

DRAFT

ENVIRONMENTAL ASSESSMENT

Flathead Lake Dynamic Gravel Beach Shoreline Erosion Protection Proposal (FWP-SEA-POR-R1-24-038)

February 12, 2025



Table of Contents

I. Compliance with the Montana Environmental Policy Act.....	3
II. Background and Description of Proposed Project	4
III. General Setting of the Affected Environment.....	12
IV. Purpose and Need, Benefits of Proposed Project	16
V. Other Agency Regulatory Responsibilities	17
VI. List of Mitigations, Stipulations	17
VII. Alternatives Considered.....	18
VIII. Terms Used to Describe Potential Impacts on the Physical Environment and Human Population	19
IX. Determining the Significance of Impacts.....	20
X. Cumulative Impacts Analysis	21
XI. Alternative 1: No Action. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population	23
XII. Alternative 2: Proposed Project. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population	23
XIII. Alternative 3: NAME OF ALTERNATIVE 3 HERE. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population	Error! Bookmark not defined.
XIV. Alternative 4: NAME OF ALTERNATIVE 4 HERE. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population	Error! Bookmark not defined.
XV. Private Property Impact Analysis (Takings).....	48
XVI. Public Participation	49
XVII. Recommendation for Further Environmental Analysis	50
XVIII. EA Preparation and Review	50

Environmental Assessment

The Montana Department of Fish, Wildlife and Parks (FWP) has prepared this Draft Environmental Assessment (EA) in accordance with the requirements of the Montana Environmental Policy Act (MEPA). Title 75, Parts 1-3, Montana Code Annotated (MCA). The purpose of an EA is to identify, analyze, and disclose the impacts of a proposed state action. This document may disclose impacts that have no required mitigation measures, or over which FWP, more broadly, has no regulatory authority.

Local governments, the federal government, and other state agencies may have authority over different resources and activities under separate regulations. FWP actions will only be approved if the proposed action complies with applicable regulations. FWP has a separate obligation to comply with any federal, state, or local laws and to obtain any other permits, licenses, or approvals required for any part of the proposed action.

This Draft EA was prepared for the following action:

PROJECT NAME: Dynamic Gravel Beach Shoreline Erosion Protection Proposal	
LOCATION: FWP Properties on Flathead Lake	COUNTY: Flathead and Lake
PROPERTY OWNERSHIP: <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> PRIVATE	
EA PREPARER: Amy Grout	DATE ISSUED:

I. Compliance with the Montana Environmental Policy Act

Before a proposed *project* may be approved, environmental review must be conducted to identify and consider potential impacts of the proposed project on the affected human environment (i.e., human population and physical environment affected by the project). The Montana Environmental Policy Act (MEPA) and its implementing rules and regulations require different levels of environmental review, depending on the proposed project, significance of potential impacts, and the review timeline. § 75-1-201, Montana Code Annotated (“MCA”), and the Administrative Rules of Montana (“ARM”) 12.2.430, General Requirements of the Environmental Review Process.

FWP must prepare an EA when:

- It is considering a “state-proposed project,” which is defined in § 75-1-220(8)(a) as:
 - (i) a project, program, or activity initiated and directly undertaken by a state agency;
 - (ii) ... a project or activity supported through a contract, grant, subsidy, loan, or other form of funding assistance from a state agency, either singly or in combination with one or more other state agencies; or
 - (iii) ... a project or activity authorized by a state agency acting in a land management capacity for a lease, easement, license, or other authorization to act.
- It is not clear without preparation of an EA whether the proposed project is a major one significantly affecting the quality of the human environment. ARM 12.2.430(3)(a));
- FWP has not otherwise implemented the interdisciplinary analysis and public review purposes listed in ARM 12.2.430(2) (a) and (d) through a similar planning and decision-making process (ARM 12.2.430(3)(b));
- Statutory requirements do not allow sufficient time for the FWP to prepare an EIS (ARM 12.2.430(3)(c));
- The project is not specifically excluded from MEPA review according to § 75-1-220(8)(b) or ARM 12.2.430(5); or
- As an alternative to preparing an EIS, prepare an EA whenever the project is one that might normally require an EIS, but effects which might otherwise be deemed significant appear to be mitigable below the level of significance through design, or enforceable controls or stipulations or both imposed by the agency

or other government agencies. For an EA to suffice in this instance, the agency must determine that all the impacts of the proposed project have been accurately identified, that they will be mitigated below the level of significance, and that no significant impact is likely to occur. The agency may not consider compensation for purposes of determining that impacts have been mitigated below the level of significance (ARM 12.2.430(4)).

MEPA is procedural; its intent is to ensure that impacts to the environment associated with a proposed project are fully considered and the public is informed of potential impacts resulting from the project.

II. Background and Description of Proposed Project

This section includes a short description of the proposed project including applicable background, the responsible party, the type of proposed action and the anticipated schedule of the proposed project.

Name of Project: Programmatic Flathead Lake Dynamic Gravel Beach Shoreline Protection Proposal

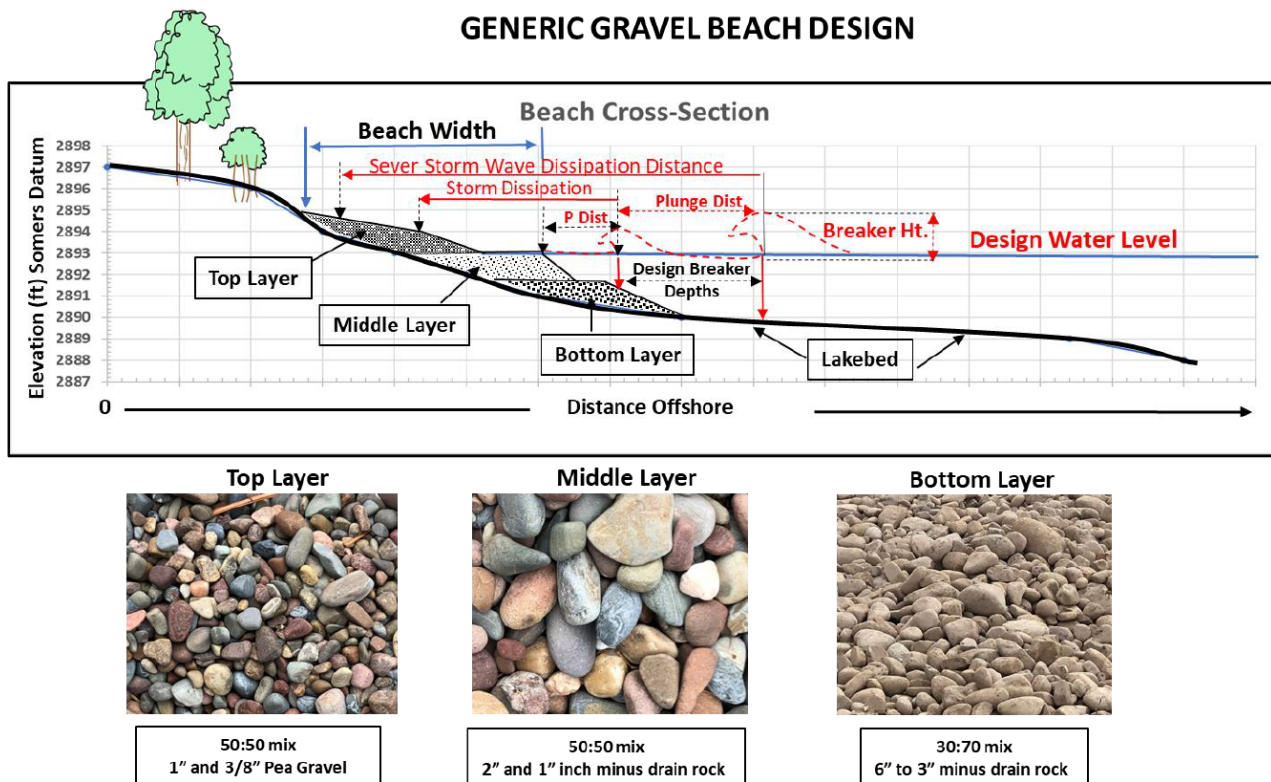
Flathead Lake, located in northwest Montana, is the largest, by surface area, natural freshwater lake west of the Mississippi River in the contiguous US and is the 79th largest natural freshwater lake in the world. It is also one of the cleanest lakes in the world, having a residence time (time it takes to completely replace the water in the lake) of only 2.2 years. The Seli's Ksanka Qlispe' Dam located near Polson, Montana at the natural lake outflow was completed in 1938. This raised the lake by 10 feet above its natural level. The lake level is typically kept at or near full pool June through August for summer recreation. When wind events occur during full pool, wave action can cause erosion of the lakeshore.

Riprap and seawalls are the traditional approach used to combat wave erosion. Unfortunately, that approach eliminates recreational opportunities that a natural gravel beach affords. Moreover, trying to walk across to go for a swim and return becomes a dangerous venture by increasing the risk of slips and falls. During storms these traditional structures, while protecting the land behind them, create new or exasperate existing shoreline erosion problems on the structure ends through a process called end-scouring. Affected neighbors often respond by building seawalls and riprap resulting in a domino effect of passing the erosion problem down the shoreline and further hardening the shoreline. In addition, these structures cause increased erosion and armoring of the lakebed fronting the structures which has negative effects on the nearshore ecology of the lake. (Fig. 1) (Lorang 2023)



Figure 1. This photograph of storm waves at Yellow Bay State Park shows that seawalls deflect wave energy.

Under the proposed alternative, FWP would repair any current and future eroding shorelines on FWP property on Flathead Lake utilizing a dynamic gravel beach design as funding permits. A dynamic gravel beach, as pictured in Fig. 2, utilizes local cobble of varying sizes to stabilize the shoreline, while absorbing wave action through the movement of smaller top cobble. FWP has completed three previous dynamic gravel beaches to date at the Finley Point and Yellow Bay Units of Flathead Lake State Park, and Somers Beach State Park. All three projects have been successful at preventing further shoreline erosion, developing a more natural shoreline; and providing recreation lakeshore opportunities.



Shoreline protection structures have been permitted and used as an accepted approach to the problem of shoreline erosion on Flathead Lake since 1989, when the first perched-gravel beach was built in the lake (Lorang 1991). These shorelines are now dynamically stable and undergoing a natural restoration process as new aquatic and riparian vegetation recolonize the area associated with the beaches. In this sense, development of a dynamic gravel beach, as proposed, constitutes a living shoreline solution to the erosion problem.

The Confederated Salish and Kootenai Tribes (CSKT) have also adopted this approach to deal with their shoreline erosion problems at Salish Point, located in Polson and along the Blue Bay campground shoreline (Lorang 2003 and 2006b). Now, both projects are popular public recreational beaches that also serve the purpose of providing a natural landscape (beach) transition from the lake environment to the terrestrial or wetland fringing shoreline (Fig. 3).



Figure 3. A September 2018 photograph looking north over the gravel beach fronting the CSKT campground at Blue Bay (right photo). This beach was constructed in 2007 and has functioned as a shore protection structure for over a decade now. It currently exists in a state of dynamic equilibrium where it adjusts and shifts in profile to summer storm waves while at the same time not washing away. It does this because wave action pushes gravel up the beach face forming a crest rather than washing it offshore (Lorang 2000, 2002). The waterline shows the height to which wave swash runs up the beach face. Before 2007 this shoreline was eroding with the lake level extending all the way to the vegetation line seen here at the top of the gravel beach (left photo). (Lorang 2023)

To date, approximately 3.54 miles of eroding shoreline on Flathead Lake has been stabilized by building gravel beaches. Dynamic gravel beaches have been built on the following public lands to date: CSKT lands – Blue Bay Campground; USFWS lands – North Shore Wildlife Management Area; Polson City Parks – Salish Point Park; Flathead County Parks and Recreation – Volunteer Park, Lakeside; FWP – Finley Point and Yellow Bay Units of Flathead Lake State Park, Somers Beach State Park; Flathead Lake Biological Station – Yellow Bay Demo Beach.

FWP properties on Flathead Lake are categorized into the following types which each have different management purposes: state park, fishing access site, fisheries conservation area, fish hatchery, wildlife habitat protection area.

State parks are more developed lands that can provide a high level of amenities and recreational opportunities. Big Arm, Finley Point, Wayfarers, West Shore, Wild Horse Island, and Yellow Bay are all units of Flathead Lake State Park. Somers Beach State Park also fits into this category.

In 2012, a dynamic gravel beach was installed on the south shoreline of the Finley Point Unit of Flathead Lake State Park. The north shoreline is an existing sea wall that may have the potential to be converted to a dynamic gravel beach. In winter 2021/22 and winter 2023/24, dynamic gravel beaches were installed at Somers Beach State Park protecting the entire shoreline from erosion. In 2024, a dynamic gravel beach was also installed at the Yellow Bay Unit of Flathead Lake State Park. (Fig. 4) The only portion of shoreline that was not completed, had an existing gravel beach that is protecting the shore from erosion.



Figure 4: The left picture is of Yellow Bay State Park near full pool prior to dynamic gravel beach installation. The right photo is of the same site near full pool after the dynamic gravel beach was installed.

The Big Arm Unit of Flathead Lake State Park has a mostly riprap shoreline. The intensity of the riprap depends on the erosion that was occurring at the time of installation, so it does vary greatly from the day use area to the campground. Sections of the shoreline are eroding; however, wave action and resulting erosion are not as intense at this location. FWP would prefer a recreational dynamic gravel beach along high use areas of this shoreline.

The Wayfarers Unit of Flathead Lake State Park would benefit from a dynamic gravel beach east of the boat ramp as wave action routinely erodes the shoreline around a small amount of riprap that exists. The small bay is shallow and does have a gravel spit that could be utilized in a future dynamic beach. This is also a very popular swimming area, so a wider recreation gravel beach would be preferred.

The West Shore Unit of Flathead Lake State Park has a mostly riprap shoreline with some areas of rock cliffs to the north. The popular shoreline from the day use area north to T1 campsite would be an ideal location to replace the riprap with a recreational dynamic gravel beach.

The Wild Horse Island Unit of Flathead Lake State Park is a challenging site. There are sections of shoreline that are eroding; however, past measurements revealed that the rate of erosion was not high. Typically, adjacent sections of shoreline do have cobble that is sometimes deposited in eroding sections depending on wave direction. If sections of the shoreline had increased rates of erosion, FWP would consider installing a dynamic gravel beach if funding was available and mobilization of equipment and materials was possible. This would be exceedingly difficult.

