LUCKY PEAK MASTER PLAN

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BLM	BUREAU OF LAND MANAGEMENT
BRZ	boat restricted zone

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BRWMA	Boise River Wildlife Management Area
BOR	Bureau of Reclamation
CFR	Code of Federal Regulation
Corps	US Army Corps of Engineers
District	Walla Walla District
EA	Environmental Assessment
ENS	Environmental Stewardship
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FY	Fiscal Year
FONSI	Finding of No Significant Impact
IDFG	Idaho Department of Fish and Game
IDPR	Idaho Department of Parks and Recreation
IPMP	Integrated Pest Management Plan
Master Plan	Lucky Peak Lake Master Plan
msl	mean sea level
MRM	Multiple Resource Management
MRM-WM	Multiple Resource Management-Wildlife Management
NEPA	National Environmental Policy Act
OPRD	Oregon Parks and Recreation Department
PL	Public Law
Project	Lucky Peak Lake
SCORP	State Comprehensive Outdoor Recreation Plan
UDV	Unit Daily Value
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service

1. Introduction

1.1. PROJECT AUTHORIZATION

This document is the Lucky Peak Lake Master Plan for management of the lands and associated recreational, natural, and cultural resources of the Lucky Peak operating project (also referred to as the Project throughout the rest of this document). Master Plans are required for civil works projects and other fee-owned lands for which the U.S. Army Corps of Engineers (USACE) Walla Walla District (District) has administrative and management responsibility. Chapter 1 identifies the authorized purposes and provides a description of the Project, and provides information about the scope, goals, and planning processes of this Master Plan. A Finding of No Significant Impact (FONSI) documents the findings of the Environmental Assessment (EA), which was conducted as an integral part of developing the 2024 Master Plan; the EA can be found in Appendix A and the FONSI in Appendix B.

1.2. AUTHORIZED PURPOSES

Construction of the Lucky Peak Dam and Lake project (Project) was authorized by Public Law (PL) 526, 79th Congress, Second Session, approved July 24, 1946 (Flood Control Act of 1946 [PL-526]). The authorization specifies purposes of flood risk management, irrigation, power development, and recreation during what is known as the "interim period" (Chief of Engineers Report, U.S. Congress, Page 74, paragraph 17, 1946). Recreation and fish and wildlife conservation were authorized through other legislation later as additional year-round purposes. This other legislation does, in certain cases, require local cooperation in development and management of collateral resources. It is important to note that this Master Plan does not address the authorized purposes of hydroelectric power production or irrigation.

1.2.1. Recreation

Section 4 of the Flood Control Act of 1944, as amended in 1946 and 1954 and by Section 207 of the 1962 Flood Control Act (PL 87-874), is the basic authority for the initial recreation development on Lucky Peak Lake.

USACE is the largest Federal provider of water-based outdoor recreation in the nation. With more than 400 lakes and river projects in 43 states where visitors exercise, spend

time with their families, or just enjoy a lazy afternoon, USACE plays a major role in meeting the nation's outdoor recreation needs. Popular recreation activities around Lucky Peak Lake include fishing, birdwatching, swimming, picnicking, boating, paddleboarding, hunting, and camping. There are day-use areas, campsites, parks, wildlife management areas, boat ramps, and a marina.

Figure 1-1: Standup Paddleboarder at Lucky Peak Lake

1.2.2. Fish and Wildlife

The Fish and Wildlife Coordination Act of 1958 (PL 85-624) provides USACE the opportunity to incorporate fish and wildlife conservation features into water resource development Projects. USACE plans are coordinated with the U.S. Fish and Wildlife Service (USFWS) and state fish and wildlife agencies, and appropriate conservation actions are cooperatively developed under the guidance of the National Environmental Policy Act (NEPA) and this law. Comments from the Idaho Department of Fish and Game

(IDFG) regarding fisheries within Lucky Peak Lake and downstream informed the 1976 Lucky Peak Environmental Impact Statement (EIS; USACE, 1976), and comments from the U.S. Department of Interior informed the 1979 Lucky Peak EIS (USACE, 1979). The various proposals and concepts set forth in this Master Plan have been, and will continue to be, coordinated with the appropriate fish and wildlife agencies through routine communication and the NEPA process.

The fish and wildlife mission at the Project is managed under the environmental stewardship (ENS) authority as authorized under the Project's general operation and management budget.

Figure 1-2: Juvenile Mountain Cottontail Rabbits in a Nest

1.3. NATURAL RESOURCE MANAGEMENT MISSION

The Natural Resource Management Mission of USACE states the following:

> *The Army Corps of Engineers is the steward of the lands and waters at USACE water resources projects. Its Natural Resource Management Mission is to manage and*

conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance, and restoration practices.

The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life. (USACE, 1996)

1.4. PURPOSE AND SCOPE OF THE MASTER PLAN

The Master Plan is a strategic land use document that guides the comprehensive management and development of all Project recreational, natural, and cultural resources throughout the life of the Project. This Master Plan guides and articulates USACE responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources at the Project. It is dynamic and flexible, based on changing conditions, and intended to be effective for about 20 years. The Master Plan focuses on overarching management goals and objectives.

Details of design, management, administration, and implementation are addressed in other planning and management documents, such as 5-year plans and annual management plans. Subsequent actions found to support master plan guidance are subject to individual review under the National Environmental Policy Act (NEPA) and other applicable environmental laws and regulations.

The Master Plan was developed with consideration of regional and local needs, resource capabilities and suitability, and expressed public interests consistent with authorized Project purposes and regulations. The previous Master Plan was written in 1988 (USACE 1988). A revision is warranted due to the age of the 1988 Master Plan, changes in USACE

policy and guidance regarding master plans, land purchases, management changes, and changes in visitor use.

Because the previous Master Plan is 36 years old, it would be very difficult to document all the changes that have occurred. Attempts have been made to describe some of the most important and impactful changes. The Master Plan is a future-facing document, so it is important to capture the history of the Project while anticipating what will continue to impact the Project in coming years.

An EA was conducted as an integral part of developing the 2024 Master Plan and can be found in Appendix A.

1.5. PROJECT DESCRIPTION

Lucky Peak Lake is located on the edge of the Sawtooth Mountain Range in southwestern Idaho, 12 miles from downtown Boise (See Figure 1-3 and Figure 1-4). The lake, when at "normal full pool" (when the elevation is at mean sea level [msl] 3,055 feet), is approximately 11 miles long and has 44 miles of shoreline, 2,813 acres of water surface area, and 4,223 acres of lands managed by USACE either directly or indirectly through various means with our federal, state, and local partners. Portions of the Project lie in Ada, Boise, and Elmore Counties, Idaho.

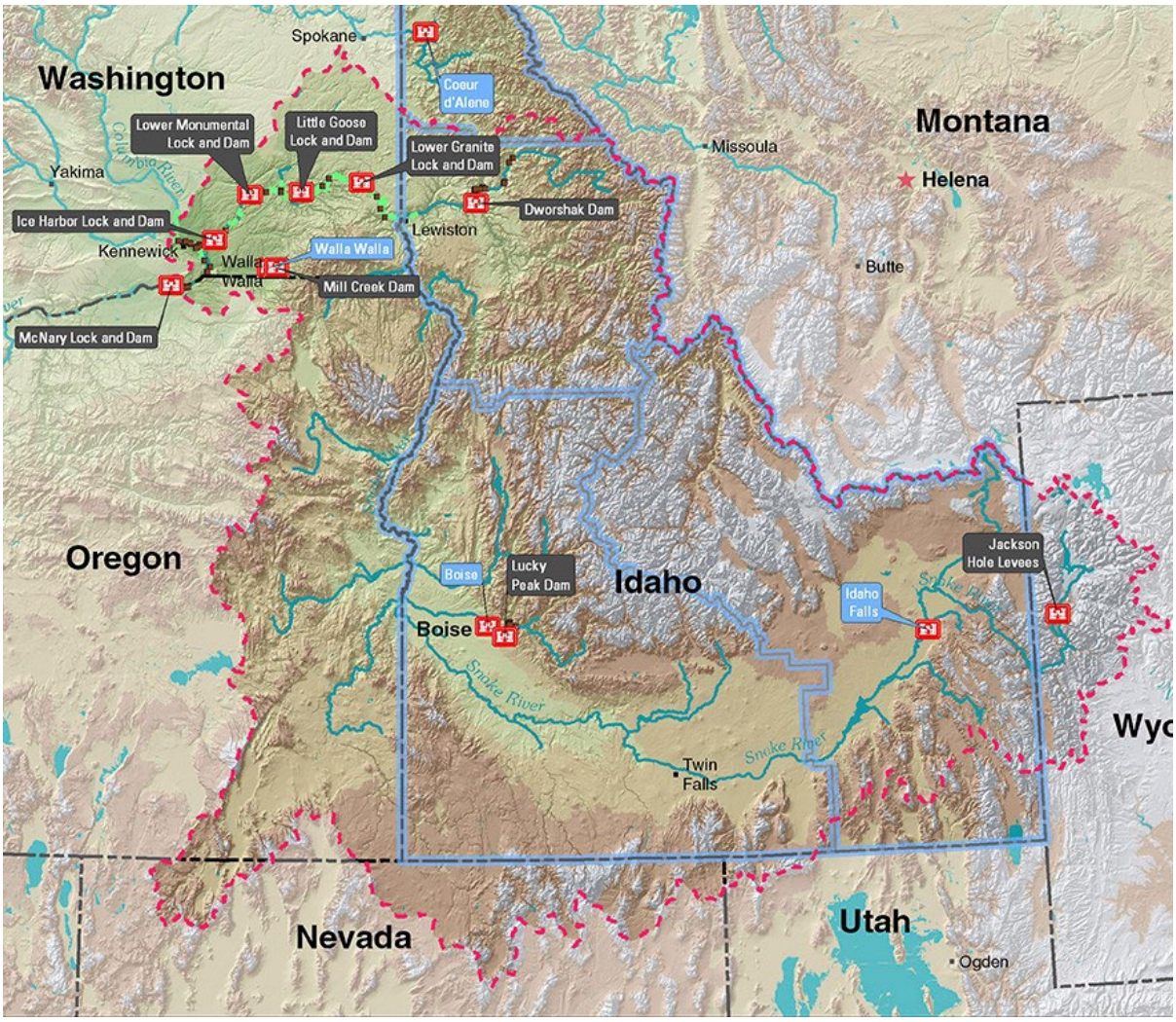


Figure 1-3: Regional Location of the Lucky Peak Project

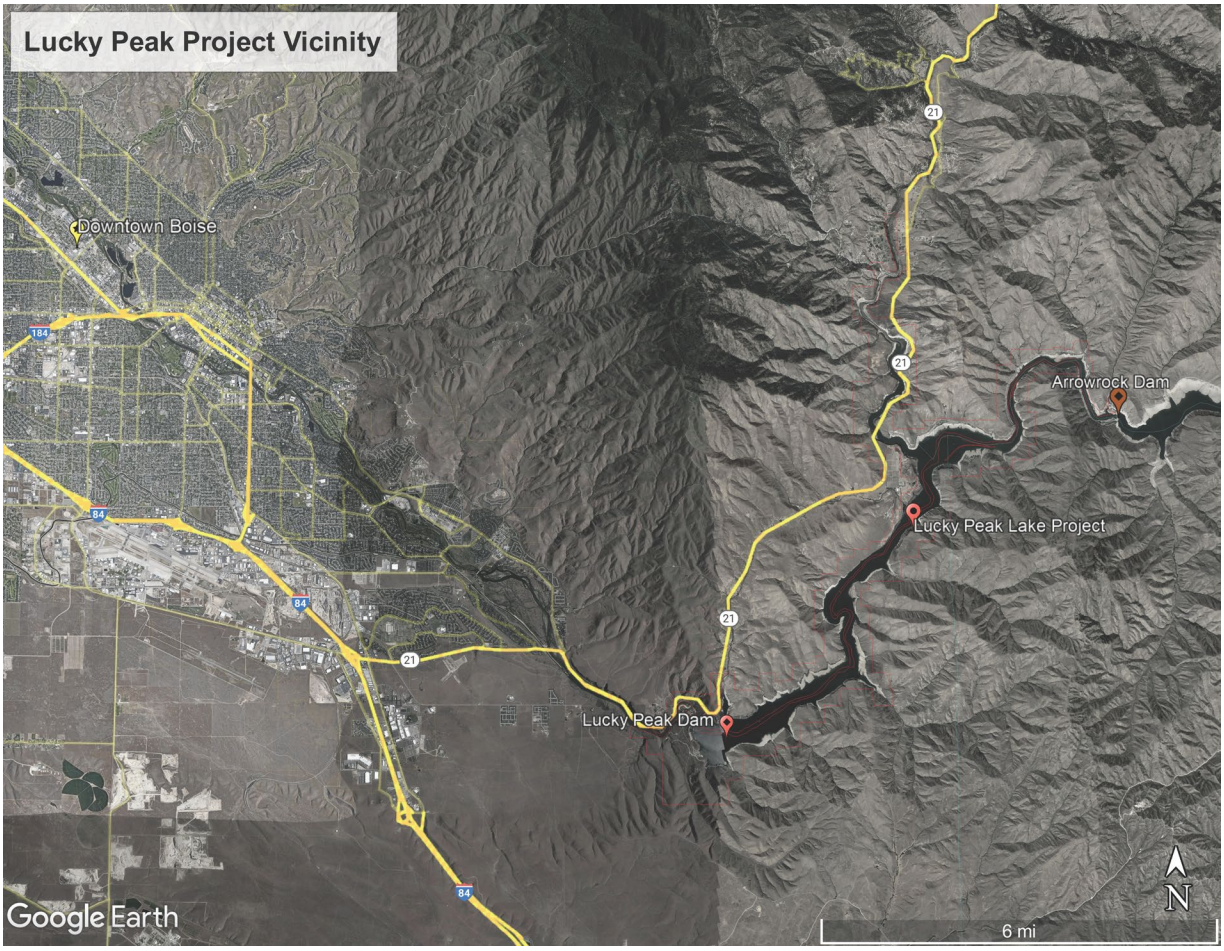


Figure 1-4: Lucky Peak Project Vicinity

1.6. CONCEPTUAL FRAMEWORK

The process of developing the Master Plan involved a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and future environmental, recreational, and socioeconomic conditions and trends. Within a generalized conceptual framework, the process focused on four primary components:

- Regional and ecosystem needs.
- Project resource capabilities and suitability.
- Expressed public interests that are compatible with authorized Project purposes.
- Environmentally sustainable elements.

INTRODUCTION

USACE held a scoping meeting in support of the Master Plan to give the public opportunities to provide input on current use of Project lands and recommendations for future management. The meeting was held in Boise, Idaho, on April 12, 2023. USACE also solicited comments during a 30-day scoping period (April 10 – May 10, 2023) through a website created for the Master Plan update, through U.S. mail, and via a dedicated email address.

Figure 1-5: Lucky Peak Scoping Meeting, April 12, 2023

Approximately fifty-four individuals (including government officials) provided feedback during scoping period, helping USACE planners identify opportunities for improved management of Project lands. Those recommendations were considered, along with previous visitor feedback and public use, during formulation and evaluation of the Master Plan.

Information gathered during the scoping period was combined with the Project inventory of needs to form a list of opportunities, constraints, and other influencing

factors for future natural resource and recreation development and management at the Project.

From this input, updated land classifications were applied, and land classification maps were created (Appendix E, Land Classification Maps). These maps are used for guiding appropriate development and management actions that will be detailed in planning documents and management documents, such as an Operational Management Plan.

1.7. REFERENCES AND DESIGN MEMORANDUMS

Document references can be found in Chapter 9, Bibliography, and a list of all design memoranda pertinent to the Project is furnished in Appendix D, Lucky Peak Project List of Design Memoranda.

2. Project Setting and Factors Influencing Management and Development

Chapter 2 is an overview of the key factors that influence and constrain present and future use, management, and development of land and water resources at the Project. These factors fall into three general and interrelated categories: natural resources, historical and social resources, and administration and policy. An analysis of these factors, as well as regional needs and public input, results in a framework to minimize adverse impacts to the environment and resolve competing and conflicting uses. Information presented in this chapter is used to develop Project-wide resource objectives, designate land classifications, and identify other needs.

2.1. DESCRIPTION OF RESERVOIR, NAVIGATION POOL, AND SHORELINES

The Lucky Peak Dam and Lake (Project) was authorized by the Flood Control Act of 1946. Construction of Lucky Peak Dam began in 1949 and it was dedicated June 23, 1955. The Project was named after a successful gold mining camp based near the peak of Shaw Mountain, located about three miles north of the planned project footprint (Figure 2-1). The Project includes a rolled earth and gravel fill dam, Lucky Peak Lake (a.k.a., Lucky Peak Reservoir), federally-owned lands managed by USACE and other partnering agencies, and operational and recreational facilities. The Project provides flood risk management, fish and wildlife habitat, irrigation and water storage services, and a variety of recreational opportunities.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

Figure 2-1: View Overlooking Lucky Peak Lake

Upstream of Lucky Peak Dam is a storage reservoir, Lucky Peak Lake. The normal pool elevation in the reservoir during the late summer through fall seasons typically ranges between 3,040 feet msl in mid-August, dropping to approximately 2,950 feet msl by the end of October. Elevation is held near this level into the winter months, depending on regional precipitation levels and flood control needs. Reservoir levels are gradually increased into late winter and early spring until reaching near-full pool elevation (3,055 feet msl) to coincide with seasonal recreation uses by early to mid-June. Due to its role in flood control, Lucky Peak Dam and Lake operators lower the reservoir level during the flood season (October 15 to July 15). During normal runoff years, the reservoir level is held down for flood storage until approximately June 15. The reservoir level is usually held at normal full pool during the recreation season (June 15 to Labor Day). Storage space in the reservoir is also used for irrigation and streamflow maintenance, and the top 5 feet (3,055 to 3,060 msl) may be used for flood control surcharge, a technique used to reduce downstream flooding by temporarily storing water during peak flow periods. During drought years, the level of the reservoir will drop below normal full pool during the recreation season to meet irrigation needs.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

The reservoir is 11 miles long and has 44 miles of shoreline and 2,813 acres of surface area at normal operating pool with 820 surface acres at minimum operating pool. The Project lands also include approximately 4.5 miles of Mores Creek. The reservoir surface elevation may fluctuate as much as 100 to 150 feet, annually. Drought years may add to drawdown fluctuation. During winter months, the reservoir is also managed for wildlife according to the management plan for the Boise River Wildlife Management Area (BRWMA).

Lucky Peak Lake has few shallow areas suitable for the growth of rooted aquatic flora. Late summer drawdown exposes littoral (shore) zones and discourages the growth of rooted, aquatic plant life. Phytoplankton (minute free-floating vegetation) are the dominant plants in the aquatic ecosystem, although they are not abundant. The limited distribution of trees along the shoreline and in side-canyons provide a transition between the riparian and shrub-steppe vegetative communities. These lands support the highest variety of plants and animals on the Project. They are also the most desirable for recreation and provide high aesthetic values. These nearshore habitats provide foraging, hiding cover, and nesting opportunities for terrestrial wildlife and birds.

There are 4,288 acres of public lands surrounding the shorelines of Lucky Peak Lake. These include lands that are federally owned and managed by USACE, as well as easement lands to which USACE has specific rights to flood. There are 4,079 acres of USACE-managed lands that are used for public recreation, wildlife habitat, and operations purposes. Lucky Peak Lake bisects the IDFG BRWMA, a major winter range in the state for deer and elk. The Idaho State Parks operates Lucky Peak State Park Units at three locations on Lucky Peak Lake. Ada County Parks and Waterways provides over 500 public-use floating dock sections. USACE recreation facilities at Lucky Peak Lake consist of 7 park areas, 4 boat launch ramps, and 80 dispersed recreation sites accessible only by boat. Public visitation to all areas in fiscal year (FY) 2023 was approximately 930,000 visits.

2.2. HYDROLOGY

Downstream from Lucky Peak Dam, the Boise River flows through the most populous area in Idaho. 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 in about 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 (Figure 2-2).

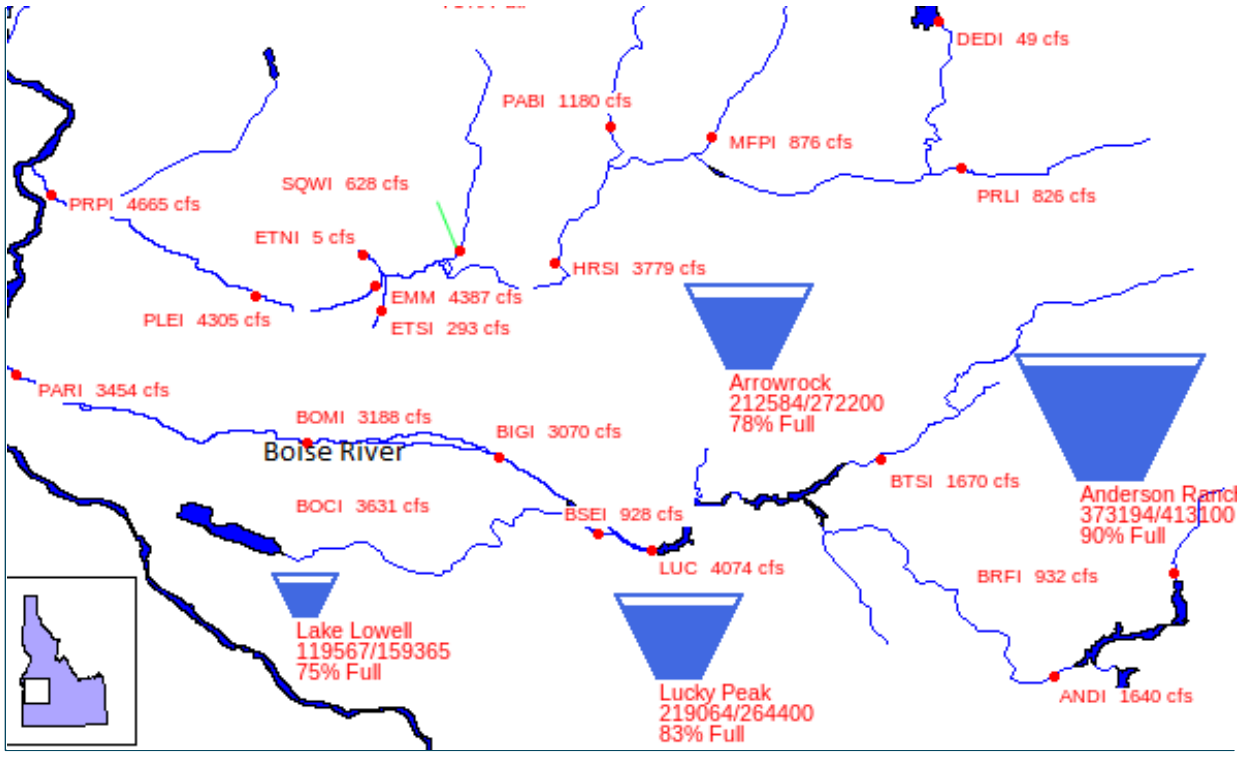


Figure 2-2: Boise River Reservoirs and Their Storage Capacities on 08 February 2024

Streamflow from Lucky Peak Lake has been almost completely controlled since 1954. Lucky Peak Lake is operated to fill multiple needs, including flood control and summer recreation. Operational adjustments at the dams in the Boise River Reservoir System require seasonal changes in flow to satisfy irrigation and reservoir recharge needs. Around October 15, water diversions for irrigation transition to recharge for Lake Lowell.

Throughout the winter, the Boise River flows around 250 cubic feet per second, and releases from the reservoir system to the Boise River generally remain small. Throughout the winter months, flood risk management concerns could prompt higher releases. Then in the spring, water managers for the reservoir system use modeling and accumulated snowpack data to guide variable releases for flood risk management.

2.3. CLIMATE

The climate within the lower Boise River Basin watershed is mild. The summer months are hot and dry while the winters are cold and wet, though generally not severe. Figure 2-3 displays the average monthly temperatures (in degrees Fahrenheit), precipitation, and snowpack for the region from 1951 through 2016 (source: National Climate Data Center). Average annual precipitation of the watershed ranges from about 24 inches at higher elevations of the Boise Front, the steep, forested mountain range east of Boise, to around 8 inches in the southernmost region of the watershed. Snow accumulation is typically light in the lowlands and usually melts shortly after it falls.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	37.4	45.0	53.5	62.5	72.1	81.6	91.8	90.2	79.9	66.8	49.9	39.3	64.2
Average Min. Temperature (F)	21.3	27.4	31.3	36.9	44.0	51.1	57.8	57.2	49.5	40.5	31.5	23.4	39.3
Average Total Precipitation (in.)	1.75	1.16	1.50	1.41	1.42	0.98	0.29	0.38	0.62	0.81	1.73	1.73	13.79
Average Total SnowFall (in.)	2.3	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	4.9
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 2-3: Monthly Climate Summary at Lucky Peak Dam, 1951-2016

2.4. TOPOGRAPHY, GEOLOGY, AND SOILS

2.4.1. Topography

The 1,290-square-mile lower Boise River Basin is in southwestern Idaho between Lucky Peak Dam (at river mile 64) and the confluence of the Boise and Snake Rivers (river mile 395). The basin contains the most industrialized and urbanized areas in Idaho. Ada and Canyon Counties represent 33 percent of Idaho's total population.

