Fallen Bear Management Activity Report

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Forest Service Handbook 1909.15.15.1 provides guidance on the consideration of past actions in cumulative effects analysis. It states "…regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions." It goes on to say, "…the agency must determine what information regarding past actions is useful and relevant to the required analysis of cumulative effects. Cataloging past actions and specific information about the direct and indirect effects of their design and implementation could in some contexts be useful to predict the cumulative effects of the proposal. The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all individual past actions."

During the scoping process and analysis, the Forest Service determined what information regarding past actions was useful and relevant to the analysis of cumulative effects. This report provides information of relevant past, present and reasonably foreseeable projects/activities that have occurred, are occurring, or are proposed to occur within each of the resource cumulative effects areas examined in this analysis. It provides a description of known past, present, and reasonably foreseeable activities and shows which analysis considers effects of those activities.

There are marked differences between past and current land management practices and policies. The evolution that has occurred in land management practices is the result science and our ongoing monitoring actions.

On the Idaho Panhandle National Forests (IPNF) early to mid 20th century road construction focused mainly through river valleys, riparian areas, floodplains, and adjacent hillsides. The roads efficiently provided access but decreased the land's effectiveness as wildlife habitat and constricted stream channels, while providing a new avenue for erosion and discharge of sediment into streams. Roads on National Forest System lands often were simply an expansion of existing trails and paths that provided access so that they would accommodate newer equipment and current land uses. In some situations roads were developed on abandoned railroad beds. In both cases, the location and design were predetermined from the previous use and era. As time progressed, roads were "designed" and located to achieve their primary purpose, which was to provide access and haul products at a minimal cost. In the decades following World War II (1950s –'70s), the road network was rapidly expanded to support the domestic need for lumber in housing construction.

Over the last twenty years, both road design and location have evolved as necessary tools to not only provide efficient access; but also to protect the valuable watershed resources they encroached upon. Forest Service Best Management Practices (FSH 2509.22 Soil and Water Conservation Practices Handbook) currently incorporated into road construction/reconstruction activities on the IPNF include:

- Road surfacing (gravel, etc…) was incorporated to not only provide better travel conditions; but also to prevent and control erosion from the road surface.
- Road drainage controls are now incorporated into designs that:
  - Reduce the erosive flows in ditches by providing frequent cross-drains to relieve ditch flows;
  - Avoid water movement down the road by dispersing the drainage quickly by crowning or out-sloping the road surface;
  - Stabilize ditches by lining; and
  - Disperse drainage water (that often carries sediment) onto stable forested slopes before ditches discharge into waterways.
  - Allow new and existing stream crossings to safely pass extreme events (i.e. 100-year flood event).
- Special construction techniques and designs have been utilized (i.e., full- or partial-benching of roads) to avoid unstable side casting of waste materials; windrowing clearing slash to prevent sediment delivery to streams from construction activities themselves as well as from erosion of road fills and treads that are not yet protected with erosion control vegetation.

- Some roads now are designed to take advantage of the non-uniformities of the slopes they cross by "rolling grades" and grade breaks to prevent the potential for accumulations of water or excessive ditch flows that, in the past, could have destabilized the road bed or caused surface erosion.
- Designers and planners develop road networks that avoid highly erosive or unstable slopes utilizing land system inventories, hydrologists, soil scientists, and geotechnical engineers.
- Road crossings are being located at more stable sites, and crossing designs now incorporate water quality and fish passage as primary design criteria, rather than criteria that just account for costs and traffic efficiency.
- Roads are now located well away from streams and their riparian areas where practicable, and the number of crossing sites is being minimized. These features are in stark contrast to past road locations that sometimes resulted in chronic sources of sediments, extended exposure of streams to direct sunlight resulting in higher temperatures, and reduced the replacement sources of large woody debris which provides the structural component of streams and aquatic cover.
- In the past, when a road's utility ended, the road was simply abandoned. Some of these abandoned roads create substantial water quality and slope stability issues as they deteriorate, especially without any maintenance. Current practice is to begin restoring key abandoned or no longer useful roads to a "hydrologically neutral" condition where its remnants are self-maintaining and are no longer disturbing slope stability or the movement of slope water, either on or below the soil surface, or the natural functions and adjustments of streams, wetlands, and other water bodies.

Impacts to forest water and soil resources from logging practices and road activities have also been reduced over the past 20 years with the introduction of Best Management Practices (BMPs) and Inland Native Fish Strategy (a.k.a. INFISH) management direction. Based on research studies, current BMPs and INFISH Riparian Habitat Conservation Areas (RHCAs) can reduce sediment yields compared with historical practices (Lee and others 1997; USDA 1995).