Fishing Access Sites (FAS) are typically less developed, but still provide recreational opportunities. These Flathead Lake sites include Bigfork, Ducharme, Walstad, Woods Bay, Somers, and soon to be developed, Conclow FAS.

Bigfork FAS is a small site in Bigfork Bay. The site does not get much wave action as it is protected by a narrow bay open under the Highway 35 bridge. At this time, there is no need for erosion control, but it would be considered in the future if erosion started occurring.

Ducharme FAS is located east of Polson on the marshy, shallow end of Polson Bay. If a project was deemed necessary in the future, it would likely be a modified beach with woody debris, much like the USFWS North Shore Waterfowl Production Area, as this site is not optimal for swimming and other shore recreation.

Walstad FAS, located south of Big Arm on the west side of Flathead Lake, has a gravel shoreline that is used by recreationists. Currently the shoreline is not showing much sign of erosion. If needed in the future, this would be an ideal location for a dynamic gravel beach.

Woods Bay FAS, on the east shore, does receive a lot of wave action from prevailing west/southwest winds. Therefore, it does have some significant sections of erosion occurring. Past attempts at erosion control are evident with riprap in sections along the shore (Fig. 5). This site is also heavily used by recreationists for shoreline recreation. The shoreline south of the boat launch has very little elevation difference from the low water mark to below the high-water mark; therefore, waves tend to hit farther inland thus causing erosion. North of the boat launch, the elevation difference is higher, and wave action has created 4-foot eroded cut banks in some areas. This site is very similar to the erosion that was occurring at the Yellow Bay Unit of Flathead Lake State Park. The likely solution, given the higher recreational activities occurring at the site, is the installation of recreational dynamic gravel beach.



Figure 5: Current erosion occurring at Woods Bay FAS. Left photo is north of the boat ramp and right photo is south of the boat ramp.

Somers FAS is an extremely high use FAS, with primary use of boating and swimming. The last three-year average is 53,809 vehicles per year. The site currently has a sea wall west from the boat launch to goes all the way to the property line. If a dynamic gravel beach were installed, it would likely mimic the Finley Point Unit of Flathead Lake State Park, where the sea wall was left in place and the dynamic beach extended beyond that into the lake.

Conclow FAS, located between Rollins and Dayton on the west side, is scheduled for development in 2025. The lake is shallow and there is not much elevation difference on land. It already has a nature gravel beach which does help to mitigate wave action. At some point, this beach might need to be enhanced to ensure that erosion doesn't occur in the future. This is expected to be a popular site for boaters and shoreline recreationists.

The only current FWP fish hatchery on Flathead Lake is the Flathead Lake Salmon Hatchery located in Somers. Fish hatcheries do not typically provide recreational opportunities as their main goal is to produce and stock fish. This does not mean that FWP may consider converting the current riprap shore to a dynamic gravel beach in the future, as funding permits, to provide a more natural shoreline.

Fisheries Conservation Areas (FCA) are limited on Flathead Lake, and the only current site is Osprey View located adjacent to the USFWS property on the eastside of the Flathead River delta. The purpose of FCAs is to conserve fisheries habitat. Therefore, since eroding shorelines can threaten that habitat, the Osprey View FCA could benefit from a dynamic beach. The bulk of the area is sandy rather than cobble, therefore a dynamic beach on this parcel would more closely resemble the adjacent USFWS North Shore Waterfowl Production Area dynamic beach.

Wildlife Habitat Protection Areas (WHPA) are mostly focused on conserving wildlife habitat. WHPAs on Flathead Lake include Bird, Cedar, Douglas, and Goose Islands, and Zelezny Bay. A primary goal of most of the WHPAs on Flathead Lake is to conserve Canada goose habitat. Therefore, dynamic gravel beaches protect habitat by preventing the loss of shoreline habitat. Additionally, unmanaged recreation can disrupt habitat, so the installation of dynamic beaches could focus recreational use in areas that will properly conserve wildlife habitat. Most of these islands currently have either bedrock sections that deflect or gravel beaches which absorb wave action; however, there are a few sections that are slowly eroding and/or have the potential for shoreline erosion. As most WHPAs on Flathead Lake are islands, installation of dynamic gravel beaches may be cost prohibitive; however, if erosion were occurring, a dynamic gravel beach would be the preferred solution if possible.

As funding is acquired, FWP will install dynamic gravel beaches on properties that rank as a higher priority first. Ranking will be based on the existing shoreline erosion, the rate of current shoreline erosion, current condition of the adjacent riparian vegetation, operational goals of the property based on site type, demand on the site by recreational use, and additional damage that may be occurring because of high visitor use. Since conditions will change as more wind/wave events occur, these rankings will be done when new funding is secured. FWP has secured funding for a portion of the Woods Bay property which currently ranks as the highest priority. This project will proceed only if this proposal is approved.

The result of the proposed action(s) would be a shift from a net erosion dominated system to a net depositional system. The landscape would be composed of complex curved shorelines rather than conventional riprap. More specifically, the proposed action would facilitate the following:

Shoreline Erosion Prevention

The proposed dynamic gravel beaches would stop erosion occurring at FWP sites, thus halting the loss of vegetation and property, and in turn would reduce water turbidity during storm events that erode the soil bank.

Riparian Area Preservation

The proposed dynamic gravel beaches would ensure a healthy riparian area exists between the lake and the adjacent vegetative areas. Dynamic gravel beaches promote the growth of riparian species thereby partially reclaiming previously lost vegetative areas.

Visitor Experience

The proposed dynamic gravel beaches would be built wide enough, were appropriate, to accommodate recreational activities like swimming and sunbathing, without impacting adjacent vegetative areas. Dynamic gravel beaches provide a safe, comfortable recreation space that is in high demand on Flathead Lake.

Aesthetics

The proposed dynamic gravel beach would result in a more aesthetically pleasing and attractive shoreline. It would also represent a more natural shoreline, which existed on Flathead Lake prior to the control of lake level. The proposed dynamic gravel beach would change naturally through the movement of the gravel as it absorbs wave energy.

The best time to construct the proposed beaches would be during Flathead Lake's low pool, which historically occurs in March and April. Available funding will ultimately determine what year each potential project would occur.

Affected Area / Location of Proposed Project

- Legal Description
 - Latitude/Longitude: 47 degrees 54.6689'N / 114 degrees 6.7592'W
 - Section, Township, and Range: 27N 19-21W; 26N 19-20W; 25N 19-20W; 24N 19-21W; 23N 19-20W; 22N 19-20W
 - Town/City, County, Montana: Polson, Lake County, Montana; Lakeside, Lake County, Montana; Bigfork, Flathead County, Montana
- Location Map

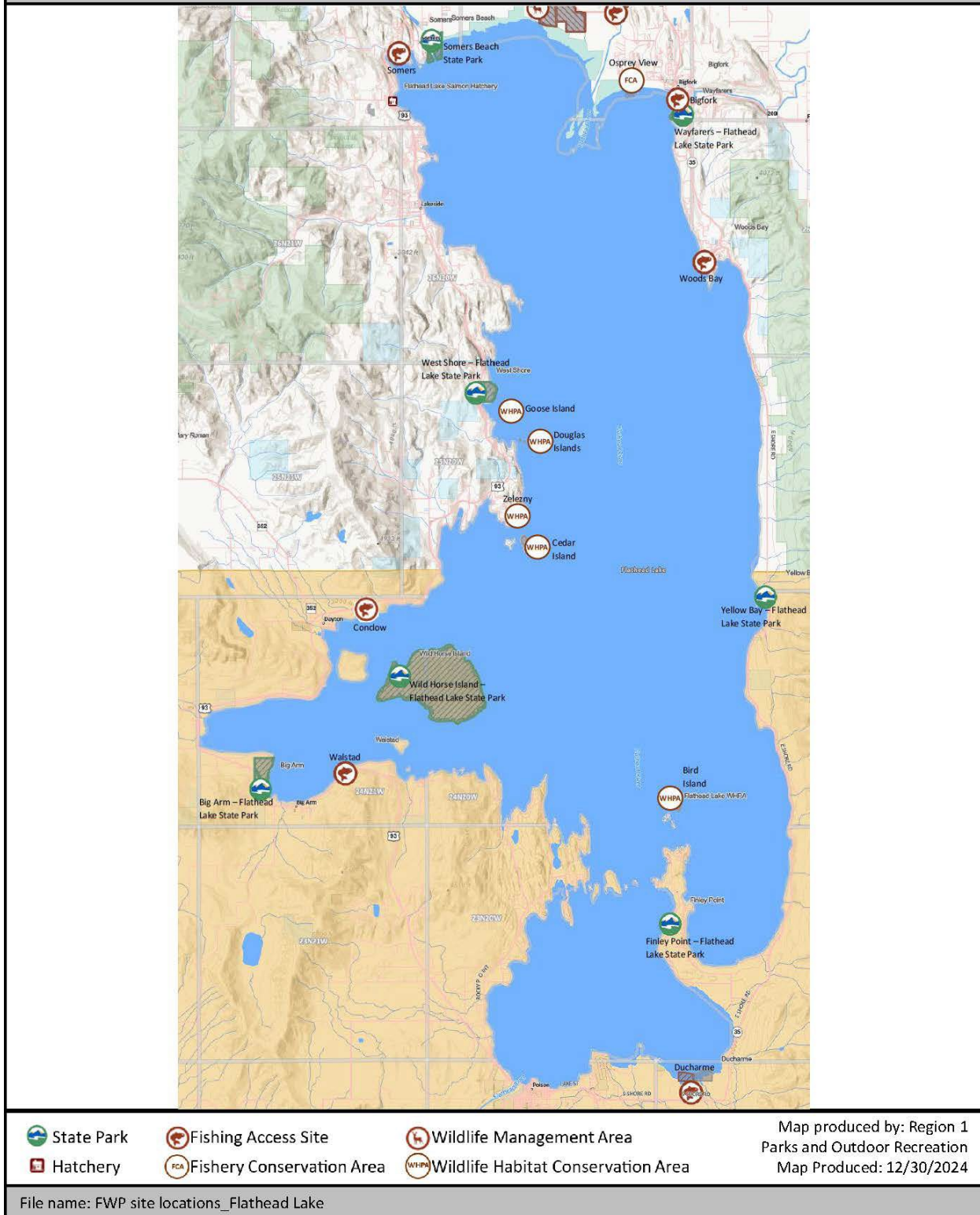


Figure 6. Location map of FWP properties on Flathead Lake

III. General Setting of the Affected Environment

The analysis area for direct, secondary, and cumulative impacts on the physical environment and human population resources analyzed by this Draft EA includes Flathead Lake and more broadly Flathead and Lake Counties. Flathead County covers approximately 5,256 square miles (13,610 km²), of which 5,088 square miles (13,180 km²) is land and 169 square miles (440 km²) (3.2%) is water. (Wikipedia, Flathead County, MT). Lake County covers approximately 1,654 square miles (4,280 km²), of which ~ 1490 square miles (~ 3,900 km²) is land and 164 square miles (420 km²) (9.9%) is water with the largest water body, being Flathead Lake. (Wikipedia, Lake County, MT). There are currently a total of five mainland Flathead Lake State Park Units: Big Arm, Finley Point, Wayfarers, West Shore, and Yellow Bay, and one island unit: Wild Horse Island, of Flathead Lake State Park. In addition, Somers Beach State Park is on the north shore of Flathead Lake. There are also currently five fishing access sites on Flathead Lake: Bigfork, Ducharme, Somers, Walstad, and Woods Bay, and one fishing access site: Conclow, which is scheduled for development in 2025. Additionally, FWP manages other various lands on Flathead Lake including Flathead Lake Salmon Hatchery; Wildlife Habitat Protection Areas- Bird Island, Cedar Island, Douglas Islands, Goose Island, and Zelezny; and the Osprey View Fisheries Conservation Area. The south half of Flathead Lake, beginning just north of the Yellow Bay Unit of Flathead Lake State Park, lies within the exterior boundaries of the Flathead Indian Reservation.

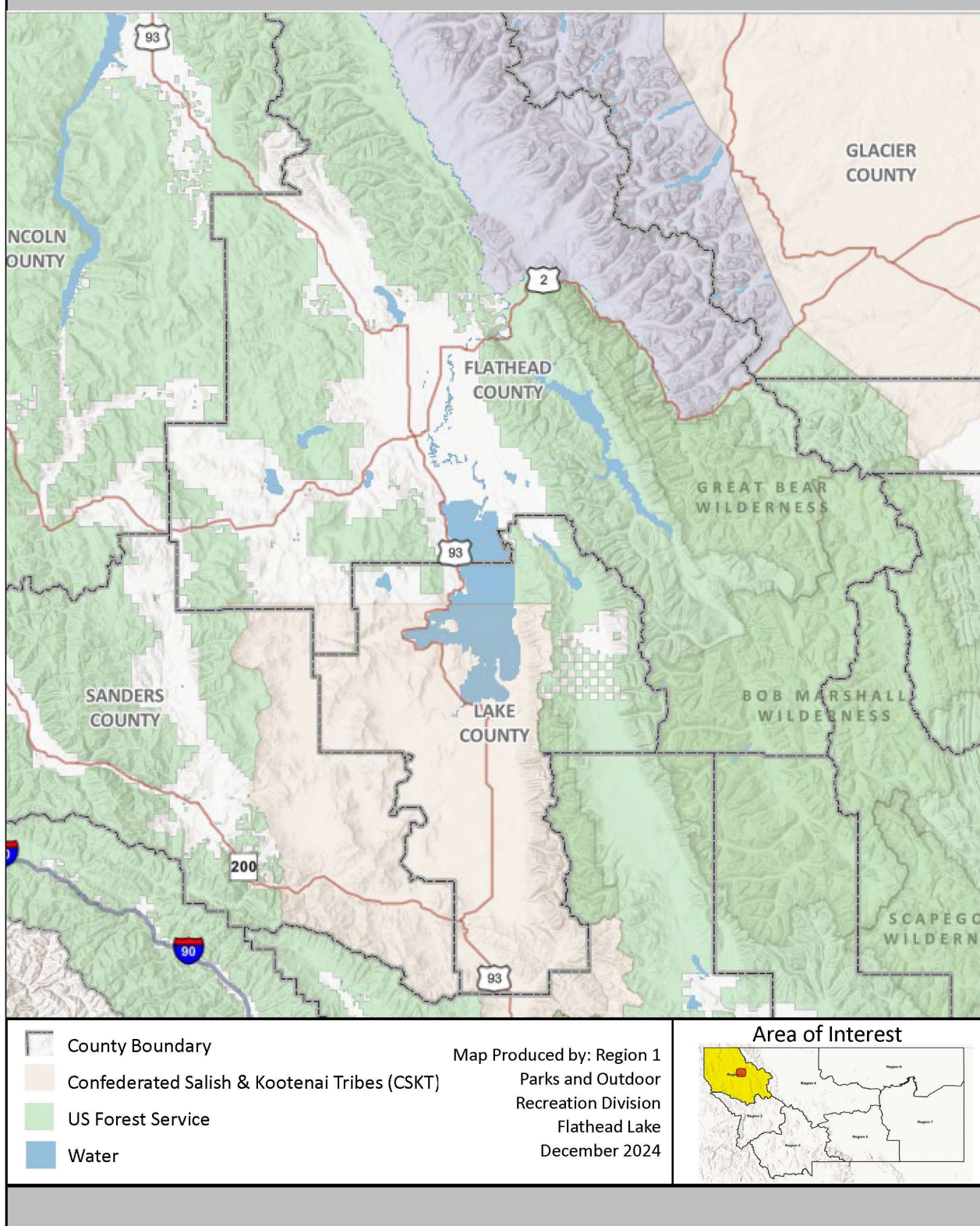


Figure 7. Lake County and Flathead Indian Reservation Boundaries.

