

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT

ENVIRONMENTAL ASSESSMENT

for

BURMA POND PROJECT
EA No. OR-118-02-009
June 2002

This environmental assessment (EA) for the proposed Burma Pond Dam Project was prepared utilizing a systematic interdisciplinary approach integrating the natural and social sciences and the environmental design arts with planning and decision making.

Public notice of the availability of this EA is being provided through the BLM Medford District's web site at www.or.blm.gov/Medford/planning and advertisement in the Grants Pass Courier and Umpqua Free Press.

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ABSTRACT: The Glendale Field Office of the Medford District of the Bureau of Land Management (BLM) proposes, as required by Oregon State Law, to repair the existing Burma Pond dam structure to allow for manual drainage of the pond for emergency purposes. The proposal to improve the structural integrity of the dam would prevent potential hazards to humans and property.

The project team is also recommending a variety of other improvements to the recreational area directly surrounding the pond would prevent further resource damage due to vandalism of the resources, off-highway vehicle (OHV) use in restricted areas, and motorized water craft use in the pond. These additional improvements include upgrading the existing water diversion structure which supplies the pond, upgrading the entrance road to the pond. Proposed treatments include placing aesthetic barriers to prevent vehicular access to sensitive areas, installing a vault toilet, construction of new camp sites, placing rip-rap on the water-side of dam to prevent erosion, installing a vault toilet to prevent further human waste hazard

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issues, construction of new camp sites to prevent further environmental degradation to the dam, upgrading the water diversion structure to the pond, upgrading the entrance road and upgrading the existing pond spillway. Also other considered resource improvements for the analysis are recommended, including placement of emergent aquatic vegetation to improve habitat for waterfowl and other wetland associated wildlife.

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Glossary

Breach - To break-through

BST - Bitumous Surface Treatment

Clear & Grub - To remove vegetation by digging up roots and stumps

Diversion Ditch - A ditch that carries water from one source to another

Diversion Structure - The device that diverts water from the source to the diversion ditch

Freeboard - The height above the recorded high-water mark of a dam associated with the water retained by the dam

Out-flow - Engineering structures that control a stream flowing out of a reservoir

Piping - To draw water from one source to another

Rip-Rap - A sustaining wall of stones thrown together with out order. Usually to secure and stabilize a dirt embankment

Slide-Gate - A device for controlling the flow of water

Spillway - A passage for surplus water to run over or around a dam

Subsoiling - To break-up a layer of compacted soil.

Toe of Dam - The point where the artificial fill of the dam meets the natural ground line.

Chapter 1 - Purpose and Need

1.0 Introduction

The Glendale Field Office of the Medford District Bureau of Land Management (BLM) is proposing to implement repairs and upgrade the Burma Pond dam and the associated diversion system. Repair to the dam structure is a mandatory requirement by the State of Oregon Water Resources Department for the purpose of emergency dewatering. This repair work would allow the existing water use permit to continue.

Burma Pond has been a popular recreation site for many years. There are no restroom facilities, developed campsites, fire rings, or posted regulations concerning use of motorized craft on the pond. The area is littered with toilet paper and trash, is experiencing erosion problems due to off-road vehicle use, and poses potential forest-fire risk due to random campfire placement. Vehicles travel off-road over the dam itself, throughout the adjacent forested areas, and along the banks of the pond causing erosion problems and damage to wildlife habitat. The access road to the pond is difficult to maneuver for most vehicles. The proposed recreational upgrades would alleviate most of these current use issues and provide a more enjoyable and safe recreation experience for the visiting public.

This document is also being used to inform interested parties of the anticipated impacts and provide them with an opportunity to comment on the various alternatives.

1.1 Background

In approximately 1919, a water right was filed for a diversion from Secesh Gulch for mining purposes and to produce power for a small stamp mill. In 1921 an additional water right was filed and awarded for the construction of a reservoir for the purposes of mining. In 1989 the BLM filed for water rights on this reservoir based on “non-use” by the previous water right holder and in 1998 received a use permit for storage and diversion rights at the reservoir to be used for public recreation purposes. This reservoir is known as Burma Pond.

In approximately 1998 several minor repairs were made to both the diversion and the dam in an effort to stabilize these aging structures. These repairs were made to prevent complete dam failure and other related resource damage.

1.2 Purpose and Need

Recently a Medford District hydrologist identified signs of breaching in the dam and recognized that repairs would have to be done to secure the integrity of the dam.

In September of 2001 professional engineers from the BLM’s State Office, accompanied by a hydrologist and engineer from the Medford District Office visited the dam site. A thorough

on-site investigation and evaluation of the dam and the pond was implemented. As a result of this investigation, the State Office engineers concurred that the structures posed a safety concern for the following reasons:

- 1) The dam is showing signs of breaching due the deteriorating out-flow pipe and valve, and the encroachment of vegetative roots.
- 2) Water leakage from the pond is visible throughout the gulch below the dam, as evidenced by the moist soil conditions below the toe of the dam.
- 3) The diversion structure has been vandalized, and due to several perforations, is leaking in many places along its route, causing soil deterioration and potential land slide activity.
- 4) The out-flow gate and pipe are more than likely non-functional resulting in an impossible manual drainage of the pond in the case of an emergency.

