue and under the Boise River encountered some evidence of household landfill materials. This is not unlike that encountered in the excavation of Julia Creek in 2007 some 800 feet downstream of the project site. To the east of the project site, The Ram Plaza occupies a former solid waste site, and during construction, excavation revealed solid waste similar to household landfill materials. Some excavation on-site also encountered thick grease sludge known as Bunker C oil, which, while relatively small in quantity, was noticed and removed. The Bunker C oil is linked to the old Morrison Knudsen train switching station that is no longer in existence (ITD 2015).

3.9.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain. The direct and indirect effects would not exist under the No Action alternative due to the materials that are possibly present in the area not being disturbed.

Alternative B – Proposed Action

Under the Proposed Action alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. This preliminary analysis did not reveal any evidence of hazardous substances, petroleum products, or recognized environmental conditions and/or CERCLA 120(h) concerns in connection with project area. No issues of concern were identified on Julia Davis Park lands and no direct or indirect effects related to hazardous materials are anticipated.

Cumulative Effects

No cumulative effects in terms of hazardous materials and waste are anticipated, given the finding that no direct or indirect effects related to these materials and waste are expected to occur as a result of the Proposed Action.

3.10 Recreation

3.10.1 Affected Environment

As a city park, the project area is part of a planned recreational resource. A 12-foot-wide asphalt bike and pedestrian pathway, part of the Boise River Greenbelt, traverses the project area. This section of the Greenbelt receives high levels of public use due to its proximity to the center of the city to the north and Boise State University just across the river to the south. Other recreational activities in the project area include picnicking, bird watching, playing frisbee and other games, and relaxing. The cul-de-sac and driveway in the project area provide visitor parking.

The Boise River, which is the southern boundary of Julia Davis Park, is a popular recreation resource. Recreational activities in the segment of the Boise River near the project area include fishing, wading, and floating by inner tubes, kayaks, canoes, or rafts.

While no recent data exist on amount of use of the Boise River and the Greenbelt, a public survey in 2001 found an estimated 11.5 percent of Ada County residents fished the Boise River in the year 2000. About 68 percent of those surveyed identified themselves as Greenbelt or Boise River users (or both). The population of Ada County residents 18 years of age or older in 2000 was approximately 219,000, which translates to 25,167 anglers on the Boise River (Willmorth 2001).

A creel census during 2007 to 2008 estimated that anglers fished more than 33,000 hours in the section of river from Barber Dam to Americana Boulevard Bridge during a one-year period. Angler effort was highest during November, when the river is stocked with steelhead (IDFG 2010). The rainbow trout catch rate was highest for non-fly and fly anglers during October and September, respectively.

An estimated 53,447 total fishing trips occurred on the Boise River in Ada County in 2003, based on an IDFG statewide survey to estimate the economic value of recreational fishing in Idaho. Data for this survey were collected using a mail survey of Idaho anglers who had purchased a valid fishing license during calendar year 2003 (Grunder et al. 2008). An unpublished survey from 2011 shows an estimated 63,562 fishing trips to the Boise River in Ada County (IDFG, unpublished).

A Boise State University survey of Greenbelt users in autumn 2012 found that on weekdays, approximately 28 percent of bicyclists use the Greenbelt for commuting to and from work. This proportion drops to less than 9 percent for weekend use (Voss 2013).

3.10.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not provide WaterSMART funding. BREN and its associated organizations and agencies would probably continue with their proposed project using alternative funding sources, but implementation would be uncertain.

Assuming no project implementation, the No Action alternative would not alter the current recreational uses associated with the project area. The direct effects would be the continuation of Greenbelt use in this area without disturbance, and no indirect effects would occur under the No Action alternative.

Alternative B – Proposed Action

Under the Proposed Action Alternative, Reclamation would provide funding via a WaterSMART grant to BREN for design and construction of the Cottonwood Creek Daylighting Project. The proposed action would have short-term effects on recreation along the Greenbelt pathway where pedestrian and bicycle use would be detoured around the project area during construction. Recreational use of the lawn and parking in the cul-de-sac would be excluded by fencing during construction. Parking across the street from the project area would be affected by project personnel using available parking spaces when necessary.

Longer-term effects on land uses in the project area would include those associated with the daylighted Cottonwood Creek, as visitors could enjoy the stream and riparian area through observation, fishing, wading, and walking along the creek, where the flows would be lower and there would be fewer hazards than in the Boise River. Boise State University classes would be able to use the creek for biological or botanical field work, especially during high-flow periods when access to the creek would be safer than access to the river site.

Additional recreation use near the project area may occur in the Boise River during lower river flows, when the Boise River could be waded by anglers who may have an interest in fishing near the new confluence area created by the project.

Cumulative Effects

Reasonably foreseeable projects in and near the project area, including a restroom between the project site and the pond by the Cancer Survivor Pavilion, would add to the recreational opportunities available at the east end of the park. The additional park elements resulting from the proposed action and reasonably foreseeable projects would likely increase visitation and parking demand at this end of the park.

