

FINDING OF NO SIGNIFICANT IMPACT

Storm Damage Repairs: Colonial Creek Campground, North Ross Lake National Recreation Area

Purpose and Need

In October 2003 severe floods damaged roads, campgrounds, trails, and bridges throughout the North Cascades National Park Service Complex. Colonial Creek Campground, located along the North Cascades Highway (State Route 20) within Ross Lake National Recreation Area, was heavily impacted when the creek filled its channel with debris and began to flow through the north unit of the campground. At least 15 campsites and portions of the campground loop road were damaged or destroyed. The creek now flows directly through the campground, amidst a tangled mess of exposed utility lines and flood debris. The north campground unit remains closed to overnight camping. The purpose of the actions proposed in this Environmental Assessment (EA) is to allow continued use of the north side of the campground while reducing the risk of flood damage in the future. Action is needed in order to reopen the north loop of the campground for visitor use.

Selected Management Alternative

The Preferred Alternative, described in the EA as Alternative B, is selected as the management alternative that will be implemented. The proposed actions of Alternative B will be implemented as described in the EA, without changes. Proposed actions include:

- The loop roads would be rebuilt adjacent to portions of the new creek channel on higher ground
- Two segments of the road shoulder (where the old road intersects the new route) would be protected with boulders, woody debris, and live vegetative material to prevent creek migration into the remaining portion of the campground
- Twenty cubic yards of material will be cut and 409 cubic yards will be filled in various places to grade the road
- Nine new campsites would be built along the new section of road. Four damaged sites (now isolated by the creek and no longer accessible by vehicle) would become footbridge-accessible walk-in sites
- The transformer located near Site 15 would be relocated to a spot across from Site 9
- A new electrical line and water line will be installed along the length of new road
- Damaged utilities and asphalt would be removed, and debris would be cleaned up
- Abandoned campsites and road segments would be re-graded to a natural contour and re-vegetated with native plants
- An engineered log jam would be constructed along 100 feet of the cut bank of Colonial Creek near site 29 to stabilize the bank
- An old road cut starting at the creek and dropping into site 30 will be filled at its head near the channel
- The Thunder Knob trailhead will continue to be in its new location along the first loop road

This alternative would result in approximately 670 feet of a new one-way, loop road. Three large diameter (> 24 inches in diameter) trees would need to be cut and removed to build the new road. There would be a net loss of six campsites. Some seasonal risk (from October – February and April – June) of future flood damage would remain because the road loops would be built

between an ancient creek channel and the current active creek channel. Should the creek leave its current channel, it could move to the ancient channel and wash out sections of the new road. However, the engineered log jam and blocking of the old road cut required under this alternative are intended to reduce this risk.

Other Alternatives Considered

Alternative A: Abandon the Damaged Campsites (No Action), (Environmentally Preferred)

Under this alternative, the former loop roads would be foreshortened into dead-end roads with turnarounds for use by smaller vehicles. Campsites that have become inaccessible via the loop roads would be cleared of all improvements and abandoned. Damaged utility lines and asphalt would be cleaned up to protect public safety and environmental health, but none of the damaged campsites would be repaired. The Thunder Knob trailhead has already been relocated to a more accessible location.

Although implementation of this alternative would result in the least costly means of addressing the damage, it fails to adequately meet the purpose of the proposal. Colonial Creek Campground is the most popular campground in Ross Lake NRA. Twelve campsites would be abandoned, and three additional damaged campsites that are currently accessible would be closed to future use, for a total net loss of 15 campsites. Large vehicles and RVs could not safely negotiate the dead-end road network, so use of the remaining campground (29 drive-in and six walk-in sites) would be limited to smaller vehicles capable of turning around on the dead-end roads. For these reasons, the environmentally preferred alternative is not the selected management alternative.

Alternative C: Rebuild Shortened Loop Roads Farther from Pre-flood Location

The main difference between this alternative and Alternative B is the loop roads would be shortened to avoid an ancient creek channel that could flood in the future if the creek shifted its alignment at the "head" of its alluvial fan. There would still be embankment protection along the two segments of road shoulder (where the old road intersects the new route) to prevent creek migration into the remaining portion of the campground. Forty cubic yards of material will be cut and 240 cubic yards will be filled in various places to grade the road. The same number of damaged sites (four) across the creek would become walk-in sites. Additionally, eight new campsites would be built along the road, and the westernmost loop would become car-accessible only (i.e., no RV or trailers), converting nine sites along the loop to tent sites. The westernmost loop would become a dead-end road. It would be widened to accommodate two-way traffic (to 16 feet wide), and a hammerhead turnaround would be constructed at the end of the road.

