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Appendix A – Public Participation in the Scoping Process

This appendix discusses the public scoping efforts that took place pursuant to 40 CFR 1501.7 for the Mountain Loop Road Repair proposal.

Once the extent of the October 2003 flood damage was known, and preliminary proposals were developed for repair of the damage, "scoping" letters were mailed to a large number of individuals and organizations.[1] In addition, the Responsible Official contacted Tribal chairs for nine Tribes (see Chapter 1, page 30). The scoping document contained information for all of the proposed road repair projects, including River Road, Gold Mountain and the White Chuck Bridge, Suiattle Road 26, White Chuck Road 23, and miscellaneous minor road repairs. Commenters were asked to respond with any concerns, issues, etc. by March 5, 2004.

A dozen articles were published in various forms of media. These publications provided information about the extent of the flood damage, and in some cases, included Forest Service contact names and phone numbers, and noted how people could participate in the planning process. Oublications describing various aspects of the flooding included:

- The News Tribune – Tacoma; *Newspaper, February 2004*
- The Seattle Times: Newspaper, March 3, 2004
- Snohomish County Public Works; *News Letter, April 2004*
- Lake Stevens Journal; Newspaper, April 15, 2004
- Mt. Baker Snoqualmie National Forest; Internet, http://www.fs.fed.us/r6/mbs/, April 20, 2004
- Glacier View Internet; Internet, http://www.glacierview.net/ , April 23, 2004
- Seattle Post-Intelligencer; *Newspaper, April 27, 2004*
- Herald Net; Internet, http://www.heraldnet.com/, April 27, 2004
- Tribnet; Internet, http://www.tribnet.com/ May 3, 2004
- Mt. Baker Snoqualmie National Forest; *News Release, May 7, 2004*
- Everett Herald [now The Herald]; Newspaper, May14, 2004
- The Seattle Times: Newspaper, May 19, 2004

By early March 2004, 27 letters and e-mails had been received specific to the Mountain Loop Highway proposal. Commenters included Washington State Department of Fish and Wildlife; the Swinomish Tribal Community and Sauk-Suiattle Indian Tribe; six organizations; and a number of individuals, including private land owners who live along the Mountain Loop Highway.

Two public meetings were also held: in Darrington on May 6, 2004 from 4:00 P.M. to 7:30 P.M, and in Mountlake Terrace (MBS Supervisors Office) on May 18, 2004 from 4:00 P.M. to 7:30 P.M. Many of the attendees provided their names and addresses, to receive further information.

Table A-1, on the following pages, is a summary of the comments that were received, with notes on how the Responsible Official and the Forest Service interdisciplinary team addressed those comment in the analysis for Mountain Loop. See the project files (at the Darrington Ranger District office) for the actual letters. *Note: The number adjacent to the respondent is simply a tracking number.*

[1] Letters were dated February 6, 2004 and February 9, 2004.

Table A- 1: Scoping Comments Summary

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
1) Department of Fish and Wildlife (Letter)	Relocate the road permanently because repeated rock armoring of the riverbank degrades habitat quality for fish.	This road is undercut or washed out in the same or nearly the same locations during every significant storm event. They encourage permanent relocation of the road at the repair sites.	See Chp. 2 Alternatives Not Developed in Detail and Alternatives 2 and 3. Also see Chp. 1 Flood History and Appendix B.
2) Private Individual (Email)	Repair and open the Mountain Loop road.	This person's family has been heavy users of the National Forest since the 1920's. This person uses these roads to access his favorite trails and backcountry. Does not like advocacy groups that delay projects and provide no benefit to public users. This person advocates using past decisions that created campgrounds and made investments to direct decisions on repairs to access routes.	See Chp. 2 Action Alternatives 2 and 3.
3) Private Individual (Email)	Repair and open the Mountain Loop road.	This person has a cabin at "Reece's Hideout" and relies on road 20 for access.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access.
4) Private Individual (Letter)	Repair and open the Mountain Loop road.	This person has a cabin at "Reece's" Hideout that was built in the 1950's. This person helped finance the steel bridge across the Sauk River on the short access drive from road 20 to their property.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
5) Private Individual (Letter)	Repair and open the Mountain Loop road.	This person has a cabin at “Reece’s Hideout” and relies on road 20 for access. Closing road 20 would add an additional 21 miles to their trip to their property. This is also true for 40 other property owners in the same area. People from all over the United States use this road and this route advertised by the Chamber of Commerce and is listed in tourist books.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access. See Chp. 1, Purpose and Need.
6) Private Individual (Email)	Repair and open all roads to their former condition.	This person has property at “Reece’s Hideout” and relies on road 20 for access. Maintain all existing roads and facilities on the Forest.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access.
7) Private Individual (Email)	Repair and open the Mountain Loop road.	Road 20 is essential for both recreational and economic benefits to the Stillaguamish and Sauk river valleys. This respondent uses road 20 weekly to access their property. Active members of the Monte Cristo Preservation Association, working on projects for the association as well as the Forest Service. Respondent will be involved in an archaeological dig this year in the area as well as working on repairs to the road, structures, and improvements at Monte Cristo. With road damage, coordination of projects and maintenance will be difficult.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access. See Chp. 1, Purpose and Need.
8) Private Individual (Email)	Repair and open the Mountain Loop road.	Respondent uses road 20 (from Seattle) for access to their property.	See Chp. 2 Action Alternatives 2 and 3, and also Chp. 3, Recreation, Tourism and Access.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
9) Private Individual (Email)	Repair and open the Mountain Loop road but repair so that there is less impact to the river.	There is valuable fish habitat and placing rock in the river could downgrade habitat. Relocate the road away from the river and out of the floodplain. Close the road but retain access to recreation sites.	See Chp. 3 Effects on Fisheries. See Chp. 2 Action Alternatives 2 and 3.
10) Private Individual (Email)	Repair and open the Mountain Loop road.	Has hiked and recreated for the past 30 years in this area.	Chp. 2 Action Alternatives 2 and 3. See Chp. 3 Effects on various resources.
11) Private Individual (Letter)	Close the Mtn. Loop Highway.	The Loop Highway should be closed due to fragmentation of habitat and impacts to grizzly bears, marbled murrelet, spotted owls, and bull trout. The USFS estimates that repair costs (forest wide) would be 10 million dollars. There is no guarantee that another 10 million won't be required in another 5 to 10 years. The economic benefits of reopening the Loop Highway are not justified by its economic and environmental costs. Trails should be extended from parking areas near Monte Cristo Lakes and Bedal Creek to Goat Lake.	See Chp. 2 Alternatives Eliminated from Detailed Study, and No Action Alternative. See Chp. 3, Effects on wildlife. See costs and environmental effects compared in Chp. 2, Alternative Comparison Table. For flood history, see Chp. 1 and also Appendix B. Also, refer to Chp. 3, Aquatic Resources and Soils for discussion on flood flows.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
12) Private Individual (Letter)	Repair and open the Mountain Loop road.	This person lives approximately 1¼ miles from the washout at M.P. 35.6 and has to drive an extra 21 miles to reach his house at "Reece's Hideout." This person has done volunteer work for the Forest Service for the past 7 to 8 years from Barlow Pass to Darrington. People from all over the United States use this road and information about the road can be received from the Washington State Tourism Department.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access. See Chp. 1, Purpose and Need.
13) North Cascades Conservation Council (Letter)	Close the Mtn. Loop Highway	Installing riprap in the South Fork Sauk River and forcing the river into its old bed appears to violate the ACS and W&S Rivers Act. This two mile section of road is a source if chronic washouts. The road can be expected to fail again and again. There is much to be said for leaving the Mtn. Loop road closed. Recreation access implications of a closed road are minor. Virtually every place that was formerly drivable would still be drivable. We acknowledge that breaking the loop would not be popular with the public. Rather than immediately repairing this section, we suggest placing this part of the project in the lowest priority.	See Chp. 3 Effects on Aquatic Resources and Soils and Wild and Scenic Rivers; see Appendix D, Sec. 7(a) Determination for W&S. See Chp. 2 Alternatives Not Developed in Detail. See Chp. 1, Purpose and Need. For flood history, see Chp. 1 and also Appendix B. Also, refer to Chp. 3, Aquatic Resources and Soils for discussion on flood flows.
14) Private Individual (Email)	Repair and open the Mountain Loop road.	We are frequent users of this area (Mtn. Loop road) and are hoping that additional funding could speed up the timetable.	See Chp. 2 Action Alternatives 2 and 3, and also Chp. 3, Recreation, Tourism and Access.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
15) Pilchuck Audubon Society (Letter)	Close the Mtn. Loop Highway	The unpaved portion of the Mtn. Loop Highway has been periodically washing out ever since it was built. We concur with NCCC that riprapping and relocating the river is inconsistent with both the ACS and W&S River designation. Besides, the road will wash out again necessitating ecologically damaging interventions. We oppose relocation of the roadbed because it would destroy marbled murrelet habitat.	See Chp. 3 Effects on Aquatic Resources and Soils and Wild and Scenic Rivers; see App. D, Sec. 7(a) Determination. For flood history, see Chp. 1 and also Appendix B. Also, refer to Chp. 3, Aquatic Resources and Soils for discussion on flood flows. See Chp. 3 Wildlife for effects on marbled murrelet..
16) American Rivers	If opening roads, make repairs or relocate roads so that improvements can be made for fish and wildlife in these river basins.	The Forest Service is proposing to relocate the river and riprap over 600 feet of shoreline. We oppose this solution as this is likely to significantly affect important fish habitat in the basin.	See Chp. 1 (Proposed Action) and Chp. 2 for proposed project description. See Alternative Comparison Table (end of Chp. 2) and Chp. 3 Effects on Aquatics and Fisheries.
17) Private Individual (Email)	Close the Mtn. Loop Highway	The suggested remedy for this significant washout (Mtn. Loop Road) (riprapping and forcing the river back to its previous location) is not ethical to the river corridor's Wild and Scenic status and the Northwest Forest Plan's Aquatic Conservation Strategy. A more ecological approach would be to decommission the two miles of the Mountain Loop between Monte Cristo Lake and Bedal Creek, perhaps with non-motorized trail connections established in its place. Most major scenic attractions would remain open to automobiles on the remainder of the loop.	Refer to complete effects discussionin Chp. 3, Aquatic Resources and also W&S Rivers. Also see App. D. See Chp. 2 Alternatives Eliminated from Detailed Study, where a trail option is explored.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
18) Private Individual (Email)	Repair and open the Mountain Loop road.	The Forest Service should look at the big picture as how many roads and trails and general access is closed and what impact will happen on what is left open. Do all repairs as quickly as possible; tourism, recreation and the local economy depend on the infrastructure of the roads and trails on USFS land.	See Chp. 2 Action Alternatives 2 and 3. Also, see Chp. 3, Recreation, Tourism and Access. See Chp. 1, Purpose and Need.
19) Private Individual (Email)	Close the Mtn. Loop Highway	A do not repair option should be considered. The flood damage presents an opportunity to reconsider portions of the road system and its impacts on the ecosystem and recreation activities. Please consider not re-establishing vehicle through access on Road 20. There may be several variations including repairs to some sections or establishing trails through some damaged sections.	See Chp. 2, Alternatives Eliminated from Detailed Study (several different alternatives). Also, see the complete analysis of the No Action Alt. (Chp. 2 and 3), which would result in not reopening the Mtn. Loop to vehicle traffic.
20) Director of Access, Washington Recreational River Runners. (Email)	No comment specific to Mtn. Loop	Consider white water rafters when repairing Road 26.	See Chp. 3, Effects on Recreation (no changes to river based recreation from Mountain Loop repairs). Also see Effects on W&S Rivers.
21) President, Washington Recreational River Runners. (Letter)	Concern about the Suiattle and Sauk Rivers	Concerned about the Suiattle and Sauk River access points for white water activities.	See Chp. 3, Effects on Recreation (no changes to river based recreation from proposed Mtn. Loop repairs). Also see Effects on W&S Rivers.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
22) American Whitewater	No comment specific to Mtn. Loop	Flood damage to roads and bridges has had a significant impact on opportunities for river-based recreation on the Sauk and Suiattle. This flood damage provides an opportunity to improve public access to these rivers while affording greater protection to riparian resources.	See Chp. 3, Effects on Recreation (no changes to river based recreation from proposed Mtin. Loop repairs). Also see Effects on Aquatic Resources, Riparian Reserves and W&S Rivers.
23) Swinomish Tribal Community and Sauk-Suiattle Indian Tribe (Letter) (Now Skagit River System Cooperative)	Concern over water resources and effects to fish and wildlife	Encourages the Forest Service to pursue salmon-friendly solutions when repairing roads. Of particular interest are damaged or weakened roads that have the potential to deliver sediment into streams. Concern of road fills or structures that inhibit natural stream migration or obstruct the free flow of the river, sediment, and wood.	See Chp. 3, detailed discussion of potential sediment and effects on aquatic resources and fish. See Chp. 2, alternative design discussion.
24) Private Individual (Attended Public Mtg.)	Repair and open the Mountain Loop road.	Volunteered to work at getting roads open so that people that live in the area can get around.	Comment Noted
25) Private Individual (Email)	Repair and open the Mountain Loop road.	The Mtn. Loop highway has always been a favorite area for hiking, picnicking, and camping. The accessibility to Darrington and Highway 20 is important to those who wish to travel the less traveled and more scenic route north. Repair the highway and leave it unpaved. This area should be preserved and made accessible.	See Chp. 2 Action Alternatives 2 and 3, and also Chp. 3, Recreation, Tourism and Access.