Chapter 4. Consultation and Coordination

4.1 Public Involvement

On March 19, 2018, Reclamation mailed a scoping document, including a letter, project information and map, to more than 500 agencies, Indian Tribes, members of Congress, organizations, and individuals, soliciting their help in identifying any issues and concerns related to the Proposed Action. Reclamation received comments from one entity. The mailing list, scoping letters and comments received are presented in Appendix A.

4.2 Agency Consultation and Coordination

4.2.1 National Historic Preservation Act

Reclamation initiated consultation with Idaho SHPO on November 29, 2018. SHPO concurrence with Reclamation's finding on Historic Properties for the project area was completed on December 12, 2018 (Appendix C).

4.2.2 Endangered Species Act

Information regarding species protected under the ESA that have the potential to occur in the project area and vicinity was obtained through the USFWS IPaC online database application (Appendix B) (September 2018).

4.2.3 Clean Water Act

IDEQ water quality standards are discussed in Section 3.3 of this EA. Scoping documents were sent to IDEQ during the 30-day comment period. Necessary Corps permits include a 404 permit and a 401 certification by IDEQ under the Clean Water Act.

4.3 Tribal Consultation and Coordination

Reclamation mailed scoping letters to the Shoshone-Bannock Tribes and Shoshone-Paiute Tribes on March 12, 2018 (Appendix A). No responses or concerns from the Tribes were brought forward during the scoping period. BREN representatives met with the Tribes in Boise on May 11, 2017 and discussed the proposed project and tribal perspectives. BREN representatives attended the Return of the Boise Valley People event on June 15, 2018, at Quarry View Park and presented information to interested tribal and non-tribal individuals.

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Chapter 5. References

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Corps 2013	U.S. Army Corps of Engineers. 2013. Boise River at Eagle Island Ecosystem Restoration Project, Draft Environmental Assessment. Walla Walla District.
Davis 1990	Davis, Belinda. 1990. <i>A Study of Irrigation and the Development of Ada County</i> . Prepared for the Ada County Historic Preservation Council, Boise, ID.
Derig 1996	Derig, B. 1996. <i>Roadside History of Idaho</i> . Mountain Press Publishing Company. Missoula, Montana.
DOE 2010	US Department of Energy. Environmental Assessment, Geothermal Expansion to Boise State University. Golden Field Office, Golden, Colorado, December 2010.
EPA 2017	Environmental Protection Agency. 2017. Summary of the Comprehensive Environmental Response, Compensation and Liability Act. 42 U.S.C. §9601 et seq. (1980). https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act
ESF 2016	Ecosystem Sciences Foundation, 2016. Boise River Fisheries and Aquatic Habitat: literature review, network feedback, key issues and enhancement opportunities. http://www.boiseriverenhancement.org/wp-content/uploads/2016/11/BREN-Fisheries_6_16.pdf . Accessed July 2018.
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Idaho Statesman 1939	Idaho Statesman, 1939. "Cottonwood Creek Gets New Tunnel Near Boise Park," <i>Idaho Statesman</i> , March 9, 1939, p. 2. Boise, Idaho.
IDEQ 2015	Idaho Department of Environmental Quality. 2015. <i>Lower Boise River TMDL: 2015 Total Phosphorus Addendum</i> . Boise, Idaho
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Plew 2000	Plew, M. 2000. <i>The Archaeology of the Snake River Plain</i> . Boise State University Press, Boise, Idaho.
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U.S. Census Bureau 2013	U.S. Census Bureau. 2013, Population, housing units, area, and density, 1990, 2000, and 2010.
U.S. Census Bureau 2017	U.S. Census Bureau. 2017. Quick Facts: Canyon County, Idaho. https://www.census.gov/quickfacts/fact/table/canyoncountyyidaho/PST045216 . Accessed May 2017.
USFWS 2017	U.S. Fish and Wildlife Service. 2017. Species Profile for Slickspot Peppergrass (<i>Lepidium papilliferum</i>). Environmental Conservation Online System. https://ecos.fws.gov/ecp0/profile/speciesProfile.action?spcode=Q34X . Accessed June 2017.
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Vos 2013	Vos, J. 2013. <i>Results of Greenbelt User Survey. Prepared for Boise Parks and Recreation.</i> Boise State University, Department of Community and Regional Planning, Boise Idaho.
Wells and Hart 2000	Wells, M. and Arthur Hart. 2000. <i>Boise: An Illustrated History.</i> American Historical Press, Sun Valley California.
Willmorth 2001	Willmorth, M. 2001. <i>Citizen Survey on Boise River And Greenbelt Issues.</i> Clearwater Research, Inc., Boise, Idaho

Appendix A – Mailing List, Scoping Package, and Responses Received

IDENTICAL LETTER SENT TO:

