

Biological Opinion Terms and Conditions Monitoring Report

For

Bull Trout

Flathead National Forest

2006

Prepared by:

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March 22, 2007

Spotted Beetle Resource Management Project

Bull Trout

The following terms and conditions implement reasonable and prudent measure number 1:

- A. The Forest Service shall ensure through yearly inspections that roads closed by gates or berms have properly functioning culverts and effective surface drainage to minimize surface erosion. Culvert maintenance and roadbed restoration shall be accomplished as soon as practicable to prevent large erosive events from occurring.

FS Response: The following roads addressed by this Term and Condition were inspected during 2006: Rd. 547, the Sullivan Creek Road (June 30); Rd. 2827, Bruce Creek (October 11); Rd 2829, the Cedar Creek (August 29); Rd 2831, Kah Mt. (September 14); Rd 9856, Big Bill (September 19); and Rd 10103, Larch Creek (September 7). All culverts appeared to be functioning and road drainage appeared to be adequate.

- B. The Forest Service shall monitor road management and timber harvest activities to ensure state and Forest Service best management practices are being met during implementation using a qualified staff biologist or technician. Revegetation of stream banks, stream crossings and riparian areas will be sufficiently monitored to ensure Forest Service standards regarding successful establishment of mature vegetation beyond initial planting are met and results reported to the Service on a yearly basis.

FS Response: All timber harvest activities related to this project have been completed. Ongoing road decommissioning actions are monitored by qualified biologists, engineers, or technicians to ensure proper implementation of Best Management Practices.

- C. The Forest Service shall develop and implement a sediment monitoring plan and provide it to the Service for review and approval prior to implementation of any activities within the Clark Creek Watershed. The monitoring plan shall monitor the anticipated sediment budget in the Clark Creek watershed. The duration of the plan should extend beyond the completion of the proposed action and be sufficient to observe trends.

FS Response: A permanent stream cross-section was established on Clark Creek in July of 2006. This site will be monitored in the future as time and resources allow to assess changes in the sediment condition of the stream. At this point in time, it is impossible to draw any conclusions about a sediment budget.

- D. To the maximum extent practicable, the Forest Service shall ensure that culvert removals on intermittent streams be conducted when the stream channels are dry.

FS Response: This is a standard operating procedure on the Flathead National Forest that was followed in 2006 during all culvert removals.

- E. Following culvert removal, to the maximum extent practicable, the Forest Service shall reconstruct the stream channel to the natural streambed configuration and function. The stream channel should mimic the upstream and downstream channel morphology and function.

FS Response: This is a standard operating procedure on the Flathead National Forest that was followed in 2006 during all culvert removals. An engineer, hydrologist, or fisheries biologist, all of whom have received training in the principles of geomorphology, inspected all stream reconstruction sites to ensure sufficient continuity of channel morphology.

- F. The Forest Service shall minimize, to the maximum extent practicable, the use of hard armoring techniques such as riprap wherever rock, logs, and vegetative bank stabilization techniques would be more appropriate to minimize potential bank erosion.

FS Response: This is a standard operating procedure on the Flathead National Forest that was followed in 2006 during all culvert removals. Hard armoring techniques are typically only used in high gradient stream channels where such materials mimic natural channel material.

The following terms and conditions implement the reasonable and prudent measure number 2:

- A. The Forest shall assure the consistent implementation of measures and standards specified in the Aquatic Conservation strategies as indicated in the *1998 Biological Opinion for the Effects to Bull Trout from the Continued Implementation of Land and Resource Management Plans and Resource Management Plans as Amended by the Interim Strategies for Managing Fish Producing Watersheds in Eastern Oregon and Washington, Idaho, Western Montana and portions of Nevada (INFISH) and the Interim Strategy for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and portions of California (PACFISH)*.

FS Response: This is a standard operating procedure on the Flathead National Forest that was followed in 2006.

The following terms and conditions implement the reasonable and prudent measure number 3:

- A. The Forest Service shall prepare and submit a post-construction report to the Service no later than December 31, for each year construction or restoration occurs. The report will include but is not limited to: date construction began and was completed for the previous calendar year; any problems or deviations from the proposed action and any conservation measures or recommendations implemented.

FS Response: See table below.