Respondent	Issue or Concern	Comment	Where Comment Addressed in the EA
26) Private Individual (Email)	Repair the Mtn. Loop Road	Fund access to the mountains so that people can drive and hike in the area.	See Chp. 2 Action Alternatives 2 and 3, and also Chp. 3, Recreation, Tourism and Access.
27) Private Individual (Email)	Repair the Mtn. Loop Road	I have used the highway (Mtn. Loop) at least once a month throughout the summer months and it will be disappointing this summer not being able to access this area. This is a good time to plan improvements and additions to camping areas along the gravel road.	See Chp. 2 Action Alternatives 2 and 3, and also Chp. 3, Recreation, Tourism and Access.
Eight People who attended the public meetings wanted more information.	No Comments Specific to this Project.	-----	-----

Respondents Who Commented During the 30-Day Comment Period

Dennis and Diane Boyd
Andy Wade
Victoria Yeager, Stillaguamish Tribe of Indians
Steven Hinton, Skagit River System Cooperative
David Cameron
Mark Bardsley, North Cascades Conservation Council
William Lider
Michael Andreoni and Valerie Brown
Jean Long
Bonnie Phillips, Olympic Forest Coalition
Jim Scarborough
Jonathan Guzzo, Washington Trails Association
Katherine Johnson, Pilchuck Audubon Society
David Capocci

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Appendix B – Historic Flood Damage

Mountain Loop Excerpt from A Review of the Historic ERFO- Flood Damage on Various MBS NF Arterial Roads Prior to 2003 *(7/30/05, J.E. Doyle)*

The two October 2003 storm events (10/16-17 and 10/20-21) caused substantial damage to some Forest roads on the north half of the Forest. Record or near-record flows were recorded in the NF Nooksack and Skagit (including the Sauk and Suiattle) River systems. Rain-on-snow above 700 feet coupled with record setting rain at lower elevations resulted in huge quantities of water in these river systems, quantities that exceeded existing records. Little or no snow had accumulated yet in the rain-on-snow zone (1500-3500 ft elevation) in these river systems.

These flood events were typical "pineapple express" type storms that have over the past 30 years caused extensive road damage throughout the Forest's road transportation system. The major difference between the October 2003 storm events and the previous "pineapple express" type events of the past was the early timing. Most of the previous "pineapple express" storms were in mid-November to early December. Another difference was that most of road damage was isolated to the main arterial roads in the Suiattle and Sauk River floodplains. Past "pineapple express" storms have resulted in widespread damage to both arterial roads as well as the mid-slope and upper elevation collector roads.

The tables on the following pages display the 1974 to 2003 flood history on the Road 20 [Mountain Loop Scenic Byway] of sites damaged by one or more of the 14 14 EFRO Floods (1974, 1977, 1979, 1980, 1982, 1984, 1989, 1990, 1991, 1994, 1995, 1996, 1999, and 2003). These sites qualified and received FHWA-ERFO funding for repair (USDA Forest Service, Roads-Flood Damage Database).

When comparing damage across all the flood event years to determine the failure history of a particular site, **caution must be used due to the accuracy of the site location**. Site location definition is limited by 1/10 of a mile in accuracy, as recorded on the FHWA-ERFO Damage Site Report (DSR) form. Over this 30-year flood history on the Forest, there has been milepost odometer reading variability. Based on this, this review is assuming that, when comparing across the various flood event years, any site within a 2/10 of a mile of another listed site should be considered the same site, unless local knowledge dictates these are truly separate sites.

