

Project Checklist

North Umpqua Highway Project Between MP 52.8 - 67.2

Oregon State Route 138 / Oregon Forest Highway 47
Douglas County, Oregon



Prepared by:

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May 23, 2006

List of Acronyms

ADT	Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
CE	Categorical Exclusion
DEQ	Oregon Department of Environmental Quality
ESA	Endangered Species Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FS	Forest Service
FH	Forest Highway
MP	Milepost
NEPA	National Environmental Policy Act
NFSR	National Forest System Roads
NHPA	National Historical Preservation Act
NOAA-Fisheries	National Oceanic & Atmospheric Administration–Fisheries Department
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
ROW	Right-of-way
SEE	Social, Economic and Environmental
SHPO	State Historical Preservation Office
USACE	US Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
RVD	Recreational Visitors / Day
CMP	Corrugated Metal Pipe
MBTA	Migratory Bird Treaty Act

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1 Introduction

1.1 Project Name and Route Identification

North Umpqua Highway Project

Oregon State Highway 138

Oregon Forest Highway Route 47

1.2 Lead and Participating Agencies

Lead Agency

Federal Highway Administration

Western Federal Lands Highway Division

George Fekaris

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Participating Agencies

U.S. Forest Service

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Roseburg, OR 97470

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1.3 Purpose of Project Checklist

The project checklist provides notification and information for the public and other government agencies about the proposed project. The checklist allows the people who may be affected and government agencies (those with regulatory or administrative interest) the opportunity to be informed and become involved in the project development process.

The project checklist describes why the project is needed, the scope of the proposed improvement, and solutions being considered. The project checklist also estimates the potential effects the project may have on the environment and existing cultural resources. In addition, the checklist helps to identify issues and potential impacts that may occur within the project study area.

Information provided in the checklist is also used to help the Federal Highway Administration (FHWA) determine the level of environmental analysis necessary. The FHWA will determine if an Environmental Impact Statement (EIS), an Environmental Assessment (EA), or a Categorical Exclusion (CE) will be prepared to meet the requirements of the National Environmental Policy Act (NEPA).

Information regarding location studies, engineering investigations, and environmental studies that are included in the checklist may be used in the future. The future uses include, environmental clearance documents/ permits and highway design activities.

2 Description of the Proposed Action

2.1 Location of the Proposed Action

The proposed project is located entirely within the Umpqua National Forest in Douglas County, which is located in southwestern Oregon (OR). The project begins at milepost (MP) 52.8 along OR Route 138 east of Roseburg and ends at MP 67.2 near Stump Lake. The highway is a state-owned two-lane rural arterial roadway providing principal access to over half of the Umpqua National Forest. The total proposed project length is approximately 14.4 miles. (Figure 1)

The topography of the roadway is mountainous, with high and steep rock, ash, or pumice cut slopes on the south side of the roadway. Many of these cut slopes are located close enough to the roadway to obstruct the horizontal stopping sight distance. The terrain adjacent to the project route is heavily wooded with large diameter trees. The North Umpqua River generally parallels the north side of the roadway.



Photo 1: Beginning of the Project; North Umpqua River - Facing NE

- The legal description of the proposed project is:
T26 S, R 2 E, S13;
T 26 S, R 3 E, S 17, 18, 20, 27, 28, 34, 35, 36; and
T 27 S, R 4 E, S 1-6.
- The geographic coordinates at the beginning of the project are 43° 18' 16" N, 122° 31' 16" W, and at the end of the project it are 43° 14' 49" N, 122° 16' 55" W.



Photo 2: Beginning of the Project - Facing East

2.2 Scope and Nature of the Proposed Project

The scope of the proposed project is to renovate and widen a 14.4-mile section of the North Umpqua Highway. All build alternatives currently under consideration include plans for the following:

- Correction of alignment deficiencies
- Installation and replacement of guardrail and bridge rail
- Construction of chain-up/chain removal areas and left turn lanes
- Construction of paved shoulders, and re-vegetation.
- Grading, Paving and Widening

2.3 Funding

The proposed project is identified for funding under the Forest Highways section of the Public Lands Highway Program, which is financed through the Federal Highway Trust Fund. These funds are available to aid public agencies, such as counties and state transportation departments, to provide safe, efficient public roads that serve a substantial amount of National Forest-related traffic. A Forest Highway is defined as a selected public road that is entirely, partly within or adjacent to, and services, forest lands. Approximately 13.8 million dollars are currently available and programmed for this project scheduled for 2010 (March 2005).

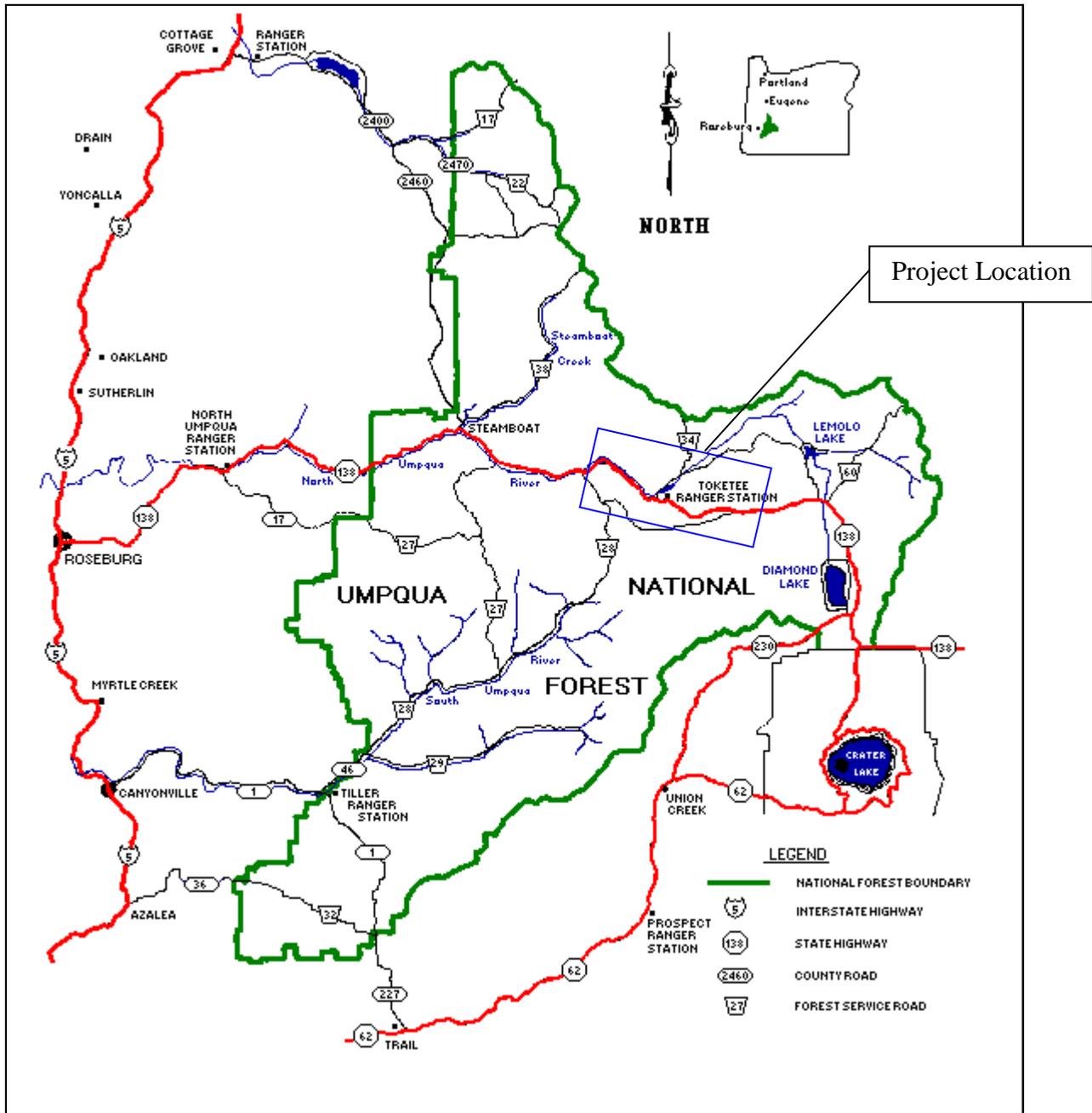


Figure 1: Vicinity Map

3 Purpose and Need

3.1 Purpose and Proposed Action

The purposes of the proposed project are to improve safety, reduce maintenance costs, and to manage and preserve the physical infrastructure within the project route.

The project objectives are to:

- Improve the safety of the transportation facility for motorists, pedestrians and bicyclists.
- Reduce the future annual maintenance costs
- Maintain the consistency and efficiency of the road system between I-5 and Highway 97
- Improve and maintain access to: the Umpqua National Forest, Crater Lake area, and to existing recreation opportunities including Diamond Lake.
- Improve the movement of forest products, goods and services to the communities both locally and statewide.
- Maintain and upgrade the road to be consistent with the: Forest Plan, local transportation plans (County), Oregon Highway Plan, Rogue-Umpqua Scenic Byways, the Wild and Scenic River Plan, and the American Association of State Highway and Transportation Officials (AASHTO) standards.

3.2 Road Use

The North Umpqua Highway is a major link between I-5 on the west side of the Cascade Mountains and Highway 97 on the east side of the Cascade Mountains. The highway is a Forest Service (FS) arterial road and connects to National Forest System Roads (NFSR). It provides access to Diamond Lake which is the largest recreational complex on National Forest lands in Oregon, as well as the north entrance to Crater Lake National Park. The North Umpqua Highway is part of the Rogue-Umpqua State Scenic Byway. Much of the project route parallels the North Umpqua River, which is a Federal Wild and Scenic River and a State Scenic Waterway. The North Umpqua Highway lies entirely within the Umpqua National Forest and is primarily used to access recreational activities (hiking, biking, sight-seeing, hunting, camping, and fishing) and for commercial transport (timber and other products). It is also used as a mail and school bus route. In 2002, recreational traffic on

the road was estimated at 200,000 recreational visitor days (RVD). Average daily traffic (ADT), which includes both cars and trucks, was approximately 1,200. The ADT is projected to be 2,590 vehicles by 2027 based on a 3% population growth rate (FHWA, 2002). As population growth in the area continues, the demand for access to recreation resources is expected to increase.

3.3 Existing Road Conditions

The entire project route has sharp curves and steep grades, potentially narrow road widths and limited sight distances. The existing road has a curvilinear alignment that generally varies in width from 24 to 28 feet throughout the project route. The roadway surface is generally smooth, and is considered to be in fair condition (FHWA, 2002). There are numerous locations where the existing roadway does not meet the current 45 mph design speed standards. A majority of the horizontal curves have superelevations in excess of the 8% maximum or less than that required for a 45 mph design speed. Superelevations describe the height of the outer edge of a curve, relative to the inner edge of the curve. The project route lies between two sections of roadway that have already been previously improved to meet AASHTO standards. The adjoining sections of road were designed for 55 mph. Road standards on the project route are less than those on both ends, presenting safety concerns for motorists who are not anticipating the sharp curves and steep grade. The roadway rises from an elevation of approximately 1600 feet to over 3800 feet. This rise occurs over the length of the project, with a minimum grade of 3-4% and a maximum grade of approximately 6%. The change in elevation is considered appropriate for the terrain in the area of the project. The road shoulders either do not meet design standards (1 to 2ft wide) or are lacking, which pose a safety hazard for bicyclists. In addition, guardrails and bridge rails are either substandard or lacking.

EXISTING BRIDGES

- Fish Creek Bridge (MP 55.97) – 251 feet long with a 26-foot roadway width. This bridge is structurally sound but is narrow.
- Rough Creek Bridge (Penstock Bridge) (MP 57.36) – 125 feet long with a 26-foot roadway width. (Refer to section 7.2)
- Toketee Point Half Viaduct (MP 58.74) – 70 feet long with a 26-foot roadway width

All of the existing bridges within the project corridor have deficient rails.

EXISTING RETAINING WALLS

- Near the Fish Creek Bridge (MP 55.97) – 70 feet long with an unknown height
- Near the Toketee Point Viaduct (MP 58.74) – 120 feet long with a maximum height of approximately 25 feet

EXISTING LARGE CULVERTS

FISH CREEK FOREBAY SPILLWAY

The existing spillway is 130 feet long 6-foot diameter corrugated metal pipe (CMP) under approximately 25 feet of fill. It is currently in satisfactory condition.

WATSON CREEK CULVERT

The existing culvert is in poor condition, with visible rust along the bottom and both ends of the 7-foot (ft) diameter asphalt coated corrugated metal pipe (CMP) pipe. The pipe has separated and dropped about six inches (in) on the downstream side at a spot approximately twenty feet from the end of the pipe. Water is able to flow around the outside of the pipe from the break point.

Watson Creek flows in a floodplain with 30-foot high embankments. The Creek has the potential to be 40 feet wide during high water events, with observed high water marks six feet above the channel. There is an existing plunge pool at the outlet of the culvert (30 ft wide, 75 ft long and 8 ft deep; 18000ft³). Water velocities are estimated at 22 feet per second (ft/s) with a flow depth of 5ft for a 100-year event. During summer flows, water is approximately 4-6 in and velocities ranging from 5-10ft/s.

This culvert is currently a barrier to fish for the following reasons:

- High velocities
- Shallow water depths

MAPLE CREEK CULVERT

The existing culvert is comprised of two asphalt-coated CMP culverts. The western structure is a 6-foot diameter circular pipe while the eastern structure is a pipe arch (63in wide x 41in high). Currently both pipes are in fair condition. The pipes are spaced 14ft apart (center-to-center spacing), thus creating an area where materials deposit between the two pipes, extending 10ft upstream. The current flow of water at this location is split, due to the presence of this depositional material. Water could overtop the structure if one of the pipes becomes blocked by debris during a high flow event. Water velocities are estimated to be 19ft/s with a flow depth of 15in for the 100-year event. The average summer flow has a width of 12ft and a measured depth of 4in. Maple Creek does not have a floodplain because the stream bank begins at the edge of the water. There are indications that the creek is showing lateral movement (soil erosion of the banks), but the terrain restricts the lateral movement away from the existing path.

The existing culverts are a barrier to fish for the following reasons:

- High velocities
- Shallow water depths in the culverts
- 6-foot vertical drop to the channel bottom

TRAP CREEK CULVERT

The existing culvert system is comprised of two 36in CMPs. They are spaced 9ft apart (center-to-center spacing). During a site visit the east culvert was plugged by small diameter woody debris at the inlet. Velocities were estimated to be 20ft/s with a depth of 2ft for the 100-year event. The average summer flow is 8ft wide and 4in deep. The floodplain width is approximately 40ft on the upstream side and 20ft on the downstream side. Flow exiting the existing culverts is scouring the banks of the creek. As well, downstream of the culverts there is a debris jam at the confluence of Trap Creek and Clearwater River which is blocking the channel. Debris is a problem for these culverts due to the small diameter of the pipes.

The existing culverts are a barrier to fish for the following reasons:

- High velocities
- Shallow water depths in the culverts

CLEARWATER RIVER CULVERT

The existing culvert is 9ft wide and 11ft high and passes under the roadway at a 45-degree angle. The culvert is currently in good condition. Upstream of the culvert the average summer flow channel is 20ft wide. The width of the channel is estimated to extend to 40ft during a high flow event. This is based on the observed high water mark at 5ft above the existing channel. At the outlet of the culvert there is a plunge pool 40ft wide, 75ft long and 5ft deep (15,000ft³). A semi-dam exists at the downstream edge of the plunge pool; created by flow exiting the culvert, moving large boulders to that location. Water velocities are estimated to be 24ft/s with a flow depth of 5ft for the 100-year event. The average summer flow in the culvert is approximately 6-8in deep with a velocity of between 5-10ft/s. The channel is currently degraded on the downstream side of the culvert, resulting in a vertical drop of 8in at the outlet.