Table 1. Spotted Beetle Road Decommissioning in 2006

Drainage	Yr. Impl.	Road #	Activity Type	Miles/# of actions	Mitigation measures proposed	Complete in yr. Proposed?	Mitigation measures impl.
Clark Ck.	06	2831	Rd decom	1.59	1,2,6,7,11, 12,16, 19,24,43, 44,45,46,48,	N	All
Elam Ck.	06	2831C	"	2.5	"	Y	"
"	06	11459	"	2.22	"	N	"
Soldier Ck.	06	2847	"	6.6	"	Y	"
"	06	2847A	"	0.2	"	Y	"
"	06	2847H	"	0.1	"	Y	"
"	06	2847K	"	0.2	"	Y	"
"	06	2847Y	"	0.8	"	Y	"
"	06	10338	"	1.335	"	Y	"
"	06	11449	"	0.5	"	Y	"
Tin Ck.	06	11437	"	2.5	"	Y	"
Jungle Ck.	06	10103	"	2.76	"	N	"

- B. No later than April 30, The Forest Service shall prepare and submit to the Service a schedule of actions for the upcoming calendar year specifically detailing locations of culvert removals and miles of expected road reclamation, as well as any additional clarifying information using the format in Appendix B.

FS Response: Table 2 below summarizes culvert work scheduled for 2007. In addition, the Forest Service submitted the road maintenance Program of Work for 2007 to the FWS on September 7th (e-mail from Craig Kendall to Dan Brewer).

Table 2: Spotted Beetle Road Decommissioning Planned in 2007

Drainage	Yr. Impl. Plan	Road #	Activity Type	Miles/# of actions	Mitigation measures proposed	# culverts
Clark Ck.	07	9845	Rd decom	1.0	1,2,6,7,11, 12,16, 19,24,43, 44,45,46,48,	3

Drainage	Yr. Impl. Plan	Road #	Activity Type	Miles/# of actions	Mitigation measures proposed	# culverts
Clark Ck.	07	9734	"	4.06	"	16
Clark Ck.	07	10130	"	0.63	"	2
Clark Ck.	07	10339	"	2.2	"	6
Clark Ck.	07	11452	"	3.3	"	8
Clark Ck.	07	11447	"	0.76	"	1
Cedar	07	2829	"	2.1	"	5

- C. Upon locating dead, injured or sick bull trout or upon observing destruction of redds, notification must be made within 24 hours to the Service's Montana Field Office at 406-449-5225. Record information relative to the date, time, and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Service.

FS Response: No dead, injured, or sick bull trout were observed in 2006.

- D. Within 90 days of the end of the calendar year, the Forest Service will provide a written report or letter to the Service indicating the actual number of bull trout taken, if any, as well as any relevant biological/habitat data or other pertinent information on bull trout that was collected.

FS Response: No bull trout were taken in 2006; it should be noted that a catch and keep permit fishery for bull trout has been instituted in Hungry Horse Reservoir.

- E. During project development and operation the Forest shall ensure the Service is promptly notified of any emergency or unanticipated situations arising that may be detrimental for bull trout relative to the proposed activities

FS Response: No emergency situations developed in 2006 related to any project activity.

Moose Post-Fire Salvage Project

Bull Trout

To fulfill reasonable and prudent measure #1, the following terms and conditions shall be implemented:

1. During all road management and timber harvest activities, the Forest shall implement soil and water Best Management Practices (BMPs) and the specific minimization measures identified for each activity as developed in the *Biological Assessment of Road Related Actions on Western Montana's Federal Lands that are Likely to Adversely Affect Bull Trout* (USDA 2001b). The Forest shall monitor these activities at a frequency adequate to ensure state and Forest

Service BMPs are being met during implementation using a qualified staff biologist or technician.

FS Response: All timber harvest activities have been completed; BMPs are employed during ongoing road management activities.

2. The Forest shall assure the consistent implementation of measures and standards specified in the aquatic conservation strategies as indicated in the *1998 Biological Opinion for the Effects to Bull Trout from the Continued Implementation of Land and Resource Management Plans and Resource Management Plans as Amended by the Interim Strategies for Managing Fish Producing Watersheds in Eastern Oregon and Washington, Idaho, Western Montana and portions of Nevada (INFISH)* and the Interim Strategy for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and portions of California (PACFISH; USDI 1998c).

FS Response: This is standard operating procedure.

