

**Decision Notice  
and  
Finding of No Significant Impact (FONSI)  
Trapper Creek Restoration Project**

**USDA Forest Service  
Deschutes National Forest  
Crescent Ranger District  
Klamath County, OR**

## **Location**

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The Trapper Creek Restoration Project is located approximately 70 miles south of Bend, Oregon and 20 miles west of Crescent, Oregon. Trapper Creek flows into Odell Lake, in Klamath County, Oregon. The mouth of Trapper Creek is located at Township 23S, Range 06E, Section 18, NE ¼, SW ¼. State Highway 58 borders the northwest side of the lake. (See Figure DN-1, vicinity map.)

## **Background**

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Odell Lake provides a home for a unique population of bull trout (*Salvelinus confluentus*, formerly called Dolly Varden), a species listed as Threatened under the Endangered Species Act (ESA). Current knowledge indicates that Trapper Creek provides this population with its only spawning and rearing habitat and that this habitat is very limited. As important, because of unstable conditions in Trapper Creek, the spawning and rearing habitat is inadequate to allow for recovery of the bull trout population in Odell Lake. Of even greater concern is the threat these conditions pose to the existing bull trout population, which could be eliminated from the lake should a series of floods occur that would catastrophically disrupt their reproductive cycle.

Habitat measurements indicate that good/fair spawning habitat comprises about 4 percent of the portion of Trapper Creek available to bull trout. Good/fair fry rearing habitat comprises less about 4 percent of the portion of Trapper Creek available to bull trout. In order to foster recovery and insure persistence of the population, the amount and quality of habit needs to be increased. However, simply increasing the amount of habitat (e.g. placing wood and gravel in the stream) does not provide long-term security for the population under the current hydrologic conditions.

Previous efforts to provide more habitat have been ineffective because floods have moved or swept out into Odell Lake structures previously placed in the stream. Similarly, spawning gravels are periodically swept out of the stream and into Odell Lake, resulting in far less habitat than could be provided. Spawning and rearing habitat within the current channel remain at high risk of loss because of high water velocity during floods. Finally, during the first three years of life, rearing bull trout fry use the stream for shelter before venturing into Odell Lake. Floods place these populations at risk of being swept out into Odell Lake, where they are very likely to be lost to predation. Actions to provide a more naturally functioning stream will result in wood and spawning gravels being retained, creating a more stable rearing shelter.

Also, the presence of kokanee as competitors for spawning sites means that the small amount of spawning habitat is even less effective for bull trout use and action is needed to reduce this competition.

## Decision

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Based on the analysis documented in the environmental assessment (EA), I have decided to implement a modified version of Alternative 4. As described in the EA, Alternative 4 would construct a new channel and re-route Trapper Creek using a route that avoids impacting the Trapper Creek Campground as much as possible. This means the design would use a “fall line” that aims to the east of the current line of Trapper Creek. The fall line represents the most direct flow from an uphill point to a downhill point and so provides a very stable path for a stream to flow because flood waters will stay within this “belt” and are therefore most likely to return to this channel once high water subsides.

In selecting this alternative, however, I am making several key modifications.

