

Batatavilla
Environmental Assessment
For
Fall Creek/Little Fall Creek Road Closure Project

Agency: Willamette National Forest
Middle Fork Ranger District
Lane County, Oregon

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February 2004

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1.1 Proposed Action

The Middle Fork Ranger District of the Willamette National Forest is proposing to close 36 roads (total length approximately 27 miles) in portions of the Fall Creek and Little Fall Creek watersheds. The roads will be closed within the next 5 years in a manner that results in hydrologic stability. Individual road length varies from .1 miles to 3.5 miles. See enclosed map for road locations, Appendix A. Individual prescriptions for each road closure can be found in Table 1 (page 6).

The road closure method would vary by road. Road entrances would be closed with a combination of an earthen berm, deep ditch, and possibly boulders. Several roads that are already closed would have the closure improved. Most roads would have water bars (WB) cut into the road surface to direct water flow off of the road surface. Waterbars are diagonal ditches cut across the road, with an earthen berm placed downhill from the ditch to catch water. Many of the roads would have a water bar cut into the road on the downhill side of each culvert (CV). In the event the culvert becomes plugged with debris, water bars direct the water across the road, helping storm proof the road from erosion. Many culverts would have deep ditches (DITCH) cut in the fill directly above the culvert. This will allow the stream to stay in the same watercourse in the event the culvert becomes plugged and overtops the fill.

The road closure would limit access to areas that are now entered by means of motorized vehicles. The closure will limit some recreational user's access to fishing sites, berry picking areas, wood cutting sites, dispersed camping and other recreational activities.

The closures would necessitate moving some trail head signs.

The purpose of this action is to minimize the down slope affects to other resources and improve the ability to perform adequate road maintenances within the existing budgetary constraints.

Some culverts would be removed altogether (CRM) (see Appendix A. map for locations) and the stream restored to a natural stream course. Several roads would have the cut and fill slope pulled back to decrease slide potential.

The project would be completed during the summer months from 2003 through 2007.

1.2 Purpose and Need for the Proposed Action

Willamette National Forest Final Environmental Impact Statement and associated Land and Resource Management Plan as amended by the Record of Decision for 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, signed April, 1994 (hereafter called the Forest Plan and N.W.Forest Plan) recognized that Transportation Management was critical to the management of a variety of forest resources.

Using this direction the Middle Fork Ranger District Roads Analysis team designed a plan to analyze and specify which roads to retain, which roads to close and what will be the appropriate level of maintenance.

Summary of the Analysis Process:

There are 4 primary interests that guided the analysis of each road segment; this included potential affects to terrestrial and aquatic resources and values the public and administrative uses.

Using an automated spatial analysis process, each road segment was evaluated for its potential affects to the primary interests. When the ranking to close the road was equal to the ranking to keep the road open the automated system highlighted the need for an interdisciplinary discussion.

This discussion and a landscape look at the individual roads segments resulted in a consensus recommendation for the road. Once all recommendations were finalized, a visual landscape assessment of the road system was made to ensure that road recommendations were viable and complied with pertinent policy and direction.

The reason for this road decommissioning project is to close and rehabilitate roads to minimize and eliminate risks of adverse environmental impacts such as erosion, wildlife habitat fragmentation, and reduce number of un-maintained or inadequately maintained roads.

The adverse conditions found in this project work area are: 1) more roads than can be maintained under our current budget; 2) projected future budgets; 3) The habitat in the area is fragmented; 4) there is potential for current and future erosion problems.

The desired conditions for this area are fewer unneeded roads, less habitat fragmentation, and less erosion issues.

The Forest Plan and other referenced documents related to the management of forest resources offer guidance and direction for management and closure of roads for resource protection, road maintenance budget. The documents discussed below offer management direction suggesting the need for closure of the roads in the watershed areas discussed in this EA. Closing these roads will lead to the potential improvement of resource values in the watersheds as discussed further in this EA.

Decreased road maintenance suggests the potential for an increase of sediment input into nearby and connected aquatic systems on the district. Potential mass wasting and road fill failures are likely to occur, if roads are not maintained to the standard in which they are designed.

This document is tiered to the current management direction as established by the following sources.

FW 312 (N.W. Forest Plan) “Existing roads determined not to be needed for current or future use shall be permanently closed to motor vehicles and have vegetation cover reestablished on the

roadway and areas where the vegetation cover has been disturbed by the construction of the road.”

RF -2 (N.W. Forest Plan) “...Minimize road and landing locations in riparian reserves. And minimize disruption of natural hydrologic flow paths including diversion of streamflow and interception of surface and subsurface flow.”

National Roads Analysis: “Balance benefits of access with the costs of road-associated effects to ecosystem values.

The Willamette National Forest Roads Analysis Report; The objectives of this analysis are to furnish information that will help us manage a forest transportation system that:

- Is environmentally sound,
- Provide safe access and meet the needs of communities and forest users,
- Facilitates the implementation of the approved Forest Plan direction.

Fall Creek Watershed Analysis 1995: “Roads known to be sediment sources or without funding for maintenance should be decommissioned, obliterated, or weatherized so they are self-maintaining.”

The designed life span of corrugated metal pipes (CMP’s) is twenty years. Most of the road system in Fall Creek and Little Fall Creek area was built between 20 to 50 years ago. Many of the roads are beginning to show damage that indicates a greater potential for failure.

FW308 NW Forest Plan:

“The development, maintenance and management of the Forest development road system shall be continued as needed to respond to resource management objectives. Many road-related activities will occur in support of the timber management program with additional projects undertaken to facilitate recreational use, Forest administration and resource protection.”

The road maintenance budget for the Middle Fork Ranger District has dropped to a level one third of what it was 10 years ago. This budget decrease necessitates closing roads to allow maintenance of the existing road system within budgetary constraints. Actions must be initiated to protect resource interests in light of the decreasing budgets for road maintenance. Future budget projections show further decreases in road maintenance budgets over time.

The Mid-Willamette Late-Successional Reserve (LSR)

Assessment, August 1998:

“Within each LSR, there are likely to be specific sites where high road densities cause significant adverse effects to late-successional forests and associated species. These sites should receive special consideration for treatment to reduce or eliminate those adverse effects.” The Fall Creek watershed has the highest number/percentage of roads recommended for treatment in this analysis. There are 386 miles of road in the Fall Creek LSR, and 180 miles are slated for treatment. Thirty three of the 36 roads considered for closure in this EA are within the Fall Creek LSR.

Each of the roads being considered for closure in this EA was analyzed through the Middle Fork District Roads Analysis Document (2004) process.

Roads Analysis evaluates each road in light of the impacts either closure or leaving the road open would have upon the following resource categories: **Public Use, Administrative Use, Aquatic Resources, and Terrestrial Resources.** Each road considered for closure is assessed utilizing a series of criteria in each of these categories. All roads in this EA are considered for closure under this evaluation system. The end result of this process can be seen in the Table 1 on next page. The following table displays information for each road proposed for closure in this EA. It displays the length of each road, the Roads Analysis ratings results in each category described above, the proposed treatment for each road closure and the open/closed status for each road at the time this EA was written.

TABLE 1. ALL ROADS

Road #	# Miles	TER	AQU	ADM	PUB	TREATMENT TYPES	CURRENT ACCESS	
1800-365	3.44	H	H	M	M	BERM/DITCH/WB	OPEN	
1800-367	1	M	H	M	L	BERM/WB	OPEN	
1800-372	1.77	H	H	M	L	BERM/WB	OPEN	
1800-374	0.61	M	H	M	L	BERM/WB	OPEN	
1800-376	0.17	M	M	M	L	BERM/WB	OPEN	
1800-381	0.1	M	L	L	H	BERM	CLOSED	
1800-405	0.085	L	L	M	H	BERM/WB	CLOSED	
1800-407	0.27	L	M	M	H	BERM/WB	CLOSED	
1800-431	0.2					BERM	OPEN	
1800-432	0.05	L	L	M	H	BERM/WB	OPEN	
1800-437	0.05	L	M	H	H	BERM/WB	CLOSED	
1817-408	0.55	H	H	L	L	BERM/DITCH/WB	OPEN	
1821-259	0.47	M	M	M	L	BERM/DITCH/WB	OPEN	
1825-262	0.75	H	H	L	L	BERM/WB	OPEN	
1830-407	2.04	H	H	M	L	BERM/WB	CLOSED	
1830-408	0.18	H	H	L	L	BERM/DITCH/WB	OPEN	
1830-409	0.36	M	H	L	L	BERM/WB	OPEN	
1830-410	1.46	H	H	M	L	BERM/DITCH/WB	CLOSED	
1830-411	0.79	M	H	M	L	BERM/WB	OPEN	
1830-414	0.44	H	M	L	L	BERM/DITCH/WB/CRM(2)	OPEN	
1830-415	0.07	H	H	L	L	BERM/WB	OPEN	
1831-396	0.35	H	M	L	L	BERM/WB	OPEN	
1832-381	0.38	H	H	L	L	BERM/WB	OPEN	
1835-220	2.48	H	H	M	H	BERM/WB	OPEN	
1835-226	0.58					BERM/WB	CLOSED	
1835-241	1.6	H	H	M	L	BERM/WB/CRM(2)	OPEN	
1835-252	0.7	H	H	L	L	BERM/DITCH/WB	CLOSED	
1835-365	0.53	H	M	M	H	BERM/WB	OPEN	
1839-370	1.35	H	H	L	L	BERM/WB	OPEN	
1839-372	1.15	H	H	L	L	BERM/WB/CRM(3)	CLOSED	
1839-374	1.07	M	H	L	L	BERM/WB/CRM(1)	OPEN	
1844-364	0.31	M	H	L	L	BERM/WB	OPEN	
1844-366	0.33	M	M	L	L	BERM/WB	OPEN	
1846-800	0.45	H	M	L	L	BERM/DITCH/WB	OPEN	
1912-658	0.23	H	M	L	L	BERM/WB	OPEN	
1926-584	0.8	H	H	L	L	BERM/DITCH/WB	OPEN	
Total # Miles=	27.165							
BERM=Closing road with a berm or very large ditch to close road to motor vehicle access.								
DITCH=Cutting large ditch in road above the culvert to keep overtopping stream in streambed								
WB= Water bar-Small ditch and berm placed in road surface/below culvert to divert water								
CRM= Culvert Removal-Digging the culvert out of the road and re-shaping the stream course								

