



**US Army Corps
of Engineers** ®
Walla Walla District
BUILDING STRONG®

LUCKY PEAK MASTER PLAN REVISION

**Lucky Peak Dam and Lake
Boise River
Boise, Idaho**

ENVIRONMENTAL ASSESSMENT

**In compliance with the
National Environmental Policy Act of 1970**

ADMINISTRATIVE RECORD – DO NOT DESTROY

PROJECT FILE NUMBER: PPL-C-2023-0007

October 2024

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Acronyms

AIRFA	American Indian Religious Freedom Act
BGEPA	Bald and Golden Eagle Protection Act
BRWMA	Boise River Wildlife Management Area
CAA	Clean Air Act
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
CWA	Clean Water Act
DO	Dissolved Oxygen
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EP	Engineering Pamphlet
EPA	Environmental Protection Agency
ER	Engineering Regulation
ESA	Endangered Species Act
FIRA	Future or Inactive Recreation Areas
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
HDR	High Density Recreation
HMU	Habitat Management Unit
HPRCSITS	Historic Properties of Religious and Cultural Significance to Indian Tribes
IDEQ	Idaho Department of Environmental Quality
MBTA	Migratory Bird Treaty Act
MP	Master Plan
MRM	Multiple Resource Management
MRM-LDR	Multiple Resource Management-Low Density Recreation
MRM-WM	Multiple Resource Management-Wildlife Management
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NRHP	National Register of Historic Places
NRM	Natural Resource Management
NTU	Nephelometric Turbidity Units
OMP	Operational Management Plan
PDT	Project Delivery Team
PL	Public Law
RM	River Mile
RMJOC	River Management Joint Operating Committee
RO	Resource Objective
SHPO	State Historic Preservation Officer

USACE	U.S. Army Corps of Engineers, Walla Walla District
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
WM	Wildlife Management
°F	Fahrenheit

Section 1: Introduction

This environmental assessment (EA) identifies, considers, and describes potential environmental effects associated with the proposed action of revising and updating the 1988 Lucky Peak Master Plan (MP) for management of the lands and associated recreational, natural, and cultural resources of Lucky Peak operating project (herein may be referred to as the Project), located on the Boise River near Boise, Idaho. The MP guides how the U.S. Army Corps of Engineers, Walla Walla District (USACE) manages the Lucky Peak Dam project. MPs are about the *land and natural resources management* – they do *not* address dam operations (e.g., spill, fish passage, or dam breaching), flood risk management (e.g., levees), hydropower production or navigation. USACE proposes to revise and update the 1988 MP to comply with new USACE policy in Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550 and EP 1130-2-540 which guide these management activities (USACE 2013), and to respond to regional and Project changes.

The MP would address, among other topics, changing public/visitor use, new or added endangered species listings, and future guidance for the management of the Lucky Peak project recreation, natural and historic/cultural lands. The revised MP would deal in concepts, not details, of design or administration. Detailed management and administration functions would be addressed in a five-year Operational Management Plan (OMP) or similar plan, which would implement the concepts of the MP through operational actions. Actions identified in the OMP or similar plan would be reviewed annually to identify upcoming actions needing review under NEPA and other applicable environmental laws and regulations. The revised MP would guide and articulate USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the Project lands, waters, and associated resources.

The revised MP would be a strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources of the Project for the next 20 years. The revised MP would promote the efficient and cost-effective management, development, and use of Project lands. It would be important tool for the responsible stewardship and sustainability of Project resources for the benefit of present and future generations.

As required by the National Environmental Policy Act (NEPA) and subsequent implementing regulations promulgated by the Council on Environmental Quality (CEQ), this EA is prepared to determine whether the action proposed by USACE constitutes a “. . . major federal action significantly affecting the quality of the human environment . . .” and whether an environmental impact statement (EIS) is required. This EA is prepared pursuant to NEPA, CEQ regulation [40 Code of Federal Regulations (CFR) 1500-1508], and the USACE implementing regulation, Policy and Procedure for Implementing NEPA, ER 200-2-2 (USACE 1988), also known as 33 CFR 230. The EA covers the proposed action of revising and implementing an updated MP. However, future site-specific actions following revision of the MP (e.g., further development of camping locations), may necessitate additional analysis as required by NEPA.

NEPA is a full disclosure law, providing for public involvement in the NEPA process. All persons and organizations that have a potential interest in major actions proposed by a federal agency – including the public, other federal agencies, state and local agencies, Native American Tribes, and interested stakeholders, are encouraged to participate in the NEPA process.

The revised MP would guide and articulate USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the Project lands, waters, and associated resources. Again, MPs are about the *land*; the revised MP would not address dam management procedures and functions, including operations and maintenance of the dam and hydropower facilities, dam breaching, navigation locks and channel, levees, fish passage ladders/facilities or emergency flood operations.

1.1 Project Location and Background Information

Lucky Peak Dam is located on the Boise River at river mile 66 at the edge of the Sawtooth Mountain Range in southwestern Idaho and 12 miles southeast of downtown Boise. (Figure 1-1). The reservoir impoundment of the Boise River, called Lucky Peak Lake, is approximately 11.35 miles long and has 43 miles of shoreline, 2,852 acres of water surface area, and 4,223 acres of land managed by USACE, either directly or indirectly. Portions of the Project lie in Ada, Boise, and Elmore Counties, Idaho.

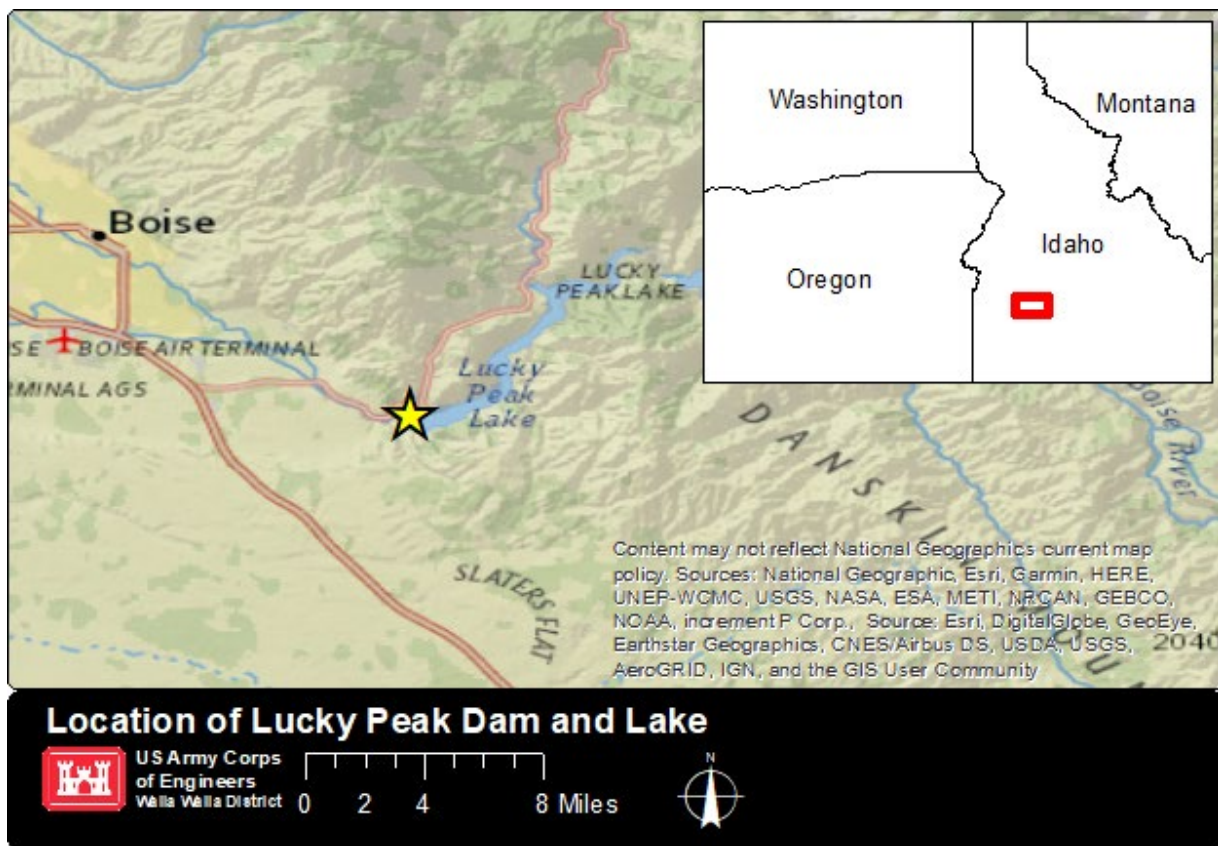


Figure 1-1: Location of Lucky Peak Dam

1.2 Authority for the Project

The Construction of Lucky Peak Lake was authorized by the Flood Control Act of 1946 (Public Law [PL] 79-526). Authorization was for the primary purposes of irrigation and flood control for the City of Boise. Additional laws (i.e., PL 78-534 and PL 89-72) provided authority for USACE to develop recreation facilities and include recreation as a project purpose.

1.3 Master Plan History

The original MP was developed in 1955 and was revised and updated in 1964 and 1965. The most recent 1988 MP was written in accordance with ER 1130-2-550, which was the guidance in effect at that time. Since then, the Project has undergone several changes, most of which were never formalized with a MP revision or supplement. A supplement is a minor change to a MP such as change in land classification or facility footprint. Supplements should be prepared as often as necessary to ensure MPs remain relevant.

1.4 Purpose and Need

A new master plan is needed because the 1988 MP no longer complies with USACE policy or current regulations and does not reflect current land management needs effectively. The purpose of the MP revision is to create a strategic planned use management document that guides the management and development of the Project's recreational, natural, and cultural/historic resources in a comprehensive manner; and complies with applicable laws, regulations, and USACE policies. Adopting and implementing an updated MP will support the USACE's responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources at the Project.

The 1988 MP no longer fulfills the intended purpose due to changes in USACE policy as there has been a substantial increase in public use of the Project. An all-inclusive approach is needed to respond to public requirements while meeting all other Project goals and resource objectives (ROs). The revised MP would promote the efficient and cost-effective management, development, and use of Project lands. It would be an important tool for responsible stewardship and sustainability of Project resources for the benefit of present and future generations.

The MP also needs to be revised to reflect the current regional goals of invasive species management, wetland protection, habitat management, and restoration. Further, the public has expressed interest in enhancement of native plants and animals, availability and accessibility of recreational resources, preservation of scenic resources, and public land uses that support diversity, equity, and inclusion.

An updated MP is needed because the existing 1988 MP is more than 36 years old and provides an inadequate basis from which to evaluate contemporary (current and future) land and resources management. The revised and updated MP would comply with new policy found in the USACE ER and EP 1130-2-550, which requires the Project to focus on qualities, characteristics, and potentials of Project lands and provides consistency

and compatibility with national objectives and other state and regional goals and programs. The revision and approval of the MP would assure the requirements of USACE policies are met, and that comments from the public, local, state, federal agencies, and Tribes are considered.

USACE regulations require each Civil Works Operating Project (such as Lucky Peak) to develop a MP. As stated in EP 1130-2-550, MP goals must meet the following screening criteria:

- Respond to regional needs and expressed public interests consistent with authorized Project purposes,
- Provide for the comprehensive management and development of all Project recreational, natural, and cultural resources,
- Comply with USACE Master Plan policy, environmental laws, and regulations.

The revised MP would consist of management concepts, not the specific details of design or administration. It is intended to serve as a guide for the orderly and coordinated development, management, and stewardship of all recreational, natural, and cultural resources of the Project. The MP is an overarching framework for a more detailed OMP or similar plan, which may be developed after the MP is completed and updated within a five-year work plan. An annual work plan is recommended to identify budgeting and District support needs. The MP classifies lands to provide for balanced management of the competing interests of these resources.

1.5 Land Classifications

Land classification designates the primary use for which Project lands are managed. All lands that were acquired for the Project were classified by the former MP to provide for development and resource management consistent with authorized purposes and other federal laws. During the classification process, USACE considers direct and indirect public input through comments and site use, regional and Project specific resource requirements, and site suitability. Land classifications established in EP 1130-2-550 include the following six categories:

Project Operations: These are lands required for the dam and associated structures, administrative offices, maintenance compounds, and other areas used for Project operations and maintenance of the Lucky Peak Dam and Lake.

High Density Recreation: These lands are designated for intensive recreational use to accommodate and support the recreational needs and desires of Project visitors. They include lands where existing or planned major recreational facilities are located; and allow for developed public recreation facilities, concession development, and high-density or high-impact recreational use.

Mitigation: These are lands specifically allocated and designated to offset losses associated with the development of an operating project. There are not any lands in the Project area that should be classified as Mitigation.

Environmentally Sensitive Area: These are lands where scientific, ecological, cultural, or aesthetic features have been identified.

Multiple Resource Managed Lands: These are lands managed for one or more of the activities described in the following bullets:

- Low Density Recreation – These lands emphasize opportunities for dispersed or low-impact recreation use.
- Wildlife Management – These lands are designated for wildlife management.
- Vegetative Management – These lands focus on the protection and development of vegetative cover, although all Lucky Peak lands are primarily managed to protect and develop vegetative cover in conjunction with other land uses.
- Future or Inactive Recreation Areas – These are lands where recreation areas are planned, or lands that contain existing recreation areas that are temporarily closed.

Water Surface: The water surface acreage at the Project is divided into the following zones to support public safety and security:

- Restricted – Water areas restricted for Project operations, safety, and security purposes.
- Designated No-Wake – Shoreline areas designated to protect recreational water access areas from disturbance, environmentally sensitive shoreline areas, and/or for public safety.
- Open Recreation – Those waters available for year-round or seasonal water-based recreational use.

Ideally, the large-scale changes in land ownership and use over 35 years throughout the Project, along with the nomenclature changes, would have been documented in a MP revision or supplement before now, however, this is the first full revision of the MP since 1988. USACE needed to translate the previous land classifications to the currently authorized land classifications under EP 1130-2-550 and to update the most recent acreage amounts for land classification for comparison with the revised MP land classifications.

Table 1-1 below depicts a crosswalk between the two different classification nomenclatures. Table 1-2 below summarizes the changes in acreage between the previous and most recent (2024) land classifications. The difference in total acreage (67 acres) can be attributed to rounding and differences in mapping systems. Technology and software have advanced and are better able to calculate areas from the previous classification update.

Table 1-1: Previous Land Classification Nomenclature and New Land Classification Nomenclature

Current (Old) Land Classifications	New Land Classifications
Project Operations <ul style="list-style-type: none"> • Project Structures • Port Terminal • Industrial Use and Access 	Project Operations
Recreation: Intensive Use – Initial	High Density Recreation
Recreation: Low Density Use Recreation: Intensive Use – Future Wildlife Management: Intensive Wildlife Management: Moderate	Multiple Resource Management <ul style="list-style-type: none"> • Low Density Recreation • Future and Inactive Recreation Areas • Wildlife Management
Natural Area	Environmentally Sensitive Areas
-	Mitigation
Not Classified	-

Table 1-2: Land Classification Changes from 1988 to 2024

Previous Land Classification	1988 MP Acres	2024 MP Acres
Project Operations	137	150
Low Density Recreation	713	196
High Density Recreation	365	167
Wildlife Management	2934	2937
Environmentally Sensitive Areas	0	641
Unclassified	9	0
Total	4,158	4,091

*The table represents a conversion according to the text description above

Section 2: Alternatives

2.1 Alternative Development and Evaluation

Chapter 4 of the MP (Land Allocation, Land Classification, and Project Easement Lands) provides an overview of the land classification nomenclature changes that have occurred from 1988 to 2024. The MP shows how the Project lands would be reclassified and discusses the management and use of the lands assigned to each land classification in connection with the appropriate resource objectives identified in Chapter 3 (Resource Objectives) of the MP.

NEPA requires federal agencies to consider a reasonable range of alternatives during the planning process. Alternatives considered under NEPA must include, at least, the proposed action and the “No Action” Alternative, which provides a baseline from which to compare other alternatives. In the case of an ongoing program, the No Action Alternative is no change from the current management direction or level of management intensity.

Therefore, to help facilitate the identification and evaluation of a reasonable range of alternatives, USACE provided a 30-day “scoping period” from April 10 – May 10, 2023, to give the interested public; local, state, and federal agencies; and Tribes an opportunity to provide input into the “scope” of the proposed MP revision. Scoping was designed to receive comments on how users would like to see USACE manage the recreational, natural, and cultural resources in the future. Scoping details and comments received are discussed in Section 5.1.1 (Scoping).

