

Egli Reservoir Waterfowl Habitat Improvement

ENVIRONMENTAL ASSESSMENT
OR-04-025-040

Bureau of Land Management
Burns District Office
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CHAPTER I: INTRODUCTION

The Three Rivers Resource Area in the Burns District of the Bureau of Land Management (BLM) is proposing to implement a riparian habitat improvement project around Egli Reservoir. Egli Reservoir is located in the East Wagonire Allotment, Egli Ridge Pasture, approximately 40 miles southwest of Burns, Oregon. The legal description of the area to be covered by this Environmental Assessment (EA) is T. 25 S., R. 24 E., Section 13, NWSE (Map 1.0).

A. Purpose of and Need for Action

Egli Reservoir is an ephemeral reservoir that fills as a result of snowmelt from the surrounding slopes and generally holds water through August. When full it is approximately one-half acre. In 1990 a livestock well was drilled and a 30-foot bottomless trough was installed approximately 300 meters from the reservoir. A pipeline from the well to the reservoir was also installed at that time in order to maintain water levels within the reservoir if needed.

This area is a primary watering site for livestock in the East Wagonire Allotment. The trough and the associated overflow pond are adequate water sources to service livestock watering requirements. However, due to the close proximity of the trough to the reservoir, livestock not only tend to congregate around the trough and overflow pond but also the reservoir. As a result, nesting cover for waterfowl is lacking.

The purpose of the Egli Pond Nesting Cover Project is to enhance the riparian habitat for waterfowl nesting cover by constructing a fence around the existing reservoir.

This project is needed to optimize benefits to waterfowl and other water birds. It is estimated that one-third of Oregon's wetlands have been lost since the late 1700's. Of this loss, eastern Oregon's riparian wetlands were among the greatest impacted (USGS, 2000). It is predicted that this project will enable five or more broods of ducks to be fledged from the project area annually. Spring and fall migration habitat for waterfowl and other water birds would also be greatly enhanced.

B. Conformance with Land Use Plans, Laws, Regulation and Policy

This EA is in compliance with management direction established in the Record of Decision for the Three Rivers Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS) (Chapter 2, Wildlife Habitat, September 1992). The EA is also in compliance with State, tribal, and local laws, regulations, and land use plans.

CHAPTER II: ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. Proposed Action

The proposed action is to construct approximately one-half mile of fence around the existing Egli Reservoir (see Map 2.0 for location) to create a 9-acre enclosure. The northwest section of the fence (approximately one-eighth mile) would consist of 16-foot heavy duty livestock panels 5 feet in height. Steel well casings 4 inches by 8 feet would be used as posts at 32-foot spacing with additional steel posts between them. This sturdier portion of the fenceline would be placed at the highest pressure point, between the watering trough and reservoir, to help reduce maintenance costs. The remainder of the fence would be constructed to Bureau specifications for a four-strand barbed wire fence with 16-foot post spacing and three rock crib corners. Wire spacing would be 16 inches, 6 inches, 8 inches, and 12 inches from the ground up, with a smooth bottom wire. Wood stays would be placed every 8 feet to help withstand the high cattle pressure this fence will likely face. No blading, grading or scalping of the fenceline would be allowed. Crushing of the brush with rubber-tired or crawler tractor equipment would be permitted.

The next portion of the proposal is to re-route the Egli access road approximately one-quarter mile to circumnavigate the enclosure and connect to the existing power line road. The new road would be bladed to a width of 8 feet (Map 2.0).

If needed, additional water from the Egli stock well may be used to maintain water levels in the reservoir. Currently, Peila Ranches covers all utility costs associated with the stock well. With the proposed action the BLM would also be utilizing water from this well therefore a cooperative agreement between the BLM and Peila Ranches would be created in which the BLM would supplement the electric bill for the stock well.

The final portion of the proposed action would be to plant native vegetation throughout the enclosure to facilitate the succession of the area into suitable duck brooding and nesting habitat. Due to compacted soils in the area the seed bed would be prepared by disking it to a 6-inch to 8-inch depth. Basin wildrye and basin big sagebrush would be planted in the upland areas and cattail plugs and willow species collected locally would be transplanted onto the reservoir's shoreline. Only certified weed-free seed would be used.

All equipment used for the project would be cleaned prior to transport to the site and upon completion of the project. The area would be monitored for new noxious weed introductions for 2 years after the project has been completed. If noxious weeds become introduced, timely, appropriate treatments would occur.

B. Alternative A - No Action

Under this alternative no changes would be made at this site.