3. The Forest shall ensure that roads closed year-long by gates or berms have properly functioning culverts and effective surface drainage to minimize surface erosion. The Forest shall implement monitoring of culverts on these roads according to monitoring components 1-5 as outlined in the September 19, 2002 letter from the Forest to the Service, "Moose Post-Fire Project EIS, Additional Information Regarding Culverts on Bermed Roads." Additionally, culverts identified as high risk of failure during monitoring shall either be replaced or fill shall be removed to the extent practicable and an overflow design shall be implemented prior to high water the following year. A report of monitoring activities shall be submitted by the Forest fisheries biologist to the Service, in a format agreed upon by the Forest and the Service, by January 31 of each year for the previous year's activities. This report shall include, but is not limited to the size of pipe and amount of fill. If the Forest fails to turn in the monitoring report to the Service, consultation shall be reinitiated.

FS Response: Some roads in the Moose area were not monitored this year due to time constraints related to two flood events in other parts of the forest; this is allowed under the terms of the September 19, 2002 letter: "At a minimum, all culverts will be monitored by qualified personnel on a biannual basis." Many of the roads in the table below have been decommissioned and no longer require monitoring. These roads will be omitted from subsequent reports.

Table 3: Moose Post-Fire Project Monitoring on Closed Roads

Road #	2003	2004	2005	2006	Mileage	Stream aligned culverts
316E	X	X	X	X	4.8	5
316spur	X				0.1	1
1656	X	X	X	X	2.84	5

1656spur		X		X	2	3
1664	X	X	X		2.2	6
1694	X	X	X	X	6.2	11
1694A		X		X	1.8	0
1694B		X		X	0.35	0
1694C		X	X	X	1.8	1
1694D		X	X	X	1.9	5
5207	X	X		decomm	0	0
5222	X	X			2.4	2
5233	X	X	X	decomm	2.3	1
5261	X	X		X	3.7	0
5268		X		decomm	1.94	2
5272	X	X	X	X	9.65	13
5272A		X		X	0.2	0
5272B		X		X	0.27	0
5273		X		decomm	0.7	0
5280	X	X		decomm	2	0
5283		X		decomm	1.66	1
5286	X	X		decomm	1.7	2
5288		X		decomm	2.12	0
5288A		X		decomm	0.07	0
5290		X		X	2.18	3
5292		X	X		3.9	10
5292A		X			1	2
5293		X		decomm	0.5	0
5299		X		decomm	0.4	0
5304		X	X	decomm	1.2	3
5316		X	X	decomm	1.7	4
5220D		X		X	0.5	0
803K	X	X		decomm	0.53	0
803L		X	X	X	1.4	5
803M		X		decomm	1.1	0

4. For the 10 culverts to remain on decommissioned roads 315, 1692, 5286 and 316E, fill shall be removed to the extent practicable and an overflow design shall be implemented. The design shall be reported to and agreed upon by the Service prior to decommissioning. These culverts shall be monitored and reported in the same manner established in term and condition 3.

FS Response: Litigation involving these culverts was recently settled in the District Court, allowing the Forest Service to move forward with completion of the upgrading of these culverts. Survey work will be scheduled this year to determine the amount of work needed at each site. Roads 315 and 316E were inspected this year.

5. Prior to salvage harvest treatments, along perennial, intermittent and ephemeral streams within areas of moderate and high fire intensity, the Forest shall verify that RHCAs of an appropriate width have been identified on the ground in a visible manner and that landslide prone areas, areas with high potential to deliver excessive sediment to occupied bull trout streams and other sensitive areas have been incorporated into RHCAs.

FS Response: RHCAs were identified on the ground, and incorporated into project design. Harvest activities are now complete.

6. To the maximum extent practicable, the Forest shall ensure that culvert removals on intermittent streams be conducted when the stream channels are dry.

FS Response: This is standard operating procedure.

7. The Forest shall avoid, to the maximum extent practicable, the use of hard armoring techniques such as riprap where rock, logs and vegetative bank stabilization techniques would be more appropriate to minimize potential bank erosion.

FS Response: The Forest Service has hydrologists and fisheries biologists that have formal training in fluvial geomorphology and restoration techniques. Therefore, stream channels are restored using materials and techniques that are consistent with channel form and process.

To fulfill reasonable and prudent measure #2, the following terms and conditions shall be implemented:

8. The Forest shall establish, or contract with Montana Fish, Wildlife, and Parks (MFWP) to establish, two additional McNeil core sample sites in areas of spawning habitat. The Forest shall establish the sites in concurrence with MFWP and agreed upon by the Service. These additional sites shall be sampled for at least two years after the completion of all activities above or adjacent to spawning habitat. Sample results shall be included in the report established in term and condition 3.