1.3 Description of the Project Area

The project area is located on the Middle Fork Ranger District, approximately 23 miles northeast of the city of Lowell. Forest Service (FS) road 18 is the primary forest road leading to the project area. This area of the district is located approximately 10 air miles east of Eugene, on highway 58. Roads are located within Township 18S and 19S, Range 2E, 3E, and 4E. The roads are located in the Little Fall Creek and Fall Creek 5th field watersheds. Appendix A. (page38) displays a proximity map and map of the area and proposed roads for closure.

1.4 Decision to be made

The decision to be made by the District Ranger is whether or not to close the identified 36 roads in the Fall Creek and Little Fall Creek watershed areas, and to determine what degree of closure (number of road miles, where to close roads, and how to close roads) best addresses the resource, administrative and public use needs now and in the future. The decision needs to be compatible with multiple use objectives and meet the desired future conditions for the area as defined in the Forest Plan as amended by the Northwest Forest Plan (Record of Decision USDA, 1994).

1.5 Scoping and Public Participation

Scoping is an ongoing process where the agency and public comments are solicited throughout the planning period. In order to determine major issues affecting the decision, the Forest Service has involved the public and numerous agency interdisciplinary specialists. Scoping for the project began with a mailing to the public in February of 2003. A letter was sent to members of the public and organizations who potentially could be affected by the proposed project, or who might have an interest in the decisions made as a result of the proposed actions. The letter provided notification of the planning process underway for closure of roads in this area, and notification that access to some areas could change in the future. Signs were posted on most of the roads that are presently open for use, to alert the public to the potential for changes in road access, and provide an avenue for comments concerning the proposed changes. A meeting was held with the mayor of Lowell on March 24, 2003, to discuss ideas and issues he had with the project in question. The comments and discussion points are also part of the analysis file, which can be reviewed at the district office.

The Batatavilla Road Closure Project has been included in the Willamette National Forest Schedule of Proposed Actions - Forest Focus Quarterly Newsletter since summer of 2002.

Several public comments on this proposed road closure project have been received via phone call, and a summary of content can be found in the analysis file at the Middle Fork District office.

2.0 Issues

The public scoping process for this project area identified the following specific issue, which determines what effects and possible mitigation measures will drive development of alternatives. The following issue, collected from the public scoping process, was identified as significant for the project. This key issue is addressed through the development of a reasonable alternative which meets the purpose and need for the proposed action.

2.1 Significant Issue

The Public, private interest groups, or individuals would lose access to roads and therefore areas that have been accessible by motor vehicle in the past.

Closing roads on the district would limit recreational and forest activities that are based upon driving motorized vehicles on roads to access areas of public interest.

Motorized vehicles are defined as any conveyance that has a motor, driving the conveyance.

Examples include, but are not limited to: cars; and trucks; heavy equipment; motorcycles or motorized bicycles; all terrain vehicles (ATV's); motorized equipment carriers, etc.

This decreased access could potentially affect such activities as berry picking, stream access for fishing and camping, trailhead access, pleasure driving on the forest roads, hunting, firewood gathering, and recreation.

Leaving these roads as is would, over a period of time, create a decline of habitat for aquatic and wildlife species in these areas due to the increased potential for road failures or a decline from increased sedimentation.

2.2 Other Issues

Closing roads could create some short term water quality changes in road areas where culvert removal is planned.

This issue is not significant as the road decommissioning will be implemented during the dry season (July 15-September 30) and sediment traps will be used if any of streams have water present. These mitigating measures would assure that there would be little or no significant increase in sediment down stream of the project area.

3.0 Alternatives Including the Proposed Action

As a result of public comment, two **Action** Alternatives and a **No Action** alternative were considered. This section presents a description of each alternative and a listing of mitigation measures, and a summary of the environmental effects for each alternative. The comments received by the public were used to create the **Alternative C Action Alternative-Modified**, are described in section 3.3.

Alternative C, the Action Alternative-Modified, was developed to address this decreased access to the forest. This alternative would close roads in this EA utilizing the following criteria. Only roads that meet the criteria would be closed.

- (1) Close roads with parallel access via other nearby roads**
- (2) Close roads that are equal to or less than .8 miles in length**
- (3) Close roads already inaccessible to motor vehicles**
- (4) Keep roads open that access trailheads, fishing sites, and dispersed sites. ** moved from above**

3.1 Alternative A - No Action

The definition **No Action** in this process acknowledges that the natural landscape will change with time, even if no administrative changes are prescribed. The current trend of reduced maintenance funding (which results in declining accessibility), reduced timber haul, and very little additional recreation funding will result in “uncontrolled” changes to the transportation system. Some of these roads are on steep slopes, and many are within the elevation band which produces rain-on-snow events, triggering flooding and landslides which will affect a portion of the road prisms. These roads could also be closed naturally by brush, wind thrown trees, rock fall, and other natural occurrences.

These actions would result in higher risks of slope failure, soil movement and sediment input into streams. Habitat connectivity would generally not be increased. Travel would continue as long as road conditions permit. Administrative and public access would become increasingly more difficult for product removal, fire control, etc.

As considered here, **No Action** means that none of the roads considered in this proposed project would be closed at this time. Road densities would remain the same, some damaged roads would continue to receive little or no maintenance, and culverts would remain in place. Culverts that pose a risk of failure would remain in place as well. The roads proposed for closure would continue to be an increased risk to Chinook salmon, resident fish, and other aquatic species in affected areas. Roads currently accessible by motorized vehicles would continue to be accessible, unless reduced maintenance of roads or damage from storm events limits access.

3.2 Alternative B Action Alternative

This alternative would close 36 roads that total approximately 27 miles in length within the Fall Creek and Little Fall Creek watersheds. **Alternative B** would close all roads that are discussed in this EA. Method of closure would vary by road and closure method needed, determined by present road condition, location on the landscape, location in relation to resource values requiring protection, and availability of funds. Table 2 displays the roads proposed for closure, the length of the road, number of culverts on the road, number of culverts to remove, approximate number of water bars to place on road, and closure method. Appendix A (page 38) displays the mapped locations of these roads. Each road was previously evaluated utilizing the

Roads Analysis process. This process evaluates the impact that leaving a road open or closing the road would have on the following use categories: **administrative use, public use, terrestrial and aquatic wildlife.**

The Roads Analysis process looked at the fact that a decrease in maintenance funding over the past several years has allowed the National Forest road system to rapidly degrade and close itself through lack of maintenance. There is a need to complete an environmentally sensitive and comprehensive plan to systematically reduce the risk of continued and future damage to the associated resources. This approach was completed in an interdisciplinary manner analyzing the uses and needs of the land. The process was large enough in scope to insure that the revised transportation system is sufficient to address the long-term needs of the District as well as those of the neighboring Districts, forest users, and owners of adjacent lands. The results of analysis will allow the remaining road maintenance funds to be concentrated on providing a safer, more environmentally sensitive transportation system that protects natural resource values.

Depending on site-specific needs, actions in addition to those presented in Table 2 would likely include installation of barriers to vehicular traffic at the beginning of most closed roads. At some stream crossing culverts would be removed, streambeds and stream courses would be re-contoured, and stream banks planted with a suitable seed mix for erosion control and/or native trees and shrubs. Removed culverts would be transported and disposed of by the contractor responsible for the removal of the culvert. On fish bearing streams, barriers to upstream migration created by scour action of the culverts would be corrected at the time they are removed.