The proposed MP Revision is directed by USACE policies which inform consideration of alternatives for strategic Project development and management. Formulation and establishment of ROs for each Civil Works Project is required by EP 1130-2-550. ROs are clearly written statements that respond to identified issues and specify measurable and attainable activities for resource development and/or management of the lands and waters under USACE jurisdiction at the Project.

Resource Objectives for the Proposed MP Revision

1. General Resource Objectives

- Safety and Security - Provide use areas and facilities that are safe and provide the public with safe and healthful recreational opportunities.
- Aesthetic Resource - Plan all management actions with consideration given to landscape quality and aesthetics.
- Facilities Management - Ensure all current and future facilities are maintained and meet federal and state design standards.
- Real Estate Management - Prevent unintentional trespass and negative impacts associated with encroachments on government property while allowing state, county, municipal, and private entities opportunities to provide public recreation services.
- Historic/Cultural Resources Management - Inventory, record, and evaluate historic/cultural resources per legal requirements of the National Historic

Preservation Act. Preserve resources as per the Archaeological Resources Protection Act of 1979 (PL 96-95) and Native American Graves Protection and Repatriation Act (PL 101-601)

2. Recreation Resource Objectives

- Land and Water Accessibility - Provide use areas and facilities that are accessible for all visitors.
- Interpretive Services and Outreach Programs - Interpretive services would focus on agency, USACE, and Lucky Peak Dam and Lake Project missions, benefits, and opportunities. Interpretive services at the Project will be used to enhance public education and safety through promoting public awareness, understanding and appreciation of the Project and its resources.
- Recreation Optimization and Sustainability - Use leveraged resources, when possible, to maintain and improve recreation facilities that reduce operations and maintenance costs while meeting public demand.
- Quality Outdoor Recreation in Urban Settings (Intensive Use) - Operate and maintain multi-purpose facilities, as well as develop new facilities that meet public demand, to provide opportunities for multiple user groups in a rural setting.
- Quality Outdoor Recreation in Rural Settings (Intensive Use) - Operate and maintain day-use facilities, as well as develop new facilities that meet public demand, to provide opportunities for multiple user groups in a rural setting.
- Quality Outdoor Recreation in Rural Settings (Low Density Use) - Operate and maintain multipurpose facilities, as well as develop new facilities, that meet public demand and provide opportunities for multiple user groups in a rural setting.

3. Environmental Stewardship

- Riparian and Wetland Protection - Protect and limit impacts to wetlands and riparian corridors on the Project in conjunction with missions, water quality, and fish and wildlife benefits.
- Fish and Wildlife Habitat Management - Conserve, protect, restore, and enhance habitat and habitat components important to the survival and proliferation of threatened, endangered, special status, and regionally important habitat and species on Project lands.
- Integrated Pest Management - Minimize negative impacts to native flora and fauna and damage to government facilities by reducing and/or eradicating invasive and nuisance species on Lucky Peak lands.
- Fire Management - Minimize the negative effects of wildfires, including impacts to federal property and the recreating public.

2.2 Screening Criteria

For any alternative to be acceptable for further evaluation it must meet certain objectives, or screening criteria. Screening criteria help eliminate those alternatives that could not reasonably or practically meet the proposed action purpose and need. When setting up screening criteria, USACE closely re-evaluated the purpose and need of the

proposed action, which is to manage all Lucky Peak recreational, natural, and cultural resources in a comprehensive manner that complies with applicable laws and USACE policies, including current USACE land classification standards. In this re-evaluation, it became evident that balancing the USACE natural resource management mission and environmental stewardship/ecosystem management principles was key to successfully updating the Lucky Peak Dam and Lake MP.

With these objectives in mind, USACE developed the following technical and environmental screening criteria. Alternatives must:

- Respond to regional needs and expressed public interests to the extent possible and consistent with authorized Project purposes,
- Provide for the comprehensive development of public recreational uses with management of natural, and historic/cultural resources.
- Comply with USACE Master Plan policy, environmental laws, and regulations.

2.3 Alternatives

The Project Delivery Team (PDT) evaluated several options incorporating comments received during scoping and developed a reasonable range of alternatives. including the No Action Alternative, which is required by NEPA, Alternative 2 that focuses on balancing public recreational and natural/cultural resources, Alternative 3 that focuses primarily on public recreation and Alternative 4, that focuses primarily on natural and historic/cultural resources. For further information on how these alternatives were selected please see Chapter 7 of the MP. Table 2-1 demonstrates how the lands would be assigned under each alternative.

Table 2-1: Alternative Matrix. Proposed LPA MP 2024 Land Classification Nomenclature for each Alternative

LAND CLASSIFICATION NOMENCLATURE 2024	NO ACTION (acres)	BALANCED USE (acres)	RECREATION FOCUS (acres)	WILDLIFE FOCUS (acres)
Project Operations	137	150	139	150
High Density Recreation	365	167	335	167
MRM Low Density Recreation	713	196	196	196
MRM Wildlife Management	2,934	2,937	2,780	3,575
Environmentally Sensitive Areas	0	641	641	3
Not Classified	9	0.0	0.0	0.0
TOTALS	4,158	4,091	4,091	4,091

The four alternatives initially considered in this EA are described in more detail in the following subsections.

2.3.1 Alternative 1: No Action Alternative (No Change to Current Practice)

Alternatives considered under NEPA must include, at least, the proposed action and the “No Action” Alternative, which provides a baseline from which to compare other alternatives. In the case of an ongoing program, the No Action Alternative is no change from the current management direction or level of management intensity. Therefore, management would be referred to the 1988 MP and previous updates to Project lands would not be represented in a MP update.

The 1988 MP allows the expansion of high-density recreation. It was completed using the best available practices at the time and the estimated acreage of Project lands in the 1988 MP was 4,158. These acres were categorized into four classifications and nine acres were left uncategorized. The estimates of each classification in the 1988 MP are as follows (also available in Table 2-1) and will be used as a baseline for this EA:

- Project Operations, 137 acres
- High Density Recreation, 365 acres
- Low Density Recreation, 713 acres
- Wildlife Management, 2,934
- Not classified, 9 acres

Please see the 1988 MP map plates in the 1988 MP for reference.

If Alternative 1 was adopted, USACE would not revise or update the 1988 MP and changes would not be documented. Instead USACE would continue with current management practices based on strategy and guidelines in the 1988 MP and would not meet the conditions of the stated purpose and need, nor would this alternative address current USACE policy and regulations.

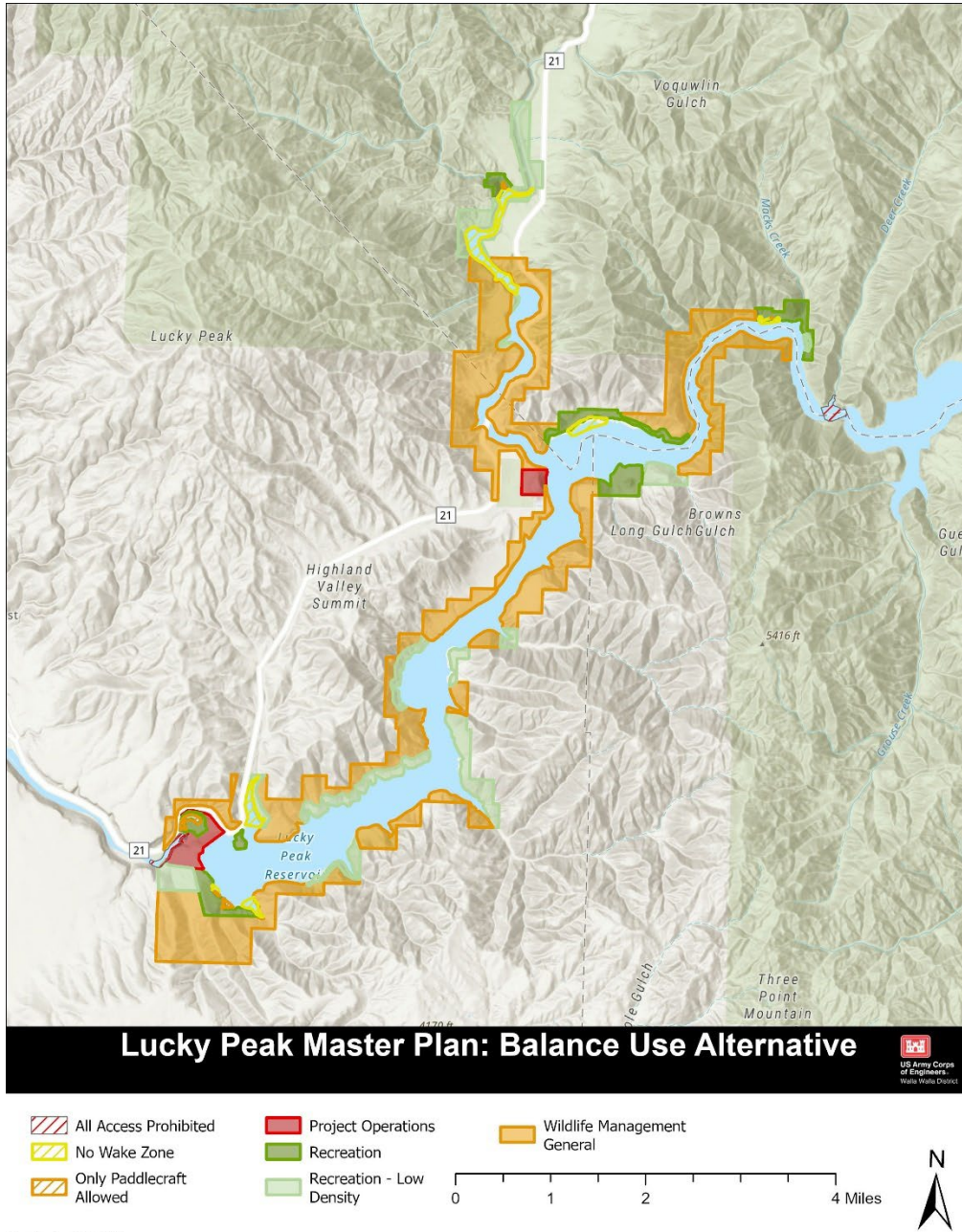
2.3.2 Alternative 2: Balanced Use Alternative

Alternative 2 was developed to balance designated visitor use with recreational, natural, and cultural resource sustainability (Figure 2-1). The Balanced Use Alternative would meet all the conditions of the stated purpose and need and responds to current USACE policy and regulations. Public comments and interactions at the Scoping meetings illustrated that the Balanced Use Alternative would satisfy all demands from those who access Project lands and satisfy USACE policy and regulations. Please see the Public Scoping Comments in Appendix A to read comments USACE received during Scoping.

Using the best resources available USACE has estimated Project lands to be less than the 1988 estimation. The change is 4,158 acres to a more accurate 4,091 acres, which is 67 acres less than previous estimates. For consistency this EA will use the most current acreage estimate from here forward, which is 4,091 acres.

Alternative 2 proposes to distribute Project lands into five classifications (also available in Table 2-1) and they are as follows:

- Project Operations, 150 acres
- High Density Recreation, 167 acres
- Low Density Recreation, 196 acres
- Wildlife Management, 2,937 acres
- Environmentally Sensitive Areas, 641 acres



September 25, 2024

Figure 2-1: Alternative 2: Balance Use Alternative

The Balanced Use Alternative would incorporate current USACE land classification standards (including updated land classification maps), classify all acreage within Project lands, provide an accurate estimation of total acreage within Project lands, include contemporary requirements mandated by federal environmental laws, and reflect the USACE Environmental Operating Principles, natural resource management mission, environmental stewardship, and ecosystem management principles.

2.4.3 Alternative 3: Recreation Focus Alternative

Alternative 3 would be a MP Revision emphasizing changes to land classifications intended to expand recreational opportunities on USACE-managed lands (Figure 2-2). Interdisciplinary team personnel from the PDT identified potential lands to reclassify under a recreationally focused alternative to change to either High Density Recreation (HDR, also called parks) or Multiple Resource Management – Low Density Recreation (MRM-LDR). This would include changing some Operations and MRM-WM lands.

From scoping, the public expressed an overall desire to participate in actions that were lower density see Appendix A for a copy of public comments received. The total visitation for the Project for the year 2022, was an estimated 932,000 (USACE 2022) and will more than likely continue climbing as Boise continues to see growth in population. From the U.S. Census Bureau, there was a 14 percent increase in population in the Boise Metro area from 2017 to 2022 and a 25 percent increase for 2012-2022.

PDT staff assessed site suitability and used recent visitation trends and scoping comments to determine which land management units to convert. Selection of this alternative would allow for the creation of new parks, easier access, and upgraded or new visitor facilities (also available in Table 2-1).

Alternative 3 proposes to distribute Project lands into five classifications (Figure 2-2) and they are as follows:

- Project Operations, 139 acres
- High Density Recreation, 335 acres
- Low Density Recreation, 196 acres
- Wildlife Management, 2,780 acres
- Environmentally Sensitive Areas, 641 acres

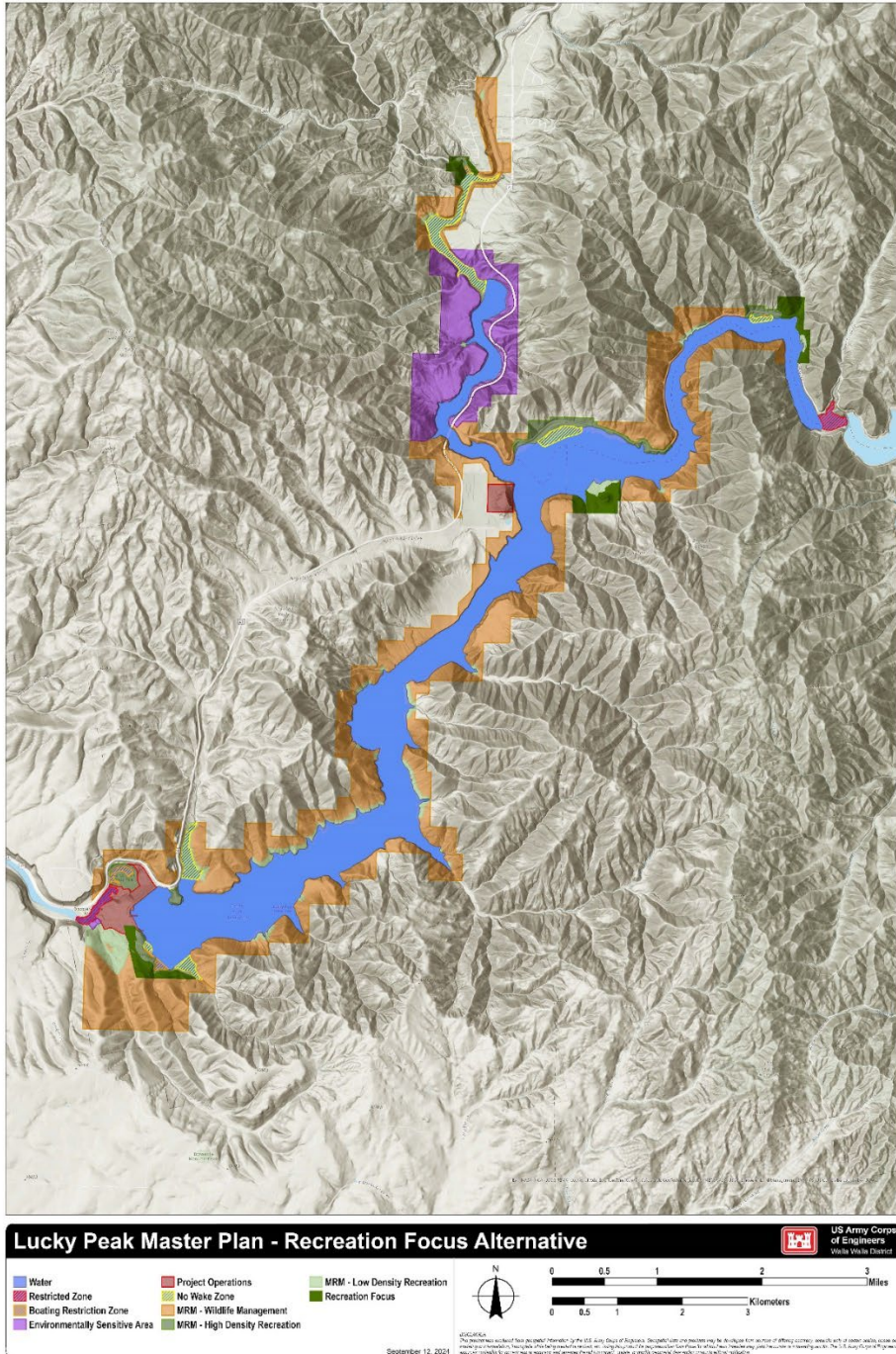


Figure 2-2: Alternative 3: Recreation Focus Alternative

2.4.4 Alternative 4: Wildlife Focus Alternative

Alternative 4 would be a MP Revision emphasizing changes to land classifications intended to prioritize preservation and enhancement of wildlife resources and habitat (Figure 2-3). PDT personnel identified land management units to convert to MRM-WM from Operations and MRM-LDR, which would benefit wildlife. Personnel identified areas with wildlife habitat potential and lower visitation to select sites for conversion to MRM-

WM. Selection of this alternative would reduce recreation opportunities and allow for the creation or enhancement of better wildlife habitat on USACE-managed lands. See Figure 2-3 below.