The existing culverts are a barrier to fish for the following reasons:

- High velocities
- Shallow water depths in the culverts
- 8in vertical drop at the outlet

3.3.1 Safety Concerns and Accidents

Accident data from 1993 - 2000 shows that 28 accidents, including one fatality, were recorded within the project route (ODOT, 2002). It appears that at least half of these accidents were related to the sharp curves or the deficient sight distances. Refer to Appendix A for accident data. Traffic congestion occurs when vehicles needing to make left turns from the highway must wait for on coming traffic to pass. This becomes an issue during high use days. Traffic flow disruptions reduce roadway efficiency, increases the idling time and the potential for accidents.

3.4 Summary of Needs

The project route is part of a major link between I-5 on the west side of the Cascade Mountains and Highway 97 on the east side of the Cascades. The North Umpqua Highway is a part of the Rogue-Umpqua State and Scenic Byway, and provides access to Diamond Lake, Crater Lake National Park, and parts of the Deschutes, Rogue River and Winema National Forests, as well as numerous trails and fishing areas along the North Umpqua River. The current high volume of recreational traffic is

expected to continue to increase into the future. The highway is used extensively to transport timber and other goods and is used as a mail and school bus route. Road shoulders are either below standard or non-existent, creating a safety concern for bicyclists. The entire project route contains steep grades and sharp corners along with other geometric deficiencies such as narrow road widths, and limited sight distances. Roadside safety features are also lacking and deficient in some areas. Approximately half of the accidents along the project route appear to be related to the sharp curves, limited sight distances and steep grades.

4 Proposed Alternatives

This chapter describes the preliminary construction alternatives being considered for the proposed project. All alternatives are described and then evaluated in terms of how well they would meet the purpose and need of the project and their financial costs. The evaluation is based on resource surveys, input received from the public and the resource agencies, and a transportation and engineering analysis undertaken by the FHWA.

The FHWA developed this project to meet the standards of the American Association of State Highway and Transportation Officials (AASHTO) and the ODOT standards. The ODOT 4R standards will be met for the design and construction of the turn lanes which are designed to meet or exceed the AASHTO standards. Should any changes in the design criteria become necessary during project development, such changes will be documented.

All build alternatives will be designed based on the following criteria:

- AASHTO Functional Classification: Minor Rural Collector

- Design Speed: 45 mph

- Current ADT (2002): 1,200

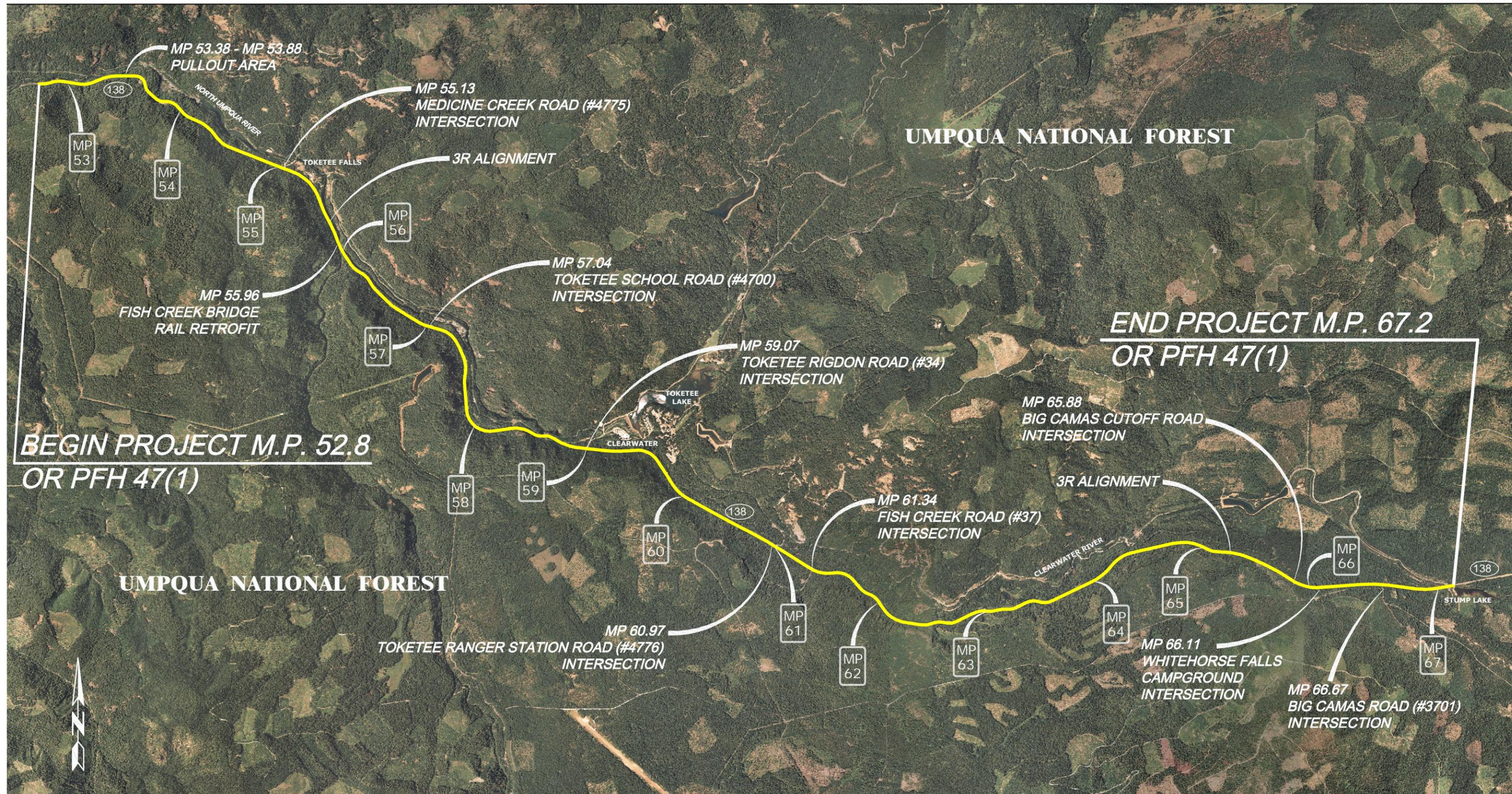
- Future ADT (2027): 2,590

- ODOT 3R & AASHTO Standards

- ODOT 4R Standards for left turn lanes

A minor rural collector is defined as a road that collects traffic from local roads and smaller communities (Patron, 2003). “3R” refers to the ODOT 3R (resurfacing, rehabilitation and restoration) standards for road design. “4R” refers to the ODOT 4R (reconstruction, resurfacing, rehabilitation, and restoration) design standards.

The costs for the alternatives are compared in Table 1 in section 4.8. Alternatives and project components that were eliminated from consideration are discussed in sections 4.6 & 4.7 respectively. Refer to Figure 2 for an overview of the project route.



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SDATES

SPATHS

OVERVIEW OF NORTH UMPQUA HIGHWAY OR PFH 47(1) FIGURE 2

4.1 No Build Alternative

Under this alternative, no road improvements would take place. No change would be made to the road width and the shoulder width, and no improvement to the substandard horizontal and vertical alignments. The road would continue to be maintained under the current cost structure.

ALTERNATIVE SUMMARY

This alternative would not meet the desired objectives of the project. The existing sharp curves and short sight distances would remain. The future maintenance costs would continue to increase as the road deteriorates. Bicyclists would continue to have little or no space to travel off the roadway.

This section of road would not be consistent with the two up-graded sections on either end. This lack of continuity would affect both the safety and the scenic quality of the corridor. Safety would continue to be a concern due to the lack of turning lanes. Culverts along the corridor would continue to be a barrier to fish, thereby maintaining restricted access to habitat. As the need to move more goods to local and inter-state locations increases, this corridor would become less able to accommodate safe and efficient travel.

The following is a discussion of the three proposed build alternatives. Several proposed features of the alternatives would be the same and will be discussed together. Proposed features that are unique to each alternative will be discussed individually.

4.2 Common Design Features for the Build Alternatives

Proposed features that will be implemented with all three build alternatives (1, 2 & 3) are outlined below. The costs for these features are included in the individual alternative cost estimates. The existing grades as stated in section 3.3 will be maintained under each of the proposed alternatives.

CULVERT REPLACEMENTS

There are four culverts within the project limits located at the following locations: Maple Creek, Trap Creek, Clearwater River and Watson creek.

Presently, Watson Creek culvert is proposed for replacement under the current funding for this project. This culvert was selected because it is structurally failing and it is a barrier to fish passage. The remaining three culverts at Maple Creek, Trap Creek and Clearwater River are identified as barriers to fish passage as well; however, the Forest Service is currently in the process of securing funding for the replacement of these culverts.

Table 1: Culvert Replacement Cost Estimates

Culvert Location	Culvert	Bridge
Watson Creek	539,500	702,000
Maple Creek	404,300	447,600
Trap Creek	435,500	462,000
Clearwater River	676,000	798,000

The existing culverts would be replaced with either a “bottomless structural plate long span high or low profile arch” or a bridge structure. The replacement structure will be designed to meet the bankfull width requirements of the Forest Service which define the minimum culvert span or hydraulic opening necessary for adequate fish passage.

The new structures would require the installation of deep foundations to accommodate for the erodible soils present at each location. Topography at Watson Creek culvert would create construction concerns due to the 30 ft high embankment, and the need to stay within the existing footprint of the highway.

TOKETEE POINT VIADUCT

The viaduct is located at MP 58.71 (Figure 6). The proposed alternatives would remove and replace the existing barrier rail. At this time, none of the alternatives propose replacement of the retaining wall, although it could possibly be impacted if the roadway is widened toward the retaining wall. In this case, a spread footing would be constructed beneath the roadway at the existing wall to support the concrete coping and bridge rail at the wall face

CHAIN-UP/CHAIN-REMOVAL AREAS

The alternatives propose to construct a chain installation and removal area between MP 63.6 & 63.9 (Figure 8).

LEFT-TURN LANES

The proposed alternatives would construct left turn lanes at the following locations:

1. Toketee School Road, MP 57.04 (Figure 6)
2. Toketee Ranger Station Road, MP 60.97 (Figure 7)
3. Fish Creek Road, MP 61.34 (Figure 7)

All action alternatives include the construction of left turn lanes where practical and feasible in order to improve overall transportation efficiency and safety.

ROUTE CONTINUITY

The proposed project alternatives 1 & 2 are consistent with the County comprehensive plan. The project is located between two sections of road that have been previously upgraded. The proposed project would provide road continuity and consistency in the area.

4.3 Alternative 1: 8-Foot Shoulder

This alternative proposes to reconstruct 14.4 miles of the North Umpqua Highway. This alternative would create 12-foot paved lanes with 8-foot paved shoulders (Figure 3). The resulting roadway would have a total width of 40 ft. The existing road would be milled and notch widened to achieve the proposed dimensions. The entire project route would be overlaid with three inches of new asphalt concrete.

Existing horizontal and vertical alignments would be adjusted to accommodate the proposed design speed. The existing 30-35 mph speed requirements would not be altered at two locations due to prohibitive topography and a bridge structure that would not be included in the proposed alternative. The two exceptions are located at MP 53.57-53.94 and MP 55.90-55.92 (Figure 5). The proposed widening would be constructed on the appropriate side of the existing road to stay away from the North Umpqua River and other sensitive features.

The proposed alternative would require approximately 1,604,000 cubic yards of excavation and 67,000 cubic yards of embankment.

RETAINING WALLS

It is estimated that Alternative 1 would require new retaining walls at the following locations:

1. MP 54.92 to 55.03; three feet high (to stop the fill slope from encroaching upon the parallel access road at Medicine Creek Road)
2. MP 55.62 to 55.65; four feet high
3. MP 60.45 to 60.49; six feet.
4. MP 60.83 to 60.86; five feet.
5. MP 66.66 to 66.69; five feet. This retaining wall would cross the Trap Creek culvert at MP 66.73.

Refer to Figures 5 through 9 for the location of these retaining walls.

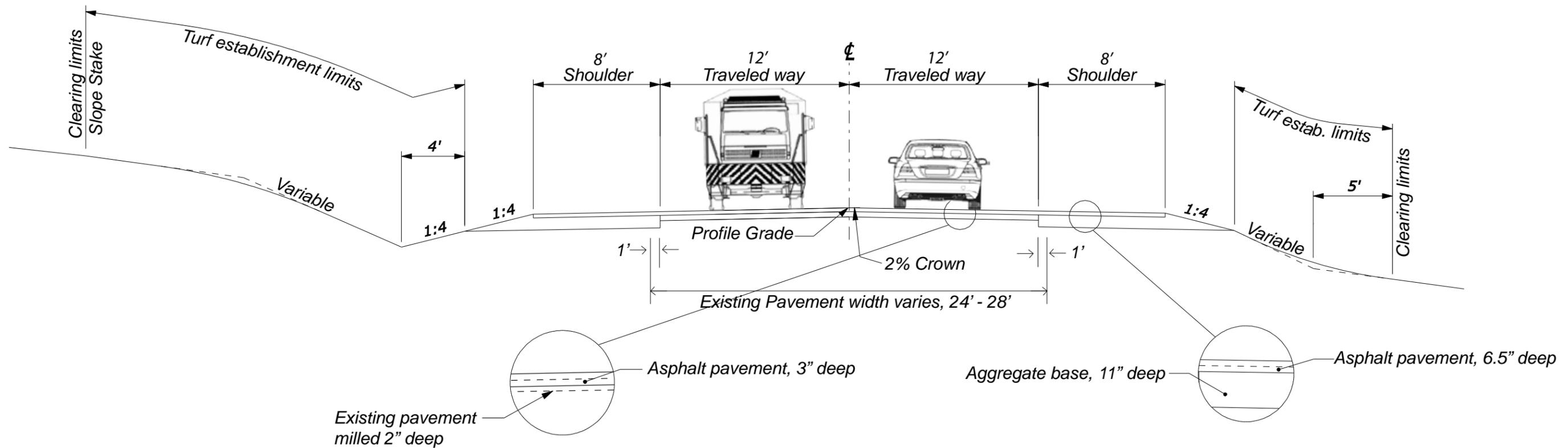
GUARDRAILS

The alternative proposes to replace 2.56 miles of existing guardrail within the project limits. In addition to the guardrail being replaced, 3.69 miles of new guardrail would be installed where appropriate. Weathered steel would be used to maintain a continuous appearance with the project route and the adjacent road sections.

ALTERNATIVE SUMMARY

Alternative 1 would meet all of the project objectives for, safety, reduced annual maintenance costs, consistency and efficiency, local and inter-state access, improved movement of forest products, good and services, improved fish passage and would be consistent with the Forest Plan, AASHTO standards, County transportation plans, Oregon Highway Plan, the Wild and Scenic River Plan and the Rogue-Umpqua Scenic Byway. The construction cost for alternative 1 is approximately \$25,000,000, which includes the cost of replacing the Watson Creek culvert. The estimated cost for construction including the replacement of all four culverts is approximately \$27,232,450 (Table 1).

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 4/3/2006 Designed by:
 T. Metcalf
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Alternative 1 - 8' Shoulder

North Umpqua Highway

TYPICAL SECTIONS

Figure 3

4.4 Alternative 2: 3-foot Shoulder

This alternative proposes to reconstruct 14.4 miles of the North Umpqua Highway. This alternative would create 12-foot paved lanes with 3-foot paved shoulders (Figure 4). The resulting roadway would have a total width of 30 ft. The existing road would be milled and notch widened to achieve the proposed dimensions. The entire project route would be overlaid with three inches of new asphalt concrete.

Existing horizontal and vertical alignments would be adjusted to accommodate the proposed design speed. The existing 30-35 mph speed requirements would not be altered in two locations due to prohibitive topography and a bridge structure that would not be included in the proposed alternative. The two exceptions are located at MP 53.57-53.94 and MP 55.90-55.92 (Figure 5). The proposed widening would be constructed on the appropriate side of the existing road to stay away from the North Umpqua River and other sensitive features.

The proposed alternative would require approximately 129,000 cubic yards of excavation and 11,000 cubic yards of embankment.