MEMBERS OF CONGRESS

HONORABLE MIKE CRAPO
UNITED STATES SENATOR
239 DIRKSEN BLDG
WASHINGTON DC 20510

HONORABLE MIKE CRAPO
UNITED STATES SENATOR
ATTN MR LAYNE BANGERTER
251 EAST FRONT ST SUITE 205
BOISE ID 83702

HONORABLE JIM RISCH
UNITED STATES SENATOR
483 RUSSELL BLDG
WASHINGTON DC 20510

HONORABLE JIM RISCH
UNITED STATES SENATOR
ATTN MR MIKE ROACH
350 N 9TH STREET SUITE 302
BOISE ID 83702

HONORABLE RAUL LABRADOR
MEMBER, UNITED STATES HOUSE
OF REPRESENTATIVES
1523 LONGWORTH HOB
WASHINGTON DC 20515

HONORABLE RAUL LABRADOR
MEMBER, UNITED STATES HOUSE
OF REPRESENTATIVES
ATTN MS KRISTY STERNS
33 E BROADWAY AVE SUITE 251
MERIDIAN ID 83642

HONORABLE MIKE SIMPSON
MEMBER, UNITED STATES HOUSE
OF REPRESENTATIVES
2312 RAYBURN HOUSE OFFICE BLDG
WASHINGTON DC 20515

HONORABLE MIKE SIMPSON
MEMBER, UNITED STATES HOUSE
OF REPRESENTATIVES
ATTN MR JOHN REVIER
802 W BANNOCK SUITE 600
BOISE ID 83702-5820

FEDERAL AGENCIES

MR BRIAN T KELLY
DIRECTOR
US FISH & WILDLIFE SERVICE
SNAKE RIVER FISH & WILDLIFE OFFICE
1387 S VINNELL WAY SUITE 368
BOISE ID 83709

STATE AGENCIES & GOVERNMENTS

HONORABLE CL BUTCH OTTER
OFFICE OF THE GOVERNOR
700 W JEFFERSON ST #228
BOISE ID 83720

MR STEPHEN GOODSON
SPECIAL ASSISTANT
OFFICE OF THE GOVERNOR
700 W JEFFERSON ST
BOISE ID 83720

MR SCOTT REINECKER
SUPERVISOR
IDAHO DEPT OF FISH & GAME
SOUTHWEST REGION
3101 S POWERLINE ROAD
NAMPA ID 83686

MR CURT FRANSEN
DIRECTOR
IDAHO DEPT OF ENVIRONMENTAL QUALITY
1410 N HILTON
BOISE ID 83706

MR DAVID LANGHORST
DIRECTOR
IDAHO PARKS & RECREATION DEPT
PO BOX 83720
BOISE ID 83720-0065

HONORABLE CHERIE BUCKNER-WEBB
IDAHO SENATE
DISTRICT 19
2304 W BELLA STREET
BOISE ID 83702

HONORABLE MATHEW W MAT ERPELDING
IDAHO HOUSE OF REPRESENTATIVES
DISTRICT 19
PO BOX 1697
BOISE ID 83701

HONORABLE MELISSA WINTROW
IDAHO HOUSE OF REPRESENTATIVES
DISTRICT 19
1711 RIDENBUAGH STREET
BOISE ID 83702

LOCAL AGENCIES/GOVERNMENTS

HONORABLE DAVE BIETER
MAYOR OF BOISE
150 N CAPITOL BLVD
BOISE ID 83702

HONORABLE STAN RIDGEWAY
MAYOR OF EAGLE
PO BOX 1520
EAGLE ID 83616

HONORABLE JOHN EVANS
MAYOR OF GARDEN CITY
6015 N GLENWOOD STREET
GARDEN CITY ID 83714-1347

HONORABLE TAMMY DE WEERD
MAYOR OF MERIDIAN
33 E BROADWAY AVENUE
MERIDIAN ID 83642

MR STEVE BURGOS
DIRECTOR
BOISE PUBLIC WORKS DEPT
150 N CAPITOL BLVD
BOISE ID 83702

MR DOUG HOLLOWAY
DIRECTOR
BOISE PARKS AND RECREATION
1104 ROYAL BLVD
BOISE ID 83706

ADA COUNTY COMMISSIONERS
200 W FRONT STREET
BOISE ID 83702

MR BRUCE S WONG
DIRECTOR
ADA COUNTY HIGHWAY DISTRICT
3775 ADAMS STREET
GARDEN CITY ID 83714

MR SCOTT KOBERG
DIRECTOR
ADA COUNTY PARKS & WATERWAYS
4049 S ECKERT ROAD
BOISE ID 83716

ADA COUNTY PLANNING & ZONING
200 W FRONT STREET
BOISE ID 83702

PRIVATE ORGANIZATIONS/INDIVIDUALS

IDAHO OUTDOOR ASSOCIATION
PO BOX 15943
BOISE IDAHO 83715

MR KEN LEWIS
EXECUTIVE DIRECTOR
IDAHO RIVERS UNITED
PO BOX 633
BOISE IDAHO 83701

MR BRIAN BROOKS
EXECUTIVE DIRECTOR
IDAHO WILDLIFE FEDERATION
PO BOX 6426
BOISE IDAHO 83707

MR LAIRD LUCAS
LAND AND WATER FUND OF THE ROCKIES
IDAHO OFFICE
PO BOX 1612
BOISE IDAHO 83701

Scoping Information Package

Proposed Cottonwood Creek Daylighting Project

This information package summarizes the proposal from the Boise River Enhancement Network (BREN) to daylight a portion of Cottonwood Creek, a tributary to the Boise River in downtown Boise, Idaho. An open stream channel and new confluence with the Boise River would be created in the City of Boise's Julia Davis Park, and Cottonwood Creek would be diverted out of its current underground flume into the new channel, a process known as 'daylighting'.