Physical Environment

Flathead and Lake Counties, like most counties in western Montana, is characterized by river valleys divided by rugged mountain ranges. Major drainages include the Swan River and the Flathead River, which has 3 forks that combine to form the main stem of the Flathead River. These rivers together mostly form Flathead Lake. The Flathead River then exits Flathead Lake near Polson, MT and ultimately flows into the Clark Fork River. A multitude of smaller drainages characterized as creeks are also present. Lower elevation habitats (below 6,000 ft., 1,829 m) vary greatly and include large areas of shortgrass/sagebrush prairie, mountain foothills, intensively cultivated areas (grain and hay field agriculture), natural wetlands/lakes, riparian plant communities ranging from narrow stream bank zones to extensive cottonwood river bottoms, man-made reservoirs, and small communities to moderately sized towns.

The mountainous portion of Flathead and Lake Counties (above 6,000 ft., 1,829 m) contain all, or portions of, seven mountain ranges including the Flathead Range, Lewis and Clark Range, Mission Range, Salish Mountains, Swan Range, Rattlesnake Mountains, Whitefish Range. Mountainous habitats are dominated by coniferous forest (Douglas fir, lodgepole pine, Engelman spruce, western cedar, hemlock, white bark pine, limber pine, ponderosa pine, juniper), and rocky sub-alpine/alpine communities found above timberline.

Fifteen species of mammals, four species of fish, three species of reptile, and two species of amphibians, 14 species of invertebrates, and 60 species of plants have been documented as species of concern in and around Flathead Lake.¹ The species of mammals and birds that are listed as species of concern have been observed around Flathead Lake and are listed in section XII. A. 8 of this impacts analysis. Numerous avian species occur routinely or sporadically in the vicinity of Flathead Lake, including 46 species of concern, as highlighted in section XII. A. 8, *Unique, Endangered, Fragile or Limited Environmental Resources*, of this impacts analysis.

Human Population:

As of 2023, an estimated 1,132,812 people lived in Montana of which an estimated 113,679 resided in Flathead County and 33,338 resided in Lake County. The 2023 population estimate for Flathead County reflects a greater than 1.6% annual growth rate and a 1.5% annual growth rate for Lake County since 2022, which surpasses the statewide growth rate of 0.9% for the same period (Montana.gov; People and Housing, <https://ceic.mt.gov/People-and-Housing/Population>).

Over two-thirds of Lake County's land lies within the Flathead Indian Reservation; therefore, the human population of Lake County includes a large percentage of Native Americans. The demographic make-up of Lake County is identified in Table 1 below.

Race	Percent of Total Population (%)
White	64.1
Native American	22.9
Black	0.5
Hispanic	4.5
Asian	0.8
Other	7.2

¹ Montana Natural Heritage Program – Montana Field Guide.

Table 1: Lake County Demographics

In contrast, Flathead County which is outside of the Flathead Indian Reservation has a lower percentage of Native Americans. The demographics of Flathead County is details in the Table 2.

Race	Percent of Total Population (%)
White	90.5
Native American	1.3
Black	0.4
Hispanic	3.9
Asian	1.1
Other	2.8

Table 2: Flathead County Demographics

Economics:

In 2022, the median household income in the United States was \$74,755. In Montana, median per household income was somewhat lower, at \$67,915. The poverty rate and median household income for the affected counties is detailed in Table 3. (Montana.gov; Income and Poverty; <https://ceic.mt.gov>)

County	Median Household Income	Poverty Rate (%)
Flathead	\$66,395	10.8
Lake	\$57,225	18.2

Table 3: Flathead and Lake Counties Median Household Income and Poverty Rate

Land Ownership:

Tables 4-5 below summarizes land ownership in each county affected by the proposed project.

Flathead County Land Ownership	Acres	% of Affected Land
Private or Other	1143	24.9
Federal Lands	3737	71.1
State Lands	208	4.0

Table 4: Land Ownership in Flathead County

Lake County Land Ownership	Square Miles	% of Affected Land
Private or Other	68	4.1
Tribal Lands	1124	68.0
Federal Lands	361	21.8
State Lands	102	6.1

Table 5: Land Ownership in Lake County

Agriculture:

Montana supports a large agricultural economy and Flathead and Lake Counties are no different. In 2017, there were an estimated 27,048 farms and ranches across Montana. The most common agricultural activities of these farms and ranches include raising beef cattle, growing forage (hay) for cattle, and growing grain crops (wheat, oats, barley). Sheep, hogs, and dairy cattle were also raised in smaller numbers.

Timber/Wood Products:

Most of Montana's forested lands (23 million acres) are located within the western part of the state. Nearly four million acres of these forest lands are permanently reserved as either wilderness areas or national parks. Eleven million acres of the remaining forested land is administered by the USFS, with 5.2 million acres of this public estate designated by current forest plans as suitable for timber production. Private forest lands occupy approximately 6 million acres, with 2 million owned and managed by large timber companies. Another four million acres of private forest lands are owned by some 11,000-plus individuals. Timber production across Montana has declined since the late 1980s (http://www.bber.umt.edu/fir/s_mt.asp). In 1988, an estimated 1,163 million board feet (MMBF) were produced state-wide; this declined to approximately 352 MMBF in 2009, before recovering slightly to 367 MMBF in 2018.

Mining:

Large mineral deposits, ranging from talc to gold, are located throughout western Montana. Of these, metallic minerals provide the largest share of Montana's non-fuel mining income, with copper, palladium, and platinum leading the list of important metals (these latter two being mined nowhere else in the United States). In 2012, there were a total of 53 mines in production, development, standby permitting, or reclamation status, all but seven of which were located within the western half of the state.

Recreation:

Outdoor recreation and tourism are major components of Montana's economy, particularly in the mountainous western part of the state. Western Montana is nationally renowned for its high-quality fishing, hunting, camping, hiking, river floating, skiing, snowmobiling, wildlife viewing, and sightseeing opportunities. Many of these outdoor activities are made possible by public ownership of large tracts of land and public access provided by land management agencies and private landowners.

IV. Purpose and Need, Benefits of Proposed Project

The EA must include a description of the purpose and need or benefits of the proposed project. ARM 12.2.432(3)(b). Benefits of the proposed project refer to benefits to the resource, public, department, state, and/or other.

Under the proposed action, FWP would strive to build dynamic gravel beaches at all FWP properties, as funding permitted, on Flathead Lake. The purpose of the proposed project is to:

- Stop the loss of existing shoreline and vegetation due to wave erosion.
- Provide a natural transition from the aquatic environment along the shoreline to the adjacent vegetative areas.
- Improve recreational opportunities along the shore of Flathead Lake.

The intended result of building the dynamic gravel beach would be a shift from a net erosion dominated system to a net depositional system. The landscape would be composed of complex curved shorelines rather than conventional riprap.

If FWP prepared a cost/benefit analysis before completion of the EA, the EA must contain the cost/benefit analysis or a reference to it. ARM 12.2.432(3)(b).

	Yes*	No
Was a cost/benefit analysis prepared for the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* If yes, a copy of the cost/benefit analysis prepared for the proposed project is included in Attachment A to this Draft EA

V. Other Agency Regulatory Responsibilities

FWP must list any federal, state, and/or local agencies that have overlapping or additional jurisdiction, or environmental review responsibility for the proposed project, as well as permits, licenses, and other required authorizations. ARM 12.2.432(3)(c).

A list of other required local, state, and federal approvals, such as permits, certificates, and/or licenses from affected agencies is included in **Table 2** below. This information is also provided in *Section X, Cumulative Impacts Analysis*, as applicable, for any related past, present, and known future actions as they relate to the proposed action.

Table 2 provides a summary of state requirements but does not necessarily represent a complete and comprehensive list of all permits, certificates, or approvals needed. Rather, **Table 2** lists the primary state agencies with regulatory responsibilities, the applicable regulation(s) and the purpose of the regulation(s). Agency decision-making is governed by state and federal laws, including statutes, rules, and regulations, that form the legal basis for the conditions the proposed project must meet to obtain necessary permits, certificates, licenses, or other approvals. Further, these laws set forth the conditions under which each agency could deny the necessary approvals.

Table 2: Federal, State, and/or Local Regulatory Responsibilities

Agency	Type of Authorization (permit, license, stipulation, other)	Purpose
U.S. Army Corp of Engineers	Section 404 Permit	Permit authorizing the owner to dredge or fill material into Waters of the US.
	Section 10 Permit	Permit authorizing the owner to construct any structure in or over navigable water bodies in the US.
Local Floodplain Administrator	Floodplain Permit	Permit authorizing the property owner to construct within the floodplain.
Confederated Salish and Kootenai Tribes	64-A Revised	Permit authorizing the property owner to conduct activity within the lakeshore area generally along the south half of Flathead Lake.
	Clean Water Act: 401 Certification Request from the Tribal Water Quality Office	Permit authorizing the property owner to conduct activity that may result in any discharge into water of the US.

VI. List of Mitigations, Stipulations

Mitigations, stipulations, and other *enforceable* controls required by FWP, or another agency, may be relied upon to limit potential impacts associated with a proposed Project. **Table 3** below lists and evaluates enforceable conditions FWP may rely on to limit potential impacts associated with the proposed Project. ARM 12.2.432(3)(g).

Table 3: Listing and Evaluation of Enforceable Mitigations Limiting Impacts

<i>Are enforceable controls limiting potential impacts of the proposed action? If not, no further evaluation is needed.</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<i>If yes, are these controls being relied upon to limit impacts below the level of significance? If yes, list the enforceable control(s) below</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Enforceable Control	Responsible Agency	Authority (Rule, Permit, Stipulation, Other)	Effect of Enforceable Control on Proposed Project
Permit Issuance, Enforcement Action, Fines	USACOE	Section 404 of the Clean Water Act	To protect, reduce or eliminate pollution in the Nation's water to maintain its integrity.
Permit Issuance, Enforcement Action, Fines	USACOE	Section 10 of the Rivers and Harbors Act	To regulate work in a navigable water of the U.S. that would affect the course, location, or condition of the waterbody.
Permit Issuance, Enforcement Action, Fines	Flathead County Planning and Zoning	76-5-301, MCA	To promote public health, safety and general welfare of the residents and minimize public and private losses due to flood conditions in Regulated Flood Hazard Areas.
Permit Issuance, Enforcement Action, Fines	Flathead County Planning and Zoning	75-7-207, MCA	To protect the fragile, pristine character of Flathead County lakes and ecosystems; conserve scenic and resource values; protect lakeshore property; and protect value of the lakes for those who enjoy them.
Permit Issuance, Enforcement Action, Fines	Lake County Floodplain Administrator	2013 Lake County Floodplain Management Regulations	See Lake County Regulations Section 1.4 In general, to protect human life and health and manage environmental and economic impacts caused by flooding in mapped flood areas.
Permit Issuance	EPA and Confederated Salish and Kootenai Tribes	Clean Water Act Section 401 Certification Request	To establish the CSKT as the authority to manage water quality in waters of the U.S.
Permit Issuance, Enforcement Action, Fines	Confederated Salish and Kootenai Tribes	Shoreline Protection Office Permit 64A (Revised)	To protect the shoreline of water bodies within the Flathead Indian Reservation from impacts to water quality, fish and wildlife habitat, navigation and recreation, and the general character of the area.

VII. Alternatives Considered

In addition to the proposed project (Alternative 2), and as required by MEPA, FWP analyzes the "No-Action" alternative (Alternative 1) in this EA. Under the "No Action" alternative, the proposed project would not occur. Therefore, no additional impacts to the physical environment or human population (human environment) in the analysis area would occur. The "No Action" alternative forms the baseline from which the potential impacts of the proposed project can be measured.

Alternative 1: No Action

The "No Action" alternative represents the status quo and would therefore result in the continued erosion of the shorelines on FWP properties around Flathead Lake. The rate of erosion would be dependent on each site's shoreline, wind and wave action, and structures, i.e. sea walls or riprap, at adjacent properties.

Alternative 2: Proposed Project

Under Alternative 2, the proposed project(s), FWP would install a dynamic gravel beach at FWP properties around Flathead Lake as funding permitted. Project prioritization would be based on current erosion of each site, current rate of shoreline loss, average wind and wave action which would assist in determining future shoreline loss rate, and recreational opportunities of each site. Each gravel beach would be designed independently but follow the general principles of a dynamic gravel beach as detailed in *Section II: Background and Description of Proposed Project*.

	Yes*	No
Were any additional and reasonable alternatives considered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* If yes, a list and description of the other alternatives considered, but not carried forward for detailed review is included below

VIII. Terms Used to Describe Potential Impacts on the Physical Environment and Human Population

The impacts analysis identifies and evaluates **direct**, **secondary**, and **cumulative impacts**.

- **Direct impacts** are those that occur at the same time and place as the action that triggers the effect.
- **Secondary impacts** “are further impacts to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action.” ARM 12.2.429(18).
- **Cumulative impacts** “means the collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures.” ARM 12.2.429(7).

Where impacts are expected to occur, the impact analysis estimates the **extent**, **duration**, **frequency**, and **severity** of the impact. The duration of an impact is quantified as follows:

- **Short-Term:** impacts that would not last longer than the proposed project.
- **Long-Term:** impacts that would remain or occur following the proposed project.