The lower Boise River Basin is in the northern part of the western Snake River Plain and lies in a broad, alluvium-filled basin with several step-like terraces, or benches, which are more pronounced and continuous on the south side of the Boise River. The upper basin, upstream of Lucky Peak Dam, is mountainous and sparsely populated. Downstream of Lucky Peak Dam, the basin floor slopes northwestward at a gradient of about 10 feet per mile. The altitude of the basin near Lucky Peak Dam is about 2,800 feet above sea level;

the altitude near the river mouth is about 2,200 feet. In addition to the lower Boise River, several tributaries are interconnected by a complex irrigation system of canals, laterals, and drains.

Approximately 80 percent of the Project lands are too steep for development. Most of the remaining 20 percent of Project lands, which are less steep, lie in roadless areas with no lake access due to the gradient of cliffs and slopes. Thus, steep slopes severely inhibit recreation and wildlife habitat improvements.

2.4.2. Geology

The top of Lucky Peak Dam provides a 360-degree view of the geology of the southeast Boise Foothills. Outcrops of the Idaho batholith, a massive igneous rock body, are situated northeast of the dam. The northeastern footings of the dam sit on part of this natural foundation. Northwest of the dam, the relatively fresh granodiorite grades into sheared granitic rocks. Granodiorite forms deep within the Earth's crust through the slow cooling and solidification of magma. This formation marks the upthrown side of a fault which appears to pass directly under Lucky Peak Dam and probably forced the Boise River to make the zigzag in its course at this location.

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.

Howard and others (1982) named the basalt of Lucky Peak for the thick lava flow that forms the northeast canyon wall just downstream from Lucky Peak Dam (Figure 2-4). The basalt of Five Mile Creek underlies the highest surface of the lavas in the Boise River Canyon. The Five Mile Creek basalt erupted from a volcano in the hillside south of the Micron Technology campus (observable as a dark area on aerial imagery). Gowen basalt

and Lucky Peak basalt erupted from shield volcanoes in Smith Prairie, 30 miles upstream, and flowed down the Boise River Canyon.

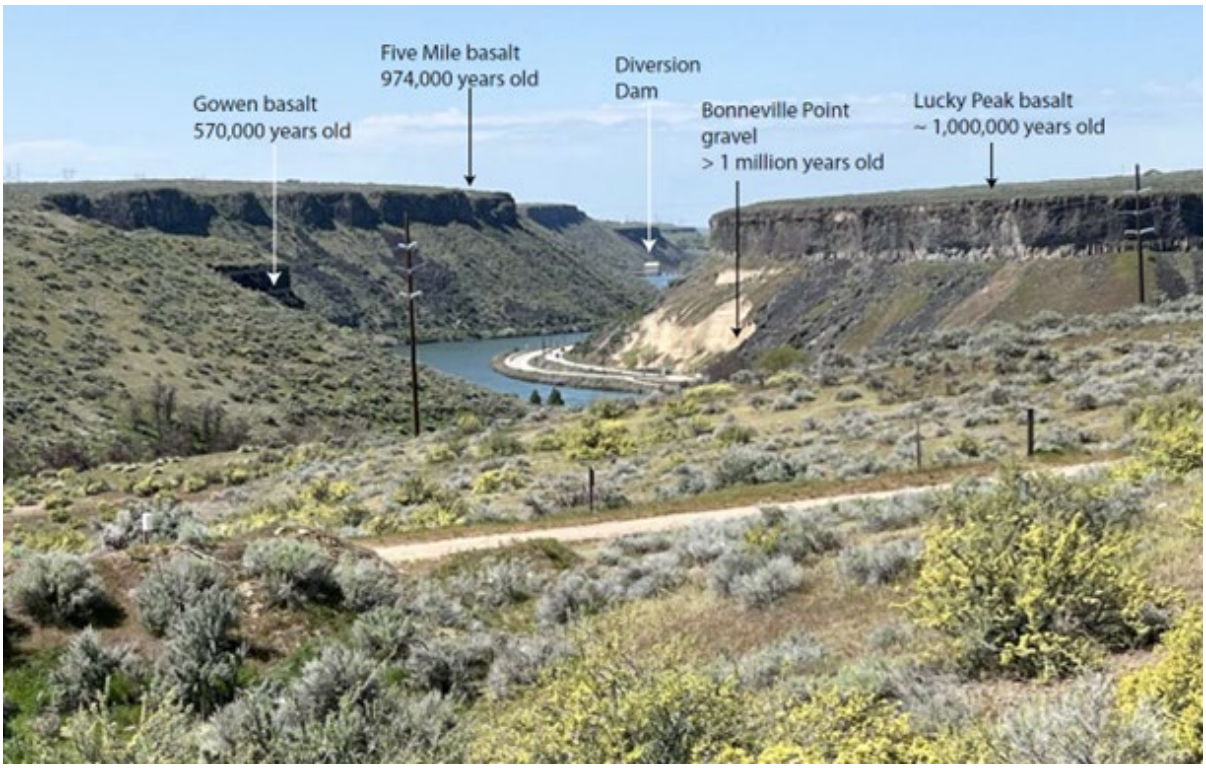


Figure 2-4: Locations and Ages of Deposits Forming the Boise River Canyon Immediately Downstream of Lucky Peak Dam – *Image Provided by Spencer Wood*

2.4.3. Soils

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 to nine percent). Slopes are moderately steeper in the areas forming the watersheds surrounding the reservoir basin (35 percent to 44 percent), and they increase appreciably as one approaches the bordering mountain ranges (IDEQ 2009). Figure 2-4 illustrates Natural Resources Conservation Service (NRCS) water infiltration and transmission ratings of the slopes surrounding Lucky Peak

Lake. Most soils around Lucky Peak Lake have 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.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

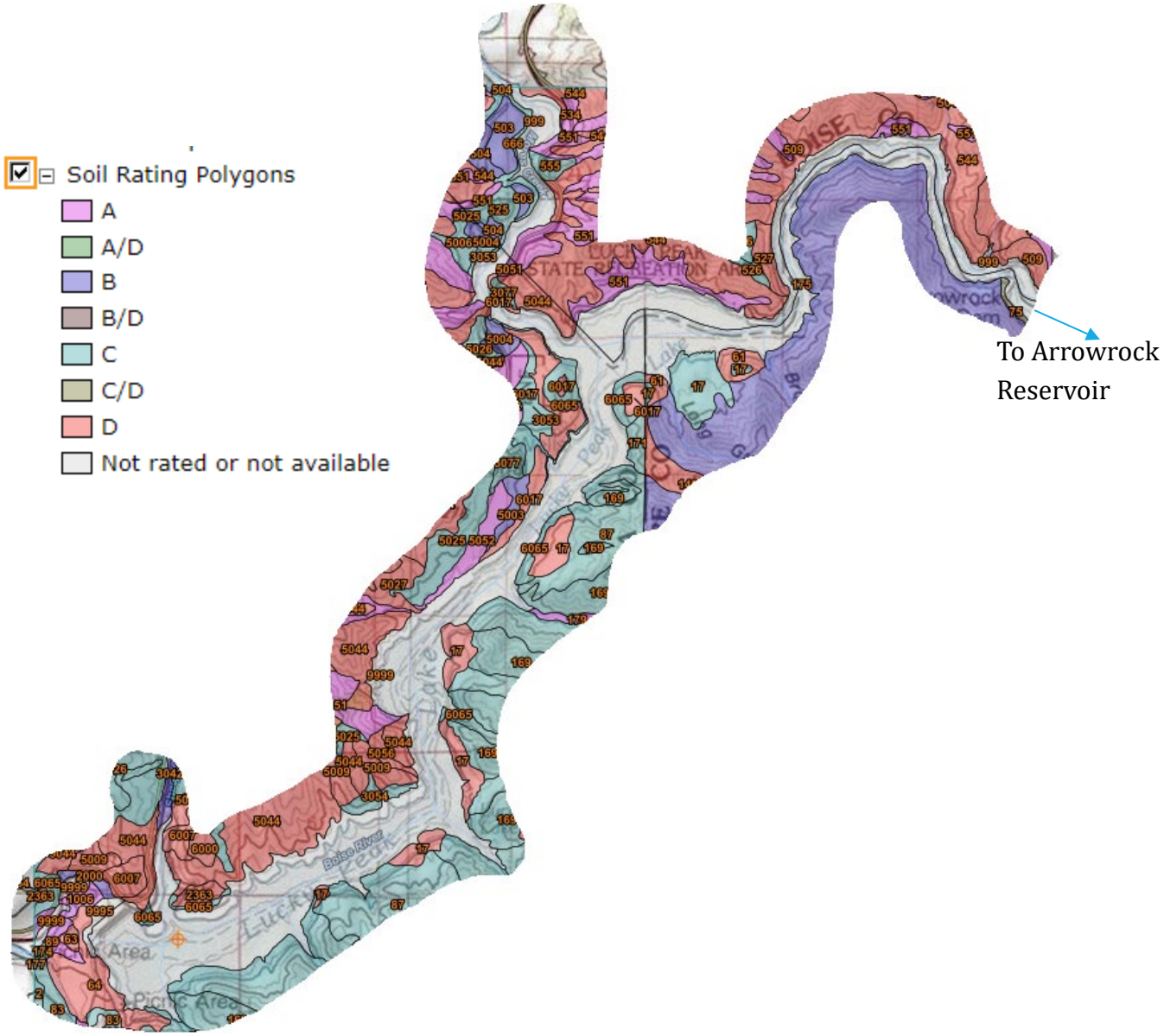


Figure 2-5: Soil Rating[1] Polygons for Water Infiltration and Transmission Rates on Slopes Surrounding Lucky Peak Lake (Web Soil Survey (Usda.Gov))

[1] Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.5. REGIONAL ACCESSIBILITY

The Project is in southwestern Idaho about 12 miles east of the town of Boise. The dam is situated on the Boise River and overall, the regional accessibility of Project lands is good:

- **By Road**: Interstate Highway 84 lies southwest of the Project by roughly 5 miles, with direct access to the Project via Idaho State Highway 21. Most roads are fully paved, with gravel roads toward Lydle Gulch and Foote Park. There are several access points and recreational areas along Highway 21 and other local roads.
- **By Air**: Closest commercial air transportation service within the vicinity of Lucky Peak Lake and Dam is Boise Airport, served by nine airlines with nonstop flights to 26 destinations – located approximately 10 miles from the Project and 5 miles south of downtown Boise. Private planes have access to Boise Airport, Emmett Municipal Airport, Nampa Municipal Airport, and more – all within 50 miles of the Project. Boise's passenger railroad train closed in 1997.
- **Marinas and Boat Ramps**: Lucky Peak Lake has a popular Spring Shores Marina and multiple boat ramps, making it accessible to (and popular with) boaters. These facilities allow visitors to launch their boats and explore the reservoir's waters.
- **Recreational Areas**: Numerous recreational areas surround the reservoir, including Sandy Point Beach, Discovery Park, and Lucky Peak State Park, Sandy Point Unit. These areas offer amenities such as picnic areas, beaches, hiking trails, and campgrounds, providing multiple points of access for visitors.
- **Trails**: There are trails around the reservoir for hiking and biking enthusiasts. These trails offer scenic views of the water and surrounding landscapes and can be accessed from various points near the reservoir.
- **Public Access Points**: In addition to designated recreational areas, there are also public access points along the shoreline where visitors can access the water for activities like fishing or swimming.

2.6. RESOURCE ANALYSIS (LEVEL ONE INVENTORY DATA)

Level One resource inventories are conducted to provide baseline natural resources information for Master Plan purposes. Level One inventory data are used to support the

resource objectives and land use classifications presented in this Master Plan. The Level One inventory was conducted to determine:

- General plant and animal composition.
- Acreage of dominant vegetative types (such as grasslands, woodlands, and wetlands among others).
- The status of "special status species" and/or their critical habitat occurring on Project lands and waters.
- Wetland habitat.

Special status species is defined to include:

(1) any plant or animal species which is listed, proposed, or a candidate for listing, as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service, under the provisions of the Endangered Species Act and,

(2) species covered by the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and species protected by Idaho statute in multiple categories (i.e., state threatened or endangered, big game animals, upland game animals, game birds, game fish, furbearing animals, protected nongame species (species of greatest conservation need)).

The Level One inventory information for Project lands was used in preparing the following sections:

2.6.1. Fish and Wildlife Resources

The varied, rugged terrain composing Project lands is sparsely populated by humans, creating an ideal setting for the more than 300 species of wildlife native to this part of the Boise River watershed. The reservoir bisects the BRWMA, an expansive 36,000-acre habitat managed by the IDFG and their partners. It is specifically managed for deer and elk and supports the largest wintering mule deer herd in Idaho (IDFG 2014). USACE

outgrants significant portions of land around Lucky Peak Lake to IDFG as a part of the BRWMA to facilitate deer and elk winter range and other wildlife management goals (Figure 2-6).

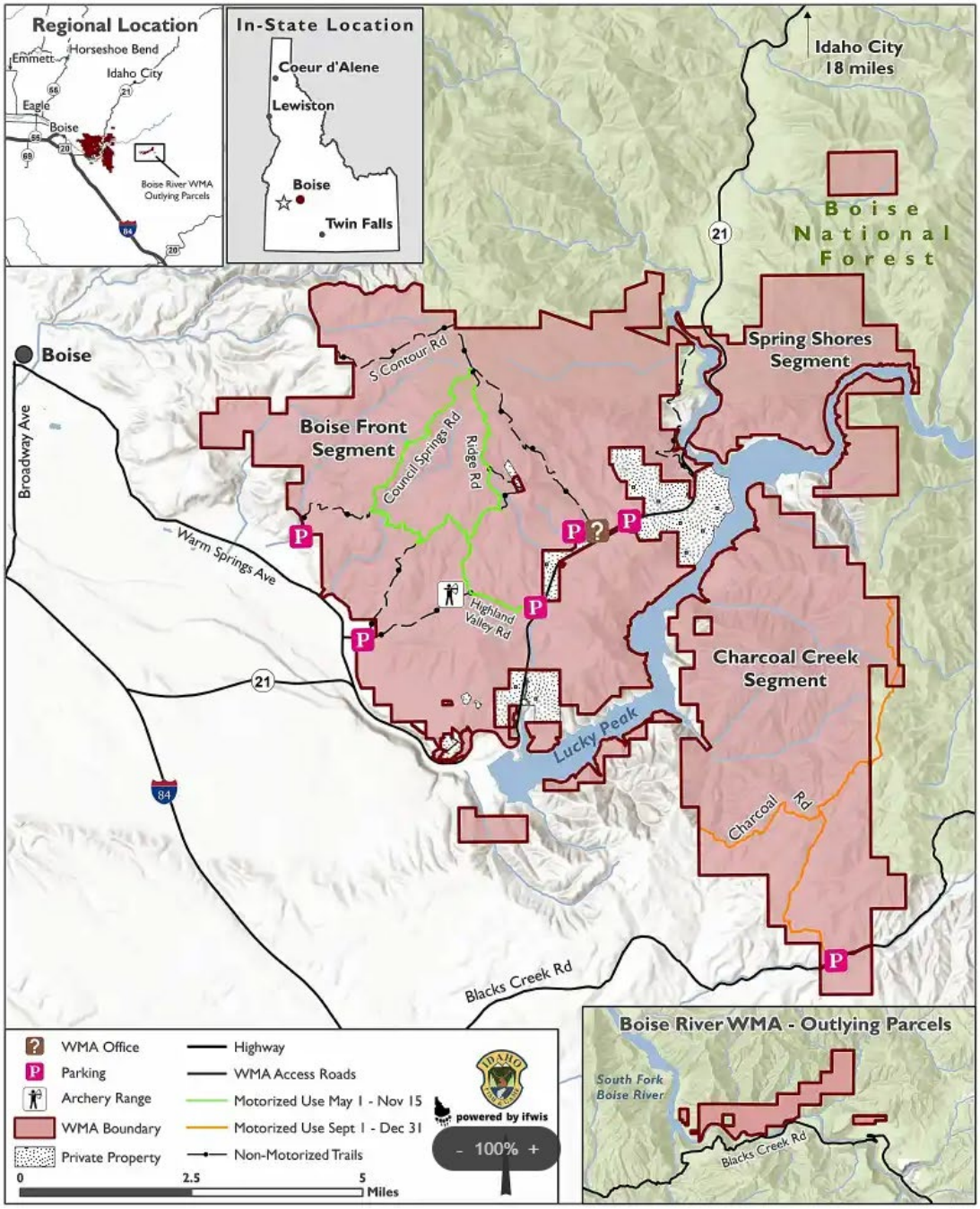


Figure 2-6: Boundaries of the Boise River Wildlife Management Area (IDFG 2014)

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

Because of its central location, habitat resources associated with USACE lands and water of the 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. Wildlife common to the area are listed in Table 2-1. Many non-native species also occupy the area, which are discussed in Section 2.6.4 of this document.

Table 2-1: Mammals, Birds, Amphibians, and Reptiles Common to the Lucky Peak Project and Surrounding Lands

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Birds		***Mammals***	
Chukar	*Alectoris chukar*	Pronghorn	*Antilocapra americana*
Ruffed Grouse	*Bonasa umbellus*	Coyote	*Canis latrans*
Great Horned Owl	*Bubo virginianus*	Elk	*Cervus elaphus*
California Quail	*Callipepla californica*	Mountain Lion	*Felis concolor*
Turkey Vulture	*Cathartes aura*	Bobcat	*Felis rufus*
Veery	*Catharus fuscescens*	River Otter	*Lontra canadensis*
Northern Flicker	*Colaptes auratus*	Vole	*Microtus* spp.
Dusky Grouse	*Dendragapus obscurus*	Weasel	*Mustela* spp.
American Kestrel	*Falco sparverius*	Myotis	*Myotis* spp.
Bald Eagle	*Haliaeetus leucocephalus*	Bushy-tailed Wood Rat	*Neotoma cinerea*
Bullock's Oriole	*Icterus bullockii*	Mule Deer	*Odocoileus hemionus*
Dark-eyed Junco	*Junco hyemalis*	Deer Mouse	*Peromyscus maniculatus*
Long-billed Curlew	*Numenius americanus*	Raccoon	*Procyon lotor*
Gray Partridge	*Perdix perdix*	Shrew	*Sorex* spp.
Black-billed Magpie	*Pica hudsonia*	Ground Squirrel	*Spermophilus* spp.
Western Tanager	*Piranga ludoviciana*	Mountain Cottontail	*Sylvilagus nuttallii*
Black-capped Chickadee	*Poecile atrcapillus*	Least Chipmunk	*Tamias minimus*
Yellow Warbler	*Setophaga petechia*	Red Squirrel	*Tamiasciurus hudsonicus*
Western Bluebird	*Sialia mexicana*	American Badger	*Taxidea taxa*

Chipping Sparrow	*Spizella passerine*	Black Bear	*Ursus americanus*
Mourning Dove	*Zenaida macroura*	Red Fox	*Vulpes vulpes*
Reptiles		***Amphibians***	
Western Rattlesnake	*Crotalus viridis*	Long-toed Salamander	*Ambystoma macrodactylum*
Gopher Snake	*Pituophis catenifer*	Western Toad	*Anaxyrus boreas*
Sagebrush Lizard	*Sceloporus graciosus*	Pacific Tree Frog	*Pseudacris regilla*
Western Fence Lizard	*Sceloporus occidentalis*	Northern Leopard Frog	*Rana pipiens*

Figure 2-7: Western Fence Lizard at Lucky Peak Lake

Figure 2-8: Gopher Snake at Lucky Peak Lake

Figure 2-9: Juvenile Bobcat Playing with its Mother Near Lucky Peak Dam

Fish and other aquatic-obligate species in this area inhabit the many streams, springs, and reservoirs. 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 2-2).

Table 2-2: Fish Species Detected During IDFG Surveys (IDFG 2019)

FISH SPECIES (COMMON NAME)	SCIENTIFIC NAME	DETECTION METHOD
Northern pikeminnow	*Ptychocheilus oregonensis*	Predator survey
Rainbow trout	*Oncorhynchus mykiss*	Predator survey
Kokanee	*Oncorhynchus nerka*	Predator survey
Yellow perch	*Perca flavescens*	Predator survey
Chiselmouth	*Acrocheilus alutaceus*	Predator survey
Sucker species	*Catostomidae* fam.	Predator survey
Black bullhead	*Ameiurus melas*	Lake survey
Chinook salmon (hatchery)	*Oncorhynchus tshawytscha*	Lake survey
Mountain whitefish	*Prosopium williamsoni*	Lake survey
Redside shiner	*Richardsonius balteatus*	Lake survey
Smallmouth bass	*Micropterus dolomieu*	Lake survey
Columbia River bull trout	*Salvelinus confluentus*	Trap and haul

Over 28,000 acres of intermixed-ownership lands are managed as part of the BRWMA under IDFG ownership and agreements with USACE, U.S. Forest Service (USFS), Bureau of Land Management (BLM), and private entities (Figure 2-6). 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, mountain lion, and a small population (<100) of pronghorn are also found on the property. In addition, the BRWMA supports populations of upland game birds including chukar, gray partridge, California quail, dusky grouse, ruffed grouse, and mourning doves.

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 provide benefits to a wide range of other special status species including bald eagles, pygmy rabbits, black bear, and Townsend's big-eared bats.

Shrub-steppe habitat is dominated by rolling, grassy plains or "steppe," with an overstory of sagebrush and other woody shrubs (O'Conner and Wieda 2001). 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, pygmy rabbit, and Western burrowing owl.

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). Riparian habitat is used 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, amphibians, and fish such as redband trout and bull trout rely on intact riparian habitat found along streams, wetlands, and lake edges.

2.6.2. Vegetative Resources

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 (e.g., bitterbrush and rabbitbrush) 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 (e.g., alder and willow) are found. Ponderosa pine 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 trees survive in the Project area in suitable spots.

Rare and Sensitive Species

Plants native to Idaho are an important natural resource deserving of conservation for a variety of reasons. Beyond the purely aesthetic beauty and interest that native plants provide us, they are a crucial component of a healthy ecosystem: Native species form the foundation of a thriving natural system by providing foraging, cover, and reproductive habitat for wildlife populations throughout Idaho. Conserving native plant communities is shown to reduce wildfire risk and mediate temperature extremes associated with climate change (MacLeod et al, 2019).

Within the Project area, several rare and sensitive plant species occur (B. Ertter, personal communication, 8 May 2023). Many of these communities are monitored and protected from development and other land uses that may negatively impact their ability to persist on Project lands. The following features just a few of the dozens of rare and sensitive plant species found on and around the Lucky Peak Project:

Boise sand-verbena (*Abronia mellifera* var. *pahoveorum*)

This species (Figure 2-10) is a newly recognized variety and of conservation concern in Idaho. It is a very charismatic plant with large white pompoms of mildly fragrant, night-blooming flowers. An anonymous collector in 1911 called the Abronia “quite common on sandy slopes” in Boise, but now it is seldom encountered.

Figure 2-10: Boise sand verbena (Abronia mellifera var. pahoveorum), *Photo by Barbara Ertter*

Lydle Gulch - rabbitsfoot milkvetch *(Astragalus purshii* var. *lagopinus)*

Known to occur in association with isolated, specialized basalt or pumice soils in central Oregon, northern Nevada, and northeastern California, the species was identified only recently in Idaho. Several more populations are known from Owyhee County in southwest Idaho. Rabbitsfoot milkvetch has been added to the Idaho rare plant list as S1/Critically Imperiled (NatureServe 2024).

Figure 2-11: Lydle Gulch - rabbitsfoot milkvetch (Astragalus purshii var. lagopinus) Photo by Barbara Ertter

Boise milkvetch (Astragalus adanus)

Occurs on brushy slopes, terraces and benches along canyons or along dry flats and gently rolling hill country in clay and gravel soils of both granitic and basaltic origin. Although fairly widespread in the foothills near Boise, development, invasive plant species and recreational activity has caused a decline in the distribution of Boise milkvetch.

