

**DECISION MEMO**  
**Timber Creek Low Water Crossing Project**

**USDA FOREST SERVICE**  
**Shoshone National Forest**  
**North Zone/Greybull Ranger District**  
Park County, Wyoming  
T47N, R103W, NE1/4 of NE1/4 Section 14

**Decision**

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I have reviewed the scoping notice and comments and decided to implement Alternative 1 (Proposed Action) for the Timber Creek Low Water Crossing Project, which is to create an armored ford low water crossing and access road downstream about 90 feet from the existing culvert crossing. The new crossing and a portion of the access road will be on Bureau of Land Management land. The access road will reconnect with Forest Service Road (FSR) 204. The old, deteriorated culvert on national forest land will be removed, and the stream channel reshaped to blend in with the existing up- and downstream channel dimensions. The old road and disturbed areas will be planted with native seed. This project will provide unimpeded access for Yellowstone cutthroat trout (YSC) to the upper reaches of Timber Creek, correct riparian and stream damage, and eliminate a crossing safety hazard for vehicular traffic.

The decision applies to the actions that would occur on National Forest System Lands (depicted on Figure 4). Specifically, this involves relocating 60 feet of FSR 204 to an old roadbed, removal of the existing culvert, and recontouring/rehabilitating the roadbed as described in the proposed action.

The proposed action falls into a category of actions that may be excluded from documentation in an EA or EIS. No extraordinary circumstances were identified which may significantly affect the environment; therefore, I plan to document my decision in a Decision Memo under Section 31.1 (4): Repair and maintenance of roads, trails, and landline boundaries, and 31.2 (7) of the Forest Service 1909.15-Environmental Policy and Procedures Handbook. This allows for modification or maintenance of stream or lake aquatic habitat improvement structures (or similar projects) using native materials or normal practices. Pursuant to 36 CFR 215, the final Decision is not subject to appeal.

**Background and Proposed Action**

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**Proposed Action-Timber Creek Low Water Crossing Project.** The Wood and Greybull River drainages are one of the last strongholds of relatively pure Yellowstone cutthroat trout (YSC), a Region 2 sensitive fish species, on the Shoshone National Forest. Timber Creek drains into the Greybull River. The existing FSR 204 culvert on Timber Creek is located in an unstable and wide floodprone area. The existing culvert is significantly undersized for the current conditions. It is deteriorated and the lower portion has collapsed. This situation has caused the stream to heavily down cut below the culvert and has created a hydraulic drop. This has resulted in a barrier to upstream fish passage for YSC and steep, high, eroded stream banks. The stream has also eroded the up and downstream road fill around the culvert. The culvert is now collapsing on the downstream side and is in danger of washing out during a major precipitation event. It is also a safety hazard for motorists.



Due to the unstable nature of this area, periodic high precipitation events, and low vehicular use, an interdisciplinary team including the District Ranger, Forest Fisheries Biologist, Hydrologist, Engineer, Resource Staff Officer, and Wyoming Game and Fish Department Fisheries Biologist felt the best solution was to remove the culvert and create a low water, armored ford crossing in a more stable downstream area (Figure 1).

The project design and implementation for the Timber Creek low-water crossing involves:

- Relocation of about 400 feet of road. Currently, about 200 feet are located on the Forest and about 200 feet are located on BLM land. The relocated road will be about 450 feet long and located on an old road. It will include an armored ford (low water crossing) across Timber Creek, about 90 feet downstream on BLM land from the existing culvert crossing. On the BLM portion, there will be a 70-foot right of way. The relocated road would connect back to FSR 204. About 390 feet will be on BLM and 60 feet on Forest.
- The old road surface will be removed and used on the relocated road. The old road will be scarified and planted with native vegetation. Topsoil from the new road will be placed on the old roadway.
- Where the culvert and road fill has been removed, the stream bank will be contoured and shaped, blending the upstream and downstream channel dimensions.
- Unusable fill material will be returned to the nearby borrow pit for future use.
- Native vegetation will be planted in disturbed areas.
- All relevant permits, including a cultural clearance and Army Corps of Engineers 404 permit, have been obtained.

## **Purpose of and Need for Action**

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This action is tied to guidance set forth in the 1986 Shoshone National Forest Plan and Record of Decision. General direction in the Forest Plan (FP-III-7) is “Manage fish and wildlife habitats, including plant diversity, to maintain viable populations of known vertebrate species and meet populations objectives of management indicator species.” The project is needed in order to meet Forest Plan direction.

**Management Area 9A (Riparian Area Management).** The goals of management are to provide healthy, self-perpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water body shorelines. The aquatic ecosystem may contain fisheries habitat improvement and channel stabilization facilities that harmonize with the visual setting and maintain or improve wildlife or fish habitat requirements (FP-III-207).