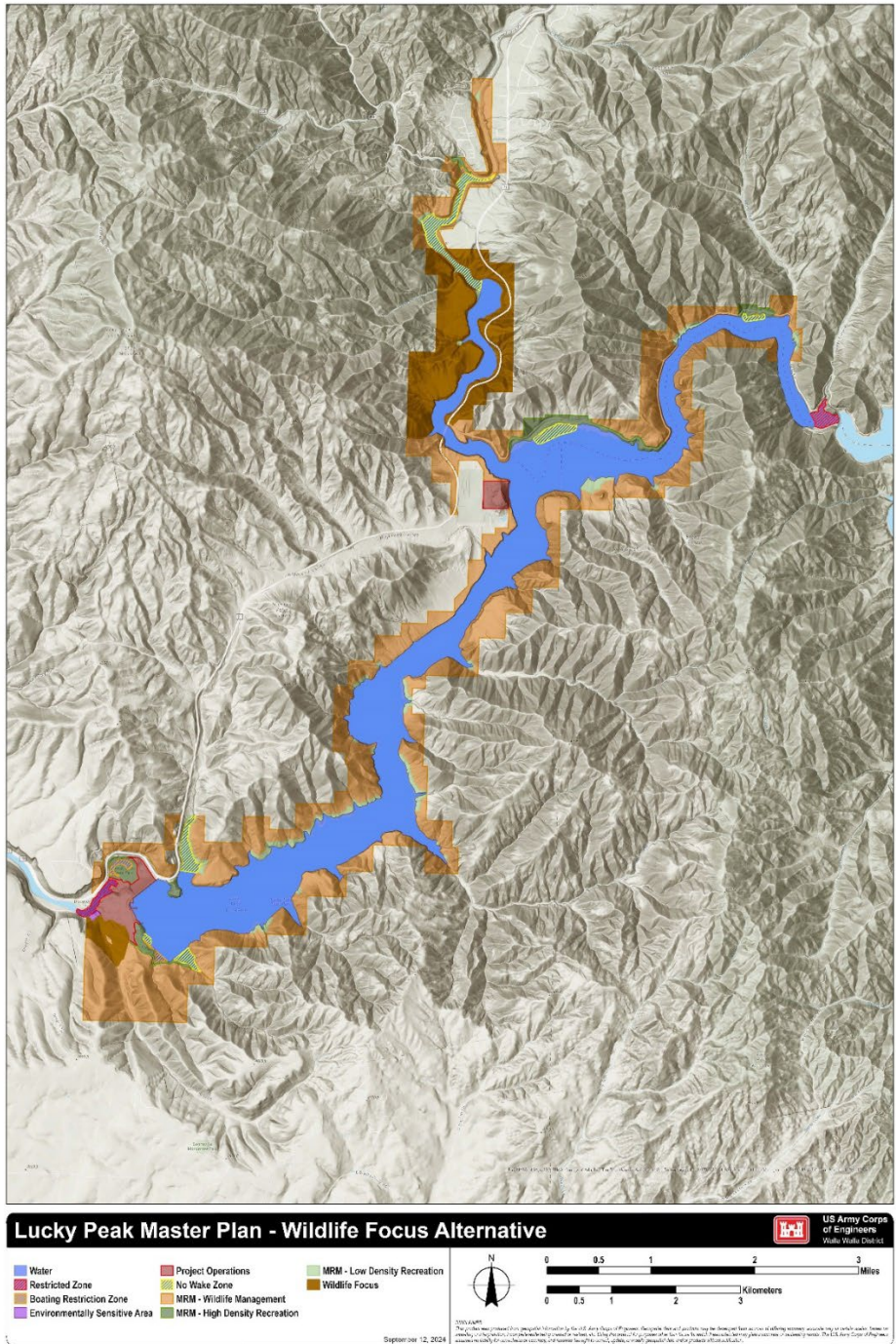


Figure 2-3: Alternative 4: Wildlife Focus Alternative

Alternative 4 proposes to distribute Project lands into five classifications (see Table 2-1) and they are as follows:

- Project Operations, 150 acres

- High Density Recreation, 167 acres
- Low Density Recreation, 196 acres
- Wildlife Management, 3,575 acres
- Environmentally Sensitive Areas, 3 acres

For this alternative the acres suggested for Wildlife Management would primarily focus on the management of land for stewardship of fish and wildlife resources in conjunction with other land uses. Habitat maintenance and improvements, if allocated in the future, would be focused on a designated species, or a group of species. Low density recreation would be the secondary use of these acres and is something that was expressed by the public during scoping. Secondary low-density recreation is considered passive activities.

2.4 The Screening Process

The development of the revised Master Plan includes a series of interconnected tasks that involve examining and analyzing past, present, and future environmental, recreational, and socioeconomic conditions and trends. Within a generalized conceptual framework and public input, the process focused in four primary components:

1. Regional and ecosystem needs.
2. Project resource capabilities and suitability.
3. Expressed public interest that are compatible with authorized Project purposes.
4. Environmentally sustainable elements.

Information collected during the scoping period was integrated with the Project's needs inventory to collect a list of opportunities, constraints, and other factors influencing future natural resources and recreation development and management. Based on this input, updated land classifications were established, resulting in the creation of land classification maps which will be featured in this EA. The alteration of maps guides appropriate development and management actions outlined in planning and management documents. Thus, documenting changes that have been made in the Project area and providing an updated MP.

There are several factors that influence and constrain present and future use, management and development of land and water resources at the Project. The three interrelated categories are natural resources, historical and social resources, and administration and policy. The screening process involves analyzing these factors, along with regional needs and public input, to create a framework that minimizes adverse environmental impacts and addresses competing and conflicting issues.

The screening criteria which evolved from the process are as follows:

- Responds to regional needs and expressed public interests consistent with authorized Project purposes.

- Provides for the comprehensive management and development of public recreational uses, and management of natural and historical and cultural resources.
- Complies with USACE MP policy, environmental laws, and regulations.

Once these screening criteria were devolved and the alternatives were formulated, the PDT compared the alternatives to the screening criteria above. Action alternatives that met all three if the screening criteria were carried forward, as was the No Action Alternative as required by NEPA to provide a baseline. Results are outlined in Section 2.5 and 2.6.

2.5 Alternatives Carried Forward for Detailed Analysis

- Alternative 1: No Action Alternative (No Change to Current Practice)
- Alternative 2: Balanced Use Alternative (Proposed Action)

Alternative 1 (No Action/No Change to Current Practice) will be carried forward to Chapter 3 “Affected Environment and Environmental Effects” as required by NEPA, providing a basis for comparison with other alternatives. Under this alternative, USACE would continue to use the Revised 1988 MP with its associated management practices, and not implement a MP revision/update, to include the land classifications. The 1988 MP does not provide a regional analysis of recreation and ecosystem needs, Project resource capabilities, or recreation program analysis, which are essential to the balanced approach and requirements of current USACE MP policy. Although USACE currently uses the 1988 MP, the document does not fulfill all current USACE requirements for an approved MP.

Alternative 2, the Balanced Use Alternative, would meet all the conditions of the stated purpose and need, and would respond to current USACE policy and regulations. The Balanced Use Alternative would help focus on the primary components that were not included in the 1988 document, or that require expanded analysis, including: (1) Responds to regional needs and expressed public interests consistent with authorized Project purposes; (2) Provides the comprehensive management and development of public recreational uses, and management of natural and historical and cultural resources; and (3) Complies with USACE MP policy, environmental laws, and regulations. Alternative 2 will be carried forward to Chapter 3 as the Proposed Action Alternative.

2.6 Alternatives Removed from Further Consideration

- Alternative 3: Recreation Focus Alternative
- Alternative 4: Wildlife Focus Alternative

Alternatives 3 and 4 fail to fully respond to the purpose and need identified for the proposed action. Of critical importance is the need to emphasize that a revised MP would seek to balance protection and conservation of natural and historic/cultural resources with recreational development and use. Alternatives 3 and 4 are not

consistent with multiple use authorized Project purposes, as each focuses primarily on either recreation or natural resources (wildlife) management. Alternatives 3 and 4, therefore, have been eliminated from further consideration as not satisfying the purpose and need for the proposed action, as identified in Section 1.4 (Purpose and Need).

Section 3: Affected Environment and Environmental Effects

3.1 Introduction

This section describes the affected environment and evaluates potential environmental effects on those resources for each alternative. Alternative 1 (No Action) and Alternative 2 (Balanced Use) were carried forward for analysis.

The following terms are used in the body of this chapter for consistency in describing impact intensity in relation to significance:

- **No or Negligible Impact:** The action would result in no effect, or the effect would not change the resource condition in a perceptible way. Negligible is defined as of such little consequences as to not require additional consideration or mitigation.
- **Minor Impact:** The effect to the resource would be perceptible; however, the effect would not be major and unlikely to result in an overall change in resource character.
- **Moderate Impact:** The effect to the resource would be perceptible and may result in an overall change in resource character. Moderate impacts are not significant due to their limited context (the geographic, biophysical, and social context in which the effects would occur) or intensity (the severity of the impact, in whatever context it occurs).
- **Significant Impact:** The effect to the resource would be perceptible and may be severe. The effect would likely result in an overall change in resource character. The determination of significant impact to any resource would require the completion of an Environmental Impact Statement.
- **Direct Impacts:** Direct effects are caused by the action and occur at the same time and place. Activities that occur from implementation of the proposed action would directly affect a change, and initial effects would be immediately evident.
- **Indirect Impacts:** Indirect effects are caused by the action but are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Activities that occur from implementation of the proposed action would not affect this change, but would enable change to occur, or change would occur later in time, or farther in distance than the actions.
- **Cumulative Impacts:** Cumulative impact is the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

3.2 Affected Environment and Environmental Evaluation by Resource

The following resource areas were evaluated: Land Use, Wetlands, Recreation, Vegetation, Geologic Features and Soils, Threatened and Endangered Species, Wildlife, Water Quality, Aquatic Resources, Socioeconomics and Environmental Justice, Historic and Cultural Resources, Greenhouse Gas Emissions and Climate Change Analysis, and Cumulative Effects. It was determined that it was not necessary to evaluate Aesthetics/Visual Quality, Noise, or Air Quality as implementation of the Balanced Use Alternative would have no or negligible effects on these resources, see Table 3-1.

Table 3-1: Environmental Resources Not Evaluated Further

Environmental Component	Explanation
Aesthetics and Visual Quality	Aesthetics and Visual resources would evolve in the action area through natural processes as vegetation matures, or streambanks erode, or through changes occurring on adjacent lands within the view shed. Aesthetics and Visual Quality would be negligibly impacted by the proposed MP Revision as it does not proposed development with the potential to affect such resources.
Noise	Noise sources may include boat operation and vehicle use that are part of the existing baseline condition. Noise levels would be negligibly impacted by the proposed MP Revision.
Air Quality	The project area meets Idaho State ambient air quality standards and is in “attainment” as the existing baseline condition. No Statement of Conformity is needed in attainment areas, such as Ada, Boise, and Elmore counties. Air quality would be negligibly impacted by the proposed MP Revision as the MP would continue to allow for use of vehicles and watercraft at existing levels but does not propose any changes.

3.2.1 Land Use

Affected Environment

Lucky Peak Dam and Lake extends across the Boise River. It includes a rolled earth and gravel fill dam. Lucky Peak Lake (also referred to as Lucky Peak Reservoir) extends 12 miles to Arrowrock Dam and Project lands are found in three counties, Ada, Boise, and Elmore, see Figures 3-1 and 3.2 below.



Figure 3-1: View of Luck Peak Dam, Exhibiting the Rolled Earth and Gravel Filled Dam



Figure 3-2: Luck Peak Dam Project Area

Project lands are classified to designate the primary use for which those lands are managed. The classification process considers public input, and regional and Project specific resource requirements. Land classification also considers what resources are present, the accessibility of the site, and public desirability for the site.

Lands in the Project area are classified for recreation, wildlife habitat, and operational needs. Public recreation use of the Project lands is described below in Section 3.2.2 (Recreation). Lands classified as wildlife habitat can be used by the public for hunting, fishing, bird watching, and viewing. USACE manages these lands to provide wildlife with habitat and migration corridors as described in Section 3.2.4 (Wildlife).

Environmental Effects

Alternative 1 - No Action. Under the No Action Alternative, land classifications and land use potential on USACE managed properties would continue as currently

implemented under the 1988 MP which allows for expansion of high-density recreation. There would be no short-term impacts to land use under this alternative, as the 1988 Lucky Peak MP would remain in place. However, long-term impacts could occur if land classified for recreation is developed and the potential for increased public access to USACE managed lands is realized.

As undeveloped classified recreation land currently supports vegetation communities that create wildlife habitat, there would be moderate impacts to that land use as potential recreation areas are developed. The No Action Alternative is less focused on the management, or protection of, natural and cultural resources, and those resources could be damaged or removed as more acres would be converted to recreation.

Future analysis of effects on land use would be conducted in a separate NEPA document if specific recreational land development was proposed. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on land use.

Alternative 2 - Balanced Use Alternative. Short-term and long-term impacts to land use from the Balanced Use Alternative would be the same or similar to the No Action Alternative. Additionally, there would be long-term moderate beneficial direct and indirect impacts from the implementation of the Balanced Use Alternative because the Balanced Use Alternative focuses on balancing the protection of natural and cultural resources with recreational development. Land designated to protect natural and cultural resources would increase by 644 acres as shown in Table 3-2 and Figure 3-3 below.

Table 3-2: Land Classification Changes from 1988 to 2024

Land Classification	Changes in acres
High Density Recreation	-198
Low Density Recreation	-517
Project Operations	+13
Environmentally Sensitive Areas	+641
Not Classified	-9
Wildlife Management	+3

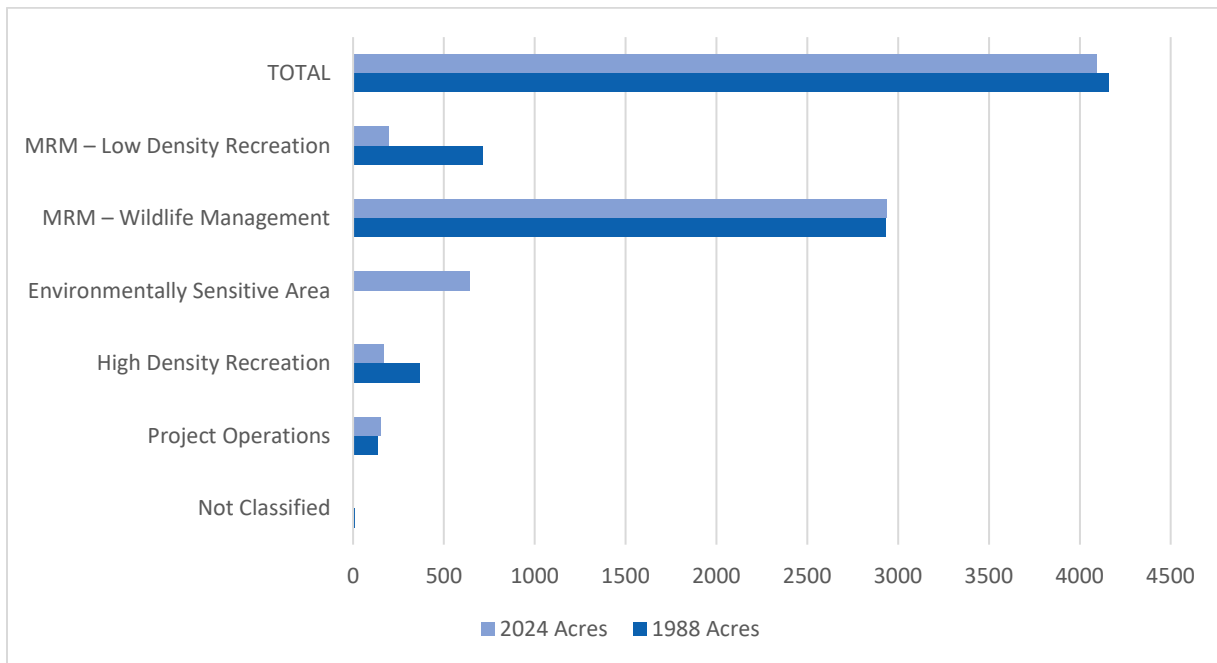


Figure 3-3: Illustration of Land Classification changes from 1988 to 2024

Further, the Balanced Use Alternative would reclassify lands according to the required analysis for regional needs, resource capabilities and site suitability, and would provide a comprehensive recreation program. The Balanced Use Alternative would not substantially reduce, eliminate, or expand current public access to USACE managed lands in the Project area, only how those lands are managed and developed in the future; therefore, the Balanced Use Alternative would not have significant adverse impacts to land use.