Figure 2-12: Boise milkvetch (Astragalus adanus), Photo by Barbara Ertter

2.6.3. Threatened and Endangered Species

The Project has limited habitat for species proposed or listed as threatened or endangered under the Endangered Species Act (ESA). There are presently three 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). 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. Critical Habitat was designated for

the slickspot peppergrass on May 4, 2023 (88 FR 28874). The critical habitat covers approximately 78,009 acres of federal lands across Ada, Elmore, Gem, Payette, and Owyhee counties. There is no critical habitat designated for this species within Lucky Peak Project lands.

Columbia River bull trout (Salvelinus confluentus): Threatened

There are few bull trout residing in Lucky 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 to 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 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 of lynx in North America is closely associated with the distribution of North American boreal forest. In Canada and Alaska, lynx inhabit the classic boreal forest ecosystem known as the taiga. The range of lynx populations extends south from the classic boreal forest zone into the subalpine forest of the western United States. Forests with boreal features extend south into the contiguous United States along the North Cascade and Rocky Mountain Ranges in the west, the western Great Lakes Region, and northern Maine. Within these general forest types, lynx is most likely to persist in areas that receive deep snow and have high-density populations of snowshoe hares, the principal prey of lynx. Habitat suitable for lynx does not occur on Project lands and no

observations of the species are reported from the Idaho Department of Fish and Game in the vicinity of 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, cottonwood gallery riparian areas for breeding. This habitat type does not occur on Project lands, with the exception of upper Mores Creek, near where this Boise River tributary crosses onto USFS-managed lands. Isolated pockets of deciduous trees and shrubs that occur around Lucky Peak Lake may be used 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. These areas have historically been near the northern edge of the monarch breeding range. They could potentially be used more heavily 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, occur. There is a robust breeding population of monarch butterflies associated with extensive patches of milkweed growing along the Boise River near Boise, Idaho, more than 10 miles from Project lands (Xerces Soc. 2024).

2.6.4. Invasive Species

Invasive species are non-native plants, animals, and other living organisms that thrive in areas where they don't naturally live, and that cause (or are likely to cause) economic or environmental harm, or harm to human, animal, or plant health (USFWS No Date). Invasive species prey upon, crowd out, displace, or otherwise harm native species throughout the United States. Invasive species affect both terrestrial and aquatic habitats and may alter ecosystem processes, transport disease, interfere with crop production, or cause disease and injury to animals. They can also interfere with natural succession processes and increase the risk of wildfire. Invasive vegetative species and noxious weeds are present on Project lands, especially in disturbed sites and near high recreation use

areas including roads, trails, river corridors, and campgrounds. According to the Idaho State Department of Agriculture (2023) six noxious weed species are known to occur in the area, including Canada thistle, puncturevine, rush skeletonweed , Scotch thistle , spotted knapweed, and whitetop

Lucky Peak Lake provides suitable conditions for several aquatic invasive species, including species already documented in the Boise River watershed. Common aquatic invasive plants include yellow flag iris, purple loosestrife, common reed, parrotfeather milfoil, Eurasian water milfoil, and flowering rush. Invertebrates could include zebra mussel, quagga mussel, New Zealand mud snail, and several non-native crayfish in the Genus *Cherax* and *Orconectus* (ISDA 2022). American bullfrog and red-eared slider turtles are two common invasive aquatic vertebrate species. Many of the aquatic invasive plant and animal species are introduced into bodies of water through contaminated boats and boat trailers. The State of Idaho operates several watercraft inspection stations dedicated to inspecting and decontaminating watercraft entering Idaho waterways. The nearest inspection station to Lucky Peak Lake is located at Marsing, Idaho, approximately 35 miles west of Boise.

2.6.5. Ecological Setting

To help achieve consistency with natural resource management across numerous organizations, the Environmental Protection Agency (EPA) delineated and designated ecoregions across the United States in the late 1990s. Ecoregions are areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar (McGrath et al. 2002). The Columbia Plateau ecoregion is a Level III ecoregion encompassing approximately 35,000 square miles of land within Washington, Oregon, and Idaho. Level IV ecoregions are smaller designations that are more state-specific. The Idaho Batholith Level IV ecoregion encompasses the Lucky Peak Project and generally consists of mountainous, deeply dissected, partially glaciated terrain characteristically underlain by granitic rocks. Project lands are in the Foothills Shrublands-Grasslands sub-region and are in the rain shadow of the high mountains to the north. This sub-region's hills and benches are dry, treeless, and covered by shrubs and grasses. Land use is mostly grazing and wildlife habitat, but rural residential development is expanding near Boise.

2.6.6. Wetlands

Wetlands in the Project area largely include lacustrine systems composed of wetlands and deepwater habitats situated in a topographic depression or a dammed river channel (Figure 2-6). 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).

Other, scattered and more isolated wetland types on Project lands are primarily associated with the multiple ephemeral streams and two perennial streams draining into Lucky Peak Lake (Table 3).

Table 2-3: 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
Palustrine, Unconsolidated shoreline	0.05	Nursery unit
Palustrine, Aquatic bed	0.05	Nursery unit

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

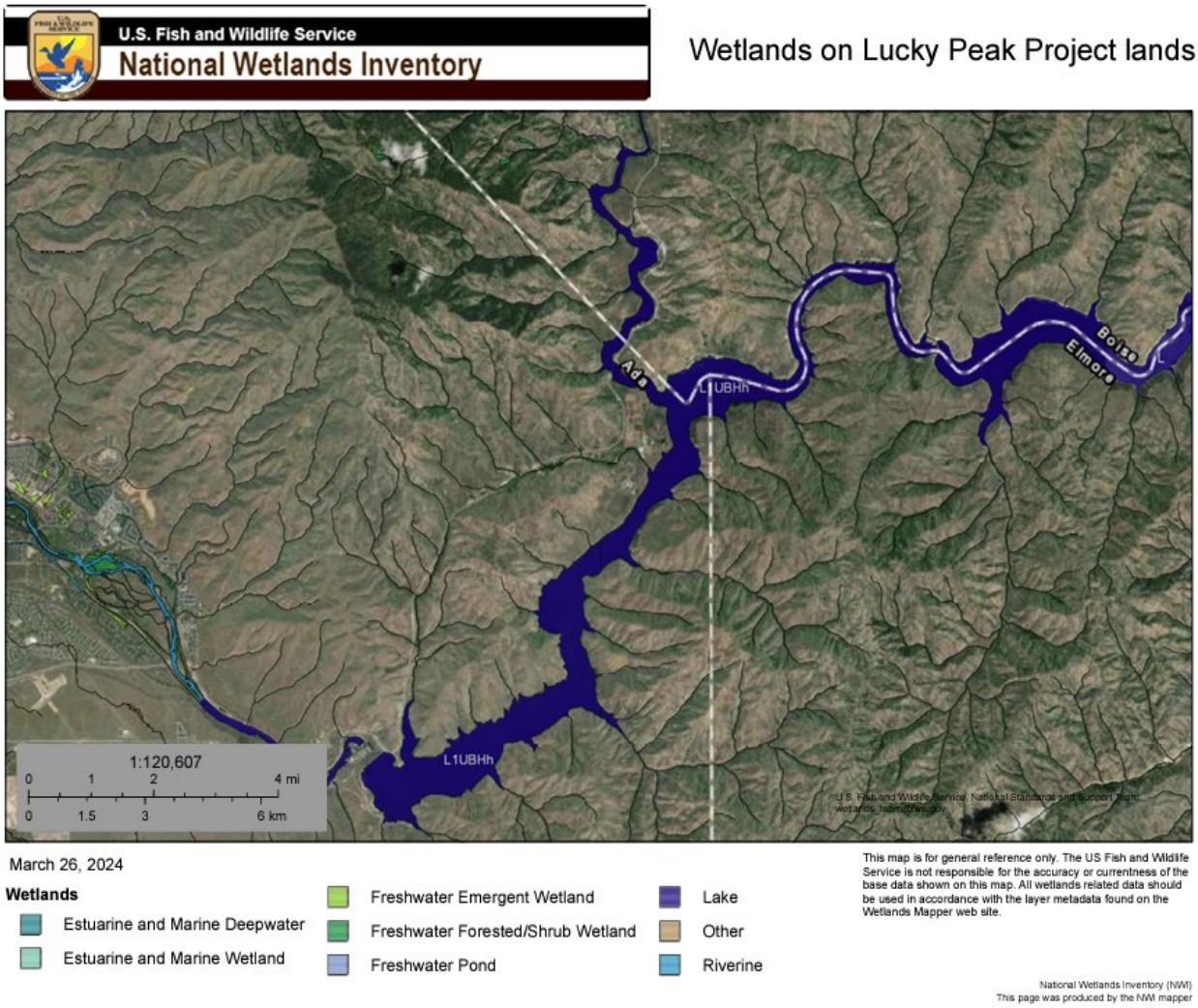


Figure 2-13: NWI-Classified Wetland Habitat Within the Project

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.

2.7. CULTURAL RESOURCES AND CONTEXT

The Lucky Peak Project area, spanning from the prehistoric era to the present day, stands as a significant region within the physiographic intersection of the Snake River Plain and the Rocky Mountain System. Positioned on the margins of these geographical features, the area serves as a transitional zone between the Great Basin and the Northern Plains, fostering unique cultural adaptations influenced by changing climates and shifting biotic resources. There is extensive archaeological and historical evidence of the use of the area along the Boise River by Native American inhabitants. The archaeological sites within Lucky Peak project lands exhibit some of that extensive history in three main prehistoric phases: Paleoindian, Archaic, and Late Period.

2.7.1. Pre-Contact Setting (12,000 B.P. – A.D. 1805)

The Paleoindian period (12,500-5,800 B.C.) was marked by the hunting of large game and now-extinct mega-fauna, as indicated by distinctive lanceolate spear points from the Clovis, Folsom, and Plano techno-complexes. Material remains from this period underscore the importance of big-game hunting, featuring artifacts associated with extinct species like proboscideans and camels.

Transitioning into the Archaic period (5,800 B.C. to A.D. 500) there was a notable shift in tool technology from lanceolate to stemmed and notched projectile points, coinciding with the adoption of the atlatl for dart throwing. This era also marked the development of semi-sedentary lifestyles, evidenced by long-term occupations at sites and the construction of large semi-subterranean pit houses.

The Late Period (A.D. 500-1805) is characterized by the presence of the Northern Fremont and Shoshone cultures, with evidence of semi-subterranean housing and distinct cultural artifacts like Great Salt Lake Gray ware pottery.

2.7.2. Tribal History in the Lucky Peak Area

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 used the area from time immemorial. Archaeological remains in this area are evidence of occupation for at least 11,000 years (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, 2024).

Euro-American migrations into Southern Idaho began in the first decade of the 19th century, and with the opening of the Oregon Trail, settlers began a campaign of forceful encroachment on tribal lands. Wars and skirmishes resulted in displacement of tribal communities and the severe depletion and loss of access to important foods and raw materials necessary for day-to-day living. The reservation era began when Shoshones and Bannocks entered peace treaties in 1863 and 1868 known jointly today as the Fort Bridger Treaty.

Shoshone Bannock

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 because 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 comprises 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, 2024).

Shoshone Paiute

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, 2024).

The nations of Shoshone-Bannock and Shoshone-Paiute maintain their knowledge of and connection with lands and resources in their traditional territories. The District 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 USACE mission and advance tribal self-determination.

2.7.3. Historic Setting (1805-Present)

The first recorded forays into the immediate project area date to 1811, when an expedition led by Wilson Price Hunt explored the area under the auspices of the Pacific Fur Company. By the 1830s, the route along the Boise River was well established by fur traders. Beginning in the mid-1830s, the Oregon Trail also began to bring immigrants through the area. Trading posts were established at Fort Hall and Boise, and the trail took travelers near the mouth of the Boise River Canyon and on to the west. The Oregon Trail remained active until the completion of the trans-continental railroad in 1869. It was the discovery of gold in August 1862 that led to extensive permanent settlement in the region. Within a year of the discovery, thousands of prospectors began to traverse the Boise River Canyon on their way north toward the Idaho City area.

Modern settlement of the Boise valley began in the latter half of the 19th century. The first settlers arrived in 1863 and would plat the original town three-fourths of a mile north of the Boise River. The use of water in agriculture was, and would remain, the primary concern in the growth and settlement of the area. Initial settlement, and early agricultural endeavors, focused on areas adjacent to the river. Orchards and farms were established, and farmers designed their own systems for the control of floods and access to water for irrigation.

Highland Valley Dam was one of the first attempts to dam the Boise River within the Lucky Peak Project area (Figure 2-11). In 1902 the Highland Valley Power Company started construction on the Highland Valley Dam. The original goal of the dam was to provide power to support placer mining operations in the area. The construction of Arrowrock Dam further upstream and the decline in profit from placer mining rendered the Highland Valley Dam obsolete, and by 1912 it was in severe disrepair. Plans to rebuild the Highland Valley Dam were abandoned and it was eventually washed away.

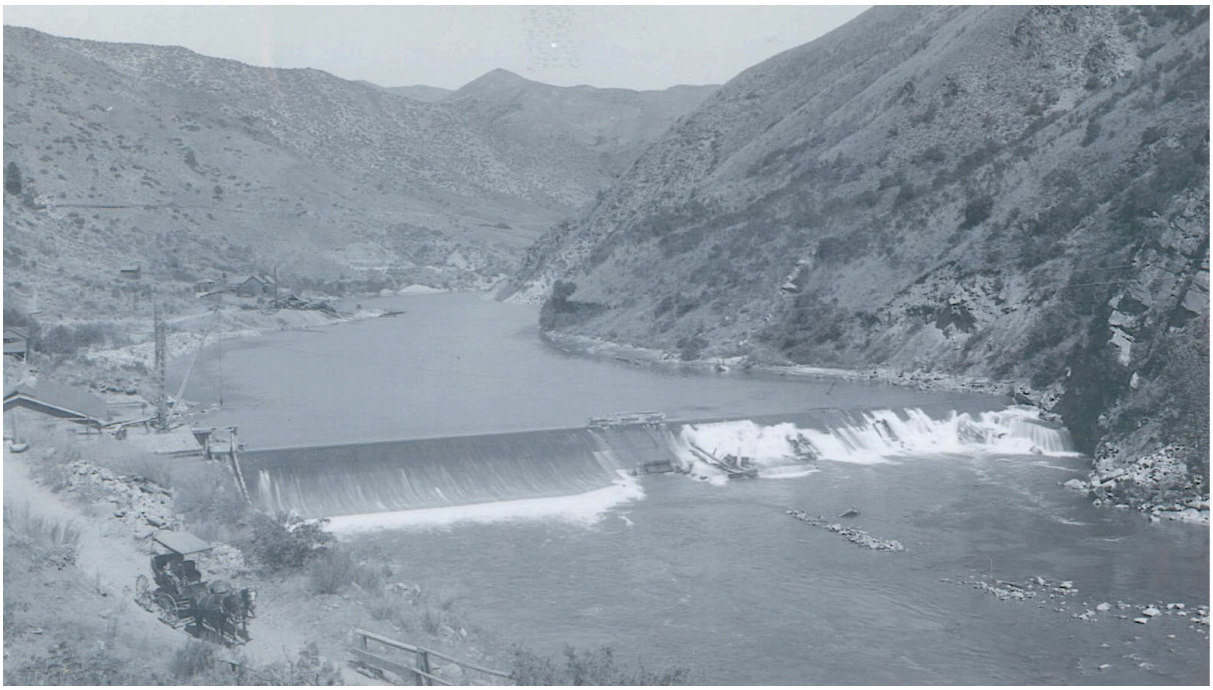


Figure 2-14: Historical Photo of Highland Valley Dam Near Modern-Day Naked Rock

Construction of Lucky Peak Dam was completed in 1955 at a cost of $19 million (FY 1955 price level). The project was the only USACE facility in a river dominated by three earlier Bureau of Reclamation (BOR) facilities: Anderson Ranch Dam, Arrowrock Dam, and the Boise Diversion Dam. Designed primarily for flood control and irrigation purposes, Lucky Peak featured a single outlet structure, with potential for additional hydroelectric enhancements. Growing interest to extract more power from the dam resulted in a three-unit hydropower facility completed in August 1986. Modifications were made to the original outlet by January 1987 to accommodate the power generating facility. To ensure that the reservoir could still be operated for flood control purposes, a second intake tower and outlet (further downstream) were also added at this time.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

The Lucky Peak Dam extends across the Boise River approximately 10 miles southeast of Boise, Idaho. The impoundment project was intended to restrain the flow of the river that has sometimes caused severe flood damage to urban and agricultural lands downstream. The sloped earthen filled dam is characterized by a steep basalt rubble slope with painted stones that spell out "KEEP YOUR FORESTS GREEN" on the downstream side.

In contrast to the other facilities located on the Boise River, Lucky Peak's role was to provide flood control and to support conventional gravity fed irrigation. Not entirely expected was the recreational byproduct of the USACE project along the Boise River. Soon after completion, Lucky Peak Dam emerged as a major recreation venue for water-starved south Idaho, creating a vast lake that is today a destination for boating, swimming, and other water sports. Regionally, Lucky Peak expresses USACE's emerging mid-twentieth century role in developing recreational amenities along with flood control projects.

Until the 1940s, USACE did not have legislative authority to develop public access for the reservoirs it created. The first of two congressional acts authorizing USACE participation in the country's burgeoning leisure and recreation movement happened in 1944. Where previously USACE-central river duties revolved around flood control and navigation, the Flood Control Act of that year directed the agency to build, maintain, and operate recreational facilities at its water projects. Later, in 1965, the Federal Water Project and Recreation Act solidified USACE's recreational role by requiring it to consider and plan for public use venues at any navigation, reclamation, flood control, or hydroelectric project. Not surprisingly, many of USACE's reservoir related campgrounds, picnic sites, and boat launch facilities emerged during the 1960s.

2.8. RECREATIONAL FACILITIES AND ACTIVITIES

The Project provides a variety of water-related and land-based recreation opportunities (Table 2-3), and it is expected that the demand for recreation activities in the future will increase. Future recreation activities and increased usage without facility expansion will change the current user experience and could negatively impact the resources.

Table 2-4: Lucky Peak Lake and Dam Recreation Facilities, FY 2022

FACILITIES AS OF FY 2021	
Recreation Areas	10
Picnic Sites	154
Camping Sites	96
Playgrounds	4
Swimming Areas	4
Trails	0
Trail Miles	0
Fishing Docks and Piers	0
Boat Ramps	6
Marina Slips	313

Source: USACE Value to the Nation Fast Facts, USACE Recreation 2022 Lake Report, Lucky Peak Lake

2.8.1. Recreation Use

USACE plays a major role in meeting the Nation's outdoor recreation needs. Popular recreation activities around Lucky Peak Lake include fishing, swimming, hiking, picnicking, boating, and camping. There are several day-use areas, campsites, parks, boat launch facilities, and one marina.

Visitation in relation to recreation varies based on activity and park site location. The top three activities at Lucky Peak Lake include water-contact activities, picnicking, and sightseeing, with FY 2023 visitation counts for these activities at 361,000, 229,000, and 130,000 respectively.

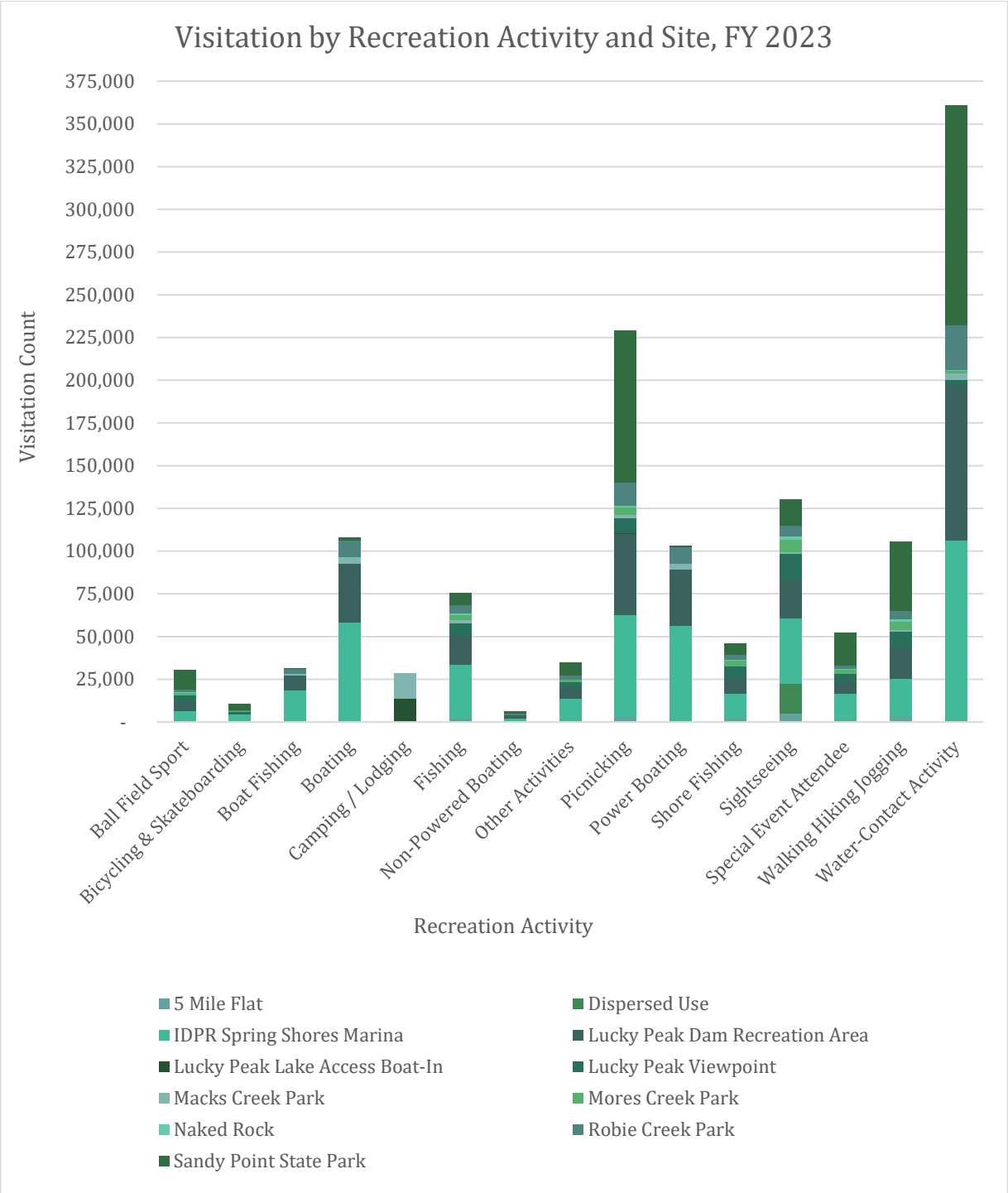


Figure 2-15: Distribution of Recreation Activity by Site, FY 2023

Source: USACE Natural Resources Management Section (Internal Data), 2023

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

In comparison to all District Projects combined, the popularity of recreation activities varies for Lucky Peak Lake (2023). As shown in Figure 2-1, the percent of total recreation counts for water-contact activities and picnicking is significantly greater than that of District totals, indicating these are particularly popular activities for Lucky Peak Lake. Water-contact activities make up 26.69 percent of recreation for Lucky Peak Lake and 16.90 percent of recreation for all District. Picnicking makes up 16.94 percent of recreation at Lucky Peak Lake and 12.03 percent for all District. Sightseeing, however, represents a smaller percentage at Lucky Peak Lake than District totals, at 9.63 percent of recreation compared to 15.86 percent respectively.