The severity of an impact is measured using the following:

- **No Impact:** there would be no change from current conditions.
- **Negligible:** an adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** the effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** the effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** the effect would irretrievably alter the resource.

Some impacts may require mitigation. As defined in ARM 12.2.429, mitigation means:

- Avoiding an impact by not taking a certain action or parts of a project;
- Minimizing impacts by limiting the degree or magnitude of a project and its implementation;
- Rectifying an impact by repairing, rehabilitating, or restoring the affected environment; or
- Reducing or eliminating an impact over time by preservation and maintenance operations during the life of a project or the time period thereafter that an impact continues.

FWP may, as an alternative to preparing an EIS, prepare an EA whenever the action is one that might normally require an EIS, but effects which might otherwise be deemed significant appear to be mitigable below the level of significance through design, or enforceable controls or stipulations, or both, imposed by the agency or other government agencies. For an EA to suffice in this instance, the agency must determine that all the impacts of the proposed action have been accurately identified, that they will be mitigated below the level of significance, and that no significant impact is likely to occur. The agency may not consider compensation for purposes of determining that impacts have been mitigated below the level of significance. ARM 12.2.430(4).

A list of any mitigation strategies including, but not limited to, design, enforceable controls or stipulations, or both, as applicable to the proposed project is included in **Section VI** above.

FWP must analyze impacts to the physical and human environment for each alternative considered. The proposed project considered the following alternatives:

- Alternative 1: No Action

Under the “No Action” alternative, the proposed project would not occur. Therefore, no additional impacts to the physical environment or human population (human environment) in the analysis area would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed project can be measured.

- Alternative 2: Proposed Project

Reference *Section II, Background and Description of Proposed Project* and *Section III, Purpose and Need, Benefits of the Proposed Project*.

IX. Determining the Significance of Impacts

If the EA identifies impacts associated with the proposed action FWP must determine the significance of the impacts. This determination forms the basis for FWP’s decision as to whether it is necessary to prepare an environmental impact statement. FWP considered the criteria identified in **Table 4** below to determine the significance of each impact on the quality of the physical and human environment. ARM 12.2.431.

The significance determination is made by giving weight to these criteria in their totality. For example, impacts identified as moderate or major in severity may not be significant if the duration is short-term. However, moderate or major impacts of short-term duration may be significant if the quantity and quality of the resource is limited and/or the resource is unique or fragile. Further, moderate or major impacts to a resource may not be significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

Table 4: Determining the Significance of Impacts

Criteria Used to Determine Significance	
1	<p>The severity, duration, geographic extent, and frequency of the occurrence of the impact</p> <p>“Severity” describes the density of the potential impact, while “extent” describes the area where the impact will likely occur, e.g., a project may propagate ten noxious weeds on a surface area of 1 square foot. Here, the impact may be high in severity, but over a low extent. In contrast, if ten noxious weeds were distributed over ten acres, there may be low severity over a larger extent.</p> <p>“Duration” describes the time period during which an impact may occur, while “frequency” describes how often the impact may occur, e.g., an operation that uses lights to mine at night may have frequent lighting impacts during one season (duration).</p>
2	The probability that the impact will occur if the proposed project occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur
3	Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts
4	The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values
5	The importance to the state and to society of each environmental resource or value that would be affected
6	Any precedent that would be set as a result of an impact of the proposed project that would commit FWP to future actions with significant impacts or a decision in principle about such future actions
7	Potential conflict with local, state, or federal laws, requirements, or formal plans

X. Cumulative Impacts Analysis

For the purposes of MEPA, "cumulative impact" means the collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when such actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. ARM 12.2.429(7).

"Action" means a project, program or activity directly undertaken by the agency; a project or activity supported through a contract, grant, subsidy, loan or other form of funding assistance from the agency, either singly or in combination with one or more other state agencies; or a project or activity involving the issuance of a lease, permit, license, certificate, or other entitlement for use or permission to act by the agency, either singly or in combination with other state agencies. ARM 12.2.429(1).

Under the “No Action” alternative, the proposed project would not occur. Therefore, no cumulative impacts to the affected human environment would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed project are measured. For the purposes of the proposed project, the cumulative impacts analysis applies to all resources analyzed under Alternative 2, Proposed Project. See section XII.A and XII.B of this Draft EA.

The proposed project would install dynamic gravel beaches at all FWP properties on Flathead Lake as funding permitted. These gravel beaches would stop the loss of existing shoreline and vegetation due to wave erosion; provide a natural transition from the aquatic environment along the shoreline to the adjacent vegetation areas; and improve recreation opportunities along the shores of Flathead Lake. No significant adverse cumulative impacts would be expected because of the proposed project; however, cumulative impacts would occur.

The information below identifies past, present, and future actions (i.e., activities to be considered by the cumulative impacts analysis) related to the proposed action by location or generic type. Actions considered in these analyses were identified by FWP and other subject matter experts. Past and present actions are accounted for as part of the existing, or “baseline,” environmental conditions. MEPA is forward-looking, with analyses focused on the potential impacts of the proposed action with consideration for any past, present, or future related actions.

Related Past, Present, and Future State Actions:

Past, Present, and Future Related MEPA Review

The following list identifies environmental review conducted to assess potential impacts to the affected human environment from past, present, and known future related projects or actions. Past and present actions are accounted for as part of the existing, or “baseline,” environmental conditions of the affected human environment prior to approval and implementation of the proposed project, and any known future related project(s). FWP is unaware of any future related actions that would cumulatively impact the affected human environment with consideration for the proposed project and/or any of the past and present actions listed below:

- Somers Beach State Park Development EA 2023 – The purpose of this project was to implement the second phase of development for recreational use of the site. The portions of this project that are yet to be implemented are 1) installation of a vault latrine – scheduled for 2025; 2) developed ADA access road to the hand launch – on hold until funding is acquired; 3) installation of cabins as facility rentals – on hold until funding is acquired.
- Sportsman’s Bridge Land Replacement and Fishing Access Site Development EA (FWP-SEA-POR-R1-24-008) – This project will move the current fishing access site from the eastside of the river to the westside of the river to accommodate the construction of the new Highway 35 bridge. Construction is expected in 2025.
- Woods Bay Fishing Access Site Improvement EA 2020 – This project resulted in the installation of a new pier reinforced floating dock which was installed in spring 2024 and some minor parking lot adjustments completed 2021.
- Yellow Bay Unit of Flathead Lake State Park Dynamic Gravel Beach Shoreline Erosion Protection Proposal (FWP-SEA-POR-R1-23-017) – This resulted in the installation of a dynamic gravel recreational beach in spring of 2024.
- Flathead Lake State Park – Yellow Bay Road and Tent Camping Improvements (FWP-SEA-POR-R1-23-007) – The purpose of this project, which has not been implemented, to date, is to improve existing FHLSP-YB roads (pave), improve air quality by limiting fugitive dust from vehicle traffic on unpaved roads, improve safety conditions at the park’s vehicle entrance, relocate the existing campground/tent sites, and to enhance the overall user experience.

As noted, none of the project-specific environmental review documents cited above identified the potential for significant adverse impacts, including cumulative impacts, to the affected human environment. Therefore, preparation of an Environmental Impact Statement or EIS-level MEPA review was not required, and each project was approved through EA-level MEPA review. With consideration for potential impacts from the proposed project, FWP determined that no significant adverse cumulative impacts would be expected because of the proposed project. For additional information see the resource-specific impacts analyses contained in the section of the Draft EA titled “Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population,” for the proposed action and any alternatives to the proposed action.

Permits, Leases, Licenses, and other Authorizations

The following list identifies the only known easement within the project area.

- Flathead Lake State Park – Big Arm Unit is under a perpetual easement from the Department of Natural Resources and Conservation (DNRC). This perpetual easement permits FWP to manage the land for the use of a

recreational park. The proposed project would support the management of a recreational park, by preventing further shoreline erosion, and thus continuing to provide a recreational opportunity.

Memorandums of Understanding and other Formal Agreements

There are no known Memorandums of Understanding and other formal agreements.

Guiding Documents

Further, several guiding documents inform, have informed, and will continue to inform actions such as the proposed action. These guiding documents outline strategies and considerations for taking management action and addressing any potential impacts from such management actions. These guiding documents, and affected regulatory entities, include the following:

- FWP – Enhancing Montana’s Outdoor Recreation Legacy – 2020-2024 Statewide Comprehensive Outdoor Recreation Plan
- FWP – Montana State Parks Strategic Plan 2018
- FWP – Parks in Focus Commission Final Recommendations 2018
- FWP – Montana State Parks Heritage Resources Strategic Plan 2017-2024
- FWP – Montana FWP Noxious Weed Management Plan
- USFWS – Endangered Species Act

Again, the guiding documents identified above outline strategies and considerations for taking management action to address potential adverse impacts from such management actions and thereby ensure the proposed project is conducted in a manner consistent with limiting the potential for adverse cumulative impacts. Therefore, no significant adverse cumulative impacts would be expected because of the proposed project. For additional information see the resource-specific impacts analyses contained in section XII.A and XII.B of this Draft EA.

XI. Alternative 1: No Action. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population

Under the “No Action” alternative, the proposed project would not occur. Therefore, no additional impacts to the physical or human environment in the analysis area would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed Project can be measured.

XII. Alternative 2: Proposed Project. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population

A. Evaluation and Summary of Potential Impacts on the Physical Environment

1. Terrestrial, Avian, and Aquatic Life and Habitats

Existing Environment/Baseline Conditions (No Action Alternative):

The ecosystem around Flathead Lake is predominantly Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest on the east and northwest sides of the lake. The east shore also has areas of Alpine-Montane Wet Meadow associated with seasonal seepage. The southwest corner of the lake is predominately Rocky Mountain Ponderosa Pine Woodland Savanna. While the north and south shores have riparian areas of Northern Rocky Mountain Montane Riparian Woodland and Shrubland and Emergent Marsh. A broad array of terrestrial and avian animals may utilize the lake or surrounding habitats either continuously or sporadically.

Fifteen species of mammals, four species of fish, three species of reptile, and 2 species of amphibians, 14 species of invertebrates, and 60 species of plants have been documented as species of concern in and around Flathead Lake.² The species of mammals and birds that are listed as species of concern have been observed around Flathead Lake and are listed in part 8 of this impacts analysis. Numerous avian species occur routinely or sporadically in the vicinity of Flathead Lake, including 46 species of concern, as highlighted in *part 8, Unique, Endangered, Fragile or Limited Environmental Resources*, of this impacts analysis.

Direct Impacts:

No significant adverse direct impacts to terrestrial, avian, and aquatic life and habitats would be expected because of the proposed project. Some temporary adverse direct impacts from increased water turbidity caused by construction and development of the dynamic gravel beach may occur. However, any such direct impacts would be short-term and minor, lasting only as long as the construction period for the proposed project. Also, the use of heavy equipment and vehicles for development and construction of the dynamic gravel beach may temporarily displace certain wildlife species from the affected area by causing them to avoid the affected areas while the dynamic gravel beach is constructed. However, because FWP properties constitute existing recreational resource, the presence of people and vehicles would be consistent with the current and historic use of the affected area. Therefore, any adverse direct impacts would be short-term, negligible to minor, and consistent with historic impacts.

Secondary Impacts:

No significant adverse secondary impacts to terrestrial, avian, and aquatic life and habitats would be expected because of the proposed project. Some adverse secondary impacts from turbidity may occur once the water level rises and initially enters the disturbed area following construction activities associated with the proposed project. However, any adverse secondary impacts would be temporary and negligible to minor.

Ultimately, the proposed project would be expected to benefit riparian ecosystems by halting shoreline erosion, thereby stabilizing it, and creating conditions conducive to a more natural shoreline habitat for affected plant and animal species. More specifically, the proposed dynamic gravel beach would stop significant erosion from occurring at FWP properties, thus halting further loss of vegetation and riparian habitats which in turn would reduce water turbidity during storm events that erode the soil bank and ultimately benefit terrestrial, avian, and aquatic species located in the affected area. The proposed dynamic gravel beaches would ensure a healthy riparian area exists between the lake and the adjacent vegetative areas, which would further support and improve conditions for affected species. Dynamic gravel beaches promote the growth of riparian plant species thereby partially reclaiming previously lost vegetative areas and associated important animal and plant habitats. Water turbidity would also be reduced with the halt of soil and bank erosion thereby improving the natural aquatic environment and associated near-shore habitats for affected plant and animal species. Any beneficial secondary impacts would be long-term and moderate.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. However, under the proposed action, cumulative impacts would occur. FWP's acquisition of each land parcel on Flathead Lake occurred at various times beginning in 1941. Since FWP's acquisition of these properties, FWP has proposed and implemented several projects on each property, including the

² Montana Natural Heritage Program – Montana Field Guide.

proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Further, no significant adverse impacts to fish, wildlife, and associated habitats have been identified through prior related environmental review and no significant adverse cumulative impact would be expected because of the proposed project. Therefore, with consideration for any past, present, or known future, related environmental review associated with Flathead Lake FWP properties, any adverse cumulative impacts would be short-term and negligible to moderate. Any beneficial cumulative impacts would be long-term and moderate. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts associated with the proposed project see Section VIII, Cumulative Impacts Analysis.

2. Water Quality, Quantity, and Distribution

Existing Environment/Baseline Conditions (No Action Alternative):

Flathead Lake is the largest natural freshwater lake in the western US (by surface area) outside of Alaska. Flathead Lake is currently described as oligotrophic which means lacking in plant nutrients, but FLBS (Flathead Lake Biological Station) monitoring indicates that nutrient inputs are increasing. Flathead Lake's biological community is much different today than when FLBS was founded in 1941. The Lake originally supported 11 native fish species, most notably westslope cutthroat trout and bull trout. Today, the fish community is more like the Great Lakes than rocky mountain lakes, as it is dominated by nonnatives, particularly lake trout, lake whitefish and yellow perch. Decreases in water quality have led federal and state agencies to classify Flathead Lake as "Impaired" due to human caused increases in nutrient and sediments, and to work on creating a long-term plan for water quality protection.

Direct Impacts:

No significant adverse direct impacts to water quality, quantity, and distribution would be expected because of the proposed project. In fact, no direct impacts to water quantity or distribution would be expected. However, some temporary, adverse direct impacts from increased water turbidity caused by construction and development of the dynamic gravel beach may occur. Any such direct impacts would be short-term and minor, lasting only as long as the construction period for the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to water quality, quantity, and distribution would be expected because of the proposed project. In fact, no secondary impacts to water quantity or distribution would be expected. However, some adverse secondary impacts to water quality from increased turbidity may occur once the water level initially rises to full pool during the spring following construction activities associated with the proposed project. As water levels initially rise during the spring, construction disturbance to the lakebed from project construction activities may increase water turbidity. However, any adverse secondary impacts would be temporary, negligible to minor, and limited to the first time the lake reaches full pool following implementation of the proposed project.