- ◆ First, upstream from the Road 5810 bridge, the selected alternative more closely follows the concept depicted in Alternative 2, which is to place structures into the current channel. The main difference between this modification and concept described in Alternative 2 is that the structures put in place in the selected alternative will use rock rather than logs and rootwads. These structures in modified Alternative 4 will be more stable and more capable of withstanding high water and absorbing energy by stepping the water down stream through a pool sequence, which will in turn provide the overall velocity reductions necessary to meet the project’s design criteria.
- ◆ Second, I am modifying Alternative 4 to continue to use the mouth of Trapper Creek. This change is necessary because of the discovery of a protected bryophyte, glowing cave moss (see SIR p. 1). Management requirements for this species dictate minimal changes to the microclimate and so relocating the mouth would not be consistent with this Northwest Forest Plan requirement. In addition, maintaining the mouth at its current location responds to concerns by the Oregon Department of Fish and Wildlife and other commenters.
- ◆ Third, maintaining the mouth at its current location will impact two camp sites. Alternative 4 would have maintained these sites, but the selected alternative will result in eliminating #11 and #12, and converting the area to day use interpretation. Although an effort will be made to find replacements for this reduction, I am proceeding by making the assumption that no replacements can be found, given concerns with riparian impacts in the close vicinity. Other existing camp sites are not expected to be changed in the short term, although during the long-term, hydrologic processes and the stream itself may affect sites periodically. Reducing the number of camp sites will have a small impact on the campground concession permit, but is within the allowance provided in the permit.
- ◆ Fourth, as with Alternative 4, the weir structure will be placed in Trapper Creek to reduce the numbers of kokanee competing with bull trout for spawning habitat. However, as an added precaution to assure the viability of the kokanee population in Odell Lake, the structure will be not be permanent, but will be movable. The exact initial location of the weir will be determined with the assistance of Oregon Dept. of Fish and Wildlife to provide for kokanee access to the lower stream reaches, while reducing the number of kokanee in the upper stream. Appropriate monitoring will then take place during the next five years to determine both bull trout use and kokanee use, as well as changes in the lake populations of these species (as feasible). If a trend develops that indicates a loss of kokanee populations at undesirable levels, the weir will be relocated, unless such a relocation adversely impacts the bull trout population. At that point, analysis and consultation with ODFW and the US Fish and Wildlife Service would occur to determine a course of action.

- ◆ Finally, unlike Alternative 4, the selected alternative will not install relief culverts adjacent to the Road 5810 bridge because the step-down design will not develop a floodplain as originally envisioned. However, other means of allowing overflow waters to pass beneath Road 5810 may be implemented, limited to the road prism (ditch line to ditch line).

As described in the biological opinion for this project, a detailed implementation plan will be developed in cooperation with the US Fish and Wildlife Service, which as part of its biological opinion reserved the authority to review and approve the design (BO page 17). This implementation plan will include a strategy for reducing recreation impacts to restored bull trout habitat.

Other actions proposed in Alternative 4 would be implemented as described in the EA. These include maintaining the Road 5810 bridge structure as necessary to protect wing walls and approaches with rip-rap, logs or other materials. This maintenance activity is expected to decrease over time as the stream velocities decrease and as high water energy is reduced. Also, the footbridge located near the mouth of Trapper Creek will be replaced with a more stable structure in an appropriate location for the reconstructed channel.

As with Alternative 4, campsites near the creek would be closed during the second phase of construction to provide for public safety and a safe/efficient work area. The entire campground may need to be closed during construction to protect public safety.

Visitor educational efforts, trail relocation and other management strategies will be employed to reduce recreation impacts to the bull trout and to ensure compatibility between the campground use and attaining aquatic habitat objectives. For description of the selected alternative and how it compares with Alternative 4, refer to SIR Table 1, Table 2, Table 3 and Table 4.

## Rationale

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Throughout the planning for this project, the need to take action has been balanced with the risks involved in taking those actions. Specifically, current conditions indicate bull trout habitat is inadequate to provide long-term stability to the Odell Lake population. The analysis looked at a range of alternatives that provided different ways to reduce current risks, but as noted in the environmental assessment, as well as in the US Fish and Wildlife Service biological opinion, and during public comment, these alternatives pose a short-term risk to the bull trout population. Alternatives analyzed in the EA included mitigation measures that reduce the risk.

By selecting Alternative 4, as modified, I believe I have addressed the points of greatest risk to the bull trout population. Alternative 2 would have posed both short-term risk as well as long-term risk by leaving the system vulnerable over time. Either Alternative 3 or Alternative 4 poses short-term risks and could result in loss of one or more year's fry production, but they also would provide the benefit of a greater abundance of long-term, secure habitat that would not be susceptible to loss during most flood events. The selected alternative (a modified Alternative 4) works more closely with the current stream and consequently reduces the short-term risk to the bull trout population. If found necessary in the final design, the selected alternative allows for staging to occur so that useable habitat can be established in one segment before work begins on the other segment. The necessity of this approach will be determined in consultation with the US Fish and Wildlife Service, based on the criteria of minimizing disruptions of bull trout reproduction.