RETAINING WALLS

It is estimated that Alternative 2 would require new retaining walls at the following locations:

1. MP 57.51 to 57.54; five feet high
2. MP 57.64 to 57.67; four feet high
3. MP 58.72 to 58.73; nine feet high
4. MP 59.17 to 59.25; four feet high
5. MP 59.65 to 59.69; six feet high
6. MP 60.83 to 60.88; six feet high
7. MP 61.33 to 61.40; six feet high
8. MP 65.54 to 65.56; three feet high

Refer to Figures 5 through 9 for the locations of these retaining walls.

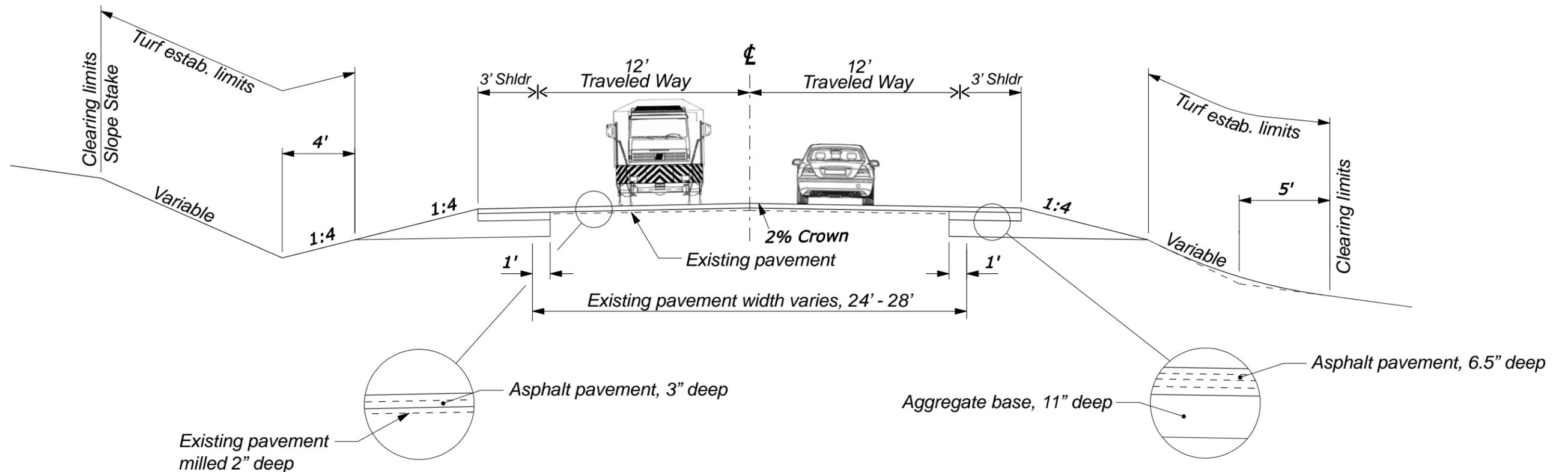
GUARDRAILS

The alternative proposes to replace 2.56 miles of existing guardrail within the project limits. In addition to the guardrail being replaced, 3.37 miles of new guardrail would be installed where appropriate. Weathered steel would be used to maintain a continuous appearance with the project route and the adjacent road sections.

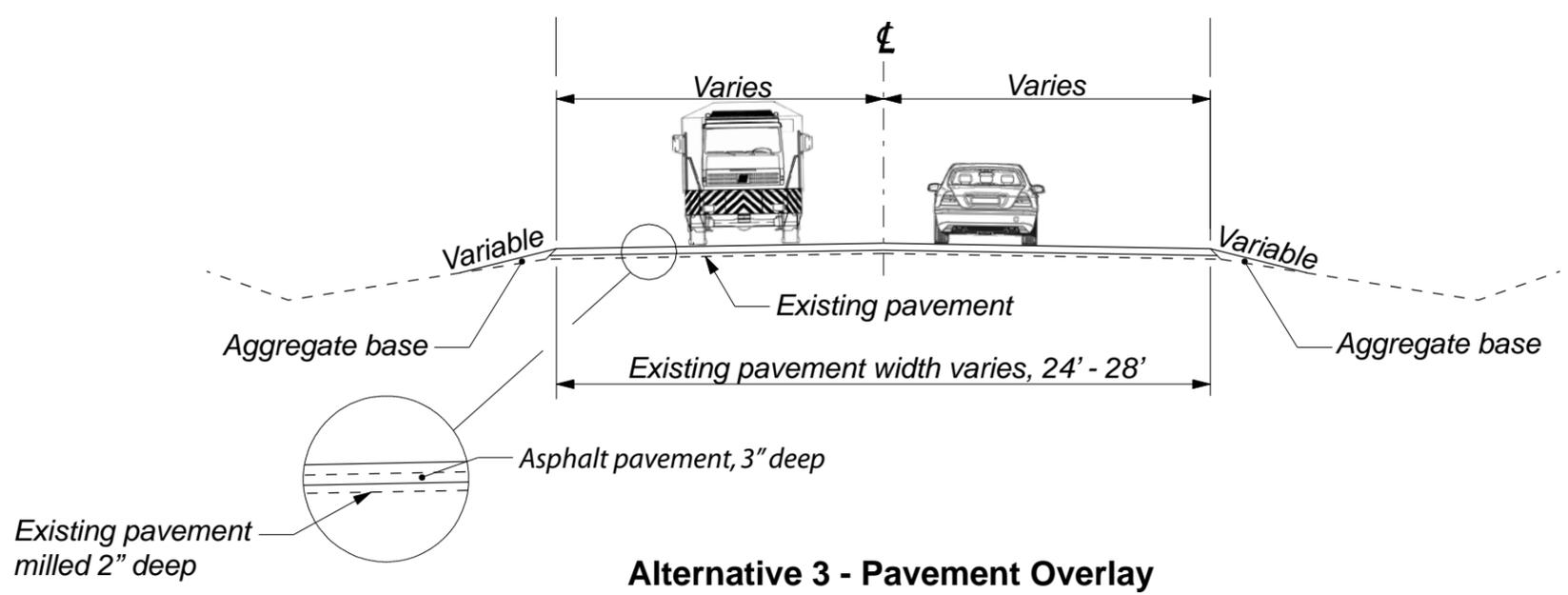
ALTERNATIVE SUMMARY

Alternative 1 would meet all of the project objectives for safety, reduced annual maintenance costs, consistency and efficiency, local and inter-state access, improved movement of forest products, good and services, improved fish passage and would be consistent with the Forest Plan, AASHTO standards, County transportation plans, Oregon Highway Plan, the Wild and Scenic River Plan and the Rogue-Umpqua Scenic Byway. The construction cost for alternative 2 is approximately \$13,800,000, which includes the cost of replacing the Watson Creek culvert. The estimated cost for construction including the replacement of all four culverts is approximately \$16,232,450 (Table 1).

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 J. Lane
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 04/2005
 T. Metcalf
 Designed by:
 4/3/2006
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Alternative 2 - 3' Shoulder



Alternative 3 - Pavement Overlay

North Umpqua Highway

TYPICAL SECTIONS

Figure 4

4.5 Alternative 3: Pavement Overlay

This alternative proposes to mill two inches of existing pavement and then overlay the roadway with three inches of new asphalt concrete (Figure 4). The proposed project encompasses the same 14.4 miles of the North Umpqua Highway as the previous alternatives. This alternative would seek design exceptions for existing horizontal and vertical alignments that are found to be substandard. The proposed alternative would require approximately 19,000 cubic yards of excavation and 2,500 cubic yards of embankment.

RETAINING WALLS

It is estimated that Alternative 3 would require new retaining walls at the following locations:

1. MP 60.83 to 60.88 with a height of five feet
2. MP 61.07 to 61.10 with a height of five feet
3. MP 61.33 to 61.40 with a height of six feet

Refer to Figure 7 for the location of these retaining walls.

These retaining walls would be required under this alternative at the turning lane locations. Those locations are stated above in the common design features section.

GUARDRAILS

The alternative proposes to replace 2.56 miles of existing guardrail within the project limits.

Weathered steel would be used to maintain a continuous appearance with the project route and the adjacent road sections.

ALTERNATIVE SUMMARY

Alternative 3 would slightly improve existing conditions and would not fulfill the requirements for safety, local and inter-state access, continuity, improved fish passage. This alternative would involve the least expansion outside the existing road of all the build alternatives and does not involve the installation of additional new guardrails. It would not be consistent with the Forest Plan, County transportation plans, Oregon Highway Plan and the North Umpqua Scenic Byway. Also, this alternative would not necessarily provide reduced annual maintenance costs in the future and would not meet AASHTO standards. The construction cost for alternative 3 is approximately \$9,000,000,

which includes the cost of replacing the Watson Creek culvert. The estimated cost for construction, including the replacement of all four culverts is approximately \$11,232,450 (Table 1).

4.6 Alternatives Considered but Not Developed Further

The following are alternatives that were considered during the early design phases, but were later eliminated.

2-FOOT SHOULDER OPTION:

This alternative consisted of two 12-foot travel lanes with 2-foot paved shoulder on each side. The overall pavement width would have been 28 ft. The horizontal and vertical alignments for this alternative would have been designed to meet the 45 mph design standards. This alternative was eliminated for the following reasons:

1. Did not meet the minimum standards for roadway width
2. Did not match the pavement of adjacent sections
3. Did not provide an adequate benefit to the existing roadway

4-FOOT SHOULDER OPTION:

This alternative consisted of two 12-foot travel lanes with 4-foot paved shoulders on each side. The overall pavement width would have been 32 ft. The horizontal and vertical alignments for this alternative would have been designed to meet the 45 mph design standards. This alternative was eliminated for the following reasons:

1. High costs
2. Greater environmental impacts

4.7 Project Features Considered but Eliminated from the Proposed Alternatives

The following are the project features that were originally considered as components of the early alternatives but were removed from the final alternative plans.

1. Climbing/Passing Lane. Cost: \$430,000; Eliminated to reduce the overall cost of the proposed project
2. Left turn lanes at Medicine Creek Road (Figure 5) and Toketee-Rigdon Road (Figure 6) were eliminated due to the topography constraints and the low priority for turn lanes at these locations. Cost: \$560,000.

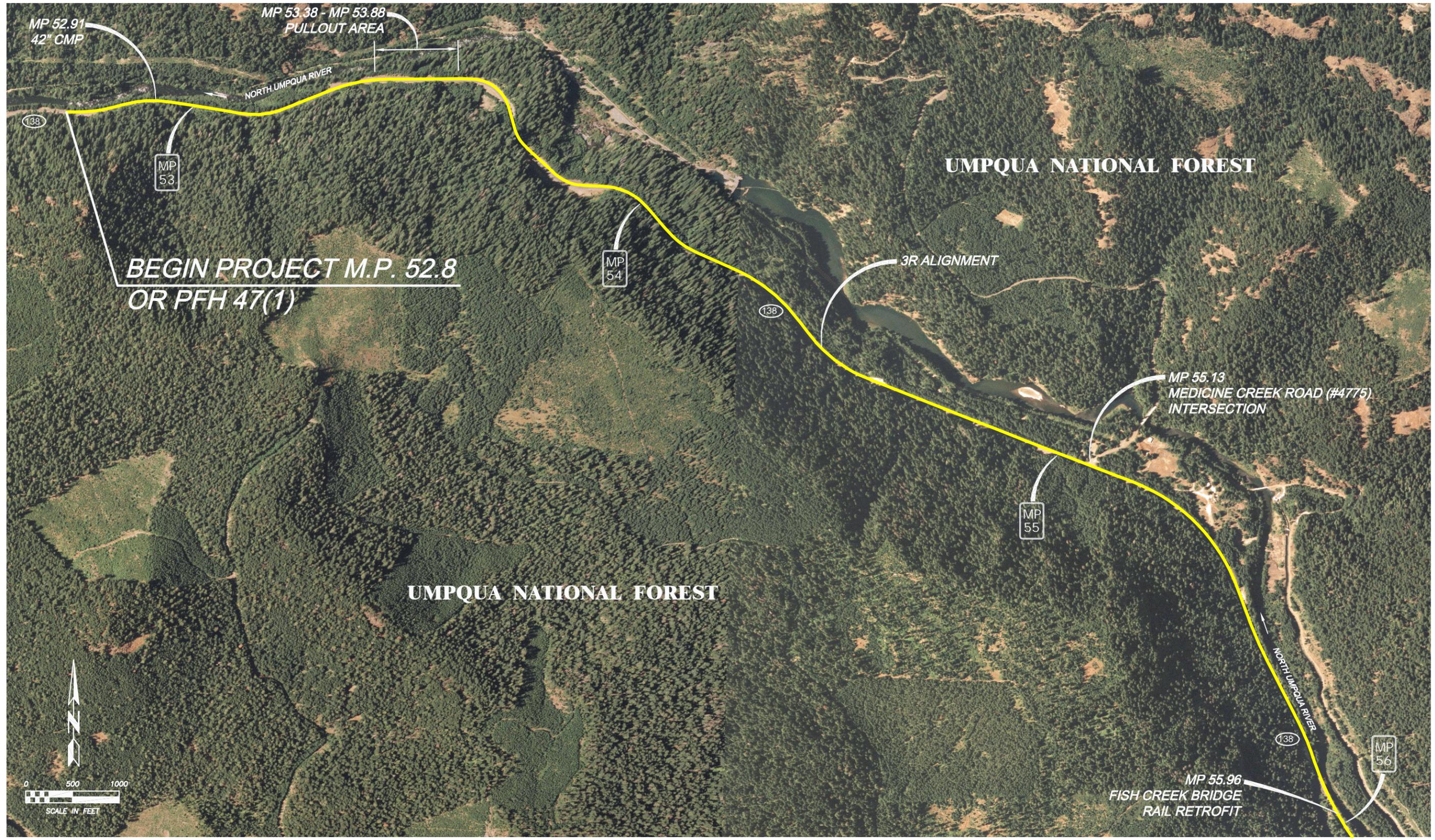
4.8 Summary of the Proposed Alternatives

The following table summarizes the differences in the proposed alternatives. Rough Creek Bridge (Penstock Bridge) replacement costs are not included in the cost estimates (Section 8.2).

Table 2: Summary of the Alternatives

Alternative	Total Width (feet)	Width of Paved Shoulder (feet)	Correction of Sub-standard curves	Total Construction Cost (With only Watson Cr. Culvert)	Total Construction Cost (With all culverts) ¹
No Build	24 – 28	None	No	N/A	N/A
1	40	8	Yes	\$25,000,000	\$27,232,450
2	30	3	Yes	\$13,800,000	\$16,232,450
3	24 – 28	0	No	\$9,000,000	\$11,232,450

¹ Funding for Maple Creek, Trap Creek and Clearwater River culvert replacement is currently in the application process.



