

RECLAMATION

Managing Water in the West

Draft Environmental Assessment Echo Recreation Development

PRO-EA-18-008

Upper Colorado Region
Provo Area Office
Provo, Utah



U.S. Department of the Interior
Bureau of Reclamation
Provo Area Office
Provo, Utah

May 2018

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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.

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Upper Colorado Region
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U.S. Department of the Interior
Bureau of Reclamation
Provo Area Office
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May 2018

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Chapter 1 Purpose of and Need for Proposed Action

1.1 Introduction

This Environmental Assessment (EA) was prepared to examine the potential environmental impacts of the rehabilitation of the recreation facilities at Echo Reservoir, proposed by the U.S. Bureau of Reclamation in Summit County, Utah. If approved, public recreational facilities would be designed and constructed around Echo Reservoir.

This EA evaluates the potential effects of the Proposed Action in order to determine whether it would cause significant impacts to the human or natural environment, as defined by the National Environmental Policy Act (NEPA) of 1969. If the EA shows no significant impacts associated with implementation of the proposed Project, then a Finding of No Significant Impact (FONSI) will be issued by Reclamation. Otherwise, an Environmental Impact Statement will be necessary prior to implementation of the Proposed Action.

1.2 Background

Echo Dam and Reservoir are features of the Weber River Project and are located in Summit County, Utah, on the Weber River, adjacent to the city of Coalville and 28 miles northeast of Salt Lake City. The Weber River Project was completed by Reclamation in 1931. Echo Dam and Reservoir are owned by Reclamation and operated and maintained by the Weber River Water Users Association (WRWUA) under contract with Reclamation. The Reservoir provides irrigation water for about 109,000 acres of land east of the Great Salt Lake along the heavily populated Wasatch Front and has a total storage capacity of approximately 74,000 acre-feet. Echo Reservoir sits 5,560 feet above sea level with a water surface area of 1,484 acres at full capacity and a maximum depth of 102 feet.

On June 16, 1986, Reclamation entered into a 50-year Concession Agreement with Echo Incorporated, a private concessionaire, to operate and maintain a recreation facility on Federal property along the eastern shores of Echo Reservoir. On November 1, 2011, Echo Incorporated entered into a License Agreement to designate additional Federal lands as part of the recreation facility and to further define the duties and responsibilities necessary to operate the recreational facilities at Echo Reservoir.

Under the management of Echo Incorporated, and under the terms of the Concession Agreement and License Agreement (Agreements), Echo Resort offered many diverse opportunities including boating, camping, swimming, picnicking, fishing, water sport equipment rentals, and a restaurant/general store. The resort was a place of wholesome recreation for individuals and families and an asset to the community of Coalville, Utah for decades. Despite the opportunities provided, time has taken its toll on the facilities, leaving them in an aged and dilapidated state. In order to revitalize the recreational facilities and regain management of the park, Reclamation and Echo Incorporated mutually agreed, on September 6, 2017, to exercise the termination provisions of the Agreements. By doing so, Reclamation regained control and management of the land and facilities.

Reclamation now plans to provide new and rehabilitated recreational facilities at Echo Reservoir that are consistent with its other water-based recreational facilities in the area and that comply with Federal recreation regulations. This will be a joint venture between Reclamation and the Utah Department of Natural Resources, Division of State Parks and Recreation (State Parks).

1.3 Purpose of and Need for Proposed Action

The purpose of the Proposed Action is to:

- Provide high-quality recreation experiences and diverse developed camping opportunities while protecting water quality and natural, cultural, and other resources including Indian trust assets, and ensuring compatibility with the primary purpose of the Weber River Project.
- Provide sustainable recreation facilities adequate to meet current public demand.
- Improve overall public recreation opportunities at Echo Reservoir.

The need for the Proposed Action is driven by:

- Required improvements of existing aging recreational facilities in accordance with Federal recreation regulations.
- Desires to diversify recreational facilities and uses to enhance visitor experiences at the Reservoir.
- Changing demographics and trends.
- Desire for high quality restroom, shower, and campsite conditions.
- Safety for, and accessibility to, all U.S. citizens.

1.4 Public Scoping and Involvement

This section contains an overview of public scoping and involvement that occurred throughout the NEPA process. Key events included:

1. A public scoping meeting on March 1, 2018. Approximately 50 people attended to provide comments on the proposed designs.
2. A total of 1,653 letters were sent to residents of Summit County, and city, county, and State officials, notifying them of the scoping meeting.
3. A public meeting for the Draft EA will be held May 2, 2018, at the North Summit High School.
4. A 30-day comment period will take place from April 18, 2018, to May 21, 2018.
5. A total of 1693 letters were sent to residents of Summit County, as well as city, county, and State officials, notifying them of the availability of the Draft EA online and of the public meeting.
6. An email list was compiled for those that expressed interest in further correspondence on the Project. Emails were sent to 60 people notifying them of the availability of the Draft EA online and of the public meeting.

1.5 Permits and Authorizations

Implementation of the Proposed Action may require a number of authorizations or permits from state and Federal agencies. Reclamation and/or the State would be responsible for obtaining all permits and authorizations required for the Project. Potential authorizations or permits may include those listed in Table 1-2.

Table 1-2
Permits and Authorizations

Agency/Department	Purpose
Utah Division of Water Quality	Storm Water Discharge Permit under Section 402 of the Clean Water Act (CWA) if water is to be discharged as a point source into natural streams or creeks.
State of Utah Department of Natural Resources, Division of Water Rights (UDWRi)	Stream Alteration Permit under Section 404 of the CWA and Utah statutory criteria of stream alteration described in the Utah Code. This would apply for impacts to Chalk Creek during Project construction.

Agency/Department	Purpose
State of Utah Department of Natural Resources, Division of Water Rights (DWRi)	Additional water rights may need to be acquired through the office of DWRi.
Utah State Historic Preservation Office	Consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA), 16 USC 470 USC 470.
United States Army Corps of Engineers (USACE)	A USACE permit, in compliance with Section 404 of the CWA, would be required prior to the discharge of dredged or fill material into “waters of the United States”, including wetlands. This would apply for impacts at the Red Rock Day Use Area and Chalk Creek Campground.
Bureau of Reclamation	An agreement with the State for the management of recreation at Echo Reservoir would be acquired prior to construction.

1.6 Related Projects and Documents

1.6.1 Eleven Park Agreement

Reclamation entered into a Memorandum of Agreement (MOA) with State Parks in 2003 to turn management of recreation activities over to them. The MOA allowed State Parks to manage recreation at 11 of Reclamation’s reservoirs in Utah. The MOA is set to expire in 2023.

1.6.2 Twelve Park Agreement

Reclamation is developing a new Agreement at the request of State Parks for management of recreation at 12 of Reclamation’s reservoirs in Utah. The new Agreement would include Echo Reservoir, unlike the 2003 MOA. Environmental compliance for this action is ongoing.

1.6.3 Echo Dam Safety of Dams Modification EA

An EA was completed in 2009 to identify impacts of modifying the dam’s foundation and spillway. The work was completed in 2014.

1.7 Scope of Analysis

The purpose of this EA is to determine whether or not Reclamation should authorize the development of recreation at Echo Reservoir by the State. That determination includes consideration of whether there would be significant

impacts to the human and natural environment. In order to construct, operate, and maintain recreation facilities at Echo Reservoir, this EA must be completed and a FONSI issued. Analysis in the EA includes temporary impacts from construction activities and permanent impacts as a result of implementing the Proposed Action.

Chapter 2 Alternatives

2.1 Introduction

This chapter describes the features of the No Action and Proposed Action Alternatives. It includes a description of each alternative considered and presents the alternatives in comparative form, defining the differences between each alternative.

2.2 No Action

Under the No Action, Reclamation would not develop recreation opportunities at Echo Reservoir. Reclamation would provide only basic facilities (access to boat ramp, vault toilets, etc.) for visitors to Echo Reservoir.

2.3 Proposed Action

The Proposed Action would enable State Parks and Reclamation to upgrade facilities and develop recreational opportunities at Echo Reservoir. This would enhance the visitor experience at Echo Reservoir and provide economic benefit to the community. Implementation of the rehabilitation Project would be phased-in over multiple years as funding is available.

In the Proposed Action, State Parks and Reclamation would address the purpose and need and ensure consistency with Federal recreation regulations. The existing aging facilities and infrastructure would be removed or brought into compliance with state and Federal regulations, including the Americans with Disabilities Act (ADA) regulations as codified in the Code of Federal Regulations (CFR) at 28 CFR parts 35 (title II) and 36 (title III).

The Proposed Action includes but is not limited to:

1. Red Rock Cabin Area Development:
 - Cabins would be installed to give visitors a more developed overnight camping experience. Specific actions for each cabin area include:
 - Power, heating, air conditioning, microwave, refrigerator, and beds
 - Parking for 2 vehicles per cabin

- Table, fire ring, and cooking grill
- ADA compatible cabins would be available
- Restroom/shower facility
- Beach and water access would be non-motorized access only
- Parking area with extra parking spaces for additional vehicles and trailers
- Camp host site

2. Red Rock Day Use Area Development:

- Multi-lane motorized watercraft launch ramp with courtesy boat dock
- Multi-lane non-motorized watercraft launch ramp
- Parking for vehicles and trailers with ADA compatible stalls
- Shade pavilions with picnic tables including ADA accessible sites
- Beach and water access via motorized vehicle with 15 mile-per-hour speed limit
- Wakeless area
- Restrooms facilities
- Concession buildings
- Watercraft decontamination station
- Fish cleaning station

3. Dry Hollow Campground Development:

- Recreational vehicle (RV)/tent camping sites
- Partial hook-ups
- Group use sites
- Beach camping with personal self-contained portable toilet
- Vault toilets
- Camp host sites

4. Ranger Overlook Development:

- Parking area for year-round reservoir walk-in access
- Motorized vehicle access point to wakeless area
- Park Ranger residence
- Maintenance area
- RV dump station with garbage collection location

5. Chalk Creek Area Development:

- RV/tent camping sites
- Camp host site
- River and wakeless area access

- Restroom/shower facilities
- Group use sites
- Open grass areas
- Playground/sports court

2.4 Alternatives Considered and Eliminated from Further Study

The following alternatives identified during public scoping were evaluated but eliminated because they were not authorized under the CFRs or were outside the scope of the Proposed Action.