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 asking for comment to better identify issues and concerns associated with this proposal.

The U.S. Department of Interior's (Department) WaterSMART (Sustain and Manage America's Resources for Tomorrow) Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities; and coordinate with other Department bureaus and offices on water conservation activities. Through the WaterSMART Grants program, Reclamation provides a 50/50 cost share funding entities and promoting the sustainable use of water resources, improving the *ecological resilience* of rivers and streams, and conserving water for multiple uses through collaborative conservation efforts.

Purpose and Need for Action

Reclamation's purpose for the Proposed Action is to fulfill the WaterSMART grant and to improve ecological resiliency of the Lower Boise River watershed by increasing habitat for fish and wildlife, enhancing floodplains and geomorphic function, restoring vegetation and improving water quality. Daylighting Cottonwood Creek would improve the ecological resilience of the Boise River by creating a confluence zone where additional aquatic and riparian habitat can be established in the surrounding area.

New instream habitat created by the Proposed Project would support additional spawning, rearing, and over-wintering fish habitat, all of which are limiting to the Boise River fishery. Native whitefish, native sculpin, and naturally spawning rainbow and brown trout would benefit. Completion of this project would also create 0.35 acres of riparian and wetland habitat providing new habitat for native wildlife and improving water quality through the capture, filter and removal of pollutants.

Proposed Action

Reclamation proposes to provide funding through a WaterSMART grant to the Boise River Enhancement Network for construction to daylight Cottonwood Creek and the confluence to the Boise River (Figure 1 & 2).

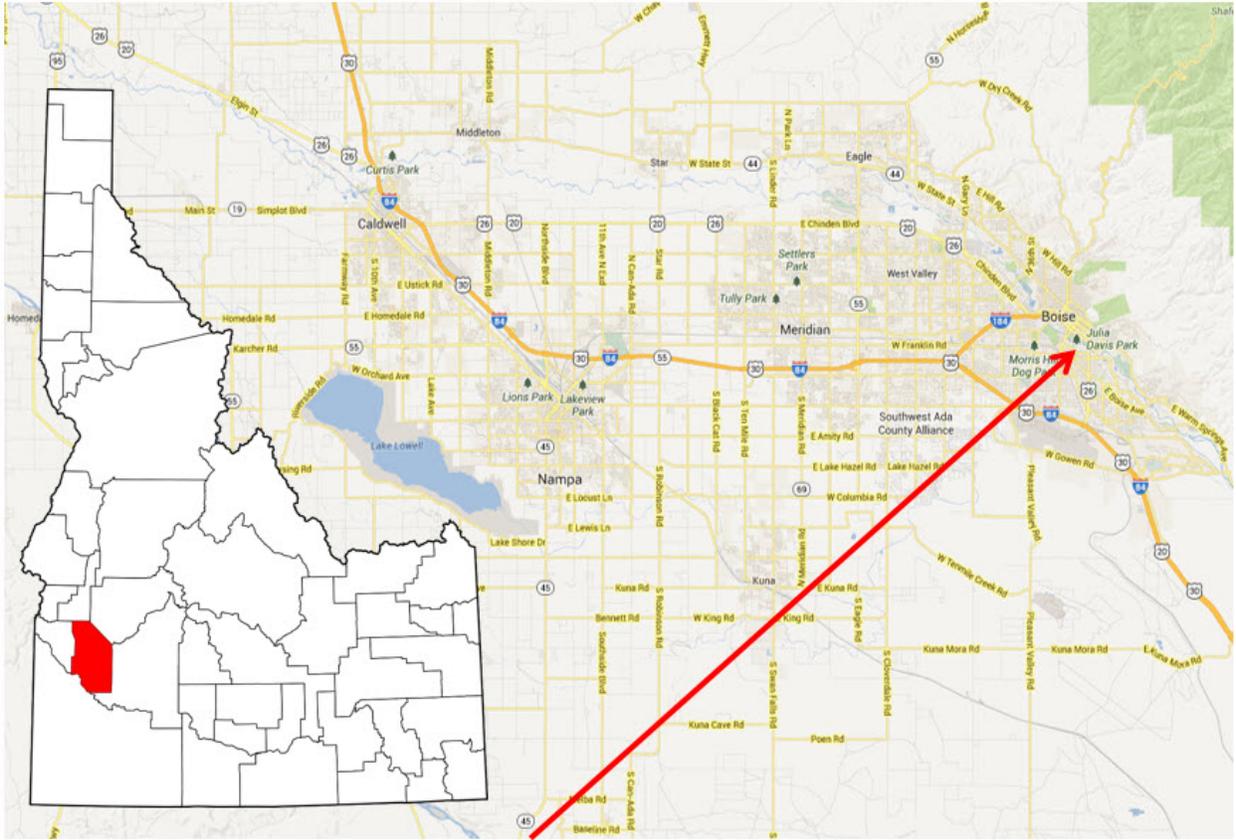


Figure 1. City of Boise with Julia Davis Park indicated, located in Ada Count, Idaho (inset map).