**NORTH UMPQUA HIGHWAY
OR PFH 47(1)**

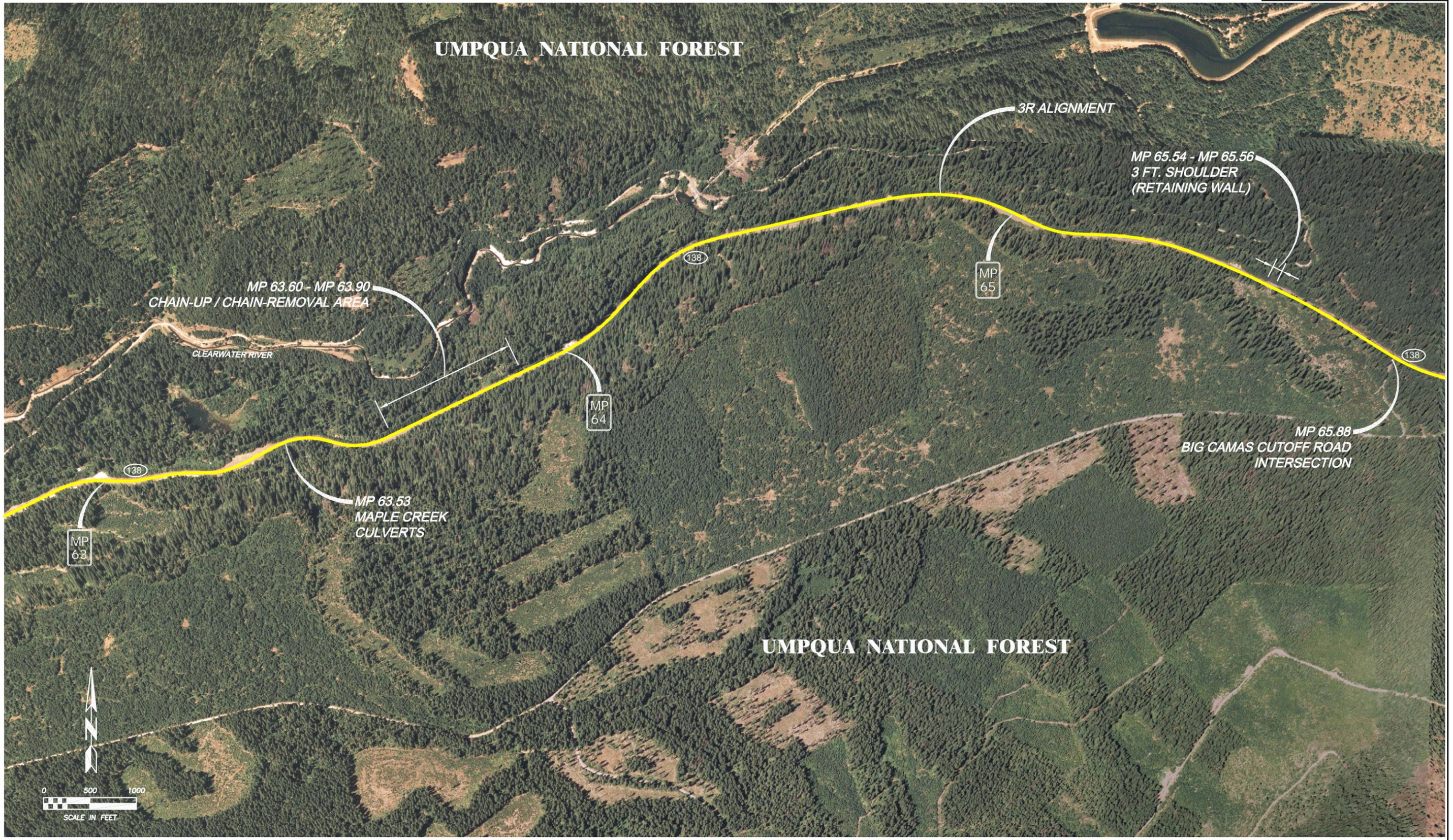
FIGURE 5

Checked by:

Designed by:

SDATES

SPATHS



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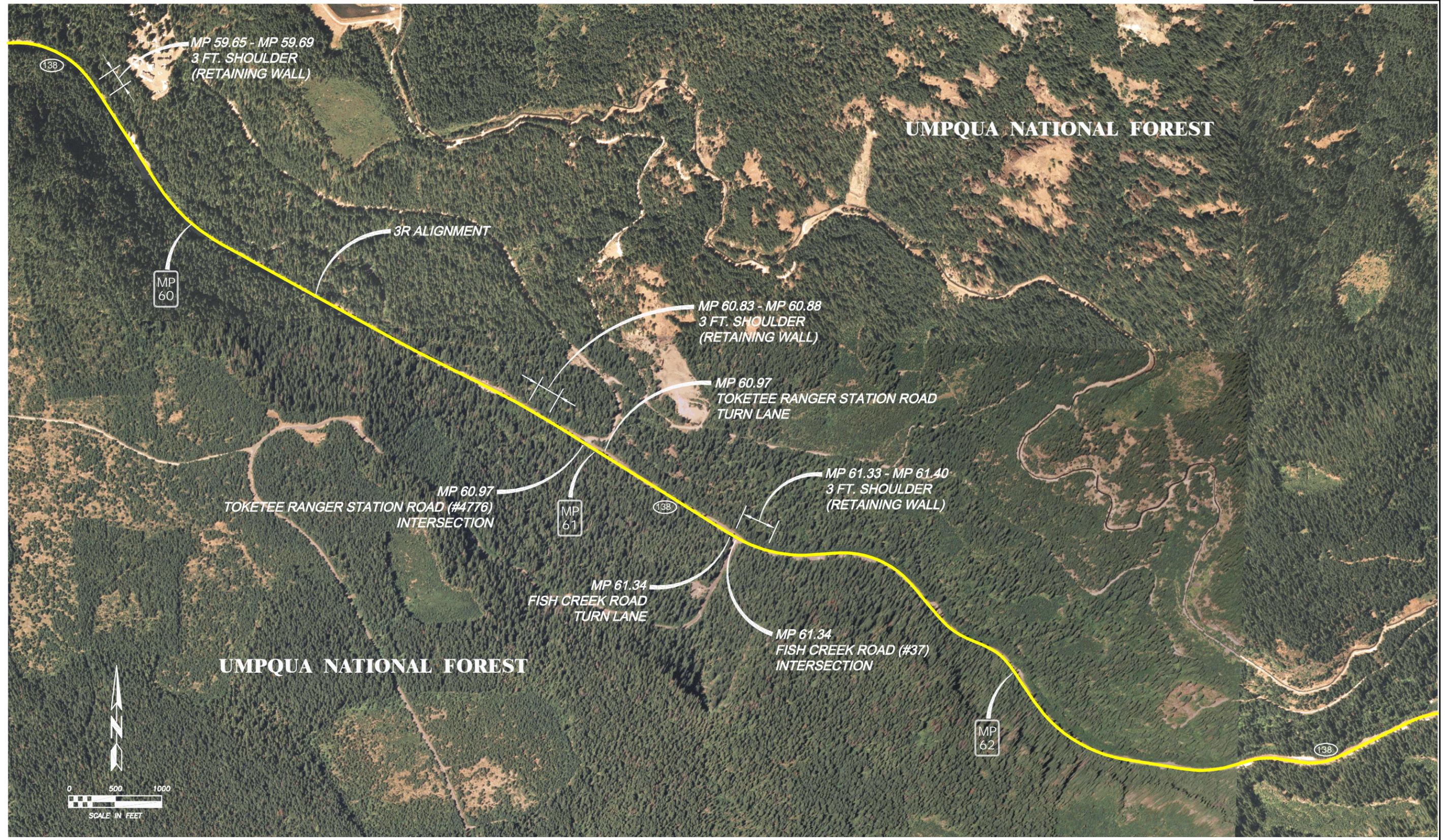
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**NORTH UMPQUA HIGHWAY
OR PFH 47(1)**

FIGURE 8



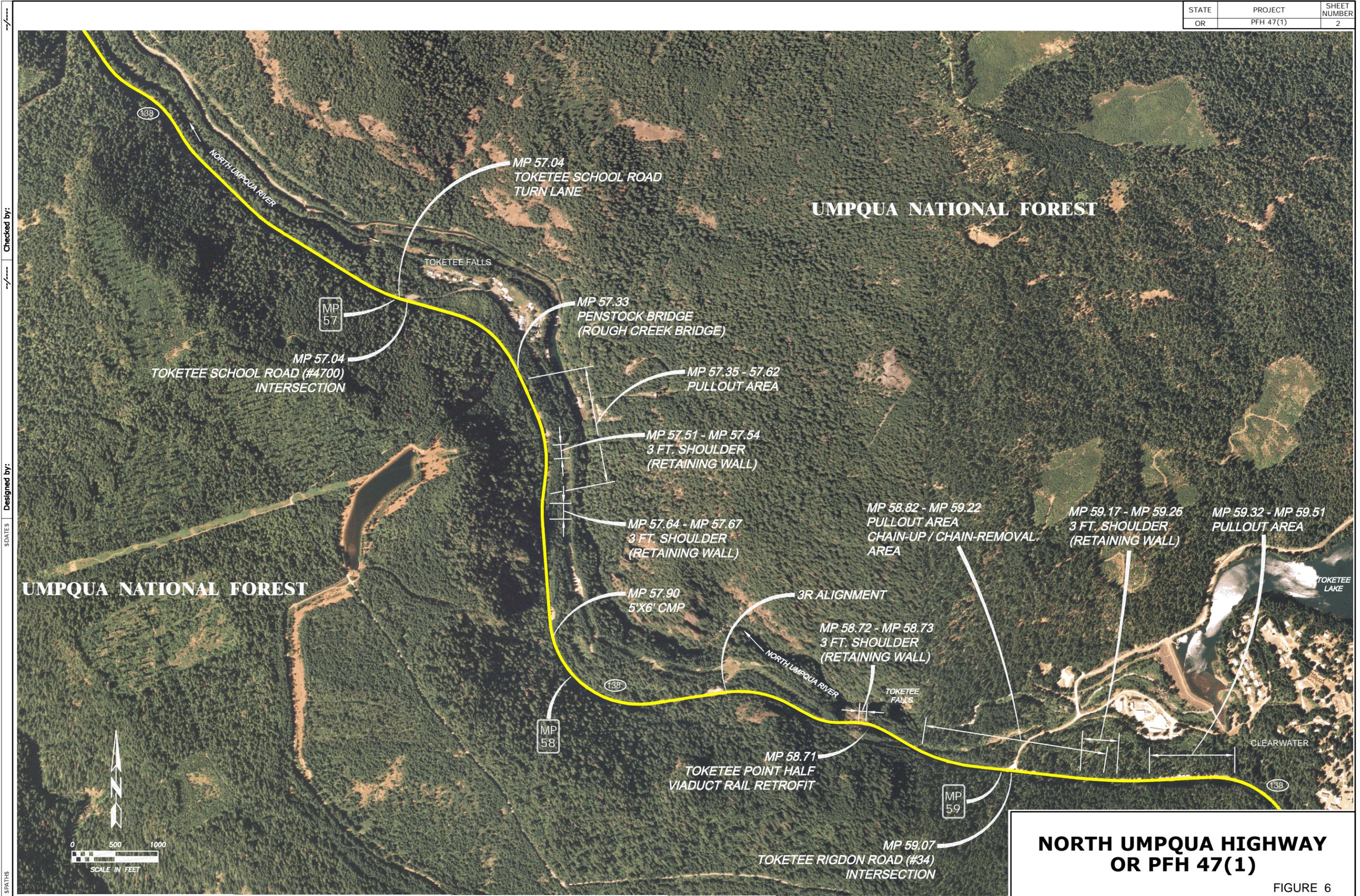
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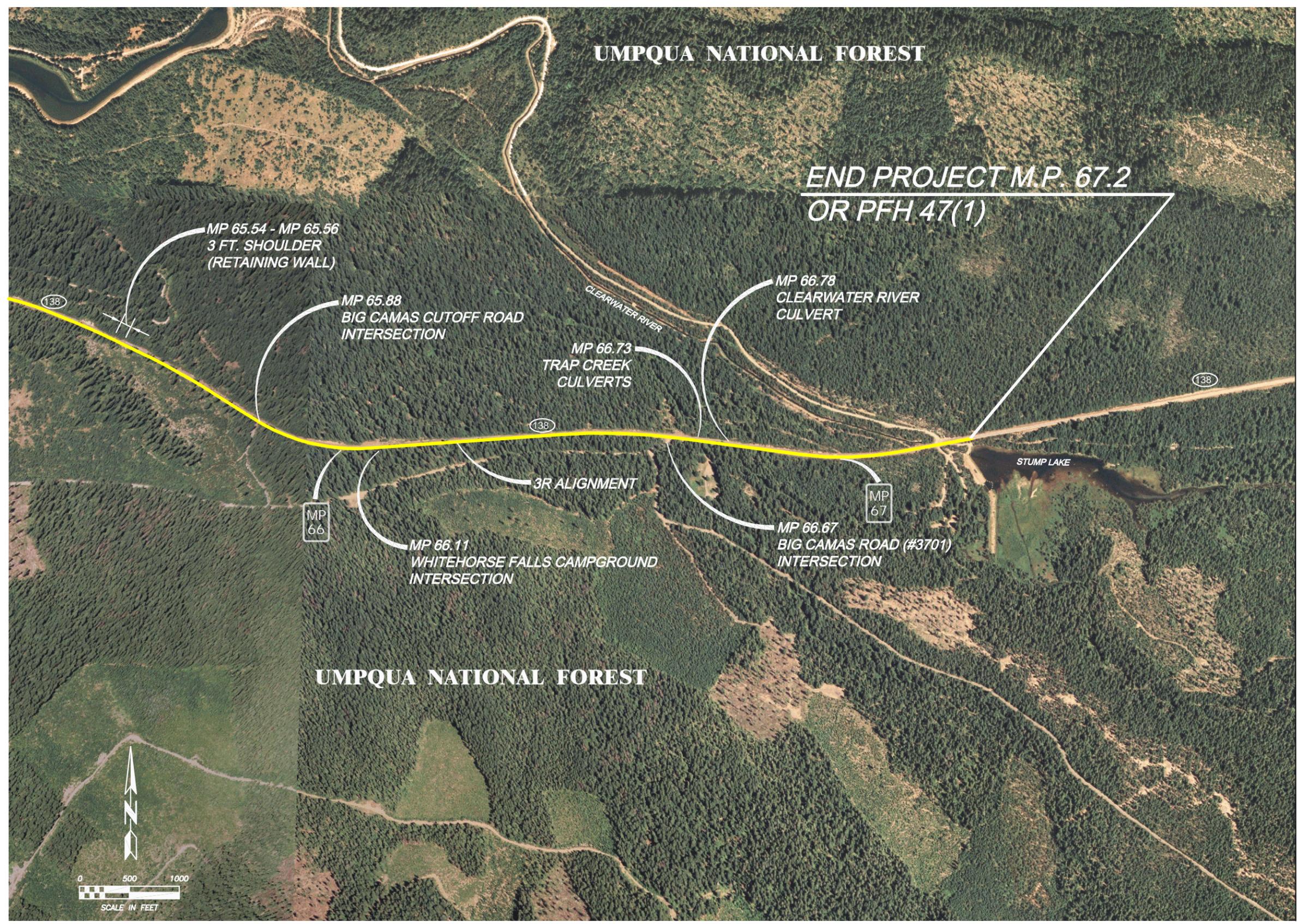
**NORTH UMPQUA HIGHWAY
OR PFH 47(1)**
FIGURE 7



**NORTH UMPQUA HIGHWAY
OR PFH 47(1)**

FIGURE 6

STATE	PROJECT	SHEET NUMBER
OR	PFH 47(1)	5



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**NORTH UMPQUA HIGHWAY
OR PFH 47(1)**
FIGURE 9

5 Pit Options

5.1 Boundary Quarry

This quarry, also known as Ice Creek Quarry, is located in T28S, R4E, Section 27NWSW (northwest quarter of the southwest quarter of section 27) (Figure 12). It is located on the divide between the North Umpqua and Rogue River watersheds and is located along the boundary between the Umpqua and Rogue River National Forests. The quarry is currently inactive. The pit is located approximately 10 miles south of the project midpoint with access off OR 138 on Forest Highway (FH) 37 at Watson Falls.

The quarry contains several stockpiles of crushed material and a seasonal pond. The quarry is approximately 3.5 acres in area with a 30 ft headwall on the north, east, and south sides. The terrain drops quickly to the west into the Ice Creek drainage. It is feasible to develop the area to the north and east, since these areas are not limited by road access and terrain considerations.

Tests conducted by WFLHD randomly sampled rock from the quarry walls indicates, “general suitability for paving and base course aggregate production, while preliminary asphalt concrete mix design data indicates that immersion-compressive strength of trial batches may satisfy only Class B and C requirements”

During the removal of material from this location, should trees need to be removed for the expansion of the quarry an environmental analysis may be required (personal communication, Larry Broeker). There is currently no environmental clearance for this site (personal communication, Larry Broeker).