Also, where Alternative 4 aims to dissipate flood energy mainly through meander bends and a more accessible floodplain, the selected alternative allows for the use of other means to reduce

system energy, such as using rock structures to step the stream and concentrate velocity in the center of the stream, which reduces velocities on the banks and through side channels. With the selected alternative, total stream energy is kept below levels that destroy bull trout habitat, while avoiding the need for as much excavation, which in turn reduces the risk to bull trout habitat.

This modified alternative also meets the goal of minimizing impacts to the campground. Admittedly, it will have a greater impact than Alternative 4, which avoids any loss of campsites. However, with the modifications to Alternative 4, the amount of short-term disruption is reduced, the potential for campground closure is reduced, and the visual disturbance will be reduced.

## Alternatives Considered

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Four alternatives were considered in detail, and several other alternatives were reviewed but not analyzed. The four alternatives analyzed in detail include

- ◆ **No Action:** Other than minimal amounts of maintenance activities to maintain the road, bridge, and campground, no changes to the stream conditions would occur.
- ◆ **Alternative 2:** Replace the gabions with new ones and take more aggressive actions upstream from the Road 5810 bridge to protect that bridge from damage caused by the stream.
- ◆ **Alternative 3:** Construct a new channel for Trapper Creek that would use the existing fall line. Create meander bends and more accessible floodplains to reduce high velocity flows during floods.
- ◆ **Alternative 4:** Identical to Alternative 3 except that a different fall line would be used between the Road 5810 bridge and the lake to avoid impacts to campsites in Trapper Creek Campground.

Alternative 1 and 2 were not selected because they do not promote long-term habitat development. Alternative 3 was not selected because of its impact to the campground without providing any measurably greater benefit to bull trout habitat and because keeping the stream close to the campground actually has greater potential to prolonging conflicts with recreational uses when compared with the approach taken in Alternative 4.

Within the complete range of alternatives considered were alternatives that would have closed the campground, relocated the railroad and/or road bridge. Also an alternative was discussed that would have removed the gabions and let the stream find its own course. These alternatives were not considered in detail because preliminary analysis showed that they either did not meet the project's purpose, or they were infeasible to implement.

## Public Involvement

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Public involvement for this project began with Public Scoping in December 1998. Copies of the Proposed Action and maps were sent to more than 200 interested people and organizations. The concept of repairing flood damage and restoring bull trout habitat in Trapper Creek had also been discussed with various publics, the US fish and Wildlife Service, and the Odell Bull Trout Working Group.

The Environmental Assessment was completed in August 1999 and subsequently mailed to interested/affected parties. The 30-day comment period lasted from August 19, 1999 to September 17, 1999. Approximately 15 comment letters were received, with most comments focusing on the potential impacts of the project to the Odell Lake kokanee population and the

potential decline in that fishery. Other comments raised concerns with the impact to the campground (loss of campsites), as well as the project costs of implementing the preferred alternative (Alternative 4 at that time). A complete list of comments received and detailed responses can be found in Appendix B of the environmental assessment. Many of the changes made to Alternative 4 described above resulted from concerns raised during the public comment period.

## **Finding of No Significant Impact**

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I have determined that implementing Alternative 4 as modified is not a major Federal action that would significantly affect the quality of the human environment; therefore an Environmental Impact Statement will not be prepared. This determination is based on the site-specific environmental analysis documented in the Environmental Assessment and supporting documents (e.g. the biological evaluation, biological assessment and USFWS biological opinion), which describe direct, indirect and cumulative impacts of this decision. This determination is also made with consideration of past, present, and reasonably foreseeable future actions on National Forest land and other ownership's within potentially affected areas, which could have a cumulatively significant effect on the quality of the human environment.