3.2.2 Wetlands

Affected Environment

Wetlands are rich ecosystems that support diverse flora and fauna species, increasing biodiversity. They have the ability to filter pollutants and excess nutrients from the water which assists in healthy aquatic systems. Wetlands act as natural buffers that can absorb excess rainfall and reduce flood risks and they sequester carbon which can help mitigate climate change. They play an important role with local water cycles as they affect groundwater recharge and surface water flows, and many communities rely on wetlands. Wetlands are often used as a nursery by many species or other cycles of a species throughout its lifespan. By stabilizing soils, wetlands also play a role in lessening the erosion along the Projects shorelines.

Riparian and Wetlands

Riparian habitats include the typically dense and lush vegetation growing along streams, rivers, springs, wetlands, ponds, and lakes. They are the transition zone between aquatic or wetland habitats and dry uplands. Because rivers and streams are so variable due to the climate, elevation, bedrock, shape and steepness of valleys, soils, and other factors,

the riparian habitats also vary in their appearance ranging from forests or dense shrublands to grassy meadows (Murphy 2012). Wetlands in the Project area include Lacustrine, which means to be associated with lakes, systems composed of wetlands and deepwater habitats situated in a topographic depression or a dammed river channel. Lacustrine wetland types typically lack trees, shrubs, persistent emergent aquatic plants, and emergent mosses or lichens with 30 percent or greater areal cover. A lacustrine system water body covers a total area of at least 20 acres (NWI 2024).

Lucky Peak Lake is classified as wetland type **L1UBHh**, under the USFWS National Wetlands Inventory classification system, defined as follows:

- Subsystem **Limnetic (L1)**: This Subsystem includes all deepwater habitats (i.e., areas greater than 8.2 feet deep below low water) in the Lacustrine System.
- Class **Unconsolidated Bottom (UB)**: Wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30 percent.
- Water Regime **Permanently Flooded (H)**: Water covers the substrate throughout the year in all years.
- Special Modifier **Diked/Impounded (h)**: Wetlands created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water.

See Table 3-3 below for Project area wetlands.

Table 3-3: Palustrine and Seasonal Wetland Types on Project Lands

Wetland Type	Total Acres	Project Units Where Wetland Type is Found
Intermittent or Seasonally-flooded, Riverine wetland	21.9	Throughout most of Project area. Particularly prominent at Turner Gulch and The Narrows units
Palustrine, Seasonally-flooded, Scrub-Shrub wetland	13.9	Birch Creek, Foote Park, the Cervidae unit and the Deer Creek Environmentally Sensitive Area (ESA)
Palustrine, Permanently-flooded, Unconsolidated bottom	3.5	Macks Creek unit, Pipeline unit, Cervidae unit
Riverine, Perennial, High-gradient, Unconsolidated bottom	3.5	Upper Mores Creek unit
Palustrine, Seasonally-flooded, Emergent wetland	2.2	The Nursery unit
Forested shrub Riparian	1.0	Macks Creek unit
Palustrine, Forested, Seasonal	0.6	Nursery unit

Environmental Effects

Alternative 1 – No Action. The No Action Alternative would result in no changes to land classifications. Actions associated with ongoing management would not result in significant impacts to wetlands.

Any future development of recreation lands as the 1988 MP would allow, could have minor direct and in-direct impacts to wetlands in the short-term from construction activities. Riparian and wetland vegetation may be removed during any future proposed construction and could have several negative impacts. The destruction or degradation of wetlands can lead to a loss of biodiversity, water quality issues, flooding risks, climate change effects, altered hydrology, economic consequences, and soil erosion.

If specific land development was proposed as the 1988 MP would allow, future analysis of effects on wetlands would be conducted in a separate NEPA document. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the Action Alternative would not have a significant adverse impact on wetlands.

Alternative 2 – Balanced Use Alternative. Management of USACE lands upon implementation of the proposed land classification would be consistent with the designated beneficial uses of the Project. Long term benefits to wetlands could come from implementing Alternative 2 as it would increase those lands classified as Environmentally Sensitive Areas and Wildlife Management.

Environmentally Sensitive Areas and Wildlife Management land classifications are generally more protective of wetlands due to decreased development and promote the vitality of natural systems, such as wetlands. Alternative 2 would not have a significant adverse impact on wetlands.

3.2.3 Recreation

Affected Environment

Lucky Peak Lake above Lucky Peak Dam includes 4,288 land acres, 3,019 surface water acres, and 45 shoreline miles. The MP area includes 10 recreation areas, 154 picnic sites, 96 camping sites, 4 playgrounds, 4 swimming areas, 6 boat ramps, and 303 marina slips (USACE 2019). Recreational activities take place throughout the year, with the highest activity levels during the fair-weather periods of late spring, summer, and early autumn.

Lucky Peak Dam Recreation area is the largest and most popular gateway at Lucky Peak Lake. The area offers boat launches, which allows for many water activities such as, boating, kayaking, paddleboarding, and fishing to name a few. There are also opportunities for picnicking, hiking, biking, equestrian, beach, and a 20- basket Disk golf course. Guests can also explore basalt cliffs, canyons, and riparian areas.

Environmental Effects

Alternative 1 – No Action. Management of the 1988 MP allows for expansion of high-density recreation. There would be negligible direct and indirect short- and long-term impacts to recreation from the No Action Alternative, because there are no sudden surges in recreational use predicted and because there are no planned changes to available recreational land.

Future analysis of effects on recreation would be conducted in a separate NEPA document if specific recreational land development was proposed. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on recreation.

Alternative 2 – Balanced Use Alternative. Short-term impacts to recreation from the Balanced Use Alternative would be similar to the No Action Alternative. Although implementation of the Balanced Use Alternative would result in the loss of 715 acres of land classified for recreation (as shown in Table 3-2) the Balanced Use Alternative increases lands classified as Wildlife Management and Environmental Sensitive Areas by 83.4 acres, to meet increasing demand for low density recreational use. The Balanced Use Alternative would provide a comprehensive and efficient recreation program based on public demand, while balancing the need to protect natural and cultural resources on Project lands. The popularity of low-impact recreational uses of Project lands, such as hiking, bird watching, and bicycling, has increased in recent years. Low density recreational use is allowed under all land classifications as secondary uses, except in instances where lands classified as Project Operations are closed to public for safety, security, or operational reasons. As an example, Lucky Peak Dam is classified as Project Operations, but there is a paved road atop of the dam that can be crossed with a vehicle, and both sides have recreation areas for public use. Therefore, there would be no significant adverse impact to recreation.

3.2.4 Vegetation

Affected Environment

The factors influencing the type and distribution of vegetation on Project lands include elevation, slope aspect, soil depth, climate, seed availability, reservoir level fluctuation and other manmade influences. The Project is in the high desert province of the Great Basin where a sagebrush-steppe vegetation association predominates (Svejcar et al. 2017). The climate, consisting of hot, dry summers with most of the precipitation occurring as snow during the winter months, results in a dominant plant community of low growing shrubs with deep root systems (i. e., bitterbrush (*Purshia tridentata*) and rabbitbrush (*Chryostamnus spp.*) capable of absorbing the scant moisture available during the growing season.

In the sheltered, moist habitats along streams, in gulches and some shoreline areas, broad-leaved shrubs and small trees (i.e., alder (*Alnus*) and willow (*Salix spp.*) are found. Ponderosa pine (*Pinus ponderosa*) trees occupy sheltered northeast slopes in the upper elevations of the Project area. Scattered pines can also be found on lower north-facing slopes near the reservoir. These slopes have slower evaporation rates than

south- and west-facing slopes. Some introduced black locust (*Robinia pseudoacacia*) trees survive in the Project area in suitable spots. The vegetation inventory for USACE managed lands is currently undergoing revision from the 1988 MP list (USACE 1988).

Invasive vegetative species and noxious weeds are also present on Project lands, especially in disturbed sites and near high recreation use areas including roads, trails, river corridors, and campgrounds. Six noxious weed species are known to occur in the area including Canada thistle (*Cirsium arvense*), puncturevine (*Tribulus terrestris*), rush skeletonweed (*Chondrilla juncea*), Scotch thistle (*Onopordum acanthium*), spotted knapweed (*Centaurea stoebe*), and whitetop (*Lepidium draba*) (ISDA 2023).

Upland Community

The Project lands generally consist of mountainous, deeply dissected, partially glaciated terrain characteristically underlain by granitic rocks. Habitats compose the Foothills Shrublands-Grasslands sub-region (McGrath 2002) and are dominated by rolling, grassy plains or “steppe,” with an overstory of sagebrush (*Artemisia tridentata*) and other woody shrubs. Shrub-steppe habitat supports over 70 percent of Idaho’s special status species and therefore, this habitat type is closely monitored and managed to provide minimal disturbance from other uses (recreation, grazing, development, etc.) and is a target habitat type of focused conservation and restoration efforts.

Environmental Effects

Alternative 1 – No Action. Management of the 1988 MP allows for expansion of high-density recreation. The potential increase in recreational areas available to the public increases the potential for moderate direct and indirect long-term negative effects to vegetation. Trampling, unauthorized digging, and other ground disturbance related to recreational activity could all increase and have a negative direct impact on vegetation.

Future analysis of effects on vegetation would be conducted in a separate NEPA document if specific recreational land development was proposed. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on vegetation.

Alternative 2 – Balanced Use Alternative. There would be both direct and indirect moderate beneficial long-term effects to vegetation from increasing the acres classified as Wildlife Management and Environmentally Sensitive Areas.

Beneficial direct impacts would come from vegetation plantings associated with new land management practices ensuring vegetation health. Indirect benefits would come from the decreased potential for recreational development and corresponding public use. The Balanced Use Alternative would not have a significant adverse impact on vegetation. The reclassification of the land and associated land management practices would be beneficial to vegetation.

3.2.5 Wildlife

Affected Environment

The Project area is located in the Boise River watershed. The reservoir bisects the Boise River Wildlife Management Area (BRWMA), an expansive 36,000-acre habitat managed by the Idaho Fish and Game and their partners. It is specifically managed for mule deer (*Odocoileus hemions*) and elk (*Cervus canadensis*) and supports the largest wintering mule deer herd in Idaho (IDFG 2014). From 1982 through 1989, USACE transferred 8,060 acres of land around Lucky Peak Reservoir to Idaho Fish and Game ownership to facilitate deer and elk winter range and other wildlife management goals.

Because of its central location, habitat resources associated with USACE lands and water of the Lucky Peak Project are likely used by all or most of the species known to occur in the BRWMA during one or more periods of their life cycle. Native species documented in the area include 65 species of mammals, 217 birds, 15 reptiles, seven amphibians, seven fish and numerous invertebrates.

Over 28,000 acres of intermixed-ownership lands are managed as part of the BRWMA under Idaho Fish and Game ownership and agreements with USACE, U.S. Forest Service (USFS), Bureau of Land Management (BLM), and private entities. The BRWMA is the primary winter range for mule deer and elk in Southwest Idaho. It is estimated that 5,000 to 7,000 mule deer and 1,200 elk winter on the management area each year. Black bear (*Ursus americanus*), mountain lion (*Puma concolor*), and a small population (<100) of pronghorn (*Antilocapra americana*) are also found on the property. In addition, the BRWMA supports populations of upland game birds including chukar (*Alectoris cukar*), gray partridge (*Perdix perdix*), California quail (*Callipepla californica*), dusky grouse (*Dendragapus obscurus*), ruffed grouse (*Bonasa umbellus*), and mourning doves (*Zenaida macroura*).

Species that Require Special Management Consideration

The State of Idaho has identified wildlife species in the area that represent guilds of animals that require special management consideration because of their close association with important, rare, or sensitive habitat types. All three habitat types are found on USACE managed lands composing the Lucky Peak Project:

- Mule deer and elk big game habitat
- Shrub-steppe habitat
- Riparian habitat

Mule deer and elk rely on a broad array of habitat components including sagebrush, bitterbrush, riparian habitat, lake edge and streams to thrive within the Lucky Peak landscape. Efforts to sustain deer and elk herds by conserving these varied habitat components also provides benefits to a wide range of other special status species including bald eagles (*Haliaeetus leucocephalus*), pygmy rabbits (*Brachylagus idahoensis*), black bear, and Townsend's big-eared bats (*Corynorhinus townsend*).

Shrub-steppe habitat supports over 70 percent of Idaho's special status species and therefore, this habitat type is closely monitored and managed to provide minimal

disturbance from other uses (recreation, grazing, development, etc.) and is a target habitat type of focused conservation and restoration efforts. Among many others, this habitat type is vital for priority species including Brewer's sparrow (*Spizella breweri*), pygmy rabbit, and Western burrowing owl (*Athene cunicularia*).

Riparian habitats include the typically dense and lush vegetation growing along streams, rivers, springs, wetlands, ponds, and lakes. This important habitat type is utilized by over 60 percent of the state's special status species to carry out at least one vital component of their life cycle (breeding or nesting, foraging, seasonal cover and dispersal, or travel, corridors). Deer, elk, upland birds, waterfowl, reptiles and amphibians and fish such as redband trout (*Oncorhynchus mykiss*) and bull trout (*Salvelinus confluentis*) rely on intact riparian habitat found along the Project's streams, wetlands, and lake edges.

Environmental Effects

Alternative 1 – No Action. There would be no immediate direct impacts to wildlife species from the No Action Alternative. However, there could be moderate direct and indirect long-term impacts to wildlife as a result of increased human presence in recreational areas expansion of high-density recreation as the 1988 MP would allow. Impacts to wildlife, such as loss of suitable habitat, degradation of food and water sources (less prey base), noise disturbance, heavy equipment and machinery in use, and the presence of humans could make these areas less hospitable for wildlife and drive them to search for alternative habitat areas which could be of lesser habitat value. Future analysis of effects on wildlife would be conducted in a separate NEPA document if specific recreational land development was proposed. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on wildlife.

Alternative 2 – Balanced Use Alternative. There would be direct moderate benefits to wildlife in the short-and long-term by implementing the Balanced Use Alternative. The Balanced Use Alternative would increase the amount of land that would be a direct benefit to wildlife in the area by 644 acres by increasing the Environmentally Sensitive and Wildlife Managed areas, and therefore, provide more food, shelter, and migration corridors.

The Balanced Use Alternative would comply with new USACE guidance, and would provide analysis of use, demand, carrying capacity, and environmental and social effects of future proposed actions. Using the guidance and updated analysis would assist in sustaining the long-term natural ecosystem process for many habitats and populations of wildlife species that use and/or require the habitat characteristics associated with Project lands.

The Balanced Use Alternative would not cause substantial loss of populations or habitat and therefore would have no significant adverse impact on wildlife. Overall, wildlife populations would benefit from the new land designations in the Balanced Use Alternative.