The conclusions of the engineers and hydrologist were that these structures are in poor condition and without immediate attention, and repair, the dam could breach. Recently a Medford District hydrologist identified signs of breaching in the dam. This breach of the dam is a possible hazard to human life and property, as well as to natural resources. To remain in compliance with Oregon State regulations the BLM must install a functioning out-flow gate valve and exit pipe into the dam. In addition, all woody vegetative materials must be removed from the surface of the dam to ensure that the roots from these trees and shrubs do not induce future leakage of the pond through piping.

Burma Pond has served as a dispersed recreation site for many years. However, due to the popularity of the site, resource degradation has, and continues, to occur. There are no restroom facilities, developed campsites, fire rings, or posted regulations concerning use of motorized craft on the pond. Vehicles travel off-road over the dam itself, throughout the forested areas, and along the banks of the pond causing erosion problems and damage to wildlife habitat. There is evidence throughout the area that no proper toilet facilities exist. Campfires are constructed at random throughout the site and pose potential forest-fire hazards. The access road to the pond is difficult to maneuver for most vehicles.

1.3 Objectives

- | | |
|------------|---|
| Safety | To perform needed upgrades to the dam which will secure Burma Pond and its related structures. These upgrades would be done to prevent potential future human and resource damage caused by the possible breaching of the dam. Bio-hazards would be reduced by the installation of restroom facilities. |
| Compliance | To come into compliance with Oregon State Water Resource Departments' |

regulations concerning BLM's permit for use of the pond by implementing the needed repairs to the dam.

- Recreation To enhance recreation opportunities for the public by upgrading the site to accommodate camping, safe traffic flow, easier access, and day use recreational activities.
- Wildlife To provide habitat diversity for the future benefit of wildlife at the pond.
- Resources To protect the integrity of the pond, and the natural and cultural resources surrounding the pond, by installing traffic barriers and planting native plant species.

All planned activities are located on public lands administered by the BLM.

1.4 Conformance with Existing Land Use Plans

The proposed activities are in conformance with and tiered to the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (USDI, USDA 2001) and the *Medford District Record of Decision and Resource Management Plan* (RMP) (USDI 1995b). These Resource Management Plans incorporate the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (NWFP) (USDA and USDI 1994). These documents are available at the Medford BLM office and the Medford BLM web site at <<http://www.or.blm.gov/Medford/>>.

1.5. Relationship to Statutes, Regulations and Other Plans

This Environmental Assessment (EA) is being prepared to determine whether the proposed action or any of the alternatives would have a significant effect on the human environment and thus require the preparation of an Environmental Impact Statement (EIS) as prescribed in the National Environmental Policy Act of 1969. The proposed action and alternatives are in conformance with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937 (O&C Act) and the Federal Land Policy and Management Act of 1976 (FLPMA). This document complies with the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA; 40 CFR Parts 1500-1508) and the Department of the Interior's manual guidance on the National Environmental Policy Act of 1969 (516 DM 1-7).

1.6 Decisions to be made Based on this Analysis

1. Whether or not the impacts of the proposed action are significant to the human environment beyond those impacts addressed in previous NEPA documents. (If the impacts are determined to be insignificant, then a Finding of No Significant Impact (FONSI) can be issued and a decision can be implemented. If any impacts are determined to be significant to the human environment, then an Environmental Impact Statement must be prepared before the Glendale Field Manager makes a decision.)
2. Whether to implement the proposed action, implement another alternative to the proposed alternative, or defer to the no action alternative.

1.7. Issues of Concern

The following issues were identified throughout the scoping process. All of these issues were reviewed by the ID Team.

1. **Public use:** Possible over-use of area due to recreation upgrades.
Possible hazards to the human element due to exposure to human waste.
Continued resource damage due to off-road vehicle use.
2. **Cultural/historical:** Retaining the integrity of the cultural resources in the area of Burma Pond.
3. **Wildlife Habitat:** Maintenance of habitat diversity.
4. **Invasive/non-native species:** Largemouth bass, which are not native to Oregon or the Pacific Northwest, have been illegally stocked in the pond. ODFW has no plan for removing these bass.
5. **Regulatory:** To remain in compliance with Oregon State Water Resources Division
To obtain formal water rights at Burma Pond

Chapter 2 - Alternatives

2.0 Introduction

This chapter describes the proposed action alternative and additional alternatives including the no action alternative. This chapter also outlines specific project mitigation features that are an essential part of the project design.