In 1972, Section 208 of the Clean Water Act Amendments established the regulatory framework for non-point source pollution control thorough use of BMPs. BMPs are defined in Idaho as a practice or combination of practices determined to be the most effective and practicable means of preventing or reducing the amount of pollution generated by non-point sources (IDAPA 20.02.01). BMP monitoring is annually conducted by the IPNF to validate the implementation and effectiveness of BMPs associated with land management activities. Monitoring results are used to adapt future management actions where improvements in meeting water quality objectives are indicated. Forest monitoring of BMPs indicates that in most cases they continue to function as expected and are meeting their intent (IPNF 2002, 2003, 2004).

At the time the IPNF Forest Plan was approved (1987), the emphasis was on developing a commodity production strategy while minimizing impacts to watersheds and aquatic resources, including fish. The strategy for watershed management was constructed in the forest plan as a "maintenance" objective. In some situations, thresholds, or "minimum impact" standards defined the criteria for maintenance. To ensure that watersheds and aquatic resources were maintained during forest management activities, BMPs were applied. Despite the existing forest plan standards and BMPs, the condition of fish habitat on the forest was declining, primarily due to timber harvest and road building activities (IPNF 1992).

In 1995, the forest plan was amended to include INFISH management direction (USDA 1995). The implementation of INFISH gave greater protection to aquatic resources, especially riparian-dependent systems. The management direction provided by the INFISH amendment is designed to protect and maintain the structure and function of riparian and aquatic systems. INFISH includes goals for healthy, functioning watersheds, riparian areas, and associated fish habitats; Riparian Management Objectives (RMOs), and performance-based standards and guidelines for land management activities (i.e., timber, roads, grazing, recreation, minerals, fire/fuels, lands, riparian area management, watershed restoration, fisheries and wildlife restoration). Instead of allowing some "acceptable" level of effects on riparian and aquatic systems, INFISH aims to protect aquatic resources from detrimental effects. INFISH gives riparian-dependent resources priority over other resources in the Riparian Habitat Conservation Areas (RHCAs), so that while RHCAs are not "lock out" zones, activities that occur in them must either benefit riparian and aquatic resources or at least "not slow the rate of recovery below the near natural rate of recovery if no additional human caused disturbance was placed on the system" (USDA 1995). Incorporation of the INFISH management direction into the forest plan has led to improvement in the condition of aquatic resources by offering greater protections to the critical riparian areas. In addition, INFISH allows for and encourages watershed restoration. Restoration has occurred over the

years across the IPNF. Approximately 1,367 miles of roads have been decommissioned on the IPNF from 1991-2004 (IPNF 2004).

Harvest methods and removal of timber products from the national forest has changed substantially over time. Harvest methods in the1950s, 1960s, and 1970s focused primarily on financial objectives of providing low-cost wood products. Harvest placement often occurred in the highest volume, easily accessible stands and often occurred within riparian areas and adjacent to streams. Most of the harvest prescriptions were primarily designed to produce healthy, young stands with shorter rotation ages.

Modern timber harvest prescriptions and design emphasize desired conditions of the forest after the harvest. This usually results in the retention of various amounts of trees in a post-harvest stand to address objectives that may include wildlife habitat, watershed conditions, hazardous fuels, visual quality, soil productivity, forest health and others. On sites determined suitable for timber production, timber harvest may also produce timber products on a regulated basis while compatible with these other resource objectives and values. Some examples where timber production and resource objectives can be achieved simultaneously are:

- Reducing tree densities to decrease bark beetle hazard, thereby prolonging the development of the forest and maintaining tree cover;
- Managing tree canopies to limit fire spread from the forest floor to the tree crowns;
- Developing flamulated owl habitat in ponderosa pine forest through removal of smaller stems that crowd larger trees, thereby providing more room to grow for the remaining trees and open stand conditions favored by the owl;
- Designing harvest patterns across the landscape to facilitate wildlife movement, such as providing corridors and preserving travel routes for ungulates;
- Using harvest prescriptions and landscape patterns as part of a wildfire hazard reduction strategy;
- Increasing the amount of native western white pine, western larch and ponderosa pine, which are generally more insect and disease resistant and are long-lived;
- Increasing western redcedar in valley bottoms, where it historically was more abundant than today;
- Using variable retention harvests to meet visual management objectives.

Other elements of modern harvest prescriptions that address specific resource objectives include retention of snags for cavity nesters, retention of down wood for soil nutrition and wildlife habitat, maintaining sediment filtering vegetation near riparian areas, and maintaining vegetation diversity through hardwood retention and protection of rare plants.