3.2.6 Water Quality

Affected Environment

Downstream from Lucky Peak Dam, the Boise River flows through the most populous area in Idaho, the city of Boise. Nearly one-fourth of the people in Idaho live in the lower Boise River valley. An important segment of the valley's economy is irrigated agriculture, which is largely dependent on water obtained from the river and its reservoirs, including Lucky Peak. Diversions of water for the irrigation of crops began around 1863. In 1906, the water in the system was adjudicated by the "Stewart Decree," which recognized rights to the diversion of 2,825 cubic feet of water per second for irrigation purposes. In addition, the streamflow is used extensively for recreational purposes and for the dilution of domestic, agricultural, and industrial wastes. Decreed water rights far exceed the natural river flow during a part of most irrigation seasons.

Four major reservoirs are available in the Boise River system to store the streamflow and to regulate the available supply: Lake Lowell (created by three dams—the Upper, Middle, and Lower Embankments); Arrowrock Dam and Reservoir; Anderson Ranch Dam and Reservoir, and Lucky Peak Dam and Lake. The four reservoirs have a combined storage capacity of nearly 60 percent of the average annual runoff occurring above Lucky Peak Lake.

Streamflow from Lucky Peak Lake has been mostly controlled since 1954. Lucky Peak Lake is operated to fill multiple needs, including flood control and summer recreation. Abrupt changes in flow regularly occur because of operational adjustments at the dams to satisfy irrigation and other needs. On or about October 15 of every year, when irrigation diversions cease and the reservoirs begin to refill, flow from Lucky Peak Lake is reduced sharply, usually by 3,500 cubic feet per second or more. Although large releases from the reservoir are made during each non-irrigation season to fill Lake Lowell, releases directly to the Boise River mainstem may still be very small. However, when reservoir impoundments and accumulated snowpacks indicate surplus flows can be expected, large releases are made in the winter period to provide reservoir space for flood control.

The Federal Clean Water Act (CWA) (Pub. L., 92-500) requires states to conduct a biennial comprehensive analysis of state waters to determine if water bodies meet state water quality standards and thus support beneficial uses, or if additional pollution controls are needed. The Idaho Department of Environmental Quality (IDEQ) meets this requirement by preparing Idaho's Integrated Report (IDEQ 2022). The IDEQ works in coordination with the Idaho Water Science Center and the Lower Boise Watershed Council to monitor water quality in the Boise River system since the 1970s. The most comprehensive account found of water quality conditions in the Lower Boise River was produced by the U.S. Geological Survey over 1994 to 2002, evaluating the water quality and biotic integrity of the lower Boise River immediately downstream of Lucky Peak Dam (USGS 2004).

The lower Boise River between Lucky Peak Lake and the town of Parma Idaho, at the mouth of the Boise River, has been affected by agricultural land and water use, wastewater treatment facility discharge, urbanization, reservoir operations, and river channel alteration. Past and present water quality-related issues include the

preservation of beneficial uses of the river for fisheries, recreation, and irrigation and maintenance of high-quality water for domestic and agricultural uses. Evaluation of the data collected from 1994 to 2002 by the USGS (2004) revealed increases in constituent concentrations in suspended sediment, Nitrogen, Phosphorus, fecal coliform and Chlorophyll-a (an indicator of potential for nuisance algae growth) in the lower Boise in a downstream direction from Lucky Peak.

Water quality data availability for Lucky Peak Lake, itself, is lacking. Anderson Ranch Reservoir, immediately upstream of Lucky Peak, typically exceeds cold water biota standards during the summer months. Lucky Peak Lake does not fully support cold-water aquatic life or salmonid spawning, despite the presence of several cold-water aquatic species (IDEQ 2018).

Environmental Effects

Alternative 1 – No Action. The No Action Alternative would result in no changes to land classifications. Actions associated with ongoing management would not result in significant impacts to water quality. There would be minor long-term indirect impacts to water quality from the No Action Alternative recreational activities that may contribute to short-term turbidity increases and nonpoint source pollution from boating. Nonpoint pollution refers to any water pollution that does not come from a single discrete source. Alternative 1 would not adversely affect beneficial uses or result in non-compliance with water quality standards.

Any future development of recreation lands as the 1988 MP would allow, would have minor direct and indirect impacts to water quality in the short-term from construction activities and in the long-term from any increase in impermeable and paved surfaces, which would increase runoff of oils, sediment, and other contaminants. Existing vegetation, including riparian and wetland vegetation, may be removed during construction which could cause localized, short-term soil erosion and subsequent storm water runoff into the watershed. However, standard best management practices would be applied to minimize impacts.

If specific recreational land development was proposed, future analysis of effects on water quality would be conducted in a separate NEPA document. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on water quality.

Alternative 2 – Balanced Use Alternative. Management of USACE lands upon implementation of proposed land classifications would be consistent with the designated beneficial uses for the Project. Long-term benefits to water quality would come from the increases in lands classified as Environmentally Sensitive Areas and Wildlife Management.

Environmentally Sensitive Areas and Wildlife Management land classifications are generally more protective of water quality due to decreased development, lack of impermeable surfaces, and increased emphasis on healthy vegetation communities. New plantings on shoreline habitat lands could slightly reduce water temperature in

areas that currently have little shade from vegetation. Alternative 2 would not have a significant adverse impact on water quality.

3.2.7 Aquatic Resources

Affected Environment

Fish and other aquatic-obligate species in this area inhabit the many streams, springs, and the reservoirs. Plants and animals are important to the health and biodiversity of an ecosystem by providing a service of natural maintenance. A loss of any species often leads to a downward spiral in the overall health, biodiversity, and functionality of an ecosystem.

Lucky Peak Lake is not directly connected to the mainstem Boise River because Arrowrock Dam is situated at the upstream end of the reservoir and Lucky Peak Dam is at the downstream end. No upstream or downstream fish passage is available at these facilities except occasional downstream entrainment of fish from Arrowrock Reservoir during rare dam spill events for flood risk management. Nearly all fish present in Lucky Peak Lake are introduced through game fish stocking programs, accidental or purposeful (i.e., unauthorized) releases by the public or downstream entrainment from Arrowrock Reservoir (Table 3-5).

Table 3-4: Fish species Detected During Idaho Fish and Game Surveys (IDFG 2019)

Fish Species (common name)	Scientific Name
Northern pikeminnow	<i>Ptychocheilus oregonensis</i>
Rainbow trout	<i>Oncorhynchus mykiss</i>
Kokanee	<i>Oncorhynchus nerka</i>
Yellow perch	<i>Perca flavescens</i>
Chiselmouth	<i>Acrocheilus alutaceus</i>
Sucker species	<i>Catostomidae</i> fam.
Black bullhead	<i>Ameiurus melas</i>
Chinook salmon (hatchery)	<i>Oncorhynchus tshawytscha</i>
Mountain whitefish	<i>Prosopium williamsoni</i>
Redside shiner	<i>Richardsonius balteatus</i>
Smallmouth bass	<i>Micropterus dolomieu</i>
Columbia River bull trout	<i>Salvelinus confluentus</i>

Environmental Effects

Alternative 1 – No Action. The No Action Alternative would result in no changes to land classifications. Aquatic resources would all continue to be managed and conserved through existing USACE regulations and according to federal, state and local laws. Although there would be no significant adverse effects to aquatic resources under the No Action Alternative, management would be inefficient in the absence of up-to-date guidance regarding regulations and the presence of sensitive biological resources.

Any future development of recreation lands, as the 1988 MP would allow, would have minor direct and indirect impacts to aquatic species in the short-term from construction activities (e.g., temporary increases in turbidity, low level pollutants, etc.) and long-term from any increase in impermeable and paved surfaces. Any future construction may require the removal of existing vegetation, including riparian and wetland vegetation, which would cause the potential for soil erosion and subsequent stormwater runoff and the potential for local water temperature increases from minor reductions in riparian shade.

Vegetation and its roots stabilize shorelines and riverbanks. Removing this vegetation weakens the soil structure, making the shorelines and riverbanks more susceptible to erosion. When soils erode, the sediment enters the water, which can temporarily reduce light penetration. Removing the vegetation, which can provide shade, could cause water temperatures to increase. Water temperatures above 71° Fahrenheit (F) can stress fish and other aquatic organisms and temperatures exceeding 73°F can create a thermal barrier, making it difficult for some species to survive. For a more in-depth

If specific recreational land development was proposed, future analysis of effects on aquatic resources would be conducted in a separate NEPA document. Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant adverse impact on aquatic resources.

Alternative 2 – Balanced Use Alternative. Management of USACE lands upon implementation of proposed land reclassifications would have both minor beneficial and negative impacts. There would be minor beneficial indirect long-term impacts to aquatic resources from implementation of the Balanced Use Alternative. These positive impacts would be driven by increasing the lands classified as Wildlife Management and Environmentally Sensitive Areas.

Lands classified as Environmentally Sensitive Areas and Wildlife Management are generally more protective of the river itself due to decreased development, lack of impermeable surfaces, and increased emphasis on healthy vegetation communities. The Balanced Use Alternative would not cause substantial loss of aquatic species populations or habitat. For these reasons, the Balanced Use Alternative would not have an adverse significant impact to aquatic resources.

3.2.8 Threatened and Endangered Species

Affected Environment

The Project has limited habitat for species proposed or listed as threatened or endangered under the ESA. There are presently four Threatened and one Candidate species under the ESA that may, or are known to, occupy portions of the Project lands during one or more stages of their life cycle. There are no designated Critical Habitats within Project lands. A summary of the status of these species within Project lands is presented in this section.

One other threatened species (i.e., Slickspot peppergrass, *Lepidium papilliferum*) was identified as potentially present within Project lands by IPaC (2024, Appendix B). However, USACE determined that there is no suitable habitat within the Project area and this species is extremely unlikely to be found within Project lands.

Columbia River bull trout (*Salvelinus confluentes*): Threatened

There are few bull trout residing in Luck Peak Lake and all are regarded as entrained fish from Arrowrock Reservoir. Bull trout (and other species) may be entrained downstream through Arrowrock Dam's spillway during rare spill events associated with flood risk management measures. Bull trout tend to concentrate immediately downstream of Arrowrock Dam in the spring (March-June) as they attempt to migrate upstream but are likely distributed throughout the reservoir the remainder of the year.

North American wolverine (*Gulo gulo luscus*): Threatened

This species requires high-elevation, relatively undisturbed swathes of habitat with reliable and persistent spring-season snow levels to fulfill most of their life cycle requirements. The Project area does not contain suitable breeding or foraging habitat for this species; however, it is possible that individual wolverines could travel through Project lands during dispersal periods. Because of their naturally low numbers and large individual territories, the secretive wolverine relies on the ability to disperse to new habitats, sometimes traveling tens or even hundreds of miles. Confirmed observations of wolverine have occurred within approximately 20 miles north of the Project area. (Lukacs et al. 2020). Maintaining effective dispersal corridors adjacent to occupied habitat is important for this species.

Canada lynx (*Lynx canadensis*): Threatened

The distribution on lynx in North America is closely tied to the presence of North American boreal forests. A boreal forest is defined as a forest growing in high-latitude environments that have low temperatures. In Canada and Alaska, lynx primarily inhabit the taiga, which is a classic boreal forest ecosystem. Their range extends southward from this primary boreal zone into the subalpine forests of the western United States. Boreal-like forest stretch into the contiguous United States along the North Cascade and North Cascade Mountain ranges, the western Great Lakes region, and northern Maine. Within these broader forest types, lynx are most likely to thrive in areas with deep snow and high populations of snowshoe hares, their main prey. However, suitable lynx habitat is not found on Project lands, and there have been no reported sightings of the species by the Idaho Department of Fish and Game around Lucky Peak Lake (IDFG 2024).

Yellow-billed cuckoo (*Coccyzus americanus*): Threatened

This species of cuckoo occurs occasionally in the Project area likely as individual migrants or dispersing juveniles. They require relatively contiguous, wooded riparian areas for breeding and this habitat type does not occur on Project lands with the possible exception of Project lands in the higher reaches of Mores Creek near where this Boise River tributary crosses onto U.S. Forest Service-managed lands. Isolated pockets of deciduous trees and shrubs that occur around Lucky Peak Lake may be utilized as resting and foraging opportunities for cuckoos as they migrate and disperse

between their breeding grounds in the western U.S. and overwintering sites in South America.

Monarch butterfly (*Danaus plexippus*): Candidate

Recent research (Dilts et al. 2019) has identified the Columbia River Basin and the Snake River Plain in Idaho as having notable concentrations of suitable monarch butterfly habitat that have historically been near the northern edge of the monarch breeding range. These areas could potentially be more heavily utilized if migration patterns shift under warming climatic conditions. Project lands do not support high quality habitat for breeding monarchs, but the species has been documented on occasion near the shores of the reservoir where small populations of the insect's host plant, milkweed (*Asclepias* spp.) occur. There is a robust breeding population of monarch butterflies associated with extensive patches of milkweed growing along the Boise River near Boise, Idaho over 10 miles from Project lands (Xerces Soc., 2024).

Environmental Effects

Alternative 1 – No Action. Management of the 1988 MP allows for expansion of high-density recreation. Future analysis of effects on threatened and endangered species would be conducted in a separate NEPA document if specific recreational land development was proposed. Effects to aquatic and terrestrial threatened and endangered species would be the same or similar to the impacts discussed in Section 3.2.7 (aquatic resources) and wildlife resources (Section 3.2.5). Therefore, although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on aquatic resources.

Alternative 2 – Balanced Use Alternative. Land classification changes that provide additional natural resource protections would have indirect minor beneficial long-term impacts to threatened and endangered species. For example, increases in acreage of Environmentally Sensitive Areas, which are managed to protect ecological features, provide additional long-term benefits to terrestrial threatened and endangered species.

Increases to Wildlife Management lands would indirectly benefit threatened and endangered species through native vegetation plantings and invasive species management, especially in riparian areas. Minor negative impacts would be the same or similar to the impacts discussed in Section 3.2.7 (aquatic resources). The Balanced Use Alternative would not have a significant impact, because it would not put threatened or endangered populations in jeopardy or adversely modify critical habitat as defined by the ESA.

3.2.9 Geological Features and Soils

The large exposure just above the highway northwest of the dam reveals layers of basalt flows and pillow basalts. South of the top of the dam, toward the Turner Gulch boat ramp, columnar basalt is visible, and these rocks make up the southwest footings of the dam. Southwest of the dam lies a gently sloping formation, called a dip slope, composed of basalt. The softer, clayey basaltic tuff layer which originally covered the dip slope was stripped away for construction of Lucky Peak Dam's interior. South of this

stripped surface there are remaining exposures of intact basaltic tuff. Immediately above those exposures is a large borrow pit, mostly revegetated now, from which sand and gravel were excavated for use in the dam's construction.

There are a wide variety of soils found throughout the Boise River subbasin. Surface soils are typically coarse sands weathered from granite. These sandy loams have little adhesion or cohesion, resulting in potential sources for sedimentation in the watershed. The average soil slope provides a gauge of potential soil erosion, or erodibility risk. Slopes of the grassland/shrub communities along the shorelines of Arrowrock Reservoir and Lucky Peak Lake are low (zero percent – nine percent). Slopes are moderately steeper in the areas forming the watersheds surrounding the reservoir basin (35 – 44 percent), and they increase substantially as one approaches the bordering mountain ranges (IDEQ 2009). Figure 3 illustrates Natural Resources Conservation Service water infiltration and transmission ratings of the slopes surrounding Lucky Peak Lake. Most ratings around Lucky Peak consist of relatively low water infiltration and transmission rates which corresponds to high runoff rates.

The “K-factor” is the soil erodibility factor in the Universal Soil Loss Equation (Wischmeier and Smith 1965). This factor is comprised of four soil properties: texture, organic matter content, soil structure, and permeability. K-factor values range from 1.0 (most erosive) to 0 (nearly non-erosive). K-factors throughout the Boise-Mores Creek subbasin range from 0.078 to 0.30. This indicates that the soils in the subbasin are relatively stable, with the highest K-factor less than one-third of the way up the scale toward highly erodible. Soils on relatively flatter slopes of the grassland/shrub-dominated rangeland area surrounding small and mainly intermittent tributaries to Lucky Peak Lake have the most erodible soils, with K-factors at 0.3. These are generally medium textured silt-loam soils that are moderately susceptible to erosion and produce moderate runoff.

Environmental Effects

Alternative 1 – No Action. Management of the 1988 MP allows for expansion of high-density recreation. The No Action Alternative would result in no changes to land classifications. Minor erosion of stream banks in localized areas due to boat wakes, wind, and fluctuating water levels would likely continue.

Future analysis of effects on geological features and soils would be conducted in a separate NEPA document if specific recreational land development was proposed. Although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant impact on geological features and soils.