The Glendale Field Office collaborated with the BLM's Oregon State Office Engineering staff to perform a thorough on-site investigation of the Burma Pond dam and its related structures. As a result of this investigation the engineers made recommendations, and provided a cost analysis, of needed repairs to secure the dam and its related diversion structure (copy in EA file). These recommendations, along with the professional advice of the Burma Pond ID Team, resulted in the development of the following action alternatives. Recommendations outlined in the Medford District Resource Management Plan "Best Management Practices" (**pages 149-177**) have been incorporated into the project design.

Two additional alternatives that are not mentioned below were discussed by the ID Team and determined not to be feasible. These two alternatives included: 1) allowing the dam to breach; and 2) draining the pond completely for the duration of the upgrade project.

2.1 Action Alternatives

2.1.1 Alternative 1 - Safety and Full Recreation (Proposed Action)

Repair Dam Structure, Replace Diversion Structure, Enhance Wildlife Habitat Opportunities, Enhance Existing Recreation Amenities.

Actions:

- Partially drain existing reservoir.
- Excavate and replace outlet works.
- Install new diversion structure.
- Raise height of dam by **1.0 to 1.5** feet.
- Place rip-rap on slope of dam facing the pond, and in spillway.
- Clear and grub entire dam embankment of woody vegetation.
- Construct three developed campsites to replace existing dispersed camping areas.
- Install a double vault, handicap accessible, toilet.
- Construct barriers to eliminate OHV access across dam and throughout the recreation areas immediately surrounding the reservoir.
- Clean out and grub diversion ditch of all large woody material.
- Upgrade existing trail system and related foot bridge.
- Plant emergent vegetation to enhance wetland wildlife habitat.
- Create wildlife snags to promote cavity dependent species.
- Upgrade the entrance road by lowering the grade, and surfacing the roadbed.

- Create an interpretive brochure which will provide the public with a “self-guided” tour of the cultural resources in the area of Burma Pond.

2.1.1.2 Project Design Features

Project design features (PDFs) are included for the purpose of reducing potential impacts which might stem from the implementation of the alternatives. This section outlines the PDFs which would be common to Alternative I.

- Screened pumps, siphons, and other equipment would be used as the pond is drawn down to prevent the release of fish downstream into Secesh Gulch.
- Coordination with ODF&W and other agencies would be sought regarding the stocking of fish in the pond before and after the dewatering of pond.
- The non-historic diversion pipeline would be removed from Secesh Gulch as the diversion structure is replaced.
- Restoration would occur using native plants and erosion control measures where ground disturbance has taken place in areas surrounding the pond.
- Restoration of the dam’s surface would occur with the use of native grasses to prevent future erosion.
- A temporary coffer-dam would be constructed behind the current dam to enable continued storage of some water in the pond for the benefit of fish and wildlife.
- Existing recreation access would be limited during the construction process and the entrance road will be temporarily blocked for public safety purposes.
- Project activities would occur during the summer season.
- All existing cultural resources would be protected and/or mitigated.
- No commercial sized timber would be harvested as a result of these alternatives.
- The entrance road would be surfaced with a Bitumous Surface Treatment (BST).
- All cut-off structures would be installed complying with Oregon State regulations.
- Clearance surveys for survey and manage species (red tree voles and mollusks) would be performed prior to issuance of a Decision Notice.

- The installation a vault toilet would conform to all Oregon State and Federal codes.

2.1.2 Alternative 2 - Safety and Partial Recreation

Repair Dam Structure, Replace Diversion Structure, Enhance Wildlife Habitat Opportunities, and Install Vault Toilet.

Actions:

- Partially drain existing reservoir.
- Excavate and replace outlet works.
- Install new diversion structure.
- Raise height of dam by **1.0 to 1.5** feet.
- Place rip-rap on slope of dam facing the pond, and in spillway.
- Clear and grub entire dam embankment of woody vegetation.
- Install barriers to eliminate OHV access across dam only.
- Install a single vault handicap accessible toilet.
- Plant emergent vegetation to enhance wetland wildlife habitat.
- Upgrade entrance road by lowering the grade, and surfacing the roadbed.
- Create wildlife snags to promote cavity dependent species.
- Create an interpretive brochure which will provide the public with a “self-guided” tour of the cultural resources in the area of Burma Pond.

2.1.2.1 Project Design Features

The project design features for Alternative 2 would be the same as those for Alternative 1.

2.1.3 Alternative 3 - Safety Repair Dam Structure and Replace Diversion Structure.

Actions:

- Partially drain existing reservoir.
- Excavate and replace outlet works.
- Install new diversion structure.
- Raise height of dam by **1.0 to 1.5** feet.
- Place rip-rap on slope of dam facing the pond and in spillway.
- Clear and grub entire dam embankment of woody vegetation.
- Install barriers to eliminate OHV access across dam only.

2.1.3.1 Project Design Features

- Screened pumps, siphons, and other equipment would be used as the pond is drawn down to prevent the release of fish downstream into Secesh Gulch.
- Coordination with ODF&W and other agencies would be sought regarding the stocking of fish in the pond before and after the dewatering of pond.

