

BLM Office: Roseburg District  
Proposed Action Title/Type: Fate Creek Dam Removal  
Location of Proposed Action: T. 29 S., R. 3 W., Section 31, SE 1/4 SE 1/4  
Name of Applicant: n/a

Conformance with Applicable Land Use Plans:

This proposed action is subject to the *Final - Roseburg District Record of Decision and Resource Management Plan (RMP)*, approved June, 1995.

The RMP is in conformance with the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* and its Record of Decision (Interagency, 1994) (Northwest Forest Plan).

This Environmental Assessment (EA) takes into consideration the watershed restoration recommendations discussed on pages 34-35 of the *John/Days/Coffee Watershed Analysis* (BLM, 1995). The John/Days/Coffee Watershed Analysis is in compliance with the Interagency Draft Watershed Analysis Guidelines for Fiscal Years 1994-1996.

The proposed action described in this EA is also in conformance with the objectives of the Aquatic Conservation Strategy (ACS), especially for Key Watersheds, as listed in the Record of Decision for the Northwest Forest Plan, pages B-9 to B-34. Specifically, the proposed action will benefit the following ACS objectives:

- C restore in-stream habitat connectivity within Fate Creek (ACS #2),
- C restore connectivity of the intact aquatic habitat refugia of Fate Creek to Days Creeks (ACS #2),
- C restore the physical integrity of the stream channel, stream bottom and the habitat in the project area (ACS #3),
- C restore the sediment regime of the lower portion of Fate Creek (ACS #5)
- C restore in-stream habitat complexity to support well-distributed populations of fish and other aquatic organisms (ACS #9).

The BLM has formally consulted with the National Marine Fisheries Service (NMFS) and has received a biological opinion for Umpqua River cutthroat trout, dated 26 September 1996, and a conference opinion dated 19 March 1997 for coho salmon. The proposed action is considered by NMFS to be programmatic in nature. The action is "likely to adversely affect" these species, however, the project has been designed to minimize disturbance effects on these species and the BLM has received an incidental take permit from the NMFS.

NOTE: All the above-mentioned documents are available for review at the Roseburg District Office during normal business hours.

Need for the Proposed Action:

A small man-made barrier (dam) is currently hindering upstream and downstream passage of juvenile and adult fish, and other aquatic organisms that reside in Fate Creek. Removal of the dam will assist in the restoration of access by aquatic organisms to upper reaches of Fate Creek.

Background:

Fate Creek, a tributary of Days Creek in the Upper South Umpqua 5<sup>th</sup> field watershed in southeastern Douglas County (see location map no. 1), is utilized for spawning, and as rearing habitat by both the endangered Umpqua River cutthroat trout and the threatened Oregon Coast coho salmon. The stream is well noted for its reliable flows, and in dry years, often has flowing water when Days Creek does not. In these dry years, Fate Creek is believed to function as refugia for fish and other aquatic organisms that would normally reside in Days Creek.

Since 1995, the Oregon Department of Fish and Wildlife (ODFW), the Roseburg District BLM and the private land owners (Lyons) have been engaged in cooperative efforts to modify or eliminate four barriers to fish passage on the lower 1.5-mile section of Fate Creek (see location map no. 2). These barriers consist of:

- C a culvert under Douglas County Road 34 with a 5-6 feet drop at the outlet,
- C a 14-foot high water-diversion dam on the Lyons property approximately ¼-mile upstream from the culvert,
- C a 3-foot high, 15-ft. long concrete water diversion dam on BLM-administered land about ½-mile upstream from the lower dam, and
- C a culvert under BLM road 29-3-6.0, approximately ½- mile upstream of the smaller dam.

Three projects to remove or modify these barriers have been completed in the past four years. In the summer of 1995, the ODFW installed a gabion basket weir at the downstream end of the culvert pool below County Road 34. During high flows, the water level in the pool between the culvert and the weir rises to lessen the drop out of the culvert to 2 feet, allowing adult salmonids to jump into the culvert and pass through it. This culvert remains a barrier to juvenile fish and most other aquatic organisms. During the summer of 1995, the ODFW also installed a series of three concrete weirs on Fate Creek directly downstream of the 14-ft. diversion dam to raise the water level in the creek, and allow fish passage through the 2 ft. diameter clean-out gate at the bottom of the dam wall. The efficacy of these weirs in assisting fish passage is unknown. In the summer of 1997, the BLM replaced the culvert under BLM road 29-3-6.0, providing unimpeded fish passage.

The proposed action would address the remaining fish barrier on Fate Creek; the small dam on BLM lands (see Figure 1). The concrete, mortar and rock dam has been in existence since at least 1920 and

is in poor condition. The dam has been utilized as a point of diversion for the irrigation of an adjacent ranch in sections 5 and 6, of T. 30 S., R. 3 W., presently owned by Russell and Sandy Lyons. The top of the dam has eroded over the years to the point where it is no longer suitable for supplying water to the irrigation ditch during the summer irrigation season. The Lyons have an approved right-of-way on BLM lands for both the irrigation ditch and access to the point of diversion, and plan to continue utilizing this point of diversion. BLM personnel would work closely with the Lyons to ensure that any new water diversion structure would not adversely affect fish or their habitat.