In addition, on the Mountain Loop Byway (Road 20), the starting point for measuring mileposts (MP) changed in 1997; the current mileposts are noted in parentheses in Table B-1, on the following page:

Table B- 1: Mountain Loop Scenic Byway (Road 20) Flood Damage, 1974 to 2003

Flood Year	Mile post**	Damage Description	Repair Needed	Quantities Lost (cu yds)	Costs $(M)
1974	0.1	Ditchline failure, and fill loss	Fix ditchline	50	2.25
1977	5.8	Plugged culvert, with fill failure	Replace ditchline	0	2.1
1979	15	Plugged culvert, with fill failure	Replace culvert and fill	400	10.1
1980	.37	Bridge decking damage	Remove debris from deck	150 (debris)	1.5
1980	.51	Channel & road encroachment	Replace road bank riprap and fill	4400	32.1
1980	2.85	Plugged culvert, fill failure	Clean culvert, replace fill	1300	7.7
1980	5.8	Bridge approach decking damage	Remove debris from deck, replace	1000 (debris)	36.3
1980	19.0	Bridge approach decking damage	Replace decking and approach	800	47.9
1980	19.4	Channel & road encroachment	Replace road bank riprap and fill	2400	44.2
1980	19.6	Plugged culvert, fill failure	Replace culvert and fill	500	16.8
1980	20.9	Plugged culvert, fill failure	Replace culvert and fill	390	9.3
1980	21.2	Channel & road encroachment	Replace road bank riprap and fill	4500	94.8
1980	21.5	Plugged culvert, road fill failure	Replace culvert and fill	200	7.2
1980	21.7	Channel & road encroachment	Replace road bank riprap and fill	2100	34.0
1990	4	Channel & road encroachment	Replace road bank riprap and fill	2700	41.9
1990	8.5	Plugged culvert, fill failure	Clean culvert, replace fill	280	5.9
1990	8.7	Landslide on road, fill failure	Remove debris, replace fill	430	21.6
1990	9.3	Cutslope, fill slope failures	Relocate road segment	0	5.4
1990	13.1	Cutslope, fill slope failures	Replace fills	1100	2.0
1990	17.7	Channel & road encroachment	Replace road bank riprap and fill	700	11.1
1990	18.3	Plugged culvert, fill failure	Clean culvert, replace fill	300	5.2
1990	20.2	Plugged culvert, fill failure	Clean culvert, replace fill	100	5.8
1996	6	Bridge abutment damage	Replace riprap around base	90	6.1
1996	15	Bridge approach eroded	Replace approach	200	14.4
1996	17.3	Channel & road encroachment	Replace road bank riprap and fill	3400	79.6
2003	15.5 (35.6)	Channel and road encroachment	Realign road segment	1600	292.900
2003	16.3 (34.8)	Channel and road encroachment	Realign road segment	330	35.630
2003	17.5 (33.6)	Channel and road encroachment	Realign road segment, construct bridge	950	313.620
2003	18.0 (33.1)	Channel and road encroachment		150	88.890

*** MP are those measured from Darrington to Granite Falls. Since 1997, miles have been measured from the opposite direction: Granite Falls to Darrington.*

For the four sites damaged by the October 2003 event, the current mileposts are shown in parentheses.

Road 20, or the Sauk River portion of the Mountain Loop National Forest Scenic Byway, begins at the town of Darrington and runs parallel to the river along the south side; at road milepost 10.0 (river mile

32.0), the road crosses the Sauk River. Road 20 runs parallel to the Sauk and S.F. Sauk Rivers up to Barlow Pass. At this point, the Mountain Loop follows the South Fork Stillaguamish River (and is numbered Forest Road 40).

Most of the road is paved, except for a 14 mile segment between the White Chuck River and Barlow Pass.

The ERFO-Flood database for this road—Table B-1 above—shows 25 road sites damaged prior to the October 2003 flood. The floodplain of the river is narrow and the road is located close to the river channel; thus, damage at 11 of the 25 damaged sites was due to channel and road encroachment.

Between 1974 and 2003, four locations have had repeated failures:

- At the road MP 5.8-6.0 (Clear Creek Bridge) site, three floods (1977, 1980, 1996) caused some minor bridge damage, either to the bridge abutments or bridge decking. Repair included replacing loss riprap around the abutments or removing bedload debris deposited on the deck and to repair ing the deck surfacing where necessary.
- At road MP 15.0 (Bedal Cr Bridge) site, two floods (1979, 1996) caused minor bridge damage. Repairs included replacement of some bridge approach fill and the removal of bedload debris deposited on the deck.

- At road MP 17.3-17.5 location—now number as MP33.6—three flood events caused damage: 1990, 1996, and 2003, as highlighted in Table B-2, above. River channel and road encroachment occurred, with the loss of portions of the road prism. Prior to the 2003 flood, the repairs completed at this location included replacement of the road embankment rip rap and road fill.

The Barlow Pass to Darrington portion of the Mountain Loop Highway intersects with 15 perennial channels (crossings of the river channel or Sauk River tributary crossings). Since 1970, the Forest has replaced either old log stringer bridges or large circular culverts with permanent, concrete, full-spanning bridges at seven of the sites. Bridges were installed to meet the following aquatic resource objectives: 1) provide year-round, fish passage to all species and at all life stages; and 2) to transport bedload materials during future flood events.

At other flood-prone sites on the highway, MBS specialists and engineers have included additional flood-proofing measures as part of the repair. A prime example of this is replacement of small drainage culverts with larger diameter culverts capable of transporting bedload materials during future flood events (and meeting current Forest Plan standards).

Appendix C – Cumulative Effects Analysis Process

Definition

Cumulative Impact is the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor or collectively significant actions taking place over a period of time (40 CFR 1508.7).

Analysis

The analysis was guided by the June 24, 2005 memo *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*, Executive Office of the President, Council on Environmental Quality. Briefly, the memo states that agencies are to use scoping to determine whether, and to what extent, information about the specific nature, design, or present effects of a past action is useful for the agency's analysis of effects of a proposed action and its reasonable alternatives. "*Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined*" (Executive Office of the President, CEQ 2005). The memo also noted that agencies can generally conduct an adequate cumulative effects analysis by focusing on the current aggregate [or remaining, residual] effects of past actions without delving into the historical details of past, individual actions.

To complete the analysis of cumulative effects for the Mountain Loop Highway repair project, the Interdisciplinary Team (ID Team) first considered the estimated direct and indirect effects on the environment that would be expected if any of the alternatives analyzed in detail were implemented. Once these effects had been determined, the ID Team then assessed the residual (current aggregate) effects of past actions that are, in the judgment of the resource specialists, relevant, in that they could potentially overlap in time and space with the direct/indirect Mountain Loop project effects.

The team then assessed the spatial extent of the effects of the alternatives, resource by resource, to determine if they would add to, modify, or mitigate the on-going effects of the past, current, and expected future actions. For each resource, an area of potential effect was determined; see *Chapter 3* (each resource area) and project files. The resource specialists then determined if any potential, existing, or residual effects were present from the other identified projects. If there was no overlap in time (e.g. no remaining effects from past projects) <u>and</u> in space (extent of effects), there was no cumulative effect.

The initial area of potential cumulative effects centered on the damaged section of the Mountain Loop, extending to the South Fork Sauk River drainage, and downstream, generally to the confluence of the Sauk and White Chuck Rivers. For larger-ranging wildlife species, the area considered is larger (see *Chapter 3*).

Table C-1 lists all of the past, present, or reasonably foreseeable actions within the vicinity of the Mountain Loop road repair that spatially and temporally overlap with the estimated effects of the proposed Mountain Loop Byway repair, and where cumulative effects could occur (See *Figure C-1*, below.) Also refer to Table C-2 for projects within the vicinity of the Mountain Loop project that were reviewed and found not to contribute to potential cumulative effects.

Note that all distances from the Mountain Loop project are estimated road miles.