CHAPTER III: DESCRIPTION OF THE AFFECTED ENVIRONMENT

The following critical elements of the human environment and other potential concerns were considered and determined not to be known to be affected nor impacted by the proposed action or alternatives and, therefore, will not be discussed further in this EA:

Cultural Heritage
Prime or Unique Farmlands
Floodplains
Hazardous Materials
Special Management Areas (Research Natural Areas, Areas of Critical Environmental Concern, Wild and Scenic Rivers, Wilderness or Wilderness Study Areas
Air Quality
American Indian Religious Concerns
Paleontology
Special Status Flora
Special Status Fauna
Environmental Justice
Adverse Energy Impacts

The critical and noncritical elements of the human environment which may be affected by the proposed action and/or alternatives are:

Critical Elements

Migratory Birds
Noxious Weeds
Water Quality (drinking/ground)
Wetlands and Riparian Zones

Noncritical Elements

Wildlife
Vegetation
Livestock Management
Recreation
Soils
Visual Resources

These elements are described below:

A. Critical Elements

1. Migratory Birds

Migratory birds are known to use the project area for nesting, foraging, and resting as they pass through on their yearly migrations.

2. Noxious Weeds

There are no known noxious weed sites in the immediate vicinity of this proposed project and the area in general is relatively weed free.

3. Water Quality

Currently, water turbidity appears high although no formal water quality monitoring has occurred within Egli Reservoir. The nearby access road adds sediment into the reservoir via wind and water erosion. This, combined with the lack of surrounding vegetation to trap the excess sediment, is causing high turbidity. Water within the reservoir is not used for human consumption.

4. Wetlands and Riparian Zones

Currently, Egli Reservoir does not support riparian obligate vegetation due to the tendency of livestock to congregate around the reservoir.

B. Noncritical Elements

1. Wildlife

Wildlife species that inhabit the area in the vicinity of the proposed project include mule deer, pronghorn antelope, black-tailed jackrabbit, coyote, deer mouse, sage sparrow, Brewer's sparrow, red-tailed hawk, and sagebrush lizard. Many other species common to the sagebrush steppe of eastern Oregon may also be found occasionally in the area.

2. Vegetation

The site is located in a Wyoming big sagebrush; low sagebrush, needlegrass, bluebunch vegetation type.

3. Livestock Management

The proposed project is located within the Egli Ridge Pasture of the East Wagonire Allotment. This pasture is used under a graze-defer treatment.

The graze treatment occurs April 1 to July 31 and the defer treatment begins after July 15 every other year. The Egli Well water source serves as one of only three permanent water sites within this 30,000-acre pasture. The well and trough provide adequate water to service livestock watering requirements.

4. Recreation

The primary recreation activities in the project area are associated with hunting big game species.

5. Soils

The soils in the project area are well drained, shallow cobbly loam with moderate potential for water erosion and low potential for wind erosion.

6. Visual Resources

The project area is remote and not visible from any highway. The project area falls entirely within the Visual Resource Management (VRM) Class III. The allowed level of change to the characteristic landscape within this VRM class is moderate. The objective of this class is to partially retain the existing character of the landscape.

CHAPTER IV: ENVIRONMENTAL CONSEQUENCES

The following impacts would result from implementation of the proposed action or any of the alternatives.

A. Proposed Action – Critical Elements

1. Migratory Birds

Construction would not take place during the nesting season. This would avoid any disturbance and destruction of nests, eggs or nestlings along the fenceline during construction. The area excluded from livestock grazing would have improved nesting habitat for these birds in the future due to decreased potential for nest disturbance or trampling, and increased vegetation to provide cover.

2. Noxious Weeds

The proposed project has the potential to provide opportunities for weeds to establish in disturbed areas in the short term. Long-term benefits of providing good condition riparian habitat should discourage noxious weed establishment and spread.

3. Water Quality

The proposed action should cause water quality to improve. Turbidity would decrease once the road is moved away from the reservoir and outside of the enclosure. The increase in vegetation surrounding the reservoir would help to trap sediment which would also cause a reduction in turbidity levels.

4. Wetlands and Riparian Zones

The proposed action would facilitate the expansion of riparian habitat within the enclosure and protect the new vegetation from being trampled. As the habitat for duck brooding improves, greater riparian plant diversity is expected as more riparian vegetation would be introduced into the area by the waterfowl.