- The non-historic diversion pipeline would be removed from Secesh Gulch as the diversion structure is replaced.
- Restoration of the dam's surface would occur with the use of native grasses to prevent future erosion.
- A temporary coffer-dam will be constructed behind the current dam to enable continued storage of some water in the pond for the benefit of fish and wildlife.
- Existing recreation access would be limited during construction process and the entrance road will be temporarily blocked for public safety purposes.
- All existing cultural resources would be protected and/or mitigated.
- No commercial sized timber would be harvested as a result of this alternative.
- All cut-off structures would be installed complying with Oregon State regulations.
- Clearance surveys for survey and manage species (red tree voles and mollusks) would be performed prior to issuance of a Decision Notice.

2.1.4 Alternative 4 - No Action Continue Present Management Activities.

No repairs, treatments, or actions would take place other than those actions mentioned in the directives of the Medford District BLM's Resource Management Plan.

Chapter 3 - Affected Environment

3.0 Introduction

The affected environment describes the present condition within the proposed Burma Pond Project area that would be affected by the alternatives. The information in this chapter would serve as a general baseline for determining the effects of the alternatives. Enough detail has been provided to determine if any of the alternatives would cause impacts to the environment. The information is organized around the major issues.

3.1 Location

Burma Pond is located on federal lands owned by, and managed by, the Glendale Resource Area of the Medford District BLM. The legal description of Burma Pond is: 33S, 5W, in the NE 1/4 of Sec. 15. The pond is approximately 4.5 acres in size and was constructed next to Unnamed Gulch which is, a tributary of Secesh Gulch, which is a tributary of Wolf Creek located in Josephine County, Oregon.

3.2 Public Use

Burma Pond is located approximately 8 miles from the rural community of Wolf Creek and has been used for decades by local rural community members as a “back-yard” recreational opportunity. Hundreds of visitors come to Burma Pond each year for wildlife viewing, fishing, hiking, and camping. For many years a local Boy Scout troop has adopted the Burma Pond area and provided maintenance and trash removal as one of their service projects. The Oregon Department of Fish and Wildlife has been stocking the pond with rainbow trout since 1980 to the delight of fishermen in the area. A variety of wildlife abound here, frequenting both the forested area surrounding the pond, and the wetland habitat area within the pond.

Other recreational use in the area of Burma Pond include OHV use, seasonal hunting, swimming, picnicking, and sunbathing. Currently there are no barriers in place around the pond to prevent vehicular access to forested areas. As a result of easy access, soil compaction and vegetative damage has, and continues, to occur.

The pond was most likely without fish when it was originally formed but has probably been intermittently stocked by local residents of the area for many years using fish from Wolf Creek. The Oregon Department of Fish and Wildlife did not begin stocking the pond on a regular basis until about 1980 and now stocks it with legal size rainbow trout twice per year. The pond also supports a population of largemouth bass which thrives on hatchery rainbow trout. Catches of five pound bass have been reported.

3.3 Cultural/Historical

The area surrounding the pond contains a large complex of water ditches used to channel

water for hydraulic mining purposes, two reservoirs, a concrete dam and many feet of intact pipeline. The Secesh Reservoir, known as Burma Pond, pipeline and hydraulic mining ditch have been recorded and are designated archaeological site 35HS11-675. This archaeological site represents mining features from the late 1800's. The system held and supplied water to several gold placer mining operations on Wolf and Bummer Creeks. The intact pipeline and water transfer system at this site combine to create an unusual and outstanding character.

3.3.1 Historic Description

In September 1919 a water right was filed by J. H. Crans of Milwaukie, Oregon for the use of water for general mining purposes and as a power source to operate a small stamp mill. In the year 1921 and again in 1934 A. L. Miller of Grants Pass, Oregon applied for a water right to construct the Secesh Gulch Reservoir for mining purposes in section 15. Brooks and Ramp (1968, Gold Silver in Oregon, Bulletin 61, DOGAMI) state that placer mining began along Wolf Creek in 1895. Mining operations suggest the area was placer mined between 1900 and 1950. The area where Secesh Gulch is located was referred to as a larger complex mining district called the Greenback mining area. The larger Greenback area encompassed rich placer deposits located along Grave Creek and it's tributaries Coyote and Wolf Creeks. The earliest production record was for 1883 when Grave Creek placers produced \$20,000 in gold.

In 1989 the BLM filed for water rights on this reservoir based on non-use by the previous water right holder and in 1998 received a final use permit for storage and diversion rights at the reservoir to be used for public recreation purposes.

3.3.2 Determination of National Historic Eligibility

The Secesh Reservoir, pipeline and hydraulic mining ditch have been recorded as archaeological site 35HS11-675. Located in the Glendale Resource Area Medford District BLM this site was officially recorded by contractor David Stepp in August 2000 as part of a contract obligation for the Wolf Tree project area cultural resource survey (ref. report GL-00-06 proj. num).

The archaeological site Secesh Reservoir (Burma Pond) and pipeline have been recommended as eligible for listing in the National Register of Historic Places.. The characteristics that make this site eligible are listed below.