Alternative 2 – Balanced Use Alternative. Management of USACE lands upon implementation of proposed land classifications not significantly impact mineral resources, seismic concerns, or significant geologic features within the Project area. By increasing the acres of lands managed as Environmentally Sensitive Areas and Wildlife Management, the land classification updates may result in moderate beneficial impacts to soils.

The overall trend of the land classification updates is towards greater protection of natural resources and improved management of recreation, impacts associated with erosion and sedimentation would likely be beneficial and minor.

There would be minor long-term indirect benefits to soils due to increased plantings that would reduce soil erosion and acreage set aside for preservation of environmentally sensitive resources would protect soils from human activities such as digging, excavating, or compaction from vehicle or foot traffic. Since mostly beneficial impacts are expected, the Balanced Use Alternative would not have a significant impact on geological features and soils.

3.2.10 Socioeconomics and Environmental Justice

Lucky Peak Dam and Lake is located on the Boise River in Ada, Boise, and Elmore Counties, Idaho. Lucky Peak Dam and Lake is located on the Boise River at river mile 66 at the edge of the Sawtooth Mountain Range in southwestern Idaho. It is 12 miles southeast of downtown Boise. Boise is the largest metropolitan area in the vicinity, although several smaller cities such as Garden City, Eagle, Meridian, Kuna and Nampa are near-by. The Project area is in three counties of Idaho, they are Ada, Boise, and Elmore. Please reference Table 3-5 for other demographics for the counties in the Project area.

Population and Demographics

Ada County, Idaho currently has an estimated population of 524,673. Boise is the largest city within Ada County with about 236,634 residents. Lucky Peak Dam and Lake is approximately ten miles upstream of the city of Boise.

Boise County, Idaho currently has an estimated population of 7,610. Idaho City is the largest city within Boise County with about 509 residents, located approximately 36 miles northeast of the Project.

Elmore County, Idaho currently has an estimated population of 29,724. Mountain Home is the largest city within Elmore County with about 16,469 residents, located approximately 57 miles southeast of the Project.

Table 3-5: Education and Income for Ada, Boise, and Elmore Counties Comparison to the State of Idaho and the Nation (U.S. Census Bureau 2021 Data)

Demographic	Ada County, Idaho	Boise County, Idaho	Elmore County, Idaho	State of Idaho	National
Persons under 18	21.7%	15.2%	23.7%	23.9%	21.7%
Persons Over 65	16.3%	28.6%	14.8%	17%	17.3%
High School Graduates	95.3%	95.4%	88%	91.4%	89.1%
Four-Year Degree or Higher	42.8%	27.1%	20.9%	30.2%	34.3%
Percent in Labor Force	66.2%	51.5%	48.2%	60.2%	63%
Median Household Income	\$83,881	\$70,776	\$55,00	\$70,214	\$75,149

Environmental Justice

As outlined in Executive Order 12898, federal agencies must evaluate environmental justice issues related to any action proposed for implementation. This evaluation includes identification of minority and low-income populations, identification of any negative impacts that would disproportionately affect these minority groups or low-income, and proposed mitigation to offset the projected negative impacts.

Section 160 of the Water Resources Development Act (WRDA) of 2020 directs the Secretary to define the term “economically disadvantaged community” for the purpose of the Act and the amendments made by the Act. An economically disadvantaged community is defined as meeting one or more of the following:

- Low per capita income – The area per capita income of 80 percent or less of the national average.
- Unemployment rate above national average – The area has an unemployment rate that is, for the most recent 24-month period for which data are available, at least 1 percent greater than the national average unemployment rate.
- Indian country as defined in 18 U.S.C. 1151 or in the proximity of an Alaska Native Village.
- U.S. Territories, or
- Communities identified as disadvantaged by the Council on Environmental Quality’s Climate and Economic Justice Screening Tool.
(<https://screeningtool.geoplatform.gov>)

According to the Climate and Economic Justice Screening Tool (CEJST), accessed on April 11, 2024, the area of Ada County, Idaho associated with the Project area, lies across two census tract numbers 16001010100 and 16001010503 (Appendix C).

Neither of these two tracts are considered disadvantaged because they do not meet any burden thresholds and at least one associated socioeconomic threshold.

The portion of the Project area that lies in Boise County, Idaho is located on one tract (16015950200) which is not considered disadvantaged because it does not meet any burden thresholds and at least one associated socioeconomic threshold.

Conversely, the area of Elmore County, Idaho associated with the Project area, lies within one census tract, 16039960200 (Appendix C) that is considered disadvantaged since it meets more than one burden threshold and the associated socioeconomic threshold. This portion of the Project area is above the 90th percentile for expected building loss rate and above the 90th percentile for projected wildfire risk. This suggests that this particular area is among the top 10% or even higher in terms of expected depreciation of building value due to natural hazards and projected risk of wildfire exposure.

Minority Groups

While less diverse than other areas of the country, the three counties are home to people of a broad variety of ethnicities. Most of the population in the three counties is white. The second highest ethnicity identified is Hispanic or Latino (Table 3-6).

Table 3-6: Racial Identification in the Three Counties Compared to the State of Idaho

Ethnicity	Ada County	Boise County	Elmore County	State of Idaho
White	91.5%	92.9%	87.5%	92.6%
Black or African American	1.4%	0.8%	3%	1%
American Indian and Alaskan Native	0.8%	1.3%	1.8%	1.7%
Asian	3%	1.5%	2.9%	1.7%
Native Hawaiian and Other Pacific Islander	0.2%	0.2%	0.5%	0.2%
Hispanic or Latino	3.1%	6.5%	18.2%	13.5%

Note that percentages do not add to 100, as categories are not mutually exclusive (U.S. Census Bureau 2021 data).

Environmental Effects

Alternative 1 – No Action. USACE land management would continue as normal and would not require additional employees for maintenance or operational tasks. There were no issues presented during scoping that suggest any disparity for economic consideration related to utilizing Project lands, and therefore USACE is confident that there would be no change. The No Action Alternative would not lead to actions that exceed the capacity of the surrounding communities to absorb or result in the unfair treatment of specific income or minority groups.

Future analysis of effects on socioeconomics and environmental justice would be conducted in a separate NEPA document if specific recreational land development was

proposed. Although the No Action Alternative leaves the potential for recreational land development open, The No Action Alternative itself would not have significant adverse impacts to socioeconomics or environmental justice.

Alternative 2 –Balanced Use Alternative. The Balanced Use Alternative would better serve the needs of the public by providing the types of opportunities the public expressed they want during the scoping period.

The Balanced Use Alternative would not lead to the unfair treatment of specific income or minority groups or result in the disproportional distribution of environmental impacts or benefits among communities. The implementation of the Balanced Use Alternative would not have significant impacts to socioeconomics or environmental justice for these reasons.

3.2.11 Cultural and Historic Resources

Affected Environment

Cultural resources are usually identified as the remnants of past human lifeways, such as archaeological sites, artifacts, graves, historic buildings, trails, and other inanimate objects or areas. However, cultural resources also include areas of ongoing importance and use by Tribes and the public.

The Project area is a significant region as it is situated at the intersection of the Snake River Plain and the Rocky Mountain system. The Project land location creates transitional zones which foster unique cultural adaptations influenced by changing climates and the shift of living resources. There is extensive archaeological and historical evidence of the use of the area along the Boise River in the floodplain by Native Americans and the archaeological sites within Project lands contains some of that history.

Much of the Project lands have not been surveyed as much of the land is inaccessible due to the rugged terrain, or the ground surface is not routinely visible due to vegetation and other limiting factors. Underwater surveys have not been prioritized at this time due to poor underwater visibility, high cost, and the ongoing needs for work on lands and sites that are not inundated. Archaeological sites are visited on a regular basis to determine if they have been harmed by natural, visitor, or USACE actions. USACE has archaeologists on staff that conduct cultural archaeological surveys, write reports, and contract with private or Tribal cultural resources management firms as needed to comply with federal law regarding agency cultural resources responsibilities under NHPA.

NHPA requires that USACE identify and evaluate historic properties for listing on the NRHP, and that the agency consider the effects to historic properties from activities (also called undertakings). Historic properties include districts, sites, buildings, structures, and objects. Eligible properties would typically be greater than 50 years old and have an association with an important event, person, interesting architecture, or in the case of archaeological sites, have the potential for further study. Historic built resources, including buildings, structures, and objects, have been documented to a

limited extent on project lands. Lucky Peak dam was concurred eligible for listing on the NRHP by the Idaho State Historical Preservation Office (SHPO) in 2006.

In summary, evidence of thousands of years of human prehistory and history are represented at Lucky Peak Project. USACE would continue to document historic properties as they are found and evaluate them for effects from ongoing and proposed activities.

Environmental Consequences

Alternative 1 – No Action. Under the No Action Alternative, there would be no changes to any process affecting cultural resource management. Actions implemented under the No Action Alternative would continue to be subject to consultation under Section 106 of the NHPA, which provides for the avoidance, minimization, and mitigation of potential impacts. Cultural resources would continue to be affected by natural processes, recreation, USACE land management, and other uses. As the existing land use classifications are only a blueprint to guide future work, the continued use of the current land classification system would have no significant impacts to cultural resources.

Future analysis of effects on historical and cultural resources would be conducted in a separate NEPA document if specific recreational land development was proposed. Although the No Action Alternative leaves the potential for recreational land development open, the No Action Alternative itself would not have a significant adverse impact on historical and cultural resources.

Alternative 2 – Balanced Use Alternative. Impacts to historic and cultural properties would be the same or like the No Action Alternative because the land use classifications only create a blueprint for potential future actions. However, the designation of areas as environmentally sensitive may have a moderate, beneficial effect regarding the cumulative effects of future land use activity or limitation of activities. The establishment of 644 acres of land classified as Environmentally Sensitive Areas (classified for cultural or natural resource benefits) could provide beneficial long-term moderate, cumulative impacts to historic and cultural properties by limiting the types of authorized uses in these areas. USACE would continue to review individual proposed actions and consult with the Washington SHPO and affiliated Tribes in accordance with Section 106 of the NHPA. Cultural resources would continue to be affected by natural processes, recreation, USACE land management, and other uses. As the proposed land use classifications are only a blueprint to guide future work, the Balanced Use Alternative would have no significant impacts to cultural resources.

3.3 Climate Change Analysis

Affected Environment

Climate shapes where and how people live and the environments. Natural ecosystems, agricultural systems, water resources, and the benefits they provide to society are adapted to past climate conditions and their natural range of variability. The U.S. Global

Change Research Program (2023), defines climate change as “changes in the global environment (including alterations in climate, land productivity, the ocean or other water resources, atmospheric chemistry, and ecological systems) that may alter the capacity of the Earth to sustain life.”

Future precipitation trends are more uncertain, but a general upward trend is likely for the rest of the twenty-first century, particularly in the winter months. Already dry summers could become drier. Average winter snowpacks are very likely to decline over time as more winter precipitation falls as rain instead of snow. By the 2030s, higher average fall and winter flows, earlier peak spring runoff, and longer periods of low summer flows are very likely. The River Management Joint Operating Committee (RMJOC) -II report concludes that “such precipitation increases, along with a warming climate, could have profound implications on both the magnitude and seasonality of future streamflows” (CRSO 2020).

However, the continued progression of climate change could have moderate impacts to USACE managed lands and land uses by non-project related changing weather patterns and flow regimes. Changing weather could shift flow regimes to earlier in the year if more precipitation falls as rain instead of snow. If the water regimes change, the flow regimes through the dams would change. Flood peaks could shift to earlier in the season and flows could further decrease during already low flow periods.

Hotter summers could dry out vegetation, reducing wildlife habitat value, and shifting recreational use to cooler seasons. Increasing air temperatures may increase the temperature of the water in the summer and lower the amount of dissolved oxygen which would further degrade water quality and negatively impact aquatic life habitat.

Changes in the climate could impact ecosystems and water resources and the benefits they provide. Temperatures in the northwest have warmed about 1.5 degrees Fahrenheit (0.8 degree Celsius) since the 1970s and are expected to warm another 1 to 4 degrees Fahrenheit (0.6 to 2.2 degrees Celsius) by the 2030s (RMJOC 2022). Warming in the region is likely to be greatest in the interior with a greater range of possible outcomes.

The climate in the Project region is characterized by a semi-arid climate. Summers are typically hot and dry, and winters can be cold, and snowfall can occur. Spring and fall are usually mild. Overall, the region experiences distinct seasonal changes, with relatively low humidity and limited rainfall, especially during the summer months.

The Green House Emissions Tool allows USACE to provide an estimated total of GHG emissions for projects. This tool considers the construction activity length, equipment type, to include horsepower, duration of activity, and estimates of equipment emission factors of CO₂, CH₄, and N₂O in pounds per hour, and provides an estimated total of GHG emissions in metric tons. The emissions tool was used to estimate a baseline for GHG emissions for the Projects current emissions, which is 653.66 metric tons per year. To see detailed analysis please see Appendix D.

Environmental Effects

Alternative 1 – No Action. The No Action Alternative would result in no changes to land classifications. Actions associated with ongoing management of recreational,

cultural, and natural resources would result in minimal direct greenhouse gas (GHG) emissions.

There are no federal, state, or local thresholds of significance for climate change impacts and therefore no definitive determination of significance is given in this EA for the No Action Alternative.

Future analysis of effects on climate change would be conducted in a separate NEPA document if specific recreational land development was proposed.

Alternative 2 – Balanced Use Alternative. Under Alternative 2 USACE would adopt the 2024 MP revision. Impacts to climate change from implementing the Balanced Use Alternative would be negligible or de minimus. The Balanced Use Alternative reduces the potential to develop land for recreational uses, which reduces the carbon emissions from construction equipment’s combustibles engines in the Project area.

Any future construction activities that could emit greenhouse gasses or in other ways affect climate change would be assessed separately at that time. The proposed changes would have no direct effect on GHG emissions. Reclassifying some recreational lands as environmentally sensitive would likely reduce vehicular traffic in those lands and therefore, less emissions overall from the Project. The proposed action would not have significant adverse impacts to climate change or emissions.

3.4 Cumulative Effects

Cumulative effects are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (470 CFR § 1508.7).

The primary goal of a cumulative effects analysis is to determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative effects of other past, present, and reasonably foreseeable future actions.

USACE used the technical analysis in Section 3 of this EA to identify and focus on cumulative effects that may be “truly meaningful” in terms of local and regional importance. While this EA addresses the effects of alternatives on the range of resources representative of the human and natural environment, not all of those resources need to be included in the cumulative effects analysis – just those that are relevant to the decision to be made. As technology and knowledge expand with time, things of the past tend to become outdated. The 1988 MP does not provide current regional analysis of recreation and ecosystem needs, project resource capabilities, and recreation program analysis, which are essential to the balanced approach and requirements of current USACE MP policy.

USACE identified the following resources that are notable for their importance to the area and potential for cumulative effects. Those resources are:

- Land Use
- Recreation

There would be no cumulative effects to other resources from implementation of the Proposed Action in combination with past, present, and reasonably foreseeable future actions.

Resources are discussed in terms of their cumulative effect boundary (spatial and temporal), the historic condition and impacts to the resources, present condition and impacts to the resources, reasonably foreseeable future actions that may affect the resources, and the effects to the resource by the MP alternatives when added to other past, present, and future actions.

This section evaluates the cumulative effects of actions that could potentially affect the same environmental resources as those discussed earlier in this EA. The scope of this analysis extends beyond the Lucky Peak Dam and Lake Project to other areas that sustain the resources of concern. A resource may be differentially impacted in both time and space. The implication of those impacts depends on the characteristics of the resource, the magnitude, and scale of the action's impacts, and the environmental setting (EPA 1999).

Geographic and Temporal Scope of Cumulative Effects Analysis

Guidance for setting appropriate boundaries for a cumulative effect analysis is available from CEQ (1997) and EPA (1999). Generally, the scope of cumulative effects analysis should be broader than the scope of analysis used in assessing direct or indirect effects. "Geographic boundaries and time periods used in cumulative impact analysis should be based on all resources of concern and all of the actions that may contribute, along with the project effects, to cumulative impacts" (EPA 1999). The analysis should delineate appropriate geographic areas including natural ecological boundaries, whenever possible, and should evaluate the time period of the project's effects. The Project's primary zone refers to the central area around a project and for this Project it has been determined to be a 25-mile radius. This area includes the cities of Boise and Meridian, Idaho.