As in Alternative B, new electrical and water lines would be installed along the new route, and damaged lines and asphalt would be removed from the old road. Abandoned campsites and road segments would be re-graded to a natural contour and re-vegetated with native plants. The transformer would be relocated to a spot across from Site 9. The same engineered log jam would be constructed along the cut bank of Colonial Creek near site 29 to stabilize the bank, and the same old road cut starting at the creek and dropping into site 30 will be filled at its head near the channel. The westernmost loop would be widened, and may require additional tree removal. The Thunder Knob trailhead will continue to be in its new location along the first loop road.

This alternative is a more precautionary approach for minimizing the risk of flood damage, short of the "No Action" Alternative. The number of drive-in sites would be the same as Alternative B

(34), but nine of the drive-in sites would be restricted to cars only. The number of walk-in sites would be the same as Alternative B (six existing plus four new sites). There would be a net loss of seven campsites. Eight large diameter (> 24 inches in diameter) trees would need to be cut and removed to build the new road, including one very large diameter tree (59.8 inches DBH) that could be removed, or at minimum, impacted by root cutting, to accommodate the road alignment. The risk of future flood damage would be less than that of Alternative B. This alternative was not selected as the management alternative because of the high number of large diameter trees that would need to be cut; and the public safety concerns associated with converting a one-way street to two-way, limiting access for RV users in an area that would be difficult to negotiate should a large RV make a wrong turn into the restricted area, and the awkwardness of a hammerhead turnaround as it relates to a smooth traffic flow.

Environmentally Preferred Alternative

Alternative A, No Action, is the environmentally preferred alternative. The biological and physical environment is best protected through the minimal actions that would be taken to clean up the campground. No engineered log jams or embankment protection would be installed; therefore, the alluvial fan would be allowed to develop more naturally without additional barriers to its movement. There would be no new road alignments, no trees would be cut, and there would be no additional ground disturbance. Wildlife habitat would be better preserved by restricting development close to Colonial Creek. Conversely, both alternatives B and C call for the removal of a large number of trees (184 and 212, respectively), some of which are high-value, large-diameter old growth trees that provide valuable habitat and serve as important remnants of a once-intact, old growth forest (though now it is heavily disturbed). Bank alteration through the construction of an engineered log jam will change the course that Colonial Creek naturally would have taken, thus altering alluvial fan development.

Mitigation Measures

Table 1 below identifies the impacts associated with implementing the selected alternative, and provides mitigation measures that will be used to minimize those impacts. Also identified is the park division that will be responsible for implementing the mitigation. All mitigation measures described in this section will be implemented. Additional measures may be developed to supplement those listed below.

Table 1: Mitigation Matrix

| Resource Topic | Impact | Mitigation | Responsible Division |
|-------------------|--|--|-------------------------------------|
| Visitor Use | Noise | Construction activities will be limited to between 7:30 am and 5:00 pm during weekdays to minimize impacts to campers. | Maintenance |
| Water Quality | Siltation or pollution of water bodies | Silt fences will be used to contain debris that is loosened during log jam and road construction. | Maintenance and Resource Management |
| | | Prior to stream crossing, equipment tracks should be cleaned. | |
| Fish and Wildlife | All aquatic life and habitat degradation | Prior to stream crossing, staff will walk ahead of heavy equipment to kick rocks and flush amphibians out of the vicinity. | Resource Management and Maintenance |
| | | Check for char redds prior to crossing the channel. | Resource Management and Maintenance |