FS Response: The Forest Service has contacted MFWP about the establishment of 2 additional monitoring sites. Discussions are on-going about the value of establishing additional sites. Core sample data to date in the North Fork Flathead system show that particle size distributions are not substantially affected by forest fire and post-fire activities.

9. Following the implementation of road management and timber harvest activities and until such time as the area disturbed by these activities has been stabilized,

the Forest shall monitor action areas to ensure reclamation efforts are effective and treated portions of decommissioned roads are not contributing sediment to streams. Should substantial sediment sources be identified, the Forest shall arrest these sources in a timely manner.

FS Response: Implementation and effectiveness monitoring plans have been developed. However, much of this type of monitoring is conducted informally during field operations.

10. During the implementation of salvage harvest treatments, the Forest shall monitor RHCAs to ensure they are not compromised by management activities or climatic events influencing buffer efficacy.

FS Response: Based on field reviews, RHCAs were left in tact following harvest activities.

Reporting Requirements

11. Upon locating dead, injured or sick bull trout or upon observing destruction of redds, notification must be made within 24 hours to the Service's Montana field office at 406-449-5225. Record information relative to the date, time and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Service.

FS Response: Dead or injured bull trout were not observed in 2006.

2003 Burned Areas Road Maintenance (BMPs) Project

Bull Trout

All activities related to this project have been completed and reported to the Service. Remaining road improvement activities associated with the 2003 fires are part of the decisions authorizing timber salvage and will be reported in the respective sections below. Monitoring and replacement of high risk culverts in areas burned in 2003 continues on the Flathead National Forest; all pipes identified as being at high risk were inspected in 2005 and/or 2006.

Westside Reservoir Post Fire Salvage

Bull Trout

1. During all road management and timber harvest activities, the Forest shall implement soil and water Best Management Practices (BMPs) and the specific minimization measures identified for each activity as developed in the *Biological Assessment of Road Related Actions on Western Montana's Federal Lands that are Likely to Adversely Affect Bull Trout* (USDA 2001b). A staff fisheries biologist will review all project contracts prior to implementation to ensure that the appropriate mitigation measures are included.

FS Response: A fisheries biologist reviewed all project contracts prior to implementation to ensure appropriate mitigations were included.

2. The Forest shall assure the consistent implementation of measures and standards specified in the aquatic conservation strategies as indicated in the *1998 Biological Opinion for the Effects to Bull Trout from the Continued Implementation of Land and Resource Management Plans and Resource Management Plans as Amended by the Interim Strategies for Managing Fish Producing Watersheds in Eastern Oregon and Washington, Idaho, Western Montana and portions of Nevada (INFISH)* and the Interim Strategy for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and portions of California (PACFISH; USDI 1998c).

FS Response: INFISH Standards, Best Management Practices, and Forest Service Handbook (FSH) road design standards were incorporated into new road construction and reconstruction.

3. Prior to salvage harvest treatments, along perennial, intermittent and ephemeral streams within areas of moderate and high fire intensity, the Forest shall verify that RHCA's of an appropriate width have been identified on the ground in a visible manner and that landslide prone areas and other sensitive areas have been incorporated into RHCA's.

FS Response: RHCA boundaries and locations were established, reviewed, and monitored during project planning implementation by the district fisheries biologist and/or hydrologist.

4. To the maximum extent practicable, the Forest shall ensure that culvert removals on intermittent streams be conducted when the stream channels are dry.

FS Response: This is standard operating procedure. Generally, by default, culvert activity on nearly all projects occurs between July 15th and September 30. Most intermittent streams are dry in this forest during these dates. If this isn't the case, but drying is anticipated, work is usually held off until flow stops.

5. During culvert replacement or removal on perennial fish bearing streams, a qualified fisheries biologist, hydrologist, engineer, or technician will be on site to ensure all BMPs are being met during implementation. In addition, if contractors are unfamiliar with BMPs and mitigation measures required for culvert replacement or removal, a fisheries biologist will be on site at the first perennial stream crossing project implemented by that contractor to ensure BMPs and mitigation measures are utilized.

FS Response: This is standard operating procedure.

6. Prior to commercial use, the Forest shall upgrade those portions of Forest roads located in the Whale Creek drainage that will be used during salvage timber harvest. Roads that can not be brought up to standard before harvest in winter 2004-2005, will be brought up to standard as soon as possible the following year. If road related sediment problems arise they will be fixed immediately or salvage will stop until they are alleviated.

FS Response: This work has been completed, and no future reporting on this item is necessary.