TABLE 2. Alternative B

Road Number #	Miles	TERRESTRIA	AQUATICS	ADMINISTRATIV	PUBLIC	RX	TREATMENT TYPES
1800-365	3.44	H	H	M	M	CLOSE	BERM/DITCH/WB
1800-367	1	M	H	M	L	CLOSE	BERM/WB
1800-372	1.77	H	H	M	L	CLOSE	BERM/WB
1800-374	0.61	M	H	M	L	CLOSE	BERM/WB
1800-376	0.17	M	M	M	L	CLOSE	BERM/WB
1800-381	0.1	L	L	L	H	CLOSE	BERM
1800-405	0.085	L	L	M	H	CLOSE	BERM/WB
1800-407	0.27	L	M	M	H	CLOSE	BERM/WB
1800-431	0.2						BERM
1800-432	0.05	L	L	M	H	CLOSE	BERM/WB
1800-437	0.05	L	M	H	H	CLOSE	BERM/WB
1817-408	0.55	H	H	L	L	CLOSE	BERM/DITCH/WB
1821-259	0.47	M	M	M	L	CLOSE	BERM/DITCH/WB
1825-262	0.75	H	H	L	L	CLOSE	BERM/WB
1830-407	2.04	H	H	M	L	CLOSE	BERM/WB
1830-408	0.18	H	H	L	L	CLOSE	BERM/DITCH/WB
1830-409	0.36	M	H	L	L	CLOSE	BERM/WB
1830-410	1.46	H	H	M	L	CLOSE	BERM/DITCH/WB
1830-411	0.79	M	H	M	L	CLOSE	BERM/WB
1830-414	0.44	L	M	L	L	CLOSE	BERM/DITCH/WB/CRM(2)
1830-415	0.07	H	H	L	L	CLOSE	BERM/WB
1831-396	0.35	M	M	L	L	CLOSE	BERM/WB
1832-381	0.38	H	H	L	L	CLOSE	BERM/WB
1835-220	2.48	H	H	M	H	CLOSE	BERM/WB
1835-226	0.58						BERM/WB
1835-241	1.6	H	H	M	L	CLOSE	BERM/WB/CRM(2)
1835-252	0.7	H	H	L	L	CLOSE	BERM/DITCH/WB
1835-365	0.53	M	M	M	H	CLOSE	BERM/WB
1839-370	1.35	H	H	L	L	CLOSE	BERM/WB
1839-372	1.15	H	H	L	L	CLOSE	BERM/WB/CRM(3)
1839-374	1.07	M	H	L	L	CLOSE	BERM/WB/CRM(1)
1844-364	0.31	M	H	L	L	CLOSE	BERM/WB
1844-366	0.33	M	M	L	L	CLOSE	BERM/WB
1846-800	0.45	M	M	L	L	CLOSE	BERM/DITCH/WB
1912-658	0.23	L	M	L	L	CLOSE	BERM/WB
1926-584	0.8	H	H	L	L	CLOSE	BERM/DITCH/WB

Total # Miles= 27.165

RX=Prescription

3.3 Alternative C-Action Alternative-Modified

The **Alternative C** was developed following public comment regarding closing roads in these watersheds. The summarized view of the public comment was that closing roads on the district could potentially limit recreational and forest activities based in driving motor vehicles on roads to access areas of interest. Specific concerns discussed by the public included the following: decreased access could affect such activities as berry picking, stream access for fishing, camping, and trailhead access, pleasure driving in motorized vehicles on the forest roads, and dispersed camping and recreation opportunities.

Alternative C proposes closing approximately 17 miles of road within the Fall Creek and Little Fall Creek watersheds. The roads included in this Alternative were chosen utilizing the following road selection criteria:

- (1) Close roads with parallel access via other nearby roads
- (2) Close roads considered in this EA that are equal to or < .8 miles long in length
- (3) Close roads already inaccessible to motor vehicles (already closed)
- (4) Keep roads open that access trailheads, fishing sites, and dispersed sites. (But not re-opening roads in this category that are already closed (#3 above)).

The roads that are being considered for closure are shown in table 3 below.

TABLE 3. Alternative C

Road Number #	Miles	TERRESTRIA	AQUATICSE	ADMINISTRATIV	PUBLIC	RX	TREATMENT TYPES
1800-374	0.61	M	H	L	L	CLOSE	BERM/WB
1800-376	0.17	M	H	L	L	CLOSE	BERM/WB
1800-381	0.1	M	L	L	H	CLOSE	BERM
1800-405	0.085	L	L	M	H	CLOSE	BERM/WB
1800-407	0.27	L	M	M	H	CLOSE	BERM/WB
1800-431	0.2						BERM
1800-432	0.05	L	L	M	H	CLOSE	BERM/WB
1800-437	0.05	L	M	H	H	CLOSE	BERM/WB
1817-408	0.55	H	H	L	L	CLOSE	BERM/DITCH/WB
1821-259	0.47	M	M	M	L	CLOSE	BERM/DITCH/WB
1825-262	0.75	H	H	L	L	CLOSE	BERM/WB
1830-408	0.18	H	H	L	L	CLOSE	BERM/DITCH/WB
1830-409	0.36	M	H	L	L	CLOSE	BERM/WB
1830-411	0.79	M	H	M	L	CLOSE	BERM/WB
1830-414	8	H	M	L	L	CLOSE	BERM/DITCH/WB/CRM(2)
1830-415	0.07	H	H	L	L	CLOSE	BERM/WB
1831-396	0.35	H	M	L	L	CLOSE	BERM/WB
1832-381	0.38	H	H	L	L	CLOSE	BERM/WB
1835-226	0.58						BERM/WB
1835-252	0.7	H	H	L	L	CLOSE	BERM/DITCH/WB
1835-365	0.53	H	M	M	H	CLOSE	BERM/WB
1844-364	0.31	M	H	L	L	CLOSE	BERM/WB
1844-366	0.33	M	M	L	L	CLOSE	BERM/WB
1846-800	0.45	H	M	L	L	CLOSE	BERM/DITCH/WB
1912-658	0.23	H	M	L	L	CLOSE	BERM/WB
1926-584	0.8	H	H	L	L	CLOSE	BERM/DITCH/WB
Total #							
Miles=	17.365					RX=Prescription	

BERM=Closing road with a berm or very large ditch to close road to motor vehicle access.
DITCH= Cutting large ditch in road above the culvert to keep overtopping stream in streambed
WB= Water bar-Small ditch and berm placed in road surface/below culvert to divert water
CRM= Culvert Removal-Digging the culvert out of the road and re-shaping the stream course

3.4 Comparison of Alternatives

Comparison of different Alternatives and resultant mileage and roads closed.

	<u>Alternative A No Action</u>	<u>Alternative B Action</u>	<u>Alternative C Action Modified</u>
# Roads Closed	<u>0</u>	<u>36</u>	<u>26</u>
# Miles Closed	<u>0</u>	<u>27</u>	<u>17</u>
# CV Removed	<u>0</u>	<u>8</u>	<u>2</u>

4.0 Mitigation Measures for the Action Alternatives

The following mitigation measures are part of the proposed action alternatives. The measures relate to the Northwest Forest Plan (USDA/USDI, 1994) and the General Water Quality Best Management Practices (BMP's) of Pacific Northwest Region (USDA, 1988). These measures would be practiced in each alternative to comply with management direction and environmental laws and to minimize any adverse impacts from the proposed forest management activities. The specific mitigation measures are discussed below.

- The road closures would be implemented during the dry season to minimize the potential for sediment delivery to streams. This period would be from July 15-September 30.
- Erosion control methods would be used on slopes adjacent to stream channels where bare soil has the potential to deliver excessive amounts of sediment. Other areas susceptible to erosion would be treated with a suitable erosion control seed mixture and fertilizer.
- Trail head signs for the Gold Point Trail number 3468 will be would move to the 1835 junction of roads 1835-220, 226 and 365.
- District Botanist will assess roads to address the problem of noxious and invasive weed species. The intent is to prevent spread of any existing plants in these road closure areas.
- Culverts would be removed from the following roads: 1830- 414; 1835-241, 1839-372, 1839-374. When culverts are removed, stream channels would be de-watered with the use of flexible pipes. In addition, straw bales covered with filter cloth or similar sediment retention measures would be placed downstream to limit the potential for sediment movement.
- Heavy equipment would be inspected for fuel, oil and fluid leaks before working near stream channels to protect water quality. In addition, absorbent pads and emergency phone numbers would be readily available on site in case a spill was to occur.
- Roads 1835220, 1835226 and 1835365 are immediately adjacent to the primary nest zone for this known peregrine falcon nest site. No operations should occur on these roads from

January 15th to July 31st for any given year. If the site is determined to be unoccupied or inactive in any year, the seasonal restriction may be waived for these roads. Consult the project biologist to assess status of this site in any given year.

- To avoid “Incidental Take” of spotted owl and formal consultation with a Likely to Adversely Affect (LAA) determination, implementing this project outside the critical nesting period of March 1- July 15 unless site specific analysis utilizing the long term LSR monitoring data indicates work may proceed during this period with a No Effect determination.
- Heavy equipment would be inspected for noxious weeds in tracks, wheels, buckets, etc. to mitigate spread of weeds to other areas of landscape. Cleaning of equipment would be carried out as described in Executive Order 13112, dated February 3, 1999: “Implementation Guidelines to Minimize the Spread of Invasive Plants on Timber Sales, and Road Construction and Reconstruction Projects”.
- Within the Late Successional Reserve (LSR), wildlife closures and restrictions would be followed and would limit time and duration of work activity closing roads. Within the LSR, the dates for closure are July 16-February 28. NOTE: There are other restrictions for wildlife and aquatics for October through February. See Specialist reports in the Analysis File or in Environmental Consequences section of this EA.
- **If any cultural sites are found during implementation**** the District Archeologist will be notified to allow for project monitoring for archeological concerns on that site.