Additional plan direction is:

- Improve habitat capability through direct treatments of vegetation, soils and waters (FP-III-52)
- Provide habitat for viable populations of all native vertebrate species of fish and wildlife (FP-III-210)
- Plan lake and stream habitat improvement projects with the assistance of state wildlife agencies, where aquatic habitats are below productive potential. Plan those improvements that harmonize with the visual setting (FP-III-211).
- Design project construction plans, permits and activities to minimize siltation or pollution of streams and lakes (FP-III-211)
- Require sediment control for any construction activity within the aquatic zone to prevent downstream sedimentation (FP-III-211)
- Maintain proper stocking and livestock distribution to protect riparian ecosystems (FP-III-211)

The purpose of the proposal is to provide a transportation system, FSR 203, which meets the lowest costs and least disturbance to the environment (III-10) while allowing unimpeded access for fish, reducing

stream bank erosion and providing a more cost effective armored ford low water crossing in a more desirable location. In summary the benefits of the project are:

- Provide unimpeded fish passage
- Reduce erosion and improve water quality
- Increase the range and habitat for Yellowstone cutthroat trout (a Region 2 sensitive fish species) and other aquatic organisms to historical conditions
- Provide a safe crossing for vehicles. The current situation is a safety hazard.

## Scoping and Public Involvement

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In February 2002, letters were sent to approximately 50 individuals and 28 American Indian Tribal contacts to scope their ideas and identify issues/concerns/opportunities. The scoping was mailed February 14 and closed March 18, 2002.

- The Wyoming Game & Fish and East Yellowstone Chapter of Trout Unlimited support this project. Results from this scoping and public involvement effort are summarized as follows. Issues revolving around regulations, grazing, multiple use, fees, growth and development, tourism, economics, and others could enter the discussion. However, resolution of all issues is beyond the scope of this analysis. To narrow the scope of issues, the decision-making process focused on these concerns/issues identified in the issues and decision-making process section.
- Significant issues and how they were addressed are found in the issues and decision-making process section.
- This decision is being distributed to interested and potential affected parties, including those who responded during the scoping process.

## Issues and Decision-Making Process

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The decision rationale for implementing the proposed action is based on the following concerns/issues and opportunities and how the project design and decision would address the concerns:

**Access.** The inability of motorists to ford the stream year round, particularly during a major runoff or precipitation event, may result. This situation would be rare and of short duration on this low-use road. Most of the vehicular use occurs during firewood gathering and hunting season, which occur during the summer and fall.

**Sedimentation.** The stream will head cut once the existing culvert has been removed, since the stream has aggraded upstream. This situation was caused by the undersized culvert, which backed up the stream and caused it to deposit its bed load. We anticipate some head cutting will occur when the old culvert is removed as the stream readjusts to the unimpeded, more natural conditions. Head cutting will move and redistribute some stream substrate and sediment that has been stored upstream due to the many years of culvert constriction. From our experience in similar situations, we estimate the stream will head cut upstream about 110 feet from the riffle below the old culvert. We anticipate that this head cutting will not affect the beaver pond complex beginning about 220 feet upstream of the same riffle.

To reduce introduction of sediment into the stream during construction, all applicable Forest standards and guidelines, Best Management Practices, Soil and Water Handbook, and proven low water crossing techniques used on the Forest in other drainages will be implemented. Construction activities will be conducted during low water periods and not during big game wintering. All relevant permits will be obtained before project implementation, as well as coordination with other jurisdictions as needed.

On various crossings in braided stream systems, the Forest has successfully implemented armored ford low water crossings rather than using culverts. Through monitoring of these low use road crossings, we

have found no statistically significant difference in fine sediment levels above and below the low water crossings. These situations are similar to the Timber Creek crossing.

**Big game.** Winter range wildlife disturbance will be minimized by not conducting surface disturbing activities from November 15 to April 30.

**Recreation.** Camping in the meadow on the west side of Timber Creek may be affected. During hunting season this meadow is a popular camping spot. As a result, we chose to locate the approach road to the low water crossing along the south edge of the meadow adjacent to the tree line to minimize camping impacts in the meadow.

**Grazing.** The affected area on the Forest is on the Timber Creek grazing allotment. The affected area on BLM is on the Pitchfork grazing allotment. There will be no adverse impacts to livestock or range conditions. Some concern was expressed about grazing and grazing effects to riparian areas and fisheries, but this would be outside the scope of this project. Grazing effects are addressed in the allotment management plan and grazing permit administration.

Overall, the short-term impacts would be far outweighed by the benefits of a long-term solution to this problem crossing. The project will stabilize the stream and riparian system, providing unimpeded fish and other aquatic organism access, while eliminating a vehicle safety hazard.