7. The Forest shall complete the first 12 miles of the 49 miles proposed for road decommissioning by December 31st 2008.

FS Response: These roads are scheduled for survey in 2007 and decommissioning in 2008.

8. The Forest shall complete the final 37 miles of the 49 miles proposed for road decommissioning by December 31st 2010.

FS Response: Planning is underway to comply with this condition. See attached map of projected decommissioning activities.

9. Following the rehab of decommissioned, temporary and reconstructed roads and until such time as the area disturbed by project actions has been stabilized, the Forest shall monitor these roads to ensure that reclamation efforts are effective and that treated portions of roads are not contributing sediment to streams. Should sediment sources be identified the Forest shall arrest these sources according to the terms and conditions stated above.

FS Response: This is standard operating procedure.

10. During project implementation, the Forest will monitor potential project related sources of sediment to Quintonkon, Sullivan, Wheeler, and Wounded Buck creeks to ensure they are not compromised by management activities or climatic events, including: 1) helicopter log hauling and service landings within RHCAs; 2) stream crossings on fish bearing and intermittent streams where log hauling will occur; and 3) RHCA buffers in salvage units located adjacent to tractor units in the Sullivan Creek drainage. If sediment sources are identified, they will be dealt with as required in terms and conditions 1 and 2.

FS Response: This condition was met through regular site reviews by the district fish biologist and/or hydrologist. All salvage harvest has been completed as of March 15, 2007 in all fire areas except the Beta Fire.

11. Upon locating dead, injured or sick bull trout or upon observing destruction of redds, notification must be made within 24 hours to the Service's Montana field office at 406-449-5225. Record information relative to the date, time and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Service.

FS Response: Dead or injured bull trout have not been observed during this project.

12. To better monitor road management activities and potential impacts to bull trout, the forest will coordinate with MFWP annually and provide to FWS yearly summaries of all substrate data, juvenile bull trout estimates, and bull trout redd numbers collected during this project.

FS Response: This condition is met annually.

13. During project implementation, the Forest shall prepare and submit a monitoring report to the service on or about 01 March. The report shall include an updated list of activities that took place the previous year, including salvage harvest, road management activities, construction of helicopter landings and road decommissioning. In addition, a schedule of activities proposed for the current year will be included.

FS Response: As noted above, all salvage harvest has been completed except for Units 13S (partially done, remainder to be helicopter yarded summer 07), 14, 14H, and 25H in the Beta Fire area. All harvest is scheduled for completion during the summer of 2007. All harvest actions were conducted in accordance with seasonal restrictions as detailed in the Biological Assessments for the Westside Reservoir Post Fire Project. Some additional road improvement activities also remain in the Beta Fire area and should be completed in 2007. Road decommissioning is scheduled in accord with the Terms and Conditions of the Biological Opinion issued by the Service in 2004.

14. The Forest will submit a proposal for monitoring culverts on bermed roads. The proposal must be approved by the Service prior to project implementation in 2005. The proposal should include rationale for the proposed monitoring method based on the results of previous monitoring efforts in the Moose and Spotted Beetle projects. Culverts on bermed roads in bull trout priority watersheds will be considered a priority for monitoring. A report of monitoring activities shall be submitted by the Forest fisheries biologist in a format agreed upon by the Forest and the Service by March 01 of each year for the previous year's activities. This report shall include, but is not limited to the location of the pipe, size, amount of fill, and current condition.

FS Response: A letter to the FWS regarding this monitoring plan was sent on April 5, 2004. Roads within the project area that were monitored in 2006 are listed in table 7 below. Two severe flood events occurring in 2006 hampered efforts to conduct monitoring.

Table 7: Westside Reservoir Road Monitoring in 2005-2006.
Westside Salvage Project
Monitoring culverts on closed roads

Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
10144A	0.2	0	X		0				No CMP	
10144B	0.2	0	X		0				No CMP	
10171	0.4	0			0				No CMP	
10172	0.5	0			0				No CMP	
10293	1.3	5			1					
					2					
					3					
					4					
					5					
10293A	0.9	0			0					
10331	0.8	0			0					
10332	1.2	4	X		1	18		low		
			X		2	18		low		
			X		3	18		low		
			X		4	18		low		
10341	0.89	0			0				No CMP	
10341A	0.36	0			0				No CMP	
11003		1	X	X	1	24	medium	low		
11024	1.96	0			0				No CMP	
11026	1.61	0			0				No CMP	
11028	0.61	0			0				No CMP	
11029	0.7	4	X		1	18		low		
			X		2	18		low		
			X		3	24		low		
			X		4	24		low		
11051	0.58	0			0				No CMP	
11054	0.6	0			0				No CMP	
11061	1.8	0			0				No CMP	
11086	0.7	4	X		1	24		low		
			X		2	24		low		
			X		3	24		low		
			X		4	24		low		
1601	2.1	3			1		medium			
					2		medium			
					3		medium			
1602	1.04	4		X	1	18	small	high	culvert cleaned, over 50%	