Increased environmental awareness also lead to improvements in logging systems used to remove trees from the forest. Early harvests emphasized cheap, labor-intensive logging methods such as railroad, horse, short-distance jammer systems, and tractor logging. Logging systems were selected primarily by the least expensive method to transport the trees from the forest to the mill. This sometimes involved harvesting on steep slopes, creating excessive soil disturbance and increasing the risk of erosion. Streams were sometimes used as a method to transport logs from the harvest site, causing impacts to the aquatic system and adjacent riparian habitat. Road systems were sometimes dense (10 mi. sq. mi.) to facilitate rapid and inexpensive removals, in some cases compromising water quality.

Today's logging systems reduce the threat of environment harm in a number of ways. Tractor logging generally occurs on slopes 35% or less, and is limited to designated locations, reducing soil impacts. Skyline and other cable yarding systems are used on steeper slopes, which greatly reduce the amount of soil disturbance. Increasingly, helicopter logging is used, which extends yarding distances and thereby reduces road densities. A suite of best management practices and forest plan standards and guidelines aids in the development of the least impactive design possible. Monitoring during and after timber harvest provides a valuable feedback loop that quickly identifies and corrects variances should they occur.

The IPNF ceased regeneration harvest of allocated old growth stands a number of years ago. Presently, our focus is on maintaining the old growth stands that we have and allocating additional stands for future old growth as they mature. On drier sites, restoration of old growth may include various mixes of prescribed fire and thinning to reduce risk of stand-replacing fire and restore more open old growth stand structures similar to those that occurred prior to fire suppression. Planting of shade-intolerant, fire-adapted species may also be done if these are in short supply. On these dry sites, our objective is to restore and sustain the old growth by retaining

the large old trees, preserve the old growth characteristics, and restore historic old growth structures and processes (IPNF 2003).

For the above stated reasons: changes in road construction/reconstruction and maintenance practices; implementation of INFISH management direction and watershed BMPs; and changes in harvest practices and objectives, an individual analysis of past projects cannot be clearly compared to analysis of the proposed actions. However, the incremental effects of proposed action when added to the effects of the past, present, and reasonably foreseeable actions is displayed and provides a complete assessment of cumulative effects.

Analysis of cumulative effects for the Fallen Bear Project considers the past, present, and reasonably foreseeable activities that are pertinent for each resource. Reasonably foreseeable actions include those management activities that are on-going or scheduled to occur and may occur regardless of which Fallen Bear alternative the responsible official chooses. Even with the No-Action Alternative, reasonably foreseeable actions would occur.

Past, present, and reasonably foreseeable future activities were identified from databases (FACTS), aerial photographs from different years, the District Fire History Map, physical evidence in the project area, and the interdisciplinary team's knowledge of the area. The following is a list and description of activities identified by resource specialists as being pertinent to some resource(s) for analysis of cumulative effects for the Fallen Bear cumulative effects analysis areas.

Past, Present, and Reasonably Foreseeable Future Actions Considered for Cumulative Effects

Action	Past	Present	Future
Timber Harvest	X		
Tree Planting	X		
Precommercial Timber Stand Improvement	X		
Mechanical or Manual Site Preparation and Fuels Treatment	X		
Prescribed Burning for Site Preparation and Fuels Treatment	X		
Prescribed Burning for Wildlife Habitat Improvement	X		
Wildfires	X		**unknown**
Fire Suppression	X	X	X
Introduction of white pine blister rust	X		
Road Construction	X		
Road Decommissioning	X		
Road Maintenance	X	X	X
Conrad Campground	X	X	X
Public Activities: firewood cutting, driving roads, camping, snowmobiling, hunting, hiking, berry picking, fishing, Christmas tree cutting	X	X	X
Trail Construction	X		
Trail Maintenance	X	X	X
Fisheries Habitat Improvement Projects	X		
Spraying Herbicides to Control and Prevent Noxious Weeds Under the St. Joe Noxious Weed EIS	X	X	X
Outfitter and Guide Uses	X	X	X
Large woody debris removal from Bruin Creek	X		
Flood damage & repair on Bruin Creek Road in 1997	X		
Eureka Mine hard rock mining	X		
Installing bat-friendly barrier on Eureka Mine adit to block human access for safety			X

Timber Harvest: Timber harvest history was determined using the Red Ives Ranger District Timber Sale Atlas and the FACTS database. The Red Ives atlas indicates timber sales within the Fallen Bear Project Area occurring in 1956, 1958, and 1960 (ACT-2). These sales are not recorded in the FACTS database. According to the FACTS database there were approximately 4,050 acres of timber harvest in the Fallen Bear Project Area between 1967 and 1992 (ACT-3). Some of this occurred on the same area, so approximately 3,415 acres (32 percent of the total project area) have had one or more timber harvest (ACT-4). According to the FACTS database the following timber harvest has occurred within the Fallen Bear Project Area. This includes some duplicated acres of harvest where it occurred in the same place (ACT-3).