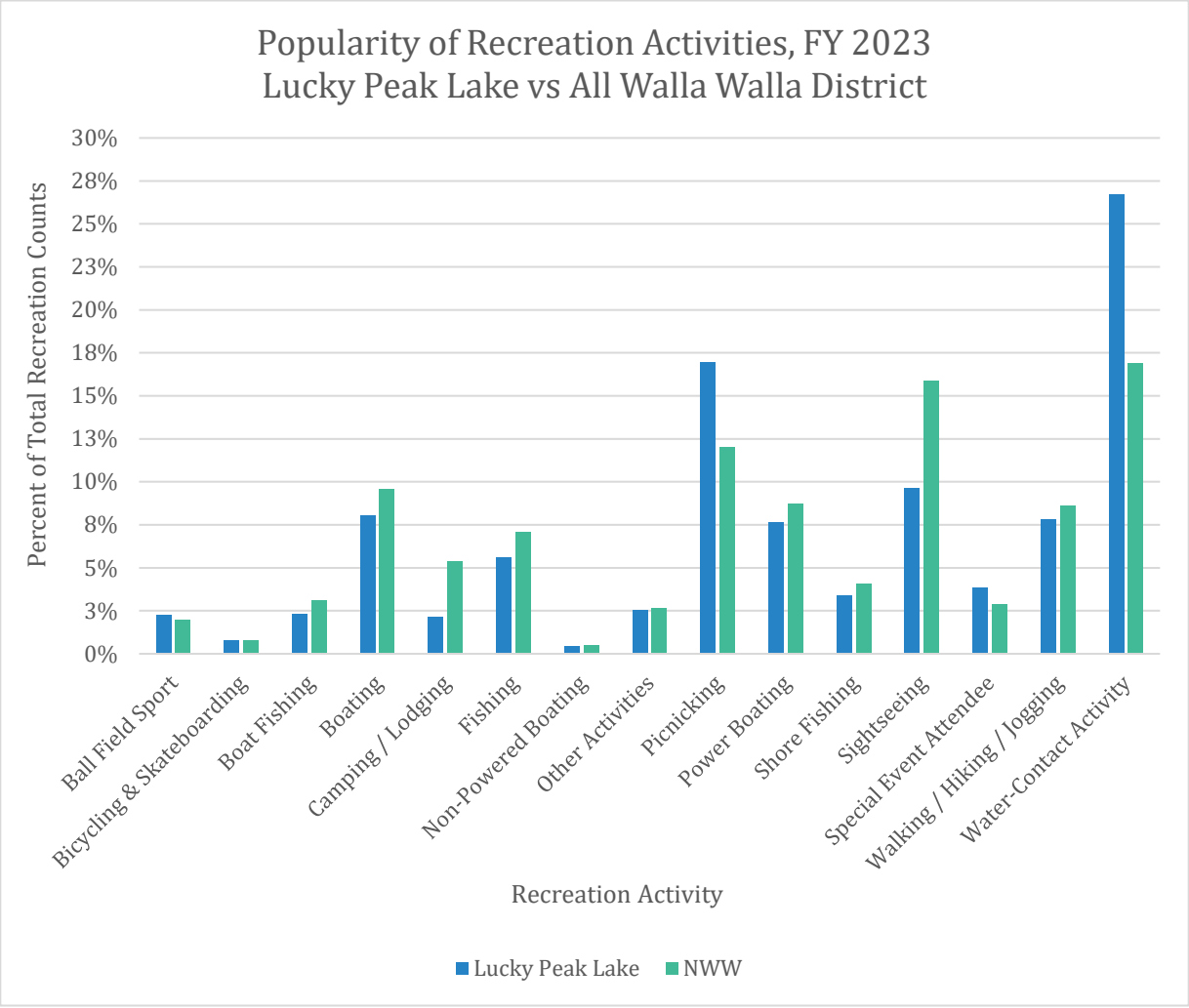


Figure 2-16: Popularity of Recreation Activities, Lucky Peak Lake vs District, 2023

Source: USACE Natural Resources Management Section (Internal Data), 2023

Water-Based Recreation

Water-contact activity is the most popular form of recreation on and near Lucky Peak Lake (Figure 2-8). Primary activity includes various forms of boating, which can comprise waterskiing, tubing, wake boarding, jet skiing, paddleboarding, sailing, kayaking, canoeing, and more. With the full-service Spring Shores Marina on the reservoir, recreators have abundant options and supplies; the facility includes long-term moorage, fuel, a convenience store, marina supplies, recreation equipment rentals, and large parking lots with boat ramps. Rental equipment is available for the public and group reservations such as company retreats. Recreators also enjoy swimming in numerous locations around the reservoir. Several day-use parks are available throughout the reservoir, such as Sandy Point.

Fishing is an additional popular water-contact activity. The waters are open year-round with possession limits of 3-times the daily bag limit after the second day of the season. Rainbow trout, kokanee, and smallmouth bass are well-known targets for anglers on this reservoir, with other species available such as yellow perch, mountain whitefish, bull trout, and Chinook salmon. There are both wild and stocked hatchery species. Anglers can boat upstream and hike to smaller streams for fly fishing.

Picnicking

Bringing 229,000 visitors to the Project in FY 2023, picnicking options abound around Lucky Peak Lake and Dam. There are large picnic shelters available for rent at Discovery Park and Sandy Point – great for hosting large events for birthday parties, company gatherings, and other celebrations. They include a variety of amenities: electricity, charcoal grills, access to restrooms and the Boise River, and proximity to volleyball courts and horseshoe pits. Picnic tables are also available throughout the several day-use parks and campsites around the reservoir such as the Lucky Peak Boat-In Access Area. Pets on leashes are welcome at Discovery Park and Spring Shores, but not Sandy Point. The Lucky Peak Dam Recreation Area is also popular among families who wish to relax, mingle, play disc golf or volleyball, and more.

Trails and Sightseeing

Due to easy access and plentiful options, sightseeing is the third most popular activity at Lucky Peak Lake (Figure 2-8). According to the City of Boise's Parks and Recreation department, there are over 150 species of birds, mammals, reptiles, and amphibians

living in the riparian habitat along the Boise River Greenbelt. Birdwatching provides citizens of all ages a means to get outdoors and get moving. The Boise River Greenbelt, a popular trail that goes through the city of Boise, runs from Garden City to Lucky Peak. This makes Lucky Peak easily accessible to the bicyclists and hikers of the Greenbelt. The Greenbelt is a 25-mile pathway along the Boise River, providing scenic views, abundant tree-cover, and comfortable recreation with pedestrian access. A variety of paths exist – paved asphalt, dirt, crushed stone, and bike lanes.

Camping

Though not as popular around the Project as other recreational activities, campgrounds are available are Macks Creek Park and the Lucky Peak Boat-In Access Area. Visitation for camping in FY 2023 accounted for 2.12 percent of the Project's total visitation (Figure 2-8). Macks Creek Park is a small campground located 25 miles from the city of Boise. Sites are available six months of the year for reservation at a daily rate with overnight RV and tent areas. For first-come, first-serve non-reservable campsites, Lucky Peak Boat-In Access Area has more than 80 sites. Picnic tables, fire grills, and a shelter are available at these sites and typically fill quickly. The boat-in areas are free, with a 3-day limit.

2.8.2. Zones of Influence

The concentration and distribution of the population surrounding the Project are major influences on land classification and recreation development. This is illustrated with zones of influence. Figure 2-9 identifies the Project zones of influence. All population estimates are based on the U.S. Census Bureau's American Community Survey 5-Year Estimates, 2022.

Primary

The primary area of influence encompasses the area with 25 miles of the Project. This area is within 45 minutes traveling time from the Project and includes the cities of Boise, Idaho and Meridian, Idaho with respective populations of 234,000 and 120,000. A combined metropolitan population of 772,000 is estimated for the area.

Secondary

The secondary zone of influence for the Project is the area within a 50-mile radius of the Project that is not included as part of the primary zone of influence. This area is within 1-hour traveling time from the Project. It does not include an additional metropolitan area,

but towns of note are Nampa, Idaho and Caldwell, Idaho with respective populations of 103,000 and 61,000.

Tertiary

The tertiary zone of influence is outside of the 50-mile radius, up to 200 miles from the Project. Some visitors will travel up to 3 hours to the Project. They are from the tertiary zone. Towns of note within this zone include Walla Walla, Washington; Lewiston, Idaho; Pendleton, Oregon; La Grande, Oregon; Spring Creek, Nevada; and Idaho Falls, Idaho. Aside from the city of Walla Walla's population of 34,000, these towns all have population estimates between 15,000 and 20,000. Larger metropolitan cities are outside of the Project zones of influence and have a lower confidence interval of bringing visitors to the Project. The nearest metropolitan cities are Seattle, Washington; Portland, Oregon; and Salt Lake City, Utah. These are 400 miles, 350 miles, and 300 miles away with metropolitan population estimates of 4.00 million, 2.51 million, and 1.25 million respectively.

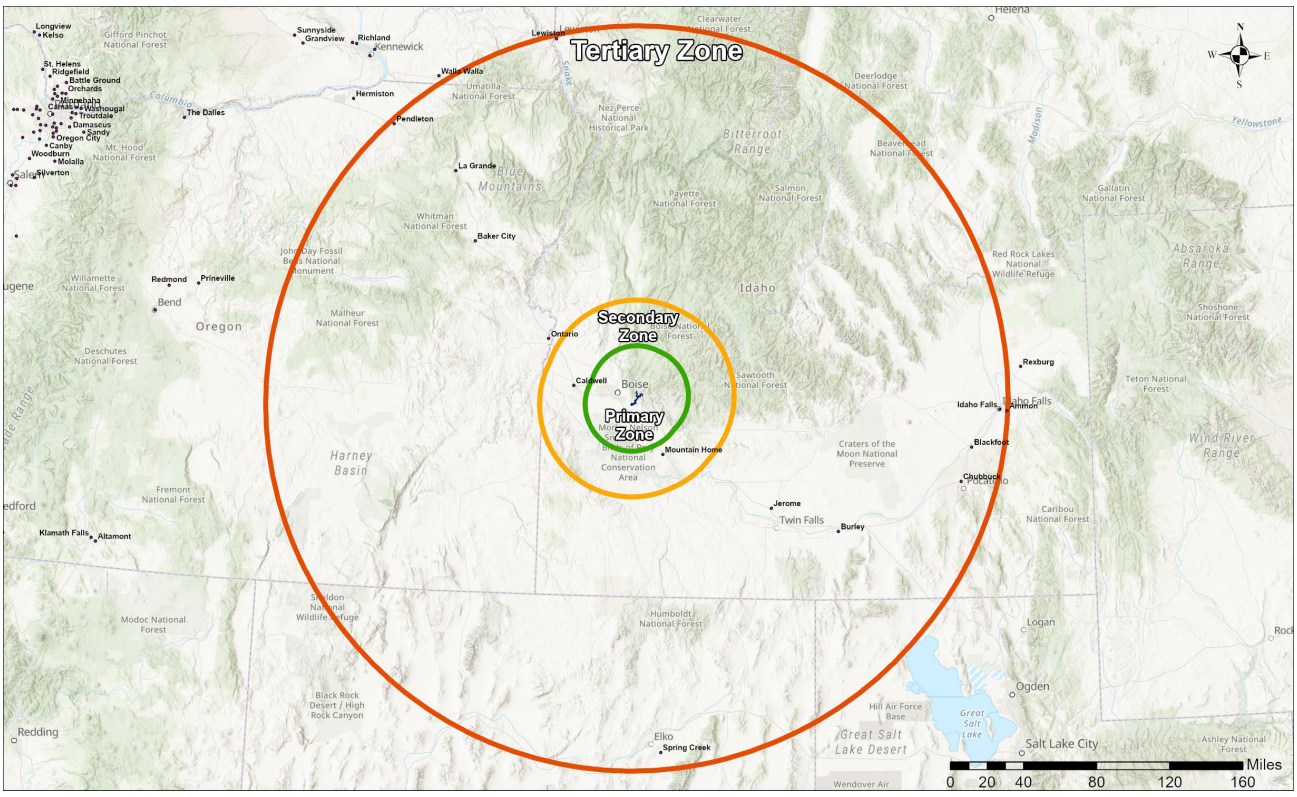


Figure 2-17: Lucky Peak Project Zones of Influence for Project Visitation

2.8.3. Project Visitation Profile

Following 2016, the method with which visitation was calculated and/or tracked was updated through the Project changing visitor counting equipment. Data the following year decreased by 47 percent, which can be attributed to the methodology update rather than a true 47 percent decrease in visitation from 2016 to 2017 (Figure 2-10).

From 2019 to 2020, there was also a large uptick in overnight visitation, increasing from 28,000 overnight visitors to 104,000 overnight visitors. This can be attributed to COVID-19's effect on how people recreated during the pandemic. Overnight camping provided a means to get outdoors while a large majority of recreation alternatives were not available.

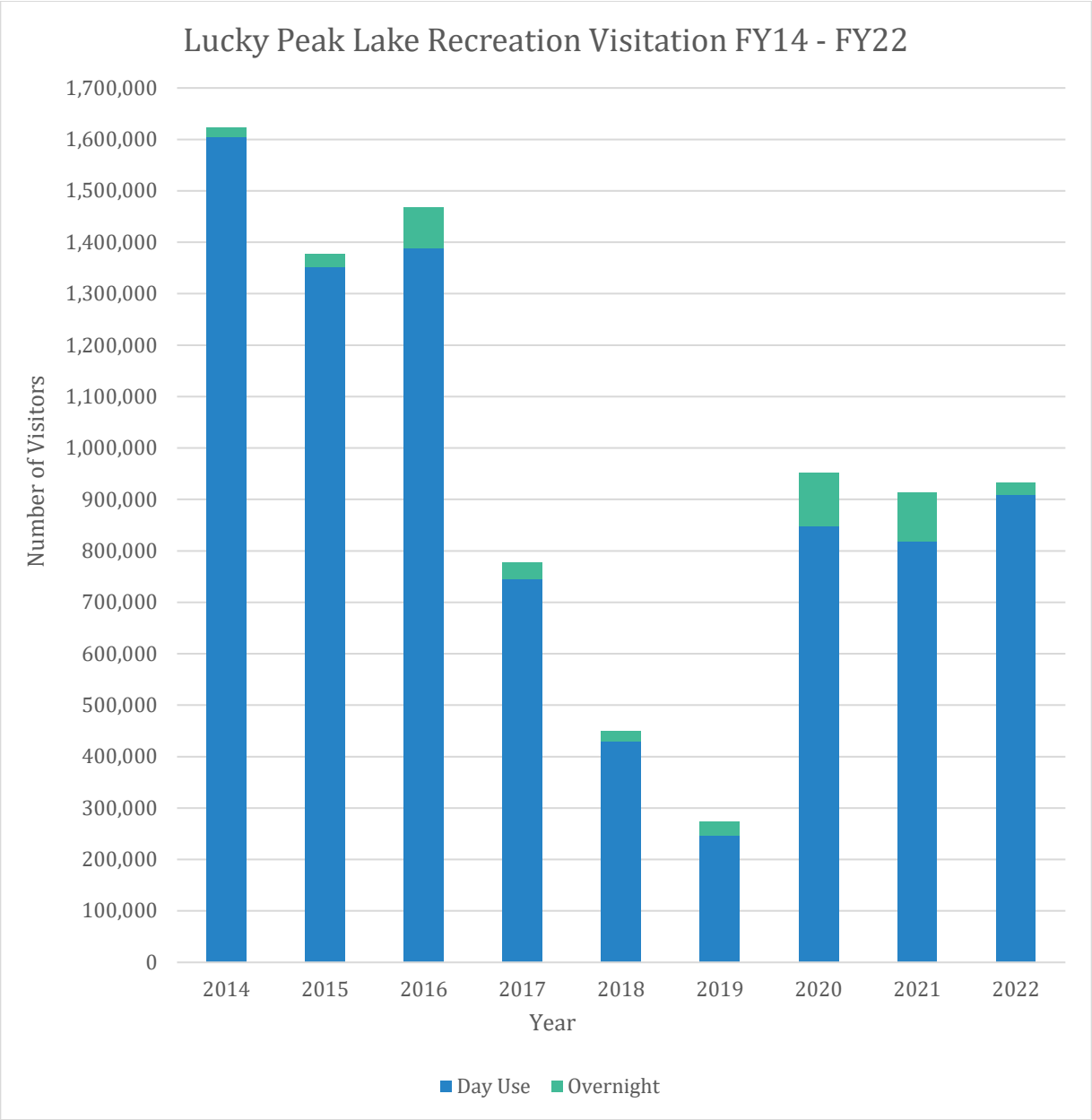


Figure 2-18: Lucky Peak Lake Recreation Visitation FY 2014-2022 Day and Night

Source: USACE Natural Resources Management Section (Internal Data), 2014-2022

Since 2020, total visitation for Lucky Peak Lake has hovered just above 900,000 but is expected to increase with Boise, Idaho's increasing population. See section 2.8.7 for further analysis regarding the growing population.

Seasonal Visitation

Visitation at Lucky Peak Lake is highly seasonal, with peak times during the summer months of June through September (Figure 2-11). The highest visitation month during 2022 was July at 209,000 visitors, while the lowest visitation month was December at 28,000 visitors. According to the National Weather Service, the month of July 2022 in Boise, Idaho had an average observed low of 64.4 degrees Fahrenheit, an average observed high of 97.1 degrees Fahrenheit, and 0.0 total inches of observed precipitation (with the average July normal of 0.21 inches). The warm, clear weather in the region explains the extreme popularity of water-contact activities and recreating on Lucky Peak Lake during the summer months.

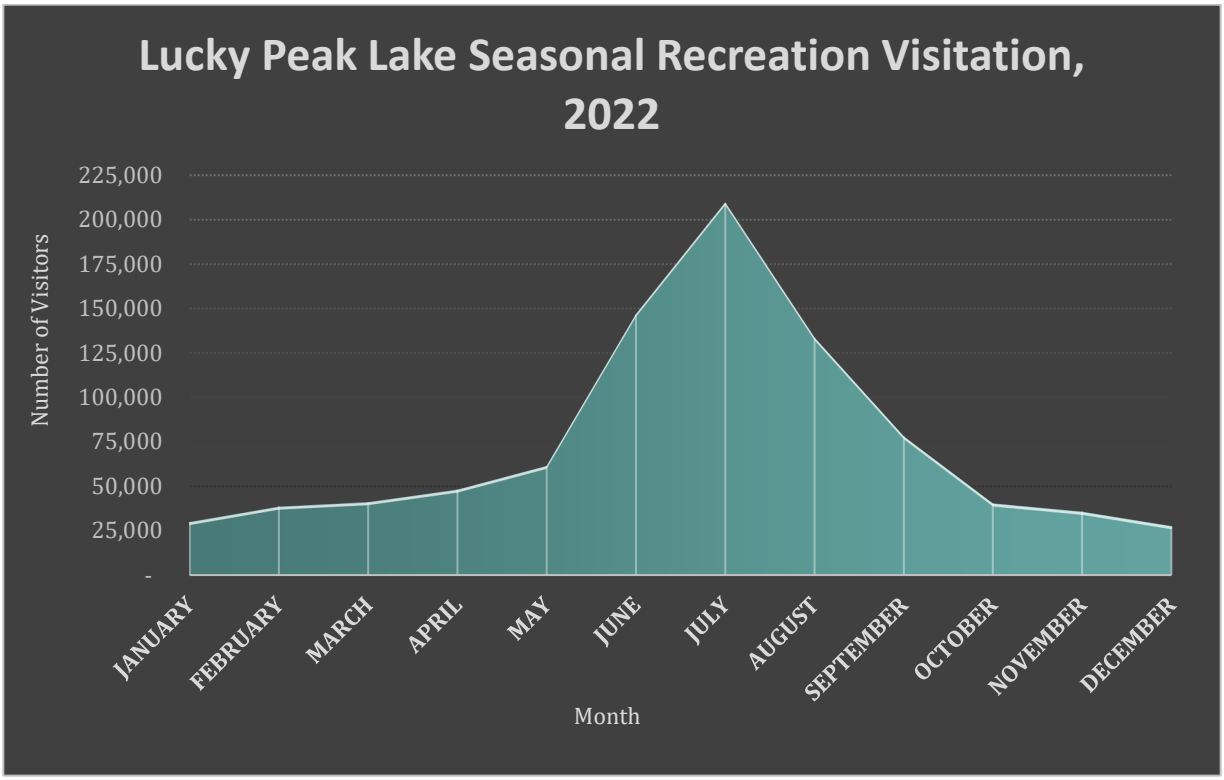


Figure 2-19: Lucky Peak Lake Month-by-Month Recreation Visitation, 2022

Source: USACE Natural Resources Management Section (Internal Data), 2022

Site Visitation

The three most visited sites are outgranted to IDPR in Lucky Peak State Park, Sandy Point, Spring Shores Marina, and Lucky Peak Dam Recreation Area at visitation counts of

443,000, 332,000, and 304,000 respectively (Figure 2-12). Together, these sites make up 80 percent of Lucky Peak Lake's site visitation. Of the 11 sites tracked, 6 of them each make up 2 percent or less of the total Lucky Peak Lake site visitation. These sites (Macks Creek Park, Mores Creek Park, 5 Mile Flat, Lucky Peak Lake Access Boat-In, Naked Rock, and other Dispersed Use sites) have visitation between 5,000 to 35,000 a year.

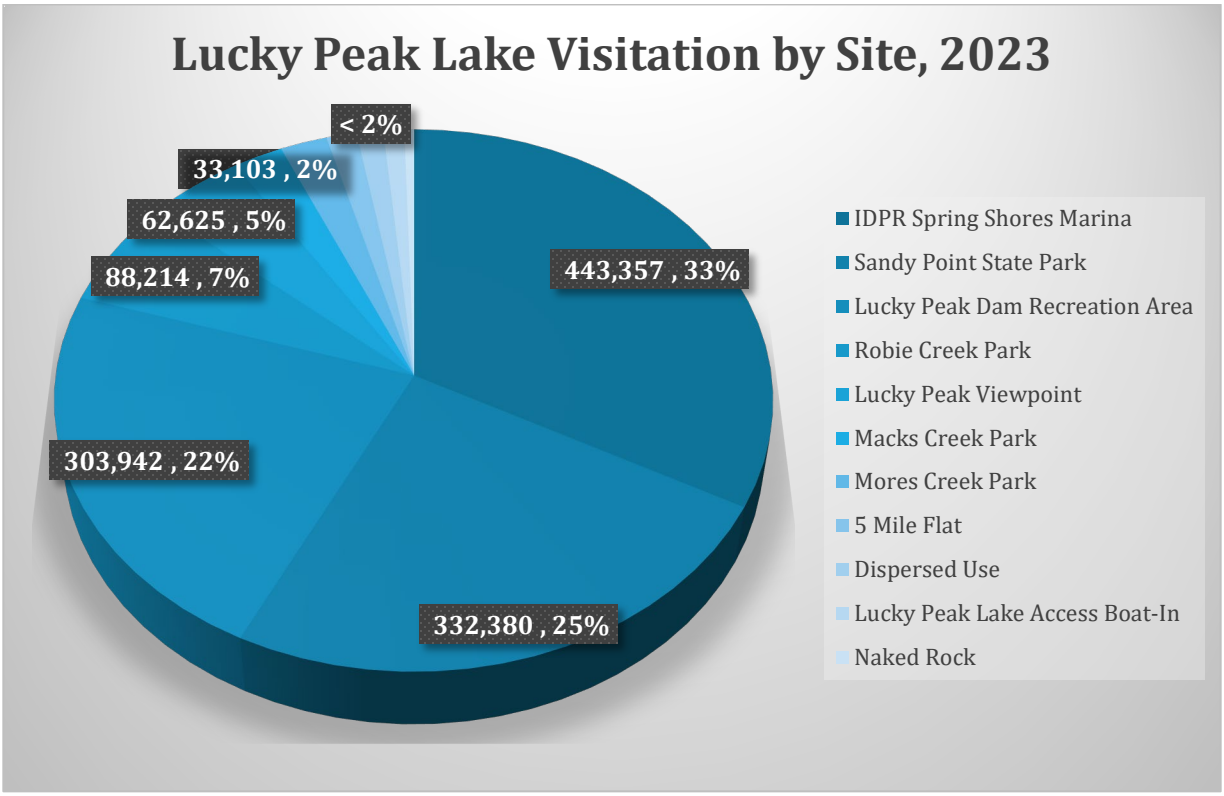


Figure 2-20: Lucky Peak Lake Visitation by Site, 2023

Source: USACE Natural Resources Management Section (Internal Data), 2023

2.8.4. Recreation Analysis

According to IDPR, "the Statewide Comprehensive Outdoor Recreation Plan (SCORP) identifies opportunities in outdoor recreation and allows the state and partners to access federal grants for improvements to parks, playgrounds, and other facilities." Each state in the U.S. must prepare a SCORP every 5 years to remain qualified for stateside Land and Water Conservation Fund. Because the Project is located in Idaho and most visitation comes from residents of Idaho and Oregon, relevant information from the Idaho and Oregon SCORPs can be found below.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

Idaho SCORP

According to the Idaho State Parks & Recreation department, the Idaho SCORP is estimated to help fund $10-12 million in trail, playground, parks, and other recreational amenities around Idaho each year (2022 price level), estimated to be $10.2 million to $12.3 million in 2024 price levels. Price escalation calculated utilizing Engineer Manual (EM) 1110-2-1304 Civil Works Construction Cost Index System, Recreation Facilities feature code. Pertinent information from the 2023-2027 SCORP regarding the Master Plan includes:

- 52.8 percent of SCORP survey respondents said they recreate outdoors daily or weekly.
- Maintaining and upgrading facilities proved the highest priority for survey respondents. Respondents said they desired more trails, campgrounds, paved pathways, fishing docks, and trailhead parking.
- Accounting for more than 34.4 million acres, nearly 65 percent of land in Idaho is federally owned, making the federal government an essential provider of outdoor recreation.
- The demand for recreation from 2020 to 2022 exploded, likely due to COVID-19. The surge in interest in the outdoors resulted in historic visitation to Idaho State Parks (a record 7.7 million visitors in 2020) and shortages in recreational equipment, including bicycles, boats, RVs, and other gear.
- Idaho's population increased by 17.3 percent (271,524 people) from 2010 to 2020, far surpassing the national growth rate of 7.4 percent and ranking second behind Utah.
- As Idaho's urban areas continue to grow, the demand for urban outdoor recreation opportunities will increase, and much of that burden will fall on local governments to provide.
- Study additionally found that travelers on overnight trips are more likely to use a camper/RV as a transportation mode when compared to the national average.