									clogged	
				X	2	18	small	high	culvert cleaned, over 50% clogged, fill slope eroding	
				X	3	18	small	high	culvert cleaned, over 50% clogged	
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
1605	3.55	8	X	X	1	24sq	small	low		
			X	X	2	18	medium	low		
			X	X	3	18	medium	low		
			X	X	4	18	medium	low		
			X	X	5	18	medium	low		
			X	X	6	44	large	high		
			X	X	7	66	large	low		
			X	X	8	48	large	low		
1606	2.5	9	X	X	1	18	medium	low		
			X	X	2	18	medium	low		
			X	X	3	18	medium	low		
				X	4	24	deep	high		
			X	X	5	24	medium	high		
			X	X	6	24	deep	high		
			X	X	7	18	medium	low		
				X	8	18	medium	low		
			X	X	9	18	medium	high		
			X	X	10	18	medium	high		
			X	X	11	18	medium	low		
1607	3.6	7	X	X	1	30' span		low		
			X	X	2	18	medium	high		
			X	X	3	18		low		
			X	X	4	2X48	deep	failed		
			X	X	5	18		low		
			X	X	6	18		low		
			X	X	7	18		low		
1607A	0.53	1	X	X	1	30' span	small	low	Abutments undercutting	
1608	1.2	2	X		1	18		low		
			X		2	18	small	high		
1609	3.1	3	X		1	NA	small	failed		
			X		2	NA				
			X		3	18				
1610	2.1	2			1		small			
					2		medium			
1611	1.7	3		X	1	24	small	low		
				X	2	24	small	low		

				X	3	48	large	failed	Biglow creek crossing, culvert failed, undercutting road	
1634	5.5	9	X	X	1	18	medium	high	cleaned inlet	
			X	X	2	24	medium	high		
			X	X	3	18	small	low		
			X	X	4	18	small	low		
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
1634			X	X	5	24	medium	low	lost water bottle	
			X	X	6	24	medium	high		
			X	X	7	36	small	failed	Failed	
			X	X	8	24	large	high		
			X	X	9	24	large	high		
			X	X	10	18	medium	high		
1666	1.5	2	X	X	1	18		low	inlet damaged	
			X	X	2	18		low	no cmps past this point	
2800	4.18			X	1	18	medium	low		
				X	2	18	medium	high	cleaned inlet	
				X	3	36	medium	high	cleaned inlet	
				X	4	18	medium	high	cleaned inlet	
				X	5	18	small	high	cleaned inlet	
				X	6	18	medium	low		
				X	7	18	medium	low		
2801	3.6			X	1	12	small	high	clogged water over road	
				X	2	12	small	low		
				X	3	18	small	high		
2801A				X	1	Br	medium	high	20' span approaches eroded	
2804	2.5	0	X		0				No CMP	
2806	5.6	2			1		small			
					2		medium			
2807	2.5	7			1		small			
					2		small			
					3		medium			
					4		large			

				X	5		medium	high		
				X	6		small	high		
				X	7		small	high		
2816	3.7	0	X		0				No CMP	
2817A	0.36	0			0				No CMP	
2817B	1.31	0			0				No CMP	
2817	5.3	21	X	X	1	48	large	low	w/ Flare	
			X	X	2	18	small	low		
			X	X	3	24	large	low		
			X	X	4	18	large	low		
			X	X	5	18	small	low		
			X	X	6	36	large	low		
			X	X	7	18	medium	low		
			X	X	8	18	medium	low		
			X	X	9	24	large	mod		
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
2817			X	X	10	24	medium	low		
			X	X	11	24	large	low		
			X	X	12	18	medium	low		
			X	X	13	18	medium	low		
			X	X	15	18	medium	low		
			X	X	15	24	medium	high		
			X	X	16	18	medium	low		
			X	X	17	24	small	low		
			X	X	18	18	large	low		
			X	X	19	60	large	high	Lid creek	
			X	X	20	36	large	high		
			X	X	21	18	small	low		
2818	2.61	2			1		small			
					2		medium			
2860	1.5	1	X	X	1	24	large	high		
381	0.3	0	X		0				No CMPs	
5250	1.3	4	X		1	NA		low		
			X		2	18	medium	high		
			X		3	24	medium	high		
			X		4	18	large	high		
5252	4.3	21	X	X	1	18	small	high		
			X	X	2	18	small	low		
				X	3	18	medium	high		
			X	X	4	24	medium	high		
				X	6	18	medium	high		
				X	7	18	medium	high		
				X	8	18	medium	high		
				X	9	18	medium	high		
				X	10	18	medium	low		
				X	12	18	medium	high		
				X	13	24	large	high		