Table C- 1: Past, Present, Reasonably Foreseeable Actions That Spatially and Temporally Overlap with Mountain Loop repair, Potential for Cumulative Effects

Activity	Extent	Comment	Miles from the Project
Proposed Forgotten Thin Plus, Commercial Thinning Sale	107 to 533 (depending on alt.) acres planned for thinning. Some alts. propose up to 25 ac. of Riparian Reserve thinning.	Still in planning phase; expect to release EA for public comment in 2006.	About 6 miles downstream from MP 35.6.
Proposed ERFO Repairs of White Chuck Road 23	Repair of flood damage from 2003, at MP 1.9, 2.4, 3.5, 5.7.	EA and decisionn expected in 2006.	About 8.6 miles downstream from MP 35.6.
On-going, Annual Mountain Loop Road Maintenance	The relevanat extent is the segment from Monte Cristo Lake to Bedal Creek.	On-going, annual.	Within the project area.
Proposed Replacement of 2nd Monte Cristo Road 4710 bridge and road repair.	First bridge replaced 7 years ago, no residual effects. Mud slide on road.	Private Monte Cristo Preservation Assoc. has no funding to replace 2nd bridge; with uncertain timing, there may or may not be potential for any cumulative effects.	On Road 4710, to town site of Monte Cristo, upstream from MP 33.1.
"Disturbance" activites for Bald Eagle: boating, hiking, fish, residential activities	Along Sauk River during winter (November) the year of project construction.	Small numbers of eagles may be present during the time of project construction.	Project area and downstream.
Funnybone portion of Skull/Funny-bone Commercial Thinning	431 acres of timber thinned; 25% of ac. in Riparian Reserves with 70% canopy closure (Upper Dan, Sauk).	2001, 15 acres thinned; in 2005, 416 acres thinned. Timing for completion is uncertain.	3.2 miles downstream MP 35.6.
Lyle Commercial Thinning Sale	75 acres of commercial thinning.	This sale was harvested in 1997.	5.8 miles downstream MP 35.6.
Decommissioning portions of Roads 2080, 2083, 2084, 2086, 2087	About 11 miles of road have been decommissioned since 1990.	These are long-term improvement activities for sediment reduction, watershed restoration.	About 6 miles downstream from MP 35.6.
Bedal Creek culvert removal (Road 4096)	Completed; located on a road that had been previously closed.	A long-term watershed improvement project for sediment reduction.	Close to repair at MP 35.6.
Road 4096 Decommission, convert to trail.	Completed.	A long-term watershed improvement project for sediment reduction.	Close to repair at MP 35.6.

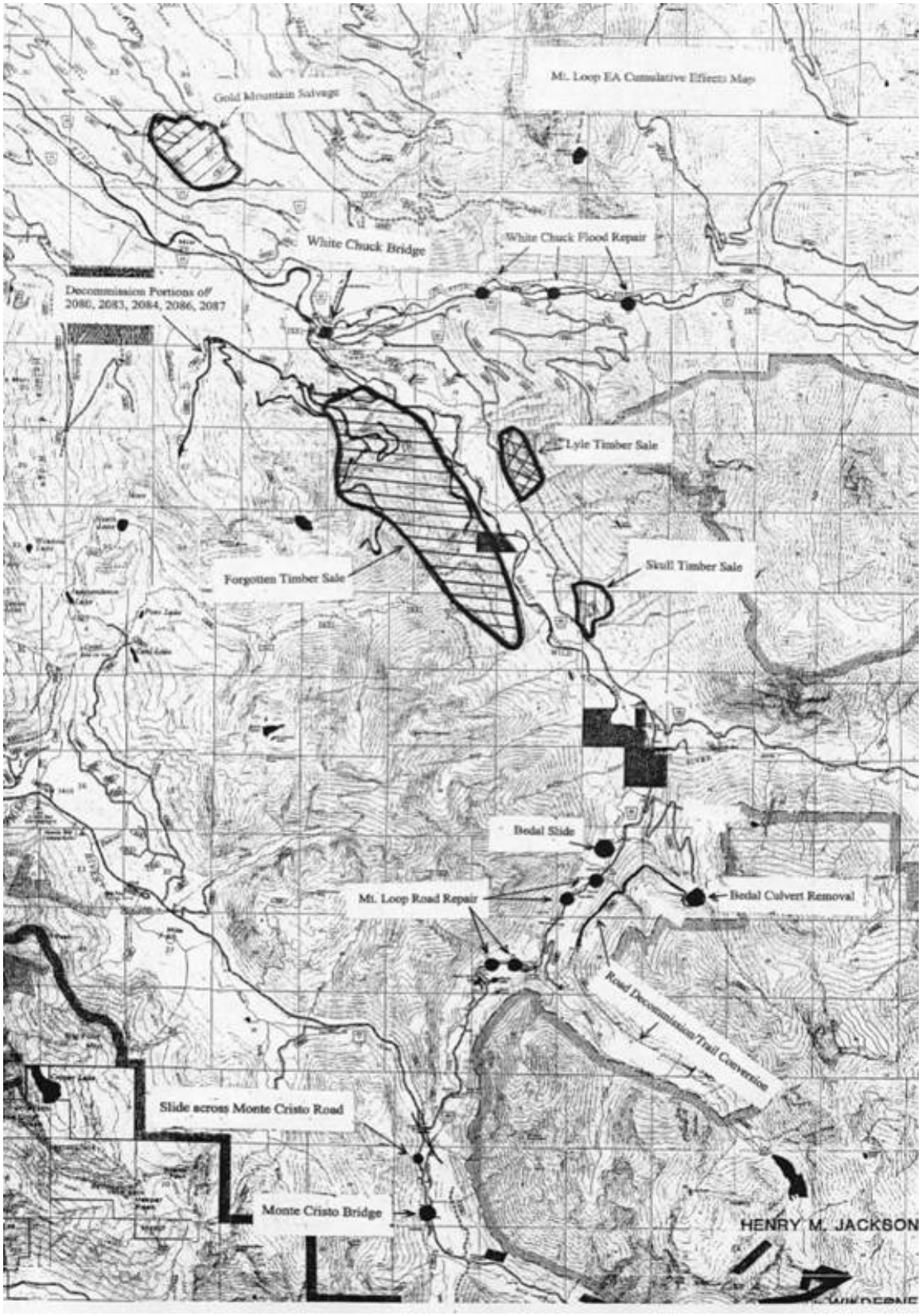
Activity	Extent	Comment	Miles from the Project
Gold Mountain Road Repair, including White Chuck Bridge	Repair flood damage to the Road 22 System on Gold Mt n., including replacing the White Chuck River bridge.	Decision Notice signed Feb. 14, 2006. Bridge work expected to occur in 2006-2007.	About 8.6 miles (for the bridge) downstream from MP 35.6.
Various past timber harvest in the Sauk River Forks Watershed, 1922-2000 for Spotted Owl, Marbled Murrelet	For spotted owls and murrelets, combined harvest has resulted in loss of about 25% of the suitable nesting habitat in the watershed for 150-350 years.	**Combined with road decommissioning, trend is towards in-creasing habitat conditions for both owl and murrelet.**	In the fifth-field watershed.

Table C-2 lists projects that have been known to occur in and around the South Fork Sauk River drainage that would found not to contribute to potential cumulative effects because these projects have long been completed with no remaining, residual effects (that could overlap temporally with project effects from the Mountain Loop proposed repair); the projects are located far enough away from Mountain Loop that, for all resources, effects would not overlap spatially; effects of the projects were only site-specific to the location of that project; or the estimated effects from Mountain Loop Byway repair would not measurably add to any residual effects.

Table C- 2: Projects Reviewed and Found Not Contributing to Cumulative Effects

Project	Comments	Rational for not being considered
Gold Mountain Radio Tower	A special use authorization was issued to Snohomish County in 2005 to build and operate a radio tower on Gold Mountain.	This action is too far away from Mountain Loop; effects are limited and specific to the site.
Reconstruction/Repair of Roads 24, 2424, 2420, 2097, and 2097010	To be completed for access to Skull/Funnybone Thin Timber Sale.	These actions are too far away from the proposed project, effects would not combine.
County Road Repairs (Verlot to NF boundary and Darrington to NF boundary)	Repairs of the 2003 flood damage have been completed and regular road maintenance is on-going.	Repairs will occur or have occurred. These actions are too far away from the proposed project, effects would not combine.
Gold Hill Fire Salvage Timber Sale	16 acres of fire salvage, completed; area is to be replanted.	No overlap in space or time.
Japanese Knotweed Eradication	District wide control efforts.	No infestations are present in the project area. Mitigation Measures and Management Practices (*Chapter 2*) are in place and are effective in preventing the spread of noxious weeds.
Suiattle Road 26 Repair	Decision signed 3/30/06 to repair flood damage.	These actions are too far away from the proposed project, effects would not combine.