Oregon SCORP

In Oregon, the SCORP provides guidance for Oregon Parks and Recreation Department (OPRD) administered grant programs including the Local Grant, County Opportunity Grant, Recreational Trails, and All-Terrain Vehicle Programs. The current Oregon SCORP

expired in 2023. The OPRD is currently preparing the 2024-2028 SCORP draft. Pertinent information from the 2019-2023 SCORP regarding the Master Plan includes:

- Families with children had the highest proportion of their population participating in some outdoor recreation activity. Low- and middle-income populations as well as elderly populations had the lowest proportion of their population participating in some outdoor recreation activity.
- A critical need identified for additional funding was for non-motorized trails in the state of Oregon.
- Close-to-home activities dominate the total user occasions for Oregon residents since these activities can occur on a daily basis with limited travel time.
- High public priority for dirt and other soft-surfaced walking trails and paths and off-street bicycle trails and pathways.
- Top two outdoor recreation activities identified as 1) walking on local streets or sidewalks and 2) walking on local trails or paths.
- Strong public desire for more public access to Oregon's waterways.
- Drive-in tent sites had the highest likelihood of use and the highest priority need for overnight camping facilities in the state. 31.5 percent of the Oregon population participates in car camping with a tent with 7.5 million user occasions.
- Top needs identified by Oregon recreators are cleaner restrooms, soft surface walking trails, and more restrooms.
- Reducing user fees and providing more free-of-charge opportunities identified as top support action by park and forest managers.
- Increased demand for services and facilities suited to older adults as the Baby Boomer generation ages. Oregon is projected to be the state with the fourth highest proportion of older adults by 2025.
- Total net economic value associated with outdoor recreation participation in Oregon is $54.2 billion (2018 price level) annually, based on 2017 use levels.

Social Welfare Effects of Recreation

Social welfare effects are evaluated by estimating the economic value (i.e., consumer surplus) resulting from average annual recreational visitation and determining the value per visit.

Social welfare effects are estimated using a unit day value (UDV) approach (Corps 2019a; Water Resources Council 1983), a standard USACE approach to evaluate recreation consumer surplus benefits. As stated in Economic Guidance Memorandum (EGM) 24-02, Unit Day Values for Recreation for FY 2024 dated 15 December 2023, the UDV method for estimating recreation benefits relies on expert or informed opinion and judgement to approximate the average willingness to pay of users of Federal or Federally assisted recreation resources. This may be used as an estimate of project recreation benefits.

For this Master Plan, the UDV of Lucky Peak Lake and Dam will be compared to District's seven other Projects. The social welfare analysis is done in two steps. First, outdoor recreation days are calculated by summing all activities' visitation at each Project. According to EGM 24-02, the general category of recreation "refers to a recreation day involving primarily those activities that are attractive to the majority of outdoor users and that generally require the development and maintenance of convenient access and adequate facilities." The various recreation activities available at District projects applies to this level of analysis.

Table 2-5: Outdoor Recreation Days for District Projects, FY 2023

Project	Total Recreation Days
Dworshak Dam and Reservoir	522,637
Ice Harbor Lock and Dam	571,108
Little Goose Lock and Dam	671,017
Lower Granite Lock and Dam	3,416,846
Lower Monumental Lock and Dam	299,705
Lucky Peak Lake	**1,352,955**
McNary Lock and Dam	4,933,694
Mill Creek	289,572

Source: USACE Natural Resources Management Section (Internal Data), 2023

UDVs are then applied to the estimated total recreation days. To develop UDVs, points are assigned to a variety of criteria for each Project to determine that value of recreation. The criteria consist of quantity and quality of recreation activities available, the proximity of the recreation activities to the nearest population center, quality of facilities available,

accessibility to sites, and aesthetic and environmental quality. Full details of each criterion are available in EGM 24-02 Table 1.

The point values for each District Project were assigned an estimated range of points for each criterion, of which a median point value is calculated. After point values were assigned for each criterion, the median points were converted into dollars. Due to the latest recreation visitation data available being 2023 values, price levels and dollar conversions were calculated in 2023 price levels for consistency – calculated as determined by EGM 23-03 instead of EGM 24-02.

With the conversion of point values for each Project to UDV, the annual recreation benefit can be calculated from the visitation data. Table 2-6 below summarizes the UDV and value of recreation at each District Project.

Table 2-6: Summary of District Project UDVs and Annual Recreation Benefit (FY 2023 Price Level)

Project	Median Unit Day Points	Recreation Days	UDV	Annual Recreation Benefit
Lucky Peak Lake	**56**	**1,352,955**	**$10.90**	**$14,741,798**
Dworshak Dam and Reservoir	47	522,637	$9.98	$5,218,008
Lower Granite Lock and Dam	43	3,416,846	$9.50	$32,446,370
McNary Lock and Dam	42	4,933,694	$9.37	$46,248,448
Mill Creek	40.5	289,572	$9.19	$2,661,456
Ice Harbor Lock and Dam	36	571,108	$8.40	$4,798,449
Little Goose Lock and Dam	23.5	671,017	$6.71	$4,503,866
Lower Monumental Lock and Dam	23	299,705	$6.67	$1,997,834

Of the District Projects, Lucky Peak Lake is calculated to have the highest UDV (FY 2023 price level). Several judgement factors were in the higher end of the range. For recreation experience criteria, Lucky Peak has several general activities available, such as swimming, picnicking, boating, and more. It was estimated to have potentially more than one high quality activity, defined by EGM 24-02 as activities that are not common to the region and/or Nation, and that are usually of high quality. Because Lucky Peak Dam forms a reservoir, recreators in the region have taken up watersports that are not as accessible as that of District Projects along the Snake River. Watersports such as windsurfing and kiteboarding have grown in popularity with the ideal conditions of

Lucky Peak Lake. For the carrying capacity criteria, Lucky Peak Lake has well-maintained facilities and parks available. And for the accessibility and environmental quality criteria, there is easy access to the Project and sites with well-paved roads and signage, as well as aesthetic qualities such as the landscaped park of Sandy Point and the famous Keep Your Forests Green display.

With a UDV of $10.90 (FY 2023 price level) and an estimated 1.35 million recreation visitation days, Lucky Peak Lake is estimated to have an annual recreation benefit of $14.7 million. This ranks third among the District Projects, with McNary Lock and Dam ranking first with an estimated $46.2 million annual recreation benefit and Lower Granite Lock and Dam ranking second with an estimated $32.4 million annual recreation benefit. While McNary and Lower Granite have lower UDVs than Lucky Peak, their recreation visitation numbers are higher.

Recreation Economic Benefits from Lucky Peak Lake and Dam

There are multiple methods of measuring recreation benefit to capture the differences in benefit gained to recreators, supporters of recreation, and jobs and income to the region. The money spent by visitors to USACE lakes on trip expenses adds to the local and national economies by supporting jobs and generating income. Visitor spending represents a sizable component of the economy in many communities around USACE lakes.

According to the USACE Value to the Nation Fast Facts 2022 Lake Report of Lucky Peak Lake, Lucky Peak Lake and Dam total day and night visitation in FY 2022 was an estimated 932,000 visitors. This generated the estimated economic benefits (FY 2022 price level) outlined below within 30 miles of Lucky Peak Lake.

- $44.8 million in visitor spending
- $30.8 million in sales
- 238 jobs
- $11.4 million in labor income
- $16.9 million in value added (wages & salaries, payroll benefits, profits, rents, and indirect business taxes)

With multiplier effects, visitor trip spending resulted in:

- $57.1 million in total sales

- 384 jobs
- $19.8 million in labor income
- $31.0 million in value added

2.8.5. Recreational Carrying Capacity

The metropolitan area of Boise has seen a population increase greater than that of Idaho and the United States at a 14 percent 5-year increase and a 25 percent 10-year increase (U.S. Census Bureau American Community Survey 5-Year Estimates, 2012, 2017, 2022). Table 2-1 and Table 2-3 show that Idaho and the United States populations have grown slower at 12 and 3 percent respective 5-year increases and 18 and 7 respective 10-year increases.

Table 2-7: Population Data for Boise Metropolitan Area, State of Idaho, and United States

Total Population			
	Boise Metro.	**Idaho**	**U.S.**
2022	771,602	1,854,109	331,097,593
2017	677,346	1,657,375	321,004,407
2012	619,618	1,567,803	309,138,711

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012, 2017, 2022

Table 2-8: Population Increase for Boise Metropolitan Area, State of Idaho, and United States

Population Increase			
	Boise Metro.	**Idaho**	**U.S.**
5-Year Increase 2017 to 2022	14%	12%	3%
10-Year Increase 2012 to 2022	25%	18%	7%

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012, 2017, 2022

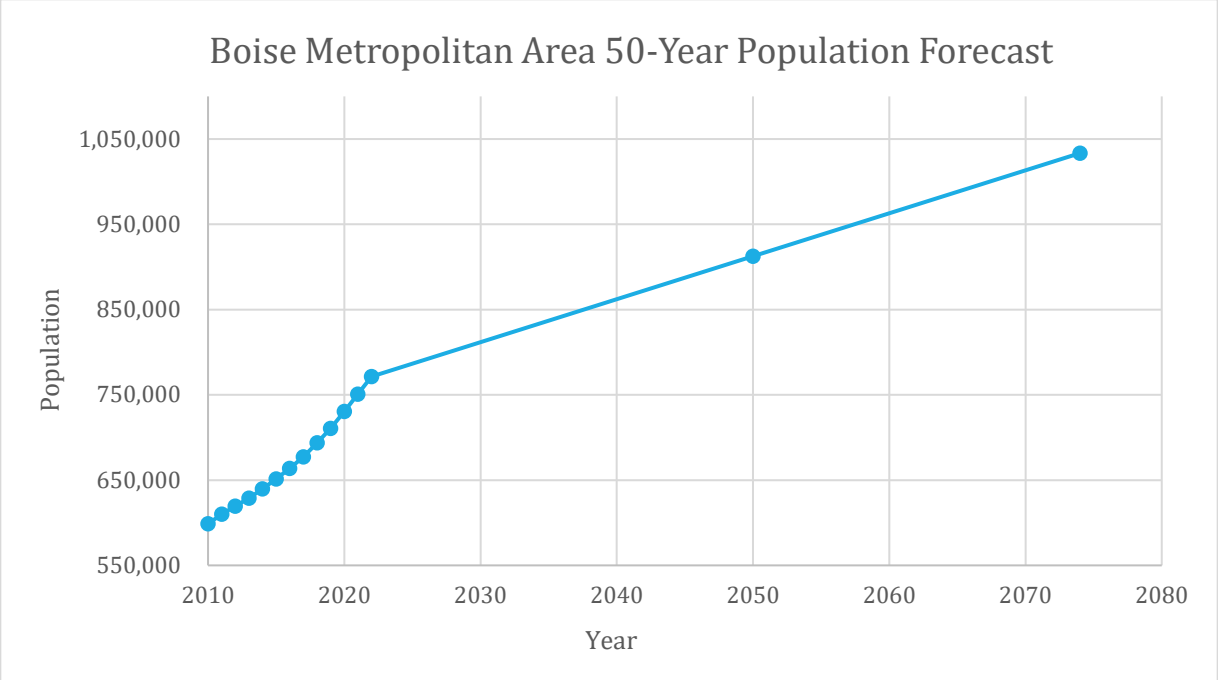
According to a news release by the Idaho Department of Labor, the state of Idaho ranked second in the nation for highest population growth in 2022 and fourth in the nation in 2023. In-migration, primarily domestic, is estimated to be responsible for 78 percent of this population growth – meaning people moving from another state to Idaho. International migration (people moving from outside the United States to Idaho) increased from 5 percent in 2022 to 18 percent in 2023. Net natural change (births minus deaths) is responsible for 22 percent of the population growth.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

An official release by the State of Idaho's Ada County cites a Community Planning Association of Southwest Idaho (COMPASS) forecast developed in 2019 for future Ada County population growth. The forecast states the following: "By 2050, COMPASS projects that Ada County will grow by approximately 28.4% (158,230) to a population of 715,820. Of the six cities, [the City of] Boise is projected to see the largest increase with 64,460 additional residents forecast by 2050."

Utilizing this population percentage projection for a Master Plan 50-year forecast, the Boise metropolitan area can anticipate at least an estimated population of 1,030,000 by 2074 as demonstrated in Table 2-9 below.

Table 2-9. Boise Metropolitan Area 50-Year Population Forecast



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates 2010-2022; COMPASS Idaho Demographics Forecast 2019

The overall conclusion is that recreation demand will increase as population increases. Continued investment in recreation will be necessary to maintain the quality and meet the increasing demand. Future recreation activities and increased usage without facility expansion will change the current user experience and could negatively impact the resources.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.9. REAL ESTATE

2.9.1. Land Acquisition History

Under the Flood Control Act of 1946, Congress authorized the government to originally purchase acres, which began in 1950 for the primary purpose of flood control. Since that time, subsequent legislation has authorized other project purposes, including recreation and fish and wildlife management. Over the life of the project, USACE analyzes lands for its needs in relation to the project, and approximately 406 acres of land that had been designated as no longer needed for the Project have been disposed.

The U.S. Government currently owns fee title for 3,674 acres within the Project boundary and has easements and reserved rights on 2,840 acres. The majority of Project lands flank both sides of the impounded Boise River created by Lucky Peak Dam. USACE has management rights and responsibilities on these U.S. Government owned lands and in lands where it has limited easement and reserved interests.

2.9.2. Outgrants

The purpose of an outgrant is to allow other entities use of Project lands. These outgrants are issued by easement, permit, license, or lease. Nonrecreational outgrants may be issued if the land is available, and if the proposed use is consistent with operational needs and resource management objectives and there is no other viable alternative to the activity being placed on Project lands. Any changes to land use classifications may influence existing activities that have already been outgranted and may allow or prohibit certain types of use in future requests for outgrants. Other outgrants may be issued and existing ones terminated or amended, as circumstances warrant. There are currently 36 outgrants on Lucky Peak Project lands. When some properties were originally purchased for construction of the Lucky Peak Project, the deeds of acquisition may have contained reserved rights for the individual selling the property. These reservations are usually valid in perpetuity.

The Real Estate Division of USACE, Walla Walla District maintains all current information on outgrants and reservations.

PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.10. PERTINENT PUBLIC LAWS, REGULATIONS, AND POLICIES

Rules and regulations governing the public use of water resources development projects administered by USACE are contained in 36 CFR § 327. Other authorities specifically related to the management of recreation and public access are found in PLs; Executive Orders; and USACE Engineer Regulations, Engineer Manuals, and Engineer Pamphlets. They include, but are not necessarily limited to, those listed in Appendix D. A list of applicable Federal statutes is included in Appendix C.

2.11. ENVIRONMENTAL CONSIDERATIONS

The Master Plan is intended to deal in concepts, not in details of design or administration. Detailed management and administration functions are addressed in other planning and management documents, such as a 5-year activity forecast or annual management plan which implements the concepts of the Master Plan into operational actions. Implementation of individual actions from such documents may require separate environmental compliance evaluations. The EA conducted as part of the development of the 2024 Master Plan is included in Appendix A, which will likewise focus on potential impacts associated with changes to Project land use classifications.

3. Resource Objectives

Resource use goals provide the overall framework that guides the use of resources administered by USACE at a project site. The goals and objectives in the Master Plan are specific to the Project and its individual areas and specify attainable options for resource development and management. These goals have been developed through study and analysis of regional and local needs, public input, resource capabilities, and resource potential, and they are formulated to guide and direct the overall resource management program.

3.1. RESOURCE GOALS

The resource goals are included within four categories, as indicated below:

Project Operations

- Continue to provide benefits to the public safely, effectively, and efficiently, consistent with the authorized Project purposes.

Natural and Cultural Resources Management

- Allow public access and use of USACE-managed land, as appropriate.
- Protect and preserve archeological and historical sites.
- Protect and enhance fish and wildlife habitat.
- Promote biological diversity and ecological system function.
- Control noxious weeds and other undesirable weed species.

Recreation and Interpretation

- Provide high quality, safe recreational facilities year-round to a wide segment of the public, including individuals with disabilities and underserved communities.
- Minimize conflicts between user groups and USACE operational requirements.

Coordination

- Maintain communication and coordination with appropriate Indian Tribes; Federal, State, and local agencies; and citizen groups and organizations for management of the manmade and natural resources at the Project.

3.2. RESOURCE OBJECTIVES

Resource objectives 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 jurisdiction of the Walla Walla District at the Project. The objectives stated in this Master Plan support the goals of the Master Plan and the following Environmental Operating Principles:

- Foster sustainability as a way of life throughout the organization.
- Proactively consider environmental consequences of all USACE activities and act accordingly.
- Create mutually supporting economic and environmentally sustainable solutions.
- Continue to meet our corporate responsibility and accountability under the law for activities undertaken by USACE, which may impact human and natural environments.
- Consider the environment in employing a risk management and systems approach throughout the life cycles of projects and programs.
- Leverage scientific, economic, and social knowledge to understand the environmental context and effects of USACE actions in a collaborative manner.
- Employ an open, transparent process that respects views of individuals and groups interested in USACE activities.

The objectives are consistent with authorized Project purposes, Federal laws and directives, and they take into consideration regional needs, resource capabilities, the Idaho and Oregon SCORPs, cultural and natural resources significant to significant to the region, and public input. Recreational and natural resources carrying capacities are also accounted for during development of the objectives found in this Master Plan.

To address specific management needs, the Resource Objectives discussed in this chapter are divided into three categories—General, Recreation, and Environmental Stewardship.

3.3. GENERAL RESOURCE OBJECTIVES

3.3.1. Safety

Objective: Provide use areas and facilities that provide the public with safe and healthful recreational opportunities.

Discussion: Developed areas designated for recreation use will be evaluated regularly for safety. Any conditions that have been determined unsafe will be evaluated, and feasible corrective actions will be implemented in accordance with Engineer Manual 385-1-1, Safety and Health Requirements.

3.3.2. Aesthetic Resources

Objective: Plan all management actions with consideration given to landscape quality and aesthetics.

Discussion: USACE regulations and guidance requires that USACE considers and provides an aesthetically pleasing environment for the public. Visitors are attracted to the vistas, rolling topography, and water bodies that create high visual quality at the Project. Green parks with mature trees and landscaping are also attractive and encourage use by the public. To create a quality recreation experience, it is important that planned improvements be designed and maintained so that visual resources associated with the Project will be protected, preserved, and maintained to the maximum extent possible.

Figure 3-1. Macks Creek Park Overview

3.3.3. Facility Management

Objective: Ensure all current and future facilities are maintained and meet applicable design standards.

Discussion: All new or remodeled facilities will meet current standards. Upgrade and replacement of existing facilities will comply with USACE policy.

3.3.4. Real Estate and Boundary Management

Objective: Prevent unintentional trespass and negative impacts associated with encroachments (livestock, agricultural, vehicular, etc.) on Government property while allowing State, County, municipal, and private entities opportunities to provide public recreation services.

Discussion: Periodic boundary inspections will be conducted, and encroachments and trespasses resolved at the lowest level possible. Unmarked monument boundaries and

fence monument boundaries will be surveyed where feasible. Addressing encroachments will be prioritized in budget and staffing allocations. Real estate proposals and requests will be compatible with Project purposes and minimize impacts to environmental and cultural resources. Outgrants require compliance with certain terms and conditions, including but not limited to: USACE policies, federal and state laws, health and safety codes, and environmental protections.

3.3.5. Cultural Resources Management

Objective: Inventory, record, and evaluate 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), Native American Graves Protection and Repatriation Act (PL 101-601), and applicable Treaty responsibilities. Seek to avoid harm to cultural resources using all tools available, including education, discussion, Title 36 citation, and federal and local law enforcement, as appropriate (36 CFR § 327.14).

Discussion: Planning and development will include considerations to protect and preserve culturally sensitive sites. Archaeological collections and records will be preserved for future generations and managed for study by qualified researchers. Cultural resource review will be coordinated with District specialists, who will follow laws and guidelines for cultural review according to Federal law and consult with the State Historic Preservation Officer and Tribal Historic Preservation Offices/Tribes as required. Convey importance of cultural resources and proactive planning to Project staff through planning documents and update those documents as appropriate.

3.4. RECREATION RESOURCE OBJECTIVES

3.4.1. Land and Water Universal Access

Objective: Provide use areas and facilities that are accessible for all Project visitors.

Discussion: Developed areas designated for recreation use will be evaluated regularly for accessibility. When developing new or rehabilitating existing recreation facilities/opportunities, effort will be made to comply with the Americans with Disabilities Act (PL 101-336). In addition, special emphasis should be placed on programs that increase participation in outdoor activities for people with physical, developmental, and sensory disabilities. Efforts will be made to ensure Project lands are

accessible to marginalized and underserved communities and that these communities are aware of recreational opportunities on Project lands, in alignment with the environmental justice policy outlined in Executive Order 14008.

3.4.2. Interpretive Services and Outreach Program

Objective: Interpretive service will focus on agency, District, and 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.

Discussion: The Lucky Peak Interpretive Services and Outreach Program includes the management of public affairs, community relations, marketing, publications, tourism, and special events. Opportunities exist to partner with local Tribes and other groups in the development of this program.

Figure 3-2. Morrison Knudsen Foote Park Interpretive Center

3.4.3. Recreation Optimization and Sustainability

Objective: Use leveraged resources, when possible, to maintain and improve existing recreation facilities that reduce operations and maintenance costs while meeting public demand.

Discussion: Project staff will promote community involvement through stakeholder meetings, social media, and participation in local public events and relevant organizations. Challenge cost share and cooperative agreements will be used to leverage additional resources. Partnerships and a robust volunteer program will be developed and maintained to accomplish additional work.

3.4.4. Quality Outdoor Recreation in Intensive Use Areas

Objective: Operate and maintain day-use and limited camping facilities, as well as consider the development of new facilities that meet public demand, to provide opportunities for multiple user groups in an urban setting.

Discussion: Day-use activities account for 908,282 visitors each year. Day-use activities include picnicking, fishing, paddleboarding, birdwatching, nature study, cycling, jogging, dog walking, boating, hiking, swimming, and large group events. Camping occurs at the developed sites at Macks Park, and at several primitive boat-in only camping sites around the lake including those at Chimney Rock. To meet current and future need, Project staff will need to maintain and improve existing facilities, as well as manage special events (which require a special use permit) in a manner consistent with Engineering Regulations and USACE Headquarters guidance. Some parks are outgranted to IDPR. Fostering good relationships with IDPR is critical to maintaining high-quality recreational opportunities. Any new facilities will be scrutinized to ensure purpose, longevity, and especially limited to lands classified in this Master Plan for such purposes. There are many conflicting uses at Lucky Peak Project and significant consideration will be given prior to the development of new or maintenance of existing recreational facilities.

Figure 3-3. Special Event at Lucky Peak State Park, Sandy Point Unit

3.4.5. Quality Outdoor Recreation in Low Density Use Areas

Objective: Operate and maintain day-use facilities, as well as develop new facilities as appropriate that meet public demand, to provide opportunities for multiple user groups in a rural setting.

Discussion: Day-use activities accounts for more than 908,282 visitors each year. Day-use activities include picnicking, fishing, paddleboarding, birdwatching, nature study, cycling, jogging, dog walking, boating, hiking, swimming, and group events. To meet current and future need, Project staff will need to maintain and improve existing facilities, as well as manage the special events (which require a special use permit) in a manner consistent with Engineering Regulations and USACE Headquarters guidance.

3.5. ENVIRONMENTAL STEWARDSHIP RESOURCE OBJECTIVES

3.5.1. Riparian Corridor Protection

Objective: Protect and limit impacts to riparian corridors on the Project in conjunction with Project missions, water quality, and fish and wildlife benefits.

Discussion: Riparian habitat is of high ecological importance within the watershed. The USACE ENS mission has always focused extensive effort on habitat development and maintenance of riparian species and habitat types. This can be seen in areas on Lucky Peak Lake such as in the Mores Creek and Robie Creek areas. Additionally, riparian areas are often the subject of targeted nuisance species control under the District's Integrated

Pest Management Plan (IPMP), to maintain and enhance these habitats. No unnecessary removal or alteration of the systems will be promoted.