Further, the proposed project would stabilize the affected shorelines at FWP properties. The stabilized shoreline would reduce sediment load to the lake and ultimately limit water turbidity in the affected area when the lake is at full pool. Each unique design of a specific dynamic beach includes spits and bays as needed which would reduce or interrupt longshore currents and encourage depositional conditions thereby further limiting water turbidity associated with shoreline erosion. Ultimately, the proposed project would be expected to benefit the riparian ecosystem by halting shoreline erosion and creating conditions conducive to a more natural shoreline. More specifically, the proposed dynamic gravel beach would stop significant erosion from occurring, thus halting further loss of vegetation and riparian

habitats which in turn would reduce water turbidity during storm events that erode the soil bank, ultimately benefiting water quality in the affected area. Any beneficial secondary impacts would be long-term and moderate to significant once all dynamic gravel beaches on FWP properties are funded.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. FWP's acquisition of each land parcel on Flathead Lake occurred at various times beginning in 1941. Since FWP's acquisition of these properties, FWP has proposed and implemented several projects on each property, including the proposed project. As applicable, each historic FWP action or project has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present-day project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to water quality, quantity, and distribution would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts associated with the proposed project see Section VIII, Cumulative Impacts Analysis.

3. Geology

Existing Environment/Baseline Conditions (No Action Alternative):

Geology in the affected area is mapped by the Montana Bureau of Mines and Geology. The 2004 report describes surficial geology as roughly 50-100 feet of till overlying bedrock. In this general area, located along the east side of Flathead Lake, the till can be intermixed with glacial lake deposits and alluvium, but the local well logs indicate glacial till is predominant in the area. The bedrock underlying the till is associated with the Piegan Group which consists of dolomite (slightly altered limestone), limestone and argillite (shale).

Direct Impacts:

No significant adverse direct impacts to geology would be expected because of the proposed project. No unique or important geologic features exist within FWP properties on Flathead Lake. Further, the proposed project does not entail any excavation, only gravel deposits; therefore, no impacts to geology would occur because of the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to geology would be expected because of the proposed project. The proposed project does not entail any excavation, only gravel deposits; therefore, no impacts to geology would occur because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. FWP's acquisition of each land parcel on Flathead Lake occurred at various times beginning in 1941. Since FWP's acquisition of these properties, FWP has proposed and implemented several projects on each property, including the proposed project. As applicable, each historic FWP action or project has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FHLSP-YB project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to geology would be expected because of the proposed project. Any unknown future projects and

associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

4. Soil Quality, Stability, and Moisture

Existing Environment/Baseline Conditions (No Action Alternative):

Existing soils are described by the USDA as Courville gravelly silt loam ranging from 4% to 15% slopes. The soils are moderately to well drained and have moderate infiltration rates when thoroughly wet. Mucky peat can be found in the first few inches, and gravelly or ashy silt loam is generally found to a depth of 15". Soils at 15-33" contain very gravelly loam, very gravelly fine sandy loam, and very gravelly sandy loam. Soils from 33-60" are listed as very gravelly loam, very gravelly, silt loam and very gravelly, fine sandy loam. Soil chemistry is slightly acidic with an average pH of 5.6-7.3. There are no apparent signs of instability such as slides or depressions.

Direct Impacts:

No significant adverse direct impacts to soil quality, stability, and moisture would be expected because of the proposed project. No impacts to soil quality and moisture would be expected; however, some impacts to soil stability would occur because of the proposed project. The proposed dynamic gravel beaches would stabilize and limit or halt the loss of shoreline soil, particularly during storm events that currently erode the soil bank. Further, the proposed project consists of gravel deposits and no excavation activity or deposition of soils would occur. Gravel trucks necessary to implement the proposed project (gravel transport) would travel on existing roads and existing boat ramps to deposit gravel along the shoreline. Also, construction and development activities would take place when the lake is at low pool. Therefore, all shoreline traffic would occur over existing gravel beaches located below the normal high-water mark. Therefore, no loss of soil or soil compaction would be expected because of the proposed project. Any direct impacts to soil stability would be short- and long-term, minor to moderate, and beneficial.

Secondary Impacts:

No significant adverse secondary impacts to soil quality, stability, and moisture would be expected because of the proposed project. No impacts to soil quality and moisture would be expected. The proposed project would have a beneficial long-term effect on lakeshore bank/soil stability and soil retention by preventing further soil erosion. The proposed dynamic gravel beaches would stabilize and limit or halt the loss of shoreline soil, particularly during storm events that currently destabilize and erode the soil bank. Any secondary impacts to soil stability would be short- and long-term, moderate, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project(s). Since FWP's acquisition of the FWP properties on Flathead Lake, FWP has proposed and implemented several projects, including the proposed project. As applicable, each historic FWP action or project has been subject to, and complied with, MEPA.

As a result of ongoing human infrastructure development on or near Flathead Lake (riprap, seawalls, docks, dams, etc.), shoreline soil stability has been degraded and soil erosion has dramatically increased. To date, approximately 2.5 miles of eroding shoreline on the north shore of Flathead Lake has been stabilized by building dynamic gravel beaches, such as that proposed. These shorelines are now dynamically stable and undergoing a natural restoration process as new aquatic and riparian vegetation

recolonize the area associated with the beaches. In this sense development of a dynamic gravel beach, as proposed, constitutes a living shoreline solution to the shoreline stability and soil erosion problem. The CSKT have also adopted this approach to deal with their shoreline erosion problems at Salish Point, located in Polson and along the Blue Bay campground shoreline (Lorang 2003 and 2006b). FWP has also previously utilized dynamic gravel beaches at Somers Beach State Park, and the Finley Point and Yellow Bay Units of Flathead Lake State Park. To date, over 3.5 miles of dynamic beaches have been completed on Flathead Lake on various public lands. The result of the proposed action would further objectives to improve shoreline soil stability and limit soil loss to erosion.

Based on the environmental review conducted for historic and present day FWP parcels, and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to soil quality, stability and moisture would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

5. Vegetation Cover, Quantity, and Quality

Existing Environment/Baseline Conditions (No Action Alternative):

The vegetation around Flathead Lake is predominantly Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest on the east and northwest sides of the lake. The east shore also has areas of Alpine-Montane Wet Meadow associated with seasonal seepage. The southwest corner of the lake is predominately Rocky Mountain Ponderosa Pine Woodland Savanna. While the north and south shores have riparian areas of Northern Rocky Mountain Montane Riparian Woodland and Shrubland and Emergent Marsh.

Direct Impacts:

No significant adverse direct impacts to vegetation cover, quantity, and quality would be expected because of the proposed project. Because the proposed project consists of gravel deposits and no excavation activity would occur, no disturbance to terrestrial vegetation would be expected because of the proposed project. Gravel trucks would be used to implement the proposed project (gravel transfer) and would travel on existing roads and existing boat ramps before driving on and depositing gravel along the shoreline. Further, the proposed project would be implemented during low pool; therefore, all shoreline travel necessary to implement the proposed project would occur on existing gravel beaches located below the high-water mark. Some adverse direct impacts to aquatic vegetation may occur because of the proposed project, as staff and heavy equipment used to develop the gravel beach may disturb the aquatic environment during project construction activities. However, the work area is generally void of vegetation and any adverse direct impacts to aquatic vegetation would be short-term, minor, and would be expected to regenerate within a single growing season.

Secondary Impacts:

No significant adverse secondary impacts to vegetation cover, quantity, and quality would be expected because of the proposed project. Vegetation along the shoreline would become more stable and likely expand because of the proposed project, which will stabilize the shoreline bank while providing a more natural transition from land to water preferred by native vegetation. In addition, development and construction activities associated with the proposed project would increase the potential for the spread of noxious weeds leading to increased potential for noxious weed infestation of FWP properties. Any

potential establishment or spread of noxious weeds would be mitigated by annual weed monitoring followed by chemical and/or biological treatment according to weed management practices contained in FWP's Integrated Noxious Weed Management Plan. Therefore, any adverse direct impacts associated with the increased potential for noxious weed infestation would be long-term, negligible to minor, and mitigated by travel on existing roads/boat launch and ongoing active monitoring for and removal of noxious weeds, as needed.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project(s). Since FWP's acquisition of the each FWP property on Flathead Lake, FWP has proposed and implemented several projects, including the proposed project. As applicable, each historic FWP action or project has been subject to, and complied with, MEPA.

The beaches at Flathead Lake FWP properties primarily consists of gravel cobble. However, there are sections of riprap located at various properties, that were historically placed in the gap between the gravel cobble and shoreline vegetation to prevent shoreline erosion and support existing shoreline vegetation. However, rather than preventing erosion and the inevitable loss of vegetation, these sections of shoreline have experienced severe erosion around the riprap often revealing soil cut banks bare of vegetation. The proposed dynamic gravel beaches would limit or eliminate such erosion and further support the objective to maintain existing shoreline vegetation. Therefore, any cumulative impacts to existing shoreline vegetation would be long-term, moderate to major, and beneficial.

Based on the environmental review conducted for historic and present-day project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to vegetation cover, quantity, and quality would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

6. Aesthetics

Existing Environment/Baseline Conditions (No Action Alternative):

The shores of Flathead Lake primarily are gravel cobble or slabs of bedrock with the north shore of the lake being mostly sandy. There are sections of the southeast portion of Polson Bay that are sandy marsh. Since the installation of the dam, landowners have installed sea walls and riprap to prevent erosion. This practice along with wave action has led to eroding sections of lakeshore at adjacent properties or behind existing riprap.

Both Flathead and Lake Counties have shoreline protection zones which prevent significant vegetation removal and building of impenetrable structures along the lake shoreline. This gives the shore of Flathead Lake an overall natural feel even when most of the lake shore is privately owned.

Direct Impacts:

No significant adverse direct impacts to aesthetics would be expected because of the proposed project. Some adverse direct impacts may result from construction activities due to increased levels of noise, odors, dust, and the presence of equipment. Any adverse direct impacts would be short-term and minor, lasting only as long as the construction phase of the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to aesthetics would be expected because of the proposed project. The proposed project(s) would re-establish a more natural shoreline that would promote vegetation growth in the long-term, thus providing a more aesthetically pleasing shoreline. Also, the proposed project(s) would use local materials to develop a natural appearance. Further, the existing eroding banks have become unnatural and unsightly. The proposed project(s) would return the shoreline and bank sections to a more natural state and appearance. Any secondary impacts would be long-term, moderate, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of Flathead Lake FWP properties, FWP has proposed and implemented several projects, including the proposed project. As applicable, each historic FWP action or project has been subject to, and complied with, MEPA.

The beaches on Flathead Lake FWP properties primarily consists of gravel cobble. However, there are sections of riprap on various FWP properties, that were historically placed in the gap between the gravel cobble and shoreline vegetation to prevent shoreline erosion and support existing shoreline vegetation. However, rather than preventing erosion and the inevitable loss of vegetation, many of these sections of shoreline have experienced severe erosion around the riprap revealing soil cut banks bare of vegetation. The proposed dynamic gravel beaches would limit or eliminate such erosion and further support the objective to maintain existing shoreline vegetation thereby improving the aesthetic nature of the affected area. Any cumulative impacts to aesthetics would be long-term, moderate, and beneficial.

Based on the environmental review conducted for historic and present-day project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to aesthetics would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

7. Air Quality

Existing Environment/Baseline Conditions (No Action Alternative):

According to the Department of Environmental Quality (DEQ), air quality in the area affected by the proposed project is currently unclassifiable or in compliance with applicable national ambient air quality standards (NAAQS). No significant point-sources of air pollution exist in the area affected by the proposed project. Existing sources of air pollution in the area are limited and generally include fugitive dust associated with high wind events and exposed ground, vehicle travel on unpaved roads (fugitive dust), vehicle exhaust emissions, and various agricultural practices (vehicle exhaust emissions and fugitive dust).

Direct Impacts:

No significant adverse direct impacts to air quality would be expected because of the proposed project. Air quality in the area affected by the proposed project(s) is currently unclassifiable or in compliance with all applicable NAAQS. Therefore, no air quality restrictions currently exist for the area affected by the proposed project. Existing sources of air pollution in the area are limited and generally include fugitive dust associated with high wind events and exposed ground, vehicle travel on unpaved roads

(fugitive dust), vehicle exhaust emissions, and various agricultural practices (vehicle exhaust emissions and fugitive dust). Vehicle and heavy equipment would be used for construction of the dynamic gravel beaches; therefore, increased fugitive dust emissions may be generated during the construction phase due to heavy equipment travel/hauling over unpaved roads and the dumping of gravel materials. Combustion of fossil fuels to operate vehicles and heavy equipment used to implement the proposed project would also generate vehicle exhaust emissions (primarily CO, PM_{2.5}, and ground level O₃). However, because the construction phase of the proposed project(s) would be short-term, and the number of vehicles and heavy equipment needed to complete construction activities would be limited, any adverse direct impacts to air quality would be short-term, negligible, and mitigated by dust control practices, as necessary. The proposed project would not be expected to cause or contribute to a NAAQS violation in the affected area.

Secondary Impacts:

No significant adverse secondary impacts to air quality would be expected because of the proposed project. Following construction activities, no impacts to air quality would be expected because of the proposed project. The proposed action would not result in significant adverse secondary climate change impacts. Any impacts of the proposed action would be consistent with current impacts (i.e., the no action alternative).

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present-day project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to air quality would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. The proposed action would not result in significant adverse cumulative climate change impacts. Any impacts of the proposed action would be consistent with current impacts (i.e., the no action alternative). For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

8. Unique, Endangered, Fragile, or Limited Environmental Resources

Existing Environment/Baseline Conditions (No Action Alternative):

According to a search of the Montana Natural Heritage Program database, 15 state designated wildlife species of concern have been identified within or within the vicinity of Flathead Lake, including the following: Hoary Bat, Long-legged Myotis, Fringed Myotis, Little Brown Myotis, Townsend's Big-eared Bat, Long-eared Myotis, Yuma Myotis, Western Pygmy Shrew, Preble's Shrew, Northern Bog Lemming, Fisher, Canada Lynx, Grizzly Bear, Wolverine, and Bison. Bald eagles, which are listed as a special status species have also been observed around Flathead Lake. Grizzly bear and bull trout are listed as "threatened" under the federal endangered species act. While grizzly bears may pass through the area around Flathead Lake, the lake does not include critical habitat; therefore, grizzly bears would not be expected to occupy or otherwise routinely use the affected area. Further, while bull trout do inhabit Flathead Lake and may use adjacent creeks for part of their life cycle, the proposed project would not be expected to adversely impact the species because the project would be occurring at the lake's low pool and not during potential spawning use by bull trout. According to a search of the Montana Natural Heritage Program database, 60 plant species of concern have been identified within or within the

vicinity of Flathead Lake. None of the above listed species occur within the proposed project area of the gravel beaches.