2.4.1 Long-Term Overnight Camping

Under the management of Echo Incorporated, and under the terms of the Agreements, Echo Resort offered permanent and seasonal camping spots. During public scoping for the proposed Project, allowing long-term overnight permanent camping spots and spots for seasonal camping was requested.

This alternative was considered and eliminated from further analysis based on Federal regulations found in 43 CFR 423.33, which states “You must not camp on Reclamation lands at any single Reclamation project for more than 14 days during any period of 30 consecutive days.”

2.4.2 Developing the Historic Union Pacific Rail Trail

The 28-mile Union Pacific Rail Trail runs alongside the eastern edge of Echo State Park and provides non-motorized recreational opportunities. Approximately 4.5 miles of the trail runs adjacent to the park. The majority of the 15-foot-wide trail consists of a graveled surface while a 1-mile section through Coalville has been paved. During public scoping it was expressed that improvements to, and management of, the trail were incorporated into the Proposed Action.

This alternative was considered and eliminated from further analysis because the Historic Union Pacific Rail Trail is managed as a separate State Park and is outside the scope of the Proposed Action.

Chapter 3 Affected Environment and Environmental Consequences

3.1 Introduction

This chapter describes the environment that could be affected by the Proposed Action. These impacts are discussed under the following resource issues: geology and soils resources; visual resources; cultural resources; paleontological resources; wilderness and wild and scenic rivers; hydrology; water quality; system operations; health, safety, air quality, and noise; prime and unique farmlands; flood plains; wetlands, riparian, noxious weeds and existing vegetation; fish and wildlife resources; threatened, endangered, and sensitive species; recreation; socioeconomics; access and transportation; water rights; Indian Trust Assets (ITAs); environmental justice; and cumulative effects. The present condition or characteristics of each resource are discussed first, followed by a discussion of the predicted impacts caused by the Proposed Action. The environmental effects are summarized in Section 3-7.

Implementing minimization measures would ensure impacts are minimized and short-term. Chapter 3 presents the impact analysis for resources after minimization measures and Best Management Practices (BMPs) have been successfully implemented.

3.2 Resources Considered and Eliminated from Further Analysis

The following resources were considered but eliminated from further analysis because they did not occur in the Project area or because their effect is so minor (negligible) that it was discounted.

**Table 3-1
Resources Eliminated from Further Analysis**

Resource	Rationale for Elimination from Further Analysis
Geology and Soil Resources	All construction with the exception of some areas in Chalk Creek Campground are already heavily disturbed with no natural geologic characteristics remaining. The Chalk

Resource	Rationale for Elimination from Further Analysis
	Creek Campground is less than 6 acres, with even less area where disturbance would occur below the topsoil. Therefore, the effects of the Proposed Action on these resources would be negligible.
System Operations	No changes in water operations or delivery systems are being considered as part of the Proposed Action. Therefore, there would be no effect to this resource.
Floodplain	Although work would occur within the 100-year floodplain, that work would not alter the floodplain in such a way as to change the characteristics of the floodplain. Therefore, there would be no effect to floodplains.
Unique and Prime Farmland	There are no unique or prime farmlands within the Project area. Therefore, there would be no impact to this resource.
Wilderness, and Wild and Scenic Rivers	There is no wilderness nor wild and scenic rivers in the Project area. Therefore, there would be no impact to this resource.
Hydrology	No effects to hydrology due to the Proposed Action could be identified (e.g., altered runoff volumes, flow rates, timing, basin characteristics, etc.).

3.3 Affected Environment and Environmental Consequences

This chapter describes the affected environment (baseline conditions) and environmental consequences (impacts as a result of the Proposed Action) on the quality of the human environment that could be impacted by construction and operation of the Proposed Action, as described in Chapter 2. The human environment is defined in this study as all of the environmental resources, including social and economic conditions occurring in the impact area of influence.

3.3.1 Visual Resources

The Visual Management System (VMS) developed by the Forest Service uses distance zones, variety class, and sensitivity level to establish Visual Quality Objectives (VQOs) for various landscape types. Visual Quality Objectives for the areas within the Project boundary are shown in the table below and represent existing visual quality in the area.

There is one VQO identified at Echo State Park, Maximum Modification, which reflects the developed and modified nature of the landscape throughout the area.

The VQO is as follows: Maximum Modification - Management activities of vegetative and landform alterations may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type. When viewed as foreground or middleground, they may not appear to borrow completely from naturally established form, line, color, or texture. Alterations may also be out of scale or contain detail which is incongruent with natural occurrences as seen in foreground or middleground. Introduction of additional parts to these activities such as structures, roads, slash, and root wads must remain visually subordinate to the proposed composition as viewed in background. Reduction of contrast should be accomplished within 5 years.

**Table 3-2
VISUAL QUALITY OBJECTIVES BY AREA**

RED ROCK CABIN AREA	Maximum Modification
RED ROCK DAY USE	Maximum Modification
DRY HOLLOW CAMPGROUND	Maximum Modification
RANGER OVERLOOK	Maximum Modification
CHALK CREEK CAMPGROUND	Maximum Modification

Visual integrity objectives serve as the base to monitor future visual changes associated with land and resource use.

Echo Reservoir is located in a narrow valley that shares space with Coalville City to the south, Interstate 80 (I-80) to the west, Echo Dam Road to the east and the Interstate 84 (I-84) /I-80 junction to the north. The reservoir is in a high desert setting and is surrounded by natural area containing pinyon and juniper landscapes along with sagebrush. It also is surrounded by mature cottonwood trees along the high water mark with willow species scattered throughout the reservoir basin.

3.3.1.1 No Action

The No Action Alternative would result in the area remaining as a previously disturbed area in its current state.

3.3.1.2 Proposed Action

The Proposed Action Alternative would result in moderate changes to the visual resources. The most noticeable change to visual resources would be in the Chalk Creek Campground area. This area has never been used as a designated recreation area before and is the former site of the Coalville City Wastewater Treatment Plant. The treatment plant was relocated in 2016 and the site was reclaimed. The Ranger Overlook area is currently a pasture and a parking lot used as an access point for the reservoir basin. The Dry Hollow Campground is previously designated as a campground with some development. The majority of the area is dispersed camping with a few designated RV/tent camping sites. The Red Rock area is the most developed and has been used as a park/camping facility. The moderate changes to visual resources would be to the vegetation in the development. Some old growth vegetation would have to be removed for construction. Revegetation would occur after completion of construction. Each of the areas, not including Chalk Creek, that are proposed for further development have had some impact from previous development and the areas are no longer considered natural.

3.3.2 Cultural Resources

Cultural resources are defined as physical or other expressions of human activity or occupation that are over 50 years in age. Such resources include culturally significant landscapes, prehistoric and historic archaeological sites as well as isolated artifacts or features, traditional cultural properties, Native American and other sacred places, and artifacts and documents of cultural and historic significance.

Section 106 of the NHPA of 1966, as amended, mandates that Reclamation take into account the potential effects of a proposed Federal undertaking on historic properties. Historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP). Potential effects of the described alternatives on historic properties are the primary focus of this analysis.

In compliance with the regulations specified in Section 106 of the NHPA (36 CFR 800.16), the affected environment for cultural resources is identified as the area of potential effects (APE). The APE is defined as the geographic area within which Federal actions may directly or indirectly cause alterations in the character or use of historic properties. The APE for this Proposed Action includes the area that could be physically affected by any of the proposed Project alternatives (the maximum limit of disturbance).

Reclamation archaeologists completed a Class I literature review for the Project APE in November 2017 and February 2018 and conducted Class III cultural resource inventories periodically from November 2017 to March 2018. A total of 132.7 acres of the Project APE were intensively surveyed in 2017 and 2018 under

Utah Department of State History (UDSH) number U18BE0081. The purpose of these surveys was to identify cultural resources and determine Project effects on resources. About 7 acres of the Chalk Creek Project area were previously surveyed in 2008 under USDH project number U08ST0935. There are 6 cultural resources that have been identified within the Project APE and all of them are historic period resources. Cultural resources within the Project area include the previously recorded remains of a stone structure, a concrete slab bridge, fragmented artifacts that are likely associated with a house from the 1890s (since demolished and removed), and the Union Pacific Railroad (UPRR) Echo and Park City Branch corridor (now the Rail Trail from park City to Echo). Cultural resources that were located during the 2017 and 2018 surveys include the remains of a brick and stone structure and an historic trailer isolated find.

In accordance with 36 CFR 800.4, these sites were evaluated for significance in terms of NRHP eligibility. The significance criteria applied to evaluate cultural resources are defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

1. that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. that have yielded, or may be likely to yield, information important in prehistory or history.

Based upon these criteria, Reclamation has recommended that only the UPRR Echo to Park City Branch corridor is eligible for inclusion on the NRHP and all other identified resources in the Project APE are not eligible. The Project report including site records and NRHP evaluations were submitted to the UDSH on April 2, 2018, and the Utah State Historic Preservation Office (SHPO) concurred with Reclamation's determinations of eligibility. As an eligible resource, any changes to the railroad corridor that alters its structure or function or impacts aspects of historic integrity could result in an adverse effect to the resource.

3.3.2.1 No Action

Under the No Action Alternative, there would be no effects to cultural resources. There would be no ground disturbance or construction associated with construction activities. Existing conditions would continue.

3.3.2.2 Proposed Action

The historic UPRR Echo to Park City Branch runs through the Project area from Chalk Creek to the Echo Dam. As previously addressed in Section 3.3.3, this site is now the Park City to Echo Rail Trail, a recreational trail that continues for about 28 miles from Park City to Echo, Utah, along the old railroad corridor on the east side of Echo Reservoir. The segment of the site within and adjacent to the Project area has been found eligible for inclusion on the NRHP. The Proposed Action includes no alterations to the existing trail but there are three existing reservoir access routes that cross the trail that may be modified or improved as part of the Project. These areas total about 350 feet. These small changes would not constitute an adverse effect to the site as they would not alter the trail function, impact integrity, or change those aspects of the trail that make it eligible to the NRHP.