				X	14	18	medium	high		
				X	15	18	medium	high		
				X	16	36	large	high		
				X	17	18	medium	high		
				X	18	24	large	high		
				X	19	18	small	high		
				X	20	18	small	low		
				X	21	18	small	low		
5252A	0.3	0	X		0				No CMP	
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
5253	1	7			1		small			
					2		medium			
					3		medium			
					4		medium			
					5		medium			
					6		medium			
					7		medium			
5255	1.27	5			1		small			
					2		medium			
					3		small			
					4		medium			
					5		medium			
5260	0.5	5	X	X	1	18	medium	low		
			X	X	2	18	medium	low		
			X	X	3	18	large	high		
			X	X	4	24	medium	low		
			X		5	24	medium	low		
5323	1.58	3			1		large			
					2		large			
					3		large			
5339	4.5	7	X	X	1	36	large	high		
			X	X	2	24	medium	low		
			X	X	3	18	medium	low		
			X	X	4	24	medium	low		
			X	X	5	36	medium	low		
			X	X	6	18	medium	low		
			X	X	7	24	medium	low		
5340	1	1	X	X	1	36	large	high		
5345	1.5	1	X	X	1	18	small	high		
5355	1.7	4	X		1	18	large	high		
			X		2	24	small	high		
			X		3	18	large	high		
			X		4	18	large	high		
895A	2.05	10			1		medium			
					2		medium			
					3		medium			
					4		medium			

					5		medium			
					6		large			
					8		small			
					9		medium			
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
895A					10		medium			
895C	2.63	0	X		0				No CMP	
895D	4.7	9	X	X	1	36		high		removed 2005
			X	X	2	24		low		removed 2005
			X	X	3	18		high		removed 2005
			X	X	4	36		high		removed 2005
			X	X	5	36		high		removed 2005
			X	X	6	36		high		removed 2005
			X	X	7	36		high		removed 2005
			X	X	8	24		low		removed 2005
			X	X	9	36		low		removed 2005
895E		2		X	1	36	large	low		
				X	2	18	medium	high	Forest Creek, cleaned inlet	
895F		5		X	1	24	medium	high	Cleaned inlet	
				X	2	24	medium	high	Cleaned inlet	
				X	3	24	medium	high	Cleaned inlet	
				X	4	24	medium	high	Cleaned inlet	
				X	5	18	medium	high	Cleaned inlet	
895K	0.82	1			1					
895J		2		X	1	24	small	high		
				X	2	18	small	high	half full	
895L	0.5	0			0				No CMP	
9503	1.87	10			1	24	small			
					2	18	medium			
					3	18	small			
					4	18	medium			
					5	48	medium			
					6	18	medium			
					7	18	medium			

					8	24	large			
					9	18	medium			
					10	18	medium			
				X	11	18	small		removed 2004	
				X	12	18	small		removed 2004	
				X	13	18	small		removed 2004	
				X	14	18	medium		removed 2004	
				X	15	36	large		removed 2004	
9676	3.16	0			0				No CMP	
9688	0.5	0			0				No CMP	
9690	0.84	4			1		small			
					2		medium			
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
9690					3		medium			
					4		medium			
9691	0.6	0			0				No CMP	
9692	0.23	4			1		medium			
					2		medium			
					3		medium			
					4		medium			
9694	0.22	1			1		medium			
9695	0.24	2			1		medium			
					2		medium			
9697	0.25	1			1		large			
9698	0.44	4			1		medium			
					2		medium			
					3		medium			
					4		small			
975	4.4	14		X	1	18	small	high		
				X	2	18	small	high		
				X	3	18	small	low		
				X	4	18	small	high		
				X	5	18	small	high		
				X	6	18	small	high		
				X	7	18	small	high		
				X	8	18	small	high		
				X	9	18	small	high		
				X	10	18	small	low		
				X	11	18	small	high		
				X	12	18	small	high		
				X	13	18	small	high		
				X	14	18	small	high		
975A	1.1	0	X		0		medium		No CMP	
9794	0.7	8		X	1	18	small	high		