The decision and actions implemented need to be the most expeditious cost efficient methods available to address concerns. A decision-making process was followed, where 1) the problem was defined with the help and input of the public, local government, and staff expertise, 2) possible alternative solutions were identified and evaluated, 3) the solution thought to be the best to solve the problem was selected, 4) project design measures were developed to implement the solution and provide an adequate level of resource protection, and 5) established a procedure to evaluate progress, compliance, and need for adaptive changes.

## Alternatives

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Based on the interdisciplinary site visit, field survey and scoping the interdisciplinary team developed several alternatives:

**Alternative 1 - Proposed Action.** We would relocate about 400 feet of FSR 204 currently located on national forest lands. We would construct an armored ford low water crossing and relocate the road about 90 feet downstream of the Forest boundary on BLM land across Timber Creek (Figure 1), following an old crossing and road connecting back to the existing Forest Service road. Some brush and tree overstory that has since grown in the old road would be removed. The approaches to the new low water crossing would be armored with large, coarse gravel to minimize sediment input into the stream. The existing road surface would be removed and used on the new road. The old road would be scarified and planted with native seed. All other disturbed areas would be planted with native seed.

Where the culvert and road fill have been removed, the stream bank would be contoured and shaped blending the upstream and downstream channel dimensions. Any unusable fill material would be returned to the nearby borrow pit on national forest lands for future use. Native vegetation would be planted in disturbed areas. All applicable Forest standards and guidelines, Best Management Practices, Soil and Water Handbook, and proven low water crossing techniques used on the Forest in other drainages would be implemented. Construction activities would be conducted during low water periods and non-winter range use. All relevant permits would be obtained before project implementation, as well as, coordination with other jurisdictions as needed.

**Alternative II - Close Road.** We looked into closing the road on the west side of the creek and eliminating the crossing. Management direction is that the road is needed to access the Timber Creek

drainage to provide dispersed recreation, hunting, and wood products. As a result, the interdisciplinary team dropped this alternative from further consideration.

**Alternative III - Larger or More Culverts.** The interdisciplinary team looked into replacing the existing culvert at the same location with a much larger culvert or group of culverts. Due to the poor site location, wide flood plain, and flashy run off in this drainage, we did not feel we could put in culverts large enough to provide a long-term solution for the money invested. As a result, the interdisciplinary team dropped this alternative from further consideration.

**Alternative IV – Bridge.** The interdisciplinary team looked into replacing the existing culvert at the same location with a bridge. Due to the poor site location, wide flood plain, and flashy nature of the run off in this drainage, a very large, wide bridge would be needed resulting in extraordinary costs for this low-use road. As a result, the interdisciplinary team dropped this alternative from further consideration.

**Alternative V- No Action.** Leave the crossing as it is. YSC and other aquatic organisms could not access the upper reaches of Timber Creek. The crossing would continue to be a safety hazard with a high potential for washing out.

### **Resource Protection /Project Design Measures**

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Project design for resource protection and methods for implementation to minimize any environmental effects or site enhancement would include:

- Biologists were consulted for their expertise on bear/human interactions and how to best implement this action. Guidelines for reducing bear/human conflicts would be incorporated into the project, to include compliance with the requirements of the Grizzly Bear Management and Protection Plan:
  - Garbage and refuse handling and disposal procedures will be implemented
  - Human safety awareness training, human/bear conflict prevention procedures, and encounter procedures will be conducted.
  - Enforce human activity restrictions by area, season, etc.

### **Reasons for Categorically Excluding the Proposed Action**

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The proposed action falls under Section 31.1 (4) and 31.2 (7) of the Forest Service Handbook 1909.15 – Environmental Policy and Procedures Handbook. Based on internal and external scoping, field reviews, and specialist’s input and experience, the effects of implementing this action will be of limited context and intensity and will result in little or no environmental effects to either the physical or biological components of the environment. The primary justification for this determination is that it involves the use of the land that does not involve significant changes in the physical environment.

### **Forest Plan Direction/Findings Required by Other Laws**

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This proposal is consistent with laws, regulations, and policy, as well as direction and standards and guidelines in the Shoshone National Forest Land and Resource Management Plan (LRMP), as required by the National Forest Management Act (FSM 1922.41 and FSH 1909.12). This decision is in accordance with other applicable federal regulations and laws.

A cultural resource inventory and the required coordination with the Wyoming State Historic Preservation Office (SHPO) was completed, as well as the cultural resource documentation called for in 36 CFR Part 800. A cultural survey was completed and no sites were found. Per the May 24, 2002 SHPO Letter,

concurrence can be assumed for the purpose of Section 106 compliance and the project can proceed since no sites were found.