Effects are past timber harvest are considered in the analysis for cultural resources, fire and fuels, fisheries, forest vegetation, noxious weeds, recreation, soils, TES plants, water resources; and wildlife.

Summary of Timber Harvest According to FACTS Database by Silvicultural Rx for each Decade

	Silvicultural Prescription									
Decade	Lib. Cut	OSR	Patch Clearcut	Sanitation (salvage)	ST	SW	SW Removal	Special Cut	Stand Clearcut	Total
1960s				157		10	33		1,114	1,314
1970s		16	10	736	4	292			285	1,343
1980s	18			259	33	178	139		119	746
1990s				221	149	158		69	50	647
Total	18	16	10	1,373	186	638	172	69	1,568	4,050

List of Timber Harvest by Stand According to FACTS Database by Silvicultural Rx and Decade

FACTS_ID	DESCRIPTION	ACRES	ACCOMP	SALE_NAME
A310100045	Sanitation (salvage)	33	12/1/1967	
A310200004	Sanitation (salvage)	28	10/1/1968	
A310200038	Sanitation (salvage)	39	10/1/1968	
A310100055	Sanitation (salvage)	7	10/1/1969	
A320200005	Sanitation (salvage)	30.0	10/1/1969	
A320200007	Sanitation (salvage)	20.0	10/1/1969	
	Total 1960s Sanitation (salvage)	157		
A320100001	Shelterwood cut	10	10/1/1969	
A310300009	Shelterwood Removal Cut	33	8/1/1969	
A310100001	Stand Clearcut	43	6/1/1968	
A310100002	Stand Clearcut	34	6/1/1968	
A310100003	Stand Clearcut	85	6/1/1968	
A310100004	Stand Clearcut	75	6/1/1968	
A310100005	Stand Clearcut	28	6/1/1968	
A310100017	Stand Clearcut	37	6/1/1968	
A310200001	Stand Clearcut	82	10/1/1968	
A310200003	Stand Clearcut	51	10/1/1968	
A310300001	Stand Clearcut	98	6/1/1969	
A310300002	Stand Clearcut	108	6/1/1969	
A310200002	Stand Clearcut	110	8/1/1969	BLACKJACK TUMBLEDOWN
A310100048	Stand Clearcut	12	10/1/1969	
A320200002	Stand Clearcut	128	10/1/1969	
A320200004	Stand Clearcut	94	10/1/1969	LEGACY SALE W/O NAME
A320200006	Stand Clearcut	115	10/1/1969	
A320200011	Stand Clearcut	14	10/1/1969	
	Total 1960s Stand Clearcut	1,114		
	1960s Total	**1,314**		
A320200001	OSR cut (from advanced regen)	16	6/1/1974	
A310200008	Patch clearcut	10	6/1/1978	GOLD SKYLINE
A320200047	Sanitation (salvage)	31	9/1/1970	BLACKJACK TUMBLEDOWN

FACTS_ID	DESCRIPTION	ACRES	ACCOMP	SALE_NAME
A310100011	Sanitation (salvage)	33	10/1/1970	EAST BRUIN CREEK
A310100018	Sanitation (salvage)	64	10/1/1970	EAST BRUIN CREEK
A310100031	Sanitation (salvage)	33	10/1/1970	EAST BRUIN CREEK
A310100040	Sanitation (salvage)	11	10/1/1970	EAST BRUIN CREEK
A310200005	Sanitation (salvage)	27	6/1/1975	WEST BRUIN CREEK
A310200006	Sanitation (salvage)	16	6/1/1975	WEST BRUIN CREEK
A310200038	Sanitation (salvage)	27	6/1/1975	WEST BRUIN CREEK
A310200039	Sanitation (salvage)	31	6/1/1975	WEST BRUIN CREEK
A310300004	Sanitation (salvage)	46	6/1/1975	
A310300005	Sanitation (salvage)	10	6/1/1975	
A310300006	Sanitation (salvage)	20	6/1/1975	
A310300032	Sanitation (salvage)	10	6/1/1975	
A310300034	Sanitation (salvage)	11	6/1/1975	
A310300037	Sanitation (salvage)	98	6/1/1975	
A310300003	Sanitation (salvage)	60	6/1/1977	BRUIN BUDWORM
A310300038	Sanitation (salvage)	13	6/1/1977	BRUIN BUDWORM
A320300012	Sanitation (salvage)	28	7/1/1977	SHADY SALVAGE
A310200008	Sanitation (salvage)	167	6/1/1978	GOLD SKYLINE
	Total 1970s Sanitation (salvage)	736		
A320100031	Seed-tree seed cut	4	9/1/1978	TUMBLEDOWN BLOWDOWN
A310100012	Shelterwood cut	52	10/1/1970	EAST BRUIN CREEK
A310100013	Shelterwood cut	30	10/1/1970	
A310100014	Shelterwood cut	29	10/1/1970	EAST BRUIN CREEK
A310100019	Shelterwood cut	31	10/1/1970	EAST BRUIN CREEK
A310100033	Shelterwood cut	15	10/1/1970	EAST BRUIN CREEK
A320100007	Shelterwood cut	12	10/1/1976	TUMBLEDOWN LP
A320300010	Shelterwood cut	46	6/1/1977	SHADY SALVAGE
A320300011	Shelterwood cut	61	6/1/1977	SHADY SALVAGE
A320300013	Shelterwood cut	16	7/1/1977	SHADY SALVAGE
	Total 1970s Shelterwood cut	292		
A320200008	Stand Clearcut	68	10/1/1973	
A320200009	Stand Clearcut	19	10/1/1973	SHADY CREEK
A320200010	Stand Clearcut	13	10/1/1973	SHADY CREEK
A320300001	Stand Clearcut	41	10/1/1973	SHADY CREEK
A320300002	Stand Clearcut	34	10/1/1973	
A320300004	Stand Clearcut	33	10/1/1973	
A320300014	Stand Clearcut	13	10/1/1973	SHADY CREEK
A320200012	Stand Clearcut	64	9/1/1976	TUMBLEDOWN LP
	Total 1970s Stand Clearcut	285		
	1970s Total	**1,343**		