3.5.2. Fish and Wildlife Habitat Management

Objective: 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.

Discussion: Over the life of the Project, improvements have been made to enhance fish and wildlife habitat. Hunting and fishing are nationally recognized activities at Lucky Peak Lake. Maintenance of existing and future habitats is critical to sustain a healthy ecosystem now and in the future. This includes extensive effort for invasive and nuisance species management along with other habitat enhancement USACE has performed, to improve and increase fish and wildlife sustainability. Sustainable populations can secondarily support all forms of recreation. Emphasis will be placed on integration and use of native plant species whenever possible. Continue collaborating with IDFG and other possible partners to improve and maintain these environments.

Figure 3-4. Volunteers Banding Kestrels

3.5.3. Integrated Pest and Noxious Weed Management

Objective: Minimize negative impacts to native flora and fauna and damage to Government facilities by reducing and/or eradicating invasive and nuisance species on Project lands.

Discussion: Reducing and restricting the spread of invasive and nuisance species will be achieved by monitoring, assessing, and an applying an integrated pest management approach to treatment according to the District's IPMP and Aquatic Pest Management Plan. This includes the use of chemical, mechanical, and biological control methods, as well as reseeding and planting with native plant species. Aquatic invasives are a serious threat to Lucky Peak Lake.

3.5.4. Fire Management

Objective: Minimize the negative effects of wildfires, including impacts to Federal property and the recreating public.

Discussion: Invasive species such as cheatgrass has shortened the natural fire cycle on USACE habitat lands. Native plant communities, which are less conducive to burning, are diminished by more frequent fires. Wildfires are a serious threat to property and public safety in more populated areas of the Project.

USACE will seek to minimize the threat of wildland fire by enforcing local fire bans, reducing fuel loads, and establishing native grasslands to offset the change in fire cycle due to invasive plant species. Effort will be made to restore lands damaged by wildland fire back to native grasslands.

Figure 3-5. Turner Gulch Wildfire at Lucky Peak Lake

4. Land Allocation, Land Classification, and Project Easement Lands

This chapter identifies and describes the land allocation categories and the land classifications at the Project under this 2024 Master Plan, including the number of acres and the primary and secondary uses for each classification. It also contains a summary of changes to land classifications since the 1988 Master Plan.

4.1. LAND ALLOCATION

Land allocation refers to categorizing lands according to the congressionally authorized purposes for which Project lands were acquired. Chapter 3 of Engineer Pamphlet 1130-2-550 defines these categories as Operations, Recreation, Fish and Wildlife, and Mitigation, as described below:

- Project Operations – These are lands acquired for the congressionally authorized purpose of constructing and operating the Federal Project for the purposes of hydropower, navigation, and incidental irrigation.
- Recreation – These are lands acquired specifically for the purpose of recreation.
- Fish and Wildlife – These are lands acquired specifically for the purpose of managing or protecting fish and wildlife.
- Mitigation – these are lands acquired or designated specifically for the congressionally authorized purpose of offsetting losses associated with development of the Project.

4.2. LAND CLASSIFICATION

All lands acquired for the Project are further classified to provide for development and resource management consistent with authorized purposes and other federal laws. Land classification designates the primary use for which Project lands are managed. The classification process considers public input, regional and Project specific resource requirements, and suitability. Land classifications established in EP 1130-2-550 include the following six categories:

- Project Operations

- High Density Recreation
- Mitigation
- Environmentally Sensitive Areas
- Multiple Resource Managed Lands
- Water Surface

Chapter 4.2.1 provides a brief overview of the land classification changes that have occurred from 1988 to 2024 under the old land classification nomenclature. Chapter 4.2.2 shows how the Project land is classified under the 2024 Master Plan using the new land classification nomenclature. It also discusses the management and use of the lands assigned to each land classification, in connection with the appropriate resource objectives identified in Chapter 3. There are no lands classified as Mitigation in the 2024 Master Plan.

4.2.1. Land Classification Changes from 1988 to 2024

The Project lands have undergone several changes since the original Master Plan was developed in 1955. The Master Plan was revised and updated in 1964 and 1988. Table 4-1 identifies the total acres for each classification that changed between 1988 and 2024, under the old land classification nomenclature. Figure 4-1 is a visual representation of the information provided in Table 4-1. Ideally, the changes in land ownership and use over 36 years throughout the Project, along with the nomenclature changes, would have been documented in a Master Plan revision or supplement before now. However, funding for Master Plan updates is difficult to obtain.

Table 4-1, Land Classification Changes from 1988 to 2024

LAND CLASSIFICATION	1988 ACRES	2024 ACRES
Not Classified	9	0
Project Operations	137	150
High Density Recreation	365	167
Environmentally Sensitive Area	0	641
MRM – Wildlife Management	2934	2937
MRM – Low Density Recreation	713	196
TOTAL	4158	4091

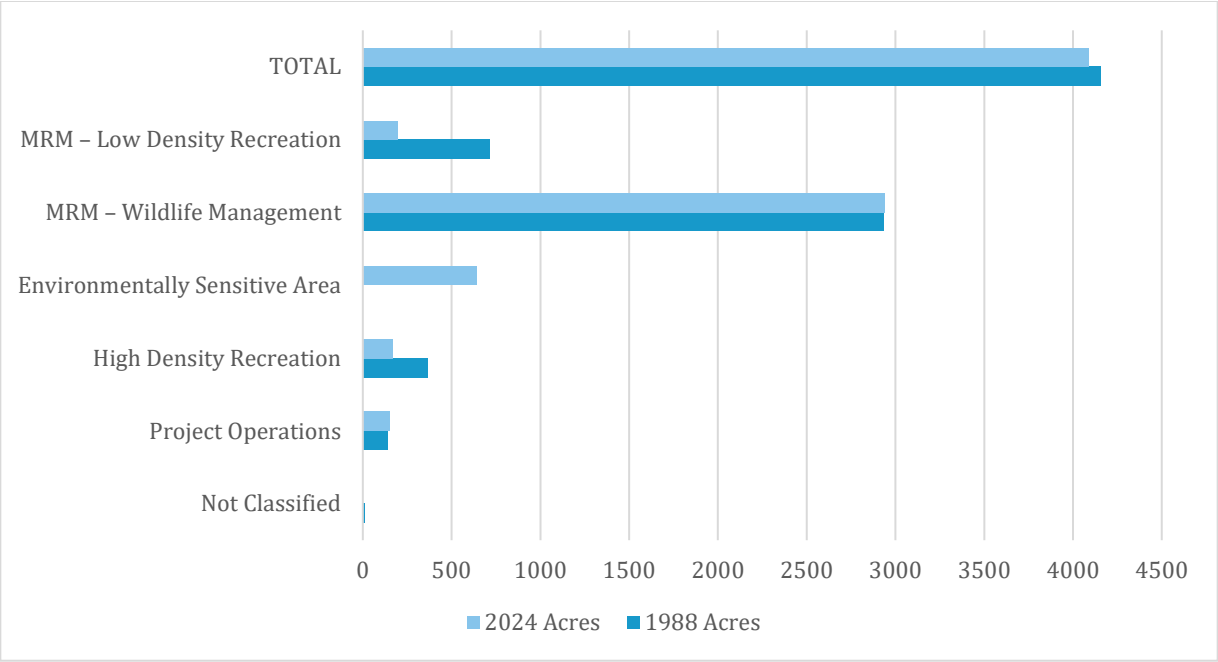


Figure 4-1. Land Classification Changes from 1982 to 2024

There are no supplements to the 1988 Master Plan.

4.2.2. Proposed Land Classifications for the 2024 Master Plan

An interdisciplinary team evaluated the Project operations, resource capabilities, and public input to determine the land classifications for the Project. To revise the Master Plan, the team needed to translate the old land classifications to the currently authorized land classifications under EP 1130-2-550 (Corps 1996). Table 4-2 below is a rough translation between the two different classification nomenclatures.

Table 4-2. Old Land Classification Nomenclature and New Land Classification Nomenclature

Current (Old) Land Classifications	Proposed New Land Classifications
Project Operations • Project Structures • Industrial Use and Access	Project Operations • Project Structures • Industrial Use and Access
Recreation • Intensive Use	High Density Recreation
Multiple Resource Management • Recreation – Low Density • Wildlife Management General	Multiple Resource Management • Low Density Recreation • Wildlife Management
-----	Environmentally Sensitive Area
Not Classified	-----

Using the information in Table 4-2 and current management strategies for each land management unit, the team classified lands for the 2024 Master Plan using the currently authorized land classification nomenclature.

This chapter identifies how lands are classified under the 2024 Master Plan under the new land classification nomenclature and provides an explanation for each of the land classifications, including the applicable primary and secondary uses. Table 4-3 identifies each of the land classifications and the number of acres at the Project. Appendix E contains the maps for these classifications.

Table 4-3. Proposed Land Classifications for the 2024 Master Plan

LAND CLASSIFICATION	ACRES
Project Operations	150
High Density Recreation	167
Environmentally Sensitive Area	641
MRM – Low Density Recreation	195
MRM – Wildlife Management	2937

4.2.3. Project Operations

Lands required for the operation and maintenance of the dam and reservoir, associated structures, administrative offices, maintenance compounds, and other areas are classified as Project Operations. Where compatible with the operational requirements, this land may be used for wildlife habitat management and low-density recreational uses. Licenses, permits, easements, or other outgrants are issued only for uses that do not

conflict with operational requirements. Some Project Operations lands are closed to public access for safety or security reasons, while other areas may be subject to closure for operational requirements or other purposes. Table 4-4 contains a listing of primary and secondary uses on lands classified under Project Operations.

Table 4-4. Project Operations

Primary Use*	Secondary Use*
Manage land required for the operation and maintenance of the dam and reservoir.	Wildlife Management • Ecological restoration projects • Other similar activities Low Density Recreation • Hunting/Fishing • Hiking • Bicycling • Picnicking • Sightseeing and nature observation • Other recreation activities of a primitive nature High Density Recreation • Sports/Other
* Information signs are posted for visitors if there are deviations from primary or secondary uses of the lands.	

4.2.4. High Density Recreation

Lands developed for intensive recreational activities by the visiting public are included in the High-Density Recreation land classification. Low density recreation and wildlife management activities that are compatible with intensive recreation use are acceptable. No agricultural uses are permitted on these lands except on an interim basis for the maintenance of scenic or open space values. Licenses, permits, easements, or other outgrants are issued only for uses that do not conflict with recreation use. Hunting is not allowed on land classified as High Density Recreation, although fishing is an appropriate non-conflict recreational activity. Table 4-5 contains a listing of primary and secondary uses on lands classified under High Density Recreation.

Table 4-5. High Density Recreation

Primary Use*	Secondary Use*
Manage land for developed recreation sites. • Picnicking • Swimming • Fishing • Sightseeing and nature observation • Nature/Interpretive trails • Hiking • Bicycling • Horseback riding • Playgrounds/Games/Sports/Other • Boat ramps	Wildlife Management • Ecological restoration projects Low Density Recreation • Non-motorized trails • Other recreation activities of a primitive nature
* Information signs are posted for visitors if there are deviations from primary or secondary uses of the lands.	

4.2.5. Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are areas identified with scientific, ecological, cultural, or aesthetic features, or that are otherwise protected by laws; this classification is not limited to just land. Manmade intrusions (power lines, non-Project roads, and water and sewer pipelines) are not generally permitted on lands classified as ESAs. If development for public or private use occurs by exception, project proponents will be required to offset impacts through onsite or offsite mitigation efforts for the duration of that use. Activities designed to promote and improve special features identified in the area are allowed, along with education and interpretation. Development of recreation facilities in ESAs may be limited or prohibited to ensure that the lands are not adversely impacted. Table 4-6 contains a listing of primary and secondary uses on lands classified under ESA.

Table 4-6. Environmentally Sensitive Areas

Primary Use*	Secondary Use*
Manage land to protect unique and sensitive resources. • Scientific • Cultural • Ecological • Aesthetic	Wildlife Management • Ecological restoration projects • Other similar activities Low Density Recreation • Nature observation • Education/Interpretation
* Information signs are posted for visitors if there are deviations from primary or secondary uses of the lands.	

Figure 4-2: A Herd of Elk

4.2.6. Multiple Resource Management Lands

The Multiple Resource Management (MRM) Lands classification allows for designation of a predominant use with the understanding that other compatible uses may also occur in the classification. Total acreage under MRM Lands classification for the Project is approximately 3,133 acres and is divided into subclassifications of Low-Density Recreation, and Wildlife Management.

MRM–Low Density Recreation

Land in the MRM–Low Density Recreation subclassification provides opportunities for dispersed and/or low-impact recreation. Emphasis is on minimal development of infrastructure that might support sightseeing, wildlife viewing, nature study, hiking, biking, horseback riding, and picnicking. Consumptive uses of wildlife (i.e., hunting, fishing) are allowed when compatible with the wildlife objectives for a given area and with Federal, State, and Tribal fish and wildlife laws and regulations.

Facilities may include boat ramps, boat docks, trails, parking areas, vault toilets, picnic tables, and fire rings. Manmade intrusions (power lines, non-Project roads, and water and sewer pipelines) may be permitted under conditions that minimize adverse effects on the natural environment. Project proponents of these intrusions should expect to be required to offset impacts through onsite or offsite mitigation efforts for the duration of the use. Vegetation management that does not greatly alter the natural character of the environment is permitted for a variety of purposes, including erosion control, retention and improvement of scenic qualities, and wildlife management. Table 4-7 below contains

a listing of primary and secondary uses on lands classified under MRM–Low Density Recreation.

Table 4-7. MRM - Low Density Recreation

Primary Use*	Secondary Use*
Manage land for low density, low impact recreation opportunities. • Hunting/Fishing • Hiking • Bicycling • Horseback riding • Campgrounds <15 sites • Primitive camping (designated sites) • Picnicking • Swimming • Sightseeing and nature observation • Motorized access trails and roads • Boat ramps • Non-motorized trails • Other recreation activities of a primitive nature	Wildlife Management • Ecological restoration projects • Other similar activities
* Information signs are posted for visitors if there are deviations from primary or secondary uses of the lands.	

MRM–Wildlife Management

Land in the MRM–Wildlife Management (MRM-WM) subclassification is designated for stewardship of fish and wildlife resources in conjunction with other land uses. Habitat maintenance and/or improvements are for a designated species, group of species, and/or a diversity of species. These areas may be administered by other public agencies under a lease, license, permit, or formal agreement. Licenses, permits, and easements are normally not allowed for manmade intrusions such as pumping plants, pipelines, cables, transmission lines, or for non-USACE maintenance or access roads. Exceptions to this policy are allowable where necessary to serve a demonstrated public need in those instances where no reasonable alternative is available, or other reasons deemed important by USACE. When exceptions to this policy are allowed, Project proponents should expect to be required to offset impacts through onsite or offsite mitigation efforts for the duration of the use.

MRM-WM land is available for sightseeing, wildlife viewing, nature study, hiking, biking, horseback riding, and primitive camping. Consumptive uses of wildlife (hunting, fishing,

and trapping) are allowed when compatible with the wildlife objectives for a given area, as well as with Federal, State, and Tribal fish and wildlife laws and regulations. Table 4-8 contains a listing of primary and secondary uses on lands classified under MRM–WM.

Table 4-8. MRM - Wildlife Management

Primary Use*	Secondary Use*
Manage land for stewardship of fish and wildlife resources. • General forest health • Habitat enhancement projects • Ecological restoration projects • Protection of specific habitat areas / components (i.e., denning sites, calving sites, nests, and wallows, etc.) • Other similar activities	Low Density Recreation • Hunting/Fishing • Hiking • Horseback riding • Campgrounds <15 sites • Primitive camping (designated sites) • Picnicking • Swimming • Sightseeing and nature observation • Motorized access trails and roads • Boat ramps • Non-motorized trails • Other recreation activities of a primitive nature
* Information signs are posted for visitors if there are deviations from primary or secondary uses of the lands.	

4.2.7. Water Surface

The Project manages 2,783 acres of surface water. The water surface acreage at the Project is divided into the following zones to support public safety and security:

- **OPEN RECREATION** – Those waters available for year-round or seasonal water-based recreational use.
- **DESIGNATED NO-WAKE** – To protect environmentally sensitive shoreline areas, recreational water access areas from disturbance, and/or public safety.
- **RESTRICTED** – Water areas restricted for Project operations, safety, and security purposes.

4.3. PROJECT EASEMENT LANDS

USACE holds an easement or permit interest, but not the fee title to this land, and has the right to enter the property in connection with the operation of the project. In most cases, USACE has the right to occasionally flood these properties. Planned use and management

is in strict accordance with the terms and conditions of the easement estate acquired for the project. USACE has acquired approximately 46 acres in easements for Lucky Peak Project.

4.3.1. Operations Easement

Operations easements and permits were acquired by USACE for the purpose of project operations. 8 acres were acquired for activities to include water drainage, levees, roads, and utility rights-of-way.

4.3.2. Flowage Easement

These are easements acquired by USACE or reserved as part of USACE disposal of fee lands, giving the right to flood private land during flood risk management operations. There are 38 acres of flowage easement land located near the project.

4.4. LAND CLASSIFICATION SUMMARY

Table 4-9 summarizes the land classification changes from acreage in the 1988 Master Plan to the acreage for the 2024 Master Plan, converting the 1988 classifications to the new land classification nomenclature in EP 1130-2-550. The difference in total acreage can be attributed to rounding and differences in mapping systems. Appendix E, Land Classification Maps, provides the new land classification maps for the 2024 Master Plan.

Table 4-9. Land Classification Changes from 1988 to 2024

LAND CLASSIFICATION	1988 ACRES	2024 ACRES
Not Classified	9	0
Project Operations	137	150
High Density Recreation	365	167
Environmentally Sensitive Area	0	641
MRM – Wildlife Management	2934	2937
MRM – Low Density Recreation	713	195
TOTAL	4158	4090

5. Resource Plan

Building on Chapter 4, which provided more general land classification descriptions and acreage for each of the classifications at the Project, Chapter 5 provides information on how the management areas within each of the land classifications will be managed. The management areas identified are presented in broad terms. A more descriptive plan for managing these lands will be refined in other planning and management documents, such as a 5-year activity forecast or annual management plan. Management tasks must support the resource objectives, land classifications, and resource plan set forth in this Master Plan. Numbers of acres listed under land classification categories were summarized using the USACE geographic information system (GIS) database.

5.1. PROJECT OPERATIONS

Project Operations lands are managed to support the operation and maintenance of the dam and reservoir, associated structures, administrative offices, maintenance compounds, and other areas that are classified as Project Operations. There are a total of 150 acres designated under the Project Operations land classification. This is an increase in acreage from 137 in the 1988 Master Plan. The additional acres around the Lucky Peak Dam area are more representative of operational needs. The management areas in this land classification are shown in Table 5-1.

Table 5-1. Project Operation Lands

MANAGEMENT AREA	TOTAL ACRES
Lucky Peak Dam Operational Area	109
Nursery Repeater Operational Area	41
TOTAL	150

Lucky Peak Dam Operational Area

This area is composed of Lucky Peak Dam, Lucky Peak Power Plant Project, several water control structures, the emergency spillway, communications infrastructure, materials storage areas, and administrative areas. Lucky Peak State Park, Sandy Point Unit is a high density recreation outgranted area adjacent to this operational area (Figure 5-1), potentially subject to operational constraints. Most of this operational area remains publicly accessible with limited exceptions indicated by security fencing and restricted

area signage. Diversion Pool, impounded by Diversion Dam to supply the New York Canal and managed by the BOR, creates the large recreational pool during summer months enjoyed by the public at Lucky Peak State Park, Discovery Park, and Sandy Point Units. The tailrace of Lucky Peak Power Plant Project supplies the Diversion Pool and is closed to all uses from the dam to a buoy line located adjacent to Lucky Peak State Parks, Sandy Point Unit, just downstream of Foote Park Center. The automated safety systems of the Power Plant and emergency needs of the dam may require sudden opening of release structures that could endanger the public in the tailrace area (Figure 5-2).

Figure 5-1: Lucky Peak Dam, Powerhouse, and Lucky Peak State Park, Sandy Point Unit

Figure 5-2: The "Rooster Tail" Outflow from Lucky Peak Dam

Nursery Repeater Operational Area

A large basalt plateau, near the convergence of Ada, Boise and Elmore counties and located above the USFS Lucky Peak Nursery, comprises the Nursery Repeater Operational Area. Within its bounds are radio communications infrastructure of Ada County Sheriff's Office and USACE. Additionally, the USFS operates an irrigation intake from the lake for Nursery needs and maintains a clear well for personnel water requirements. The area is open to the public for walking in, but vehicular access is limited to authorized personnel.

5.2. HIGH DENSITY RECREATION

There are a total of 167 acres managed under the High Density Recreation land classification (Table 5-2). USACE does not provide any maintenance within areas leased to IDPR, but there are times when USACE provides support by reviewing requests for modifications to ensure they meet applicable laws and regulations for proposed activities. The goal is to work with USACE partners to ensure recreation areas are being

managed in accordance with resource objectives identified in Chapter 3, Resource Objectives.

The acreage for the High Density Recreation land classification was decreased from 365 acres in the 1988 Master Plan. The management areas in this land classification are shown in Table 5-2.

Table 5-2. High Density Recreation Areas and Managing Agencies

MANAGEMENT AREA	TOTAL ACRES	MANAGING AGENCY	LEASE EXPIRATION
Lucky Peak State Park, Sandy Point Unit	29	IDPR	
Viewpoint	9	USACE	NA
Robie Creek Park	6	USACE	NA
Lucky Peak State Park: Spring Shores Unit	76	IDPR	
Macks Creek Campground	20	USACE	NA
Turner Gulch	6	USACE	NA
Barclay Bay	21	USACE	NA
TOTAL	167		

Lucky Peak State Park, Sandy Point Unit

Arguably a trademark scene of the Lucky Peak Project, Lucky Peak State Park, Sandy Point Unit is a compact, highly visited park immediately below the iconic Lucky Peak Dam and sprawling "Keep Your Forests Green" message. With its large swim area, expansive lawn, and abundant shade trees, primary summer recreational activities here consist of swimming, sunbathing, picnicking, lawn sports, and paddle craft use. From fall into spring the area is host to a seasonal disc golf course, dog-off-leash activity, and special uses such as cyclocross and running events. There are no reservable facilities at Sandy Point, however, abundant picnic tables and grills, over 400 parking stalls, and ample beach access accommodate recreational demands on all but the busiest of days. The 25-mile Boise River Greenbelt ends at Sandy Point, bringing many to the park. For many years, Sandy Point was the most visited State Park in the Idaho system. The main administration office of Lucky Peak State Parks (Discovery Park, Sandy Point, and Spring Shores Units) is located in the Sandy Point Unit.

The swimming area fountain and water features (Figure 5-3) are supplied with cold, fresh water from the bottom of Lucky Peak Lake through the Lucky Peak Power Plant – seldom exceeding 55°F during summer months. Circulation and water quality issues were studied during the construction of the Power Plant in the late 1980s. While there are occasional exceedances of state water quality standards for primary contact surface waters, these exceedances are often short-lived and attributed to the intensive recreational use of the pool. The water quality supplying Sandy Point can be assumed to be similar to what is routinely tested at Barclay Bay – which often return near-zero coliform counts during summer sampling periods.

Figure 5-3: Lucky Peak State Park, Sandy Point Unit Swimming Area

Viewpoint

Viewpoint overlooks Lucky Peak Dam, its water release structures, and two launch areas: Barclay Bay and Turner Gulch (Figure 5-4). Use of Viewpoint is typical of a roadside way station – high numbers of short duration visits. This day use area, however, offers limited access for swimming and shoreline fishing, a vault toilet, and a handful of picnic sites. Its proximity to Boise means many visitors take lunch at Viewpoint, stop here while pleasure cruising, or take a rest break while travelling the Highway 21 Ponderosa Pine Scenic Byway.

Figure 5-4: Viewpoint Day Use Area

Robie Creek Park

Nestled into a tight canyon at the confluence of Robie Creek and Mores Creek, this small park and free launch ramp offers an idle time retreat at the edge of the USFS, Boise National Forest. Surrounded by black basalt cliffs dotted with mature ponderosa pines frequently holding osprey, the shallower Mores Creek Arm of the lake generally offers warmer, calmer water and wind protection. A long, narrow No-Wake Zone winds itself to the larger body of the lake from the Robie Creek launch area creating an inviting place for paddlecraft activities and nature viewing. At the park, a sandy beach adjacent to an irrigated open lawn boasting several shade canopies with tables and cooking grills provides the ingredients for a family-friendly outing. Secluded at the top of the park, a scenically oriented group shelter (Figure 5-5) accommodates larger gatherings, up to

approximately 50 people. Use of the park is sharply correlated to lake elevation, with nearly all water-based activities ceasing when the lake exceeds 10-feet from full.