In compliance with 36 CFR 800.4 (d(1)), a copy of the cultural resource inventory report and a determination of no adverse effect to historic properties for the Project were sent to the SHPO on April 2, 2018, and to tribes which may attach religious or cultural significance to historic properties on April 3, 2018. The SHPO concurred with Reclamation's determination of No Adverse Effect to historic properties for this Project in a letter dated April 3, 2018 (see Appendix A). The 30 day review and comment period for tribal consultation will be complete in May 2018.

3.3.3 Paleontological Resources

At Reclamation's request, The State of Utah, Department of Natural Resources, Utah Geological Survey Division completed a file search for Paleontological localities within the Project APE. The file search revealed that Quaternary and recent alluvial deposits in the Project area have a low potential for significant fossil localities. There are nearby Cretaceous Henefer Formation deposits outside of the Project area that have a moderate potential for significant fossil localities.

3.3.3.1 No Action

Under the No Action Alternative, there would be no effects to paleontological resources as there would be no ground disturbance associated with construction activities. Existing conditions would continue.

3.3.3.2 Proposed Action

Under the Proposed Action Alternative, ground disturbing construction activities could impact subsurface fossil material. Completed geological surveys suggest that the probability for a significant fossil locality within the proposed Project area is very low. If no fossils are discovered as a result of construction activities, the Proposed Action would have no effect on paleontological resources.

3.3.4 Water Quality

Echo Reservoir has multiple beneficial uses: domestic water use (1C), primary contact recreation (2A), secondary contact recreation (2B), cold water game fish (3A), and agricultural water supply (4). Analysis performed by Utah Department

of Environmental Quality (UDEQ) in 2016 showed that Class 3A was impaired based on Total Maximum Daily Loads (TMDL) of Total Nitrogen and Total Phosphorous. Beneficial use class 3A specifically was impaired based on low levels of dissolved oxygen and warm temperatures (UDEQ 2016).

Parts of the Proposed Action that have potential to affect water quality include soil disturbing activities (construction, clean excavation), beach day use and camping (waste), and motorized recreational watercraft (contaminants such as oil and gasoline).

3.3.4.1 No Action

The No Action Alternative would have no effect on water quality.

3.3.4.2 Proposed Action

Soil disturbance would not occur in inundated areas until water has receded, eliminating the likelihood of increased sediment loading. Other construction activities would not occur in the reservoir basin. The BMPs and environmental commitments in Section 4.1 of this EA mitigate any other potential impacts of soils on water quality.

Beach day use and camping have the potential to affect water quality, mainly through trash and human waste. These effects would be mitigated with vault toilets installed near the high water mark that would allow park visitors access to waste bins and toilets. Beach camping and day use has occurred under previous management of recreation at Echo Reservoir. Additional vault toilets, fire rings, waste bins, and law enforcement (reduce the likelihood of illegal or distasteful activities along the beach) would mitigate potential impacts to water quality.

Motorized recreational watercraft is already allowed on the reservoir. Thus, no additional impact to water quality would be expected as a result of implementing the Proposed Action.

The Proposed Action would not impair other beneficial uses of the reservoir or compound issues associated with current impairments identified in the UDEQ's 2016 report.

3.3.5 Health, Safety, Air Quality, and Noise

Health and Safety

Public health and safety risks currently consist of traffic on roads surrounding the reservoir, including I-80; hazards associated with Echo Dam such as topping the spillway with watercraft or dam failure; potential wildlife in the surrounding mountainsides; and others. Generally, public health risks in the area are low.

Air Quality

Recent air quality concerns in Summit County include particulate matter-2.5 (PM2.5) and ozone. In 2012, the State of Utah identified these two contaminants as a concern and considered them potentially worse than Salt Lake County, Utah.

The Utah Division of Air Quality (UDAQ) completed a study on summer ozone that ran from 2010-2012 (UDAQ 2012). According to the report, ozone was higher in 2011 and 2012 in Summit County than Salt Lake County. This was attributed to transport from Salt Lake County, higher solar radiation, and potentially biogenic volatile organic compounds. Monitoring of PM2.5 in Summit County occurred in 2009-2010. According to summitcountyhealth.org, PM2.5 levels were generally low, with the exception of two days with dust storm events.

Noise

Noise in the general area mainly includes freeway and highway traffic. Localized noise can be experienced when many motorized watercraft are on the reservoir, or big groups are gathered at recreation facilities.

3.3.5.1 No Action

The No Action Alternative would have no effect on health, safety, or air quality. However, safety and noise associated with large rowdy crowds, due to the lack of law enforcement or enforced curfews, could become a significant hazard.

3.3.5.2 Proposed Action

The Proposed Action Alternative would likely have temporary, localized effects to health, safety, air quality, and noise. Construction of the park may slightly increase health and safety risks during that period of time. This would be mitigated through signage and closures. Risks associated with water recreation would remain similar to previous levels. Presence of law enforcement officers at different times near the reservoir would also reduce the length of time it takes first responders to arrive at the scene, which has been a problem in the past. It would also reduce the workload of local law enforcement.

Levels of PM2.5 could increase with dust related to construction activities. This would be temporary and mitigated through BMPs (see Section 4.1 of this EA).

Noise from large crowds, especially in the evenings, would be reduced by curfew that would be enforced by State Parks law enforcement officers. General noise from day use visitors and motorized watercraft would remain similar to previous levels. Overall, the Proposed Action would have minor, temporary effects to health, safety, air quality, and noise.

3.3.6 Wetlands, Riparian, Noxious Weeds, and Existing Vegetation

Overall, each of the four campsites have experienced substantial disturbance to the soil (i.e., fill material) and plant species composition due to the current land use as an outdoor recreation facility.

Red Rock

The National Wetland Inventory (NWI) was searched for known wetlands within the Red Rock day use area. According to the NWI, there are no delineated wetlands in this area. Riparian areas (e.g. reservoir shoreline vegetation) are

directly influenced by water levels and are found in the Red Rock area. The shoreline at this site supports numerous large balsam poplar (*Populus balsamifera*) and two willow species (*Salix exigua* and *S. drummondiana*). Many of the poplar trees are large (greater than 12-inch-diameter at breast height (dbh)) and seem to have originated as installed landscaping. This site also supports numerous herbaceous species, only two species could be readily identified due to time of year: stork's bill (*Erodium cicutarium*) and rabbitbrush (*Ericameria sp.*). No noxious plant species were observed at this site.

Dry Hollow

The NWI was searched for known wetlands within the Dry Hollow area. According to the NWI, there are no delineated wetlands in this area. Riparian areas (e.g. reservoir shoreline vegetation) are directly influenced by water levels and are found in the Dry Hollow area.

As with reservoir shoreline vegetation elsewhere, willows commonly occur where soil conditions are favorable. Otherwise, this site supports mostly upland species such as the exotic common tansy (*Tanacetum vulgare*), rabbitbrush, common mullein (*Verbascum thapsus*), fourwing saltbrush (*Atriplex canescens*), big sagebrush (*Artemisia tridentata*) and Mormon tea (*Ephedra torreyana*). No noxious plant species were observed at this site.

Ranger Overlook

The NWI was searched for known wetlands within the Ranger Overlook area. According to the NWI, there are no delineated wetlands in this area. Riparian areas (e.g. reservoir shoreline vegetation) are directly influenced by water levels and are not found in the Ranger Overlook area.

This site has a similar vegetation composition to the Dry Hollow site, but it lacks shoreline vegetation. As with Red Rock and Dry Hollow, the site's vegetation has been substantially disturbed by recent recreational use, but no noxious species were observed at this site.

Chalk Creek

The NWI and Utah Geological Survey Wetland Mapper were searched and both indicate that the western portion of the proposed Chalk Creek campground contains potential jurisdictional wetlands that are regulated by the USACE under Section 404 of the CWA. The wetland type is identified as freshwater pond or also known as a palustrine wetland.

Jurisdictional waters include the area defined by the high waterline of the reservoir and the Weber River flowing into the reservoir. The Weber River delta, including the segment of Chalk Creek bordering the proposed campground, consists of large willow dominated habitat in close association with a mature stand of cottonwood trees. This stand appears to be, in part, within the Chalk

Creek floodplain. The creek banks are lined with smaller cottonwoods and willows.

3.3.6.1 No Action

The No Action Alternative would have no effect on the current plant species composition at all four sites which has been disturbed by its current use as a recreation facility. Furthermore, the open water areas at the Red Rock site and the wetlands at the Chalk Creek site would not be altered from their current condition.

3.3.6.2 Proposed Action

The Proposed Action Alternative would alter the upland vegetation component to varying degrees at all four sites. Both the Chalk Creek and Red Rock sites would experience the most amount of vegetation alteration based on the proposed design. Dry Hollow and Ranger Overlook proposed designs would result in little change to the current vegetative composition as areas of new impervious surface (e.g., paved roadway and new building) would be less than the Chalk Creek and Red Rock site, as well as other permanent vegetation removal associated with establishing new campsites.

The Proposed Action Alternative would impact waters of the United States in the Red Rock area with the expansion of the day use area. As proposed, fill material would be dredged from within the reservoir basin, which is below the ordinary high water mark and would then be placed below the ordinary high mark to expand the northwest corner of the day use area. With the dredging and placement of fill material below the ordinary high water mark, a nationwide permit would be required from the USACE prior to Project construction in this area. It is anticipated that this action could be allowed after obtaining a nationwide permit 42 (recreational facilities) or a nationwide permit 19 (minor dredging).

The Proposed Action Alternative could impact potential jurisdictional wetlands along the western portion of the Chalk Creek campground proposed layout. These areas may be considered jurisdictional wetlands by the USACE under Section 404 of the CWA. The USACE requires the avoidance and minimization of adverse impacts and requires the offset of unavoidable adverse impacts through mitigation. Prior to the construction of the Proposed Action at Chalk Creek, a wetland delineation of jurisdictional wetlands would be completed, and consultation and compliance with the USACE would be completed.

The Proposed Action Alternative would have no negative effect on wetlands and riparian vegetation in the Dry Hollow and Ranger Overlook areas.