FACTS_ID	DESCRIPTION	ACRES	ACCOMP	SALE_NAME
A310100011	Liberation Cut	11	8/1/1986	EAST BRUIN
A310100055	Liberation Cut	7	8/1/1986	EAST BRUIN
	Total 1980s Liberation Cut	18		
A320300010	Sanitation (salvage)	46	9/1/1982	SHADY AREA SALVAGE
A320300011	Sanitation (salvage)	15	9/1/1982	SHADY AREA SALVAGE
A320300012	Sanitation (salvage)	8	9/1/1982	SHADY AREA SALVAGE
A320300013	Sanitation (salvage)	10	9/1/1982	SHADY AREA SALVAGE
A310200008	Sanitation (salvage)	167	10/1/1982	BRUIN BASIN SALVAGE
A310100006	Sanitation (salvage)	5	12/1/1985	CONRAD HELICOPTER
A320100049	Sanitation (salvage)	8	12/1/1987	BRUIN BLOWDOWN
	Total 1980s Sanitation (salvage)	259		
A310300016	Seed-tree seed cut	33	8/1/1987	BRUIN TUMBLEDOWN
A310100022	Shelterwood cut	7	9/1/1980	BRUIN POINT
A320200003	Shelterwood cut	38	9/1/1981	BLACKJACK BLOWDOWN
A310100045	Shelterwood cut	33	7/1/1986	EAST BRUIN
A310300018	Shelterwood cut	24	8/1/1987	BRUIN TUMBLEDOWN
A320100009	Shelterwood cut	38	8/1/1987	BRUIN TUMBLEDOWN
A320100015	Shelterwood cut	13	8/1/1987	BRUIN TUMBLEDOWN
A320300059	Shelterwood cut	25	9/1/1989	NORTH RIVERFACE
	Total 1980s Shelterwood Cut	178		
A310100012	SW Final Removal Cut	52	10/1/1985	EAST BRUIN
A310100019	SW Final Removal Cut	31	10/1/1985	EAST BRUIN
A310100033	SW Final Removal Cut	15	8/1/1986	EAST BRUIN
A310100014	SW Final Removal Cut	30	9/1/1986	EAST BRUIN
A310100040	SW Final Removal Cut	11	9/1/1986	EAST BRUIN
	Total 1980s SW Final Removal Cut	139		
A310100035	Stand Clearcut	10	6/1/1986	EAST BRUIN
A310100032	Stand Clearcut	37	8/1/1986	EAST BRUIN
A310100032	Stand Clearcut	12	8/1/1986	EAST BRUIN
A310100038	Stand Clearcut	9	8/1/1986	EAST BRUIN
A310100043	Stand Clearcut	15	8/1/1986	EAST BRUIN
A320300038	Stand Clearcut	11	9/1/1988	NORTH RIVERFACE
A320300062	Stand Clearcut	10	9/1/1988	NORTH RIVERFACE
A320300039	Stand Clearcut	15	9/1/1989	NORTH RIVERFACE
	Total 1980s Stand Clearcut	119		
	Total 1980s	**746**		
A320100027	Sanitation (salvage)	15	7/1/1991	BRUIN TUMBLEDOWN
A310300037	Sanitation (salvage)	98	9/1/1991	BRUIN BEETLE SALVAGE