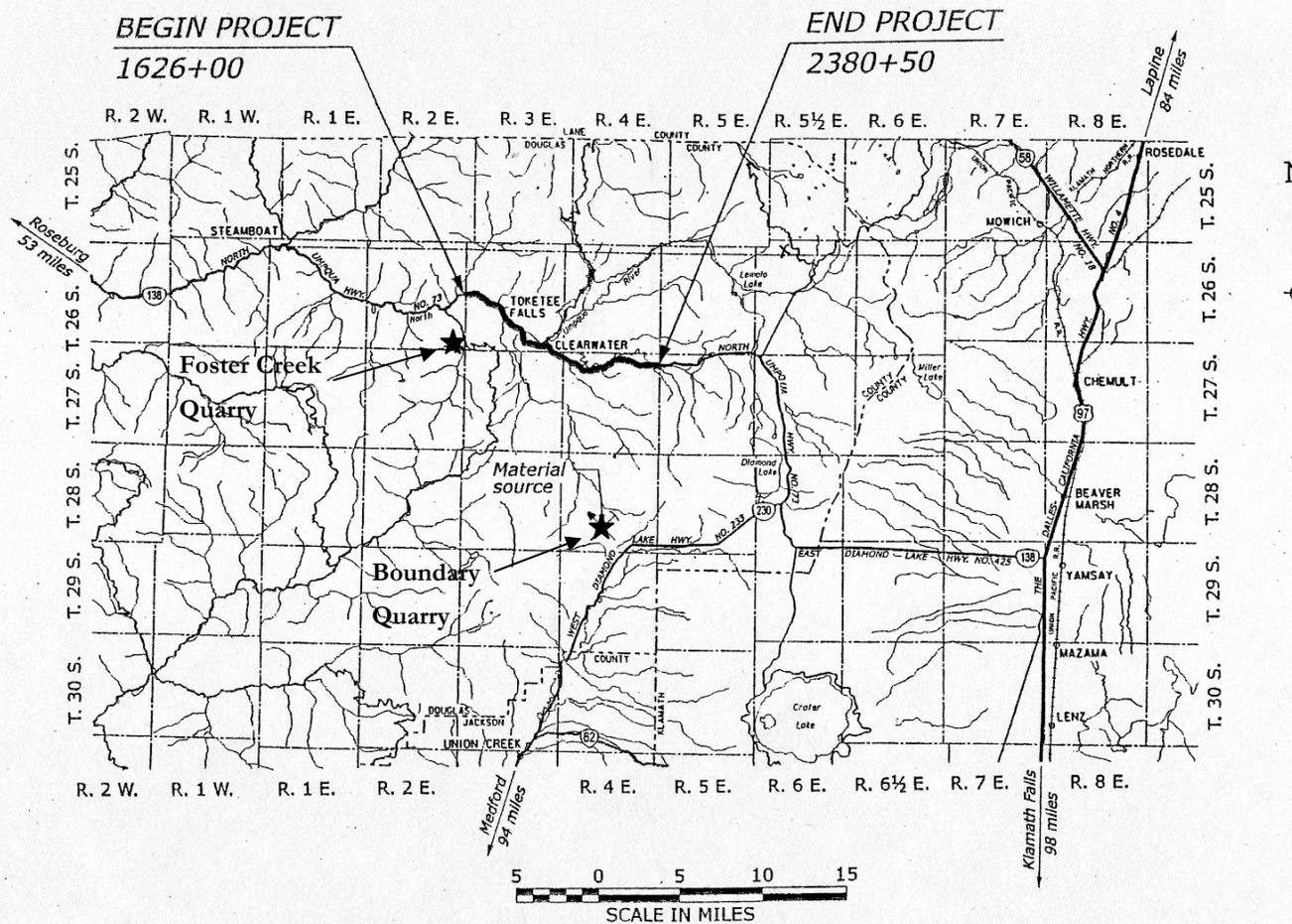
5.2 Foster Creek Quarry – Disposal Site

The FS identified this former quarry as a viable disposal site for the project as it would contribute to rehabilitation activities. The quarry is located about 5 miles from the east end of the project in T26S, R2E, and Section 36SE (Figure 12). The site is accessible using Oregon Highway 138, Forest Road (FR) 28, and a short final approach on FR 2801.

Currently there is no environmental clearance for this site; however, there is a memorandum of understanding between the Oregon Department of Transportation and the Forest Service (State of Oregon) regarding the utilization of rock from Forest material sources (personal communication, Larry Broeker)

UMPQUA NATIONAL FOREST DOUGLAS COUNTY OREGON

LENGTH 14.290 MILES



Project: North Umpqua Highway OR PFH 47(1)
Umpqua National Forest, Oregon

Job Number: 04-338
Date: February 2, 2006



Material Sources Map
NTL Engineering and Geoscience
Great Falls, MT

Figure 10: Material Sources Map

6 Environmental Setting

6.1 Natural

6.1.1 Topography/Soils

The project is located in the High Lava Plains physiographic and geological province (Franklin and Dyrness, 1998). Rugged mountainous terrain and diverse habitat types, including riparian, Douglas fir/mixed coniferous forest and lodgepole pine forest, characterize the area. The elevation ranges from 1,600 feet at the beginning of the project (MP 52.8) to 3,500 feet at the end of the project (MP 67.2). Volcanic activity coupled with the original design of the roadway resulted in cut slopes that are comprised of pumice deposits and volcanic bedrock. This has significantly influenced the topography. The soils are comprised of pumice, colluvial sand and gravel, talus and bedrock.

6.1.2 Water Resources

The North Umpqua River parallels the highway intermittently throughout the project area, although it flows out of sight in a westerly direction over the majority of the distance. The closest distance between the river and the project route is approximately 75 feet, which occurs for about 200ft at the beginning of the project. After this, the average distance between the road and the river is approximately 200 feet.

The North Umpqua River is a state Scenic Waterway and federally designated Wild and Scenic River. It is protected under the Oregon Omnibus Wild and Scenic Rivers Act (1988) and the Wild & Scenic Rivers Act (1968).

The Umpqua Basin consists of three subbasins: South Umpqua, North Umpqua and Mainstem Umpqua. The North Umpqua River is on the Department of Environmental Quality (DEQ) 303(d) list for impaired water quality. The parameters for which it is listed are: temperature, pH, arsenic, and dissolved oxygen for salmonid spawning. Information from the DEQ web site indicates that the North Umpqua basin has the best water quality among the three subbasins and is generally rated as “good”.

There are three stream crossings and several culvert crossings in the project area. Fish Creek (MP 56), Fish Creek Canal (MP 57) and Clearwater Creek Canal Crossing (MP 67) are three main streams that flow from south to north under the road and converge with the North Umpqua River. Fish Creek was the largest creek observed during the biological resource survey conducted by Widener & Associates (August 17-25, 2004) and the only creek with a bridge. These three streams were observed to have high quality steelhead and Coho salmon habitat. Watson Falls Creek and Trap Creek are smaller creeks, located at MP 61 and MP 67 respectively. Stump Lake is located at the end of the project route and is approximately 120 feet from the south side of the highway.

6.1.3 Wetlands

Seeps and potential wetlands were identified during the biological resource survey conducted by Widener & Associates (August 17-25, 2004). All of these are located within 25 feet of the road edge on the south side of the project area. Dominant wetland species include horsetail, red alder, maidenhair fern, rushes and western red cedar.

Seven probable wetlands were observed along the project route in the following locations:

Table 3: Wetland Locations

Wetland	Milepost	Approximate Size (Square Feet)
A	52.95 & 53.1	2,714
B	53.4	613
C	57	662
D	55.5	506
E	57.5	684
F	61.8	709
G	62.3	1,486

Further investigation is necessary to determine whether these wetlands are jurisdictional.



Photo 3: Example of a Potential Seep

This photo is an example of a potential seep along the side of the road. This potential seep was located on the south side of the project route. The photo was taken from the road in a southwest direction.



Photo 4: Potential Seep with Rocky Cliff

In this photo is an example of a potential seep along the project route that is adjacent to a rocky cliff where water seeps through. This area also has water in the ditch at the base of the cliff. This area was located on the south side of the route. The photo was taken in a southwest direction from the road

6.1.4 Vegetation

The project is located in an old-growth forest within the forested *Tsuga heterophylla* (Western Hemlock) major vegetation area (Franklin and Dyness, 1998). There are three main plant communities in the project area. These are: riparian, Douglas fir/mixed coniferous forest, and lodgepole pine communities. Dominant species in the project route are Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), western Hemlock (*Tsuga heterophylla*), red alder (*Alnus rubra*), big-leaf maple (*Acer macrophyllum*), sword fern (*Polystichum munitum*), bracken fern (*Pteridium aquilinum*), Oregon grape (*Berberis nervosa*), Himalayan blackberry (*Rubus discolor*), lodgepole pine (*Pinus contorta*), pinemat manzanita (*Arctostaphylos nevadensis*) and chinquapin (*Castanopsis chrysophylla*). No federally listed threatened or endangered plant species occur in the project area. The following FS sensitive plant species could potentially be present in the project area (personal communication; Richard Helliwell, USFS botanist, 2002):

- Thompson's mist maiden (*Romanzoffia thompsonii*)
- Clustered lady's slipper (*Cypripedium fasciculatum*)
- Kalmiopsis (*Kalmiopsis leachiana*)
- California swordfern (*Polystichum californicum*)

The California swordfern was the only sensitive plant observed during the biological resource survey. California swordfern was observed in two locations approximately 20 feet from the roadway on steep cliffs on the south side of the project area and could potentially be impacted during the construction of Alternative 1.

Thompson's mist maiden, an annual that occurs in seeps, and clustered lady's slipper, an herb that occurs in general forest conditions, both flower in the spring and need to be surveyed during this time. As the resource survey was conducted in August 2004, it was not possible to observe these species, though suitable habitat for these species was observed in the project area. Kalmiopsis is a shrub found on rock outcrops and can be surveyed for year-round. However, this species was not observed during the biological resource survey in August 2004. Additional field surveys will be conducted in the spring to survey for the sensitive plants that could not be surveyed for during August.

Noxious weeds are known to occur within the project route. They include:

- Knapweed (*Centaurea maculosa*, *C. diffusa*, *C. Pratensis*)
- St. John's wort (*Hypericum perforatum*)
- Scotchbroom (*Cytisus scoparius*)



Photo 5: Typical Disturbed Roadside

6.1.5 Wildlife

Federally listed threatened, endangered and candidate species potentially present in the project area are (USFWS, 2005):

- | | |
|--|-----------------------|
| Canada lynx (<i>Lynx Canadensis</i>) | (Threatened) |
| Bald eagle (<i>Haliaeetus leucocephalus</i>) | (Threatened) |
| Northern spotted owl (<i>Strix occidentalis caurina</i>) | (Threatened) |
| Coho salmon (<i>Oncorhynchus kisutch</i>) | (Threatened) |
| Pacific fisher (<i>Martes pennanti pacifica</i>) | (Candidate) |
| Steelhead (<i>Oncorhynchus mykiss</i>) | (Proposed Threatened) |

During the biological resource survey, spotted owl and bald eagle habitat were observed along the entire length of the project route. It is likely that the Canada lynx and Pacific fisher are present in

the project area, due to their utilization of old growth habitat. A survey will be conducted in the near future to confirm presence of these species. Steelhead and Coho salmon are present in the Umpqua River in the project area from MP 52.8 to MP 54.2 (Soda Springs Dam) (USFWS, 2004; FHWA, 2002).

Based on information from the Umpqua National Forest Land and Resource Management Plan (1990) and the Project Identification Report (FHWA, 2002), other mammal and bird species that utilize the area are mule deer, Roosevelt elk, bats, black bears, mountain lions, coyotes, pine martins, osprey (several osprey nests are present in the area), red-tailed hawks, and ruffed and blue grouse. Other fish species present in the North Umpqua River and its tributaries include cutthroat trout, rainbow trout and Pacific Lamprey.

The project would be designed to comply with and/or mitigate for the (MBTA) Migratory Bird Treaty Act (16 U.S.C. 703-712). The following are the guidelines and strategies that would “ensure that appropriate and reasonable measures are taken to prevent injury to and death of migratory birds” for this project:

- Avoid clearing live or dead vegetation containing active nests of migratory birds
- Avoid felling trees or snags containing active nests of migratory birds
- Avoid destroying active nests and injuring birds protected by the MBTA during bridge demolition or repair

6.2 Cultural

Several archaeological sites are known to exist along North Umpqua Highway within the project area (FHWA, PIR, 2002). Field surveys would be completed by the FS to determine the number of existing sites within the project area and the extent of potential impacts to these during construction.

Consultation with the State Historic Preservation Office (SHPO) and tribes would be undertaken and all information regarding the section 106 process would be documented during the NEPA process. The tribes include the following: Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of Grand Ronde Indians, and Confederated Tribes of Siletz (personal communication, Debra Barner, 2006).

7 Relationships with Other Uses and Jurisdictions

7.1 Land Ownership

The entire project route is located on FS land within the Umpqua National Forest. The land is National Forest Land and the State is considered to own the road (personal communication; Steven Nelson, 2006). The proposed project route is currently maintained by the ODOT. The road jurisdiction will be transferred to the ODOT through a consent agreement once the project is completed.

7.2 Planning By Others

The project area is specifically addressed in the Umpqua National Forest Land & Resource Management Plan (Forest Plan) as a corridor that is compatible with forest resource protection and management. This proposed project is consistent with the Douglas County comprehensive plan and is not part of a corridor plan.

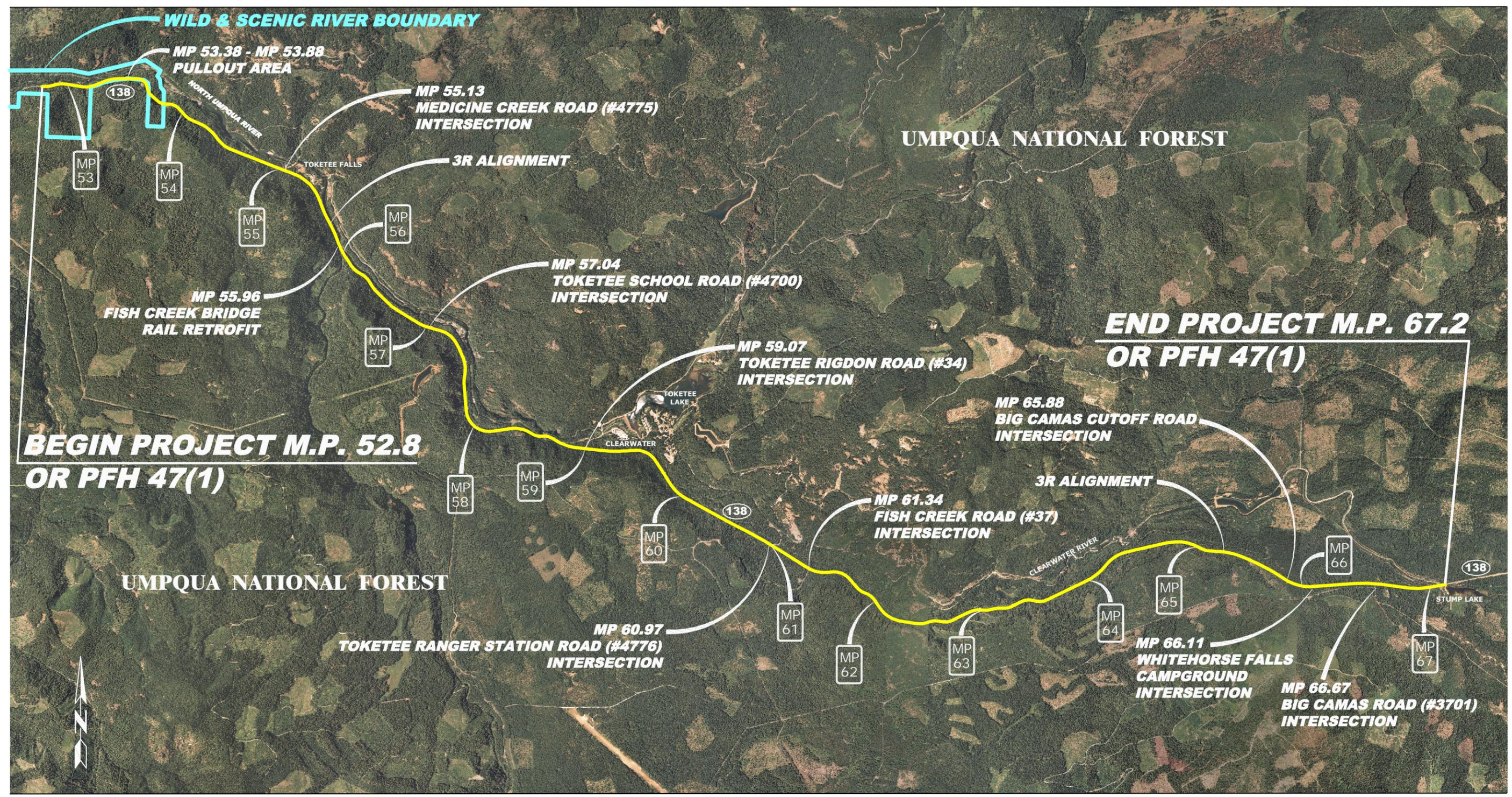
The North Umpqua Highway is part of the Rogue-Umpqua scenic byway and runs along the North Umpqua River that has been designated as a state Scenic Waterway and Federal Wild and Scenic River. Therefore, any work in this area would need to comply with the Wild and Scenic River Management Plan for the North Umpqua River and State Scenic Byways Management Plan. The FS, BLM and Oregon State Parks and Recreation Department jointly prepared the North Umpqua River Management Plan, which stresses the importance of recreational resources and aesthetics in the project vicinity.