### **Finding of No Extraordinary Circumstances**

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Under the Forest Service Handbook definition, extraordinary circumstances exist, only when *conditions* associated with the proposed action are identified by the line officer making the decision “as potentially having effects which may significantly affect the environment.” Interim policy direction for extraordinary circumstances was used in making a finding of no extraordinary circumstances (FSH 1909.15 – Environmental Policy and Procedures Handbook Interim Directive No.: 1099.15-2002-2, August 23, 2002).

Scoping was conducted to identify any conditions associated with a normally excluded action as potentially having effects, which may significantly affect the environment.

Extraordinary circumstances include, but are not limited to, threatened and endangered species or their critical habitat, wetlands and flood plains, wetlands, or municipal watersheds, inventoried roadless areas, Congressionally designated areas (such as wilderness, wilderness study areas, or National Recreation Areas), Research Natural Areas, or Native American religious or cultural sites, archaeological sites, or historic properties or areas. These are summarized in the table below to describe the situation for extraordinary circumstances and the effects the project would or would not have.

Determinations for extraordinary circumstances were reviewed in the context of the Forest Service Handbook (1909.15 Chapter 30.3-30.5) and definition and the court decision below<sup>1</sup>. Extraordinary circumstances exist, or are “present,” only when *conditions* associated with the proposed action are identified “as potentially having effects which may significantly affect the environment.”

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<sup>1</sup> The United States District Court for the District of Utah recently reviewed the provisions of the FSH related to categorical exclusions in Utah Environmental Congress v. U.S. Forest Service, Case No. 2:01-CV-00390B. In a Memorandum Opinion and Order issued June 19, 2001, the court found the above interpretation of the FSH to be reasonable. Specifically, the court found that the phrase “presence of” referred to *conditions* that may lead to a finding of extraordinary circumstances, not to the phrase “extraordinary circumstances.”

Extraordinary Circumstances	Conditions that may lead to a finding of extraordinary circumstances (Yes or No). If needed, discussions of <i>conditions</i> that may lead to a finding of extraordinary circumstances are discussed in detail following the table.
a. Federally listed threatened and endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species. (Attach concurrence from fisheries/wildlife biologist and botanist as needed)	Yes, discussed below. A Biological Assessment for Proposed, Listed, and Sensitive Species was completed.
b. Flood plains, wetlands, or municipal watersheds	Yes. Flood plains, wetlands, or municipal watersheds are present; extraordinary circumstances related to the proposed action do not warrant further analysis and documentation in an EA or an EIS.
c. Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas	No. None present; therefore, no effects from the project on Congressionally designated areas.
d. Inventoried roadless areas	None present; therefore, no effects from the project on inventoried roadless areas.
e. Research Natural Areas	No. None present; therefore, no effects from the project on inventoried roadless areas.
f. American Indians and Alaska Native religious or cultural sites	No. None present as determined by the Forest Archaeologist and cultural survey.
g. Archaeological sites, or historic properties or areas	No. None present as determined by the Forest Archaeologist and cultural survey.

*Conditions* that may lead to a finding of extraordinary circumstances are discussed in the following:

**Threatened, Endangered and Sensitive Species.** I have concluded that the project would have no effect on any endangered or threatened species known or suspected to occur in the project influence zone; therefore no conditions that may lead to a finding of extraordinary circumstances exists. This is based on the biological evaluation process, conclusions, and determinations made by the Forest Wildlife Biologist that concluded:

“This project will have no effect on any T&E species. The action may adversely impact individual sensitive species, but this will not be likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of either of these species range wide. The action will have a beneficial impact on Yellowstone cutthroat trout.”

The wildlife documentation for the analysis/evaluation of this proposal relative to the following species is located in the Wapiti District project file:

- Proposed, Threatened, and Endangered Species
- Region 2 Designated Sensitive Species
- SNF Forest Plan Management Indicator Species (MIS)

**Summary.** I have reviewed the proposal and determined that no significant effects would occur from its implementation. The effects of the actions, as determined through internal scoping, are not highly

controversial and are similar to other actions that have been implemented in the area. The effects on the human environment are not highly uncertain or involve unique risks. The action is not related to any actions that would result in significant cumulative impacts. The project does not represent a decision in principle about future considerations and does not violate federal, state, or local laws or requirements imposed for protection of the environment.

### **Implementation and Contacts**

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This decision can be implemented immediately and is not subject to appeal pursuant to 36 CFR 215.8 (a) (4). In order to ensure safety for employees and the public and protect infrastructure/facilities, this project will be implemented as soon as possible during the fall of 2002. For further information on this decision, contact Ray Zubik, Fisheries Biologist (telephone 307-527-6241), or Marty Sharp, NEPA Coordinator, 203A Yellowstone Ave., Cody, Wyoming 82414 or telephone 307-527-6921.

*/s/ Brent L. Larson*

*9/17/02*

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**Brent L. Larson**  
**District Ranger**

**Date**