B. Proposed Action – Noncritical Elements

1. Wildlife

Some disturbance to wildlife would occur during construction but this would be of short duration and would not result in long-term displacement of animals. The portion of the fence that is constructed of livestock panels would restrict movement of pronghorn antelope but access to the pond for water would be maintained in the 4-wire sections of the fence. Increased vegetation around the pond would result in better brood-rearing habitat for waterfowl and wading birds. There are some areas of upland waterfowl nesting habitat within a mile of the pond and those birds that nest in the area would have better success at raising their broods to fledging. Increased vegetation around the pond would provide some cover for animals that use the pond for watering.

2. Vegetation

Impacts to the vegetation resource would result from the construction of the fence and would be limited to an area approximately 10 feet wide along the proposed fenceline. These impacts would be from vehicles driving along the proposed fenceline, hand clearing of vegetation along the fenceline where needed during fence construction, and increased disturbance from livestock trailing along the fence. Over time, the vegetation resource should improve within the enclosure under this alternative. The recovery rate would be accelerated with the seeding of basin wildrye, basin big sagebrush, cattail and willow species.

3. Livestock Management

The proposed fence would only cause minor alteration of livestock trailing patterns. The exclusion of use at the reservoir site would not impact livestock use of the area. Livestock would cause increased pressure on the fence around the reservoir as this is a common resting area.

4. Recreation

Under the proposed action, recreational opportunities are likely to increase in the area. During dry years, water levels within the reservoir would be maintained with the Egli stock well. This would improve the availability of water for big game. Due to the increased availability of water, big game as well as an array of other wildlife species would increase use in the Egli Ridge area. Big game hunting opportunities should improve with the increase of habitat use on public land.

5. Soils

Some soil compaction or erosion may occur along the fenceline due to cattle congregating and moving along the fence. Initially, there may be an increase to soil erosion during and immediately after disking occurs. However, once vegetation is established, soil erosion should decrease.

6. Visual Resources

The proposed action meets the requirements of this VRM class. Visual resources would be temporarily negatively affected while construction occurs, but would improve once riparian vegetation is established.

C. No Action - Critical Elements

1. Migratory Birds

Migratory bird nesting habitat would not improve under this alternative. Nesting areas would still face potential disturbance from trampling.

2. Noxious Weeds

Under this alternative, the establishment rate of noxious weeds in the area would not change.

3. Water Quality

Water quality would not improve under this alternative. Desirable vegetation would not establish around the reservoir due to the tendency of livestock to congregate and rest in the area. Without proper vegetative cover, sediment would not be trapped before entering the reservoir. This sediment would continue to cause high turbidity levels.

4. Wetlands and Riparian Zones

The riparian zone would not improve under this alternative. Riparian vegetation would not establish around the reservoir due to the tendency of livestock to congregate and rest in the area.

D. No Action – Noncritical Elements

1. Wildlife

There would be no change to wildlife under this alternative.

2. Vegetation

There would be no change to the vegetation resource under this alternative.

3. Livestock Management

Livestock would continue to use the reservoir as an alternative watering source and resting area and prevent any riparian vegetation from establishing.

4. Recreation

There would be no effects to recreation under this alternative.

5. Soils

Soil compaction would continue to occur around the reservoir.

6. Visual Resources

There would be no impacts to visual resources under this alternative.

CHAPTER V: CUMULATIVE IMPACTS

Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

A. Proposed Action

As vegetation within the enclosure establishes and moves into later seral stages, the riparian zone would be better equipped to capture sediment from the surrounding slopes and nearby access road. As these changes take place, water quality should improve as turbidity decreases. This vegetation will also enable approximately five broods of ducks to be fledged from this area annually. Water availability for wildlife would be increased in this area by maintaining water levels with the Egli stock well during dry years.

B. No Action

Egli Reservoir would continue to function primarily as a watering hole for livestock. Duck brooding habitat would remain unsuitable in this area.

CHAPTER VI: CONSULTATION AND COORDINATION

A. Persons Consulted and Coordinated with Outside of the Bureau of Land Management

Burns Paiute Tribe
Ron Garner, Oregon Department of Fish and Wildlife
Jack Peila, Livestock Permittee

B. Participating Staff

Bill Andersen, Range Management Specialist
Lindsay Aschim, Watershed Specialist
Jim Buchanan, Supervisory Natural Resource Specialist
Gary Foulkes, District Planning/Environmental Coordinator
Terri Geisler, Geologist
Fred McDonald, Natural Resource Specialist
Skip Renschler, Realty Specialist
Fred Taylor, Wildlife Biologist
Nora Taylor, Botanist
Scott Thomas, District Archaeologist

References:

U.S. Geological Survey (USGS) – Oregon District Home Page. Oregon Wetland Resources. 14 April 2000. <<http://oregon.usgs.gov/pubs/Online/Html/WSP2425/>>