5.0 Environmental Consequences of Alternative Implementation

Discussion of Effects and Effects by Issue

5.1 Significant Issue

The Public, private interest groups, or individuals could lose access to roads and therefore areas that have been accessible by motor vehicle in the past.

Both Action alternatives B and C would decrease motorized vehicle access to forest areas by the public. As discussed in the **Comparison of Alternatives** section, Alternative B would close approximately 27 miles of road (5.3% of the total miles of road in the proposed project area). Alternative C, Action Alternative Modified, would close approximately 17 miles of road (3.3% of the total miles of road in the proposed project area). Alternative C, while closing approximately 17 miles of road will still allow access via alternate, intact, routes. Roads that are already closed would not be affected, as they are already not accessible with motorized vehicles. The Modified Alternative C could potentially allow more area of the forest to be open to the public for motorized activity into the forest. Alternative B could decrease public access for motorized activities into the forest.

As discussed in the sections below and the specialist reports in the analysis file in the Middle Fork office, the environmental consequences to the Alternatives show the opposite effect. Closing fewer miles of road in Alternative C could potentially increase public access to forest

lands. However, not closing these roads could potentially cause detrimental effects to aquatic and wildlife resources, through increased sedimentation and mass failure of road surfaces/fills.

5.2 Alternative Effects on Resources Other than Significant Issues

5.2-1 Effects on Recreational Opportunities

The Gold Point Trail number 3468 would be affected by the closure of road 1835-226 and road 1835-365. Both roads offer trailhead access to this trail. Closure of road 220 would necessitate moving the trail head to the western end of this trail approximately .75 miles to the west of its present location. Closure of road 365 would necessitate moving the eastern end of this trail approximately .5 mile to the east of its present location. Closure of both roads, as proposed, would add approximately 1.25 miles to the present length of this trail. The trail tread would be extended onto the closed roads from the present trailhead location, to the location where the road closure berm is located. Trailhead signs would be moved to this new location, and parking facilities would be built at each trail head that mirror the present parking facilities at each trail head.

The three alternatives formulated for this project will affect recreational use in the project area in varying degrees.

The No Action alternative means that none of the roads considered in this proposed project would be closed; there would be no change to the recreational use.

Alternative B the Action Alternative would close approximately 27 miles of road (5.3% of the total roads in the project area) to motorized vehicle traffic. This alternative limits access for some recreational use while it still allows entry into the area by foot.

Alternative C the Action Alternative Modified would close approximately 17 miles of road (3.3 % of total roads in the project area) to motorized vehicle traffic. Alternative C considers leaving roads open if they do not have a parallel road near by or are intercepted by a connecting road, are access to fishing, trail heads and dispersed sites. It does consider closure for road that 0.8 miles or less in length and roads that are closed by forest growth. This alternative would not impact recreational use as much as Alternative B; it would still limit some recreational access.

5.2-2 Response to the Aquatic Conservation Strategy Objectives

The alternatives would have the following effects on the Aquatic Conservation Strategy objectives presented on page B-11 of the Northwest Forest Plan Standards and Guidelines (USDA/USDI, 1994).

The following is a summary of how each of the alternatives contributes toward meeting ACSOs.

Objective 1: Maintain and restore the distribution, diversity and complexity of the watershed and landscape-scale features to ensure protection of the aquatic system to which species, populations and communities are uniquely adapted.

Roads have the potential to contribute sediment to streams at rates above naturally occurring levels. Sediment from roadside ditches, road surfaces, and mass failures can result in adverse

amounts of sediment in streams. Road decommissioning (Alternatives B and C) would contribute to restoring conditions more closely resembling those under which the assemblage of aquatic organisms present is uniquely adapted. Under Alternative A (No Action), the condition of roads would likely continue to degrade producing increased levels of sediment in the future.

Objective 2: Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal and drainage network connectivity includes floodplains, wetlands, upslope areas, headwater tributaries and intact refugia. These lineages must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.

Under the action alternatives road decommissioning would contribute to restoring spatial connectivity within the aquatic system. Removal of culverts that currently are barriers to the upstream migration of fish would allow access to additional habitat. In addition, culvert removal on fish bearing and non-fish bearing streams would allow for the physically unobstructed movement of both small and large organic material that is important for healthy aquatic systems. Under the No Action alternative, connectivity would not be improved by the removal of upstream migration barriers.

Objective 3: Maintain and restore the physical integrity of the aquatic systems, including shorelines, banks and bottom configurations.

Where road decommissioning under Alternatives B and C includes the removal of stream crossing culverts, the stream banks and streambed would be returned to their natural configuration. This combined with revegetation of stream banks would contribute to restoring the physical integrity of the aquatic system. Under Alternative A, no restoration of the physical integrity of the aquatic system would occur.

Objective 4: Maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems. Water quality must remain in that range that maintains the biological, physical and chemical integrity of the ecosystem, benefiting survival, growth, reproduction and migration of individuals composing its aquatic and riparian communities.

Damaged roads in the Fall Creek and Little Fall Creek watersheds currently have the potential to be sediment source areas during high runoff events. Sediment from road surfaces, ditches and from mass failures have adverse effects on water quality. Road decommission under either of the action alternatives would contribute toward lowering the risk of roads contributing to a decline in water quality. Under the No Action Alternative, water quality would likely be lower in the future due to road related sediment.

Objective 5: Maintain and restore the sediment regime under which the aquatic systems evolved. Elements of the sediment regime include the timing, volume, rate and character of sediment input, storage and transport.

As mentioned previously under Objectives 1 and 4, roads in the Fall Creek and Little Fall Creek Watersheds contribute sediment to streams above natural levels. Runoff from the road surface and ditches can carry fine sediment to streams. Mass failures associated with roads can result in the rapid delivery of large volumes of both fine and coarse sediment to streams. Roads decommissioned in the action alternatives would help to restore the natural sediment regime under which the aquatic system evolved. Under the no action alternative the sediment regime would likely be outside the range under which the aquatic system evolved.

Objective 6: Maintain and restore instream flows sufficient to create and sustain riparian, aquatic and wetland habitats and to retain patterns of sediment, nutrient and wood routing. The timing, magnitude, duration and spatial distribution of peak, high and low flows must be protected.

The road decommissioning proposed under either Alternative B or C would have little effect on maintaining minimum flows. Some benefit would occur however where road cutbanks intercept subsurface flow and convert this flow to more rapid surface runoff. Installation of drainage structures (water bars and drain dips) would promote infiltration of water where as subsurface flow it has a higher potential to contribute to stream flow during low flow time periods. Installation of drainage structures would also decrease the effects of roads on elevating peak streamflows. These structures would divert water from road surfaces and ditches onto the forest floor where infiltration could occur. Removal of road stream crossings through decommissioning would allow for the restoration of more natural rates of nutrient and wood routing. Under the No Action Alternative, minimum instream flows would remain approximately the same. Existing roads would continue to potentially increase the magnitude of peak flows by increasing the rate of surface runoff during storms.

Objective 7: Maintain and restore the timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands.

None of the alternatives would likely have a significant affect on the timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands.

Objective 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion and channel migration and to supply amounts and distributions of course woody debris sufficient to sustain physical complexity and stability.

Prior to any road decommissioning activities, surveys would be completed for invasive non-native plant species. Any action would be taken to control these species would be consistent with the vegetation management policy of the Willamette National Forest and as future funding allows. Where roads are currently accessible to vehicular traffic, without decommissioning these roads would continue to be at risk of introductions of non-native invasive species. Where

culverts would be removed during road decommissioning under either action alternative, streambanks would be re-vegetated to promote stream shading for thermal regulation and to provide for streambank stability. Under the No Action Alternative, existing populations of non-native invasive species would not be treated and open roads would continue to be at risk for introduction of these species.

Objective 9: Maintain and restore habitat to support well distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.

Decommissioning of roads under either Alternative B or C would help to restore habitat by removing barriers to the upstream migration of fish, reduce vehicular disturbance to various species of wildlife, and by revegetating road locations within riparian reserves. Under the No Action Alternative, no habitat restoration activities would occur.

Conclusion

Implementation of either of the action alternatives would be consistent with attainment of Aquatic Conservation Strategy objectives. Between the action alternatives, Alternative B would stabilize a greater area and would therefore contribute more toward long-term attainment of ACSO’s than would Alternative C. Under the No Action Alternative, there would be a greater risk of road related failures in the future potentially leading to adverse affects on water quality, instream habitat, and riparian areas.

5.2-3 Threatened, Endangered, and Sensitive Species

Threatened, endangered, and sensitive plant and animal species are addressed in the Batatavilla project Biological Evaluation (BE). The BE’s were conducted to evaluate the effects on TES plant and animal species within the analysis area. The following is a summary of these findings. The full BE reports can be viewed in the project Analysis File on the Middle Fork district.