Direct Impacts:

No significant adverse direct impacts to unique, endangered, fragile, or limited environmental resources would be expected because of the proposed project(s). The presence of any animal and/or plant species of concern, species of special status, species federally listed as threatened or endangered, or any lands classified as important or critical habitat located within or near the affected area were assessed through the Montana Natural Heritage Program. As noted above under the section titled "Existing Environment/Baseline Conditions (No Action Alternative)," 15 wildlife "species of concern," including two species listed as "threatened" under the federal ESA, and a single species listed as a "species of special concern," have been identified within or within the vicinity of Flathead Lake. Also, 60 plant "species of concern" have been identified within or within the vicinity of Flathead Lake.

Flathead Lake is designated as critical habitat for Bull Trout. The shallow water habitat adjacent to the project area(s) is not frequently used by Bull Trout and these project(s) is not expected to affect them. All construction would be completed when the lake level is low preventing fish from occupying the area.

Because FWP properties have historically been used for recreational purposes any direct impacts to unique, endangered, fragile, or limited environmental resources located within or periodically using the affected area, including the identified species of concern, species of special concern, ESA-delisted, and ESA-listed species, would be consistent with current and historic impacts.

FWP would adhere to all applicable requirements related to management, preservation, and recovery of listed species as outlined by the federal ESA and applicable state guidance. These practices would support limiting potential adverse direct impacts to the identified unique, endangered, fragile, or limited environmental resources as well as many other wildlife species located within or periodically using FHLSP-YB. Therefore, any adverse direct impacts to wildlife, including any species of concern, species of special concern, ESA-listed species, and/or ESA-delisted species would be short-term, negligible to minor, and consistent with historic impacts.

Secondary Impacts:

No significant adverse secondary impacts to unique, endangered, fragile, or limited environmental resources would be expected because of the proposed project. The proposed project would generally improve affected FWP properties existing water resources and their associated riparian habitats. Therefore, FWP expects affected wildlife, including any species of concern, species of special concern, ESA-listed species, and/or ESA-delisted species inhabiting or using the FWP properties, would benefit from the proposed project.

State designation or "listing" of *species of concern* and *species of special concern* and federal "listing" of *threatened* under the ESA constitute prior actions subject to cumulative impacts analysis pursuant to MEPA. Specific to the ESA-listed *threatened* grizzly bear and bull trout, the ESA defines "take" as follows: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct. 16 U.S.C. 1542(b). The term *harm* in the definition of 'take' means an act which actually kills or injures wildlife. Such an act may include *significant habitat modification or degradation* where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3.

In order to find that habitat modification, such as that proposed, constitutes a taking or a *significant adverse impact* to a listed species under the federal definition of "harm", all aspects of the harm

definition must be triggered. Therefore, for the purposes of the proposed project, the following conditions must all be met for a taking or *significant adverse secondary impact* to occur to grizzly bears and/or or bull trout (USFWS, FWS/AES/067974, April 26, 2018):

- *Is the modification of habitat significant?* Yes. Under the proposed action, FWP would build dynamic gravel beaches at FWP properties on Flathead Lake as funding permits, which would significantly and beneficially alter the ecology of the FWP properties' shoreline environment. The purpose of the proposed project(s) is to stop the loss of existing shoreline and vegetation due to wave erosion; provide a natural transition from the aquatic environment along the shoreline to the adjacent vegetative areas; and improve recreational opportunities along the shore of FWP sites. The intended effect of the proposed project is more fully described in *Section II, Background and Description of Proposed Action*. Grizzly bear and bull trout are listed as "threatened" under the federal endangered species act. While grizzly bears may pass through FWP properties, these sites do not include critical habitat; therefore, grizzly bears would not be expected to occupy or otherwise routinely use the affected area, including the proposed dynamic gravel beach, and no impacts would be expected. Further, while bull trout do inhabit Flathead Lake and may use rivers and creeks entering Flathead Lake for part of their life cycle, the proposed project would not be expected to adversely impact the species because the project would be occurring at the lake's low pool and not during potential spawning use by bull trout. Therefore, no significant adverse cumulative impacts to the identified ESA listed species would be expected because of the proposed project(s).
- *If so, does that modification also significantly impair an essential behavior pattern of an ESA-listed species?* No.
- *If so, is the significant modification of the habitat, with a significant impairment of an essential behavior pattern, likely to result in the actual killing or injury of wildlife?* No.

Therefore, no significant, adverse secondary impacts to the identified ESA-listed species would be expected because of the proposed project(s). Further, FWP determined it is appropriate to apply the same federal ESA guidance when evaluating the potential for *significant adverse impacts* (harm) to state-listed *species of concern* and/or *species of special status*. When the federal ESA guidance and associated process is applied to the identified state-listed species, again, no *significant adverse cumulative impacts* would be expected because of the proposed project.

Overall, the proposed project would not be expected to impede recovery of any of the listed species and may establish conditions that are more conducive to their recovery. Any secondary impacts would be long-term, moderate, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. However, under the proposed action, cumulative impacts would occur. Since FWP's acquisition of the FWP properties, FWP has proposed and implemented several projects on FWP properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA.

Because FWP sites on Flathead Lake have historically been used for recreational purposes any cumulative impacts to the identified species of concern, species of special concern, ESA-listed species, and/or ESA-delisted species would be consistent with current and historic impacts. FWP would adhere to all applicable requirements related to management, preservation, and recovery of listed species as outlined by the federal ESA and applicable state guidance and requirements. These practices would support limiting adverse cumulative impacts to the identified species as well as many other wildlife species located within or periodically using FWP properties. Any unknown future projects and associated

cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation.

Further, the proposed project would not be expected to impede the recovery of any species of concern, species of special status, ESA-listed species, and/or ESA-delisted species and may establish conditions that are more conducive to their recovery. Therefore, any adverse cumulative impacts to wildlife, including any species of concern, species of special status, ESA-listed species, and/or ESA-delisted species would be short-term, negligible to minor, and consistent with historic impacts. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

9. Historical and Archaeological Sites

Existing Environment/Baseline Conditions (No Action Alternative):

In keeping with the Montana Antiquities Act and related regulations, all undertakings within State Parks are assessed for their potential to affect cultural resources. Any temporary or permanent developments within the project area will require prior cultural resource assessment. Where indicated, cultural resource inventories including pedestrian survey and/or subsurface testing will occur through consultation with the State Historic Preservation Office. The process for cultural resource inventory and consultation is outlined in Administrative Rules 12.8.501-12.8.510. FWP also consults with all Tribal Historic Preservation Offices affiliated with each park in accordance with FWP's tribal consultation guidelines.

Direct Impacts:

No significant adverse direct impacts to historic and archaeological sites would be expected because of the proposed project. In keeping with the Montana Antiquities Act and related regulations (12.8.501-12.8.510), all undertakings on state lands are assessed by a qualified archaeologist for their potential to affect cultural resources. The process for this assessment may include a cultural resource inventory and evaluation of cultural resources within or near the project area, in consultation with the State Historic Preservation Office (SHPO). FWP also consults with all Tribal Historic Preservation Offices (THPO) affiliated with each affected property in accordance with FWP's Tribal Consultation Guidelines. If cultural resources within or near the project area are recorded that are eligible for the National Register of Historic Places, they will be protected from adverse effects through adjustments to the project design or cancellation of the project if no design alternatives are available. If cultural resources are unexpectedly discovered during project implementation, FWP will cease implementation, and contact FWP's Heritage Program and/or SHPO and affected THPOs for further evaluation. Therefore, no adverse direct impacts would be expected because of the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to historic and archaeological sites would be expected because of the proposed project. In keeping with the Montana Antiquities Act and related regulations (12.8.501-12.8.510), all undertakings on state lands are assessed by a qualified archaeologist or historian for their potential to affect cultural resources. The process for this assessment may include a cultural resource inventory and evaluation of cultural resources within or near the project area, in consultation with the SHPO. FWP also consults with all THPOs affiliated with each affected property in accordance with FWP's Tribal Consultation Guidelines. If cultural resources within or near the project area are recorded that are eligible for the National Register of Historic Places, they will be protected from adverse effects through adjustments to the project design or cancellation of the project if no design alternatives are available. If cultural resources are unexpectedly discovered during project implementation, FWP will cease

implementation, and contact FWP's Heritage Program and/or SHPO and affected THPOs for further evaluation. Therefore, no adverse secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the affected properties, including the proposed project. Each historic FWP project or action has been subject to, and complied with, MEPA. To date, no significant adverse cumulative impacts to any identified heritage properties have been documented in association with previous projects conducted at the affected site(s). When cultural resources within or near the project area are recorded and are deemed eligible for the National Register of Historic Places, they must be protected from adverse impacts through adjustments to the project design or cancellation of the project if no design alternatives are available. Further, no new ground disturbing activities are proposed at the affected site under the proposed action. Therefore, no adverse cumulative impacts to any known cultural resources located on or near the project area would be expected because of the proposed project.

If, in the future, FWP undertakes any ground disturbing activities at the affected site, additional consultation with SHPO and affected THPOs would occur prior to project approval and additional review and analysis of potential impacts to any identified cultural resources would be conducted at that time, in accordance with the applicable requirements described previously. Any necessary mitigations would also be identified and implemented prior to project approval. If additional cultural resources are unexpectedly discovered during project implementation, FWP would cease any implementation practices with the potential to impact such resources and contact FWP's Heritage Program for further evaluation.

For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

10. Demands on Environmental Resources of Land, Water, Air, and Energy

Existing Environment/Baseline Conditions (No Action Alternative):

State parks on Flathead Lake have a current land footprint of approximately 2,628 acres, which includes Wild Horse Island at 2,163 acres. State parks are available for day use, including the boat ramp, year-round, and overnight use, except for Wild Horse Island, from April 1 to October 31 of each year. During the camping season, the park provides public drinking water. Each park unit utilizes two to four RV campsites to accommodate seasonal park hosts. The RV sites provide electrical service, drinking water and sewage connection to local treatment facilities or park septic systems. Two of the park units, Big Arm and Wayfarers, have a comfort station with flush toilets and showers, while Yellow Bay has one restroom with flushing toilets. The facilities are only available for public use approximately May 1-September 30 of each year. A portion of the campsites at West Shore and Finley Point have electrical pedestals at the campsites for visitor use. The Flathead Lake Ranger Station, which housed the offices for park staff, is open year-round and located in the Wayfarers Unit.

Fishing access sites located on Flathead Lake total to 81.7 acres. Wildlife habitat protection areas, which includes four islands, total 55.4 acres. Fisheries conservation areas total 70.32 acres. All of these properties are day use only, with the exception of permitted camping on Bird and Cedar Islands. Potable water, electricity, and septic are not available at any of these sites.

The Flathead Lake Salmon Hatchery, at 2.49 acres, does operate year-round and thus has electrical, water and septic services.

Direct Impacts:

No significant adverse direct impacts to demands on environmental resources of land, water, air, and energy would be expected because of the proposed project. The proposed project would not change the existing land footprint of each FWP property and would not require or change existing water use at any of the FWP sites; therefore, no impacts to the environmental resources of land and water would be expected because of the proposed project(s). Further, some short-term, negligible to minor adverse direct impacts to air quality may be realized during the construction phase of the proposed project(s); however, no ongoing adverse impacts or demands for air would occur because of the proposed project(s). Fuel would be required to operate equipment and vehicles used to develop the proposed project(s). However, any adverse direct impacts or demands for energy resources would be short-term and negligible, as the proposed project(s) and associated construction activities are relatively small and the construction phase would be relatively short; therefore, the amount of fuel necessary to complete the proposed project(s) would be minimal. No other direct demands or impacts on the environmental resources of land, water, air, and energy would be expected because of the proposed project(s).

Secondary Impacts:

No significant adverse secondary impacts to demands on environmental resources of land, water, air, and energy would be expected because of the proposed project. As identified previously through the analyses of potential direct impacts to terrestrial, avian, and aquatic life and habitats; water quality, quantity, and distribution; soil quality, stability, and moisture; air quality; some adverse impacts to the environmental resources of water, land, and air may occur because of the proposed project(s). However, as noted previously, any such impacts would be short- and long-term, negligible to minor, and adequately mitigated. The proposed project(s) would not change the existing land footprint of FWP properties and would not require or change existing water or energy use at any FWP sites. Further, as identified previously through the analyses of potential secondary impacts to water quality, quantity, and distribution; geology; soil quality, stability, and moisture; and air quality (see cited impacts analyses above), following the construction phase of the proposed project, no ongoing or new adverse impacts would be expected because of the proposed project. Therefore, no adverse secondary impacts to the environmental resources of land, water, air, and energy would be expected because of the proposed project(s).

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project(s). Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present-day project(s), and with consideration of potential impacts to the affected human environment from the proposed project(s), FWP determined no significant adverse cumulative impacts to demands on the environmental resources of land, water, air, and energy would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

B. Evaluation and Summary of Potential Impacts of the Proposed Project on the Human Environment

1. Social Structures and Mores

Existing Environment/Baseline Conditions (No Action Alternative):

FWP properties are located at various points around Flathead Lake, thus providing public access adjacent to numerous communities. The towns and communities around Flathead Lake include Bigfork, Polson, Big Arm, Elmo, Dayton, Rollins, Lakeside and Somers. The south half of Flathead Lake lies within the Flathead Indian Reservation.

Flathead Lake State Park, which includes the units of Big Arm, Finley Point, Wayfarers, West Shore, Wild Horse Island and Yellow Bay, have a three-year average of 337,000 visits annually. Visits to Flathead Lake State Park include those that are camping; however, a large portion of visitation is associated with day use activities of swimming, picnicking, and boating. Non-resident visitation primarily occurs during the peak summer season of Memorial Day through Labor Day, while shoulder season visitation is primarily local traffic. Fishing access sites around Flathead Lake see a lower amount of visitation but are still very busy during the peak season with boating, swimming and picnicking. Wildlife habitat protection areas see an increase in use during hot summer month with those that beach on islands to swim, picnic and boat, with a very limited amount of people camping.