| Resource Topic | Impact | Mitigation | Responsible Division |
|----------------|--|--|-------------------------------------|
| | | Timber mats will be laid across the stream and used as equipment pads to distribute weight during stream crossing. | Maintenance |
| | | Use the same stream crossing route (following the campground road) every time to minimize disturbance, and keep number of crossings to a minimum. | Maintenance |
| | | Avoid within-stream activities during char spawning and incubation (November through June). | Resource Management and Maintenance |
| | Pileated woodpeckers habitat degradation | Avoid cutting trees larger than 24 inches DBH (Diameter at Breast Height) if possible, and protect trees with signs of use by pileated woodpeckers. | Resource Management and Maintenance |
| | | Survey for pileateds prior to cutting trees. | Resource Management |
| Vegetation | Large diameter tree loss | Cutting of large diameter trees will be avoided to the extent possible, including the cutting of their root systems. | Maintenance |
| | Invasive weeds | Imported fill will come from a known clean source to minimize invasive weeds, and disturbed areas will be monitored as part of regular exotic plant inventories. | Maintenance and Resource Management |
| | Disturbed ground | Duff that is removed from the new roadbed will be used as a seed source for areas that need to be revegetated, and revegetation will occur with local native plants. | Maintenance and Resource Management |
| | Listed plant species | Survey flagged campsites for rare plants prior to cutting and clearing | Resource Management |

In addition to the mitigation measures outlined above, the following provisions will be followed, as set forth in the Hydraulic Project Approval (HPA) issued by the Washington Department of Fish and Wildlife on August 30, 2005 (Control Number: 102763-1):

- 1. TIMING LIMITATIONS:** *The project may begin immediately and shall be completed by October 31, 2005.*
- Work shall be accomplished per plans and specifications as illustrated in your [JARPA] application, dated July 21, 2005, and approved by the Washington Department of Fish and Wildlife, except as modified by this Hydraulic Project Approval. A copy of these plans shall be available on site during construction.*

WATER QUALITY

- If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills), immediate notification shall be made to the Washington Department of Ecology at 1-800-258-5990, and to the Area Habitat Biologist listed below.*
- Every effort shall be taken during all phases of this project to ensure that sediment-laden water is not allowed to enter the stream.*
- All waste material such as construction debris, silt, excess dirt or overburden resulting from this project shall be deposited above the limits of flood water in an approved upland disposal site.*
- If high flow conditions that may cause siltation are encountered during this project, work shall stop until the flow subsides.*

7. Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the stream.

EQUIPMENT

8. The use of equipment below the ordinary high water line shall be limited to that necessary to gain position for work.

9. Equipment used for this project shall be free of external petroleum-based products while working around the stream. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working below the ordinary high water line. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.

10. Equipment crossings of the stream shall be restricted to the minimum number possible. Crossings shall be confined to the campground road. Timber mats shall be used (per approved plans and specifications) to minimize impacts during crossings. This activity shall not be construed as 'establishing a ford'.

ELJ CONSTRUCTION

11. Large woody material A minimum of 10 logs shall be used in the log jam. Each log shall have a minimum diameter of 12-inches and a minimum length of 20-feet.

12. All LWM to be used in this project shall be imported from off site and shall consist of sound fir or cedar.

13. Large woody material embedded in the bank or streambed shall be left undisturbed and intact.

14. Upon completion of the ELJ construction, the streambed shall contain no pits, potholes, or large depressions to avoid stranding of fish.

15. Disturbance of the streambed and banks shall be limited to that necessary to place the ELJ and any required bank modification associated with it. Affected streambed and bank areas outside the ELJ shall be restored to preproject configuration following installation of the ELJ.

Consultation and Public Review

A 30-day public scoping period was initiated in November 2004 to gather comments on the preliminary management alternatives for the environmental assessment. The scoping period ended on December 10, 2004. Two comment letters were received; both were in support of Alternative C as the appropriate means for providing long-term protection of the campground. Neither letter identified additional environmental issues or concerns.

The environmental assessment was completed and sent out for public review from July 28 to August 30, 2005. Copies were sent to 26 different agencies, organizations, libraries, and local officials. A news release was distributed and the document was posted on the NPS Planning, Environment, and Public Comment (PEPC) website. Comments were received from five individual parties; three of which used the PEPC system, and two of which used email. Two respondents expressed their preference for Alternative B, the preferred alternative. The other three respondents expressed their preference for the north campground unit to remain open. None of the respondents identified additional substantive issues or concerns.

Agency Consultation

U.S. Fish and Wildlife Service (FWS)

An assessment of potential impacts to federally listed species was included in the EA. It was determined that the management alternative selected for implementation "may affect, but is not

likely to adversely affect" the gray wolf, grizzly bear, Pacific fisher, bald eagle, marbled murrelet, northern spotted owl, Columbia spotted frog, and bull trout. There would be no effect on Canada lynx. A copy of the EA was provided to the FWS for informal consultation. The FWS concurred with this determination based on review of the EA and an August 17, 2005 phone conversation (between Dan Allen, NPS Environmental Protection Specialist and Linda Saunders-Ogg, FWS Biologist).