A temporal or time boundary is the duration that impacts from the proposed project or other actions affecting the resources would last. The boundary can vary per resource. Predicting the effects of future actions can be difficult and highly speculative. USACE identified the temporal boundary as 74 years as the time frame for analysis of cumulative effects (based on completion of the Project in 1955, 69 years ago, and an additional five years into the future). Only reasonably foreseeable future actions are included. To be reasonably foreseeable, there must be a strong indication that an action/even will occur or be conducted. Strong indication means the action is planned, or budgeted, or has NEPA coverage completed.

The geographic boundary defines the spatial limits for the Project, consideration for the cumulative effects analysis includes action taking place along the Boise River, including Lucky Peak Dam and Lake, which extends approximately 14 miles to Arrowrock Dam which have been designated as part of the Project area.

Discussed below are the past, present, and reasonably foreseeable future actions that were considered for the cumulative effects analysis, the effects of the actions of the resources assessed, and a summary of the cumulative effects of the alternatives.

Past, Present, and Reasonably Foreseeable Future Actions and Implications for the Resource Considered

Past Actions

As development increased in the middle Southwest River Basin of Idaho, the amount of human-caused impact on the rivers and associated resources increased. Development in the region included building numerous dams throughout the watershed and the subsequent formation of their reservoirs, including the construction of Lucky Peak Dam and Lake. Additional past actions included construction of marinas, highways, roads and railroads, urban development; installation of overhead powerlines and associated infrastructure; agriculture; flood risk reduction levees; and introductions of invasive species. Many past actions were related to the construction and operation of the Project and associated facilities. The construction of the dam resulted in Lucky Peak Lake being formed with and a variety of recreational sites also being created at that time.

Effects of Past Actions on Resources

Land Use

The construction of dam, creation of reservoirs, and their operations has historically changed the function and landscape of the Idaho Southwest River Basin. The Lucky Peak MP Project lands have undergone several changes, most of which were never formalized with a MP revision or supplement. A supplement is a minor change to a MP such as change in land classification or facility footprint.

The 1988 MP does not provide a balanced designated visitor use with recreational, natural, and cultural resource sustainability. While at the time it provided a sufficient blueprint, it fails to categorize all of the approximate 4,091 acres of land and water, and did not include these primary components:

- Response to regional needs and expressed public interests.
- Management of the Project's recreational, environmental, and cultural resources.
- Compliance with current USACE policy environmental laws and regulations.

Recreation

There are 4,288 acres of public lands surrounding Lucky Peak Lake. Recreational opportunities dramatically increased with the creation of Lucky Peak Lake. Recreational facilities offering day-use opportunities, picnicking, hiking, boating, swimming, fishing, hunting, wildlife viewing, and many other activities were developed. Over time, some facilities required increased maintenance to remain operational.

Present Actions

There are approximately 8,000 acres of Project lands surrounding Lucky Peak Lake used for public recreation purposes and wildlife habitat which are managed by USACE and other Lucky Peak Dam and Lake partners. In addition, USACE acquired 92 acres of easement lands to which USACE has specific rights or easements. Partnerships with dozens of organizations optimize shared recreation, flood risk management, and USACE's stewardship missions. Below are some of the partnerships within the Lucky Peak Dam and Lake project footprint:

- Ada County Parks and Waterways provides and maintains over 500 recreational boating docks around the Lucky Peak Lake, including those at launch ramps and over 80 boat-in recreation sites.
- Idaho Department of Parks and Recreation operates under lease Spring Shores Marina and Sandy Point, as part of Lucky Peak State Park. Lucky Peak State Park is the second most visited state park in Idaho.
- Idaho Fish and Game manages nearly 4,000 acres of USACE lands as part of the Boise River Wildlife Management Area, which is Idaho's premier winter range for mule deer and elk.
- The Bureau of Reclamation constructed two other major dams on the Boise River prior to Lucky Peak Dam and Lake, and closely coordinates with USACE to manage 1,000,000-acre feet of irrigation water to provide flood risk management.
- Lucky Peak Power Plant produces up to 101 megawatts of electricity from Lucky Peak Dam water releases, which is enough to power over 100,000 homes.
- Dozens of other partnerships help create opportunities for improved water safety programs, environmental outreach, emergency management, professional training, and special recreational events of regional significance.

Present actions include regular operation and maintenance activities at USACE recreational facilities and dam operations, use of roads and railroads, and agricultural practices on surrounding lands.

Effects of Present Actions on Resources

Land Use

Beneficial effects to land use would occur as USACE strives to balance the protection of natural resources with recreational development. Currently, land use is affected by other non-point sources of pollution. Some examples are lands that use herbicides and pesticides, such as private yards, and farm and agricultural lands.

Recreation

Effects to recreation as a result of present actions, would not be detrimental as lands surrounding Lucky Peak Lake are currently managed in accordance with the Revised

1988 MP. Effects caused by recreational use and activities are discussed in Section 3.2.2 (Recreation).

Reasonably Foreseeable Future Actions

Cumulative effects analyses must consider the effects of “reasonably foreseeable future actions regardless of what agency...or person undertakes such...action” (40 CFR §1508.7). Future actions that are speculative are not considered reasonably foreseeable (EPA 1999). Documented planned and permitted or funded actions by local, state or federal government agencies, private entities, or individuals are considered “reasonably foreseeable.” Similarly, USACE considers the continuation of existing programs, without major changes in policy, law, regulations, or funding, reasonably foreseeable. USACE used available master plans and various reports to determine a list of foreseeable actions, and they are referenced and listed below.

Foreseeable actions for the City of Boise, Idaho can be found at [Development Tracker | City of Boise](#) (Accessed on May 15, 2024). Since Boise is within the 25-mile Project radius, any actions carried out have the potential to affect the Project within that radius. An example would be a new neighborhood being built near the Boise River. However, there would be no direct effects to the immediate area of Lucky Peak Dam and Lake.

Foreseeable actions for the City of Meridian, Idaho can be found at [Annual Reports | City of Meridian \(meridiacity.org\)](#) (Accessed on May 15, 2024). The City of Meridian's Annual Report offer a glimpse into the city's future. The projects include but are not limited to transportation and infrastructure planning, community planning, public health and safety, and business and economic vitality. There would be no direct effects to the immediate area of Project lands.

Foreseeable future actions for Ada County, Idaho can be found at [Comprehensive Plans - Development Services \(id.gov\)](#) (Accessed on May 15, 2024). Ada County published a Comprehensive Plan for 2025 which provides a concise statement of the County's objectives for future development within the unincorporated areas of the County and in municipal growth areas. There would be no direct effects to the immediate area of Project lands.

Foreseeable future actions for Boise County, Idaho can be found at [Planning and Zoning – Boise County](#) (Accessed on May 15, 2024). There are no scheduled projects that would have a direct affect to the immediate area of Project lands.

Foreseeable future actions for Elmore County, Idaho can be found at [Land Use and Building Department - Elmore County, Idaho](#) (Accessed on May 15, 2024). There are no scheduled projects that would have a direct affect to the immediate area of Project lands.

Effects of Reasonably Foreseeable Future on Resources

Land Use

Reasonably foreseeable future actions in the Project area have the potential to be both beneficial and non-beneficial for land use. Land classification updates would increase the acres of land managed with conservation management as a guideline. The

foreseeable future actions discussed above could provide benefits in several measures. Some of the benefits of updating the MP are, but not limited to, recreational benefits, natural resources benefits, and the continuation and expansion of education, information, and public safety benefits. Some of the future recommendations could also cause temporary disturbances in the Project area, however, would ultimately carry long-term overall benefits. Some of the temporary disturbances are but not limited to, increased noise while work is being conducted and air quality degradation from vehicles, machinery, and heavy equipment.

Any foreseeable future actions proposed by USACE would be subject to additional analysis as required by NEPA.

Recreation

Future population growth would occur increasing the use of recreation facilities. Increased visitation at the Project would require management to prevent user conflicts where there are physical limitations based on total recreation lands available. The increased use of recreational areas has the potential to be both beneficial and non-beneficial. Some potential beneficial effects of recreation are providing opportunities to promote physical fitness, can promote tourism, enhance property values, and open space. Some of the non-beneficial effects are development and maintenance of facilities, requiring continuous space, impacts to soil, air quality, vegetation, wildlife, and social.

Any foreseeable future actions proposed by USACE would be subject to additional environmental analysis as required by NEPA.

Summary of Cumulative Effects of Past, Present, and Reasonably foreseeable Future Actions on Resources

Cumulative Effects of Alternatives

The cumulative effects analysis considers how the direct and indirect effects of the discussed alternatives would contribute to the cumulative effects of past, present, and future actions and change the conditions that have and are expected to result from those actions.

Alternative 2: Balanced Use Alternative

Cumulative effects of past actions have resulted in managing Lucky Peak Dam and Lake under a MP that was adopted in 1988. Present and reasonably foreseeable future actions are expected to continue this pattern of land use management unless the proposed action is approved. The effects of Alternative 2 on land use and recreation, when combined with past, present, and reasonably foreseeable future actions, would slightly change current conditions. This would include a redistribution of USACE managed land into five categories and acknowledging changes which have already been made however not updated in the MP.

3.5 Selection of Preferred Alternative

Revising the 1988 MP to incorporate the Balanced Use Alternative is the Preferred Alternative. The intent of the Balanced Use Alternative is to develop a guide for the sustainable use of resources at Lucky Peak Dam and Lake. The EP 1130-2-550, (USACE 2013) provides the following MP guidance: “A current, approved MP is necessary before any new development, construction, consolidation, or land use change can be pursued. These activities will not be included in budget submissions unless they are included in an approved MP.” The primary objective of implementing the Balanced Use Alternative is to publish a clear, concise, and strategic land use document that will guide the comprehensive management and development of all the Project recreational, natural, and cultural resources.

The Balanced Use Alternative would provide conceptual guidelines for the effective management of the Project. Guidelines were developed in accordance with USACE master planning process. Preparation of the revised MP required: (1) an appraisal of the natural and human-related resource conditions of the Project and the surrounding region, and (2) an examination of environmental and administrative constraints and influences. The revised MP seeks to balance the use of recreational, natural, and cultural resources of the Project based on resource objectives, public needs, and operational efficiency.

The revised MP would be a living document establishing the basic direction for management and development of the Lucky Peak Project in agreement with the capabilities of the resource and public needs. The revised MP would be flexible in that supplementation can be achieved through a formal process that addresses unforeseen needs. The revised MP would be reviewed every five years to facilitate the evaluation and utilization of new information as it becomes available.

Section 4: Compliance with Applicable Environmental Laws, Regulations, and Executive Orders

Section 4 identifies the legal, policy, and regulatory requirements applicable to the Preferred Alternative. The updated MP will not, when adopted, authorize any new site-specific actions. Site-specific actions may require subsequent NEPA review and would be identified in future OMPs or similar plans. The following paragraphs address the principal environmental review and consultation requirements applicable to the proposed updated MP. Pertinent federal treaties, statutes, and Executive Orders are included.

4.1 Treaties and Native American Tribes

Treaties are legally binding contracts between sovereign nations that establish those nations' political and property relations. Treaties between Native American tribes and the United States confirm each nation's rights and privileges. It is important to be clear that "the rights of sovereign Indian tribes pre-existed their treaties; they were not granted them by treaties or by the United States government. Rather, the treaties gave their rights legal recognition." (Hunn et al. 2015:58). These reserved rights were retained by the tribes and are exercised by their members today.

The MP is a planning document providing conceptual guidance regarding Natural Resource Management (NRM) and does not cause any new site-specific actions. Individual site-specific undertakings would be subject to review under applicable federal laws. The Lucky Peak project area lies within the traditional territory of peoples now represented by the Shoshone Bannock Tribes of the Fort Hall Reservation and the Shoshone Paiute Tribes of Duck Valley. The ancestors of these community members once freely occupied a wide swath of lands in south and central Idaho, Nevada, and Oregon (Murphy and Murphy 1961). Specifically, what is now the Lucky Peak project area served as a travel and fishing corridor between the semi-arid hunting and gathering areas of the Snake River Plain and the forested Sawtooth Mountains. Various bands of the two closely related tribes have jointly utilized the area from time immemorial. There is evidence of occupation of this area for at least 11,000 years (Kee and Plew 2015). More recently, the people lived and moved in accordance with seasonal availability of resources, living in small settlements made up of earthen willow and sagebrush huts (Shoshone Paiute Tribe <https://shopaitribes.org/spt/> accessed on April 29, 2024).

The Shoshone Bannock reservation was established by a presidential Executive Order under the terms of the Fort Bridger Treaty of 1868. It originally contained 1.8 million acres, an amount that was reduced to 1.2 million acres in 1872 as a result of a survey error. The reservation was further reduced to its present size through additional legislation and the allotment process. The Fort Hall Reservation is now located in the eastern Snake River Plain of southeastern Idaho, and comprised of lands that lie north and west of the town of Pocatello. The Snake River, Blackfoot River, and the American Falls Reservoir border the reservation on the north and northwest. (Shoshone Bannock Tribe <https://www.sbtribes.com/about/> accessed 4/29/2024).

On April 16, 1877, President Rutherford B. Hayes established the reservation for the Western Shoshone. The Northern Paiute bands allied with the Bannock in the Bannock War of 1878 and were subsequently sent to a prisoner of war camp in Yakima, Washington. Upon their release, the survivors were returned to their homelands and on May 4, 1886, President Grover Cleveland expanded the Reservation for the Northern Paiute through respective Executive Orders. On July 1, 1910, United States President William H. Taft further expanded the reservation by Executive Order. The Western Shoshone Reservation was expanded for their use in 1886. Despite government pressure to move to the Fort Hall Reservation, the Shoshone and Paiute united in Duck Valley under the Indian Reorganization Act of 1934 and formed a tribal government through a Constitution and Bylaws that were adopted in 1936 (Shoshone Paiute Tribe <https://shopaitribes.org/spt/> accessed 4/29/2024).

The nations of Shoshone-Bannock and Shoshone-Paiute maintain their knowledge of and connection with lands and resources in their traditional territories. USACE routinely conducts pre-decisional consultation with the tribes regarding the impacts of USACE activities and strive to work in partnership on ecosystem restoration and other projects that fulfill the USACE mission and advance tribal self-determination.

Implementation of Alternative 2, the Balanced Use Alternative, would not affect treaty rights or resources.

4.2 Federal Laws

4.2.1 National Environmental Policy Act

As required by NEPA and subsequent implementing regulations promulgated by the Council on Environmental Quality, this EA was prepared in order to determine whether the proposed action constitutes a "...major Federal action significantly affecting the quality of the human environment..." and whether an Environmental Impact Statement is required.

This EA considers and describes potential environmental effects associated with adoption of an updated MP for management of recreational, natural, and cultural resources at the Lucky Peak Project. USACE will release the Draft Finding of No Significant Impact (FONSI) and this EA to other federal and state agencies, Tribes, and the public for a 30-day review and comment period beginning on November 1, 2024 and will conclude on November 30, 2024. While preparing the EA, USACE did not identify any impacts that would significantly affect the quality of the human environment. If no such impacts are identified during the public review process, compliance with NEPA would be achieved upon the signing of the FONSI which would be posted to the USACE website and available to the public.

Implementation of Alternative 2, the Balanced Use Alternative would comply with this Act. Subsequent actions would be subject to further tiered review under NEPA.

4.2.2 Endangered Species Act

The ESA established a national program for the conservation of threatened and endangered fish, wildlife and plants and the habitat upon which they depend. Section 7(a)(2) of the ESA requires federal agencies to consult with the USFWS and the National Marine Fisheries Service (NMFS), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats. Section 7(c) of the ESA and the federal regulations on endangered species coordination (50 CFR §402.12) require that federal agencies prepare biological assessments of the potential effects of major actions on listed species and their critical habitat.

4.2.3 Magnuson-Stevens Fishery Conservation and Management Act - Essential Fish Habitat

The consultation requirement of section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) directs federal agencies to consult with NMFS on all actions, or proposed actions that may adversely affect Essential Fish Habitat (EFH). Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810).

Chinook and Coho salmon are the only species in the area protected by the MSA. Implementation of the Balanced Use Alternative would have no adverse effect on Chinook, or Coho EFH and would comply with this Act.

4.2.4 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) requires consultation with USFWS and state fish and wildlife agencies to evaluate the impacts to fish and wildlife species where the “waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted... or otherwise controlled or modified” by any agency under a federal permit or license. The FWCA also requires equal consideration and coordination of wildlife conservation with other water resources development programs.