3.3.7 Fish and Wildlife Resources

3.3.7.1 Fish

The study area includes the Echo Reservoir, and impoundment of the Weber River, and also includes the tributary Chalk Creek. Echo Reservoir is primarily

managed for recreational opportunities, which includes angling throughout the entire year. The reservoir is typically cool water and has an average depth of 50.2 feet (15.3 m), suiting common game fish. Therefore, sport fishes such as rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), cutthroat trout (*Oncorhynchus clarkii*), yellow perch (*Perca flavescens*), smallmouth bass (*Micropterus dolomieu*), walleye (*Sander vitreus*), black crappie (*Pomoxis nigromaculatus*), bluegill (*Lepomis macrochirus*) channel catfish (*Ictalurus punctatus*), and common carp (*Cyprinus carpio*) inhabit the reservoir. Approximately 50,000 rainbow trout are stocked annually to supplement the existing fish community and over 95,000 sterile walleye fry were stocked in 2017 to combat an illegal introduction of the invasive species.

All sport fish, except cutthroat trout and mountain whitefish (*Prosopium williamsoni*), occurring in the reservoir are considered non-native. The native Utah chub (*Gila atraria*) is found throughout the study area and is a favored bait fish among anglers. The other native fish species documented in the study area are primarily found in the Weber River and Chalk Creek. The section of the Weber River flowing directly into Echo Reservoir contains two state sensitive species; bluehead suckers (*Catostomus discobolus*) and cutthroat trout. However, biologists from Utah Division of Wildlife Resources (UDWR) have relocated all bluehead suckers captured during surveys to more beneficial habitat downstream of Echo Reservoir in the Weber River. The UDWR resource specialists no longer consider the upstream portion of the Weber River suitable habitat for bluehead suckers and have officially concluded the relocation effort based on the lack of bluehead suckers found during recent surveys. Cutthroat trout remain a priority management species in both the Weber River and Chalk Creek.

There are no Threatened or Endangered fish species that occur in the study area.

3.3.7.1.1 No Action

The No Action Alternative would have no effect on the fish community or aquatic habitat. The aquatic habitat in Echo Reservoir would not be altered for recreational development and the current fish community and UDWR stocking regimen would continue in accordance with past practice.

3.3.7.1.2 Proposed Action

The Proposed Action Alternative would not result in a direct impact to the fish community. There would be a very minor impact to fish habitat within the reservoir due to the relocation of gravel substrate along the Red Rock Cabins and Day Use Area. The substrate would be excavated from an adjacent site and placed along approximately 600 feet (183 m) of shoreline. In the event that riprap (large boulders or stones) was placed to protect the new shoreline, effects to the fish community would be negligible. Fish would likely be momentarily displaced during construction but because the fish species that could be affected are common, and most are non-native, this potential effect is not significant and no enduring impacts are anticipated.

Fish and fish habitat along the Weber River and Chalk Creek would not be impacted. The proposed landscape modification does not extend below the high-water line for the Weber River or Chalk Creek, which are likely to incur minimal carryover from the construction activities. Work that would be completed to enlarge Red Rock Campground would not have any effect on turbidity downstream. The flow patterns occurring throughout the study area would not be impacted.

3.3.7.2 Big Game

Mule deer (*Odocoileus hemionus*) is the only species of big game found in the Project area. A wintering herd of unknown size has utilized the Chalk Creek area. These deer are likely “urban deer” that have acclimated to human activity and remain in urban areas either year round or in the winter.

3.3.7.2.1 No Action

The No Action Alternative would have no effect on big game in the Project area.

3.3.7.2.2 Proposed Action

If the Chalk Creek Campground were built, mule deer would no longer be able to use those approximately 6 acres and would be displaced. However, urban deer are adapted to human activity and thus would likely select alternate sites not far from the campground. Therefore, effects to big game would be minimal.

3.3.7.3 Birds

Numerous bird species have been sighted in the general vicinity of Echo Reservoir. One birding website, ebird.org (accessed 30 March 2018), that collects data from birders identified approximately 190 species occurring at or near the reservoir within the last 10 years, although very few of those species occur year round. Similar to mule deer, the most common species are those that have adapted to human activity, such as the American robin (*Turdus migratorius*), Brewer’s blackbird (*Euphagus cyanocephalus*), European starling (*Sturnus vulgaris*), Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), killdeer (*Charadrius vociferus*), gulls (*Larus* sp.), and black-billed magpie (*Pica hudsonia*).

3.3.7.3.1 No Action

The No Action Alternative would have no effect on birds.

3.3.7.3.2 Proposed Action

The Proposed Action could affect birds within the Project area, especially in the Chalk Creek Campground area. Red Rock, Dry Hollow, and Ranger Overlook are disturbed areas with human activity regularly occurring in the general vicinity. Chalk Creek Campground is surrounded by riparian/wetland areas and associated shrubs/trees (see Section 3.3.6). Removal of this vegetation would reduce the amount of habitat available to birds for nesting and cover by approximately

2 acres. However, vegetation with similar characteristics would be available nearby. Noise during construction or from human activity post-construction could deter birds from using some cover nearby. However, many birds adapted to human activity would likely still use the area as seen at other recreation facilities.

3.3.8 Threatened, Endangered, and Sensitive Species

During the environmental review process for the Project area, several sources were reviewed to determine the impact of the proposed Project on the Threatened, Endangered, and Sensitive Species. By reviewing the U.S. Fish and Wildlife Service’s (USFWS) Information, Planning, and Conservation (IPaC) website, it was determined there was potential for two species to occur in the Project area that are protected by the Endangered Species Act (ESA) of 1973: yellow-billed cuckoo (*Coccyzus americanus*) and Canada lynx (*Lynx canadensis*). An official IPaC species list was acquired March 27, 2018. The species database from the Utah Natural Heritage Program was consulted to determine if these species had been reported in or near the Project area. The Utah Natural Heritage Program’s database was also consulted to determine what sensitive species had potential to occur in the area (Table 3-3).

**Table 3-3
Species of Concern near Project Area**

Common Name	Scientific Name	Last Observed	Federal or State Status*	Habitat Requirements	Potential to Occur in the Project Area
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	-	T	Requires large tracts of willow-cottonwood or mesquite (<i>Prosopis</i> sp.) forest or woodland for their nesting season habitat. Yellow-billed cuckoos rarely nest at sites less than 50 acres in size, and sites less than 37 acres are considered unsuitable habitat (Laymon and Halterman 1989, p. 275).	Low
Canada lynx	<i>Lynx canadensis</i>	-	T	The distribution of lynx in North America is closely associated with the distribution of North American boreal forest. In Canada and Alaska, lynx inhabit the classic boreal forest ecosystem known as the taiga. The range of lynx populations extends south from the classic boreal forest zone into the subalpine forest of the western United States, and the boreal/hardwood forest ecotone in the eastern United States.	Low
Bonneville Cutthroat Trout	<i>Oncorhynchus clarkii utah</i>	1997	CS	Like other cutthroat trout, the subspecies spawns in streams over gravel substrate in the spring. The Bonneville cutthroat trout can be found in a number of habitat types, ranging from high-elevation mountain streams and lakes to low-elevation grassland streams. In all of these habitat types, however, the Bonneville	High

Common Name	Scientific Name	Last Observed	Federal or State Status*	Habitat Requirements	Potential to Occur in the Project Area
				cutthroat trout requires a functional stream riparian zone, which provides structure, cover, shade, and bank stability.	
Lewis's Woodpecker	<i>Melanerpes lewis</i>	1913	SPC	Lewis's Woodpecker is a habitat specialist with primary breeding habitat in ponderosa pine and open riparian areas. Winter habitat includes open woodlands and lowland riparian areas (Parrish et al. 1999). Lewis's Woodpecker is a cavity nester which nests in dead or dying trees, often using previously excavated holes (U.S. Forest Service 1991). This species requires large open pine forests with adequate spacing between trees to allow for foraging (DeGraaf et al. 1991). The diet of the Lewis's Woodpecker is primarily composed of insect prey during the breeding season and nuts and berries during the fall and winter.	Low
Bald Eagle	<i>Haliaeetus leucocephalus</i>	2018 (ebird.org sightings)	SPC	Nests are typically placed in cottonwood or conifer forests near open water. Large winter concentrations of Bald Eagles occur along the shores of the Great Salt Lake, in associated roost sites of the Wasatch Mountains, in the desert valleys of northcentral Utah, and along the major rivers in eastern and southern Utah. Foraging preferences in Utah are unknown, although in general eagles primarily feed on fish and waterfowl and will also scavenge dead fish and mammals, including rabbits and deer.	High
Western Toad	<i>Anaxyrus boreas</i>	-	SPC	Inhabits western Canada and much of the western (especially northwestern) United States. It occurs throughout most of Utah, and can be found in a variety of habitats, including slow moving streams, wetlands, desert springs, ponds, lakes, meadows, and woodlands. The western toad, which is inactive during cold winter months, may either dig its own burrow in loose soil or use the burrows of other small animals.	Low
Greater Sage-grouse	<i>Centrocercus urophasianus</i>	2010	SPC	Greater Sage-grouse are ground nesters that require sagebrush (genus <i>Artemisia</i>) year-round.	Low
Deseret Mountainsnail	<i>Oreohelix peripherica</i>	1997	SPC	Tends to occur in association with limestone outcrops or other soils with high calcium concentration and is typically found in shrubland or montane habitats dominated by small deciduous trees where an understory	Low

Common Name	Scientific Name	Last Observed	Federal or State Status*	Habitat Requirements	Potential to Occur in the Project Area
				of forbs and other protective cover is present (see, e.g., Henderson and Daniels 1916, 1917, Clarke 1993). Colonies tend to be localized in small patches of appropriate habitat.	
Bluehead Sucker	<i>Catostomus discobolus</i>	2010	CS	The bluehead sucker is a benthic (bottom dwelling) species with a mouth modified to scrape algae (the primary food of the bluehead sucker) from the surface of rocks. Members of the species spawn in streams during the spring and summer. Fast flowing water in high gradient reaches of mountain rivers has been identified as important habitat for bluehead sucker.	Low

*T=Threatened (Federal listing), SPC=State Species of Concern, CS=State Conservation Agreement Species

3.3.8.1 No Action

The No Action Alternative would have no effect on threatened, endangered, or sensitive species.