**Figure 1:** The dam on BLM in Section 31 looking upstream. Note that the 3 ft.-high dam sits atop of a rock ledge 3.4 feet above the water level of the pool.



Figure 2: Upstream side of dam on Fate Creek. The inlet to the irrigation ditch can be seen in the upper right.

Description of the Proposed Action:

The proposed action would consist of three steps or phases. The first step would be removal of the existing dam. The second phase would be the placement of in-stream structures (i.e. boulders, rocks, logs) to form a series of step pools for a distance of 50-100 feet directly downstream of the present dam site to facilitate fish passage. The final phase would be the installation of a water diversion device (i.e. weir with removable boards and/or PVC pipe) to divert water into the irrigation ditch. The proposed action and structures would be designed as recommended in the hydrologist's report (attached at end of EA).

Environmental Impacts:

<u>Critical Element</u>	<u>Affected</u>		<u>Critical Element</u>	<u>Affected</u>	
	Yes	No		Yes	No
Air Quality		X	T&E Species	X	
ACECs		X	Wastes, Hazardous/Solid		X
Cultural Resources		X	Water Quality	X	
Farmlands, Prime/Unique		X	Wetlands/Riparian Zones	X	
Floodplains		X	Wild & Scenic Rivers		X
Native American Religious Concerns		X	Wilderness		X

Description of Impacts:

T&E Species:

The proposed action is not located within the range of the marbled murrelet and has been determined to be a "No Affect" on the Northern spotted owl, bald eagle and peregrine falcon.

Some behavioral patterns of some local cutthroat trout, steelhead trout, and coho salmon may be changed, as the fish will be temporarily displaced (forced to move upstream and/or downstream) from project site during the removal and construction phases.

The project area was surveyed for the presence of special status plants, and none were found to occur within the proposed project area.



#### Water Quality:

A temporary increase in sediment input to the stream at and below the project site is anticipated during the removal and construction phases. This impact would be of short duration, and should only occur at the drainage level.

#### Riparian Reserves:

There will be some removal of vegetation within the Riparian Reserve associated with the construction of a temporary road to provide heavy equipment access to the dam site, for removal of the existing dam, and placement of in-stream structures and a water diversion device.

#### Cultural Resources:

No cultural or archaeological resources have been identified in the project area.

#### Description of Mitigation Measures and Residual Impacts:

- C The stream will be cordoned off above and below the project site. Fish inside of the cordoned off area will be captured alive using seines (nets) and released outside of cordoned off area.
- C Instream work will be limited to the period of July 1 to September 15, during low summer flow.
- C The temporary road will be ripped and seeded after use.

#### Persons/Agencies Consulted:

National Marine Fisheries Service  
U.S. Fish and Wildlife Service.  
Oregon Department of Fish and Wildlife  
Russell and Sandy Lyons  
Cow Creek Band of Umpqua Tribe of Indians

#### Agencies/Organizations/Individuals to Be Notified Upon Completion of the EA:

Oregon Department of Environmental Quality  
Oregon Department of Water Resources  
Oregon Land Conservation and Development  
Umpqua Watersheds, Inc.

Preparer(s): Donald T. Rivárd, Senior Fish Biologist, Roseburg District  
Date: 15 January 1999

To: Don Rivard, EA Team Leader and District Fish Biologist

From: Todd Kuck, Hydrologist, South River Resource Area

Date: 14 January 1999

Subject: Fate Creek Dam Removal

Fate Creek was surveyed above and below the dam in the Summer of 1998. These survey notes and photos of the area were taken to the River Morphology and Application course that I attended in September of 1998. During one evening session, this dam project was discussed with Dave Rosgen and other members of the class. The following are recommendations from that discussion.

First of all, the dam should be cut off only to the level of the sediment fill behind the dam. Then, a notch would be cut into the dam, below the sediment line, the same width as the bankfull width of the stream. This notch would also be cut the same depth as the bankfull depth of the stream channel, as determined by the surveys. After review of the survey notes, the whole dam may end up being removed because of the small size of the dam, the bankfull width is approximately the same width as the dam, and the depth of the sediment behind the dam is not that great. Because of these factors, cutting the notch in the dam may be at the same level as the bedrock ledge that the dam currently sets upon.

To provide fish passage over the bedrock ledge and what is left of the dam, a step-pool channel (Rosgen stream type A2) is to be built below the dam. Geotextile fabric should line the channel, then the pools constructed using boulders, with an approximate step of one foot high between the pools that fish can easily traverse. To complete this design, a reference reach of an A2 stream type needs to be surveyed and the results of the survey copied to determine width, depth, and length of the pools to be built. Total length of stream channel disturbed by this project should be less than 100 feet.

There is a pool approximately 100 feet above the dam where a pipe could be placed to provide water to the irrigation ditch when the dam is removed. This would be a relatively inexpensive way of providing water to the ditch without having the dam or another blockage in the stream channel, and a simple valve on the pipe could be installed to turn the water flow to the ditch on or off.