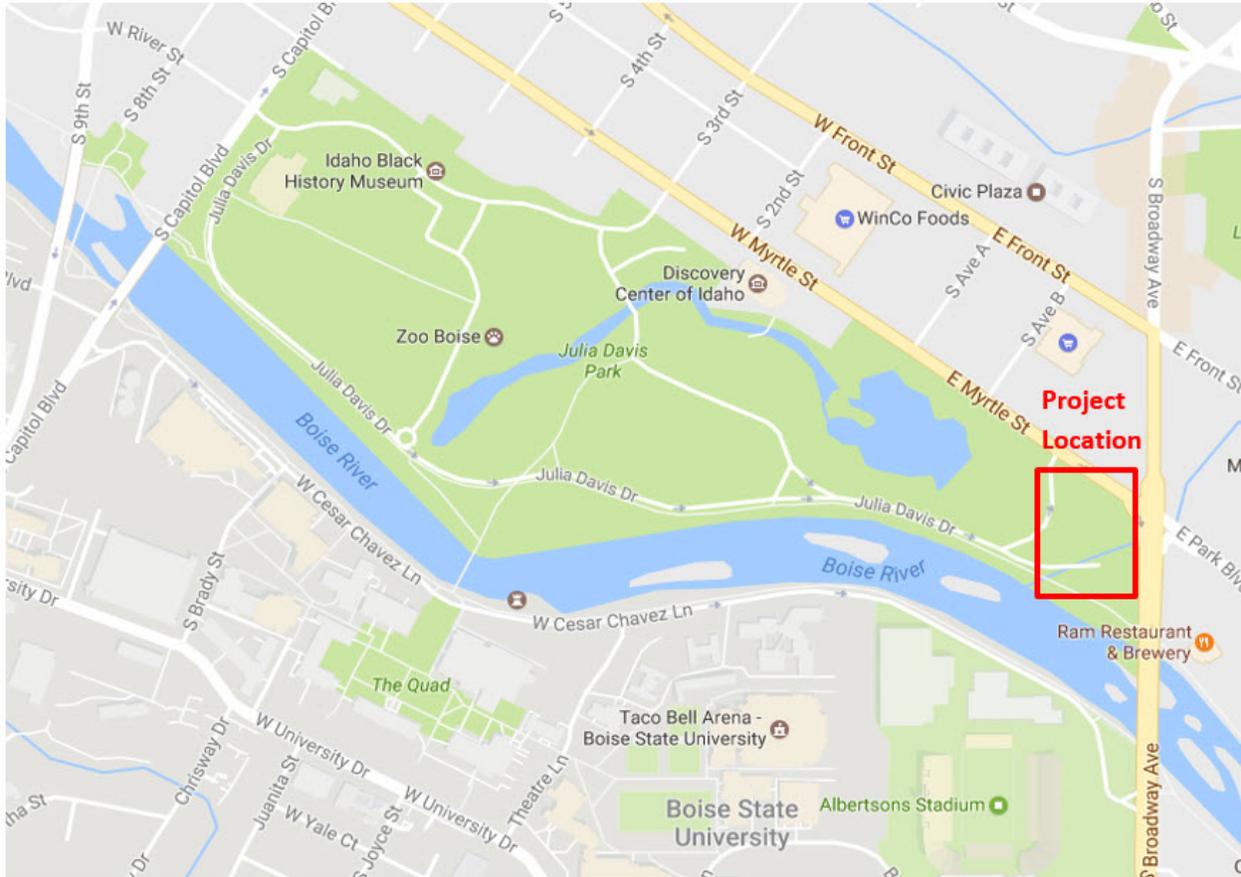


Figure 2. Julia Davis Park with project location indicated, Boise, Idaho.

BRENs proposed project is as described below:

This project will restore the natural function of the last 440 feet of Cottonwood Creek where it enters the Boise River in Julia Davis Park in downtown Boise. The creek has ideal discharge for a small, productive stream. The creek has sufficient grade to produce velocities capable of providing spawning and rearing habitat. Given the existing flume and upstream flood management retention ponds, the creek should have an overall low sediment production which is attractive to producing quality pools.

Based on the limiting factors and potential of Cottonwood Creek, the following design goals are proposed:

- Create a small channel with potential spawning, rearing, and over-wintering habitat
- Create an attractive stream with a deep channel, capable of moving fine sediments
- Maintain flood conveyance
- Use channel design and vegetation to capture, filter and remove pollutants
- Provide interpretation and conservation education
- Enhance Julia Davis Park values by bringing the Boise River corridor experience into the park
- Restore the long-lost stream and riparian environment to increase ecological resiliency

Existing Condition

The project is located in Ada County on the Boise River in downtown Boise, Idaho. Cottonwood Creek drains an 8,000-acre watershed of the Boise Front, north of downtown Boise. At the point where the creek meets the valley floor, it enters a flume for approximately 1.5 miles to its terminus in the Boise River underneath Julia Davis Park near the intersection of Broadway Avenue and Myrtle Street in downtown Boise (Figure 1 & 2). The last 2,500 feet of the creek that lies underneath Julia Davis and of that, approximately 440 feet of the flume is practicable for daylighting due to its location in a public park.