3.3.8.2 Proposed Action

The Proposed Action Alternative would have no effect on yellow-billed cuckoo, Canada lynx, greater sage-grouse, and Deseret mountainsnail due to a lack of suitable habitat in the Project area. Bluehead sucker no longer occur in the reservoir or Weber River upstream of Echo Dam (see Section 3.3.7.1); therefore, there would be no effect to bluehead sucker. Western toad has not been reported in the Project area (Utah Natural Heritage Database 2018). Therefore, there would be no effect to the western toad.

Bonneville cutthroat trout occur in Echo Reservoir and Chalk Creek. This is a sensitive species in Utah. Activities that could affect the species center on construction near Chalk Creek. However, construction impacts would be mitigated through silt fencing near Chalk Creek when construction is occurring near the Creek and/or when runoff is expected from the construction site into the Creek. No other impacts to Bonneville cutthroat trout could be identified.

Bald eagles are protected by the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act of 1940. Bald eagles regularly visit the area in the winter, with some also nesting near the reservoir. According to ebird.org, most sightings near Echo Reservoir occur from November to May. Utah raptor guidelines from the USFWS (Romin and Muck 2002) indicate a 1-mile buffer around a nest or a seasonal buffer of January 1 to August 31 should be employed to avoid disturbance to the species. Construction is likely to occur within both the distance and seasonal buffers. Consultation with USFWS is ongoing. If required, a disturbance permit(s) would be obtained prior to construction.

3.3.9 Recreation

Public lands can play a key role in stimulating local employment by providing opportunities for recreation. From 1998 to 2015 in Summit County, arts, entertainment, and recreation jobs grew from 2,205 to 4,797, a 117.6 percent increase. In 2015, 18.1 percent of the total employment opportunities in Summit County were in the art, entertainment, and recreation industry (Headwaters Economics 2018).

Recreation areas developed as a result of Reclamation water projects are among the Nation's most popular for water-based outdoor recreation. Reclamation projects include approximately 6.5 million acres of land and water that is, for the most part, available for public outdoor recreation. A recreation area can be considered a recreation complex consisting of, among other things, campgrounds, day use areas, parking areas, boat ramps, restrooms, road and trail systems, and visitor centers. It usually encompasses an entire reservoir area defined by an established boundary. A recreation area may have multiple recreation sites.

There are 177 recreation areas on Reclamation Projects. Echo Reservoir is one of these areas. The recreational area presently offers fishing, camping, boating, picnicking, water sports activities from April to November annually, and ice fishing during the winter months.

Estimated annual visitation at Echo Reservoir has been around 120,000 to 170,000 persons. Monthly summer season data generated by Echo Resort from prior years suggests July to be the busiest month; followed closely by June, then August. Echo Resort management also estimated the length of stay to be 1 to 2 days; with user interest 50 percent camping and 50 percent day use. The predominant age group for visitation ranges from 20 to 40 years of age, with visitor origination from the Wasatch Front, namely Salt Lake City, Ogden, and Bountiful (Reclamation 2009).

It is important to know that Echo Reservoir is a drain and fill reservoir designed to store the equivalent of 1 years' worth of water rights. In a given year, most of the water rights from Echo Reservoir have been fulfilled by September, resulting in a significantly lower reservoir volume in October. Low waters in the reservoir in late summer and fall has a large impact upon the recreational sites located on the east side of the reservoir (Reclamation 2016).

Existing recreation amenities at the reservoir include:

Red Rock Cabin Area - 28 camping sites, restroom/shower facilities, and primitive boat ramp.

Red Rock Day Use Area - 29 camping sites, pump house, boat ramp, trailer parking and storage, restroom/shower facilities, concession building, and picnic area.

Dry Hollow Campground - 10 camping sites, beach camping, group camping area, restroom facilities, trailer parking and storage, and primitive boat ramp.

Ranger Overlook - unimproved parking area and reservoir access

Chalk Creek Area - walk-in fishing access

3.3.9.1 No Action

Under the No Action Alternative, no additional facilities would be developed and existing recreation amenities would remain in their current aged and/or dilapidated state. Recreation activities would continue to be managed by Reclamation under current conditions. The No Action Alternative would have no effects on current recreational use patterns. Weeds and unwanted vegetation within the recreation areas and reservoir shoreline may increase and have an adverse effect upon the unique public recreation experience that the reservoir provides to both local residents and visitors.

3.3.9.2 Proposed Action

The Proposed Action Alternative would enhance and develop additional recreational amenities and opportunities at Echo Reservoir. Because the development of recreational facilities would be phased over multiple years as funding is available, not all proposed facilities would be available to the public during 2018. During development of the Proposed Action, water sports activities would remain available and day use/camping would remain available on a limited basis. Initial phases would enhance existing recreational facilities in the Dry Hollow Campground, Red Rock Cabin Area, and Red Rock Day Use Area. In later phases, recreation facilities would be developed at Ranger Overlook and Chalk Creek Campground. By full build-out, there would be approximately 37 RV/tent camping sites, 11 cabins, 3 group camping sites, 30 day use picnic shade pavilions, 113 single vehicle day use parking sites, and 106 trailer day use parking sites.

Anticipated impacts as a result of the Proposed Action are as follows:

Red Rock Cabin Area

Recreational use impacts in this area are expected to remain comparable to historical use. While the use in this area would change from 28 seasonal camp sites to 11 year-round cabins, the average number of visitors could remain near the same. Extending the public use of this area into the winter months could have a temporary effect on any wintering raptors that may use the large trees adjacent to this area for roosting as raptors may be hesitant to roost in an area of human activity. However, multiple areas of other suitable roosting habitat occur within an approximately 2-mile radius of this area.

Red Rock Day Use Area

Under the Proposed Action, this area would transition from its historical use of a combination of camping and day use activities to an area used only for day use

recreational activities. The 29 existing camping sites would be replaced by approximately 30 day use picnic pavilions. It is anticipated that this transition could cause an increase in the amount of vehicle traffic within this area. Entrance and exit routes from this area are being redesigned to accommodate the increase, and additional parking within the day use area would provide ample parking to help eliminate the need for visitors to park alongside Echo Dam Road.

Expansion of the existing day use area would occur by placing fill material on the north end of the area to increase the number of picnic pavilions along the beach. The fill material would be obtained through excavation from within the reservoir basin during low water, adjacent to the area of placement, in order to create a deeper cove for recreational activities and to maintain current reservoir capacity. It is anticipated that several large trees would be removed from this location during construction and replaced with younger trees upon construction completion.

Dry Hollow Campground

Recreational use impacts in this area are expected to remain comparable to historical use. The 10 existing designated camping sites and multiple dispersed camping sites would be replaced by approximately 19 designated RV/tent camping sites and 2 group use camping sites. Beach camping with personal self-contained portable toilet would continue to occur as it has historically as the water level recedes during the summer months.

Ranger Overlook

Recreational use impacts in this area are expected to increase. The footprint of the unimproved parking area would be enlarged to accommodate approximately 28 single vehicle day use parking sites and 14 trailer day use parking sites for non-motorized watercraft users to access the wakeless area. A motorized vehicle access point to the wakeless area would be designed to allow safe loading and unloading of non-motorized watercrafts.

Construction of an RV dump station and garbage collection location may increase motor vehicle use of this area. Smells related to garbage and sewage would increase at times in this area during use but would be mitigated through regularly scheduled garbage removal and design of a tight-fitting, self-closing drain cover on the dump station to prevent the escape of odors. No additional impacts are anticipated from the construction of park ranger housing and a storage area as this location is within Coalville City boundaries and surrounded by residential dwellings.

Chalk Creek Area

From 1964 through 2014, this area was the site of the active Coalville City Wastewater Treatment Plant until the plant was relocated and the area reclaimed in 2016. This area has not previously been designated as a recreation area; however, it has been heavily disturbed from its natural state. The area currently

experiences fishing pressure along Chalk Creek, as well as vandalism, graffiti, and bonfires related to large crowds of people. The Proposed Action for this area includes one group use camping site, 18 RV/tent camping sites, restroom/shower facilities, sports court, playground, open grass area, and Chalk Creek access path.

Under the Proposed Action, Chalk Creek would experience increased visitation for fishing and other recreation purposes from campground users which may cause loss of vegetation along its banks. It is anticipated that the party crowds, and associated activities, would be displaced by the wholesome, family-oriented activities associated within the camping area. Some of this area is heavily wooded and several large trees may need to be removed or trimmed to accommodate specific camping sites or roads. It is anticipated that vehicle traffic on 200 North Street in Coalville would increase as the street would be used to access the area. Public noise would also increase in this area due to visitor usage but would be mitigated with a noise curfew and noise suppressing vegetation barriers.

3.3.10 Socioeconomics

This section provides an estimate of the economic benefits that accrue to the area surrounding Echo Reservoir due to the recreation activities generated by the reservoir and the accompanying facilities.

Echo Reservoir is a popular destination for fishing, boating, and waterskiing in Summit County; other activities which draw visitors include camping, hiking, picnicking, swimming, wildlife viewing, and some winter sports. Recreation at the reservoir was previously managed by Echo Incorporated but under the Proposed Action would be managed by State Parks, on land owned by Reclamation. Historically the reservoir has seemed to be at or near capacity for watercraft on summer weekends and especially holiday weekends, while still receiving numerous visitors during the week. Recreation seekers looking to enjoy the opportunities provided by Echo Reservoir represent a significant economic boon to the surrounding community.

3.3.10.1 No Action

As Echo Incorporated is no longer managing recreation at the reservoir, under a No Action Alternative, recreation opportunities at Echo Reservoir would significantly diminish. Primitive and beach camping would continue to occur, but without amenities such as toilet and trash removal services, any significant quantity of people congregating to the area would most likely result in environmental degradation of the site, which tends to discourage future use.

3.3.10.2 Proposed Action

Under the Proposed Action, recreation would continue to thrive at Echo Reservoir and the public would have an enjoyable place to recreate.