FACTS_ID	DESCRIPTION	ACRES	ACCOMP	SALE_NAME
A310300038	Sanitation (salvage)	13	9/1/1991	BRUIN BEETLE SALVAGE
A310200038	Sanitation (salvage)	39	12/1/1991	BRUIN BEETLE SALVAGE
A310200039	Sanitation (salvage)	31	12/1/1991	BRUIN BEETLE SALVAGE
A310300034	Sanitation (salvage)	11	5/1/1992	3 SPOT HELICOPTER
A310300035	Sanitation (salvage)	5	5/1/1992	3 SPOT HELICOPTER
A310300036	Sanitation (salvage)	4	5/1/1992	3 SPOT HELICOPTER
A310300039	Sanitation (salvage)	5	6/1/1992	BRUIN BEETLE SALVAGE
	Total 1990s Sanitation (salvage)	221		
A320100003	Seed-tree seed cut	21	10/1/1990	BRUIN TUMBLEDOWN
A320100028	Seed-tree seed cut	5	6/1/1991	BRUIN TUMBLEDOWN
A320100002	Seed-tree seed cut	6	8/1/1991	BRUIN TUMBLEDOWN
A320100021	Seed-tree seed cut	17	9/1/1991	BRUIN TUMBLEDOWN
A320100029	Seed-tree seed cut	19	9/1/1991	BRUIN TUMBLEDOWN
A320100030	Seed-tree seed cut	12	9/1/1991	BRUIN TUMBLEDOWN
A310300017	Seed-tree seed cut	30	8/1/1992	BRUIN TUMBLEDOWN
A310300019	Seed-tree seed cut	24	8/1/1992	BRUIN TUMBLEDOWN
A310300020	Seed-tree seed cut	15	8/1/1992	BRUIN TUMBLEDOWN
	Total 1990s Seed-tree seed cut	149		
A320300060	Shelterwood cut	13	9/1/1990	NORTH RIVERFACE
A320300017	Shelterwood cut	20	10/1/1990	NORTH RIVERFACE
A320300064	Shelterwood cut	16	10/1/1990	NORTH RIVERFACE
A320100014	Shelterwood cut	39	6/1/1991	BRUIN TUMBLEDOWN
A320100006	Shelterwood cut	32	9/1/1991	BRUIN TUMBLEDOWN
A320100020	Shelterwood cut	15	9/1/1991	BRUIN TUMBLEDOWN
A320100023	Shelterwood cut	23	9/1/1991	BRUIN TUMBLEDOWN
	Total 1990s Shelterwood cut	158		
A310100009	Special Cut	9	4/1/1991	RIVERFACE HELICOPTER
A310100007	Special Cut	11	5/1/1991	RIVERFACE HELICOPTER
A320100037	Special Cut	3	5/1/1991	RIVERFACE HELICOPTER
A320100069	Special Cut	19	5/1/1991	RIVERFACE HELICOPTER
A320100056	Special Cut	19	6/1/1991	RIVERFACE HELICOPTER
A320100057	Special Cut	8	6/1/1991	RIVERFACE HELICOPTER
	Total 1990s Special Cut	69		
A320300061	Stand Clearcut	8	9/1/1990	NORTH RIVERFACE
A320300027	Stand Clearcut	20	10/1/1990	NORTH RIVERFACE
A320100018	Stand Clearcut	22	8/1/1991	BRUIN TUMBLEDOWN
	Total 1990s Stand Clearcut	50		
	1990s Total	**647**		
	Total Timber Harvest	**4,050**		

Tree Planting: Approximately 1,774 acres were fully planted for the first time between 1969 and 1995 (ACT-5). Approximately 612 of those acres were replanted and approximately 319 of those acres were replanted another time to ensure regeneration success within five years as required by the National Forest Management Act.

Effects are past tree planting are considered in the analysis for fire and fuels; fisheries; water resources; and wildlife.

Precommercial Timber Stand Improvement: Precommercial timber stand improvement consisting of release and weeding, precommercial thinning, and pruning was done on approximately 263 acres (ACT-5).

Effects are past timber stand improvement are considered in the analysis for fire and fuels, forest vegetation, fisheries, water resources, and wildlife.

Mechanical Site Preparation and Fuels Treatment: In the 1970s approximately 45 acres were mechanically prepared for tree planting and approximately 133 acres were manually treated to encourage natural regeneration (ACT-5).

Effects are past mechanical site preparation and fuels are considered in the analysis for fire and fuels and fisheries.