Preliminary Alternative Development

The environmental assessment would include consideration of the Proposed Action Alternative and the No Action Alternative. Additionally, alternatives would be developed with the identified issues throughout the NEPA process.



STATE OF IDAHO
DEPARTMENT OF ENVIRONMENTAL QUALITY
BOISE REGIONAL OFFICE
1445 North Orchard Street • Boise, ID 83706-2239 • (208) 373-0550

BUREAU OF RECLAMATION
SNAKE RIVER AREA OFFICE
BOISE, IDAHO
RECEIVED

APR 11 18

DEQ Response to Request for Environmental Comment

Date: April 6, 2018
Agency Requesting Comments: U.S. Department of Interior: Bureau of Reclamation
Date Request Received: March 23, 2018
Applicant/Description: WaterSMART Grant to Daylight Cottonwood Creek in Julia Davis Park, Arrowrock Division, Boise Project

Thank you for the opportunity to respond to your request for comment. While DEQ does not review projects on a project-specific basis, we attempt to provide the best review of the information provided. DEQ encourages agencies to review and utilize the Idaho Environmental Guide to assist in addressing project-specific conditions that may apply. This guide can be found at <http://www.deq.idaho.gov/ieg/>.

The following information does not cover every aspect of this project; however, we have the following general comments to use as appropriate:

1. Air Quality

- Please review IDAPA 58.01.01 for all rules on Air Quality, especially those regarding fugitive dust (58.01.01.651), trade waste burning (58.01.01.600-617), and odor control plans (58.01.01.776).

For questions, contact David Luft, Air Quality Manager, at 373-0550.

- IDAPA 58.01.01.201 requires an owner or operator of a facility to obtain an air quality permit to construct prior to the commencement of construction or modification of any facility that will be a source of air pollution in quantities above established levels. DEQ asks that cities and counties require a proposed facility to contact DEQ for an applicability determination on their proposal to ensure they remain in compliance with the rules.

For questions, contact the DEQ Air Quality Permitting Hotline at 1-877-573-7648.

2. Wastewater and Recycled Water

- DEQ recommends verifying that there is adequate sewer to serve this project prior to approval. Please contact the sewer provider for a capacity statement, declining balance report, and willingness to serve this project.
- IDAPA 58.01.16 and IDAPA 58.01.17 are the sections of Idaho rules regarding wastewater and recycled water. Please review these rules to determine whether this or future projects will require DEQ approval. IDAPA 58.01.03 is the section of Idaho rules regarding subsurface disposal of wastewater. Please review this rule to determine whether this or future projects will require permitting by the district health department.

All projects for construction or modification of wastewater systems require

preconstruction approval. Recycled water projects and subsurface disposal projects require separate permits as well.

- *DEQ recommends that projects be served by existing approved wastewater collection systems or a centralized community wastewater system whenever possible. Please contact DEQ to discuss potential for development of a community treatment system along with best management practices for communities to protect ground water.*
- *DEQ recommends that cities and counties develop and use a comprehensive land use management plan, which includes the impacts of present and future wastewater management in this area. Please schedule a meeting with DEQ for further discussion and recommendations for plan development and implementation.*

For questions, contact Todd Crutcher, Engineering Manager, at 373-0550.

3. Drinking Water

- *DEQ recommends verifying that there is adequate water to serve this project prior to approval. Please contact the water provider for a capacity statement, declining balance report, and willingness to serve this project.*
- *IDAPA 58.01.08 is the section of Idaho rules regarding public drinking water systems. Please review these rules to determine whether this or future projects will require DEQ approval.*

All projects for construction or modification of public drinking water systems require preconstruction approval.

- *DEQ recommends verifying if the current and/or proposed drinking water system is a regulated public drinking water system (refer to the DEQ website at <http://www.deq.idaho.gov/water-quality/drinking-water.aspx>). For non-regulated systems, DEQ recommends annual testing for total coliform bacteria, nitrate, and nitrite.*
- *If any private wells will be included in this project, we recommend that they be tested for total coliform bacteria, nitrate, and nitrite prior to use and retested annually thereafter.*
- *DEQ recommends using an existing drinking water system whenever possible or construction of a new community drinking water system. Please contact DEQ to discuss this project and to explore options to both best serve the future residents of this development and provide for protection of ground water resources.*
- *DEQ recommends cities and counties develop and use a comprehensive land use management plan which addresses the present and future needs of this area for adequate, safe, and sustainable drinking water. Please schedule a meeting with DEQ for further discussion and recommendations for plan development and implementation.*

For questions, contact Todd Crutcher, Engineering Manager at 373-0550.