SPECIES EFFECTS AND IMPACTS

Summary of Effects Determinations¹
for
Federally Listed² or Proposed Species³

Project Name: Batatavilla Road Closure Project

Species	Alt. A (no action)	Alt. B	Alt.C
Spotted owl <i>Strix occidentalis caurina</i>	NE	NLAA	NLAA
Bald eagle <i>Haliaeetus leucocephalus</i>	NH	NH	NH
Canada lynx <i>Lynx canadensis</i>	NH	NH	NH
Mardon Skipper- Proposed	NH	NH	NH

Species	Alt. A (no action)	Alt. B	Alt. C
<i>Polites mardon</i>			

- NH = No Habitat occurs in the project area
 NE = No Effect
 BE = Beneficial Effect
 NLAA^a= May Effect, Not Likely to Adversely Affect
 LAA^b = May Effect, Likely to Adversely Affect

- a A NLAA determination requires *informal consultation* with the U.S. Fish and Wildlife Service.
 b For *listed* species, a LAA determination requires *formal consultation* with the U.S. Fish and Wildlife Service.
 For *proposed* species, a LAA determination requires *conferencing* with the U.S. Fish and Wildlife Service (WO Amendment 2600-91-3, Forest Service Manual 2671.45, March 31, 1991).

SPOTTED OWL:

Spotted owl habitat will not be affected by this project. The areas where work will be performed is currently non-habitat for the owl. As these roads are closed and become re-vegetated over time, they should eventually convert to suitable habitat for the species.

Critical Habitat: All proposed roads for closure are located within Proposed Critical Habitat Unit OR-18. Because suitable habitat will not be affected by the alternatives, the primary constituent elements of proposed critical habitat will not be affected.

LSR Allocation: The majority of roads proposed for closure are located within LSR RO-219. This large block LSR is one in a network of large LSR's that are the cornerstone for protection of habitat for the Northern spotted owl. As mentioned, habitat will not be affected within the LSR under any alternative. A potential exists to disturb spotted owls within this LSR. See below for the discussion on disturbance and effects from alternatives.

Effects Determination:

Habitat Modification- No effect for all alternatives.

Disturbance: Alternative A- No effect from disturbance

Alts. B & C- Both action alternatives have the potential to disturb nesting owls adjacent to the project area. All of the proposed roads lie within ¼ mile of suitable nesting habitat for the owl. The difference in effects by alternative is very slight. Alt. C may have a slightly less effect due to the smaller number of roads to close than in Alt. B. Due to the somewhat variable nesting status of specific spotted owl activity centers from year to year, effects also vary dependent on the actual ground implementation of the decision and when that occurs.

The Fall Creek LSR (RO-219) is currently one of the LSR's within the range of the owl where long term monitoring is occurring. This monitoring is looking at population demography and habitat selection. Results will contribute to population modeling that will help in determining long-term population trends for the species. Although this monitoring work is not following strict R6 protocol, there may be opportunities to use the monitoring data on a year to year basis to adjust or remove seasonal restriction requirements due to owl status for any given year. This project was informally consulted on in it's entirety as a Not Likely to Adversely Affect (NLAA,) but there

may be instances (based on the above) where some work may be accomplished during the restricted period with a no effect determination. As the project is implemented on the ground, consult with a project biologist to determine if this may apply to specific roads or road segments.

This type of project was included in the programmatic FY'02/'03 Biological Assessment for disturbance projects submitted to the supervisor's office in March, 2002 and was defined in the activities description as "Road and Dike Repair". Based on the Biological Opinion and concurrence issued for FY '02/'03 Disturbance Only Projects in the Willamette Province (Log. no. 1-7-02-F-630), this type of project "may affect but is not likely to adversely affect the spotted owl" as long as implementation occurs outside the critical nesting period of March 1-July 15.

Note: If the decision for this project is not signed by September 30, 2003, then coverage under the current Disturbance BO will become invalid and reinitiation for this project will need to occur. The district biologist is sending a letter for record indicating that the new BO/BA is signed and in effect.

Spotted Owl Recommendations:

To avoid "Incidental Take" and formal consultation with a LAA determination, implement project outside the critical nesting period of March 1-July15 unless site specific analysis utilizing the long term LSR monitoring data indicates work may proceed during this period with a No Effect determination.

OTHER T,E&S SPECIES:

Based on the very low impact of this project, there will be no impacts or no habitat present for all but two sensitive species as listed below as part of the Regional Forester's Sensitive Species List (Updated 11/28/00).

Summary of Impact Determinations¹
for
Animal Species on the Regional Forester's Sensitive Species List²

Species	Alt. A (No Action)	Alt. B	Alt. C
Peregrine falcon <i>Falco peregrinus</i>	NI	NI	NI
Harlequin duck <i>Histrionicus histrionicus</i>	NI	NLCT	NLCT
Least Bittern <i>Ixobrychus exilis</i>	NH	NH	NH
Yellow Rail <i>Coturnicops noveboracensis</i>	NH	NH	NH
Bufflehead <i>Bucephala albeola</i>	NH	NH	NH
Black Swift <i>Cypseloides niger</i>	NH	NH	NH
Tricolored Blackbird <i>Agelaius tricolor</i>	NH	NH	NH
California wolverine <i>Gulo gulo</i>	NH	NH	NH
Pacific Fisher <i>Martes pennanti</i>	NH	NH	NH
Pacific Fringe-tailed Bat <i>Myotis thysanodes vespertinus</i>	NH	NH	NH
Baird's Shrew <i>Sorex bairdii permiliensis</i>	NH	NH	NH
Pacific Shrew <i>Sorex pacificus</i>	NH	NH	NH

Species	Alt. A (No Action)	Alt. B	Alt. C
<i>cascadensis</i>			
Oregon slender salamander <i>Batrachoseps wrighti</i>	NH	NH	NH
Cascade Torrent Salamander <i>Rhyacotriton cascadae</i>	NI	NLCT	NLCT
Foothill Yellow-legged frog <i>Rana boylei</i>	NH	NH	NH
Oregon spotted frog <i>Rana pretiosa</i>	NH	NH	NH
Northwestern pond turtle <i>Clemmys marmorata marmorata</i>	NH	NH	NH

NH = **N**o **H**abitat occurs in the project area

NI = **N**o **I**mpact.

NLCT = May impact individuals or their habitat, but the action will **N**ot **L**ikely **C**ontribute to a **T**rend towards Federal Listing or loss of viability to the population or species.

MCT^a = May impact individuals or their habitat, with a consequence that the action **M**ay **C**ontribute to a **T**rend towards Federal Listing or a loss of viability to the population or species.

BI = **B**eneficial **I**mpact

a A MCT determination may require that an Environmental Impact Statement be written.

PEREGRINE FALCON:

In the Pacific states, preferred peregrine falcon nesting sites are sheer cliffs 150 ft. or more in height (Willamette National Forest DEIS, 1987). Suitable nest sites for peregrine falcons are found in substantial rock outcroppings, usually southern exposure, and with a small cave or overhang ledge large enough to contain 3-4 full grown nestlings (Wilderness Research Institute, 1979). Peregrine falcons feed almost exclusively on birds, many of which are associated with riparian zones and large bodies of water.

One known nest site exists within the Fall Creek watershed and is in close proximity to some of the roads proposed in both alternative B and C. There also exists one known potential peregrine site in the watershed with moderate potential. This location is approximately 2 miles from the nearest road proposed for closure. Monitoring does occur at this site on an opportunistic basis and no sightings in the area have occurred to this date. The potential peregrine site is far enough away from the proposed roads that closure activities will not impact peregrines that may be occupying this potential site.

Impacts Determination:

If recommendations are adhered to as identified below, there will be **no impacts** to the known peregrines in the watershed for any of the alternatives. Due to the proposed closures, there may be a longer term beneficial impact from the action alternatives by eliminating motorized access on roads that will reduce disturbance in close proximity to the known site.

Recommendations:

Roads 1835220, 1835226 and 1835365 are immediately adjacent to the primary nest zone for this known nest site. No operations would occur on these roads from January 15th to July 31st for any given year. If the site is determined to be unoccupied or inactive in any year, the seasonal restriction may be waived for these roads. Consult the project biologist to assess status of this site in any given year.

HARLEQUIN DUCK:

Documented sightings are on record for this species within the Fall Creek watershed. These have occurred within the main stem of Fall Creek as far up as Fall Creek Falls. The harlequin duck forages mainly on macro-invertebrates, crustaceans, mollusks and fishes. Nesting chronology studies (Thompson et al., 1993, Bruner, 1997) indicate that some nesting activity could occur through July 15th in the Central Cascade area, although this may be considered less critical than May and June. Young have essentially hatched and fledged the nest by July 1 (Bruner, 1997) and are likely to be mobile on the water by mid July.

Impacts Determination:

The project could have a minor impact on ducks foraging or utilizing adjacent Fall Creek due to 1(mechanized disturbance and 2) slight impact to macro invertebrates (forage species for the duck) from the potential delivery of small amounts of sedimentation. Mechanized disturbance would only apply to specific roads along the main stem proposed for closure and are the same for both action alternatives. These are the 1800405, 1800407, 1800431, 1800432 and 1800437. Total length of these roads is about .65 miles. Fall Creek and the associated roads get significant use during the summer months from recreation activities. This in itself may have negative impacts on the species due to disturbance. Slight potential for sedimentation could occur although the seasonal restriction and working only during the dry season should keep sedimentation to a minimum.

Cumulative impacts from the process of closing these roads along with other activities may impact the Harlequin duck due to disturbance and slight preybase impacts from sedimentation but will not likely contribute to a trend toward federal listing. A seasonal restriction recommended for the spotted owl (see above) from March 1- July 15 should mitigate most impacts to this species as young of the year are likely to be on the water and mobile by July 15th.