1. Based on review of site records, historical evidence, and NRHP initial assessment form for historic mining sites, this site's series of intact pipeline system and extensive hydraulic mining ditches contribute to both the broad pattern of early hydraulic mining history and the local pattern of early hydraulic mining history by demonstrating and exemplifying early placer mining activity of the 1850's.

2. The Secesh reservoir and pipeline system's current integrity value is high as a result of the attributes of period and type that represent a distinguishable entity whose components may lack individual distinction but together provide significance. This site and surrounding area provide an excellent opportunity for a view into the past of placer mining technology still present and intact on the landscape. In addition, this site reveals the distinctive characteristics of early mining technology in southwest Oregon, relating to time period and method of construction issues attributable to National Historic Register eligibility.

3.4 Threatened and Endangered, Special Status and Survey and Manage Species

There are no known observations of threatened or endangered wildlife species in or around Burma Pond. The nearest northern spotted owl activity center is located approximately 0.75 miles northwest. The nearest known bald eagle nest site is located near Galesville Reservoir, approximately 10 miles northeast of Burma Pond. This area is outside the known Marbled murrelet range. There are no known special status or survey and manage species in or immediately adjacent to Burma Pond.

Wolf Creek, which is about one mile from Burma Pond, probably historically provided spawning and rearing habitat for Southern Oregon/Northern California (SO/NC) coho salmon, which is currently listed as Threatened under the Endangered Species Act. However, according to the Oregon Department of Fish and Wildlife, the species has not been documented in the Grave Creek watershed since 1954.

3.5 Invasive and Non-Native Species

There is currently a large population of largemouth bass that occupy the pond. No other non-native animal species is currently known to be present. The area around the pond and the access road to the pond are relatively free of invasive and noxious plant species. This is due in large part to the competing native vegetation that grows in the area which precludes invasion and establishment of noxious weeds.

3.6 Hydrology, Riparian, and Aquatic

The water that is stored in the pond emanates from several sources and varies seasonally. Ground water, water diverted from Secesh Gulch and precipitation help to maintain the water level in the pond. At full pool during winter the pond occupies about 4.5 surface acres of water that is open. The area that would naturally supply water to the pond is only 52 acres which is insufficient to supply the needs of maintaining the water level in the pond without supplementing with water diverted from Secesh Gulch.

The natural fringe areas of the reservoir contain riparian species of mainly sedges and brush species since the conifer forests. Conifers grow almost to the water's edge thereby precluding the growth of alder or other hardwood species. Some rooted aquatic plants are

also present but because of the depth of the water (3 to 5 feet deep) the area is quite small as opposed to the open water area. This offers little to shore dependent species.

The Secesh Gulch diversion canal and Secesh Gulch are well vegetated with canopy producing alder and brush species. These are being overtopped by conifer species. The temperature of the water is well protected thus ensuring a good water quality. The lake temperatures during the summer months often allow for swimming. Evaporation of the pond at times reduces the pond level by up to a foot resulting in no return flow from the pond back to Secesh Gulch.

At full pool during winter the pond occupies about 4.5 surface acres. Surface elevation drops 1 foot during summer months, as water inflow from the diversion canal and from groundwater seepage into the pond decreases, and evaporation increases, the elevation drops 1 foot during the summer months resulting in no return flow from the pond back to Secesh Gulch. Maximum pond depth during summer is about 10 feet.

Chapter 4 - Environmental Consequences

4.0 Introduction

This chapter forms the scientific and analytic basis for comparison of alternatives. Discussions include environmental impacts anticipated from implementation of the alternatives, both positive and negative. It also identifies and analyzes mitigation measures, if any, which may be taken to avoid or reduce projected impacts.

4.1 Effects Considered for Each Alternative

Direct effects are site-specific and result from the immediate action, such as the upgrade of the dam or the construction of a new restroom.

Indirect effects occur at a different place or time than the proposed action.

Cumulative effects result from an accumulation effects from past, current, and reasonably foreseeable actions, whose effects may not individually be significant.

Table 4.1 Critical Elements by Alternative The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's.

Critical Element	Alternatives Affected (Y or N)*				Critical Element	Alternatives Affected (Y or N)*			
	1	2	3	4		1	2	3	4
Air Quality	N	N	N	N	Threatened & Endangered Species	Y	Y	Y	N
ACEC	N	N	N	N	Wastes, Hazardous / Solid	N	N	N	N
Cultural	Y	Y	N	N	Water Quality	Y	Y	Y	Y
Farmlands, Prime/Unique	N	N	N	N	Wetlands, Riparian Zones	N	N	N	N
Flood plains	N	N	N	N	Wild & Scenic Rivers	N	N	N	N
Native American Religious Concerns	N	N	N	N	Wilderness	N	N	N	N
					Energy	N	N	N	N
Invasive Species	N	N	N	N	Environmental Justice	N	N	N	N
Public Use**	Y	Y	Y	Y	Survey and Manage**	N	N	N	N