Implementing future plans or actions would require subsequent review to ensure compliance with the FWCA. Implementation of Alternative 2 would not be subject to the Act as it would not result in the control or modification of a natural stream or body of water.

4.2.5 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703-712, as amended) prohibits the taking of and commerce in migratory birds (live or dead), any parts of migratory birds, their feathers, or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof. There is also a Memorandum of Understanding between the Department of Defense and the USFWS, signed July 31, 2006, to promote the conservation of migratory birds.

Depending on the nature or type of proposed future actions, subsequent environmental compliance would be required to ensure compliance with the MBTA. A wide variety of species listed under the MBTA occur on USACE managed lands within the Lucky Peak Project area. There would be no take of migratory birds and the proposed action would not conflict with the purpose of the MBTA. The adoption of the revised MP would comply with the MBTA.

4.2.6 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions, primarily for Native American Tribes. Take under the BGEPA includes both direct taking of individuals and take due to disturbance. Disturbance is further defined in 50 CFR 22.3.

Bald and golden eagles are known to nest and roost on USACE managed lands in the Lucky Peak Dam and lake Project area. While all nest sites have not been formally documented in the USACE District, locations of some nests are known.

Depending on the nature or type of proposed future actions, subsequent environmental compliance would be required to ensure compliance with the BGEPA. Implementation of the Balanced Use Alternative would comply with the BGEPA and would not result in disturbance or take of bald or golden eagles.

4.2.7 National Historic Preservation Act

The NHPA of 1966 as amended directs federal agencies to assume responsibility for all cultural resources under their jurisdiction. Section 106 of NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the NRHP. The NHPA implementing regulations, 36 CFR Part 800, requires that the federal agency consult with the State Historic Preservation Officer (SHPO), Tribes and interested parties to ensure that all historic properties are adequately identified, evaluated, and considered in planning for proposed undertakings (Appendix E).

Implementation of site-specific actions would be identified in future OMPs or similar 5-year plans. Those actions would require tiered NEPA review and compliance specific to all applicable laws. The revised MP would not authorize any new site-specific actions, and therefore does not have the potential to cause effects to historic properties. The land use classifications provide a blueprint for management actions that may be

appropriate in different areas on USACE land. Since specific actions having the potential to affect cultural resources would be reviewed separately, the revised MP has no potential to cause effects.

4.2.8 American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) of 1978 (42 USCA 1996) established protection and preservation of Native Americans' rights of freedom of belief, expression, and exercise of traditional religions. Courts have interpreted AIRFA to mean that public officials must consider Native Americans' AIRFA interests before undertaking actions that might harm those interests.

Individual site-specific proposed actions would be subject to review under applicable federal laws, including AIRFA. USACE respects AIRFA and is receptive to tribal comments at any time. Implementation of Alternative 2, the Balanced Use Alternative, complies with AIRFA. The MP is a planning document providing conceptual guidance regarding NRM and does not cause any new site-specific actions or changes to tribal access for exercising religious freedoms.

4.2.9 Clean Water Act

The Federal Water Pollution Control Act (33 U.S.C. §1251 et seq., as amended) is more commonly referred to as the Clean Water Act (CWA). This act is the primary legislative vehicle for federal water pollution control programs and the basic structure for regulating discharges of pollutants into waters of the United States. The act was established to restore and maintain the chemical, physical, and biological integrity of the Nation's waters and sets goals to eliminate discharges of pollutants into navigable water, protect fish and wildlife, and prohibit the discharge of toxic pollutants in quantities that could adversely affect the environment. The act has been amended numerous times and given several titles and codifications.

Future site-specific actions would be reviewed, as appropriate, for compliance with the CWA. Revision of the MP would not require or trigger compliance with the CWA.

4.2.10 Clean Air Act

The Clean Air Act (CAA) of 1970, as amended, established a comprehensive program for improving and maintaining air quality throughout the United States. Its goals are achieved through permitting of stationary sources, restricting the emission of toxic substances from stationary and mobile sources, and establishing National Ambient Air Quality Standards. Title IV of the CAA includes provisions for complying with noise pollution standards.

Revision of the MP would have no adverse impacts on air quality and would comply with the CAA. Future site-specific actions would require subsequent review to ensure compliance with the CAA.

4.3 Executive Orders (EO)

4.3.1 EO 11988 and EO 13690, Floodplain and Flood Risk Management

These EO's outline the responsibilities of federal agencies in the role of floodplain and flood risk management. Each agency must evaluate the potential effects of actions on floodplains and aim to improve the Nation's preparedness and resilience against flooding and avoid undertaking actions that directly or indirectly induce development in the floodplain or adversely affect natural floodplain values.

These EOs also include the need to improve the resilience of communities and federal assets ageing the effects of flooding, which are anticipated to increase over time due to the effects of climate change and other threats. Losses caused by flooding affect the environment, the economy, and public health and safety, each of which affects our national security.

A detailed review of potential future site-specific actions would be completed to ensure floodplains values and functions would not be affected. The proposed action of revising the MP would not change floodplain function or increase floodplain development in the proposed action area.

4.3.2 EO 11990, Protection of Wetlands

This EO requires federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.

A detailed review of potential future site-specific actions would be completed to ensure wetland values and functions would not be affected. Wetlands would not be detrimentally impacted by implementation of the Balanced Use Alternative.

4.3.3 EO 12898, Environmental Justice

This EO requires federal agencies to consider and minimize potential impacts to subsistence, low income, or minority communities. The goal is to ensure that no person or group of people shoulder a disproportionate share of negative environmental impacts resulting from the execution of the country's domestic and foreign policy programs.

The revised MP is a conceptual planning document for strategic land management and development of project recreation, natural and cultural resources. It is intended for responsible stewardship and sustainability of resources. The revised MP would not direct specific actions that would cause a disproportionate share of negative environmental impacts to a person or group of people.

Implementing future plans or actions would require subsequent review to ensure compliance with this EO. Revision of the MP would not conflict with requirements of this EO.

4.3.4 EO 13007, Native American Sacred Sites

EO 13007 directs federal agencies to accommodate access to and ceremonial use of tribal sacred sites by tribal religious practitioners. Agencies are to avoid adversely affecting the physical integrity of such sacred sites and to maintain the confidentiality of sacred sites when appropriate. The Act encourages government-to-government consultation with tribes concerning sacred sites. Some sacred sites may qualify as historic properties under the NHPA.

The revised MP is a planning document and does not authorize any new site-specific actions. USACE would continue to consult with Native American Tribes regarding Sacred Sites on Lucky Peak Dam and Lake lands. Revision of the MP would have no potential to affect any Native American sacred sites.

4.3.5 EO 13175, Consultation and Coordination with Indian Tribal Governments, November 6, 2000, and Presidential Memorandum, “Government to Government Relations with Native American Tribal Governments”, April 29, 1994

EO 13175 sets forth guidelines for all federal agencies to establish regular and meaningful consultation and collaboration with Indian tribal officials in the development of federal policies that have tribal implications; strengthen the United States government-to-government relationships with Indian tribes; and reduce the imposition of unfunded mandates on Indian tribes.

The Presidential Memorandum of 1994 states in part that, “each...department and agency shall consult, to the greatest extent practicable and permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments.”

Site-specific actions would be identified in future OMPs or similar plans, and those actions may require tiered NEPA review and compliance specific to all applicable laws. The revised MP would not authorize any new site-specific actions, which could have tribal implications or affect tribal governments.

4.3.6 EO 13112, Invasive Species

EO 13211 directs federal agencies to prevent the introduction of invasive species, to provide their control and to minimize the economic, ecological, and human health impacts from invasive species.

Reducing and restricting the spread of invasive and nuisance species would be achieved by monitoring, assessment, and an integrated pest management approach to treatment according to the USACE Integrated Pest Management Plan. This includes the use of chemical, mechanical, and biological control methods, as well as reseeding and planting with appropriate plant species.

4.4 State and Local Regulations

State, county, and/or local laws and regulations may also be applicable to any potential action, based on aspects of the individual action. On a case-by-case basis, these types of requirements would be addressed for site specific actions under the OMPs. The proposed action of revising the MP would not trigger compliance with any state, county, or local laws and regulations.

Section 5 – Public Involvement and Tribal Consultation

5.1 Public Involvement

5.1.1 Scoping

A 30-day public scoping process for the Lucky Peak Master Plan revision was initiated in April 2023. USACE sent letters and emails to stakeholders (community groups, elected officials, government agencies, and interested parties) inviting them to comment on the scope of the Master Plan update.

USACE conducted scoping for the Master Plan update from April 10 to May 10, 2023. To publicize the scoping process news releases were published and sent to local news outlets and notices were posted to the Walla Walla District and Lucky Peak Facebook pages.

A public scoping meeting was held on April 12, 2023, as well as a Stakeholder meeting. Both meetings were held at Boise State University in Boise, Idaho.

The scoping process was an opportunity to get input from the public and agencies about the vision for the Master Plan update and the issues that the Master Plan should address, where possible. During the scoping period, USACE received suggestions and comments from about 55 people. Comments related to natural resource management, land designation, and recreational uses at the Project.

5.1.2 Draft Document Review

The Draft MP, Draft FONSI and this EA will be released to the public, Tribes, agencies and interested parties on November 1, 2024, for a 30-day review and comment period which will close on November 30, 2024. Documents are available on the USACE website at: <https://www.nww.usace.army.mil/Locations/District-Locks-and-Dams/Lucky-Peak-Dam-and-Lake/Lucky-Peak-Master-Plan/>

5.2 Tribal Consultation

USACE sent a letter offering Government-to-Government Consultation and an invitation to public meetings to the Burns Paiute, the Shoshone-Paiute, and the Shoshone-Bannock Tribes to initiate consultation for the update to the Lucky Peak Master Plan. The open comment period will begin November 1, 2024 and will conclude on November 30, 2024. An invitation to join a meeting for local, Tribal, and government officials is scheduled for Monday, November 4, 2024, at the Saint Lukes Central Plaza Building at 720 East Park Blvd, Boise, Idaho in the Bogus Room.

Section 6: References

- Ada County, Idaho, 2024. Comprehensive Plan Website. Accessed May 15, 2024. From [Comprehensive Plans - Development Services \(id.gov\)](#).
- Boise County, Idaho, 2024. Planning and Zoning Website. Accessed May 15, 2024. From [Planning and Zoning – Boise County](#).
- City of Boise, Idaho, 2024. Development Tracker Website. Accessed May 15, 2024. From [Development Tracker | City of Boise](#).
- City of Meridian, Idaho, 2024. Annual Reports Website. Accessed May 15, 2024. From [Annual Reports | City of Meridian \(meridiacity.org\)](#).
- Council on Environmental Quality (CEQ). 1997. Considering Cumulative Effects Under the National Environmental Policy Act.
- Dilts, T.E., M.O. Steele, J.D. Engler, E.M. Pelton, S.J. Jepsen, S.J. McKnight, A.R. Taylor, C.E. Fallon, S.H. Black, E.E. Cruz, D.R. Craver and M.L. Forister. 2019. Host plants and climate structure habitat associations of the western monarch butterfly. *Frontiers in Ecology and Evolution* 7:188.
- Elmore County, Idaho, 2024. Land Use and Building Website. Accessed on May 15, 2024. From [Land Use and Building Department - Elmore County, Idaho](#).
- Environmental Protection Agency (EPA). 1999. Consideration of Cumulative Impacts in EPA Review of NEPA Documents. U.S. Environmental Protection Agency, Office of Federal Activities.
- Hunn, E.S., E.T. Morning Owl, P.E. Cash Cash, and J. Karson Engum. 2015. *Ćaw Pawá Láakni, They Are not Forgotten, Sahaptian Place Names Atlas of the Cayuse, Umatilla, and Walla Walla*. University of Washington Press, Seattle, Washington.
- Idaho Department of Environmental Quality (IDEQ). 2009. Boise-Mores Creek watershed subbasin assessment and total maximum daily loads. Final report.
- Idaho Department of Fish and Game (IDFG). 2014. Boise River Wildlife Management Area management plan 2014-2023. Idaho Department of Fish and Game, Southwest Region, Nampa Idaho.
- Idaho Department of Fish and Game (IDFG). 2019. Fisheries management annual report. Idaho Department of Fish and Game, Southwest Region.
- Idaho State Department of Agriculture (ISDA). 2023. Idaho noxious weed distribution map: [Idaho State Department of Agriculture Open Data \(arcgis.com\)](#)
- Kee, J.S. and Plew, M.G.. (2015). Incised Stones from Idaho. *Journal of Northwest Anthropology*, 491(1), 27-42.
- Lukacs, P.M., D.E. Mack, R. Inman, J.A. Gude, J.S. Ivan, R.P. Lanka, J.C. Lewis, R.A. Long, R. Sallabanks, Z. Walker, S. Courville, S. Jackson, R. Kahn, M.K. Schwartz, S.C. Torbit, J.S. Waller and K. Carroll. 2020. Wolverine occupancy, spatial distribution, and monitoring design. *Journal of Wildlife Management* 84(5):841-851.
- McGrath C.L., A.J. Woods, J.M. Omernik, S.A. Bryce, M. Edmondson, J.A. Nesser, J. Sheldon, R.C. Crawford, J.A. Comstock, and M.D. Plocher. 2002. *Ecoregions of Idaho*. United States Geological Survey, Reston, Virginia.
- Murphy, C. 2012. *Riparian and Wetland Restoration Planting Guide for the Boise and Payette River Basins, Idaho*. Prepared for Idaho Department of Lands and U. S. Forest Service. Idaho Department of Fish and Game, Boise, ID. 61 pp.
- Murphy, Robert F., and Yolanda Murphy, 1961. *Shoshone-Bannock Subsistence and*

Society. Anthropological Records Vol. 16, No. 7. University of California.

National Wetlands Inventory (NWI). 2024. Wetlands Mapper online: [Wetlands Mapper | U.S. Fish & Wildlife Service \(fws.gov\)](#) accessed 26 March 2024.

Plew, Mark G., 2008. Archaeology of the Snake River Plain. Boise State University Press, Boise ID.

River Management Joint Operating Committee (RMJOC). 2022. Climate and Hydrology Datasets for RMJOC Long-Term Planning Studies: Second Edition. Part II: Columbia River Reservoir Regulation and Operations – Modeling and Analysis.

Shoshone Bannock Tribe, 2024. Tribal Website. Accessed on April 29, 2024.
From: <https://shopaitribes.org/spt/>

Shoshone Bannock Tribe, 2024. Tribal Website. Accessed on April 29, 2024. From <https://www.sbtribes.com/about/>

Shoshone Paiute Tribe, 2024. Tribal Website, Accessed on April 29, 2024. From <https://shopaitribes.org/spt/>

Svejcar, T.J., Boyd, C.S., Davies, K.W., Hamerlynck, E. Svejcar, L. 2017. Challenges and Limitations to Native Species Restoration in the Great Basin, USA. Plant Ecology. 218:81-94.

U.S. Army Corps of Engineers, 1988. Lucky Peak Master Plan, Walla Walla District Walla Walla.

U.S. Army Corps of Engineers. 1988. Policy and Procedure for Implementing NEPA, ER 200-2-2. From <https://www.ecfr.gov/current/title-33/chapter-II/part-230>

U.S. Army Corps of Engineers. 2013 Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550 from https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1130-2-550.pdf

U.S. Census Bureau. 2019. American Community Survey. Accessed on April 11, 2024. From <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>.

U.S. Global Change Research Program (USGCRP). 2023. Our Changing Planet, A Report by the USGCRP and the Subcommittee on Global Change Research, National Science and Technology Council, A Supplement to the President's Budget for Fiscal Year 2023. Accessed on June 12, 2023. From <https://www.globalchange.gov/browse/reports/our-changing-planet-FY-2023>

U.S. Government Geoplatform, Climate and Economic Justice Screening Tool Accessed on April 11, 2024, From <https://screeningtool.geoplatform.gov>

U.S. Geological Survey. 2004. Water quality and biological conditions in the Lower Boise River, Ada and Canyon Counties, Idaho, 1994-2002. Scientific investigations report 2004-5128.

Wischmeier, W.H. and Smith, D.D. (1965). Prediction Rainfall Erosion Losses from Cropland East of the Rocky Mountains: A Guide for Selection Practices for Soil and Water Conservation. Agricultural Handbook, No. 282, 47 p.

Xerces Society. 2024. Western monarch milkweed mapper online database access 26 March 2024: monarchmilkweedmapper.org/app/#/combined/map