Closure of roads immediately adjacent to the main stem Fall Creek may have a long term beneficial effect on harlequins due to reduced motorized use and access.

CASCADE TORRENT SALAMANDER:

The Cascade torrent salamander is usually always seen in or very near cold, clear streams, seepages or waterfalls (Leonard, 1993..... Some of the road closure areas proposed would be considered in areas where potential habitat for the torrent salamander occurs.)

Impacts determination:

The project may have a minor impact on salamanders occupying some of the smaller tributaries and headwater stream areas within the watershed due to the potential for very small amounts of sedimentation generated from the work that may reach stream courses. Alternative B may have slightly more impact to the species than alternative C, due to the higher miles of road proposed for closure. If seasonal operations are adhered to (as recommended below) the impacts should be very small and short-lived.

Potential exists for a longer term beneficial impact from stabilizing the roads and reducing the chance of larger, catastrophic road failures from lack of road maintenance.

For the Cascade torrent salamander, this project may impact individuals or their habitat, but the action will not likely contribute to a trend towards Federal listing or loss of viability to the population or species.

Other Wildlife Species

This report serves to document the potential impacts of the road closure project on certain wildlife species other than threatened, endangered and sensitive species. The full Wildlife Report can be viewed in the Analysis File for this EA at the Middle Fork district office.

TERRESTRIAL MANAGEMENT INDICATOR SPECIES (MIS):

The Willamette NF Land and Resource Management Plan have identified a number of terrestrial wildlife species which have habitat needs that are representative of other wildlife species with similar habitat requirements for maintenance and reproduction. Species include the spotted owl, peregrine falcon, bald eagle, and a group of cavity excavators, deer, elk, pileated woodpecker and American marten. These species have potential to occur adjacent to the project area. The spotted owl, peregrine falcon and bald eagle are addressed in the Biological Evaluation. No habitat will be affected for any of the terrestrial wildlife management indicator species by this road closure project. All activities will occur within the road prism area and will not impact suitable habitat for these species.

Direct, Indirect and Cumulative Impacts:

Alternative A will have no impact on MIS species.

For the two action alternatives, there may be a very short term negative impact on species using adjacent habitat as the road closure is being implemented. Disturbance from machinery could alter movement and behavior of species but this would be very short-lived. Alternative B will have a slightly higher impact than Alt. C due to the proposal to close 30 miles of road vs. 19 miles.

There may be slight positive longer term effects from the action alternatives due to closing roads and limiting human access to the areas. This may have some benefit in reducing potential disturbance to these species that may be utilizing habitat immediately adjacent to these roads. Alt. B may have a slightly higher benefit due to closure of more roads and reducing human disturbance from motorized activities.

SURVEY AND MANAGE/PROTECTION BUFFER SPECIES:

Potential habitat for the wildlife survey and manage species does occur in forested stands adjacent to the proposed roads to close. The closures will occur within the associated road prisms so forested habitat will not be impacted at the specific road closure sites.

Direct, Indirect and Cumulative Impacts:

There may be a slight disturbance from the proposed activities to certain S&M species that may be utilizing adjacent stands (such as the great gray owl). The differences between the two action alternatives would be very minor. Seasonal restrictions recommended from 3/1-7/15 for the Northern spotted owl (see Wildlife BE for this project) should mitigate most disturbance impacts to any S&M species in the immediate areas of this work.

Since this activity is not proposing to alter suitable habitat, the cumulative impacts from this project as well as other past, present and future actions is relatively minor.

Bats- All potential roost locations in the form of wooded bridges should be checked and surveyed for use prior to any road closure work.

Results of Prefield Review and Field Reconnaissance for Survey and Manage Animal Species

Species	Habitat Present? (Y/N)	Date Survey Completed	Species Located? (Y/N)	Additional Survey Needs? When and Where?	Mitigation Measures
<i>Pristiloma arcticum crateris</i> Crater Lake tightcoil	N				
<i>Strix nebulosa</i> great gray owl	N				
<i>Phenacomys (Arborimus) longicaudus</i> red tree vole	N				

Species	Habitat Present? (Y/N)	Surveyed? (Y/N)	Species Present (list)	Mitigation Measures
Cavity Nesters: white-headed woodpecker black-backed woodpecker Pygmy nuthatch flammulated owl	N			
Bat roost sites – caves, mines, bridges, etc.	N			

LANDBIRDS/NEOTROPICAL MIGRANTS:

As previously mentioned, this project will occur within roadside clearing limits and impacts to suitable habitat will be minimal. There may be a small impact from disturbance to birds utilizing adjacent habitat but because of the timing of the project (during the very latter part of the breeding season), but these impacts will be minimal. The difference between the two action alternatives is very slight. With no impacts to forested habitat, any slight disturbance from machinery will be short lived.

AQUATIC AMPHIBIANS:

Although surveys for aquatic amphibians (tailed frogs, torrent salamanders, pacific giant salamanders, etc) have not been completed for the specific road closure areas, potential exists for this project to have an impact on individuals that may be adjacent to the proposed road closure areas. Due to soil disturbance associated with the closures, some

sedimentation may occur at any given closure site. This may have a very short term impact on aquatic species directly downstream from the project sites.

Recommendations:

Attempt to do the work during the dry season to mitigate some of the sedimentation impacts. The spotted owl seasonal restriction applies from 3/1-7/15. Work may proceed after this but should be avoided during the later fall and winter months when sedimentation may be more of a concern.

Some sedimentation may still occur as a result of the berming, culvert removal and ditching work. This may have a very minor impact on aquatic habitat downstream of the project area but should not alter habitat that may have any significant impact on aquatic species. Alternative B may have a slightly higher direct impact than Alt. C due to 11 more miles of road to close. These roads are fairly well dispersed throughout FS lands in the Fall Cr. watershed, therefore impacts to individual specific closure areas will be small. Alternative A could have a longer term detrimental effect due to lack of action and the future potential for road failures, leading to degradation of aquatic habitat in specific stream reaches.

This project should not significantly impact any other wildlife species of interest of their habitat.

5.2-4 Fisheries

The Regional Forester's Sensitive Species List was revised in November 2000 and currently there are no fish or aquatic macro invertebrates to address in Biological Evaluations. The purpose of this fish analysis is to review the project and address any concerns relating to fisheries. The full Fish Analysis report can be viewed in the project record at the Middle Fork district office.

FISH PRESENCE

Fish species currently inhabiting Fall Creek and Little Fall Creek include spring chinook salmon, rainbow trout, steelhead, cutthroat trout, brook trout, mountain whitefish, long nose dace, speckled dace, large- scale sucker lamprey species, and several sculpin species.

Spring chinook salmon are indigenous to the Fall Creek and Little Fall Creek, both tributaries of the Willamette River. Although spring chinook naturally occupy the lower reaches of Little Fall Creek, migration in Fall Creek was limited in 1965 by the construction of Fall Creek Dam. Currently, spring chinook rely on a trap and haul program, carried out by the US Army Corps of Engineers, to reach spawning areas upstream of Fall Creek Dam. The number of returning salmon has been recently consistent in the range of 150 to 200 fish.

Historically, bull trout may have inhabited Fall Creek and Little Fall Creek and its associated tributaries. However, there is no historic documentation on bull trout

presence in these streams. If bull trout did use Fall Creek and Little Fall Creek they were likely used only as forage habitat.

ESA CONSULTATION

Road Decommissioning and Obliteration activities are included in the Northwest Programmatic Biological Assessment for on-going activities affecting bull trout and Upper Willamette spring chinook salmon. This category allows for the removal or stabilization of unnecessary, unstable, or poorly designed and constructed roads or portions of roads with an overall goal of restoring hydrologic function in the watershed. The effects determination for activities associated with the Batatavilla Road Closure Project is **May Affect, Not Likely to Adversely Affect (NLAA) bull trout and spring chinook salmon**, on 26.5 miles of the potential 27 miles of closure, due to the fact that the project will not transmit sediment to stream channels and the work will largely be completed outside of riparian reserves. The effects determination on road closures where culverts will be removed within flowing streams (approximately 0.5 miles of the potential 27 miles of closures) is **May Affect, Likely to Adversely Affect (LAA) bull trout and spring chinook salmon**, due to the potential for ground disturbance with sediment delivery to stream channels. This work will be distant from known spring chinook salmon habitat (1.0 to 6.0 miles) but will likely generate some sediment to the stream network when culverts are removed.

Management Indicator Species and Best Management Practices

Resident salmonids (rainbow and cutthroat trout) and other aquatic species are Management Indicator Species in the Willamette Land and Resource Management Plan. As Management Indicator Species, federal projects need to ensure the viability of these species when conducting activities on National Forest System land; therefore the following conditions must occur:

- 1) **Ensure a professional fisheries biologist is involved in the design of the project**
- 2) **Do not dispose waste on active floodplains (approximately 100 feet from the stream channel).**
- 3) **Leave vegetation in ditches, when possible.**
- 4) **Stabilize potential erosion areas and control sedimentation.**
- 5) **Maximize activities during dry season to avoid wet periods.**
- 6) **Follow ODFW guidelines for in-water work period.**

Critical Habitat

The Middle Fork Ranger District began consultation with NMFS for spring chinook salmon when critical habitat was listed upstream of the ESU on February 16, 2000. On May 7, 2002 NMFS withdrew critical habitat designations for ESA listed Pacific anadromous salmonids. The project also occurs within the USFWS designated Lower Columbia River bull trout Distinct Population Segment (DPS).