Figure C- 1: Cumulative Effects Analysis, Project Locations



Appendix D – Wild and Scenic Rivers Act, Section 7(a) Determination

Wild and Scenic Rivers Act

Section 7(a) Determination

Based on the Environmental Assessment
Mountain Loop: National Forest Scenic Byway Road Repair

USDA Forest Service – Mt. Baker-Snoqualmie National Forest
Skagit Wild and Scenic River

March 21, 2006

INTRODUCTION

The Mt. Baker-Snoqualmie National Forest proposes to repair a 2.5 mile section of Forest Road 20, the Mountain Loop Scenic Byway, adjacent to the South Fork of the Sauk River. Construction activities at the site at Milepost 33.6 are within the Skagit Wild and Scenic River corridor and within the bed and bank of the South Fork of the Sauk River. As such, the project is subject to the provisions of Section 7(a) of the Wild and Scenic Rivers Act (WSRA). This determination assesses the potential for the repair, of the Mountain Loop Byway to result in direct and adverse effects on the values of the South Fork Sauk River segment of the Skagit Wild and Scenic River System. This determination is based on the *Environmental Assessment – Mountain Loop National Forest Scenic Byway Road Repair*.

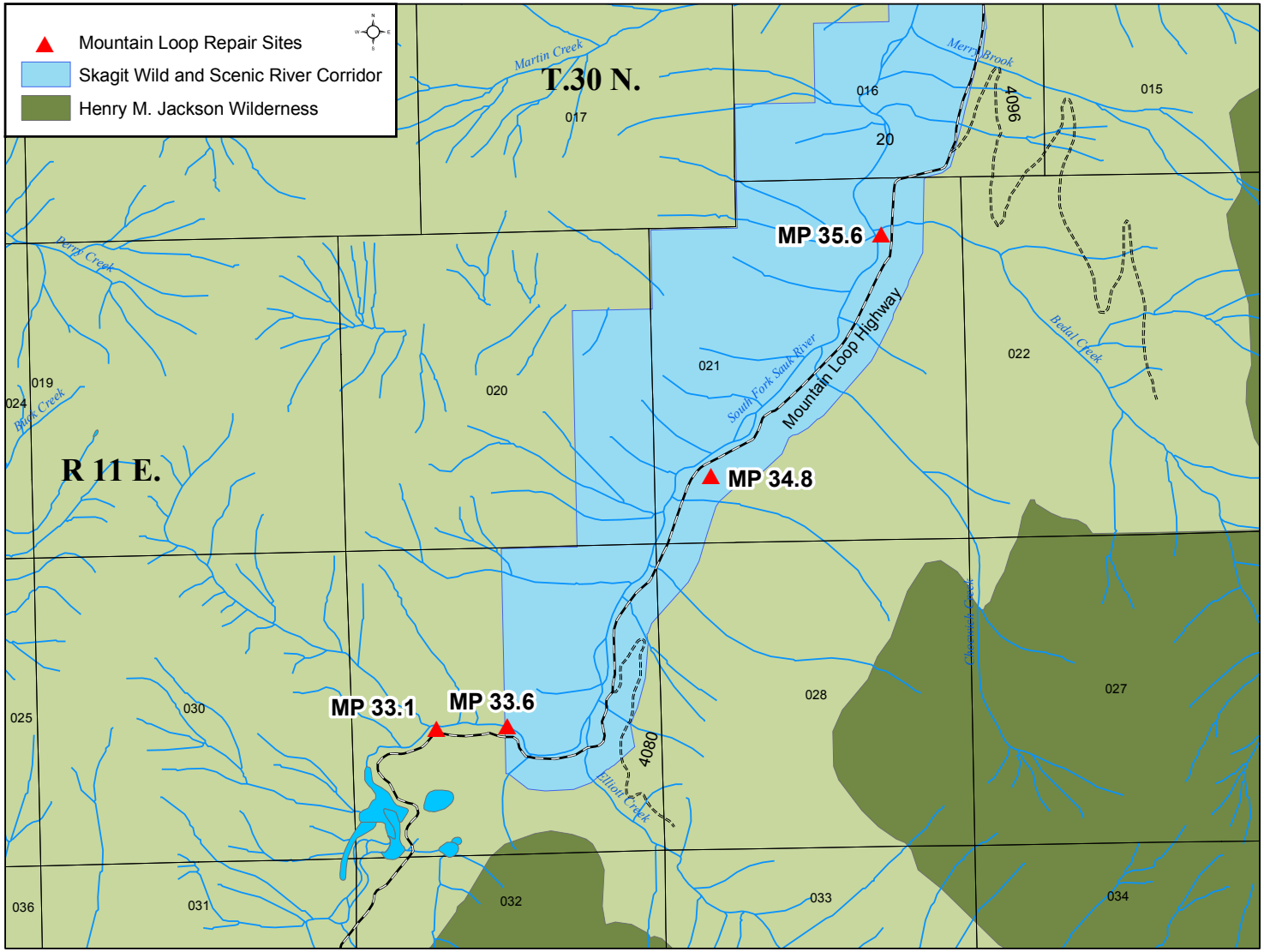
This report provides statements of the need for reestablishing vehicular access and the description of the activities associated with the proposed project. It then presents an analysis of the potential effects from implementing the proposed activities to the relevant values for which the South Fork Sauk River was designated a Wild and Scenic River. The procedure used for this analysis is described in Forest Service Manual 2354.7, Washington Office Amendment 2300-2004-2. The report concludes with a determination of the effects of the proposed activities on the free-flowing condition, the water quality, and the outstandingly remarkable values of the Skagit Wild and Scenic River.

The South Fork Sauk River is a segment of the Skagit Wild and Scenic River System, which was designated in 1978. Management of the Skagit River System is to maintain or enhance: 1) free-flowing characteristics and water quality of the river; and 2) outstandingly, remarkable values for which the river was placed into the National system that consist of Wildlife, Fish, and Scenic Qualities (River Management Plan, *Final*, Skagit River, Volume II, pg 4, 1983).

NEED FOR THE PROPOSED ACTIVITY

The Mountain Loop Scenic Byway, a nationally designated Scenic Byway, is an all-weather, variable surface road, connecting the towns of Darrington with the town of Granite Falls in Northwest Washington State. Portions of the road as it exists today have been built in stages; refer to the EA*, Heritage Resources, Cultural Setting*. The Byway is paved from Darrington south to the confluence of the White Chuck and Sauk Rivers. The surface changes to gravel for 14 miles to Barlow Pass, where it is again paved to the town of Granite Falls. The road is used primarily by the public for recreational driving, access to

Figure D- 1: Mountain Loop Scenic Byway Proposed Repair Sites and Wild and Scenic River



trailheads, dispersed and developed camping, by those owners of private recreation parcels and homes and by the Forest Service for administrative use. In a typical winter, the road is closed by snow in the vicinity of the Bedal Creek on the Darrington side and at Deer Creek on the Granite Falls side, where a snow park is maintained.

The Byway sustained significant damage during a series of storms in October 2003. The damaged segments are in the narrow, gravel surfaced section between mileposts 33.1 and 35.6, between Bedal Creek and Monte Cristo Lake. At three of the four damage sites, the road is impassable. It has been determined that the Byway corridor should be reestablished to provide motorized access for public recreation and Forest Service administration. The route will be similar to the pre-existing alignment, but will be moved as far away from the South Fork Sauk River as topography allows (including one bridge), as described below. See *Figure D-1*, above.

DESCRIPTION OF THE PROPOSED ACTIVITY

The storm event of October 17-21, 2003 was a record flood event for the Sauk River. Damage to property and transportation infrastructure was substantial and wide spread throughout Northwest Washington, especially in the upper watersheds. On the Mountain Loop Byway, four damaged sites will be repaired.

Two of the four proposed flood repair sites (mileposts 34.8 and 35.6) are within the designated Wild and Scenic River corridor. The site at Milepost 33.1 is outside the river corridor (upstream). See *Figure D-2,* below. The site at milepost 33.6 is very near the terminal boundary of the river corridor at Elliott Creek (which is unsurveyed) and for purposes of this analysis, the site will be treated as to if it is within the Wild and Scenic River corridor, both to address public concerns and to insure that the project effects are evaluated to the highest standard (*direct and adverse*) under Section 7(a).

Only the site at Milepost 33.6 meets the definition of a water resources project (federally assisted and within the river's bed and banks).

Milepost 33.6

During the 2003 flood event, high water flow cut into the original fill slope of the road and washed out approximately 250 feet of the entire roadway, back to bedrock in much of the area; see *Figure D-1*, below. A portion of the Mountain Loop at this milepost is built directly adjacent to a 130-foot high bedrock cliff (located near the front-end loader shown in Figure D-1), which eliminates the option of moving the road into the hill and completely out of the river channel.

A single lane road would be constructed around the point of bedrock outcrop at the upper end of the damage, including a free-span concrete bridge (about 60 feet in length and 14 feet wide). The remainder of the damaged road section would be relocated away from the river to the extent possible—typically 10 to 20 feet. The total length of the proposed repair would be about 400 feet.