This analysis attempts to provide a general idea of the economic benefits that accrue to the area based on reservoir-based recreation. The community

recognizes this benefit and has stated in the 2012 Coalville City General Plan “The area surrounding the city is already a destination for recreation. A new aspect of economic development for the city is to capture more of those visitors by expanding recreational support services” (Coalville City 2012). The city of Coalville has a population of approximately 1,400 people and approximately 135 registered businesses, many of these entities provide lodging, food, and other services that directly or indirectly service the recreation customers brought in by Echo Reservoir.

As accurate economic data from recreation is not available for Echo Reservoir in recent years, this analysis mirrors the economic valuation for recreation visitation that was completed in Reclamation’s 2017 Hyrum Safety of Dams Economic Benefit Analysis and Damage Assessment.

Using a benefits transfer method and the Recreation Use Values Database for North America (Rosenberger 2016) the indexed recreation benefit per visit at Echo Reservoir in 2018 dollars is \$29.14. Hyrum State Park’s annual recreation visits from 2013 to 2017 averaged 70,964 visitor days; due to various similarities between the Hyrum and Echo (Hyrum and Echo both offer approximately 30 campgrounds, are currently near capacity on busy weekends, are both located on Reclamation property, etc.), this analysis uses the Hyrum recreation data for an estimate. Assuming 70,964 visitor days multiplied by an indexed recreation value per day of \$29.14 the estimated annual value of recreation benefits at Echo Reservoir is \$2,068,000. Using Reclamation’s FY 2018 Planning Rate of 2.75 percent and a 50-year time frame, the estimated present value of recreation benefits at Echo Reservoir is \$57,365,000.

Preliminary designs of the campgrounds and recreation areas estimate 11 cabins that would be open year-round, 36 camping sites, up to 113 day-use parking spaces, and three group camping sites which would all be open from April through October. Assuming equal daily use rates for camping and boating from neighboring Rockport Reservoir and \$80 per night for the cabins, the State Park at full capacity has the potential to gross a maximum of \$768,000 annually. Assuming the proposed Echo State Park is at capacity on weekends and 40 percent capacity throughout the week (April through October contains approximately 154 week days and 60 weekend days) gross park revenues would be \$361,000 plus any off-season revenues from cabin rentals, which would be open year-round. Actual revenues would undoubtedly vary from year to year.

3.3.11 Access and Transportation

This section describes transportation and access in the Project vicinity, and describes the potential effects of the Project alternatives on these resources.

Reclamation consulted with the State of Utah, Summit County and Coalville City to establish baseline transportation data. The City Engineer at JUB provided a copy of the Master Transportation Plan for the City of Coalville (2007). This plan contains traffic volume counts from 2006, within the city limits. The County

provided a report of traffic counts gathered at the city boundary, conducted once a year each fall. None of the consulting entities were aware of any studies or information available on Echo Dam Road, the main ingress and egress for the recreation areas.

Under Echo Resort Inc., recreation was available year-round, with the campground open seasonally. The majority of the campsites were occupied by long-term tenants who stayed all season. The recreation areas have been managed by the same party for several decades, resulting in predictable traffic patterns.

3.3.11.1 No Action

The No Action Alternative would have no effect on access and transportation. Under the No Action Alternative current conditions would remain the same.

3.3.11.2 Proposed Action

Under the Proposed Action, State Parks would provide fewer campsites, but offer more day-use sites. This is likely to increase traffic only negligibly in the study area, as the decrease in long-term campers would offset the increase in day-use. There would ultimately be multiple park areas which would likely improve traffic as it would cause a more evenly distributed pattern of use. In the main park, or Red Rock Day Use Area, a new south-bound exit would be added. This would improve traffic safety at the park's exit by eliminating the need to make a hairpin turn and interrupt south bound traffic on Echo Dam Road. Lastly, parking would be available year-round. As this is not currently offered, many using the reservoir out of season, park their vehicles on Echo Dam Road. It is anticipated that by offering year-round parking, it would lessen the parked traffic along the study area. This would improve both traffic patterns and safety.

Impacts on transportation and access during construction would be unavoidable. It is expected that the increase of traffic during such time would be commensurate with similar construction projects. Construction would occur in four phases, with each phase lasting approximately four to six months. It is anticipated that there would be a small number of daily use for the workers (up to 5 passenger trucks), and infrequently, large trucks to deliver equipment. In addition, as materials are needed, it would include up to 20 dump trucks loads per day, at a rate of 1 to 2 per hour. State Parks will ensure that all necessary traffic control measures are implemented during construction, including following applicable city, county, state, and federal traffic control plans and safety regulations. No additional mitigation measures are proposed.

Access to the historic Rail Trail would be interrupted during periods of construction. Signage and closures would notify the public that certain portions of the trail were closed.

Overall, the Proposed Action would have no long-term significant, adverse effects on transportation and access. Following completion of construction, the Proposed

Action would have an overall beneficial effect on transportation and access in the Project vicinity.

3.3.12 Water Rights

There is an existing well and water right for uses by Echo Resort Inc. which is represented by Exchange Application Number E230 (35-5946) for 1 acre-foot of water. The well was drilled in May 1969 to a depth of 185 feet. A log of the construction of the well is available. This well is acknowledged by the Utah Division of Drinking Water (UDDW) as a public supply well. A sanitary survey inspection of the well and system was conducted by UDDW staff in 2017.

Two water rights exist that could be related to the Project: Water Right Number 35-8501 (for the irrigation of 12.9 acres) and Water Right Number 35-8504 (for irrigation of 38.4 acres). Both of these rights were for irrigation of land that is now inundated by Echo Reservoir, but they are identified as being owned by the Bureau of Reclamation in the Weber River Decree.

3.3.12.1 No Action

The No Action Alternative would have no effect on water rights.

3.3.12.2 Proposed Action

The proposed Echo State Park development would not impact water rights owned by other entities or individuals. However, the water uses proposed to be made would require either a connection to Coalville City's distribution system or an independent on-site water system meeting UDDW standards. If a connection is to be made to Coalville City's system, there would likely be fees charged to make the connection and they may require a dedication of water rights to them in an equivalent amount to offset the uses of water at the State Park. There would also likely be construction costs to extend their system to each area of the park.

If an independent water system is to be constructed, it would likely involve drilling at least one new well which must meet the construction standards set by UDDW. Before any well is drilled, they must approve plans for its construction. They would require a surface seal to make sure the water pumped from the well is not under surface influence. Essentially, construction of a well that would be suitable for use in a municipal system is required.

Regarding the existing well and water right used by the previous recreation managing partner, to the extent that the well casing retains its integrity and water quality tests show no contamination of the water in the well, this well could potentially be used for the State Park. It would likely require new pumping equipment if it is able to be used.

3.4 Indian Trust Assets

Indian Trust Assets are legal interests in property held in trust by the United States for Indian tribes or individuals. The Department of the Interior's policy is to recognize and fulfill its legal obligations to identify, protect, and conserve the trust resources of federally recognized Indian tribes and tribal members, and to consult with tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal safety (see Departmental Manual, 512 DM 2). Under this policy, as well as Reclamation's ITA policy, Reclamation is committed to carrying out its activities in a manner which avoids adverse impacts to ITAs when possible, and to mitigate or compensate for such impacts when it cannot. All impacts to ITAs, even those considered nonsignificant, must be discussed in the trust analyses in NEPA compliance documents and appropriate compensation or mitigation must be implemented.

Trust assets may include lands, minerals, hunting and fishing rights, traditional gathering grounds, and water rights. Impacts to ITAs are evaluated by assessing how the action affects the use and quality of ITAs. Any action that adversely affects the use, value, quality or enjoyment of an ITA is considered to have an adverse impact to the resources.

There are no known ITAs in the Project vicinity so implementation of the Proposed Action would have no effect on known ITAs. Inquiries about ITA concerns were included in cultural consultation for the Project which was sent out to tribes on April 3, 2018. No ITA concerns have been identified by tribes during the consultation process to date.

3.5 Environmental Justice

Executive Order 12898, established Environmental Justice as a Federal agency priority to ensure that minority and low-income groups are not disproportionately affected by Federal actions. Construction and/or rehabilitation of recreation facilities at Echo Reservoir would affect all individuals equally, whether they are just visiting the area or reside in Coalville City. Effects of construction (including public safety, noise, etc.) and the recreation activity following construction (potential noise, visual aspects, etc.) would not disproportionately affect minority and low-income populations. No other potential effects could be identified that might affect these populations. This action, therefore, have no adverse human health or environmental effects on minority and low-income populations.

3.6 Cumulative Effects

In addition to Project-specific impacts, Reclamation analyzed the potential for significant cumulative impacts to resources affected by the Project and by other past, present, and reasonably foreseeable activities within the watershed.

According to the Council on Environmental Quality's regulations for implementing NEPA (50 CFR §1508.7), a “cumulative impact” is an impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. It focuses on whether the Proposed Action, considered together with any known or reasonably foreseeable actions by Reclamation, other Federal or state agencies, or some other entity combined to cause an effect. Reclamation identified Echo Reservoir, its surrounding, and Coalville City as an area for potential cumulative effects.

A Safety of Dams Modification on Echo Dam was completed in 2014. The work included modifications to the dam’s foundation and spillway. An EA was completed and FONSI issued in 2009 for the Project.

Coalville City is currently rezoning areas within county boundaries. This is an ongoing effort by the city with an indefinite timeline.

Reclamation is currently negotiating an agreement with State Parks that would allow the State to manage recreation activities and facilities at Echo Reservoir. Separate environmental compliance is being completed for that agreement.

Together, there may be some minor effect to economic growth of the surrounding area and businesses. However, these effects are dependent on many more factors than the past, present, and reasonably foreseeable Projects listed here. Cumulatively, the effects from these actions in addition to the Proposed Action, would not have a significant adverse effect on any resources.

3.7 Summary of Environmental Effects

Table 3-4 summarizes environmental effects under the No Action and the Proposed Action Alternatives.