* y=yes, n=no ** non-critical element

4.2 Effects on Public Use

4.2.1 Alternative 1 - Safety and Full Recreation (Proposed Action)

Direct Effects on Public Use:

With the upgrade of the dam, the potential for breaching of the dam would be decreased. This decrease would offer a safer environment for visitors to the area as well as protect the property and resources located downstream from the dam by preventing accidental flooding. The installation of a vault toilet to the site would improve sanitation thus decreasing the event of exposure to human waste. The placement of vehicular barriers would protect the dam's integrity, as well as protect the area surrounding the pond from future resource damage due to compaction and erosion caused from OHV use. Upgrading the camping sites, trail, and parking area would allow for easier access. Enhancement of the wildlife habitat would encourage more wildlife use of the area and therefore provide greater wildlife viewing opportunities. Upgrading the entrance road would allow easier access for vehicles.

The overall upgrades in this alternative could result in more visitation to the site which could be interpreted as a negative impact by the local community members who currently use this recreation site. At the site there could be a slight increase in the cost of maintenance, a possible increase of traffic, and an increased possibility of vandalism due to proposed upgrades. The fishery would be affected due to the de-watering of the pond for the dam renovation.

Indirect Effects:

With the upgrades mentioned in this alternative there could be an increase in visitors to the site. Some of these visitors would travel through the small rural community of Wolf Creek. The increased visitors to the area could economically benefit the small businesses in Wolf Creek.

Cumulative Effects: No cumulative effects are foreseen.

4.2.2 Alternative 2 - Safety and Partial Recreation

Direct Effects:

With the upgrade of the dam, the potential for breaching of the dam would be decreased. This decrease would offer a safer environment for visitors to the area as well as protect the property and resources located downstream from the dam by preventing accidental flooding. The installation of a vault toilet to the site would improve sanitation thus decreasing the event of exposure to human waste. The placement of vehicular barriers on the dam would protect human life and ensure the dam's integrity. Enhancement of the wildlife habitat would encourage more wildlife use of the area and therefore provide greater wildlife viewing opportunities. Upgrading the entrance road would allow easier access for vehicles. The overall upgrades in this alternative could result in more visitation to the site which could be interpreted as a negative impact by the local community members who currently use this recreation site. At the site there could be a slight increase in the cost of maintenance, a possible increase of traffic, and an increased possibility of vandalism due to proposed

upgrades.

Indirect Effects:

With the upgrades mentioned in this alternative there could be an increase in visitors to the site. Some of these visitors would travel through the small rural community of Wolf Creek. The increased visitors to the area could economically benefit the small businesses in Wolf Creek.

Cumulative Effects: No cumulative effects are foreseen.

4.2.3 Alternative 3 - Safety:

Direct Effects:

With the upgrade of the dam the potential for breaching of the dam would be decreased. This decrease would offer a more safe environment for visitors to the area as well as protect the property and resources located downstream from the dam. The placement of vehicular barriers on the dam would protect the dam's integrity into the future. Due to the existing visitor use of the site, and the current condition of the recreation area surrounding the pond, continued visitor use without upgrades would eventually cause resource damage and erosion problems. This type of resource damage could make the site uninviting to future recreationists.

Indirect Effects:

Without the addition of vehicular barriers to prevent access to forested areas surrounding the pond, and without the installation of a vault toilet, the recreational area known as Burma Pond could become a severely impacted resource, making it an undesirable site for the recreating public.

Cumulative Effects:

None are anticipated.

4.2.4 Alternative 4 (No Action):

Direct Effects:

The dam could eventually self-breach causing possible human hazard, property and other resource damage. If the dam were to self-breach the existing fishing and other historic recreation opportunities at Burma Pond would cease to exist. The local public could interpret this action as the BLM acting in a negligent manner.

Indirect Effects:

Possible loss of economic revenue to the small businesses in the rural community of Wolf Creek could occur. Should the dam self-breach it would likely cause resource damage to the drainage located downstream from the reservoir. This type of damage would effect, and

possibly destroy, some of the visual resources, wildlife habitat, fisheries, cultural resources, and wetland habitat that currently exist in the Burma Pond area. Without the addition of vehicular barriers to prevent access to forested areas surrounding the pond, and without the installation of a vault toilet, the recreational area known as Burma Pond could become a severely impacted resource, making it an undesirable site for the recreating public. There is a remote possibility that BLM's water right for the pond could be withdrawn due to this alternative therefore the entire site could revert back to its pre-recreation state of existence.

Cumulative Effects:

No cumulative effects would be anticipated.

4.3 Effects on Cultural / Historical Resources

4.3.1 Alternatives 1, 2, 3

Direct Effects:

No State Historic Preservation Officer (SHPO) consultation or letter of concurrence is needed due to the programmatic agreement relationship that exists between the BLM and SHPO. This agreement states that it is the BLM's responsibility for Section 106 compliance. This includes the BLM responsibility for mitigation of any adverse effects which can sometimes occur upon project implementation.