Figure 5-5: Group Shelter at Robie Creek

Robie Creek Park (Figure 5-6) is located on Lucky Peak Lake near the mouths of 7-mile-long Robie Creek and 40-mile-long Mores Creek. While this adds to the character of the area, the confluence of these warmer, slow-running creeks at the lake contributes to water quality challenges. Protected from wind-mixing by steep cliffs and lacking significant water currents, surface water quality tests exceeding State standards are not uncommon. Over many years, USACE and Idaho Department of Environmental Quality have extensively researched the source of these exceedances without definitive result. The large, populated drainage areas which collect in this isolated space combined with heavy recreational use has shown to be a recipe sending total coliform counts in excess of Idaho surface water standards for primary contact recreation, prompting public advisories.

Once a well-kept secret, inviting park improvements followed by booming paddlecraft recreation in the 2010s now places great strain on parking to accommodate public use during lake-full peak visitation months, June through August. Designated parking areas fill quickly, yet rugged terrain prevents the creation of additional spaces. The overflow

pressure and resulting parking violations impede local and emergency traffic through the area. In recent years, Boise County Sheriff's Office, Boise County Road and Bridge Department, and USACE have partnered to better manage use of Robie Creek Road by park visitors.

Figure 5-6: Robie Creek Park

Spring Shores Marina

IDPR operates and maintains Springs Shores Marina near the middle of Lucky Peak Lake where the Boise River and Mores Creek converge. This large marina provides convenient on-the-water fuel sales, approximately 300 boat slips for rent (Figure 5-7), and a concessionaire providing snacks, refreshments, and boat rentals. This area additionally comprises two large boat launch and parking areas. The West Ramp offers a four-lane launch ramp that is the second-longest ramp on Lucky Peak Lake, extending to approximately 2950 feet msl and remaining available most of the year. The East Ramp also provides a shorter four-lane ramp typically available most of summer.

Despite its generous size, this area frequently fills to capacity on hot summer weekends when Treasure Valley residents flock to the water for recreational boating. The waiting list for slip rentals routinely exceeds five years. Some accommodations have been provided to reduce waiting lines and traffic congestion on Arrowrock Road.

Figure 5-7: Marina Slips

Figure 5-8: Youth Sailing School provided by Southern Idaho Sailing Outreach uses Spring Shore Marina

Macks Creek Campground

About three miles below Arrowrock Dam on the Boise River arm of Lucky Peak Lake lies Macks Creek Campground (Figure 5-9). Originally operated and maintained by the USFS as a day use park, this area was transferred to USACE in the 1980s. Since then, through a series of transformations, Macks Creek Campground is now a family-oriented, 14-site, reservable, and vehicle-accessible camping area at Lucky Peak Lake. To accommodate parking requirements and provide comfortable use of these campsites, this campground is for exclusive use of reserved campers. Despite its austerity, this dry camp on the banks of Lucky Peak Lake is wildly popular during summer months – it can be challenging to get a reservation unless sought early. With its shoreline access, beachy areas, and dock strings adjacent to many campsites for boat mooring, this campground is especially popular with campers planning outings that involve recreational boating. During periods of the reservation season when the lake is not full, and the Macks Creek Campground boat ramp and dock strings are dry, gentle sandy slopes continue to provide sufficient access for most campers to make a splash or fish. Macks Creek Campground generally hosts single-night through travelers and those seeking a convenient camping adventure not far removed from the comforts of town. Potable water is available using a hand pump on a well, and garbage dumpsters are provided for camper use to reduce scurrilous

wildlife encounters. A volunteer park host often resides at the park to provide basic camping reservation management and information assistance.

Figure 5-9: Macks Creek Campground Lake View

Turner Gulch

Available to boaters year-round in most years, Turner Gulch is a moderately-sized launch area and the longest ramp on Lucky Peak Lake, extending to approximately 2905 feet msl. It is one of two USACE launch areas and part of the greater Lucky Peak Dam Recreation Area where launch fees are collected using automated fee stations (the other being Barclay Bay). Turner Gulch also provides limited day use facilities and dock strings. While there are no gates to secure the area at night, Turner Gulch is a posted day use area; however, nighttime boaters and campers using boat-in sites may keep their vehicles parked overnight while recreating.

Figure 5-10: Turner Gulch Boat Ramp, Parking Lot, and Automated Fee Station

Parking at Turner Gulch fills rapidly. Once full, visitors must find alternative areas to park such as graveled lots and road shoulder areas – often launching at Turner Gulch and being picked up by boat at Barclay Bay after parking a tow vehicle. This frequently occurs on busy weekends and later in the recreation season when lowering water levels make Barclay Bay ramp unusable.

Due to the north-facing orientation of the access road and ramp, seasonal road closures are frequently implemented due to snow and ice accumulation that makes public access treacherous.

Barclay Bay

The largest of the USACE-managed launch areas, Barclay Bay is one of two launch areas part of the greater Lucky Peak Dam Recreation Area (in addition to Turner Gulch).

Launch fees are collected using automated fee stations. A volunteer park host occupies a site near the launch ramp, providing information assistance, support of the recreation user fee program, and a deterrent presence to overnight mischief. Historically popular for swimming access, a sandy beach area is maintained near the ramp and many shade canopies dot the shoreline (Figure 5-11). Middle Cove (Figure 5-12), located adjacent to Barclay Bay, is restricted to motorized boating and highly popular with picnickers, swimmers, paddle craft, and divers.

Figure 5-11: Barclay Bay Day Use Area

Figure 5-12: Middle Cove

Despite its size, boat and trailer parking at Barclay Bay routinely exceeds capacity on hot summer weekends (Figure 5-13), requiring parking at alternative road shoulder areas and graveled lots. Additionally, paved parking areas at Turner Gulch and Barclay Bay were created in the late 1980s when the predominant tow vehicles and trailered boats of the time were smaller. Increasingly today, visitors with large vehicles and boats must use distant road shoulders or the spacious Lucky Peak Spillway area for parking – walking back to Barclay to board their vessel.

Figure 5-13: A Busy Barclay Boat Ramp Parking Lot

There are no gates to secure the area at night; however, Barclay Bay is a posted day use area. Nighttime boaters and campers using boat-in sites may keep their vehicles parked overnight while recreating while all other visitors must depart.

5.3. ENVIRONMENTALLY SENSITIVE AREAS

ESAs are managed to protect the scientific, ecological, cultural, or aesthetic features of the lands. Typically, limited or no development for public use is allowed. Manmade intrusions (power lines, non-Project roads, and water and sewer pipelines) are not generally permitted on lands classified as ESAs. If development for public or private use occurs by exception, project proponents will be required to offset impacts through onsite or offsite mitigation efforts for the duration of that use. Activities designed to promote and improve special features identified in the area are allowed, along with education and interpretation. There are a total of 641 acres designated under the ESA land classification. There were no lands classified as ESA previously, as ESA was not an

approved land classification under the old nomenclature. The management areas in this land classification are shown in Table 5-3.

Table 5-3. Environmentally Sensitive Areas

MANAGEMENT AREA	TOTAL ACRES
Deer Creek ESA	637
Foote House ESA	4
TOTAL	641

Deer Creek ESA

Extending on both sides of Lucky Peak Lake upstream from the Highway 21 Mores Creek Bridge, the Deer Creek ESA was created due to the importance of this corridor for migrating mule deer and elk. Winter snow accumulation pushes these big game herds down from the higher elevation Sawtooth Mountain Range towards the Boise River Valley in pursuit of browse. This arm of Lucky Peak Lake – by summer a full, busy lake – is often a shallow flowing creek in winter allowing animal movement towards Boise and back again upon shifting seasons. The importance of this wintering range is underscored by IDFG's creation of the BRWMA in the early 1940s with a small 2,000-acre purchase of land near the mouth of Mores Creek. The BRWMA has grown to 36,000 acres today. Lucky Peak Lake lies squarely in the middle of today's BRWMA and USACE non-park areas are licensed to the BRWMA for management beneficial to big game.

The abundance of big game animals using this ESA can be inferred from the importance of two major transportation safety projects implemented with support from USACE. To reduce a staggering number of collisions between motorists and animals on this section of roadway, in 2010 a Federal Land Access Program grant funded Idaho Transportation Department to construct a wildlife undercrossing at milepost 18.2. Using diversion fencing and a single span bridge, animals were directed to cross safely beneath Highway 21. In 2023, a second Federal Land Access Program grant funded Idaho Transportation Department to construct of a wildlife overcrossing one mile away at milepost 19.3. This overcrossing project interconnected with the diversion fencing of the prior project and provided animals a safe "land bridge" over Highway 21. The two projects – one under the road and one over the road – keep many animals from entering the roadway and have resulted in a precipitous decline of collision rates.

Foote House ESA

Rivers have provided resources and an artery for travel that attracted Native settlements for millennia. Today, rivers are also the lifeblood of the West, providing drinking water, irrigation of crops, hydropower, important fish and wildlife habitat, and supporting a robust outdoor recreation economy. The Foote House ESA on the banks of the Boise River is representative of this evolving history. Immediately downstream of the site of Lucky Peak Dam, where Lydle Gulch meets the Boise River, are areas of special historical and cultural significance. There is extensive archaeological evidence here that indicates Native American habitation and traditional use of the landscape along the banks of the Boise River for thousands of years. Much more recently, in the 1860s, the Foote homestead was built – home to Arthur Dewint Foote and Mary Hallock Foote. Arthur, an engineer, became locally known for developing irrigation plans for the Treasure Valley that were later constructed as the BOR's Boise Project. Meanwhile, Mary grew to be among the most prolific authors and illustrators of the 1860s and 1870s, providing readers "back east" with detailed stories of life in the old West (her writings would later inspire a 1972 Pulitzer-winning novel, Angle of Repose, by Wallace Stegner). The University of Idaho performed archaeological investigations of the sites in this area during the late 1970s with many recovered items now under curation.

Today, the Foote House ESA is popular starting point for riverside walks, hiking, birdwatching, and nature study. In 2024, a multiyear partnership with the Foote Park Project completed development of interpretive features adjacent to the former Foote House foundation.

Figure 5-14: Foote House Interpretive Display

5.4. MULTIPLE RESOURCE MANAGEMENT

This MRM Lands classification allows for designation of a predominant use with the understanding that other compatible uses may also occur in the classification, to include Low Density Recreation, and Wildlife Management Areas. Total MRM lands for the Project are approximately 3,133 acres. This is a decrease in acreage from 3,647 previously. The management areas in this land classification are shown in Table 5-4, organized by subclassification.

Table 5-4. MRM Lands by Land Use Subclassification

MANAGEMENT AREA	TOTAL ACRES
MRM – LOW DENSITY RECREATION	
Sheep Creek	10
Deer Flat	33
Gooseneck	7
Dead Dog Creek	2
Turnaround Point	2
South Robie	4
Moses Creek Park	1
Naked Rock	9
5-Mile Flat	5
Browns Gulch	1
Chimney Rock	15
Birch Creek	2
Placer Point	8
Charcoal Flat	16
Pipeline Gulch	8
Foote Park	73
TOTAL	196
MRM – WILDLIFE MANAGEMENT	
Black Cliffs Wildlife Unit	89
Highland Valley Wildlife Unit	612

Nursery Wildlife Unit	180
Robie Creek Wildlife Unit	123
Mores Creek Wildlife Unit	103
Cervidae Wildlife Unit	262
Macks Creek Wildlife Unit	46
Arrow Peak Wildlife Unit	208
Chimney Rock Wildlife Unit	94
The Narrows Wildlife Unit	346
Charcoal Flat Wildlife Unit	234
Pipeline Wildlife Unit	217
Lydle Gulch Wildlife Unit	421
Foote Park Wildlife Unit	2
TOTAL	2937
MRM LANDS TOTAL	3133

5.4.1. MRM – Low Density Recreation

MRM-LDR are lands with minimal development or infrastructure that support passive public recreation use (e.g., primitive camping, fishing, hunting, trails, wildlife viewing, etc.). There are 16 sites under this classification encompassing approximately 195 acres.

Sheep Creek

Adjacent to Lucky Peak Viewpoint to the east, Sheep Creek is a moderate-sized cove popular with day use boating activities. There are four shade canopies available and several more dock strings. Located directly across the lake from nearby Barclay Bay and Turner Gulch launch ramps, Sheep Creek offers convenient mooring for basing jet ski and water ski excursions. Many of these sites are not suitable for camping due to lack of shade, level ground, tables, and fire pits – nevertheless these facilities remain exceedingly popular throughout summer. Public access is by boat only.

Deer Flat

Extending a mile and a quarter along the north shore of the lake near Lucky Peak Dam, approximately 20 boat-in sites dot the shoreline providing many opportunities for day

use and overnight camping. Two vault toilets serve this area (Figure 5-15). Plantings of ponderosa pines and naturalization has increased available shade along the shoreline. Public access is by boat only. A primitive service road skirts uphill of these sites providing access for USACE operations. Given the proximity to fire-prone Highway 21, this road is maintained as a fuel break to slow spread of fire both into and out of the recreation sites.

Figure 5-15: A Vault Toilet at Deer Flat

Gooseneck Bay

Halfway between Lucky Peak Dam and Spring Shores Marina, Gooseneck Bay provides several dispersed and secluded shade canopies and docks. A boat is required to access these sites. Extending offshore from the southern end halfway to the opposite bank is a large rocky shoal marked with caution buoys and is one of few potential boating obstructions on the lake, exposed at approximately 3045 feet msl and below.

Dead Dog Creek

Tucked into a steep-sided cove, Dead Dog is a private and secluded site just removed from the main Mores Creek boating thoroughfare. Access is by boat only.

Turnaround Point

On the Mores Creek Arm lies a small plateau providing two sites with shade canopies and dock strings on the mouth of a large bay. This "turnaround point" provides space for continued motorized boating, returning down channel. Turnaround Point also marks the beginning of a one-and-a-half-mile narrow channel and No Wake Zone extending to Robie Creek Park between scenic basalt cliffs. Access requires a boat.

South Robie

Tucked into this tight bend on the Mores Creek Arm No Wake Zone area, three sites with shade canopies and dock strings provide a scenic hideaway among ponderosa pines and basalt cliffs. Access requires a boat during lake full conditions, but this area can be hiked to by crossing the exposed lakebed during fall and winter.

Mores Creek Park

This very small roadside park on Mores Creek is popular with kids and pets. Here, just above the reach of a full lake below, Mores Creek is a shallow wadable creek during summer. In this tight canyon, black basalt cliffs and ponderosa pines tower above, often holding osprey on the lookout for a fish to catch. A vault toilet and a handful of picnic tables with grills provide picnicking opportunities within earshot of the flowing water.

Naked Rock

An exposed granite outcropping on the Boise River arm of the lake, Naked Rock is a small popular roadside park for making a splash in summer. A single shade canopy, vault toilet, and picnic tables support use of this popular area (Figure 5-16). During other times of year Naked Rock is frequently used for parking by hunters and hikers.

Figure 5-16: Naked Rock Day Use Area

5-Mile Flat

Located at mile marker five of Arrowrock Road, 5-Mile Flat (Figure 5-17) was developed in 2009 to support a Federal Energy Regulatory Committee license requirement of the new Arrowrock Power Plant to develop recreational access on the north shore of Lucky Peak. Two shade canopies, a vault toilet, and tables provide comfortable spots to take in views on this scenic bend of the Boise River channel above Macks Creek Campground. It is frequently used in summer for swimming access and parking of utility terrain vehicle trailers for day use excursions into the Boise National Forest by all-terrain vehicles. 5-Mile Flat is the final USACE recreation area on Arrowrock Road before the pavement ends towards the BOR Arrowrock Dam, less than two miles upstream.

Figure 5-17: File Mile Flat

Browns Gulch

This lone site across from the Spring Shores Marina offers a shade canopy and dock string. Due to steep terrain this site is most used for day use activities instead of camping and is accessible by boat only.

Chimney Rock

Among the most popular of Lucky Peak Lake's boating accessible areas, Chimney Rock draws crowds with its large, level irrigated lawn and proximity to Spring Shores Marina. Nine shade canopies with tables and firepits (Figure 5-18) are sprinkled throughout the space. The number of dock strings exceeds the needs of these developed sites accommodating additional day use in this large shady park. One vault toilet serves the area and access requires a boat.

Figure 5-18: Chimney Rock Shade Canopy, Table, and Fire Pit

Figure 5-19: Chimney Rock as Seen from the Water

Birch Creek

Deep into a protected cove off this heavily travelled area of Lucky Peak Lake, Birch Creek offer boaters a quiet hideaway. Birch Creek consists of two sites with shade canopies, dock strings, and firepits. Access requires a boat.

Placer Point

Extending about one-quarter mile along the banks of Lucky Peak Lake neighboring Charcoal Flat, Placer Point is home to nine sites with shade canopies, tables, and grills. One vault toilet serves this area. The banks of Placer Point in most places are flat with shallow sandy approaches by boat – perfect for swimming and wading once having moored to a dock string. Placer Point is a favorite among many boaters, providing ready access to the main body of the lake for boating. A boat is required for access.

Charcoal Flat

Just shy of twenty sites and one vault toilet comprise the mile-long Charcoal Flat recreation area. Tree plantings and naturalization of the area have created many welcoming shady day use opportunities where shade canopies are absent. Slopes are gentle near shore in much of this area, promoting swimming and wading activities in addition to providing a home base for boating on the main body of the lake. A boat is required for access.

Pipeline Gulch

Just upriver from the Barclay Bay and Turner Gulch launch areas, five sites scatter the shoreline with shade canopies, docks, and fire rings. Planted pines and volunteer riparian trees provide relief from the sun. These areas on the southern shoreline of the lake are accessible only by boat.

Figure 5-20: A Boat-in-Site at Pipeline Gulch

Foote Park

At the dead end of a gravel access road, Foote Park and the adjacent Foote Park ESA provide recreational access to areas below the site of Lucky Peak Dam near the Boise River. Driven by particularly wet spring weather, occasional short-lived ephemeral flows down Lydle Gulch – with artificial creek flows plumbed to the area from Lucky Peak Power Plant Project throughout the summer – sustain this small pocket of riparian habitat before it enters the Boise River at the Foote House site. A large grove of black walnut trees and riparian tree species along the creek provides shady escapes. Foote Park consists of a vault toilet and parking for only a few vehicles – the nearby Foote Park ESA the same – yet draws many throughout the year for birdwatching and taking in scenic views of the river canyon lined by tall basalt cliffs. Opportunities for broader hiking exploration and upland game hunting are provided by a few pioneer trails and

interconnecting service roads in the area leading towards the historic Oregon Trail and other field roads on adjacent BLM lands. A favored winter destination, low Boise River flows expose two miles of sandy banks ideal for letting pets run out their energy when most other options are snow covered or muddy. All access to the Boise River (and the summertime pool backed up by Diversion Dam) is restricted here due to proximity of water release structures belonging to the dam which may rapidly create hazardous conditions. Foote Park is a component of the larger Lucky Peak Dam Recreation Area that includes Barclay Bay and Turner Gulch. Visits are limited to daylight hours only.

5.4.2. MRM – Wildlife Management

MRM-WM lands are designated for stewardship of fish and wildlife resources in conjunction with other land uses. Habitat maintenance and/or improvements are for a designated species, or group of species.

There are 14 sites under this classification encompassing approximately 2,937 acres. USACE uses these lands to meet the ENS mission and provide fish and wildlife habitat.

Black Cliffs Wildlife Unit

Opposite Highway 21 from Lucky Peak State Park, Sandy Point Unit and Lucky Peak Dam, the Black Cliffs Wildlife Unit provides rangeland for mule deer and elk in winter. Also beginning here and terminating over two miles downstream is the popular Black Cliffs climbing area managed by the BLM. Climbing route closures there are occasionally implemented to protect cliff nesting birds.

Highland Valley Wildlife Unit

This large management unit extends approximately five miles along the north shore of Lucky Peak from Sheep Creek to the USFS Nursery, encompassing all lands not designated for recreation. This unit adjoins the Boise Front Segment of the BRWMA managed by IDFG. Many years ago, this unit was broken into several grazing compartments, however this practice has long since ceased. Recent partnership efforts here with IDFG and BLM have focused on removing abandoned barbed-wire fence to reduce wildlife entanglements, and USACE maintenance of the Deer Flat service road by as a fuel break to slow spread of fire. Unfortunately, high traffic volumes along the nearby Highway 21 corridor and steep open terrain have contributed to numerous wildland fires impacting these areas over the years – occasionally burning from Highway 21 over the

hills to self-extinguish at the lake edge. Limited by an absence of public roads and the presence of private property, access to this area is by boat or hiking in across the BRWMA.

Figure 5-21: Gray Rabbitbrush Blooming in the Highland Valley Wildlife Unit

Nursery Wildlife Unit

This unit is distinctively divided by tall basalt cliffs and the Mores Creek Arm of Lucky Peak Lake in the vicinity of Mores Creek Bridge. On the north shore, extending between Highway 21 and Spring Shores Marina, lands adjoin the BRWMA Spring Shores Segment. Diversion fencing of the wildlife undercrossing project on Highway 21 abuts this unit, with an elk guard installed on Arrowrock Road by IDFG to prevent mule deer and elk from entering the Highway 21 corridor. On the south shore, this unit extends from the Idaho Department of Transportation quarry site west and across Highway 21 to include the IDFG weigh station area. These level, open grounds often hold wintering big game. The weigh station area is a popular access point from USACE lands to the BRWMA, and visitor use restrictions are displayed on bulletin boards provided in partnership with the

IDFG. Access of these areas is limited to pedestrian use, excepting the quarry service road for official use only.

Robie Creek Wildlife Unit

Encompassing the South Robie MRM – LDR and Robie Creek Park High Density Recreation Area on both banks of the Mores Creek Arm of Lucky Peak Lake, this unit offers diverse habitats. The eastern shore is a shrubby plateau rimmed with steep basalt cliffs, ponderosa pines, and talus slopes below. On the western shore, conversely, are steep grassy slopes dotted with pines. This corridor has high aesthetic value for boaters utilizing the two-mile No Wake Zone that bisects this unit. In addition to its value for migrating mule deer and elk, this unit holds abundant bald eagle and osprey hunting fish or engaged in nesting activity. The east shore adjoins private land while the west shore joins with largely unfenced public lands held by IDFG as well as Idaho Department of Lands. To protect against residential encroachments from development activities on the north, in 2021 USACE (with design input from IDFG) installed one-half mile of wildlife-friendly boundary fencing, visibly marking the boundary between public and private lands. This low, two-strand, smooth wire fence with frequent gaps for animal passage reduces impediments and entanglement hazards in an area important to migrating big game.

Mores Creek Wildlife Unit

Characterized by the normally slow-flowing Mores Creek carving through steep canyon walls of basalt cliffs, talus slopes, and mature ponderosa pines, the Mores Creek Wildlife Unit offers a unique blend of scenic values, backwater access for paddlecraft, and wading of the creek. Bright pink kokanee can often be seen running the shallows, and birds of prey gaze down from high limbs in the pines.

Over the preceding decades, residential development boomed in the area bringing additional through-traffic to Robie Creek Road, operated and maintained under an easement granted to Boise County. This unit is surrounded by private residential development on both canyon rims, experiencing the greatest encroachment pressure of all Lucky Peak Lake lands. USACE ability to access boundaries for inspection and manage lands for environmental stewardship is blunted by the absence of easements across private property.

Cervidae Wildlife Unit

Along Arrowrock Road from Spring Shores Marina to Macks Creek Park, this unit comprises USACE lands along the northern shore of the Boise River arm of Lucky Peak Lake. It is a valuable holding ground immediately adjacent to the Spring Shores Segment of the BRWMA managed by IDFG. Containing very steep slopes speckled with granite outcroppings, these lands generally serve only the most adventuresome visitors for hiking and hunting from limited parking areas along Arrowrock Road.

Located at a bend in Arrowrock Road within view of Spring Shores Marina, a larger graveled parking area on USACE land provides access to the lake but also lands of the BRWMA. Visitor use restrictions are displayed on bulletin boards provided in partnership with the IDFG and IDPR. Access of these areas is limited to pedestrian use.

Macks Creek Wildlife Unit

Upriver of Macks Creek Park, this unit generally consists of extremely steep, hilly terrain. A unique feature of this area is habitat created by the ephemeral spring flow of Macks Creek. This drainage provides a riparian habitat that precedes a small, ponded area connected to Lucky Peak Lake – when full – by a drainage culvert. The Macks Creek drainage provides the most frequently used point of access for hiking into adjoining BRWMA and Boise National Forest lands.