**Table 3-4
Summary of Environmental Effects**

Project Resource	No Action	Proposed Action
Visual Resources	No Effect	No Effect
Cultural Resources	No Effect	No Adverse Effect
Paleontological Resources	No Effect	No Effect
Water Quality	No Effect	No Effect
Health, Safety, Air Quality and Noise	No Effect	Temporary Effect

Project Resource	No Action	Proposed Action
Wetland, Riparian and Vegetation	No Effect	Minor Effects to Existing Vegetation; Potential Adverse Effect to Wetlands; USACE Permitting Required
Fish and Wildlife Resources	No Effect	Minor Effect
Threatened, Endangered, and Sensitive Species	No Effect	Potential Effect to Bald Eagle
Recreation	No Effect	Beneficial Effect
Socioeconomics	No Effect	Beneficial Effect
Access and Transportation	No Effect	Temporary Effect
Water Rights	No Effect	No Effect

Chapter 4 Environmental Commitments

Environmental Commitments, along with Minimization Measures in Section 2.6 have been developed to lessen the potential adverse effects of the Proposed Action.

4.1 Environmental Commitments

The following environmental commitments will be implemented as an integral part of the Proposed Action.

1. **Standard Reclamation Best Management Practices** - Standard Reclamation BMP will be applied during construction activities to minimize environmental effects and will be implemented by construction forces, or included in construction specifications. Such practices or specifications include sections in the present EA on public safety, dust abatement, air pollution, noise abatement, water pollution abatement, waste material disposal, erosion control, archaeological and historical resources, vegetation, fish and wildlife and threatened and endangered species. The Project will comply with all requirements set forth in the formal Section 7 consultation with USFWS. Excavated material and construction debris may not be wasted in any stream or river channel in flowing waters. This includes material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at a Reclamation approved upland site well away from any channel. Construction materials, bedding material, excavation material, etc. may not be stockpiled in riparian, wetland, or water channel areas. Silt fencing will be appropriately installed and left in place until after revegetation becomes established, at which time the silt fence can then be carefully removed. Machinery must be fueled and properly cleaned of dirt, weeds, organisms, or any other possibly contaminating substances offsite prior to construction.
2. **Additional Analyses** - If the Proposed Action were to change significantly from that described in this EA because of additional or new information, or if other spoil, or work areas beyond those outlined in this analysis are required outside the defined Project construction area, additional environmental analyses may be necessary.
3. **UPDES Permit** - A UPDES Permit will be required from the State of Utah before any discharges of water, if such water is to be discharged as a

point source into a regulated water body. Appropriate measures will be taken to ensure that construction related sediments will not enter the stream either during or after construction. Settlement ponds and intercepting ditches for capturing sediments will be constructed, and the sediment and other contents collected will be hauled off the site for appropriate disposal upon completion of the Project.

4. **Fugitive Dust Control Permit** - The Division of Air Quality regulates fugitive dust from construction sites, requiring compliance with rules for sites disturbing greater than ¼ of an acre. Utah Administrative Code R307-205-5, requires steps be taken to minimize fugitive dust from construction activities. Sensitive receptors include those individuals working at the site or motorists that could be affected by changes in air quality due to emissions from the construction activity.
5. **Cultural Resources** - In the case that any cultural resources, either on the surface or subsurface, are discovered during construction, Reclamation's Provo Area Office archeologist shall be notified and construction in the area of the inadvertent discovery will cease until an assessment of the resource and recommendations for further work can be made by a professional archeologist.

Any person who knows or has reason to know that he/she has inadvertently discovered possible human remains on Federal land, he/she must provide immediate telephone notification of the discovery to Reclamation's Provo Area Office archaeologist. Work will stop until the proper authorities are able to assess the situation onsite. This action will promptly be followed by written confirmation to the responsible Federal agency official, with respect to Federal lands. The Utah SHPO and interested Native American Tribal representatives will be promptly notified. Consultation will begin immediately. This requirement is prescribed under the Native American Graves Protection and Repatriation Act (43 CFR Part 10); and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470).

6. **USACE 404 Permit** - Prior to expansion of the northwest end of the proposed Red Rock Campground and the proposed work at Chalk Creek Campground, a permit from the USACE would be necessary, pursuant to Section 404 of the CWA.
8. **Paleontological Resources** - Should vertebrate fossils be encountered by the proponent during ground disturbing actions, construction must be suspended until a qualified paleontologist can be contacted to assess the find.
9. **Fish and Wildlife Resources** -

- a. **Migratory Bird Protection**
 - i. Perform any ground-disturbing activities or vegetation treatments before migratory birds begin nesting or after all young have fledged.
 - ii. If activities must be scheduled to start during the migratory bird breeding season, take appropriate steps to prevent migratory birds from establishing nests in the potential impact area. These steps could include covering equipment and structures and use of various excluders (e.g., noise). Prior to nesting, birds can be harassed to prevent them from nesting on the site.
 - iii. If activities must be scheduled during the migratory bird breeding season, a site-specific survey for nesting prior to groundbreaking activities or vegetation treatments. Established nests with eggs or young cannot be moved, and the birds cannot be harassed (see ii., above), until all young have fledged and are capable of leaving the nest site.
 - iv. If nesting birds are found during the survey, appropriate spatial buffers should be established around nests. Vegetation treatments or ground-disturbing activities within the buffer areas should be postponed until the birds have left the nest. Confirmation that all young have fledged should be made by a qualified biologist.
- b. **Raptor Protection** - Raptor protection measures will be implemented to provide full compliance with environmental laws. Raptor surveys will be developed using the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck 2002), to ensure that the proposed Project will avoid adverse impacts to raptors, including bald and golden eagles. Locations of existing raptor nests and eagle roosting areas will be identified prior to the initiation of Project activities. Appropriate spatial buffer zones of inactivity will be established during breeding, nesting, and roosting periods. Arrival at nesting sites can occur as early as December for certain raptor species. Nesting and fledging can continue through August. Wintering bald eagles may roost from November through March.

- 10. **Wetland Resources** - Surveys will be conducted to evaluate temporary and permanent impacts to wetlands. The following measure will be implemented:

A wetland delineation will be conducted prior to work beginning in the proposed Chalk Creek Campground. If necessary, mitigation measures will be agreed upon by Reclamation and the USACE.

11. **Previously Disturbed Areas** - Construction activities will be confined to previously disturbed areas where possible for such activities as work, staging, and storage, waste areas and vehicle and equipment parking areas. Vegetation disturbance will be minimized as much as possible.
12. **Public Access** - Construction sites will be closed to public access. Temporary fencing, along with signs, will be installed to prevent public access. Reclamation will coordinate with landowners or those holding special permits and other authorized parties regarding access to or through the Project area.
13. **Disturbed Areas** - All disturbed areas resulting from the Project will be smoothed, shaped, contoured, and rehabilitated to as near the pre-Project construction condition as practicable. After completion of the construction and restoration activities, disturbed areas will be seeded at appropriate times with weed-free, native seed mixes having a variety of appropriate species (especially woody species where feasible) to help hold the soil around structures, prevent excessive erosion, and to help maintain other riverine and riparian functions. The composition of seed mixes will be coordinated with wildlife habitat specialists and Reclamation biologists. Weed control on all disturbed areas will be required. Successful revegetation efforts must be monitored and reported to Reclamation, along with photos of the completed Project.

Chapter 5 Consultation and Coordination

5.1 Introduction

This chapter details other consultation and coordination between Reclamation and other Federal, state, and local Government Agencies, Native American Tribes, and the public during the preparation of this EA. Compliance with NEPA is a Federal responsibility that involves the participation of all of these entities in the planning process. The NEPA requires full disclosure about major actions taken by Federal agencies and accompanying alternatives, impacts, and potential mitigation of impacts.

5.2 Native American Consultation

Reclamation is conducting Native American consultation through the public involvement process. Tribal consultation letters for the draft EA will be sent out to the Eastern Shoshone Tribe of the Wind River Reservation, the Northwestern Band of Shoshone Nation of Utah, the Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho, and the Ute Indian Tribe of the Uintah and Ouray Reservation on April 11, 2018. A consultation letter and a copy of the Class III cultural resource inventory report were sent to the above tribes on April 3, 2018. All consultation was conducted in compliance with 36 CFR 800.2(c)(2) on a government-to-government basis. Through this effort, each tribe is given a reasonable opportunity to identify any concerns about historic properties; to advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance; to express their views on the effects of the Proposed Action on such properties; and to participate in the resolution of Project effects. Reclamation is awaiting comments; none have been received to date.

5.3 Utah Geological Survey

Reclamation requested a paleontological file search from the Utah Geological Survey (UGS) to determine the nature and extent of paleontological resources within the APE. File search results and recommendations from the UGS were received in a letter dated March 6, 2018, and are discussed in Section 3.3.4 of this assessment.

5.4 Utah State Historic Preservation Office

A copy of the Class III cultural resource inventory report and a determination of historic properties affected for the Proposed Action were submitted to the SHPO on April 2, 2018. The SHPO concurred with Reclamation's determination of no historic properties affected in a letter dated April 3, 2018.

5.5 U.S. Fish and Wildlife Service

An official IPaC species list was acquired March 27, 2018 from the USFWS's IPaC website. Reclamation made a no effect determination for the two threatened species; thus, no consultation pursuant to Section 7 of the ESA was required. However, consultation for the bald eagle is ongoing.

5.6 U.S. Army Corps of Engineers

The Proposed Action would require the discharge of dredged or fill material below the ordinary high water mark of Echo Reservoir, which appears to be considered a "waters of the United States". It is anticipated that the Proposed Action would qualify for a nationwide permit that is issued for activities resulting in minimal individual and cumulative adverse effects on the aquatic environment. In compliance with Section 404 of the CWA, a formal permit application would be submitted to the USACE to determine the extent of jurisdiction and impacts. In the event that a permit would be required, it would be obtained prior to construction in that specific area.

Chapter 6 Preparers

The following is a list of preparers who participated in the development of the EA. They include environmental summary preparers, Reclamation team members, and Federal, State and District members.