The USFWS has not yet finalized designated critical habitat for bull trout within the DPS.

Consultation requirements for the Batatavilla Road Closure Project have been met through the Programmatic Biological Assessment with the US Fish and Wildlife Service and the National Marine Fisheries Service. Therefore no further consultation is necessary.

Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act include habitat above Fall Creek Dam. The proposed project effects are short-term in nature with the long-term benefits outweighing short-term effects resulting from the project. It is further determined that the project will not exceed the “May Adversely Affect” EFH threshold and is therefore not subject to EFH consultation with NMFS.

5.2-5 SOILS

Management Direction

The Willamette National Forest Land Management Plan (LMP), standard and guidelines appropriate to the proposed action can be found in Chapter IV. The most pertinent standard and guidelines will include: Soil and Water Quality, Soil Productivity, FW-079 stating that land management activities shall be planned and conducted to maintain or enhance soil productivity and stability; FW-081 stating that the total area of cumulative detrimental soils conditions should not exceed 20% of the total acreage within the activity area; and FW-92, Water quality will be protected with best management practices.

The Willamette National Forest Land and Resource Management Plan (LMP) states that lands will be managed to maintain soil productivity. Forest wide (FW) standards and guides provide the frame work for measuring the extent of soil disturbance. LMP management direction is focused by forest wide (FW) standards and guidelines where detrimental soil conditions are defined by FW-081 which states that the total area of cumulative detrimental soils conditions should not exceed 20% of the total acreage within the activity area. Soil compaction is defined as a detrimental soil condition when there is an increase in soil bulk density of 15% or more and/or by a reduction of macro-pore space of 50% over the undisturbed soils. Soil displacement is a detrimental soil condition and defined as an area 10'x10' where 50% of the topsoil has been removed. FW-082 states that past, present, and future activities shall be considered when evaluating soil conditions. Roads are considered a part of the activity area management where soil productivity has been reduced or removed due to the amount of soil compaction and lack of the site to produce vegetation (measure of soil productivity).

Environmental Consequences

There will be a net benefit to the soil and water resources by implementing the proposed action alternatives. There will be short-term soil erosion and possible sediment production from the disturbance of soils during the closure activities. With the initiation of soil erosion mulching and planting, the affects should be minimized. The long-term benefits from improved road drainage, road shaping, and berms to reduce traffic on the roads will be the biggest benefit by improving soil productivity and stability. Overall, the action alternatives will have minimal soil impacts associated with the proposed road closure activities.

Alternative A (no action) will not improve the road drainage conditions. Implementation of no action would result in short-term and long-term affects to the soil resources. In the short-term, soils will continue to be subject to increased erosion as road drainage would not be improved and will continue to deteriorate from the lack of road maintenance activities. In the long term, the likelihood of soil stability problems occurring becomes greater as road maintenance is not completed and road drainage continues to deteriorate. No action has the potential to increase the likelihood of detrimental down slope and riparian affects from road and subsequent slope failures.

Proposed mitigation for the short-term soil disturbance with the action alternatives would be to mulch, plant, or grass seed any disturbed bare soil areas. It is anticipated that this would be very small in size and easily mitigated. Appropriate grass seed mixtures should be applied to the land allocation areas.

Implementation of either of the action alternatives would be consistent with attainment of Aquatic Conservation Strategy objective #5. Between the action alternatives, Alternative B would stabilize a greater area and would therefore contribute more toward long-term attainment of ACSO # 5 than would Alternative C. Under the No Action Alternative, there would be a greater risk of road related failures in the future potentially leading to adverse affects on down slope values such as: soil productivity; water quality; in stream habitat; and riparian areas. From a soils resource point of view, I would recommend implementation of either action alternative B or C, as they would assist in maintaining the integrity of the down slope resource values.

There is no effect shown by the soils report for this EA and actions there under. All work is to be performed in the road prism. All water barring and road ditching is within the road surface. The road surface is already compromised, as gravel based and deeply disturbed system for soils.

5.2-6 Botany

Pre-field Review

Thirty-one sensitive plants from the Regional Forester's list (FSM 2672.4) are cited as potentially occurring or documented on the Willamette National Forest. There are no TES populations in the project area. This was determined using the R-6 Regional Forester's and Willamette National Forest Potential TE&S Plant Lists, Willamette National Forest Sensitive Plant Handbook, Oregon Natural Heritage Database, Willamette NF Database and knowledge provided by individual's familiar with the project area. **No habitat will be affected and there should be no adverse effects on sensitive plant species.**

Description of the Proposed Activity

This project proposes close roads as part of the Fall Creek Access and Travel Management decision process. Thirty-six roads are proposed for closure by various means. Most will be closed with a berm. Most relief culverts will be bermed to prevent overtopping of pipe during storm events. Several roads will have culverts removed on live streams. Road closures are to be accomplished between July 1 and August 31, over the next five years when stream flow should be lowest.

An excavator or backhoe will be required for all closures to dig berms and remove culverts. Dump trucks may also be required to remove soil. All closures will take place within the road prism.

Field Reconnaissance

There are no botanical survey requirements in the Willamette National Forest Matrix for Northwest Forest Plan Categories A and C botanical species (April 22, 2002) for projects that take place within the road prism. This is due to the fact there will be no habitat disturbance, since the project will be contained within the road prism.

Effects of the Proposed Activity

There should be minimal disturbance to the ground from culvert removal and no disturbance outside of the road prism.

Determination

There are no TES species in the project area. There is no habitat, beyond the road prism, that will be disturbed. Therefore this road closure should not have any adverse effect on TE&S species currently listed on the Regional Forester's sensitive plants list.

5.2-6 Cultural Resources

The Archeological report states that these road closures are specifically addressed in the P.M.O.A., under the Watershed restoration activities described in Appendix B (4) and Engineering and Transportation (1). These road closures take place entirely within the road prism, and there are no known sites near any of the proposed project locations, thus, it is recommended that it be excluded from case-by-case review, based on inspection and monitoring, in accordance with the 1995 Programmatic Agreement. (Archeological

Report, February 27, 2003.) If any cultural sites are found during implementation of any proposed activity within the action alternative, the activity would be discontinued, and contract clauses will be invoked until the site is evaluated for significance and appropriate mitigation measures are performed.

5.2-7 Air Quality

Air quality would not be affected, as disposal of waste or slash by burning is not proposed.

5.2-8 Cumulative Effects

Cumulative effects are the effects of the action(s) in combination with effects caused by other, past actions and reasonably foreseeable future actions (40 CFR 1508.7; FW-093, 081). Reasonably foreseeable future actions are those for which effects can be fairly accurately estimated; typically actions which have been planned and decided upon, though they may take place after the effects considered in this analysis. This project in combination with other road closure and watershed restoration efforts are cumulatively beneficial toward species recovery and are part of a larger overall watershed restoration and road closure effort on the Middle Fork Ranger District, and in the Fall Creek Watershed as it relates to this EA.

Most analysis of alternative effects relating to the identified issues presented is related to cumulative effects of past actions. Past actions in this watershed include the closure of roads in the Fall Creek watershed. These road closures have occurred over a time span of 10 to 20 years time, and should not have a cumulative effect on the Fall Creek Watershed. Timber harvest or additional road closure and restoration activities may occur in the future, however there are no specific plans or locations that would enable the effects of future actions to be estimated. Any future action proposed in this planning area would be in compliance with Forest Plan standards and guidelines designed to keep cumulative effects from exceeding desired future conditions.

Fishing

The Recreational Fisheries Executive Order #12962 (June 8, 1995) directs Federal agencies to improve the productivity of aquatic resources in order to increase recreational fishing opportunities. This project area provides little in the way of recreational fisheries other than those provided by Fall Creek. Nothing proposed by the action alternatives would affect recreational fishing quality, and these road closures have the potential to improve the quality of streams due to the potential to remove sediment introduction and mass wasting that occurs from road failures or other road related problems. All roads slated for closure on Fall Creek that affect fishing access are already closed to motorized vehicles. This project proposes improving the closures of these roads to place them back to the standards under which the closures were originally designed.

5.2-9 Effects on Irreversible & Irretrievable Commitments of Resources

No irreversible and irretrievable commitments of resources would result from the action alternatives or the no action alternative.

5.2-10 Short-term and Long-term effects

The no action alternative would have no short-term effects, but its implementation would have potential long-term effects. Leaving roads open and not making them hydrologically sound would have the potential to increase the risk to water quality in streams and degrade habitat over time. Leaving roads in a non-hydrologically sound condition may increase the potential for sedimentation into streams, and mass wasting of the fill slopes and road surfaces, and lead to degradation of stream habitat.

The hydrologic report in section 5.2-1 outlines the nine Aquatic Conservation Strategy Objectives (ACSOs) and how the action alternatives and no action alternative would affect the ACSO's if implemented. In each case, not carrying out the action alternatives would have potential long term effects on aquatic habitat, sediment delivery to streams, streambank revegetation, etc. Closure of the roads would potentially decrease these effects.