4. Surface Water

- *A DEQ short-term activity exemption (STAE) from this office is required if the project will involve de-watering of ground water during excavation and discharge back into surface water, including a description of the water treatment from this process to prevent excessive sediment and turbidity from entering surface water.*
- *Please contact DEQ to determine whether this project will require a National Pollution*

Discharge Elimination System (NPDES) Permit. If this project disturbs more than one acre, a stormwater permit from EPA may be required.

- *If this project is near a source of surface water, DEQ requests that projects incorporate construction best management practices (BMPs) to assist in the protection of Idaho's water resources. Additionally, please contact DEQ to identify BMP alternatives and to determine whether this project is in an area with Total Maximum Daily Load stormwater permit conditions.*
- *The Idaho Stream Channel Protection Act requires a permit for most stream channel alterations. Please contact the Idaho Department of Water Resources (IDWR), Western Regional Office, at 2735 Airport Way, Boise, or call 208-334-2190 for more information. Information is also available on the IDWR website at: <http://www.idwr.idaho.gov/WaterManagement/StreamsDams/Streams/AlterationPermit/AlterationPermit.htm>*
- *The Federal Clean Water Act requires a permit for filling or dredging in waters of the United States. Please contact the US Army Corps of Engineers, Boise Field Office, at 10095 Emerald Street, Boise, or call 208-345-2155 for more information regarding permits.*

For questions, contact Lance Holloway, Surface Water Manager, at 373-0550.

5. Hazardous Waste And Ground Water Contamination

- ***Hazardous Waste.*** *The types and number of requirements that must be complied with under the federal Resource Conservations and Recovery Act (RCRA) and the Idaho Rules and Standards for Hazardous Waste (IDAPA 58.01.05) are based on the quantity and type of waste generated. Every business in Idaho is required to track the volume of waste generated, determine whether each type of waste is hazardous, and ensure that all wastes are properly disposed of according to federal, state, and local requirements.*
- *No trash or other solid waste shall be buried, burned, or otherwise disposed of at the project site. These disposal methods are regulated by various state regulations including Idaho's Solid Waste Management Regulations and Standards, Rules and Regulations for Hazardous Waste, and Rules and Regulations for the Prevention of Air Pollution.*
- ***Water Quality Standards.*** *Site activities must comply with the Idaho Water Quality Standards (IDAPA 58.01.02) regarding hazardous and deleterious-materials storage, disposal, or accumulation adjacent to or in the immediate vicinity of state waters (IDAPA 58.01.02.800); and the cleanup and reporting of oil-filled electrical equipment (IDAPA 58.01.02.849); hazardous materials (IDAPA 58.01.02.850); and used-oil and petroleum releases (IDAPA 58.01.02.851 and 852).*

Petroleum releases must be reported to DEQ in accordance with IDAPA 58.01.02.851.01 and 04. Hazardous material releases to state waters, or to land such that there is likelihood that it will enter state waters, must be reported to DEQ in accordance with IDAPA 58.01.02.850.

- ***Ground Water Contamination.*** *DEQ requests that this project comply with Idaho's Ground Water Quality Rules (IDAPA 58.01.11), which states that "No person shall cause or allow the release, spilling, leaking, emission, discharge, escape, leaching, or disposal of a contaminant into the environment in a manner that causes a ground water*

quality standard to be exceeded, injures a beneficial use of ground water, or is not in accordance with a permit, consent order or applicable best management practice, best available method or best practical method."

For questions, contact Albert Crawshaw, Waste & Remediation Manager, at 373-0550.

6. Additional Notes

- *If an underground storage tank (UST) or an aboveground storage tank (AST) is identified at the site, the site should be evaluated to determine whether the UST is regulated by DEQ. EPA regulates ASTs. UST and AST sites should be assessed to determine whether there is potential soil and ground water contamination. Please call DEQ at 373-0550, or visit the DEQ website (<http://www.deq.idaho.gov/waste-mgmt-remediation/storage-tanks.aspx>) for assistance.*
- *If applicable to this project, DEQ recommends that BMPs be implemented for any of the following conditions: wash water from cleaning vehicles, fertilizers and pesticides, animal facilities, composted waste, and ponds. Please contact DEQ for more information on any of these conditions.*

We look forward to working with you in a proactive manner to address potential environmental impacts that may be within our regulatory authority. If you have any questions, please contact me, or any our technical staff at 208-373-0550.

Sincerely,



Aaron Scheff
aaron.scheff@deq.idaho.gov
Regional Administrator
Boise Regional Office
Idaho Department of Environmental Quality

ec: TRIM 2018AEK43

**Appendix B – Threatened and Endangered Species Data:
USFWS Information for Planning and Consultation (IPaC)
Report**

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.

Location

Ada County, Idaho



Local office

Idaho Fish And Wildlife Office

☎ (208) 378-5243

📠 (208) 378-5262

1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657

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. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ 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 Fisheries²).

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.
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 **proposed** critical habitat for this species. Your location is outside the critical habitat.

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

Flowering Plants

NAME

STATUS

Slickspot Peppergrass *Lepidium papilliferum*

Threatened

There is **proposed** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/4027>

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 Act¹ and the Bald and Golden Eagle Protection Act².