Prescribed Burning for Site Preparation or Fuels Treatment: Prescribed burning for fuels treatment and/or site preparation has been done on approximately 1,432 acres within the Fallen Bear Project Area (ACT-5). The FACTS database shows burned acres for fuel treatment on the same acres burned for site preparation.

Effects are past prescribed burning for site preparation and fuels are considered in the analysis for fire and fuels, soils, water resources, and wildlife.

Prescribed Burning for Wildlife Habitat Improvement: Approximately 225 acres were burned to improve big game habitat in 2007 under the Quartz Wildlife Burn Decision Memo (ACT-5, ACT-6).

Effects are past prescribed burning for wildlife habitat improvement are considered in the analysis for fire and fuels and wildlife.

Wildfires: Fire Occurrence History records are available for the Fallen Bear Area for the period 1940-1970 in the form of historical fire atlases. Electronic records are available for the area for the period 1974-2007. A data gap exists for the years 1971-1973. A large fire burned area map covering the project area is also available in both historical and digitized (GIS) formats.

For the period covered by available data (1940-1970 and 1974-2007), the following fire history was derived for the project area: There were 26 lightning fires, 17 of which were Class A fires (less than ¼ acre), and 9 of which were Class B (1/4 to 10 acres). The period 1940-1970 averaged .33 lightning fires per year, and the period 1974-2007 averaged .5 lightning fires per year. There were three person-caused fires. Two of these were related to logging activities in the late 1960s, and the other was the result of an escaped campfire in 1985. The escaped campfire was a Class A fire, one of the logging fires was a Class B fire, and the remaining logging fire was a Class E fire (300 to 999 acres) that occurred in the NW corner of Section 35 in the Bruin Creek Drainage in 1967.

The large-fire burned area map shows two areas in which the 1910 fire impacted the project area. Approximately 200 acres of the river face east of Shady Creek burned in 1910, including southern portions of proposed Units 183 and 183A. Approximately 634 acres of the Haggerty Creek Drainage and unnamed river face drainages to the east also burned in 1910, including proposed Units 109, 103, and 96A and B in their entirety and portions of Unit 97. The burned area map, which includes data from 1890 to present, displays no other fire activity in the project area.

Effects of past wildfires are considered in the analysis for fire and fuels, forest vegetation, noxious weeds, soils, and wildlife.

Fire Suppression: Consistent with current policy, efforts will be made to suppress all fires which occur within the project area.

Effects of past and continuing fire suppression are considered for fire and fuels, fisheries, forest vegetation, old growth, soils, TES plants, and wildlife.

Introduction of White Pine Blister Rust: The accidental introduction of the exotic white pine blister rust (*Cronartium ribicola*) decimated western white pine, which was historically a major stand component. It is estimated that western white pine population throughout its interior Northwest range may be less than five percent of what it was at the turn of the 20th century. Western white pine has a natural rust resistance of less than ten percent (10%), and as a result, ninety percent (90%) or more of the western white pine throughout this project area have been lost and similar mortality rates have occurred over the landscape in general.

Effects of white pine blister rust are considered in the analysis for forest vegetation.

Road Construction: The transportation system within the Fallen Bear Project Area evolved from primitive foot and horse trails that provided access for hunting, gathering, and movement to other areas. From the early 1900s to the 1930s a more extensive trail network was constructed to provide forest access and fire protection. The trail network tended to follow major stream courses and ridges. During the era of the Civilian Conservation Corps (1930s) single land, primitive roads were constructed to provide motorized access, replacing some of the more major trail routes. Roads were built along the St. Joe River and the Gold/Quartz divide from the state line to Blackjack Peak. This base network was then improved and expanded to provide access for timber harvest starting in the mid 1950s into the early 1980s. Roads were constructed along Quartz Creek and Bruin Creek to connect the tertiary logging roads to arterial access. Logging systems used during the 1950s and 1960s required close road spacing resulting in high road densities in some areas. Since then the trend has been toward the use of logging equipment with longer external yarding capabilities which increase road spacing and reduce the miles of road needed. Reconstruction of the St. Joe River Road (now Forest Highway 50) to a two-lane, paved highway was accomplished in stages starting in the mid-1950s. In 1994 jurisdiction of FH50 was transferred to Shoshone County.

Effects of road construction are considered in the analysis for cultural resources, fisheries, noxious weeds, recreation, soils, TES plants, water resources, and wildlife.

Road Decommissioning: Road 3698AUA was partially recontoured and was slated to be decommissioned or removed from the National Forest Road System. Transportation analysis determined that this road would be needed for future management, so it will not be removed from the transportation system.

Effects of road decommissioning are considered in the analysis for fire and fuels, fisheries, soils, and wildlife.