**FATE CREEK DAM REMOVAL  
ENVIRONMENTAL ASSESSMENT  
SOUTH RIVER RESOURCE AREA  
EA# OR - 105- 99 - 02**

Date Prepared:

Finding of No Significant Impacts/Decision Documentation

The South River Resource Area, Roseburg District, Bureau of Land Management, has completed the environmental analysis on the Fate Creek Dam Removal proposal. The site is located in the SE 1/4 SE 1/4, Section 31 of T. 29 S., R. 3 W., W.M. One action was analyzed, this would be the removal of the existing dam, placement of structures to assist fish migration, and construction of a new diversion system for irrigation.

There were no cultural resources identified in the project area, and it is not within the proximity of parks, prime farm lands, or wild and scenic rivers. No Native American religious concerns were identified during scoping. Field surveys for Special Status Plant populations were conducted, and none were found.

The removal of the dam is considered a “No Affect” on the northern spotted owl, bald eagle and peregrine falcon, so consultation with the U.S. Fish and Wildlife Service is not required. The project site is located outside the marbled murrelet habitat zone, and is outside of Columbia white-tailed deer population centers on the Roseburg district.

There would be only minimal impacts to wetlands/riparian zones and Special Status fish species through effects to the Riparian Reserves, associated with the dam removal and construction of stream structures and a water diversion system. These impacts would be of short duration, and limited to the lower reach of Fate Creek. Mitigation in the form of seasonal restrictions on the demolition and construction, and ripping and seeding of the temporary road would be applied.

Of the ten points under CEQ regulations, section 1508.27(b), the following will not be discussed further in this document, because there are no: significant effects on public health or safety; effects on the quality of the human environment that are likely to be highly controversial; highly uncertain or unknown risks; precedents for future actions; cumulatively significant impacts; impacts to elements eligible for listing on the National Register of Historic Places; and no violations of Federal, State or local laws.

Based on the analysis of potential impacts contained in the EA, I have determined that the project will not have significant impact on the human environment within the meaning of Section 102 (2) (c) of the National Environmental Policy Act of 1969, and an environmental impact statement is not required. The project is in conformance with the Record of Decision and Resource Management Plan

(ROD/RMP) for the Roseburg District, approved by the Oregon/Washington State Director on June 2, 1995. The Aquatic Conservation Strategy will not be compromised. The Best Management Practices (BMP) listed in Appendix D of the ROD/RMP (pp. 141-142) will be used to mitigate impacts.

**Decision:**

It is my decision to authorize the removal of a small, concrete diversion dam on Fate Creek, located in Section 31 of T. 29 S., R. 3 W., W.M., construct in-stream structures designed to allow fish passage, and install a water diversion structure to provide water for irrigation of adjoining private lands. The tentative date for implementation is July 1999.

The project will require the construction of a temporary road to allow equipment access to the creek. There will also be in-stream activities associated with demolition and construction. The following Mitigation Measures will be applied.

- C The stream will be cordoned off above and below the project site. Fish inside of the cordoned off area will be captured alive using seines (nets) and released outside of cordoned off area.
- C In-stream work will be limited to the period from July 1 to September 15, during low summer flow.
- C The temporary road will be ripped and seeded after use.

**Rationale for the Decision:**

The ROD/RMP (p. 36) states that the Roseburg District shall “ Cooperate with Federal, State, local, and tribal governments and private landowners to develop watershed based coordinated resource management plans or other cooperative agreements to meet Aquatic Conservation strategy objectives.” It also states (p. 36) “Locate water drafting sites to minimize adverse effects on stream channel stability, sedimentation, and in-stream flows needed to maintain riparian resources, channel conditions, and fish habitat.” The project is also consistent with Management Actions/Directions for Fish Habitat (p. 40) which states “Design and implement fish habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy objectives.” (pp. 19-20)

No Special Status Plant populations were found, and no Threatened or Endangered wildlife species would be affected. No cultural resources are known to exist in the area.

Impacts to soils and to the stream would be minimized by limiting demolition and construction activities to the summer, when soil moistures are low, and stream flow is at a minimum. BMP found in Appendix D of the ROD/RMP (pp. 141-142) would be implemented, as would the measures described above.

Impacts to fisheries resources would be of short duration, and local in nature. The project has been determined to be “likely to adversely affect” for Umpqua River cutthroat trout and Oregon Coastal coho salmon. Consultation has been conducted with the National Marine Fisheries Service (NMFS). The proposed action is considered to be programmatic in nature and is covered by a Biological Opinion

(BO) for the Umpqua River cutthroat trout dated September 26, 1996, and a conference opinion for the coho salmon, dated March 19, 1997. The BLM is in receipt of an incidental take statement from NMFS, covering the action.

No issues were identified by other agencies or Native American Governments during the scoping process.

**Monitoring:**

Monitoring would be conducted as per the guidance given in the ROD/RMP, Appendix I.

**Protest and Appeal Procedure:**

As outlined in 43 CFR Subpart 5003 Administrative Remedies, protests may be filed with the authorized officer within 15 days of the first publication date of the decision notice in the News Review.

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Dwight Fielder  
South River Area Manager

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Date