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 off 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.)
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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</p>	Breeds Dec 1 to Aug 31
<p>Brewer's Sparrow <i>Spizella breweri</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9291</p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680</p>	Breeds Dec 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

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

<https://ecos.fws.gov/ecp/species/9408>

Long-billed Curlew *Numenius americanus*

Breeds Apr 1 to Jul 31

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

<https://ecos.fws.gov/ecp/species/5511>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3914>

Sage Thrasher *Oreoscoptes montanus*

Breeds Apr 15 to Aug 10

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

<https://ecos.fws.gov/ecp/species/9433>

Willow Flycatcher *Empidonax traillii*

Breeds May 20 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3482>

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.

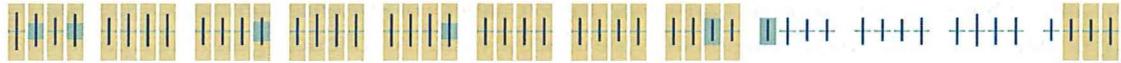
Probability of Presence (■)

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

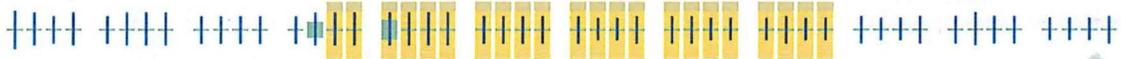
Golden Eagle
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



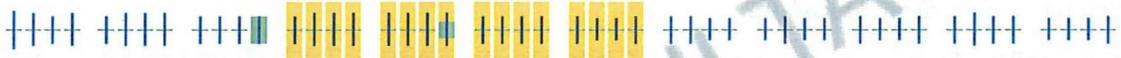
Lesser Yellowlegs
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



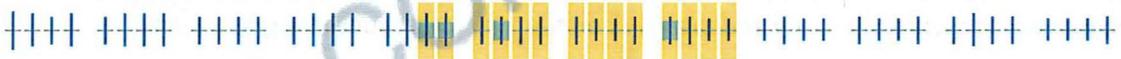
Lewis's Woodpecker
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



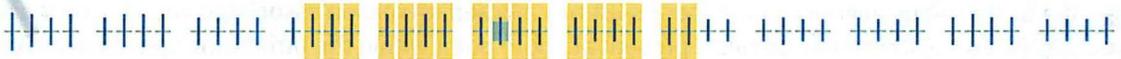
Long-billed Curlew
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



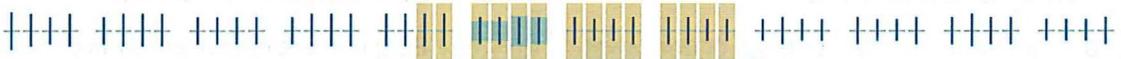
Olive-sided Flycatcher
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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



Willow Flycatcher
 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](#) and/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 [E-bird Explore Data 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 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

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

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 FORESTED/SHRUB WETLAND

[PFO1A](#)

RIVERINE

[R3UBH](#)

[R3USC](#)

[R5UBFx](#)

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 specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**Appendix C – State Historic Preservation Officer
Concurrence Letter**



IDAHO STATE
HISTORICAL
SOCIETY

BUREAU OF RECLAMATION
SNAKE RIVER AREA OFFICE
BOISE, IDAHO
RECEIVED

DEC -7 18

3 December 2018



Jenny Huang
Bureau of Reclamation
230 Collins Road
Boise, Idaho 83702-4520

**Re: Cottonwood Creek Daylighting Project, Boise, Idaho
SHPO# 2019-189**

C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director
State Historic
Preservation Officer

Administration:
2205 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2662
Fax: 208.334.2774

Idaho State Museum:
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208.334.2120

**Idaho State Archives
and State Records
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**State Historic
Preservation Office:**
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Boise, Idaho 83702
208.334.3861

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

HISTORY.IDAHO.GOV

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BOISE
208.334.2662

5075 N. 300
BOISE, IDAHO 83704
208.334.2662

1891 SCOTT BLVD
BOISE, IDAHO 83725
208.334.2662

Dear Ms. Huang:

Thank you for consulting with our office on the above referenced project. We understand the scope of work includes the daylighting of Cottonwood Creek, including the removal of the historic buried sandstone flume, located within Julia Davis Park in Boise, Ada County, Idaho.

After reviewing the project submittal, SHPO concurs that both the Cottonwood Creek Flume (MSFO-19-01) and Julia Davis Park (01-23290) are eligible for listing in the National Register of Historic Places. Pursuant to 36 CFR 800, we have applied the criteria of effect to the proposed undertaking. Based on the information received 30 November 2018, we further concur that the daylighting of Cottonwood Creek, and specifically the removal of the buried sandstone flume, will result in an **adverse effect** to MSFO-19-01.

We look forward to working with you to avoid, minimize or mitigate this adverse effect. If you have any questions, please contact me via phone or email at 208.488.7468 or matt.halitsky@ishs.idaho.gov.

Sincerely,

Matthew Halitsky, AICP
State Architectural Historian
Idaho State Historic Preservation Office