Other considerations that could affect the project and the surrounding area include potential plans by the Soda Springs hydro plant to provide fish passage at the Soda Springs Dam on the North Umpqua River, where fish migration upstream is currently restricted. The FS has a timber sale plan with associated activities on the Fish Creek flat called Wapiti (personal communication, John Ouimet, 2006). Information from PacifiCorps, which maintains a hydropower facility at Toketee, about potential projects in the area was still pending at the time of this report.

The Fish Creek (Penstock) Bridge located at MP 57.33 (Figure 6) will be replaced by the ODOT in a separate project prior to construction of the proposed project for the North Umpqua Highway. The Fish Creek Bridge is structurally failing, is too narrow and requires new rails.



Photo 6: Fish Creek Bridge; Fish Creek Bridge with the existing guardrails, width and alignment.



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**WILD & SCENIC RIVER BOUNDARY
NORTH UMPQUA HIGHWAY
OR PFH 47(1)**

FIGURE 11

8 Environmental Conditions

8.1 Legislation

Would the following environmental legislation and requirements affect the proposal?

		Yes	Maybe	No
1	Coastal Zone Management Act			X
2	Executive Order 11988 (Flood Plains)	X		
3	Executive Order 11990 (Wetlands)	X		
4	National Historic Preservation Act, (Section 106)	X		
5	Farmland Protection Policy Act (Prime and Unique Farmlands)			X
6	Land Use Requirements			X
7	Section 4(f)		X	
8	Endangered Species Act	X		
9	Highway Improvements in the Vicinity of Airports			X
10	Migratory Bird Treaty Act (MBTA)	X		
11	Clean Water/Safe Drinking Water Act	X		
12	Wild & Scenic Rivers Act	X		
13	Clean Air Act	X		
14	Hazardous Waste Act		X	
15	Noise Requirements (24 CFR 772)			X
16	National Forest Management Act	X		

Comment

2. Executive Order 11988 (Floodplains) may apply as a portion of the project is within the 100-year floodplain of the N. Umpqua River.
3. Executive Order 11990 (Wetlands) may apply if the project impacts jurisdictional wetlands

4. There is a high potential for cultural resources in the project corridor (FHWA, 2002).
7. Section 4(f) may apply if cultural resources eligible for the historic register are impacted by project activities or if the project impacts the Wild & Scenic qualities of the North Umpqua River
8. The ESA applies as ESA listed species are potentially present in the project area.
10. Migratory Bird Treaty Act (MBTA), Appendix A.
11. The Clean Water Act will apply as work may take place in wetlands and water bodies.
13. The Clean Air Act will apply to construction activities.
14. Hazardous materials are not expected to be present; however, the HWA would apply if any hazardous material is discovered in the area impacted by project construction
15. The project is not expected to exceed FHWA noise criteria; however construction noise could potentially impact wildlife species in the short-term.
16. Compliance with the National Forest Management Act would be necessary as the project route is located on national forest property

8.2 Permits

Would the following permits be needed?

Federal

		Yes	Maybe	No
1	U.S. Army Corps of Engineer's (COE's) Section 404 Permit, Clean Water Act of 1977 (P.L. 95-217, Section 404)	X		
2	US Coast Guard Permit, Rivers & Harbors Act and the Surface Transportation Assistance Act			X
3	Special Use Permit (Forest Service)		X	
4	Other FS Permits		X	
5	National Pollution Discharge Elimination System (NPDES)	X		

Comment

1. A Section 404 permit would be necessary for work below ordinary highwater (OHW) of the culvert replacements and within the wetlands.
4. Other FS permits necessary during construction could include staging and fire permits, and potentially the quarries (permit requirement information for the quarries is still pending).
5. A federal NPDES permit would be necessary as greater than 1 acre of land would be disturbed and would be implemented by the Oregon Department of Environmental Quality (DEQ). A Storm Water Pollution Prevention Plan and an Erosion Control Plan would also need to be prepared.

State / County

		Yes	Maybe	No
1	Removal/Fill Permit (Division of State Lands)	X		
2	Surface Mining Permit (Department of Geology and Mineral Industries)			X
3	Air Containment Discharge Permit (DEQ)		X	
4	Notification of Operations (Oregon Department of Forestry)		X	
5	Local Building / Site Development			X
6	Oregon Shoreline Development Permit (Oregon Land Conservation and Development Commission)			X
7	Burn Permit (Oregon Department of Forestry)	X		
8	Permit to Operate Power Equipment (Oregon Dept. of Forestry)	X		
9	Other: Section 401 Certification	X		

Comment

1. A removal and fill permit would be necessary for work in wetlands/below OHW.
3. An air containment discharge permit may be necessary to cover activities involving material crushing at the pit locations (dust creation).

4. A Notification of Operations Permit may be necessary if timber removed as a result of the project is sold and taken to a timber mill.
7. A Burn Permit would be necessary for any burn activities.
8. A Permit to Operate Power Equipment would be necessary for construction to take place.
9. An NPDES permit will be necessary as greater than 1 acre of land will be disturbed and work will occur adjacent to streams and would be implemented by the Oregon DEQ.
9. A Section 401 Water Quality Certification would be necessary as a result of work taking place within waters of the US. This would require co-ordination with the Oregon Parks and Recreation Division (OPRD) for a State Scenic Waterway.

8.3 Impacts

Environmental impacts resulting from the project are divided by resources and are presented as answers to questions. For each question, the impact is shown as high (H), medium (M), low (L), or not applicable (N/A). If the impact is high or medium, the comments section contains a discussion of the impact, mitigation being considered, and differences that may exist among alternatives.

Comments have also been provided for low impacts. It is assumed that the No Action alternative would little or no effect on the environment, except where noted.

Conservation measures should be implemented during project construction to avoid and minimize impacts to the listed species. A biological assessment (BA) would be undertaken in accordance with the Endangered Species Act (ESA) to fully assess anticipated project impacts on listed species and potentially present critical habitat.

All of the build alternatives have been given a high noxious weed risk assessment ranking by the FS. This assessment is based on the fact that ground-disturbing activities would occur under the alternatives and noxious weed species exist throughout the project area. Although the knapweed population has been treated with herbicide spray for several years, seeds remain viable for up to 15 years and disturbance due to road construction could result in a higher rate of germination than is normally experienced now. Risk is also associated with the introduction of road equipment from other areas, as this provides the opportunity to bring new weed species into the area.

8.3.1 Earth

Will the proposal result in:

		H	M	L	N/A
1	Unstable earth conditions or changes in geologic substructures?			X	
2	Disruptions, landslides, displacement, compaction, or over covering of the soil?			X	
3	A change in topography or ground surface relief features?			X	
4	The destruction, covering, or modification of any unique geologic or physical features?			X	
5	Any increase in wind or water erosion of soils either on or off the site?			X	
6	Changes in deposition or erosion of beach sands, which may modify the bed of the ocean, bay, or inlet?				X
7	Changes in siltation, deposition, or erosion, which may modify the channel of a river or stream or the bed of a lake?			X	

Comment

The project may result in temporary erosion, deposition of soils, and general unstable earth conditions during construction. A moderate change in ground surface relief would occur along new highway alignment locations. Alternatives that involve the most widening and horizontal realignment would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3. Erosion control BMPs would be in place to minimize impacts, and revegetation would occur in areas where vegetation is removed or disturbed.

8.3.2 Air

Will the proposal result in:

		H	M	L	N/A
1	Air emissions or deterioration of ambient air quality?			X	
2	The creation of objectionable odors?			X	
3	An inconsistency with regional air quality requirements?			X	

Comment

No long-term or regional impacts to air quality are anticipated. Most impacts would occur during construction and dust abatement procedures would be used during construction. No differences in impacts would occur among the build alternatives.

8.3.3 Water

Will the proposal result in:

		H	M	L	N/A
1	Changes in currents, or the course of direction of water movements, in either marine or fresh waters?			X	
2	Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?		X		
3	A change in the amount of surface water in any water body?			X	
4	Discharges into surface waters or any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?			X	
5	The alteration of the direction or rate of flow of ground waters?			X	
6	A change in the quantity of ground water either through			X	

	direct additions or withdrawals or through interception of an aquifer by cuts or excavations?				
7	The deterioration in ground water quality either through direct injection or through the seepage of leachate, phosphates, detergents, waterborne virus or bacteria, or other substances into the ground waters?			X	
8	The reduction in the amount of water otherwise available for public water supplies?			X	
9	Alterations to the course or flow of floodwaters?			X	
10	Placing fill below the ordinary high water mark of rivers and streams?			X	
11	Encroachment into a 100-year flood plain or regulated flood way?			X	

Comment

The project would increase the impervious surface area and would therefore increase the amount of surface water runoff. Drainage systems would be updated to current standards as part of the project. Alternatives that result in the greatest amount of widening would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.4 Wetlands

Will the proposal cause:

		H	M	L	N/A
1	The removal of hydrophytic vegetation?		X		
2	The covering or replacing of any hydric soil?		X		
3	The alteration of the hydrology?		X		
4	A change in function or value?			X	

Comment

The project is expected to impact jurisdictional wetlands (mostly seeps) located on the south side of the project area throughout the project route. As these occur within 25 feet of the edge of the road and are not expected to have high functions or values, impacts to these would be moderate to minimal. Measures would be taken to avoid wetlands to the fullest extent possible, and compensatory mitigation would be undertaken when wetlands are impacted in accordance with USACE and DSL requirements. Alternatives that result in the greatest amount of widening would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.5 Flora

Would the proposal result in:

		H	M	L	N/A
1	A change in the diversity of species or numbers of any species of flora (including trees, shrubs, grass, crops, micro flora, and aquatic plants)?			X	
2	An effect on any unique, rare, or endangered species of flora?			X	
3	The introduction of new species of flora into an area or a barrier to the normal replenishment of existing species?			X	

Comment

A survey during the spring would determine the presence and impacts to these species. This project has the potential to introduce new weed species into the project area. Mitigation measures (such as the use of weed-free fill material, the use of weed-free erosion control bales, and the practice of cleaning equipment) would be taken to avoid this impact. Alternatives that result in the greatest amount of soil disturbance would have the potential to have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.6 Fauna

Would the proposal result in:

		H	M	L	N/A
1	Changes in the diversity of species or numbers of any species of fauna (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, or micro fauna)?			X	
2	An effect on any threatened or endangered species of fauna?		X		
3	The introduction of new species of fauna into an area or result in a barrier to the migration or movement of fauna?			X	
4	The deterioration of, or interference with, fish or wildlife critical habitat?			X	

Comment

No impacts to aquatic species in the North Umpqua River are anticipated, as the river is 75 - 200 feet away from the project route and approximately 75- 150 feet below the road. Temporary impacts to aquatic species in Fish Creek and the other smaller creeks could occur as a result of sedimentation, but conservation measures, including temporary erosion and sediment control measures, will be utilized to minimize these impacts. Impacts to terrestrial species, particularly the spotted owl, are possible if habitat is removed by road construction. Temporary noise impacts could also affect terrestrial species, including the bald eagle, spotted owl, Canada lynx and Pacific fisher, within a 0.5 mile radius of the project area. A BA will be undertaken in accordance with the ESA to fully assess anticipated project impacts on these species and will include avoidance and minimization measures. Alternatives that result in the greatest amount of widening will have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.7 Noise

		H	M	L	N/A
1	Would this proposal increase existing noise levels?			X	

Comment

Temporary increases in noise levels are anticipated as a result of construction activities. Following construction, noise levels will return to existing levels and follow independent trends in changes to traffic volume. No changes to the noise environment are expected over the long-term. No significant difference in noise levels is expected between the 'build' alternatives.

8.3.8 Land Use

Would the proposal cause:

		H	M	L	N/A
1	The alteration of the present or planned land use of an area?			X	
2	The reduction in acreage of any agricultural products?				X
3	The reduction in acreage of any Prime and Unique farmland?				X

Comment

This project is not expected to change land use in the area other than for the conversion of land to the roadway as a result of widening activities. Therefore alternatives that result in the greatest amount of widening would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3. No prime and unique farmland is present within the project area, as all land is National Forest land.

8.3.9 Natural Resources

Would the proposal cause:

		H	M	L	N/A
1	An increase in the use of any natural resources?			X	
2	The reduction of any nonrenewable natural resources?			X	

Comment

The project would require the use of aggregate base and aggregate pavement for the roadway. A minor difference in impacts to natural resources is expected between the 'build' alternatives. Alternatives that result in the greatest amount of widening would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.10 Energy

Would the proposal cause:

		H	M	L	N/A
1	The use of substantial amounts of fuel or energy?			X	
2	The savings of substantial amounts of fuel or energy?			X	

Comment

The project would require the use of fuel and energy during construction. The project would result in a minor reduction in the amount of fuel and energy used on the roadway through the reduction in maintenance needs. A minor difference in impacts to natural resources is expected between the 'build' alternatives. Alternatives that result in the greatest amount of widening and realignment would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, Alternative 3 and the no build alternative. The no build

alternative would result in on-going spot repairs to the road; it could result in a greater amount of fuel and energy use for maintenance purposes than the 'build' alternatives.

8.3.11 Aesthetics

Would the proposal cause:

		H	M	L	N/A
1	A change in a scenic vista or view as seen from the road?			X	
2	A change in a scenic vista or view for viewers of the road?			X	
3	A conflict with the scenic management plans of other agencies?			X	
4	New light or glare?			X	

Comment

The project is not expected to result in any significant changes to the scenic attributes of the roadway, as any alignment changes will be minor and any vegetation removed as a result of construction will be replanted. The project will be managed to ensure that it does not conflict with management plans for the Wild and Scenic River and the state Scenic Byway. Light and glare would increase during construction. Alternatives that result in the greatest amount of widening and realignment would have the greatest impact. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, Alternative 3 and No-build alternative.

8.3.12 Recreation

Would the proposal cause:

		H	M	L	N/A
1	An impact upon the quality or quantity of existing recreational opportunities?	X			

Comment

The project is expected to enhance recreational opportunities. The project is expected to improve opportunities for bicyclists by widening the road shoulders and will improve pullout areas for sightseers and for people wanting to access the river (to swim, fish, picnic, etc.) or trails. The project is also expected to increase traffic efficiency and access to recreational areas within the Umpqua National Forest, to Crater Lake and to parts of the Deschutes, Rogue River and Winema National Forests. Alternatives that result in the least amount of widening will have the least benefit for bicyclists. The no build alternative would have the least benefit overall as it is the only alternative under which traffic efficiency and access will not improve. The alternatives are listed as follows in descending order of benefit: Alternative 1 (greatest benefit), Alternative 2, and Alternative 3. During construction, impacts to recreation may result, and would be caused by road delays and blocked accesses.