State Historic Preservation Officer and the Tribes

No prehistoric or historic resources have been identified in the project area. Therefore ground disturbance associated with road and campsite construction should not impact cultural resources. In light of these considerations, impacts to cultural resources were dismissed from detailed analysis in the EA, and consultation was not pursued with the State Historic Preservation Officer or the Tribes. However, should culturally significant resources be discovered during construction, work would cease pending further evaluation of cultural significance in consultation with appropriate agencies and tribes.

Washington Department of Fish and Wildlife (WDFW)

The Washington Department of Fish and Wildlife (Mark Downen, Inland Fisheries Biologist) was consulted to determine whether or not bull trout inhabit Colonial Creek. Since genetic analysis has not been conducted on the char in Colonial Creek, it is unknown whether they are bull trout or Dolly Varden. WDFW Area Habitat Biologist Brendan Brokes was also consulted to discuss potential impacts to native char from the proposed stream work. Mr. Brokes has made several site visits to the project area since the floods of 2003. WDFW personnel agree that bull trout may be present in Colonial Creek although they have yet to be documented, and the alternatives evaluated in the EA would not adversely affect bull trout given the minor amount of disturbance to aquatic habitat from stream work. NPS has been granted a Hydraulic Project Approval from WDFW for all work that will be conducted below the ordinary high water mark.

Why the Selected Alternative will not have a Significant Effect on the Environment

The actions associated with the selected alternative will not have a significant effect on the environment as determined by the 10 significance criteria defined by the Council on Environmental Quality (40 CFR 1508.27). The criteria are listed below along with a discussion about why there are no significant effects:

1. *Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts which require analysis in an EIS.*

There are no significant adverse impacts associated with any of the approved actions in the selected alternative, and therefore the project does not require an EIS.

2. *The degree to which public health and safety are affected.*

The actions outlined in the selected alternative will improve public health and safety by removing damaged utilities and rerouting traffic away from the new creek channel.

3. *Any unique characteristics of the area (proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains, and so forth).*

The project area is not located in close proximity to any unique areas.

4. *The degree to which impacts are likely to be highly controversial.*
Impacts will not likely be controversial. All comment letters were in support of some level of repair of the north campground.
5. *The degree to which the potential impacts are highly uncertain or involve unique or unknown risks.*
The potential impacts are predictable and the risks are known. Known risks include the likelihood of another storm event that could cause further damage if waters are high enough. The NPS has determined that these known risks are acceptable for the project.
6. *Whether the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.*
This action will not set a precedent for future actions with significant effects. Future actions that have significant effects will be analyzed thoroughly to determine their merit.
7. *Whether the action is related to other actions that may have individual insignificant impacts but cumulatively significant effects. Significance cannot be avoided by terming an action temporary or breaking it down into small component parts.*
No other actions, such as the Thunder Creek Bridge replacement and associated trail work, will have cumulatively significant effects.
8. *The degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources.*
There are no historic properties in the vicinity of the project area, and no other significant scientific, archeological, or cultural resources exist in the project area.
9. *The degree to which an action may adversely affect an endangered or threatened species or its habitat.*
None of the listed species would be adversely affected by any of the actions in the selected alternative.
10. *Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.*
There will be no violation of federal, state, or local laws, or other environmental requirements.

Non-impairment of Park Resources and Values

The NPS has reviewed the impacts outlined in the environmental assessment, the significance criteria outlined in this document, the nature and scope of public comments, and concurrences from agencies consulted. Based on this information it is concluded that implementation of the selected alternative would not impair national recreation area resources and values and would not violate the NPS Organic Act.

Conclusion

Based on information contained in the Environmental Assessment as summarized above, the National Park Service has determined that the proposed actions do not constitute a major federal action that would significantly affect the quality of the human environment. This determination is based upon the environmental analysis, the ability of the mitigation measures to reduce or eliminate impact, and the favorable nature of public comment on this project. The proposed action is not without precedent, nor is similar to an action which normally requires an environmental impact statement. Therefore, in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental impact statement will not be prepared.

Recommended:




William F. Paleck
Superintendent, North Cascades National Park Service Complex



Date

Approved:



Jonathan B. Jarvis
Regional Director, Pacific-West Region



Date

9/12/05