I have found the context of the environmental impacts of this decision is limited to the local area and is not significant. I have also determined the severity of these impacts is not significant, considering the following factors of intensity:

- ◆ The analysis considered both beneficial and adverse effects (EA Chapter 3, pp. 22-43).
- ◆ There are no known adverse impacts to public safety effects (EA Chapter 3, pp 28 and 35). Measures will taken to ensure that potential conflicts between recreationists and construction activities are reduced (e.g. flaggers on the road, daytime interpretive/safety personnel on site, and if needed, night watches) (EA Chapter 2, pp. 15, 16, 17, 19).
- ◆ No unique characteristics of the geographic area such as cultural resources and wetlands will be adversely affected. (EA Chapter 3, pp. 41, 43).
- ◆ The effects on the quality of the human environment are not likely to be highly controversial (EA Chapter 3, pp. 22-43).
- ◆ The degree of possible effects on the human environment are not highly uncertain, nor are there unique or unknown risks involved. (EA Chapter 3, pp. 22-43).
- ◆ The actions should not set a precedent for future actions that may have significant effects, nor do these actions represent a decision in principle about a future consideration. (EA Chapter 3, pp. 22-43).
- ◆ These actions are not related to other actions that, when combined, will have significant impacts. (EA Chapter 3, pp. 22-43).
- ◆ Field surveys for sites, objects, etc., listed or eligible for listing in the National Register of Historic Places have been completed. All known sites have been mitigated by avoidance and no activity will take place which will contribute to the loss or destruction of significant scientific, cultural, or historic resources. If a site is found during project implementation, a determination of significance and eligibility status will be made. If found to be significant and eligible, the site would be avoided during channel relocation activities if possible, unless stream channel location cannot be accomplished properly. If avoidance is not possible (cannot be accomplished and meet stream channel objectives), then the project will not occur

until the appropriate steps have been taken to resolve the potential loss of such a site. The Oregon State Historic Preservation Officer has concurred with our finding of no effect. (EA Chapter 3, pp. 19, 41).

- ◆ As described in the Environmental Assessment, Biological Assessment, and USFWS Biological Opinion, activities will have no adverse impact to threatened or endangered species of plant or animal, except the bull trout, which is expected to gain a long-term benefit from this project. (BA pp. 32, 34, 36, 37, 38, 39, 40, 41; EA Chapter 3, pp. 26, 27, 29, 30, 40, 41, 43; BO pp. 12-15).
- ◆ None of the actions implemented by this decision threatens a violation of the Federal, State, or local law, or requirements imposed for the protection of the environment (EA Chapter 3, pp. 22-43). For example, effects from this action will meet or exceed state water and air quality standards (EA pp. 17-18).

## Other Findings

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Actions in the selected alternative are consistent with the management direction, standards, and guidelines in the Deschutes Forest Plan (1990) as amended by the Northwest Forest Plan (1994), including the requirements for survey and manage species.

## Implementation Date

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Activities included in this decision are scheduled for implementation as funding allows. This is expected to occur during fiscal year 2001 or 2002. Because of seasonal restrictions for in-stream work, more than one year will be required to complete the implementation.

## Administrative Review

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This decision is subject to administrative review (appeal) pursuant to 36 CFR 215. Any written notice of appeal of this decision must be fully consistent with 36 CFR 214.14 and must include the reasons for the appeal. A written notice of appeal must be filed with the Reviewing Officer within 45 days of the date legal notice of this decision appears in the Bulletin (Bend Oregon). File notice of appeal with:

**Harv Forsgren**  
**Regional Forester/USDA Forest Service**  
**PO Box 3623**  
**Portland OR 97208**  
**Attention: 1570 Appeals**

For information contact:

Phil Cruz  
 Crescent District Ranger  
 P.O. Box 208  
 Crescent, OR 97733  
 Phone: (503) 433-2234

Responsible Official:	<u>/S/ Phil Cruz</u>	<u>1/12/01</u>
	PHIL CRUZ	Date
	District Ranger	
	Crescent Ranger District	