As stated earlier in the EA this site is eligible for National Historic Register nomination but will not be nominated at this time. This process is very time consuming and will be reviewed at a later date. At the present time and into the future this site will receive proper protection under the federal laws that are in place.

Under alternatives 1, 2, and 3, effects on the historic archaeological Secesh Reservoir and pipeline would be the same. The excavation and replacement of dam outlet works and the installation of a new diversion structure, which includes replacement of the slide gate structure would provide protection to the site in the long term. This protection would be provided by preventing the dam from breaching.

The difference between Alternative 1 and Alternative 2 is the recreation aspect. Neither one of these alternatives would impact the Secesh Reservoir and pipeline site because no new recreation facilities would be installed in areas where cultural resources are present. Thus, no displacement to these resources would occur. Furthermore, under Alternative 1 a self guided interpretive trail would be created for the public. The interpretive trail would reflect historic mining features found in the area and relate the importance this

activity had to the surrounding community in the early 1900's.

Indirect Effects:

The effects of not replacing the slide gate structure could result in the dam breaching thus causing risk to life, property and the archaeological site. Thus, the maintenance to the slide gate structure is vital to the preservation of site integrity. Furthermore, in case of a flood event the archaeological site could be damaged due to displacement or destruction of historic features.

Consequently, the features that serve to provide this site with its integrity would no longer be present on the landscape. The integrity value of this historic site stems directly from its “in place” character. Historical mining equipment and structures are situated in place at their original location since the 1850's.

The other structures that make up the archaeological site include, the pipeline system, hydraulic mining ditch, concrete dam, wooden headgate and concrete headgate system. These associated structures would not be impacted.

Cumulative Effects: No cumulative effects are foreseen.

4.3.2 Alternative 4 (No Action)

Direct, Indirect and Cumulative Effects

The effects, direct, indirect or cumulative would be the same. If no action is taken to repair and maintain the dam the Secesh Reservoir and pipeline site has the potential to be destroyed.. Thus, the character that creates site integrity would also be destroyed. Installation of the new slide gate structure would help insure the integrity of the dam and related structures for future use and public enjoyment and would preserve and protect this important historic archaeological site.

4.5 Effects on Invasive and Non-Native Species

4.5.1 Alternatives 1, 2, 3

Direct Effects:

There is currently a large population of largemouth bass that occupy the reservoir. No other non-native animal species is currently known to be present. The bass population would probably decrease but not be entirely lost because they are more tolerant of higher water temperatures and lower dissolved oxygen. Larger fish could more easily prey on smaller individuals as well as on crayfish and amphibians.

Indirect Effects

Cumulative Effects:

None are anticipated.

4.5.2 Alternative 4 (No Action)

Direct, Indirect, and Cumulative Effects for the “no action” alternative are addressed in the Wolf Tree EA.

4.6 Effects on Hydrology, Riparian and Aquatic

4.6.1 Alternatives 1, 2, 3

Direct and Indirect Effects:

Removal of shrubs and trees from the dam surface would cause soil disturbance but with minimal chances of sediment movement since mulching and armoring would occur in a very short time after the activity.

All activities on the dam structure, including replacement of the slide-gate structure and outlet pipe, removal of vegetation, raising the freeboard level of the dam and armoring of the wetted surface to prevent erosion, would occur during a very short time frame during the summer season. The disturbance would occur during dry conditions and would not greatly impact biological processes or water quality over the long term. The water level of the pond would remain the same as its historic level once the dam renovation work is completed.

Draining of the reservoir to replace the outlet pipe would have a great impact on the fishery and other recreational opportunities surrounding the pond. It is likely that the trout population in the pond would suffer as a result of dewatering. The pond would not likely refill until the winter after the dam repair has been accomplished.

There would be a short term minor sediment surge downstream of the spillway following the armoring process for the spillway. (The spillway currently acts as the bypass or flow through for the diversion waters delivered to the pond.)

Secesh Gulch would experience short term minor sediment release downstream from the diversion site during construction of the new diversion structure. Some disturbance to foraging and feeding as well as respiration would be expected in some aquatic species for a short distance downstream during this activity. No long term effects are expected.

Subsoiling of the old jeep road near the southern edge of the dam near the shore of the pond, and planting riparian and conifer species in the area, would decrease erosion possibilities. Over time this action would help to restore a more natural appearance and function to the area. Reservoir water elevations would remain the same as before maintenance of the dam structure and diversion in all action alternatives. No other hydrologic cumulative effects are anticipated.

Cumulative Effects:

None are anticipated.

4.6.2 Alternative 4 (No Action)

Direct and Indirect Effects

The BLM would be out of compliance with the Oregon State Water Resources Department regulations pertaining to their water use permit and future water right.

Water quality would continue to get worse, due to lack of available sanitation facilities, as more and more people discover and use the area.