Direct Impacts:

No significant adverse direct impacts to pre-project social structures and mores would be expected because of the proposed project. Many Montanans and those visiting the state for outdoor recreational purposes hold high regard for conservation of and access to public lands, including state parks and fishing access sites. As such, recreation, and related services support the existing social structure, customs, values, and conventions of the affected human population around Flathead Lake as well as any visitors to the affected area. Some adverse impacts to pre-project social structure and mores may occur because of the construction phase of the proposed project. More specifically, during the construction phase, nearby residents, and visitors to FWP sites may realize adverse impacts to access and the general enjoyment of each site. However, because Flathead Lake State Park incorporates 6 units (Big Arm, Finley Point, Wayfarers, West Shore, Wild Horse Island and Yellow Bay), and there are 5 total fishing access sites around the lake where nearby recreational opportunities exist and would likely be used in lieu of any particular FWP site under construction. Further, the construction phase for the proposed project would occur over a relatively short period of time. Therefore, any adverse direct impacts would be short-term and negligible to minor.

Secondary Impacts:

No significant adverse secondary impacts to pre-project social structures and mores would be expected because of the proposed project(s). As such, recreation, and related services support the existing social structure, customs, values, and conventions of the affected human population around Flathead Lake, as well as any visitors to the affected area. The proposed project(s) would improve access to the shore of Flathead Lake and thus further support the existing social structures and mores in the affected area. Therefore, any secondary impacts would be long-term, moderate, consistent with existing impacts, and beneficial to pre-project social structures and mores.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. However, under the proposed action, cumulative impacts would occur. Since FWP's acquisition of each FWP property on Flathead Lake, FWP has proposed and implemented several projects on the property, including the proposed project(s). Each historic FWP action has been subject to, and complied with, MEPA.

Because FWP sites on Flathead Lake have historically been used for recreational purposes and the intent of the proposed project(s) would be to stop the loss of existing shoreline and vegetation, provide a natural transition from the aquatic environment along the shoreline to the adjacent vegetative area, and ultimately improve recreational opportunities, any cumulative impacts associated with the proposed project would be long-term, moderate, and beneficial. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

2. Cultural Uniqueness and Diversity

Existing Environment/Baseline Conditions (No Action Alternative):

The Yellow Bay, Finley Point, Big Arm, Wild Horse Island Units of Flathead Lake State Park, along with Ducharme, Walstad and Conclow FASSs, and Bird Island WHPA are located within the exterior boundaries of Flathead Indian Reservation which is administered by the Confederated Salish and Kootenai Tribes (CSKT).

Direct Impacts:

No significant adverse direct impacts to cultural uniqueness and diversity would be expected because of the proposed project. The proposed project would improve various shoreline stability and halt shoreline erosion. No land use changes would occur because of the proposed project. Further, the proposed action(s) would not be expected to result in the immigration or emigration of people into or out of the affected area. Therefore, no direct impacts to the existing cultural uniqueness and diversity of the affected area would be expected because of the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to cultural uniqueness and diversity would be expected because of the proposed project(s). The proposed project would improve various shoreline stability and halt shoreline erosion while providing easier access to the lakeshore. While the proposed project(s) would be expected to improve the existing visitor experience, it would not be expected to appreciably result in the immigration or emigration of people to or from the affected area or otherwise change the social and cultural make-up of the affected area. Therefore, no secondary impacts to the pre-project cultural uniqueness and diversity of the affected area would be expected because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property on Flathead Lake, FWP has proposed and implemented several projects on the properties, including the proposed project(s). Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment

from the proposed project(s), FWP determined no significant adverse cumulative impacts to pre-project cultural uniqueness and diversity would be expected because of the proposed project(s). Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

3. Access to and Quality of Recreational and Wilderness Activities

Existing Environment/Baseline Conditions (No Action Alternative):

There are six state park units, six fishing access sites, one wildlife habitat protection area, and one fisheries conservation area that provide public access to the nationally significant Flathead Lake for public recreation. Approximately 89% of the lake's shoreline is in private ownership, and public access at these locations are very important. Additional public access is provided by USFS, USF&WS, CSKT, MT Dept of Natural Resources and Conservation (DNRC), Flathead County, Lake County, and local municipalities.

Direct Impacts:

No significant adverse direct impacts to access to and quality of recreational and wilderness activities would be expected because of the proposed project. No congressionally designated Wilderness Areas would be affected by the proposed action. Therefore, no impacts to wilderness activities would be expected because of the proposed project(s). The proposed project(s) may result in short-term loss of access or restricted access to Flathead Lake via a specific site during the construction phase of the proposed project.

FWP would minimize such impacts, to the degree possible, by scheduling work outside of the peak visitation season and providing traffic control where necessary to accommodate visitor use. Furthermore, FWP provides multiple additional access facilities to accommodate recreational use of Flathead Lake, including the Big Arm Unit, Finley Point Unit, Wayfarers Unit, West Shore Unit and Yellow Bay Unit of Flathead Lake State Park and Somers Beach State Park. The Wild Horse Island unit also provides recreational facilities but must be accessed by boat. There are also five fishing access sites around the lake including Big Fork FAS, Ducharme FAS, Somers FAS, Walstad FAS and Woods Bay FAS. Multiple other public and private access points to Flathead Lake are also available to accommodate the short-term closure of any one FWP site during the construction phase. Therefore, any adverse direct impacts would be short-term, minor, and mitigated by the public's ability to use other Flathead Lake access points.

Secondary Impacts:

No significant adverse secondary impacts to access to and quality of recreational and wilderness activities would be expected because of the proposed project. FWP expects that recreational opportunities at each FWP site would be improved because of the proposed project(s). Following completion of the proposed project(s) the affected facilities would be open to the public with improved shoreline access thus resulting in enhanced visitor experience. Therefore, FWP expects that any secondary impacts would be long term, moderate, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the property, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s),

and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to pre-project access to recreational and wilderness activities would be expected because of the proposed project. Further, as with other past and present FWP actions, FWP expects the quality of recreational opportunities at each site to improve because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

4. Local and State Tax Base and Tax Revenue

Existing Environment/Baseline Conditions (No Action Alternative):

FWP is required by law to make tax payments to counties equal to the amount that a private landowner would be required to pay per § 87-1-603, Montana Code Annotated. By statute, FWP does not pay taxes on state parks acquired before 2009 but does pay taxes on state parks acquired after that date. In 2024, a total of \$52,011.51 was paid in equivalent property taxes in the project area (Fig. 6).

Site Name	2024 Taxes Paid
Bigfork FAS	\$13,271.80
Conclow FAS	\$11,235.52
Flathead Lake	\$1,170.52
Flathead Lake State Park – Finley Point	\$8,795.31
Flathead Lake State Park – Wayfarers	\$28.53
Flathead Lake State Park – West Shore	\$42.23
Flathead Lake State Park – Wild Horse Island	\$653.92
Flathead Lake Salmon Hatchery	\$11.16
Somers Beach State Park	\$359.81
Walstad FAS	\$5,914.97
Woods Bay	\$10,527.74
Total	\$52,011.51

Figure 6: 2024 taxes paid by FWP site.

Direct Impacts:

No significant adverse direct impacts to local and state tax base and tax revenues would be expected because of the proposed project(s). Funding to support the proposed project would be sourced from FWP funding sources, including state special revenue. No impacts to the applicable tax burden and FWP tax payments to Flathead or Lake Counties would be realized because of the proposed project(s). A limited amount of revenue may be lost due to restricted access to each site during the construction phase of the proposed project(s). Lost revenue associated with lost state park fees, lost conservation license fees and associated impacts to local and state tax revenue, would depend on the timing of construction and related closures (i.e., more impactful during typical high use seasons). The proposed project timing would be in early spring; therefore, FWP expects very little, if any, loss of revenue would be realized because of the proposed project. Further, the proposed project would be expected to increase state and local tax revenues from the sale of fuel, supplies and/or equipment to complete the project. Any adverse or beneficial direct impacts would be short-term and negligible to minor.

Secondary Impacts:

No significant adverse secondary impacts to local and state tax base and tax revenues would be expected because of the proposed project. Funding to support the proposed project would be sourced from FWP funding sources, including state special revenue. No impacts to the applicable tax burden and FWP tax payments to Flathead or Lake Counties would be realized because of the proposed project. Increased use of the improved shoreline access to facilities may result in an increase in state park or fishing access site use and associated fees. Also, recreational spending in affected nearby communities may be increased by increased use of FWP sites, which would beneficially impact local tax revenue. Any secondary impacts would be long-term, negligible to minor, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project(s). Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to state and local tax base and tax revenue would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

5. Industrial, Commercial, and Agricultural Activities and Production

Existing Environment/Baseline Conditions (No Action Alternative):

No industrial activities occur around Flathead Lake. Agriculture supporting commercial fruit production is common around Flathead Lake, although not generally along the shore, with cherries being the predominant crop.

Direct Impacts:

No significant adverse direct impacts to industrial, commercial, and agricultural activities and production would be expected because of the proposed project. The FWP sites are either existing state parks or fishing access sites established primarily for the purposes of public recreation, thus the area affected by the proposed project does not support industrial activities and/or production. Because the affected area is not used for such purposes, no direct impacts to industrial activities or production within or near FWP sites would be expected because of the proposed project. Agriculture to support commercial fruit production is common in the general vicinity of Flathead Lake (primarily cherries); however, again, because the proposed project would occur within an existing state park or fishing access site, no land used for agricultural and commercial purposes would be directly affected and no impacts to agricultural or commercial activities would be expected because of the proposed project.

FWP sites on Flathead Lake do periodically facilitate commercial activity for varied interests in accordance with the FWP commercial use permitting policy and associated administrative rules 12.14.101 through 12.14.170. Examples include, but are not limited to, service providers commercial use permits. Furthermore, FWP would hire local/in-state contractor(s) for the design and construction phase of the proposed projects, thereby directly and beneficially impacting local and/or state commercial activity and production. Any direct impacts to commercial activity and production in the affected area would be short-term, minor, and beneficial. There would be a short-term minor beneficial impact to

commercial and industrial production associated with the proposed construction activities. FWP does not anticipate any impacts to surrounding agricultural production.

Secondary Impacts:

No significant adverse secondary impacts to industrial, commercial, and agricultural activities and production would be expected because of the proposed project. The FWP sites are either existing state park or fishing access sites established primarily for the purposes of public recreation, thus the area affected by the proposed project does not support industrial activities and/or production. Because the affected area is not used for such purposes, no secondary impacts to industrial activities or production within or near FWP sites would be expected because of the proposed project.

The proposed project(s) would be intended to facilitate improved state park and fishing access site resources and thereby potentially increase participation and enjoyment of commercial activities, service providers commercial use permits, within FWP sites, which may beneficially impact (i.e., increase) future participation in such events. Any secondary impacts to commercial activity and production in the affected area would be long-term, minor, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to industrial, commercial, and agricultural activities and production would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

6. Human Health and Safety

Existing Environment/Baseline Conditions (No Action Alternative):

FWP properties on Flathead Lake were acquired between 1941 and 2021 and are in varying degrees of development. The state parks and fishing access sites are highly utilized by the public for lake access and recreation. All these sites have boat launches and shoreline available for use. Eroding shorelines does cause concern for safety as visitors access the shoreline.

Direct Impacts:

No significant adverse direct impacts to human health and safety would be expected because of the proposed project. Affected government staff and/or contractors hired to conduct the project may realize increased risk to human health and safety associated with the construction phase of the proposed project; however, FWP would require affected staff and/or contractors to operate in a safe manner and utilize best management practices, including the use of available and appropriate safety precautions.

The construction phase of the proposed action would result in short-term, altered conditions at FWP sites, which would increase risks to public health and safety. These conditions would be mitigated through temporary, partial, or total closure of FWP sites during the construction phase of the proposed project to lessen risk to human health and safety and ensure public safety. Therefore, any adverse direct

impacts to human health and safety associated with the proposed project would be short-term and negligible to minor. Any beneficial impacts would be short-term and minor to moderate.

Secondary Impacts:

No significant adverse secondary impacts to human health and safety would be expected because of the proposed project. No adverse secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to human health and safety would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

7. Quantity and Distribution of Employment

Existing Environment/Baseline Conditions (No Action Alternative):

The staffing model for FWP sites on Flathead Lake includes allocated time from the park's administrative and maintenance personnel who provide year-round oversight and operation of the FWP sites. During the peak operating season of May 1 through October 1, volunteer campground hosts and paid recreation technicians are stationed at most of the state park units to provide customer service and operational assistance. In accordance with the FWP commercial use policy and administrative rules, commercial use permits are issued to provide economic opportunities and visitor services at the state park units and fishing access sites. These permits are typically associated with recreational equipment rentals or guided fishing trips on Flathead Lake.

Direct Impacts:

No significant adverse direct impacts to the quantity and distribution of employment in the affected area would be expected because of the proposed project. Existing government staff and/or local contractors would be used to complete the construction phase of the proposed dynamic gravel beach. Commercial permit holders that use FWP sites for operations may be adversely and directly impacted by the construction phase of the proposed project, as FWP sites may be closed or have restricted access during this time.

To mitigate potential direct impacts to contractors using any one FWP site, commercial permittees would be notified well in advance of the initiation of construction activities. Early notification would facilitate the ability to plan for alternative facilities to accommodate their commercial activities, including the use of different, yet similar, Flathead Lake State Park and fishing access site locations. Therefore, any direct impacts to commercial operations associated with a specific FWP would be short-term, minor, and mitigated by early notification of closure and restricted access to facilitate commercial use of other similar alternative facilities on Flathead Lake including the Big Arm Unit, Finley Point Unit, Wayfarers Unit, West Shore Unit and Yellow Bay Unit of Flathead Lake State Park or fishing access sites.

Secondary Impacts:

No significant adverse secondary impacts to the quantity and distribution of employment in the affected area would be expected because of the proposed project. FWP expects that recreational opportunities at FWP sites would be improved because of the proposed project. Most commercial activities that take place at FWP sites constitute permitted recreational pursuits and more specifically recreational equipment rentals and/or guided fishing trips on Flathead Lake. Following completion of the proposed project the affected facilities would re-open to the public with improved recreational facilities and would therefore likely result in enhanced visitor experience, including commercial opportunities, which may beneficially impact such services. Therefore, FWP expects that any secondary impacts would be long term, moderate, and beneficial.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to human health and safety would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

8. Density and Distribution of Human Population and Housing

Existing Environment/Baseline Conditions (No Action Alternative):

There are a handful of larger communities around Flathead Lake, including Bigfork, Lakeside and Polson. Lands surrounding the rest of Flathead Lake are rural and lightly populated. The Flathead Lake State Park averages an estimated 337,000 annual visits, the bulk of which occur during the peak summer season. Fishing access sites generally have lower visitation.