Figure D- 2: Flood Damage at Milepost 33.6

Figure D-3, below, shows the proposed location of the bridge, which would span a portion of the washed-out road. The bridge would be built adjacent to the bedrock cliff area, and would use bedrock as foundation for the abutments. A hydraulic rock breaker (hoe ram) and rock drill would be used to level/prepare the bedrock, so that the abutments can be tied to and stabilized on bedrock.

Concrete wing or retaining walls would be built at each end of the bridge, extending beyond the bridge, to retain fill material at the bridge approaches and prevent the fill from being washed-out. Large riprap (roughly 4.5 to 5-feet in diameter and weighing 8,000 to 14,000 pounds) would be used to protect the fill just upstream of the first wing wall, for a distance of about 40 to 50 feet. See Figure D-4, below.

Figure D- 3: MP 33.6, Location of Proposed 60-foot (Approximate) Free-Span Bridge

Figure D-4, below*,* shows the upper end of the proposed repair at MP 33.6, where riprap would be used to protect the road approach, to the point where the concrete retaining wall would support the road to the bridge abutment. The distance between the boulder and the bedrock is about 25 feet.

Figure D- 4: Upper End of Proposed Repair, Approximate Location of Riprap

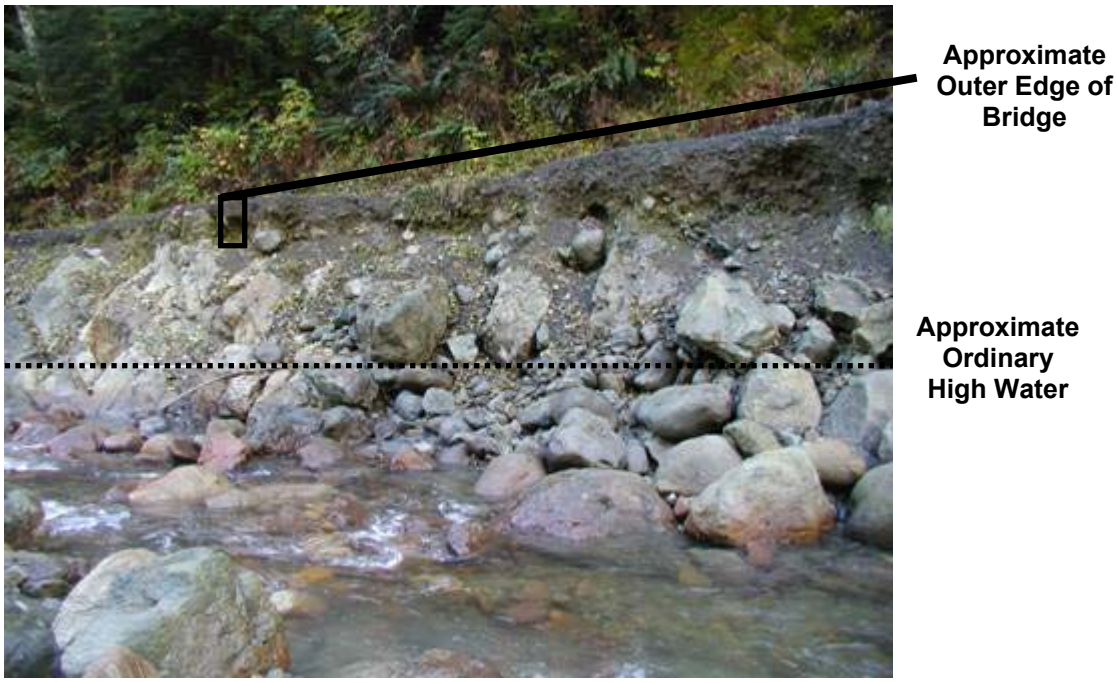
The total length of riprap base may be up to 50 feet, to key the rock in at the upstream boulder and along the bedrock and retaining wall. Note that the materials exposed are characteristic of backfilled material brought in for a previous repair. The river terrace materials show on the right (*Figure D-4,* above); a bedrock ledge is exposed on the left of the photo.

Figure D-5, on the following page, shows the lower end of the proposed bridge location. The approximated ordinary high water mark is indicated, below the bridge section. At this point, the end of the bridge would be located back from the river, near the edge of the old road bed. Note in Figure D-4: road construction materials from previous construction show as a darker cap on top of the natural river terrace materials.

Downstream from the cliff area, the roadway would be moved as far away from the river as practical (typically, about 10 to 20 feet) while still keeping a reasonable running surface alignment for the driving public. In this area, a single lane roadway, 14-feet in width, would be constructed, to minimize the impact on the river.

Once the road has been realigned, any road fill material (within the damaged portion of the road) that was not washed away in the flooding would be pulled back and hauled away from the river. A ditch would be installed along the length of the repair (with the exception of the bridged area), on the uphill side, and a new culvert would be added upstream of the first bridge approach rail end. The road running-surface would be surfaced with crushed rock.

Figure D- 5: MP 33.6, Location of the Lower end of the Proposed Bridge



An estimated 0.25 acres would be disturbed at the MP 33.6 repair site. Moving the road into the hillside would involve removal of a few trees (mainly hardwoods with a few, small conifers); all trees to be felled are less than 8 inches in diameter at breast height (DBH). As they are too small for use in streams as woody debris or to armor disturbed stream banks, the trees that are felled would either be left on-site to improve terrestrial woody habitat or hauled and stockpiled at a rock pit near Bedal Creek for use as firewood.

Figure D- 6: Sample of Type of Bridge Proposed for MP 33.6, Alternative 2 – Proposed Action

Refer to EA, *Chapter 2* for the complete list of mitigation measures included in repair of this site (including seeding all bare soil with native seed, if available, and mulching with weed-free material, etc.).

Figure D-6, below, shows a sample of the type of bridge that would be constructed at MP 33.6.

ANALYSIS OF THE EFFECTS OF THE PROPOSED ACTIVITY

Within Channel Conditions and Water Quality

Overall, the effects of repairing the washouts along the Mountain Loop Byway on the channel dynamics and sediment regime of the South Fork Sauk River would be minor. Construction work would occur outside the normal high water channel and on the fringes of the valley. Very little sediment would be created during construction activities. Road fills will be of large rock and therefore produce no fine sediment. At the four repair sites, the roadway is outside or at the very fringe of the channel migration extent. Existing large boulders and bedrock under the roadway generally prevent lateral channel migration. Loss of the road has occurred more than once in the past: large floods funnel through this narrow river corridor and erode the road fill resting on the bedrock, or undermine the slope below the road. These failures produce sediment that contributes to an already high sediment load in the river. The proposed repairs are expected to greatly reduce this risk and maintain the existing water quality.

At milepost 33.6, the reconstructed road and bridge along the edge of the South Fork Sauk would be above most flood levels. The new roadway will still be more removed from the river than the old road because it will be narrowed to a one lane roadway with short, low retaining walls above the normal high water channel at each end. The short bridge would eliminate the need to place fill material back into the river; this bridge would be approximately 60 feet in length. The bridge abutments and footings will be tied into exposed bedrock. At the upstream end of the site, approximately 50 feet of rip-rap will be placed to protect the approach fill. The rip-rap will extend a maximum of 10 feet horizontally into the normal high water channel along a maximum length of 50 feet of bank. This short section is located between very large boulders (8-12 feet) and bedrock. There would be little chance of any channel migration here due to the very large boulders and bedrock

Estimated erosion from disturbed soils at MP 33.6 would be 0.5 cubic yards or less the first year or two, before vegetation is reestablished (and would diminish after year two). None of this slope erosion would reach the river because it would be caught in the ditch line designed along the length of the repair, except at the bridge. This design technique is effective; the ditch would empty onto the valley floor on this hillside side of the road, and not into the South Fork Sauk River.

During construction and pullback of the old fill, as much as 5.0 cubic yards of material could slough-off into the channel margin, without implementation of the prescribed mitigation measures. However, most of this soil would be retrieved during the project, with the prescribed erosion-control methods (see Chapter 2). Based on the mitigation measures, an estimated maximum of 0.5 cubic yards of sediment might remain on the river margin, to be washed away during the next runoff event. This amount of sediment is low when compared with overall rates for the system:

- 3,500 cubic yards (4,700 tons) sediment previously lost at the four 2003 wash-out sites;
- 31,000 tons estimated background sedimentation rate for the South Fork Sauk River.