The dam structure itself may breach as a result of the leaking outlet pipe or piping associated with roots of vegetation or burrowing animals. A large breach would likely cause mass erosion and subsequent sedimentation to Bummer Gulch and Wolf Creek. This would result in loss of habitat for spawning and rearing of fish and other wetland dependent species. There is also a potential for loss or damage to manmade structures downstream should the dam breach.

The continued use of several dispersed campsites would result in more areas of disturbance and compaction around the pond. Non-maintenance of the diversion ditch would threaten water delivery that maintains the water level in the reservoir. Fish and other aquatic species may suffer during low water warm weather periods, especially trout which require cool, well-oxygenated water.

No improvements to the road may restrict some people from traveling to the pond, and delivery of trout by ODFW could be impaired. The less fish stocked equates to less fish for the recreating public to catch.

Cumulative Effects:

None are anticipated.

4.7 Effects on Fish

4.7.1 Alternatives 1, 2, 3, 4

Direct Effects on Threatened & Endangered Fish

The project would have no effect on SO/NC coho salmon because the species does not currently occupy the nearest habitat, about one mile from the project, and the species has not been observed and documented in the Grave Creek watershed for the last 40 years.

4.7.2 Alternatives 1, 2 and 3

Direct and Indirect Effect on non-T&E Fish

Partially draining the reservoir would reduce pool volume by 50-60% for several weeks or months during the warmest time of the year. Lowering the water level would concentrate the pond's existing fish, amphibian and crayfish populations into a much smaller area, increasing competition for a finite amount of habitat, cover, dissolved oxygen and food.

It is expected that with no cold water entering the pond for an extended period of time that water temperatures and dissolved oxygen would become lethal for rainbow trout. The bass population would probably decrease but not be entirely lost because they are more tolerant of higher water temperatures and lower dissolved oxygen. The pond's thriving population of rough-skinned newts would probably not be affected because they are probably not preyed upon to any great extent because they are poisonous and they would be able to live for months in damp terrestrial habitats during the low water period.

Cumulative Effects

None are anticipated.

4.7.3 Alternative 4

Indirect and Direct Effects

The dam may continue to function for many more years as it has for decades and continue to provide recreational opportunities for local residents. On the other hand, it could breach and send a large quantity of water and sediment down Secesh and Bummer Gulches to Wolf Creek. The extent of natural breaching and how fast it might occur cannot be predicted so impacts are likewise uncertain. But in general, effects to fish and other aquatic life in the pond would be the same as under Alternatives 1-3, but would most likely last much longer than a few weeks or months. If a high percentage of the pond water is lost through breaching and any remaining fish are forced to over-

winter in the residual pond, all could die due to lack of oxygen. If this happened, ODFW would no longer stock the pond and the site would cease to provide fishing opportunities. Please refer to the Hydrology Effects section for additional information on fishery and riparian effects.

Cumulative Effects

None are anticipated.

Chapter 5 - Consultation

5.1 Agencies Consulted

Oregon Department of Fish and Wildlife
Oregon State Historic Preservation Office

5.2 Scoping

For approximately ten years plans for the Burma Pond dam renovation and recreation enhancement have been in process. Additionally, for several years the Wolf Tree Timber Sale project has been planned. Both of these proposed projects are located in the same drainage and watershed therefore public meetings were held, letters were sent out to interested individuals, and responses addressed with respect to public comments for both proposed projects. An informational letter was mailed out on March 1, 2002 to individuals, agencies and organizations who may have interest in this project. An informational meeting and/or a field trip to the site will be scheduled if interest is expressed.

5.3 Distribution List and Availability on the Internet

This EA was distributed to the following agencies and organizations.

5.3.1 Agencies

Oregon Department of Fish and Wildlife
Oregon State Water Resources Division
Oregon State Historic Preservation Office

5.3.2 Organizations

SunnyWolf Community Response Team
Glendale Community Response Team

List of Preparers	Title	Responsibility
Katie Wetzel	Recreation Planner	Team Lead
Jim Brimble	Silviculturist	Vegetation Management
Rachell Showalter	Botanist	Special Status Plants
Michael Bornstein	Wildlife Biologist	Wildlife, T&E

Randy Fiske	Lead Engineer	Engineering
Loren Wittenberg	Hydrologist	Water/Soils/Riparian
Amy Sobiech	Archeologist	Cultural Resources
Sherwood Tubman	NEPA Specialist	
Bob Bessey	Fisheries	Aquatic, Riparian-T&E Species
	Biologist	
Natalie Simrell	Fire Ecology	Air Quality
Brian Keating	Fire Ecology	Fuels
Vince Randall	Forester	Tribal Coordination
Deston Russell	Engineer	Hazardous Materials
Marlin Posse	Biologist	T&E Species- Species

Reviewed By:

Sherwood L. Tubman

Glendale RA Ecosystem Planner
for format and adequacy

June 19, 2002

Date

BURMA POND PHASE 2 JOSEPHINE COUNTY

Project Area