**Table 6-1
Reclamation Team Members**

Name	Title	Company
Mr. Jared Baxter	ESA Coordinator	Bureau of Reclamation
Mr. Rick Baxter	Division Manager	Bureau of Reclamation
Mr. Scott Blake	Recreation Planner	Bureau of Reclamation
Mr. Peter Crookston	Group Chief, Environmental	Bureau of Reclamation
Mr. Tom Davidowicz	Fish and Wildlife Biologist	Bureau of Reclamation
Mr. Preston Feltrop	Fish and Wildlife Biologist	Bureau of Reclamation
Mr. Jeff Hearty	Economist	Bureau of Reclamation
Mr. John Mann	Water Rights	Bureau of Reclamation
Ms. Linda Morrey	Secretary	Bureau of Reclamation
Ms. Carley Smith	Archaeologist	Bureau of Reclamation
Mr. David Snyder	Recreation Planner	Bureau of Reclamation
Mr. Ben Woolf	Group Chief, Lands	Bureau of Reclamation

**Table 6-2
Federal, State or District Members**

Name	Title	Company
Mr. Jeff Rasmussen	Deputy Director	Utah State Parks and Recreation

Chapter 7 Acronyms and Abbreviations

Acronym/Abbreviations	Meaning
APE	Area of Potential Effect
ADA	Americans with Disabilities Act
BMPs	Standard Reclamation Best Management Practices
CFR	Code of Federal Regulations
CWA	Clean Water Act
dbh	Diameter at Breast Height
EA	Environmental Assessment
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
IPaC	Information, Planning, and Conservation
ITA	Indian Trust Assets
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
Reclamation	U.S. Bureau of Reclamation
RV	Recreation Vehicle
SHPO	Utah State Historic Preservation Office
SOP	Standard Operating Procedure
TMDL	Total Maximum Daily Load
UDEQ	Utah Department of Environmental Quality
UPDES	Utah Pollutant Discharge Elimination System
UDDW	Utah Division of Drinking Water
UDEQ	State of Utah Department of Environmental Quality
UDSH	Utah Department of State History
UDWR	Utah Division of Wildlife Resources
UDWRi	Utah Division of Water Rights
UGS	Utah Geological Survey
UPRR	Union Pacific Railroad
USFWS	U.S. Fish and Wildlife Service
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers

Acronym/Abbreviations	Meaning
VQO	Visual Quality Objective
VWS	Visual Management System

Chapter 8 References

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Chapter 9 Appendices

Appendix A – SHPO Letter



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Jill Remington Love
Executive Director
Department of
Heritage & Arts



Brad Westwood
Director

April 3, 2018

Wayne Pullan
Area Manager
Bureau of Reclamation
302 East 1860 South
Provo, Utah 84606-7317

RE: Class III Cultural Resource Inventory of the Echo Reservoir Recreation Development Project,
Summit County, Utah

For future correspondence, please reference Case No. 18-0718

Dear Mr. Pullan,

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking on April 02, 2018.

We concur with your determinations of eligibility and effect for this undertaking.

This letter serves as our comment on the determinations you have made within the consultation process specified in §36CFR800.4. If you have questions, please contact me at (801)245-7241 or by email at ehora@utah.gov.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Hora".

Elizabeth Hora
Cultural Compliance Reviewer

Appendix B – UGS Letter



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Utah Geological Survey

RICHARD G. ALLIS
State Geologist/Division Director

March 6, 2018

Carley Smith
U. S. Bureau of Reclamation
Provo Area Office
302 East 1860 South
Provo, UT 84606

RE: Paleontological File Search and Recommendations for the Echo Recreation Development Project, Summit County, Utah
U.C.A. 79-3-508 compliance; literature search for paleontological specimens or sites

Dear Carley:

I have conducted a paleontological file search for the Echo Recreation Development Project in response to your request of March 6, 2018.

There are no paleontological localities recorded in our files for this project area. Quaternary and Recent alluvial deposits the Cretaceous Frontier Formation deposits that are exposed over these project areas have a low potential for yielding significant fossil localities (PFYC 2). There are some nearby deposits of the Cretaceous Henefer Formation that has a moderate potential for yielding significant fossil locality (PFYC 3), so please be aware of potential impacts to paleontological resources if these deposits are disturbed. Otherwise, unless fossils are discovered as a result of construction activities, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

Martha Hayden
Paleontological Assistant



Appendix C – Figures

Figure C-1 Project Area

Echo Reservoir

Bureau of Reclamation



Red Rock Cabins & Day Use Area

Wakeless Area (East of Red Line)



Dry Hollow Campground



Ranger Overlook

Wakeless Area (South of Red Line)

Chalk Creek Campground

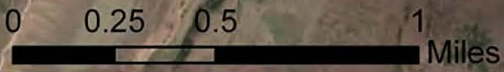


Figure C-2 Beach Day Use, Camping, and Wakeless Area

Beach Day Use, Camping, And Wakeless Area

Red Rock Campground

Beach Day Use
(When Available)

Wakeless Area
(When Available)

Dry Hollow Campground

Beach Camping
(When Available)

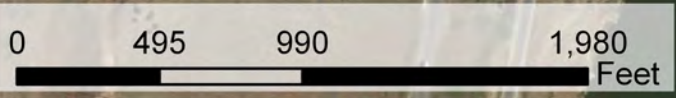


Figure C-3 Red Rock Campground

Red Rock Cabins & Day Use Areas Proposed Layout

Cabins

Potential Site for New Boat Ramp

Day Use

Existing Boat Ramp

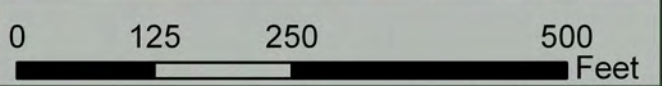


Figure C-4 Dry Hollow Campground

Dry Hollow Campground Proposed Layout

Group Use

Non-motorized
Boat Access

Overnight
Camping

Group Use

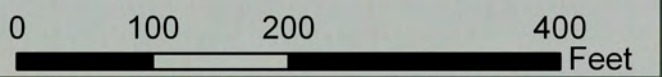


Figure C-5 Ranger Overlook

Ranger Overlook Proposed Layout

RV Dump Station

Day Use
Parking

Access to Wakeless Area

Ranger Housing
& Storage

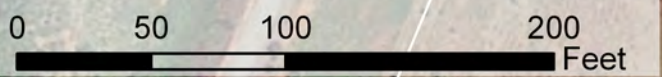
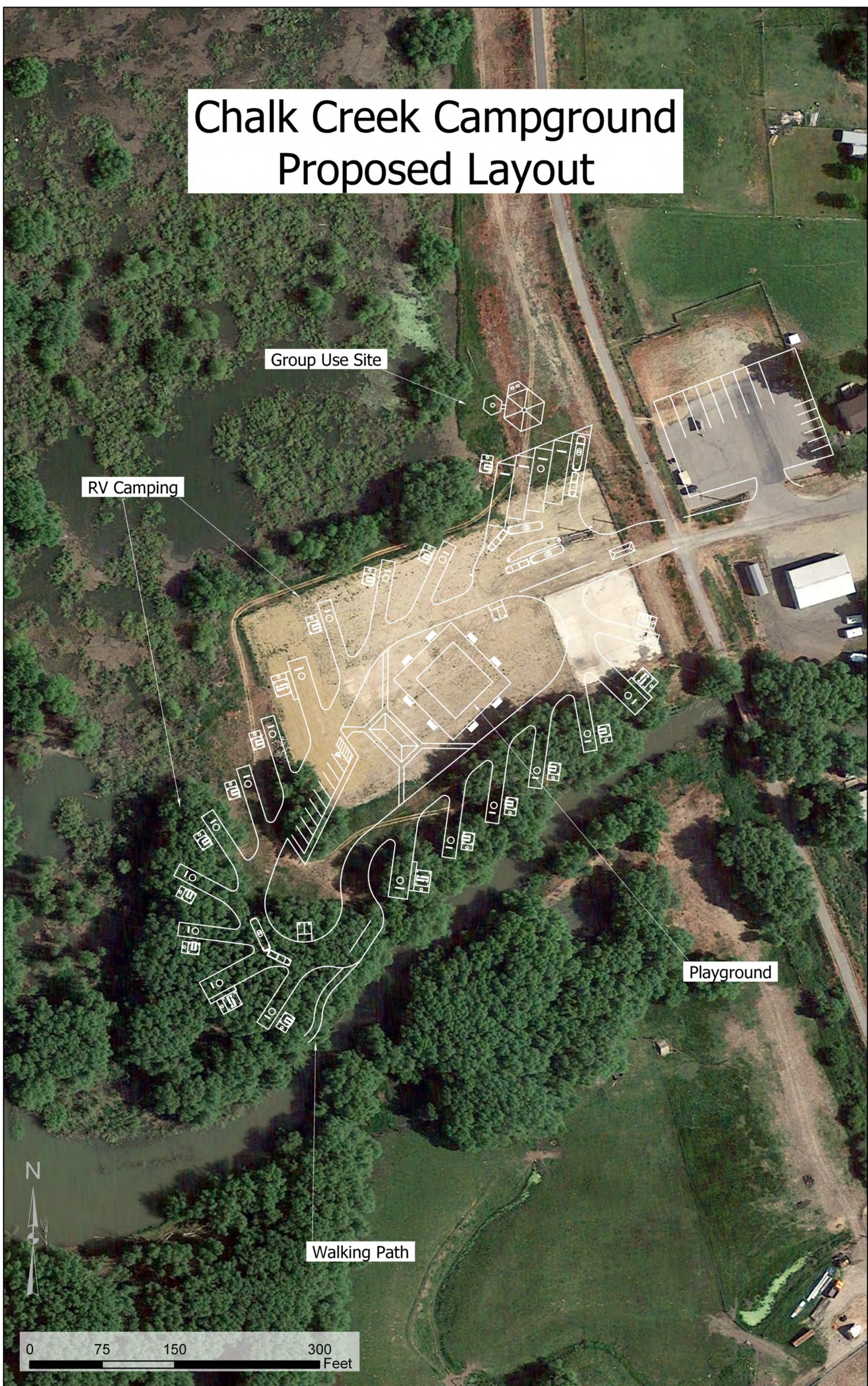


Figure C-6 Chalk Creek Campground

Chalk Creek Campground Proposed Layout



Group Use Site

RV Camping

Playground

Walking Path