8.3.13 Archaeological/Historical

Would the proposal result in:

		H	M	L	N/A
1	The alteration of an important archaeological site?			X	
2	The alteration of a historical site, structure, object, or building?			X	
3	The alteration of a traditional cultural property?			X	

Comment

Cultural surveys & consultation will be undertaken with SHPO and the tribes to determine the presence of and potential impacts to archaeological sites in the project area. Consultation would also include mitigation measures if any of these resources are identified in the project area. Measures will be taken to avoid impacts to these resources to the fullest extent possible. Alternatives that result in the greatest amount of widening and realignment in the vicinity of the project have the potential to result in the greatest impact on cultural resources. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

8.3.14 Hazardous Waste

Would the proposal:

		H	M	L	N/A
1	Affect a known hazardous waste site on the EPA's National Priority List (NPL) or a statewide inventory?				X
2	Affect a site with the potential for hazardous waste (e.g., sanitary landfills, gasoline stations, industrial sites)?			X	
3	Affect human health by creating a health hazard or a potentially unhealthy situation?			X	
4	Increase the likelihood of an explosion or release of hazardous substances (including but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident?			X	

Comment

No hazardous waste sites are known to be present in the project area and due to the relatively pristine nature of the project area, the likelihood of hazardous materials being present is considered to be very low. During construction, there is a risk for hazardous material spills to take place. Having a Hazardous Material Spill Prevention Plan in place throughout construction would minimize this impact. No significant difference in impact is anticipated between the 'build' alternatives as all are expected to have the same level of spill risk.

8.3.15 Socio-Economic

Would the proposal:

		H	M	L	N/A
1	Alter the location, distribution, density, or growth rate of the human population of an area?			X	
2	Affect racial, ethnic, religious, minority, elderly, or low - income groups?			X	
3	Affect existing housing (including but not limited to rural or urban residences and business or commercial buildings)?				X

4	Create a demand for additional housing?				X
5	Affect local employment, taxes, property values, etc.?			X	

Comment

The project is entirely within the Umpqua National Forest and no private residences/housing or commercial buildings exist in the project vicinity. Therefore, none of the build alternatives will affect housing, property values, commercial buildings, or human population groups in the area. There would be the potential for short-term local employment during construction that could boost the local economy.

8.3.16 Public Services

Will the proposal have an effect upon or result in a need for new or altered services in any of the following areas:

		H	M	L	N/A
1	Fire protection?			X	
2	Police protection?			X	
3	Schools?			X	
4	Maintenance of public facilities (including roads)?		X		
5	Airports?				X
6	Religious institutions or facilities?				X
7	Health services?			X	
8	Mail delivery?			X	
9	Parks and recreational facilities?			X	
10	Other services?			X	

Comment

The project will result in reduced maintenance needs on the roadway in the long-term. The project may have a minor impact on public services by causing delays during construction; however, access along the road will be maintained throughout construction to minimize this impact. Access to campgrounds will also be maintained throughout construction. As the project will improve traffic efficiency and safety, it will enhance public services related to fire and police protection, mail delivery, school buses and park and recreational facilities. In addition, the project will increase bicycle safety due to installation of paved shoulders and will increase access to three campgrounds. No significant difference in impact is anticipated between the 'build' alternatives, as all of these alternatives will require traffic management during construction and all will enhance public services. The no-build alternative will have no impact on public services over the short-term. However, increased growth in the surrounding area and increased ADT over the years could worsen traffic efficiency and safety in the project area.

8.3.17 Transportation/Circulation

Would the proposal cause:

		H	M	L	N/A
1	An increase in motor vehicle movement?		X		
2	An increase in the movement of bicycles, pedestrians, or equestrians?		X		
3	Increased traffic hazards to cyclists, pedestrians, or equestrians?			X	
4	Existing parking facilities to be affected or create a demand for new parking?			X	
5	Changes in access?			X	
6	An impact upon existing transportation systems?		X		
7	An impact upon waterborne, rail, or air traffic?				X
8	Impacts associated with construction activities (e.g., detours, temporary delays)?		X		

Comment

The project will result in improved traffic flow and a reduction in traffic hazards to vehicles, bicyclists and pedestrians as a result of wider lanes and shoulders and alignment changes. However, increased speeds as a result of the project could increase hazards to bicyclists and pedestrians. The project will enhance access to recreational facilities within and near the project area, and to other national parks and national forests. However the project will not create new access. As part of the project (all build alternatives), entrances to three campgrounds will be improved and minor changes to existing accesses may be necessary. Temporary delays along the roadway will most likely be experienced during construction. Alternatives that result in the least amount of widening will have the least benefit for vehicles, bicyclists and pedestrians. The alternatives are listed as follows in descending order of benefit to road uses and access: Alternative 1 (greatest benefit to road uses), Alternative 2, Alternative 3 (least benefit). The no-build alternative will have no construction associated impacts but will not improve the existing transportation system or improve the campground entrances.

8.3.18 Utilities

Will the proposal cause a need for new systems or alterations of the following utilities:

		H	M	L	N/A
1	Power or natural gas?			X	
2	Communications systems?			X	
3	Water?			X	
4	Sanitary systems or septic tanks?			X	
5	Stormwater drainage?			X	
6	Irrigation system?				X
7	Solid waste disposal?				X
8	Pipelines?			X	
9	Cable TV?			X	

Comment

According to the ODOT, there is a telephone line that runs along the opposite side of the roadway than the Umpqua River and services the Ranger Station (personal communication, James Burford, 2006). Alternatives that result in the greatest amount of widening could have the greatest impact if there are utilities within the area impacted by road construction, as there is a slightly greater chance that they will encounter utilities. The alternatives are listed as follows in descending order of impact: Alternative 1 (greatest impact), Alternative 2, and Alternative 3.

9 Coordination and Consultation

A Social, Economic, and Environmental (SEE) team comprised of representatives from the FS, FHWA, and ODOT has been set up to review the design criteria and identify preliminary environmental issues and recommend project alternatives. Members of the SEE team include road design engineers and environmental specialists. When making decisions for this project, the FHWA also draws on the expertise of a Cross Functional Team (CFT) comprised of FHWA technical experts in the fields of hydraulics, safety, construction, archeology, biology, design, and project management. Other agencies involved in project coordination and consultation include the U.S. Fish & Wildlife Service (USFWS), U. S. Army Corps of Engineers (USACE), Oregon Department of Fish & Wildlife (ODFW), National Oceanic and Atmospheric Association – Fisheries Department (NOAA Fisheries), Department of Environmental Quality (DEQ), and the Environmental Protection Agency (EPA).

A newsletter was sent out in the fall of 2004 to potentially affected interests (PAI). The newsletter and the comments received by the FHWA are enclosed in Appendix D. The project checklist and the environmental document will be available for public review. These documents will provide information on the project and provide the opportunity for public comments. A minimum of one public meeting will be held to facilitate public involvement.

10 References

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<http://www.oregon.gov/ODOT/TD/TDATA/rics/docs/FunctionalClassificationReviewOverview.pdf>, April 4, 2006.

Personal communication:

- Richard Helliwell, USFS Botanist, August 10, 2004
- Terri Stone, USFS Biologist, October 20, 2004
- Steven Nelson, USFS, April 3, 2006
- James Burford, ODOT, April 4, 2006
- Debra Barner, Heritage Program Manager/Tribal Liaison Umpqua National Forest, April 4, 2006

- John Ouimet, District Ranger, Umpqua National Forest, April 3, 2006.
- Larry Broeker, Geologist, Umpqua National Forest, April 10, 2006 & May 22, 2006.

Appendix A: Supporting Data

Oregon Department of Transportation - Transportation Development Division
 Transportation Data Section - Crash Analysis and Reporting Unit
Continuous System Comprehensive Crash Listing
 Highway 073 MP 52.00 to 68.00, 01/01/1993 to 12/31/2000 Both Add and Non-Add mileage
 1 - 28 of 28 rows shown.

SERIAL NO./INVEST	DATE/DAY-TIME	COUNTY/CITY	SYSTEM/PFX-MILEP	FIRST/CONN-INTRSTCT RAMP	ROAD-CHAR/DIREC-LOC	INTER OR (MEDIAN TYPE/TURN LEGS OR (LANES)	WEATH/SURF-LIGHT	CRASH TYP-COLL/CLASS	PARTICIPANT/SEVRTY	VEH OWNER/TYPE	RES-LIC AGE-SEX	MOVE/FR-TO	ERROR/ACTION	EVENT/CAUSE
00062 UNK	1/4/93 Mon 9P	DOUGLAS RURAL	1 0 52.17		STRAIGHT UN 3	(UNDIV) (2)	SNOW SNO DUNL	8 FIX PDO	1 MVOP PDO	PRI PASS	OR1-Y 39 M	STRGHT W E		FRGN OBJ OTHER
01403 NOTREC	9/29/94 Thu 9A	DOUGLAS RURAL	1 0 53.00		STRAIGHT UN 3	(UNDIV) (2)	RAIN WET DAY	& NONC PDO	1 MVOP PDO	PRI PASS	OR1-Y 38 F	STRGHT W E	BASCRULE LOSTCONT	DITCH TOO-FAST
01856 STATE	12/7/00 Thu 9A	DOUGLAS RURAL	MN-ART 0 53.80		CURVE W 1	(UNDIV) (2)	CLR ICY DAY	8 FIX INJ	1 MVOP INJ B 2 INJ B	PRI PASS	OR1-Y 31 F	STRGHT W E	BASCRULE LOSTCONT	DITCH TOO-FAST VEHICLE OVERTURNED AFTER FIRST HARMFUL EVENT 41 F PSNGR
00887 COUNTY	6/18/94 Sat 12P	DOUGLAS RURAL	1 0 54.60		STRAIGHT UN 1	(UNDIV) (2)	CLR DRY DAY	8 FIX INJ	1 MVOP INJ A	PRI PASS	NON-Y 58 M	STRGHT W E	BASCRULE DR SLEEP	DITCH TOO-FAST TREE, STUMP OR SHRUBS
01447 STATE	9/17/98 Thu 9A	DOUGLAS RURAL	MN-ART 0 55.00		STRAIGHT W 4	(UNDIV) (2)	CLR DRY DAY	6 ANGL INJ	1 MVOP PDO 2 MISC INJ B	PRI PASS-T	NON-Y 61 M	STRGHT W E	NO ROFWY	NO-YIELD
00416 UNK	3/27/93 Sat 1A	DOUGLAS RURAL	1 0 56.00		CURVE UN 1	(UNDIV) (2)	CLR DRY DUNL	& NONC INJ	1 MVOP INJ A	PRI PASS	OR1-Y 19 M	STRGHT W E	BASCRULE AVOIDING	DEER/ELK TOO-FAST VEHICLE OVERTURNED AFTER FIRST HARMFUL EVENT
02083 STATE	12/17/96 Tue 12P	DOUGLAS RURAL	1 0 56.00		STRAIGHT UN 1	(UNDIV) (2)	CLDY ICY DAY	& NONC INJ	1 MVOP INJ B	PRI PASS	OR2-Y 61 M	STRGHT N S	BASCRULE LOSTCONT	TOO-FAST
00766 COUNTY	6/2/98 Tue 9A	DOUGLAS RURAL	MN-ART 0 56.00		STRAIGHT UN 1	(UNDIV) (2)	CLR DRY DAY	8 FIX INJ	1 MVOP INJ B	PRI PASS	OR1-Y 79 M	STRGHT W E	BASCRULE LOSTCONT	GRD RAIL TOO-FAST CUT SLOPE OR OITCH EMBANKMENT
00114 UNK	1/20/96 Sat 2P	DOUGLAS RURAL	1 0 57.08		CURVE UN 2	(UNDIV) (2)	SNOW SNO DAY	2 SS-M PDO	1 MVOP PDO 2 NODR PDO 3 NODR	PRI PASS	OR1-Y 37 M	STRGHT W E	BASCRULE LOSTCONT	TOO-FAST UNK-U PARK-P E W PAR PARK UNK-U PARK-P FORC2VEH

VEHICLE OVERTURNED AFTER FIRST HARMFUL EVENT

01453 7/10/99 DOUGLAS MN-ART CURVE (UNDIV) CLR 7 MISC 1 MVOP PRI OR1-Y STRGHT DEER/ELK
 UNK Sat UNK RURAL 0 64.00 W 4 (2) DRY DUSK PDO PDO PASS 28 M E W OTHER

00299 2/27/93 DOUGLAS 1 STRAIGHT (UNDIV) CLR 8 FIX 1 MVOP PRI OR2-Y STRGHT BASCRULE SNO BANK
 UNK Sat 3P RURAL 0 65.00 UN 6 (2) ICY DAY PDO PDO PASS 51 M E W SKIDDEO TOO-FAST

VEHICLE OVERTURNED AFTER FIRST HARMFUL EVENT

01840 12/2/00 DOUGLAS MN-ART STRAIGHT (UNDIV) CLR 8 FIX 1 MVOP PRI OR2-Y STRGHT BASCRULE DITCH
 NOTREC Sat 6A RURAL 0 65.00 E 1 (2) ICY DLIT PDO PDO PASS 15 M W E LOSTCONT TOO-FAST

02007 12/3/95 DOUGLAS 1 STRAIGHT (UNDIV) SLT 2 REAR 1 MVOP PRI OR1-Y STRGHT
 STATE Sun 2P RURAL 0 65.96 UN 4 (2) SNO DAY INJ PDO PASS 50 M E W LOSTCONT
 2 NODR PRI UNK-U PARK-I IMP PARK FORC2VEH
 PDO PASS E W PAR PARK OTHER
 3 NODR PRI UNK-U PARK-I IMP PARK
 PDO PASS W E PAR PARK OTHER
 4 INJ B 53 F PSNGR
 5 INJ A 63 F PSNGR
 6 INJ A 11 F PSNGR
 7 INJ B 22 F PSNGR
 8 MISC PED UNK PUSH MV/I SUB-PED
 INJ A 28 M UN UN IN ROAD OTHER
 9 MISC PED UNK PUSH MV SUB-PED
 INJ C 26 M UN UN OFF ROAD

00679 5/6/96 DOUGLAS 1 CURVE (UNDIV) CLR 8 FIX 1 MVOP LOG OR2-Y STRGHT BASCRULE DITCH
 NOTREC Mon 7A RURAL 0 66.00 UN 5 (2) DRY DAY INJ INJ B TRCKT-T 42 M E W LOSTCONT TOO-FAST

VEHICLE OVERTURNED AFTER FIRST HARMFUL EVENT

01640 10/21/97 DOUGLAS MN-ART INTER 3-LEG CLR D TURN 1 MVOP PRI OR1-Y STRGHT DIS DRVR DITCH
 NOTREC Tue 1P RURAL 0 66.66 CN 2 NONE DRY DAY INJ INJ C TRCKT-T 43 M E W PASSING IMP-OVER
 VEGETATION OVERHEAD EXTENDING OVER ROADWAY
 2 MVOP PRI OR2-Y TURN-L
 PDO TRCKT-T 36 M E S

The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate.

Appendix B: Early Public Coordination

Project Activities

In the Fall and Winter of 2004, you will see crews working on the roadway gathering:

- Geotechnical Information of the roadway
- Survey data for roadway design and stream analysis

Upcoming field work to be completed during the Spring and Summer of 2005:

- Biological resource studies for Federally listed Threatened or Endangered Species, USFS Sensitive Species and other wildlife species.
- Botanical Surveys for Federally listed Threatened or Endangered and USFS sensitive plant species, and to identify general habitat conditions.
- Analysis of stream crossings to assess fish passage concerns
- Cultural Resource Studies
- Various site visits with regulatory agencies.

These surveys will be conducted to provide information about natural resources that may be present within the project area. This information will be used as a baseline to compare potential effects of construction and operation of different project alternatives on existing natural resources.