Riparian and Floodplain Conditions

The South Fork Sauk River cuts deeply into the surrounding mountain slopes. While glaciers may have affected the river long ago, much of the current river valley is the result of fluvial deposition and landslide processes. There are deep glacial deposits along the margins of the upper valley, and large fluvial depositional features lower in the river system where the valley broadens. The river moves back and forth

in this narrow river valley, measured at 500 feet across at the MP 35.6 repair site. This 500-foot width is fairly consistent up and down the river. However, the valley becomes narrow in places where bedrock and/or deep landslide deposits constrain the river. In general, the Mountain Loop Byway travels along terraces adjacent to the river; in some narrow sections, the road is adjacent to or on top of a narrow band of bedrock. During the flooding of 2003, in most cases, high water did not overtop this road terrace; thus it does not appear that the road constricts the active floodplain along these areas.

Upland and Offsite Conditions

There are no effects from the project above or below the repair site. Upland and off-site conditions would not be altered by the proposed activity because the effects of the construction activities would be limited to the existing road. The repair proposes to use rip-rap that is consistent in appearance with the boulders found at the project site.

Hydrologic and Biologic Processes

Hydrologic processes would not be altered from pre-flood conditions by the proposed activity. The proposal would not affect existing flow patterns with respect to the timing or the amount of the flows. Neither surface and subsurface flows nor flood storage characteristics of the channel would be altered by the proposal. Although no aggradations or degradation of the overall channel would occur, minor constriction of the channel would occur at ordinary high water for a distance of about 50 feet, due to the rip-rap protecting the upstream bridge abutment. This effect is limited, in that the bridge abutment is keyed into bedrock at the valley wall, and the river cannot migrate further in this location. The river would still have full capacity to change course, reoccupy former side-channels, or inundate the floodplain with changes in bedload or flow.

Biologic processes would not be affected by the proposed activity. Fish habitat conditions at the site are improved over the pre-flood condition, because less rip-rap will be lining the channel and the remaining roadway is realigned away from the river. Exposed soil will be revegetated with seed and mulch. Tree cover will take more than five years to reestablish.

Free-Flowing Condition

The free-flowing condition of the South Fork Sauk River would be improved by the proposed activity, over the pre-flood condition. The proposed repair (replacing the road with a bridge) is designed to minimize impacts on free-flow. Rip-rap had previously been placed along this entire 250-foot section of the Mountain Loop Byway. Approximately 250 feet of road will be realigned into the hillside, away from the river. Any fills not previously eroded by the October 2003 flood, will be removed as part of the road repair. The proposed repair places rip-rap for approximately 50 lineal feet, between existing large boulders and bedrock. The presence of these boulders and bedrock are the limit to channel migration in this location. The river would have full capacity to change course, reoccupy former side-channels, and inundate the floodplain.

Time Scale of Effects

Potential effects identified in this analysis consist of a short-term, minor increase in sedimentation (and risk of chemical contamination due to construction activities) for the month-long construction window. The effects on water quality are expected to be of short duration and minimal compared to background sedimentation rates. Exposed soil would be revegetated immediately following construction. Tree cover (on an estimated 0.25 acre of disturbed area) would take more than five years to reestablish. Additional

effects on fisheries are short term, related to increases in noise and sediment during the construction period. There are no significant effects to wildlife beyond a temporary increase in noise. The roadway and views will be similar in character to the pre-flood condition and the scenery will not be altered significantly beyond the construction site.

Outstandingly Remarkable Values

The outstandingly, remarkable values for the Skagit River System are wildlife, fish, and scenic qualities (River Management Plan, Final, Skagit River, Volume II, pg 4, 1983). The Skagit WSR Study Report (1977) found the Sauk River eligible to be included in the Skagit System with the classification of Scenic, due to the forested shoreline, low percentage of paralleling roads, and overall scenic nature. The river was free-flowing (no impoundments) and the water quality of the river high or unimpaired. This report found that all the rivers in the Skagit System possess the outstandingly remarkable values of fish, scenery, and wildlife. The Skagit System is one of the least developed river basins in Puget Sound and thus retains habitat that is relatively intact and functioning and scenery that is largely natural. The values of the Sauk River were not distinguished from the other rivers in the study. The values are addressed here in general terms.

Fishery

The Skagit is the only river system in Puget Sound that is home to all five species of salmon, coastal cutthroat, bull trout, Salish sucker, and steelhead. All these species with the exception of Salish Sucker utilize the project vicinity for some part of their life history. There are two federally-listed fish species in the Mountain Loop project area (Chinook salmon and native char—bull trout and Dolly Varden). Coho salmon, a Regional Sensitive Species and candidate for federal listing, is also found, along with: steelhead, sockeye, pink salmon, coastal cutthroat trout, and – from limited observations—chum salmon.

Wildlife

Many wildlife species are found in the greater Skagit Basin. Wildlife species of interest in the Mountain Loop project area include federally-listed threatened and endangered species: grizzly bear, northern spotted owl, marbled murrelet, bald eagle, and potentially gray wolf.

The species of note for the Skagit River System is the presence of wintering bald eagles. Eagle use of the project segment of the Sauk River is minimal, due to a relative lack of food sources.

Other wildlife species include deer, mountain goat, pine marten, and woodpeckers, plus Sensitive Species: Townsend's big-eared bat and wolverine. Wolverine would not be expected to be found in the project area, due to high levels of human use. Elk are not known to occur in the Upper Sauk River. Some land birds, including neo-tropical migratory birds, use the mixed conifer/deciduous forests found in the project area

Scenery

The scenic values of the river are outstanding. Mountain peaks, avalanche chutes, glaciers, and steep rugged forested slopes are visible in the background. The foreground views include tributary streams, side channels, large Douglas-fir trees, stands of cottonwood, alder, rustic campsites, and a developed campground adjacent to the river. Forest management activities are occasionally visible from the Sauk River and the South Fork Sauk River, particularly downstream of Bedal Creek where timber management has occurred since the 1940's. In the project vicinity, upstream of Bedal Creek, the valley is very narrow and the only developed access is from the Mountain Loop Byway.

The upstream limit of most water-borne recreation on the Sauk is at the Bedal Campground, at the confluence of the North Fork and South Fork Sauk Rivers. The proposed flood repair sites are upstream of Bedal Creek, and therefore not visible from the river for the majority of on-river recreation use.

Wildlife values would not be affected by the proposed activity because there are only temporary noise effects during construction period.

There are both short and long-term effects to fisheries values and, in general, the site conditions for fish are improved over the pre-flood conditions due to less lineal feet of rip-rap in the active channel and the realignment of the roadway, away from the river. Short term increases in noise and sediment are related only to the construction period.

Scenic values would remain consistent with the classification:

> "Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads."

The Interagency Guidelines for Eligibility, Classification, and Management of River Areas, published in the Federal Register on September 7, 1982 (47 FR 39454, Section III Management: Table 2, provides Classification Criteria for Wild and Scenic Rivers. The attribute most relevant to this project is accessibility. For the Scenic classification, these criteria are:

- Accessible in places by road;
- Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.

The effects of construction on scenery are limited to the road prism and adjacent sideslope and will not affect scenic values. The bridge is very short and will not be visible at a distance. The bridge does not span the river, but is against the sideslope, adjacent to the river. There may be short-term degradation of scenic quality due to the presence of bare or disturbed ground in the vicinity of the construction site. However, exposed or bare ground is not uncommon along the gravel portion of the Mountain Loop Byway. Areas disturbed by construction activities will be revegetated immediately.

Management Goals

The Sauk River segment of the Skagit Wild and Scenic River is managed under the provisions of the River Management Plan, *Final*, Skagit River, Volume II, 1983, which was incorporated into the Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan, 1990 (see pg 1-2).

The project is consistent with the Management Goals from the River Management Plan: *Final* Skagit River (Vol. II, Pg 6) to:

- Provide for public access to and along the banks of the …rivers, consistent with other resource capabilities, and the 1982 Interagency Guidelines (Management Goal E).
- Protect and maintain wildlife habitat (Management Goal H).
- Protect and enhance fish habitat (Management Goal I).
- Protect or improve present water quality (Management Goal N).

Maintain and enhance free-flowing characteristics of the rivers.(Management Goal O)

DETERMINATION OF THE EFFECTS OF THE PROPOSED ACTIVITY

It is my determination that the proposed activity will not have a direct and adverse effect on the values for which the Sauk was designated a Wild and Scenic River. The proposed activity will not change the free-flowing condition and the project will not affect the outstandingly remarkable values of the river. The free-flowing condition is improved over that which existed prior to the October 2003 floods, when the entire 250 foot section of road was rip-rapped. The proposal includes: realignment of approximately 250 feet of road away from the river and installation of a 60 foot bridge with retaining walls. Fifty feet of rip-rap would protect the upstream approach fill, in an area where the river channel has migrated to the bedrock valley wall. The river is constrained from further lateral migration at this location, due to the presence of bedrock. The river would have full capacity to change course, reoccupy former side-channels, and inundate the floodplain.