Arrow Peak Wildlife Unit

Named after nearby Arrow Peak which peers over the area, this extremely rugged and remote unit lies on the southern shore of Lucky Peak Lake between Arrowrock Dam and Chimney Rock. Several miles from the nearest road to the south and virtually inaccessible, this unit occasionally holds lesser-seen animal species, such as mountain lion and black bear, in addition to the big game occupying the nearby Charcoal Creek Segment of the BRWMA.

Chimney Rock Wildlife Unit

Bordering the popular Chimney Rock and Brown's Gulch MRM – Low Density Recreation Areas, this unit consists primarily of its namesake that towers 120 feet high – a unique geological feature that adds scenic value to the area. Immediately south, this unit borders the Charcoal Creek Segment of the BRWMA.

The Narrows Wildlife Unit

The Narrows unit is named after this area of the lake, frequently congested with water skiers and fisherman deep trolling for kokanee. The remote terrain of this unit is deceptively steep and rugged, consisting of scenic basalt cliffs, towering plateaus, talus slopes, and expansive gulches brining runoff from the southern slopes. This unit borders the Charcoal Creek Segment of the BRWMA and is accessible only by boat.

Charcoal Flat Wildlife Unit

This remote unit holds mature, high value shrubby habitats on its gentler slopes, extending from the Placer Point MRM – Low Density Recreation Unit to the area of Charcoal Creek. Remote, rugged, and roadless, wildland fires here could have devastating wildlife impacts on this and the adjoining Charcoal Creek Segment of the BRWMA. USACE, with collaborative input from the BLM and IDFG, provides herbicide treatments at recreation sites to maintain bare ground conditions around fire pits to lessen likelihood of human-caused fire starts. Fuel breaks behind Placer Point and Charcoal Flat Park areas have been considered to reduce risk of wildfire originating from recreation sites and may provide a degree of protection to visitors from fires moving in from adjacent areas. The Charcoal Flat Wildlife Unit also contains one-half mile of scenic basalt cliffs of potential value to cliff-dwelling wildlife.

Pipeline Wildlife Unit

Extending approximately three-and-a-half miles upriver from Turner Gulch, the Pipeline Wildlife Unit consists almost entirely of steep grassy slopes and the drainage areas of Pipeline Gulch and Turner Gulch. While this unit borders a limited amount of private property, it effectively provides a largely unbroken island of public lands managed by USACE, IDFG, and the BLM. Like all other lands on the remote southern shores of Lucky Peak Lake, this unit is best accessed by boat as no roads or trails serve the area.

Lydle Gulch Wildlife Unit

In contrast to most MRM – WM lands, the Lydle Gulch Wildlife Unit adjacent to Barclay Bay, Turner Gulch, and Foote Park is highly accessible to the public by way of service roads and pioneer trails. Once allowed decades ago from the dam through Lydle Gulch to Bonneville Point, vehicular access was prohibited in the 1990s to curtail frequent abuses of target shooting, dumping, and fires, as well as the destructive impacts of off-road vehicles. USACE has implemented many effective physical measures to protect Lydle

Gulch from continued unauthorized motor vehicle access originating from nearby BLM areas dense with Jeep trails and pole inspection roads.

This unit also consists of a highly modified landscape resulting from the quarrying of materials to construct Lucky Peak Dam. These quarried areas and abandoned service roads are visible on the eastern slopes of Lydle Gulch. The area continues to serve operational needs including disposal of woody vegetation, materials storage, and radio communications infrastructure. The western portion of this unit consists of steep grassy slopes and shrubby plants that blend seamlessly with adjacent BLM areas. Despite continued incursion by residential and commercial development, a large tract of public lands exists from Lydle Gulch to Federal Way that frequently holds mule deer and antelope, among other wildlife.

Foote Park Wildlife Unit

A novel feature within the Foote Park MRM – LDR unit, this two-acre site was created in the late 1980s following construction of the Lucky Peak Power Plant Project. The 1988 Lucky Peak Master Plan discussed future development of a small wetland in Lydle Gulch created by a series of small check dams that pond runoff water as a way to offset habitat lost from power plant construction. Ultimately, this plan was not implemented as described. Alternatively, using head pressure from Lucky Peak Lake above, water was plumbed from the power plant to the site providing irrigation for habitat enhancements. Today, water is manually supplied from spring into summer. Water spills onto the ground in many puddled areas accessible to wildlife, and its runoff provides a creek trickle sufficient to support riparian habitats before finally returning to the Boise River near the Foote House a half-mile away. This feature is a significant wildlife attractor and contributes to high value year-round birdwatching.

5.5. WATER SURFACE ZONING

Water surface zoning at the Project is used to support public safety and security. The water surface on Lucky Peak Lake includes the following zones: Restricted, Designated No-Wake, and Open Recreation. Open Recreation allows for recreation activities such as wading, swimming, paddling, sailing, motorboating, and fishing. There are 2,783 acres of water surface designated for Open Recreation. Water Surface acreage was not quantified in the 1988 Master Plan.

At Lucky Peak Lake, there is a boat restricted zone (BRZ) located below the Lucky Peak Dam to allow for Project operations, safety, and security. These waters are restricted to all vessels, except vessels authorized by the government. The BRZ begins at the outlet of the Lucky Peak Power Plant and extends approximately one-half mile downstream. There are also boat restricted zones at Lucky Peak State Park, Sandy Point Unit Beach, Robie Swim Beach, Mack's Creek Paddle Craft area, Barclay Swim Beach, and Middle Cove. Note: The BOR maintains a BRZ below the Arrowrock Dam.

Zones near boat ramps and some swim areas are Designated No-Wake to protect recreational water access from disturbance and for public safety. There are Designated No-Wake zones throughout Lucky Peak Lake, including on Sheep Creek, Robie Creek, at Spring Shores Marina, Macks Creek, Turner Gulch Boat Ramp, and Barclay Bay Boat Ramp.

6. Special Topics, Issues, and/or Considerations

Figure 6-1: Encroaching Livestock on Project Lands

6.1. ENCROACHMENTS

Vegetation and livestock grazing encroachments are common violations on USACE managed lands. This is primarily due to the rural and remote location of Project lands and the fact that property surrounding these lands are managed for agriculture and/or livestock.

The USACE Natural Resources Management mission is to manage and conserve natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations. Encroachments on USACE managed Federal lands directly conflict with that mission. USACE is, therefore, committed to resolving encroachments by the most expedient and effective means available. It is the intent of the District to recapture use of encroached upon public lands for Federal project operating purposes and general use and enjoyment of the public.

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

The general policy is to require removal of encroachments, restore the premises, and collect appropriate administrative costs and fair market value for the term of unauthorized use. Policies and procedures are described in the references specified in Northwestern Division, Walla Walla District Office Memorandum 1130-1-9, Encroachment Action Handbook. Exceptions to this general policy are set forth in ER 405-1-12, Real Estate Handbook, Chapter 8 (Corps 1985a).

The purpose of the Encroachment Action Handbook is to prescribe policies and procedures for surveillance and safeguarding of USACE managed lands and easements to prevent potential encroachments and to prescribe the actions necessary to remove or resolve existing encroachments. This handbook establishes a program to protect all resources on operating project lands.

Lucky Peak Lake is predominantly surrounded by other State and Federal land management agencies. However, the Mores Creek Arm is bordered by many private residential developments and has been a source of ongoing encroachment concerns. Trespasses have included construction of permanent structures, dumping of vegetative and livestock waste, planting of trees, animal burials, trail construction, and mowing. Many homes in the area were placed with minimal setback from the Project boundary, complicating maintenance of defensible space for wildland fire. Across the remaining Project boundary – generally on the southern inaccessible side of the lake – cattle grazing is the most frequent encroachment.

6.2. INTERPRETATION

The Project will continue to provide community outreach by participating in fairs and public events, providing interpretive displays and programs for day-use areas, and through partnering with other community organizations. This outreach includes but is not limited to school tours, dam tours, wildlife and environmental presentations, water safety programs, partnering events, and through the release of information to the press. Interpretive displays and programs should highlight several of the following subjects:

- USACE mission
- Land use classifications
- Pre and Post Contact History
- Natural history
- Project authorized purposes and public benefits

- Impacts of the Project (historical, cultural, ecological)
- Traditional and ongoing uses of the area by regional Tribes
- Recreation opportunities
- Wildlife and fish associated with Project lands and waters, and opportunities to use these resources passively and actively
- Water safety
- Caring for the environment
- Ongoing management activities
- Challenges and possible solutions

The Natural Resources Management staff continues to look for ways to educate and inform visitors on how they can help care for the resources and stay safe when visiting the project.

Figure 6-2: Rangers Promoting Water Safety

6.3. INVASIVE SPECIES

The issue of invasive species, while not new, has been a specific area of focus for USACE in the last 12 years. Compliance with USACE regulations and the Endangered Species Act led to the development of the District-wide IPMP, which was put into full effect in 2012. Approved pesticides, buffers from water, best management practices, and standardized pest management reporting were all presented in the comprehensive plan in 2012.

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

USACE worked with the National Marine Fisheries Service and USFWS to complete Endangered Species Act consultations on the Aquatic Pest Management Plan (the aquatic portion of the IPMP) beginning in 2009, with consultations finalizing in 2019.

The Lucky Peak Lake area has a dryer climate and consists mostly of a shrub-steppe type environment which directly guides efforts in controlling invasive species to protecting native grasses and xeric shrubs that support the local fauna. Noxious weeds that are most problematic are rush skeletonweed, whitetop, knapweed, and cheatgrass. USACE has also increased efforts in the prevention of the aquatic invasive species, including quagga mussels, from entering Project waters. With the help of local stakeholders, partners, and the public, there are efforts to increase methods of early detection and prevention with online portals for reporting and boat inspection stations.

Figure 6-3: Idaho's Clean, Drain, Dry Campaign

6.4. CROWDING

Lucky Peak Lake recreation facilities struggled to meet recreational demand 30 years ago as they still do today. In Boise's backyard, visitation to Lucky Peak Lake is mostly from Idaho's Treasure Valley. Due to the proximity of this large urban area, Lucky Peak Lake experiences significant use on both weekends and weekdays during the summer months

when full lake conditions and long summer days afford added leisure time outside of the core workday.

Between 1990 and 2010 the Boise-Nampa metropolitan area population doubled from 256,000 to 581,000. In 2023, this population approached 900,000. Since the late 1980s, when Barclay Bay and Turner Gulch launch areas were enlarged, tow vehicles and boats have also increased in size. Against these growing pressures, Lucky Peak Lake facilities have been challenged to adapt. Management tools have aimed at improving efficient use of available parking space through signage, adjusted parking lot striping, and placement of parking blocks to improve orderly use. In limited cases, road shoulders and other impacted areas have been enlarged and improved with the addition of level fill material to accommodate parking more safely along roadways and to provide additional areas. It is commonplace on hot summer weekends to see all parking facilities at Lucky Peak Lake exceeding design capacities with surplus visitors using every imaginable parking spot.

Project size and steep terrain are primary constraints to developing additional recreation facilities and improving parking capacity. Options are extremely limited and would be very expensive due to extensive earthmoving requirements. Robie Creek Park, Barclay Bay, Turner Gulch, and Lucky Peak State Park units experience regular crowding to the degree that normal and emergency traffic is threatened. Finally, the trade-off with increasing parking capacity must be considered as well – i.e., providing additional parking worsens boater density on an already crowded lake.

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

Figure 6-4: Overflow Parking on Spillway and Roadways

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

Figure 6-5: Race to Robie Event

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

Figure 6-6: A Busy Day at Lucky Peak State Park, Sandy Point Unit

6.5. MORRISON KNUDSEN FOOTE PARK CENTER

The Morrison Knudsen Foote Park Center, often referred to as "Foote Park", is a perfect example of a successful private and public partnership. The Foote Park Interpretive Center was built to improve the existing Foote Park site and as a grassroots effort to honor two individuals, Arthur De Wint and Mary Hallock Foote, who had important impacts on the physical and cultural developments of the American West, particularly in Idaho's Treasure Valley. Arthur was the original designer of the New York Canal System. Mary was a noted illustrator and author who wrote of her time in Boise in her book The Chosen Valley. This Center tells the story of the Footes' significant contributions and their vision of the Treasure Valley populated with thousands of prosperous families.

The Center was envisioned, researched, developed, managed, and built by its co-founders, Mary Ann Arnold and Dr. Janet Worthington, in collaboration with USACE. Funding was through the Capital Campaign conducted by the co-founders and the in-kind site work and development by USACE.

SPECIAL TOPICS, ISSUES, AND/OR CONSIDERATIONS

Figure 6-7: Foote Park Open House

As time continues to march on, USACE will continue to help educate visitors to the Lucky Peak Project on the cultural and natural history of the area. This will help provide valuable insights and assist in the protection of these valuable resources.

7. Agency and Public Coordination

This chapter provides information on the public involvement and extensive coordination within USACE and other affected agencies and organizations, which is a critical requirement in the development or revision of a project Master Plan.

7.1. SCOPING

A public scoping process for the Master Plan revision was initiated in April 2023. Letters and emails were sent to stakeholders (community groups, elected officials, government agencies, interested parties) inviting them to comment on 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, at Boise State University in Boise, Idaho. A stakeholder meeting was held on April 12, 2023, also at the Boise State University.

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.

The comments were separated into these general themes:

- Natural Resource Management: Comments under this theme discussed a desire to maintain wildlife resource management objectives and to work to control noxious weeds and invasive plants. To find ways to accommodate fishing on the lake and its shorelines to include accessibility for people with disabilities. Some comments showed high concern for the addition of new trails through natural areas and a desire to limit trail use during the winter season. Comments were received to continue a close partnership with IDFG to enhance the lands classified as Wildlife Management for the benefit of big game, especially in the areas under license to the IDFG.

- Land Designation: Comments under this theme are of the opinion that the land designation changes should be limited and coordinated with the IDFG and IDPR. Concerns for the expansion of trails was apparent as was the wish for additional trails and trail connections to other regional trail systems. Comments were made to limit additional or expanded recreational facilities to areas already classified for recreation and to also work to protect native plant species found in several locations.
- Recreational Uses: Comments under this theme pertain to the public's wish for improved or increased trails and paths and shoreline access. For boat launch ramp updates due to high use deterioration and improved beaches. Many comments were received for additional camping facilities. While others commented on the crowding issues due to recreational activities and to address parking needs. Comments to improve or expand the use of boat docks around the lake were also received. It was noted that recreational fishing is a challenge with the increase of recreational boating and requests for management techniques be used to alleviate this conflict. Further, comments were received about the need to enforce boating laws.

7.2. TRIBAL COORDINATION

In early April 2023, 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.

The rest of this section will be updated after the release of the public draft and any coordination with the Tribes.

7.3. AGENCY INVOLVEMENT AND COORDINATION

All development will be coordinated with appropriate Federal, State, and local agencies throughout the planning process. Because Lucky Peak Project lands are highly valued in the region as a corridor and winter habitat for mule deer and elk populations, and because the Project's waters serve as a highly valued fishery, a number of Federal and State agencies have taken part in the assessment and recommendations made herein.

7.4. THE U.S. ARMY CORPS OF ENGINEERS WEBSITE

USACE developed a webpage (*https://www.nww.usace.army.mil/Locations/District-Locks-and-Dams/Lucky-Peak-Dam-and-Lake/Lucky-Peak-Master-Plan/*) to provide information, updates, and collect comments for the Master Plan update. The draft Master Plan, draft FONSI and EA, and other draft Master Plan appendixes, with associated documents were placed on this webpage for the public to view. The final Master Plan, including all appendixes, is posted on this page and will remain available to the public.

7.5. THE DRAFT 2024 MASTER PLAN AND ENVIRONMENTAL ASSESSMENT

Comments received from review of the Draft Master Plan, Draft FONSI, and EA were summarized with comment responses and are included in the final FONSI (Appendix B of the final 2024 Master Plan). Approval of the Master Plan is indicated at the beginning of the Master Plan. The final, approved FONSI is in Appendix B.

8. Summary of Recommendations

This chapter provides the recommended land classifications for the updated Master Plan at a detailed level (by each management area) and includes a list of recommendations for recreation, natural resources, and public outreach.

8.1. GENERAL

This updated Master Plan presents an inventory of land resources and how they are classified, existing park facilities, analysis of resource use, anticipated influences of Project operation and management.

This Master Plan is a living document establishing the basic direction for management and development of the Project in agreement with the capabilities of the resource and public needs. The plan is flexible and allows for supplementation if changes are needed before the next Master Plan update. The Master Plan will be periodically reviewed to facilitate the evaluation and use of new information as it becomes available.

The Master Plan will guide the use, development, and management of the Project in a manner that optimizes public benefits within resource potentials and the authorized function of the Project while remaining consistent with USACE policies, regulations, and environmental operating principles.

8.2. RECOMMENDATIONS

8.2.1. Proposed Land Classification Changes

The proposed land classifications for the 2024 Master Plan are summarized in Table 8-1 below. Figure 8-1 provides a visual representation of the land classification changes between 1988 and 2024.

Table 8-1: Land Classification Changes from 1988 to 2024

LAND CLASSIFICATION	1988 ACRES	2024 ACRES
Not Classified	9	0
Project Operations	137	150
High Density Recreation	365	167

Environmentally Sensitive Area	0	641
MRM – Wildlife Management	2934	2937
MRM – Low Density Recreation	713	196
TOTAL	4158	4091

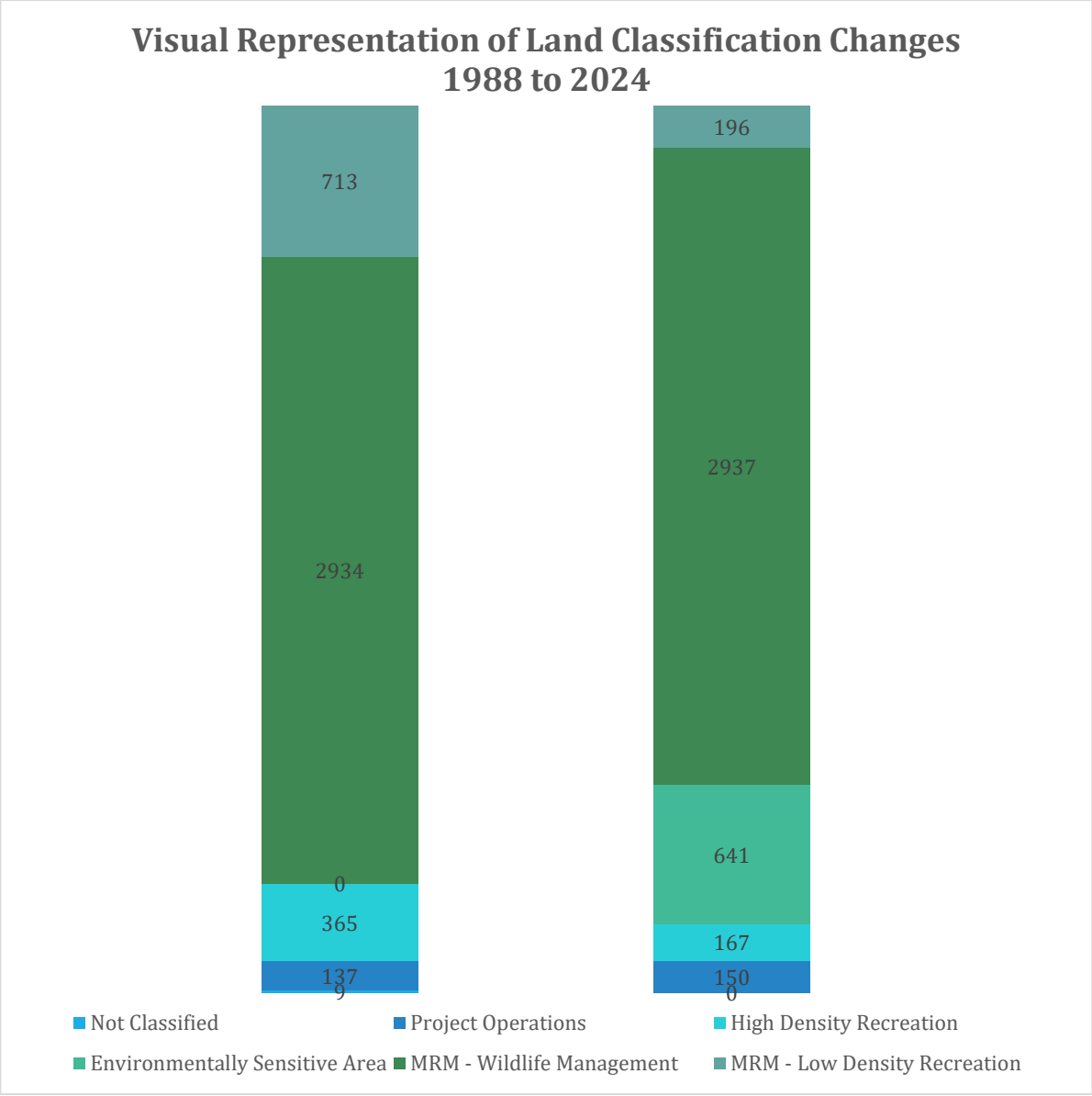


Figure 8-1: Visual Representation of Land Classification Changes, 1988 to 2024

8.2.2. Recreation Recommendations

The following recreation recommendations have been identified:

- Conduct regular surveys, counts, and other methods to collect data and monitor trends to determine user capacity and environmental sustainability.
- Continue to look for ways to address crowding concerns in high impact areas in collaboration with local and state partners.
- Continue to explore and integrate energy saving management options.
- Improve visitor information through updating interpretive panels and kiosks, and updating website information using innovative technology (e.g., virtual tours).
- As funding becomes available, continue to improve, while limiting expansion, existing recreation areas and access points according to public demand in parks, while also planning appropriately for high visitation periods.
- Improve on cooperative and collaborative relationships with local, state, and federal partners in the operation and maintenance of recreation facilities throughout the Project footprint.

8.2.3. Natural Resource Recommendations

The following natural resource recommendations have been identified:

- Invasive plant species can significantly degrade aquatic and wildlife habitat, increase soil erosion, and outcompete native species that fish and wildlife depend upon. Species should be controlled using methods provided in the IPMP.
- Continue to enhance riparian and upland biodiversity through vegetation enhancement projects that focus on planting native trees, shrubs, and groundcovers.
- Persist in addressing encroachments in accordance with the guidance in the District Encroachment Action Handbook. It is USACE policy to use the minimum level of recourses necessary to gain voluntary compliance and achieve resolution of encroachments, and to employ the most efficient and cost-effective means of resolving encroachments.

- Pursue funding for boundary surveys. Well documented boundaries are essential to the effort of addressing encroachments on federal land.
- Maintain a collaborative relationship with IDFG and seek partnership opportunities for wildlife habitat protection and enhancement on Project lands.
- Continue providing public access to federal lands for hunting, fishing, hiking, bird watching, and other nature-related activities.

8.2.4. Education, Information, and Public Safety Recommendations

The following education, information, and public safety recommendations have been identified:

- Use social media and other means of communication so users can access information that is pertinent to the Project (e.g., trail closures, hunting season, current conditions, special events). Keep up to date on emerging communication methods.
- Continue to seek opportunities to partner with regional Tribes, local youth organizations, volunteers, and other organizations to provide educational and interpretive signs, activities, and programming.
- Add educational and interpretive information to kiosks in key locations.
- Pursue public outreach opportunities such as county fairs, outdoor shows, and other events to educate the public on recreation, hunting, and fishing opportunities available on USACE lands.
- Visitor safety and facility security are of the highest priority in USACE parks. Project staff will continue to provide visitor assistance patrols and work with local law enforcement partners to help manage a variety of challenging issues associated with a growing adjacent population. Additional security measures that may be taken include increased contracting with local law enforcement for additional patrols, installing gates on parks to control access during periods of darkness, placing security cameras in high incident areas, or other appropriate methods as determined by Project management.
- Continue to use social media and kiosks to post relevant visitor safety information ("Know Before You Go"), such as warnings to avoid rattlesnakes, to bring plenty of

water, sunscreen, and bug protection, and to let people know of their whereabouts. Many of the parks and wildlife units in this Project are isolated with poor cell phone coverage so it is very important that visitors are prepared.

8.3. FUTURE DEMANDS

Recommendations in this Master Plan reflect current inventory data, recreation trends, and forecasts. As technology and public demand change and new recreational opportunities arise, USACE staff will investigate the feasibility of new activities and evaluate proposed changes and additions to this Master Plan for potential conflicts, opportunities, and environmental impacts.

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APPENDICES

Appendices

APPENDIX A: Lucky Peak Master Plan EA

APPENDIX B: Lucky Peak Master Plan FONSI

APPENDIX C: Legislative History

APPENDIX D: Design Memoranda

APPENDIX E: Land Classification Maps