Road Maintenance: Routine road maintenance is likely to occur as needed on existing roads in the project area. This includes the ongoing upkeep of roads necessary to retain the approved road management objective. The overall condition and standards of the roads are adequate for the anticipated uses. Maintenance of existing roads and newly constructed roads is designed to minimize resource disturbance. Maintenance includes blading, drainage improvements, culvert maintenance, and surfacing.

Effects of road maintenance are considered in the analysis for fisheries, old growth, soils, and water resources.

Conrad Crossing Campground: Conrad Crossings Campground includes eight camping site: three along the river and five above the road. Routine cleaning and maintenance of Conrad Crossings Campground could include replacing tables and fire rings and improving access along campground pathways and sites.

Effects of the campground are considered in the analysis for fisheries and water resources.

Public Activities: Public activities that are likely to occur include firewood cutting, driving roads, camping, hunting, hiking, berry picking, fishing, and Christmas tree cutting. Firewood cutting is likely to occur along open roads. Recreation use will continue. The area is popular for hunting in the fall.

Effects of ongoing public use of the area are considered in the analysis for fisheries, noxious weeds, old growth, soils, TES plants, water resources, and wildlife.

Trail Maintenance: System trails in the project area include Blackjack Peak Trail 86 and Haggerty Trail 5. Haggerty Trail 5 is maintained yearly. The Blackjack Peak Trail needs to be reconstructed in some places, but no plans have been made to do this at this time.

Effects of trails and trail maintenance are considered in the analysis for old growth, soils, and TES plants.

Spraying Herbicides to Control and Prevent Noxious Weeds Under the St. Joe Noxious Weed EIS: Spraying herbicides to control noxious weeds may occur within the Fallen Bear Project Area under the St. Joe Noxious Weed Control Project EIS and associated ROD dated October 6, 1999 (USDA Forest Service IPNF 1999).

Effects of ongoing weed control are considered in the analysis for noxious weeds, old growth, and soils.

Outfitting: Permitted outfitting activities within the Fallen Bear Project Area include:

- Simmons/Quartz Designated Outfitter Area with year-round operations, snowmobile use for hunting operations only on routes open to public, horseback tours, and Whitetail Peak Spike Camp
- Fishing in St. Joe River from Red Ives to Avery
- Rafting in St. Joe River from Spruce Tree CG to Avery

Effects of outfitting are considered in the analysis for soils and wildlife.

Fish Habitat Improvement Projects: Lateral log structures were placed in Bruin Creek in 1993 to improve fish habitat conditions. Baffles were placed in the Bruin Creek culvert under FH 50 in 1993 to improve fish passage.

Effects of fish habitat improvement projects are considered in the analysis for fisheries and water resources.

Large Woody Debris Removal from Bruin Creek: Large woody debris was removed from Bruin Creek in 1987 in a misguided attempt to improve fish habitat by removing logs that were considered barriers to fish movement.

Effects of large woody debris removal are considered in the analysis for water resources.

Flood Damage and Repair on Bruin Creek Road 1223: Heavy runoff cause damage in two places on Bruin Creek Road 1223. The first site was a fill failure 0.2 miles up the road. The failure was 65 feet long and affected up to six feet of the road width. The repair included pulling up some of the fill, rip-rapping the outside edge, replacing some of the fill, and raising the grade around the failure. The second site was a culvert failure 0.8 miles up the road. Heavy runoff caused a debris flow to come down and plug the culver and overlow onto the road and over the fill. The culvert was damaged beyond repair. The culvert was replaced with a larger culvert (24-inch) that is sized to accommodate 100-year flows. Debris was removed, and the road surface was repaired. See project file document ACT-7.

Effects of flood damage and repair on Road 1223 are considered in the analysis for fisheries and water resources.

Eureka Mine: A small, hard rock mine was developed in Haggerty Creek some time in the early 1900s (ACT-8). A bat-friendly gate is scheduled to be installed the fall of 2008 or summer of 2009.

Effects of the Eureka Mine and installing a bat-friendly gate on it are considered in the analysis for noxious weeds, TES plants, and wildlife.

References

Lee et al., 1997, An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins, USDA/USDI, page 1346.

Inland Native Fish Strategy Environmental Assessment Decision Notice and Finding of No Significant Impact, 1995, USDA, pages A-5 to A-13.

Idaho Panhandle National Forests (IPNF). 2004, 2003, 2002, 1992. Forest plan monitoring and evaluation report.

Quigley et al., 1996, Integrated Scientific Assessment for Ecosystem management in the Interior Columbia Basin and Portions of the Klamath and Great Basins, USDA/USDI, pages 61, 181, and 184.

USDA 2003, Managing for Healthy White Pine Ecosystems in the United States to Reduce the Impacts of White Pine Blister Rust, page 1.