Closing roads as proposed in both action alternatives would also have beneficial long term effects on wildlife habitat due to reduced motorized use and affect on wildlife species by vehicular traffic. There are several negative short term effects on wildlife species that potentially could occur with road closure, but the long term effect of road closure on most species is positive. Seasonal restrictions placed on work performed during road closure should mitigate most negative impacts to wildlife species. See the Biological Evaluation in the Analysis File at the Middle Fork district office for detailed analysis.

5.2-11 Effects on Consumers, Civil Rights, Minority Groups, Women, and Environmental Justice

All contracts offered by the Forest Service contain Equal Employment Opportunity requirements. Firewood permits are offered to all members of the public.

Executive Order #12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, directs Federal agencies to address effects accruing in a disproportionate way to minority and low income populations; The closest population or habitation to the project area is the City of Springfield (population 55,000), the City of Oakridge, (population 3400) and the City of Lowell (population 1010). These communities contain some low-income people and some minority persons. No disproportionate impacts to the citizens of Springfield, Lowell and Oakridge are anticipated.

5.2-12 Effects on American Indian Rights

No impacts on American Indian social, economic or subsistence rights are anticipated. No impacts are anticipated related to the American Indian Religious Freedom Act. Several tribal organizations with the State of Oregon, which have historic interests in this area, have been contacted in reference to this planning effort.

5.2-13 Effects on Farmlands, Rangelands, and Forestlands

No farmland or rangeland is found in the project area. The project area is surrounded by forest land and no alternatives would affect the management of that land. The proposed action is consistent with the management direction contained in the Willamette National Forest Land Management Plan as amended by the Northwest Forest Plan.

5.2-14 Effects on Wetlands and Floodplains

There are no wetlands adjacent to the project area and the effects of this type of project will have a minimal effect on floodplain inundation timing and magnitude.

5.2-15 Indirect and Unavoidable Effects

There will be no significant indirect effects to soil, water, fisheries, or wildlife resources or other components of the environment. Unavoidable effects would include the generation of a small amount of turbidity and sediment when culverts are removed from roadways. In stream erosion control measures will be in place to mitigate this effect when culverts are removed.

5.3 Legal and Policy Requirements and other NEPA Decisions

The action alternatives comply with the following legal and policy requirements as follows:

Federal Laws and Policies:

The Preservation of American Antiquities Act, June 1906---The area proposed for ground-disturbing activities has been evaluated for the presence of inventoried cultural resources. No inventoried sites exist within the project area (see the Project Review for Heritage Resource form in the Analysis File).

The National Environmental Policy Act (NEPA), 1969---NEPA establishes the format and content requirements of environmental analysis and documentation such as the Batatavilla Road Closure Project analysis. The entire process of preparing an environmental assessment was undertaken to comply with NEPA requirements, as codified by 40 CFR 1501 and the Forest Service Handbook 1909.15, Chapter 40.

The Endangered Species Act, December 1973--- Field surveys for all listed endangered, threatened, or sensitive species has been conducted to determine possible effects of any proposed activities in the project area (see the Wildlife and Plant Biological Evaluations in the Analysis File). Action is proposed specifically to enhance habitat available for bull trout and spring Chinook salmon, which are listed under the ESA.

The National Forest Management Act (NFMA), 1976---All alternatives were developed to be in full compliance with NFMA via compliance with the Willamette National Forest Land and Resource Management Plan, as amended. This EA contains numerous references as to how this project complies with Forest Plan and Northwest Forest Plan standards and guidelines.

Clean Air Act Amendments, 1977---The action alternatives are designed to meet the National Ambient Air Quality Standards, as direction by the Oregon Smoke Management Act, through avoidance of practices which degrade air quality below health and visibility standards, as fully discussed in the Fuels Management Prescription contained in the Analysis File.

The Clean Water Act, 1982---The alternatives all meet and conform to the Clean Water Act, Amended 1982. This Act establishes a non-degradation policy for all federally proposed projects. None of the action alternatives would degrade water quality below standards set by the State of Oregon. This is accomplished through project design and planning, application and monitoring of Best Management Practices (BMPs), and adherence to the Northwest Forest Plan's Aquatic Conservation Strategy Objectives (see the Fish Analysis Report).

Consultation with the *Oregon State Historic Preservation Officer (SHPO)*---SHPO has been consulted concerning proposed activities. The Advisory Council on Historic Preservation (ACHP) has been consulted about measures to protect significant archeological sites from adverse affects (see the Project Review for Heritage Resources Form in the Analysis File).

Other NEPA decision documents:

The Standards and Guidelines contained in *The Willamette National Forest Land and Resource Management Plan* (USDA, 1990, as amended by USDA/USDI, 1994) played a major role in determining the Purpose and Need and in the development of all the alternatives. As mentioned above, the action alternatives comply with all aspects, standards, and guidelines of the Forest Plan.

Mid-Willamette Late-Successional Reserve Assessment. USDA Willamette National Forest, USDI Salem District BLM, USDI U.S. Fish and Wildlife Service OSO. August 24, 1998.

Fall Creek/Little Fall Creek, Access and Travel Management (ATM) Environmental Assessment. Willamette National Forest, Middle Fork Ranger District.

Fall Creek Watershed Assessment. Willamette National Forest, Middle Fork Ranger District.

5.4 Comparison Summary of Environmental Consequences:

This section contains a summary table of criteria and analysis results, by alternative, for the issues previously discussed.

Table 4. Summary table of criteria and analysis results by alternative.

Issues	1. No Action	<u>Alt. B</u> Thirty six roads closed. Apprx. 27 miles in length	<u>Alt. C</u> Twenty six roads closed. Apprx. 17 miles in length
Road Access:	Low	Closing these roads in this project will decrease motorized vehicle access to forest land, and will potentially reduce the ability to reach certain types of recreational activity areas by motorized vehicle. Access via walking, horse, bicycle, etc will still be allowed. The activities potentially affected include fishing, remote camping, pleasure driving, berry picking, hunting, etc.	Fewer roads will be closed in this alternative. Closing fewer roads will allow increased motorized vehicular access over Alternative B. Parallel roads in nearby areas of the forest have been left open in this alternative to allow closer access via motor vehicle. Only shorter roads.8 miles long were proposed for closure, allowing an easier walk in to each area. Roads already closed are included in this alternative. This alternative will not change access to these roads.
Water Quality: Compliance with ACS objectives;	No	Yes: Road closure and Watershed Restoration	Yes: Road closure and Watershed Restoration, though fewer roads would be included.

5.5 Monitoring Plan

The specific elements, which will be monitored should the action alternative be selected for implementation, would include a survey of road condition over time. There is historical data for many of these roads in the engineering department, and in the Watershed Improvement Needs (WIN) survey. Roads will be walked and determination will be made if the project goal of making the roads hydrologically sound has been met.

5.6 List of Agencies and Persons Consulted

Many agencies and individuals were sent scoping letters for this project. A copy of the notice of availability of this Environmental Assessment or a complete copy of the document was sent to individuals, agencies, and organizations known to be interested in this type of project. For a complete list of the agencies and individuals on the mailing list, see the Analysis File at the Middle Fork district office.

Oregon Department of Fish & Wildlife	Chairman, Tribal Council Confederated Tribes of the
Cascade Flyfishers	Warm Springs Reservation
City Council City of Westfir	Chairperson, Cow Creek Band of Umpqua Tribe of Indians
Chairperson, Confederated Tribes Of the Grand Ronde Community of Oregon	Documents Department University of Oregon
Of the Grand Ronde Community of Oregon	City of Oakridge
Bob Bumstead Trout Unlimited	US Fish & Wildlife Service Oregon State Office
Pacific Rivers Council	Oregon Pacific Rivers Council
Chairman, Siletz Tribal Council	Oregon Trout
Joanne Vinton	J. Davidson & Sons
Dink's Market	Clifford E. Adams
Dink's Market	OR. Natural Res. Council

Tasker Houston

Tom Wiemann

U.S. Fish & Wildlife Service

James Johnson

The McKenzie Flyfishers

Cascade Program Group

Tom Stave

U.S. Fish & Wildlife
Swanson Superior

George Sexton

Jan Anselmo

Scott Westphal
Regional Chairman
Rocky Mountain Elk Foundation

Chairman
The Klamath Tribes

Gary French
State Chairman
Rocky Mountain Elk Foundation

Nee Nee Haynie
Rocky Mountain Elk Foundation

Lowell City Hall

Bob Bastian
Rocky Mountain Elk Foundation

Todd Bastian
Rocky Mountain Elk Foundation

John Roselli

Emerald Trail Riders Association
NW Conservation Coordinator

McKenzie Paddlers

ODF&W

Forest Conservation Council

Willamette Canoe & Kayak Club

Dennis Mattingly

5.7 Public Comment

The project was included in the "Willamette National Forest Schedules of Proposed Actions" (Forest Focus) in all issues since the summer of 2002. A notice of availability of this EA for public review was sent to the list of people and organizations listed on pages 39&40 of the EA, as per CFR 217 requirements, on April 20, 2004, and we received one comment by mail and one by phone.

Comments were received from Chandra LeGue of the Oregon Natural Resource Council and Josh Lockland of the Cascadia Wildlands Project. Both comments were supportive of the project. As additional opportunities arise to reduce the number of unneeded roads on the Middle Fork Ranger District, we will consider your suggestions for additional road closures. We will also consider using local contractors to implement these projects when ever possible.