				X	2	18	medium	high		
				X	3	24	medium	high		
				X	4	24	medium	low		
9795	0.7	8	X	X	1	18	small	low		
			X	X	2	18	small	high		
			X	X	3	18	small	high		
				X	4	48sq	large	high		
				X	5	18	medium	low		
				X	6	18	medium	low		
				X	7	18	medium	failed		
				X	8	24	medium	low		
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
9796	8.33	20	X		1	18	large	high		
			X		2	18	medium	high		
			X		3	24	medium	high		
			X		4	24	medium	high		
			X		5	18		low		
			X		6	slump	none	failed		
			X		7	18	large	high		
			X		8	18	large	high		
			X		9	NA		low		
			X		10	NA		low		
			X		11	18	large	high		
			X		12	18				
			X		13	18	large	high		
			X		14	24	large	high		
			X		15	48		low		
			X		16	NA		low		
			X		17	18	medium	high		
			X		18	18	large	high		
			X		19	24	large	high		
			X		20	seep		low		
9797	2.69	6		X	1	18	small	low		
				X	2	18	medium	low		
				X	3	18	medium	low		
				X	4	18	small	low		
				X	5	18	medium	low		
				X	6	18	small	low		
9809	1	4	X		1	18	small	high		
			X		2	NA	medium	high		
			X		3	18	large	high		
			X		4	18	medium	high		
9828	1.37	3			1		small			
					2		medium			
					3		large			
9829	4.57	8	X		1	18		low		
			X		2	24		low		

			X		3	36		low		
Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
9829			X		4	48	large	high		
			X		5	18	small	low		
			X		6	18	medium	high		
9829			X	X	7	48X66			removed 2004	
			X	X	8	30		low		
9831	1.5	0	X		0				No CMP	
9832	0.5	1	X		1	24		low		
9833	0.5	0	X		0				No CMP	
9834	0.7	0	X		0				No CMP	
9836	1.3	3		X	1	18	medium	low		
				X	2	18	large	low		
				X	3	24	large	low		
9837	0.47	2			1		medium			
					2		medium			
9838	5.94	11	X		1	24		low		
			X		2	36	large	high		
			X		3	48		low		
			X		4	36		low		
			X		5	36		low		
			X		6	18		low		
			X		7	18	large	high		
			X		8	18		low		
			X		9	36	large	high		
			X		10	18	large	high		
			X		11	18	large	high		
9841	0.58	0			1					2005
					2					2005
					3					2005
					4					2005
					5					2005
9842	0.35	3		X	1	18	medium	low		
				X	2	18	medium	low		
				X	3	18	medium	low		
9853		1		X	1	Br		low	Bridge abutments constrict flows, eroding	
9862	1.14	0			0				No CMP	
9864	1.44	5			1		medium			
					2		medium			
					3		large			
					4		large			
					5		large			
9865	0.49	4			1		large			

Road #	Miles	Culverts	2005	2006	site #	cmp	depth of fill	risk	Notes	decomm
9865					2		large			
					3		large			
					4		large			
9867	0.46	0			0				No CMP	
9870	0.1									
9871	0.3	1	X		1	24		low		
Totals	miles	Culverts	05 cmps	06 cmps			high	112		
	155.82	319	170	179			low	119		

15. During project development and implementation, the forest shall ensure the Service is promptly notified of any emergency or unanticipated situations arising that may be detrimental for bull trout relative to the proposed activities. In addition, the Service will be notified if additional changes are made to the proposed action.

FS Response: As noted above, two severe flood events impacted parts of the Westside Reservoir area in 2006; one event occurred in June and a second in November. The impact of these events and the Forest Service response to them has been reported to the Service.

Robert-Wedge Post Fire Project

All timber salvage included in this project has been completed. Some final road drainage improvements and closure berms will be installed after the ground thaws and any springtime activity restrictions are satisfied. There were approximately 5.5 miles of road decommissioned in the Canyon-McGinnis subunit in 2006. There are approximately 11 miles of additional road scheduled for decommissioning in this subunit during the 2007 field season. There are no remaining high-risk culverts on roads included within the project area, and there was no known mortality of any listed species related to project activities during 2006.