Direct Impacts:

No significant adverse direct impacts to the density and distribution of human population and housing in the affected area would be expected because of the proposed project. The proposed project would be implemented by existing government staff or contractors and would not otherwise require or result in the movement of existing or new population into or out of the affected area. Any campgrounds would remain open during the time of construction, thus not displacing, disrupting, or changing any necessary temporary human housing needs during implementation of the proposed project. Therefore, no adverse direct impacts would be expected because of the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to the density and distribution of human population and housing in the affected area would be expected because of the proposed project. The amount of time needed to complete the construction phase of the proposed project would be relatively limited. Further, the proposed project would use existing government staff and/or local contractors to accomplish the proposed projects and thus would not require or likely result in the immigration or emigration of long-term residents to or from the affected area. Also, existing FWP staff currently responsible for managing

FWP sites would continue to manage the improved facilities once the proposed project is completed. Therefore, no adverse secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to the density and distribution of human population and housing in the affected area would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

9. Demands for Government Services

Existing Environment/Baseline Conditions (No Action Alternative):

FWP properties are served by surrounding Volunteer Fire Departments for first response to wildfire or structural fire. Half of the sites are located within the jurisdiction of the CSKT police department and the Lake County Sheriff's Office. FWP game wardens conduct routine patrols of the park and provide the majority of law enforcement coverage. The Montana Department of Environmental Quality (DEQ) regulates public drinking water and septic systems. FWP staff manage FWP facilities, year-round.

Direct Impacts:

No significant adverse direct impacts to demands for government services would be expected because of the proposed project. FWP expects most of the work necessary to complete the proposed project would be accomplished by local private contractors rather than existing FWP staff. However, some short-term and minor adverse direct impacts to government services and financial resources would be realized because the privately contracted work would be funded by FWP. Any adverse direct impacts to existing government staff and/or financial resources would be short-term, minor, and consistent with pre-project duties and expenditures. Also, some short term, minor, adverse direct impacts to Flathead and Lake Counties and CSKT staff may occur associated with required review and permitting of the proposed project plans and subsequent issuance of lakeshore permitting. No additional demands for government services would be expected because of the proposed project. Therefore, any adverse direct impacts would be short-term, minor, and consistent with pre-project impacts.

Secondary Impacts:

No significant adverse secondary impacts to demands for government services would be expected because of the proposed project. Following completion of the proposed project, FWP staff would continue to manage routine maintenance costs associated with the maintenance and operation of FWP sites, including monitoring and control of noxious weeds and day-to-day operations. These day-to-day operations include regularly monitoring the area for any resource damage, litter, etc. No staffing increases would be required for the proposed project. Therefore, no adverse secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP's acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s), and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to demands for government services would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

10. Locally Adopted Environmental Plans and Goals

Existing Environment/Baseline Conditions (No Action Alternative):

FWP properties are mainly state parks and fishing access sites. The role of Montana State Parks is to create and maintain opportunities for a wide range of outdoor recreation for the enjoyment of current and future generations of Montanans and visitors to the state. Fishing access sites also strive to provide recreational fishing and boating activities for residents and visitors. Flathead Lake State Park currently provides remarkable opportunities for residents and visitors alike to get outside and enjoy Flathead Lake and the forest landscape that surrounds the lake.

According to a search of the Montana Natural Heritage Program database, 15 state designated wildlife species of concern have been identified within or within the vicinity of Flathead Lake, including the following: Hoary Bat, Long-legged Myotis, Fringed Myotis, Little Brown Myotis, Townsend's Big-eared Bat, Long-eared Myotis, Yuma Myotis, Western Pygmy Shrew, Preble's Shrew, Northern Bog Lemming, Fisher, Canada Lynx, Grizzly Bear, Wolverine, and Bison. Bald eagles, which are listed as a special status species have also been observed around Flathead Lake. Grizzly bear and bull trout are listed as "threatened" under the federal endangered species act. While grizzly bears may pass through the area around Flathead Lake, the lake does not include critical habitat; therefore, grizzly bears would not be expected to occupy or otherwise routinely use the affected area. Further, while bull trout do inhabit Flathead Lake and may use adjacent creeks for part of their life cycle, the proposed project would not be expected to adversely impact the species because the project would be occurring at the lake's low pool and not during potential spawning use by bull trout. According to a search of the Montana Natural Heritage Program database, 60 plant species of concern have been identified within or within the vicinity of Flathead Lake. None of the above listed species occur within the proposed project area of the gravel beaches.

Direct Impacts:

No significant adverse direct impacts to locally adopted environmental plans and goals would be expected because of the proposed project. FWP sites on Flathead Lake were established to provide Montanans and those visiting the state with varied recreational opportunities in a remote setting, unspoiled by human impacts to the environment. The state parks and fishing access sites continue to be managed to support this objective. The primary objective of the proposed project would be to improve the existing setting of these FWP sites by limiting the loss of existing shoreline and vegetation due to wave erosion, provide a natural transition from the aquatic environment along the shoreline to the adjacent vegetative area, and ultimately improve recreational opportunities on Flathead Lake.

Construction activities associated with the proposed project would directly and adversely impact recreational opportunities associated with FWP sites, as the site would be closed or have restricted access to public recreation during this time. However, any adverse direct impacts to local recreation would be short-term, minor, and mitigated by the ongoing availability of similar recreational opportunities provided by Flathead Lake State Park including the nearby Big Arm Unit, Finley Point Unit, Wayfarers Unit, West Shore Unit and Yellow Bay Unit, and the five fishing access sites around Flathead Lake.

Further, construction activities associated with the proposed project may adversely impact some wildlife species, including the 15 species of concern that have been observed within or in the vicinity of Flathead Lake, and 60 plant species of concern. These affected species include bull trout and grizzly bears, which are also listed as “threatened” under the federal ESA, and those species listed above in the *Existing Environment*.

Bald eagles, which are listed as a “special status species” and have been de-listed under the federal ESA have also been observed within and nearby FWP sites on Flathead Lake. It is FWP’s objective to re-establish habitats and species-specific populations to a condition and level that would allow for the de-listing of bull trout and grizzly bears from the ESA as well as de-listing of all “species of concern” and/or “species of special concern.”

The operation of heavy equipment may result in the temporary displacement of these affected species of concern. However, again, any adverse direct impacts would be short-term and minor, lasting only as long as the construction phase of the proposed project. FWP is unaware of any other locally adopted environmental plans or goals that would be directly impacted by the proposed project.

Secondary Impacts:

No significant adverse secondary impacts to locally adopted environmental plans and goals would be expected because of the proposed project. The FWP sites on Flathead Lake were generally established to provide Montanans and those visiting the state with varied, high quality recreational opportunities in a remote setting, relatively unspoiled by human impacts to the environment. Following completion of each proposed project, the FWP sites would continue to be managed to support this objective, and the proposed project would not change the purpose and intent of the FWP sites. Therefore, FWP expects any secondary impacts associated with Montana State Park recreational objectives, and more specifically those objectives applied to the local setting associated with each site, to improve because of the proposed project. Therefore, any impacts to local recreational plans and goals associated with recreating in FWP sites on Flathead Lake would be long-term, beneficial, and minor.

Once completed, FWP does not expect the proposed project would result in any additional adverse impacts to the species of concern that have been observed within or in the vicinity of each FWP site (See Section XII.A.8, Unique Endangered, Fragile or Limited Environmental Resources). Therefore, in-line with federal, state, and local plans and goals related to wildlife and wildlife protections, no adverse secondary impacts to such wildlife resources would be expected because of the proposed project. FWP is unaware of any other locally adopted environmental plans or goals that would be impacted by the proposed project.

Cumulative Impacts:

No significant adverse cumulative impacts would be expected because of the proposed project. Since FWP’s acquisition of each FWP property, FWP has proposed and implemented several projects on the properties, including the proposed project. Each historic FWP action has been subject to, and complied with, MEPA. Based on the environmental review conducted for historic and present day FWP project(s),

and with consideration of potential impacts to the affected human environment from the proposed project, FWP determined no significant adverse cumulative impacts to any locally adopted environmental plans and goals would be expected because of the proposed project. Any unknown future projects and associated cumulative impacts to the affected human environment would be assessed on a case-by-case basis pursuant to MEPA and other affected public processes and regulatory mechanisms, as applicable, prior to project approval and implementation. For a more detailed discussion of potential cumulative impacts see Section VIII, Cumulative Impacts Analysis.

XIII. Private Property Impact Analysis (Takings)

The 54th Montana Legislature enacted the Private Property Assessment Act, now found at § 2-10-101. The intent was to establish an orderly and consistent process by which state agencies evaluate their proposed projects under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency projects pertaining to land or water management or to some other environmental matter that, if adopted and enforced without due process of law and just compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agencies to assess the impact of a proposed agency project on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency project has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act.

Table 4: Private Property Assessment Act (Taking and Damaging Assessment)

PRIVATE PROPERTY ASSESSMENT CHECKLIST			
Does the Proposed Action Have Takings Implications under the PPAA?	Question #	Yes	No
Does the project pertain to land or water management or environmental regulations affecting private property or water rights?	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action result in either a permanent or an indefinite physical occupation of private property?	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action deprive the owner of all economically viable uses of the property?	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 4a and 4b and continue with question 6.)	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a reasonable, specific connection between the government requirement and legitimate state interest?	4a	<input type="checkbox"/>	<input type="checkbox"/>
Is the government requirement roughly proportional to the impact of the proposed use of the property?	4b	<input type="checkbox"/>	<input type="checkbox"/>
Does the action deny a fundamental attribute of ownership?	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action have a severe impact of the value of the property?	6	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public general? (If the answer is NO, skip questions 7a-7c.)	7	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is the impact of government action direct, peculiar, and significant?	7a	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?	7b	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?	7c	<input type="checkbox"/>	<input type="checkbox"/>
Does the proposed action result in taking or damaging implications?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Taking or damaging implications exist if YES is checked in response to Question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to question 4a or 4b.			
If taking or damaging implications exist, the agency must comply with MCA § 2-10-105 of the PPAA, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.			
Alternatives: The analysis under the Private Property Assessment Act, §§ 2-10-101-112, MCA, indicates no impact. FWP does not plan to impose conditions that would restrict the regulated person's use of private property to constitute a taking.			

XIV. Public Participation

Scoping

Scope is the full range of issues that may be affected if an agency implements a proposed action or alternatives to the proposed action. The scope of the environmental review is described through a definition of those issues, a reasonable range of alternatives considered, a description of the impacts to the physical and human environments, and a description of reasonable mitigation measures that would ameliorate the impacts. Scoping is the process used to identify all issues that are relevant to the proposed action.

Depending on the level of impact associated with a proposed action, the scoping process may include a request for public participation in the identification of issues.

Scoping also includes efforts to engage internal and affected external agencies. For the proposed project, these scoping efforts included queries to the following agency websites/databases/personnel:

[LIST AGENCIES CONSULTED / DELETE AGENCIES NOT CONSULTED FROM LIST BELOW]

- Montana State Historic Preservation Office (SHPO)
- Montana Department of Environmental Quality (DEQ)
- County Jurisdiction
- USGS National Hydrography Data
- Montana Natural Heritage Program
- Montana Cadastral
- Confederated Salish and Kootenai Tribes (CSKT)

Public Review of Environmental Assessments

The level of analysis in an EA will vary with the complexity and seriousness of environmental issues associated with a proposed action. The level of public interest will also vary. FWP is responsible for adjusting public review to match these factors (ARM 12.2.433(1)). For the proposed project, FWP determined the following public notice strategy will provide an appropriate level of public review:

- An EA is a public document and may be inspected upon request. Any person may obtain a copy of an EA by making a request to FWP.
- Public notice will be served on the Montana Fish, Wildlife and Parks website at: <https://fwp.mt.gov/public-notices>.
- Public notice will be served on the Montana Environmental Quality Council's or EQC MEPA website at: <https://leg.mt.gov/mepa/search/>.
- As applicable, copies will be distributed to neighboring landowners to ensure their knowledge of the proposed project and opportunity for review and comment on the proposed action.
- FWP maintains a mailing list of persons interested in a particular action or type of action. FWP will notify all interested persons and distribute copies of the EA to those persons for review and comment (ARM 12.2.433(3)).

Public notice announces availability of the Draft EA for public review, summarizes the proposed project, identifies the time-period available for public comment, and provides direction for submitting comments.

- **Duration of Public Comment Period:** The public comment period begins on the date of publication. Written or e-mailed comments will be accepted until 5:00 p.m., Mountain Time, on the last day of the public comment period for the proposed action, as listed below:

Length of Public Comment Period: 30 days

Public Comment Period Begins: February 12, 2025

Public Comment Period Ends: March 13, 2025

Comments must be addressed to the FWP contact listed below.

- **Where to Mail or Email Comments on the Draft EA:**

Name: AMY GROUT

Email: agrout@mt.gov

Mailing Address:

8600 MT Hwy 35

Bigfork MT 59911

XV. Recommendation for Further Environmental Analysis

NO further analysis is needed for the proposed action	<input checked="" type="checkbox"/>
FWP must conduct EIS level review for the proposed action	<input type="checkbox"/>

XVI. EA Preparation and Review

	Name	Title
EA prepared by:	Amy Grout	Flathead Lake District Recreation Manager
EA reviewed by:	Deb O'Neill	Special Projects Manager, Legal Unit

XVII. References

Lorang, M.S. 2023. Yellow Bay State Park Gravel Beach Design. 1-7.

Lorang, M.S., 1991. An artificial perched-gravel beach as a shore protection structure. Proc. Coastal Sediments '91, American Society of Civil Engineers, II: 1916-1925.

Lorang, M.S. 2002. Predicting the crest height of a gravel beach. Geomorphology 48: 87-101.

Lorang, M. S. 2000. Predicting threshold mass and stable boulder mass for a beach. Journal of Coastal Research 16(2):432-445

Lorang M.S. 2006b. Final report for the East Bay and Blue Bay project. Final report to the Confederated Salish and Kootenai Tribes. 22 pp.

Lorang M.S. 2003. Salish Point Waterfront Redevelopment Project: Designing a Natural Gravel Beach for the Waterfront area. Final report to the Confederated Salish and Kootenai Tribes. 18 pp.