How long will the EA Study take?

The draft Environmental Assessment is tentatively scheduled to be published for comment in January of 2006. Public meetings will be conducted and newsletters distributed to make the NEPA process interactive and meaningful. Through this process citizens are better able to communicate with government officials, and in doing so, have the opportunity to influence the outcome of government decisions. The final EA is tentatively scheduled for the summer of 2006.



Project Development

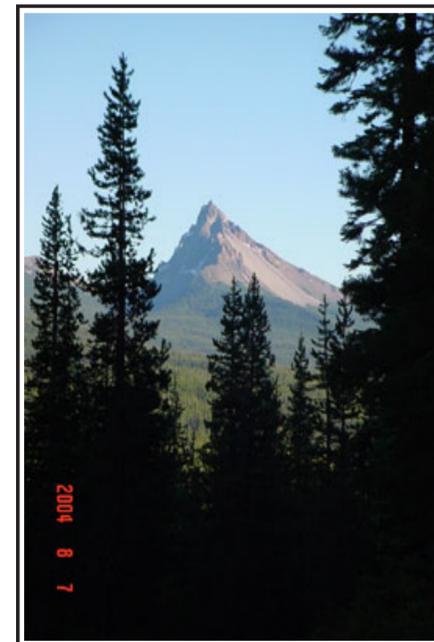
Planning Steps

1. Compile and review previous public comments and input from adjacent projects.
2. Research existing conditions
3. Project introduction and scoping
4. Data gathering and organize project checklist
5. **Public Meeting - scoping & alternatives**
6. Develop purpose and need statement
7. Identify possible improvement alternatives
8. Selected alternatives review
10. Conduct studies and alternatives evaluation
13. Prepare Draft Environmental Assessment
12. **Public Meeting - Alternative Evaluation**
16. Comment Period
17. Prepare final Environmental Assessment

We Are Here

How to get involved with this project

1. Fill out the enclosed comment form and return it to us at the address provided below
2. Send all general comments via e-mail to: northumpquahighway@fhwa.dot.gov
3. Get on the project mailing list by e-mailing: northumpquahighway@fhwa.dot.gov
4. Send comments to: Marlo Medellin, Project Manager
Western Federal Lands Highway Division
610 East Fifth Street
Vancouver, WA 98661
5. Attend the next public meeting



Frequently Asked Questions

1. Why is this project needed?

This project is needed because:

- Use of the road is expected to continue to increase
- Sections of the road are narrow for safe two-way traffic
- It is the major access to a large popular recreational area
- The roadway is deteriorating and will need major repairs in the near future

2. Who is conducting the study and how long will it take?

The project lead is the Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA). Project partners include the US Forest Service and the Oregon Department of Transportation. Affected communities, which will be actively involved, include the communities of Roseburg, Diamond Lake, Idleld Park, Steamboat & Glide along with Douglas County.

A team of private engineering and environmental firms has been assembled to complete the Study and resource work.

The Environmental Assessment is scheduled to be finished by Summer 2006.

3. Has WFLHD already decided what they are going to do?

No, The Western Federal Lands Highway Division has identified problems with the current road. The public involvement process for the Environmental Assessment will identify potential solutions (alternatives), study and analyze the proposed alternatives, and finally identify and recommend the "Preferred Alternative." The "No-build Alternative" will also be considered throughout the process. This alternative would keep the road in its current state.

4. How will the alternatives be identified?

Alternatives will be developed through a process of combining information gathered from the public on adjacent projects and technical studies. Potential impacts on the environment are very important considerations in the development and evaluation of alternatives. Studies will be conducted on environmental resources including: wetlands, wildlife, vegetation, cultural and historic properties, businesses, homes, and recreation areas.

5. What is a Project Checklist?

The Project Checklist describes why the project is needed, scope of the proposed improvement, alternatives being considered, an initial estimate of environmental resources, potential impacts, and related issues. The checklist provides those people whom the proposed project may affect and government agencies that have regulatory or administrative interest an opportunity to become informed and involved in the project development process. The information in the checklist helps determine what type of environmental document is required for compliance with the National Environmental Policy Act (NEPA). The checklist also contains the results of the location studies, engineering investigations, and environmental studies completed to date.





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Environmental Assessment

North Umpqua Highway

State Highway 138 / Forest Highway 47

Fall 2004

Volume 1, Number 1

North Umpqua Highway E.A. Underway

The North Umpqua Highway project is located entirely within the Umpqua National Forest in Douglas County, in southwestern Oregon. The project begins at MP 52.8 along State Highway 138 (SH 138) east of Roseburg and ends at MP 67.2 near Stump Lake. It is an east-west, two-lane rural state-owned arterial roadway, providing principle access to over half of the Umpqua National Forest. This is also known as Forest Highway 47 (FH 47).

The highway serves to transport timber, goods, services, passenger traffic and recreation traffic between I-5 and Highway 97. It provides access from western Oregon to Crater Lake National Park and to portions of the Winema Rogue River, and Deschutes National Forests. The highway also provides access to Diamond Lake, the largest recreation complex on national forest lands in Oregon. Much of the highway parallels the North Umpqua River, which is designated as a Federal Wild and Scenic River and also a State Scenic Waterway. The total project length is approximately 14.4 miles.

The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA), in cooperation with the USDA Forest Service (USFS) and the Oregon Department of Transportation (ODOT) is proposing to complete the preliminary design and environmental documentation.

Other agencies that will participate will be: U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), Oregon Department of Fish and Wildlife (ODF&W), National Marine Fisheries Services (NMFS), Oregon Department of Environmental Quality, and the Environmental Protection Agency.



The proposed improvements consist of upgrading the existing North Umpqua Highway to a safe, two-lane roadway consistent with AASHTO and ODOT design and safety standards. The proposed work will generally be along the existing road, although minor horizontal and vertical alignment changes may be necessary to provide a more uniform driving experience and safe travel speeds. This roadway section is located between two improved, widened sections and proposed improvements should be consistent with the adjoining sections of highway.

The construction contract is scheduled for advertisement in FY 2008, subject to available funding.

Project Partners



Federal Highway Administration
Western Federal Lands
Highways Division



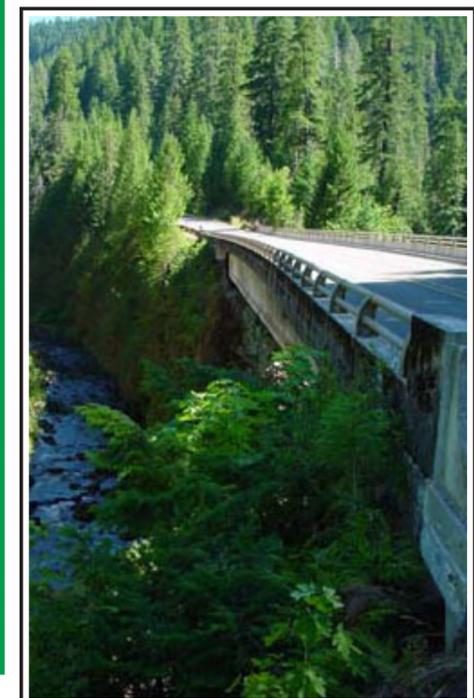
Oregon Department of
Transportation



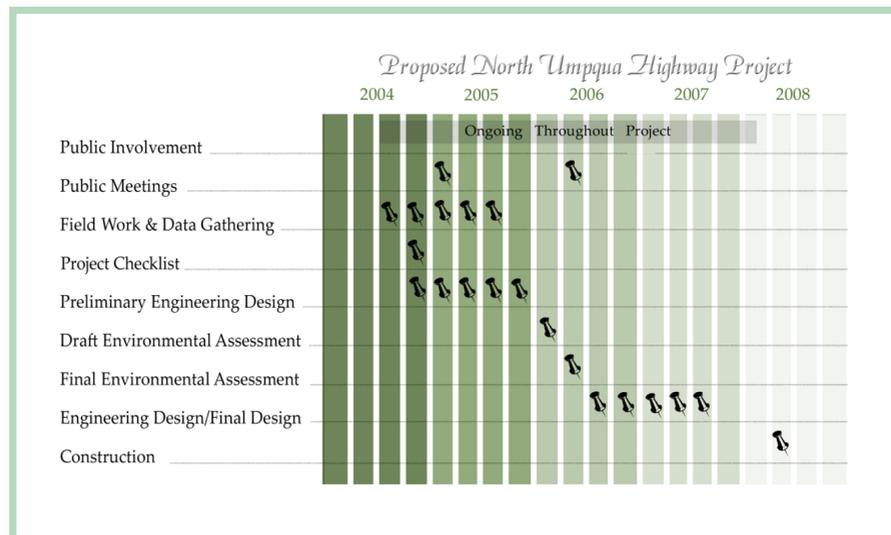
U.S. Forest Service

NEPA What is it?

The National Environmental Policy Act of 1969 (NEPA) is a federal law that makes sure that government gives proper consideration to the environment before construction of a major structure such as a new road, airport or building. Public participation is an important part of the NEPA process. To comply with this law, the Federal Highway Administration will be preparing an environmental document to assess the impacts of improving the North Umpqua Highway. A first step in this process involves early coordination efforts with the public and other agencies. Through this process project officials listen to ideas and concerns of people and agencies affected by the project and identify a range of alternatives and issues needing further study. Early coordination ensures that people have a voice in the process when a proposed project affects them. There will be several opportunities along the way for public input and review of the North Umpqua Highway Environmental Assessment (EA). The entire process is projected to culminate in the summer of 2006.



Proposed Project Schedule



FHWA - Western Federal Lands Highway Division
610 E. Fifth Street
Vancouver, WA 98661

Environmental Assessment
North Umpqua Highway
State Highway 138 / Forest Highway 47



We want to hear from you

1. Please check the issues below that are of the most importance

- | | | | |
|-------------------------------------|-------------------------------|--------------------------|-------------------|
| <input type="checkbox"/> | Widening of the road | <input type="checkbox"/> | Wildlife Habitat |
| <input type="checkbox"/> | Aesthetics and visual impacts | <input type="checkbox"/> | Water Quality |
| <input type="checkbox"/> | Recreational Access | <input type="checkbox"/> | Economic Impacts |
| <input checked="" type="checkbox"/> | Speed | <input type="checkbox"/> | Community Impacts |
| <input checked="" type="checkbox"/> | Highway Safety | <input type="checkbox"/> | Other _____ |
| <input type="checkbox"/> | Bicycle Access | | |

2. Why are these issues important to you?

ALL SAFETY CONCERNS AS we will be using
the highway more frequently.

3. What other comments do you have related to the above issues?

4. Any other comments at this time?

If you would like to have your name removed from the mailing list, please check below.

Please *remove* my name from the mailing list

If you know someone who would like to be added to the mailing list, please forward this to them.

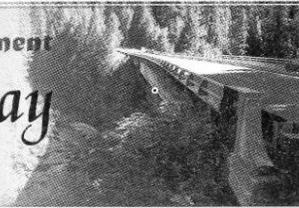
Please *add* my name to the mailing list.

Please print your information below:

Response:

Thank you for your comment. The FHWA agrees that safety is a concern for the people using this highway. Part of the proposed project is to address safety concerns.

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2. Why are these issues important to you?

WE USE THE ROAD ON A REGULAR
BASIS - 7-10 TIMES @ MONTH -

3. What other comments do you have related to the above issues?

4. Any other comments at this time?

THE ROAD IS FINE NOW - YOU'RE JUST
THROWING TAXPAYER DOLLAR AWAY, DOING
THIS PROJECT - GOVERNMENT WASTE
AT WORK -

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- Please remove my name from the mailing list

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- Please add my name to the mailing list.

Please print your information below:

Response:

Thank you for your comment. Your concerns for the project have been noted. The FHWA agrees that aesthetics and visual impacts, recreational access and highway speeds are important aspects of the project.

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| <input type="checkbox"/> Bicycle Access | |

2. Why are these issues important to you?

THE NORTH UMPQUA HIGHWAY IS ONE OF THE MOST BEAUTIFUL
IN THE COUNTRY. PLEASE KEEP IT THAT WAY!

3. What other comments do you have related to the above issues?

WE OWN A CABIN AT DIAMOND LAKE AND DRIVE THE N.U. HIGHWAY
SEVERAL TIMES A YEAR - TO SCHOOL REUNIONS AT GLIDE, TO SEE FRIENDS
IN ROSEBING, EUGENE, PORTLAND, MYRTLE POINT, ETC. IT IS ALWAYS
BREATH-TAKING IN ITS BEAUTY!

4. Any other comments at this time?

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Please *remove* my name from the mailing list

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Please *add* my name to the mailing list.

Please print your information below:

Response:

Thank you for your comment. Wildlife habitat, water quality and the aesthetics and visual impacts of the surrounding area are indeed important aspects of the project.

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State Highway 138 / Forest Highway 47



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2. Why are these issues important to you?

Travel on 138 during
poor weather is treacherous -
we travel frequently - both
summer & winter

3. What other comments do you have related to the above issues?

4. Any other comments at this time?

This is one of the most
beautiful roadscapes I've seen -
+ the world!!

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Please add my name to the mailing list.

Please print your information below:

Response:

Thank you for your comment. The FHWA agrees that highway safety is an important concern. The proposed project will be designed to address these issues.

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2. Why are these issues important to you?

*Better quality of life the majority involved
and for future generations*

3. What other comments do you have related to the above issues?

4. Any other comments at this time?

*Heavy Haul and hog Trucks should be allowed only during
the work week and day light hours.*

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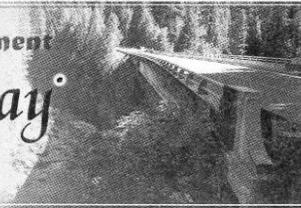
Please add my name to the mailing list.

Please print your information below:

Response:

Thank you for you comments. Your concerns have been noted. The project will be designed to address highway safety, and bicycle access/travel. FHWA agrees that wildlife habitat, water quality and the aesthetics and visual impacts are important aspects of the project.

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2. Why are these issues important to you?

Widening of the road will speed up & ease the flow of traffic providing better access to the Diamond Lake area which is the corner stone of East Douglas Co.'s economy.

3. What other comments do you have related to the above issues?

I didn't list any other issues as the environmentalists & recreationists will be on this as a shadow!

4. Any other comments at this time?

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- Please *add* my name to the mailing list.

Please print your information below:

Response:

Thank you for your comment. The proposed project will be designed to reduce traffic congestion and improve access to the surrounding area with the road widening and the addition of turning lanes at selected intersections.

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2. Why are these issues important to you?

3. What other comments do you have related to the above issues?

4. Any other comments at this time?

① Leave this part of Hy 138 E The BEAUTIFUL DRIVE it was ment to be. The Hy does NEED REGULAR MAINTENANCE -- I've driven this Hy for over 40 years. Yes my family of 3 sons drive the Hy also -- Recreation etc. Our destination is Diamond Lake and Bend area.

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Please print your information below:

(2.)

Hy 138 E. does not need to be faster or safer -- When cars and TRUCKS drive the posted speed everyone travels safe.

I think we do need more turnouts (LARGE) for our out of state visitors who stop on a dime in the middle of the road to take in our beautiful scenery.

Maybe the Unquag National Forest could help with better signage!! I've noticed a lot of fly fishermen, perhaps better signs from ODFW could help also.

Our beautiful falls, especially Water falls parking could be improved.

The whitewater put ~~in~~ could also be improved.

My family has driven log trucks cars, pickups, pickups with trailers loaded & unloaded for over 40 years

③ traveling by 138 E. at the posted speeds. This is a SAFE by.

I did lose a daughter at mile post 31, this was due to a drunken driver, not road conditions.

Please don't make this highway a 3-4 lane speedway.

Also please think about the highway patrolmen WE DON'T HAVE.

Response:

Thank you for your comment and sharing your personal story. Your concerns have also been noted. The proposed project is not intended to, and will not be designed to create a 3-4 lane speedway. Highway safety for motorists, pedestrians and bicyclists are important issues in project design for the FHWA.