The outstandingly remarkable values of the river would not be adversely affected by the proposed activity. Effects to fisheries and wildlife are temporary, related to increases in noise and sedimentation during the construction period. Effects on scenic quality are limited to those related to construction, but of somewhat longer duration, because it will take from one to five years for the vegetation at the construction site to grow.

It is my determination, therefore, that the proposed activity will not have a direct and adverse effect on the free-flowing character of the river, the water quality of the river, or the values for which the Sauk was designated a Wild and Scenic River.

Y. Robert Iwamoto
Forest Supervisor

03/22/06
Date

Appendix E – Selected Wildlife Maps

Figure E- 1: Grizzly Bear Management Units, Relative to Proposed Mountain Loop Scenic Byway Repairs

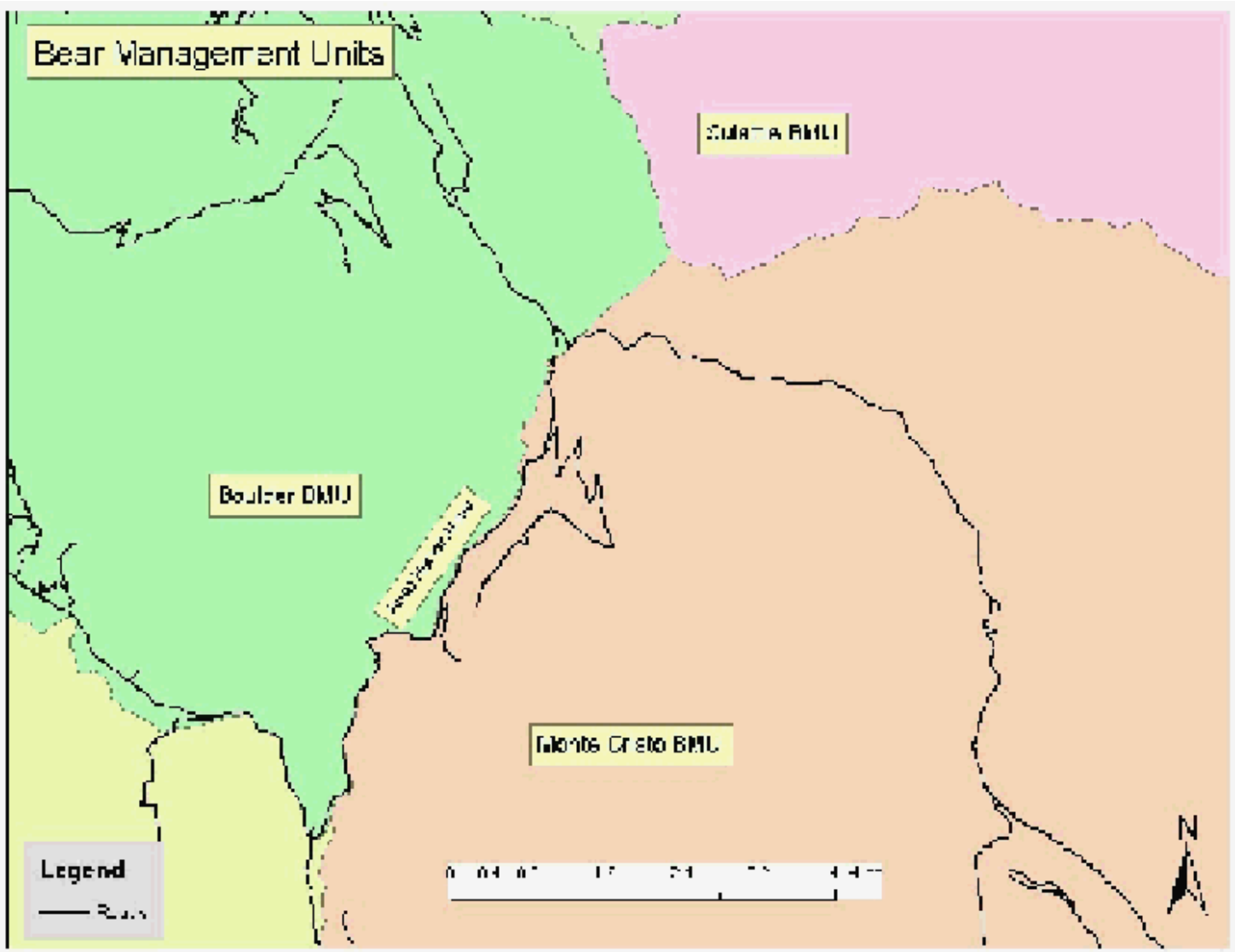
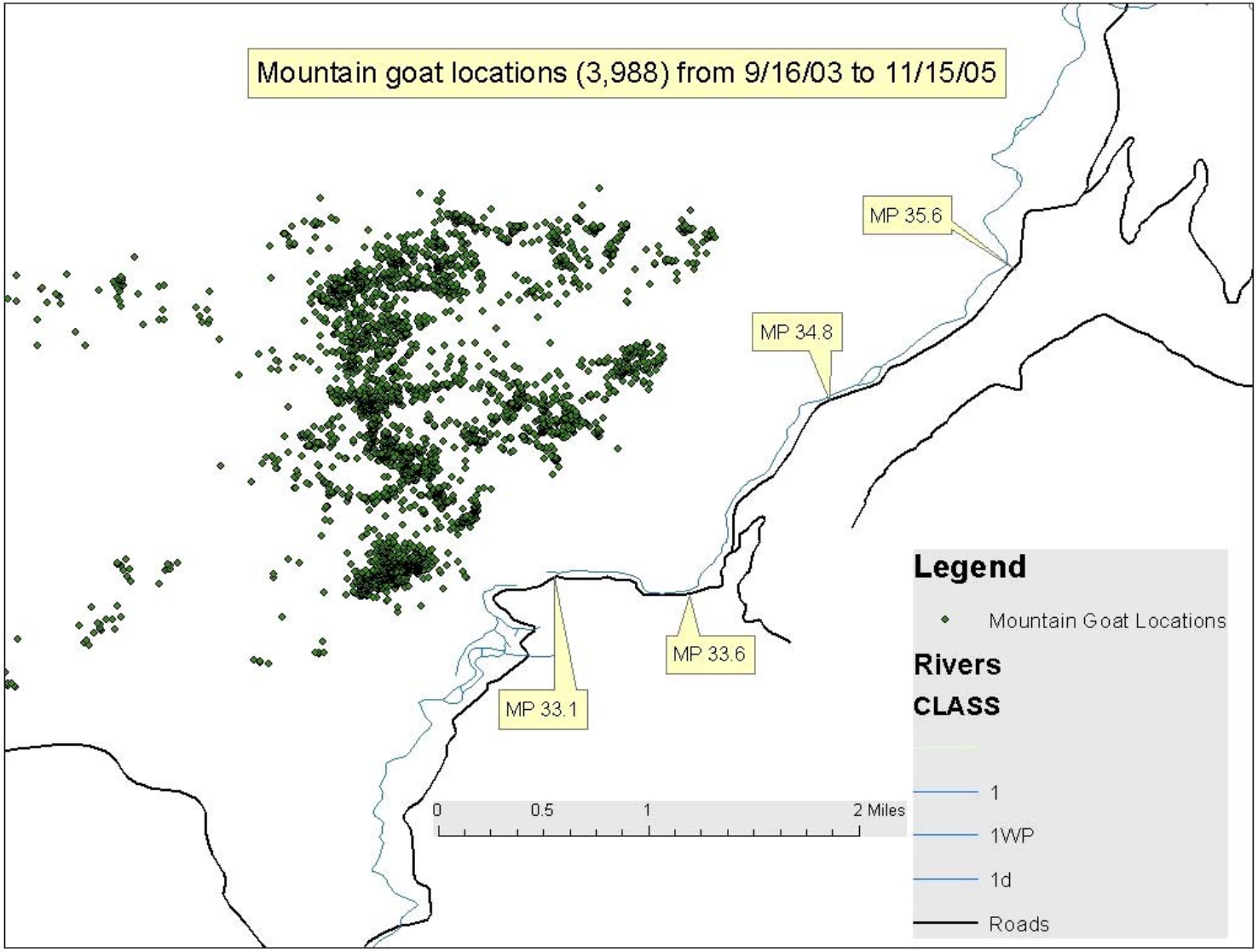



Figure E- 2 Mountain Goat Location, Relative to Proposed Mountain Loop Scenic Byway Repairs