

Berg Unit #3 Prescribed Burn Review

**Salmon River Ranger District
Nez Perce National Forest**

November 4-5, 2003

Introduction

The Nez Perce National Forest has maintained a strong prescribed fire program for many years. This program along with the activity fuels program has led to the development of a pool of highly skilled prescribed fire practitioners. The Berg Salvage Timber Sale project, which included prescribed burning, was an output of a National Forest Management Act (NFMA) analysis completed approximately six years ago that covered a portion of the Salmon River Ranger District. A decision to implement this project was released January 15, 1997, per National Environmental Policy Act (NEPA) policies. Project implementation included under burning to treat activity and natural fuels on approximately 1683 acres over several years.

Specific burning objectives were not identified in the Berg Salvage Timber Sale environmental assessment, but general goals and objectives addressed in the document included the following:

- Treat natural fuels throughout the assessment area using prescribed fire.
- Implementation of the third phase/year of the project began on September 23rd, with continued ignitions on September 24th and September 25th. On October 2nd, the prescribed burn exceeded the capability of the Salmon River Ranger District staff and a wildfire situation was declared. On October 3rd a Type 2 Incident Management Team was requested and assumed command of the incident on October 5th. The delegation of authority was returned to the District on October 13th.

Purpose and Objectives

This report contains findings and an assessment of what causes contributed to the declaration of a wildfire. The Region 1 Director of Fire, Aviation and Air directed this review panel to report on the following objectives to ensure program processes and procedures were met:

Review the Prescribed Burn Plan:

Do stated burn objectives tie into Line Officer's decision or direction documents (NEPA, silvicultural prescription)?

- Were there adequate resources identified to manage all aspects of the burn project, including activation of the contingency plan?
- Identify methodology used to define type and number of contingency reserve resources needed; were they adequate?
- Were contingency resources identified the day of the burn, their availability confirmed, and were they used in a timely manner?

- Was the conversion of the prescribed fire to a wildland fire declared in a timely manner, what was the decision point and was it appropriate?
- Were all “18” required elements included in the burn plan?

Process

The intent of this review was to determine the facts regarding the wildfire declaration. The review team consisted of: Team Leader, Dick Rath, Assistant Regional Fire/Fuels Planner; Ron Hvizdak, Kootenai NF; and Rick Carlson, Lolo NF. This team worked with Salmon River Ranger District personnel to collect factual data concerning the prescribed burn plan, weather data, smoke management restrictions, dispatch, and training records. The team analyzed collected information and facts. The review focused on findings only and made recommendations to the Region 1, Director of Fire, Aviation and Air.

Scope

This report covers the series of events prior to and during the prescribed fire. *This report does not cover any events that happened once the prescribed burn was declared a wildfire.* A review of the NEPA document was covered by this report.

Berg Salvage # 3 Prescribed Burn

Project Description

The Berg Salvage project is a prescribed burn on the Salmon River Ranger District of the Nez Perce National Forest, south of Grangeville, Idaho. Implementation began on September 23, 2003, on the approximately 500-acre project area.

Burn Objectives

The prescribed burn prescription was developed using Fire Behavior Fuel Models 1, 2, 8, and 10. The specific burn objectives were:

- Maintain 10-15 tons per acre of 4” + diameter material over 50% of the area, for site protection, tree microsites, and long-term nutrient inputs.
- Provide short-term nutrient flush for natural regeneration.
- Reduce the litter depth to 1” or less over 50% of area.
- Allow no more than 33% crown scorch to overstory seed and shelterwood trees over 14” DBH. Allow no more than 10% mortality, from cambium damage and crown scorch to seed and shelterwood trees over 14” DBH.

The fire management desired results addressed hazardous fuels reduction for these units. Silviculture will evaluate the need for further treatments after inspecting the results of this prescribed burn. The objective is to reduce the smaller (<10" diameter, but in particular the <3" diameter) fuels as much as feasible without overachieving duff/litter consumption or killing excessive leave trees. The objective for larger fuels is to minimize consumption. The following post burn condition should exist over at least 60% of the project area:

- 1 hr and 10 hr fuels (< 1" in dia) will be reduced by 75% to 100%
- 100 hr fuels (1" to 3" in dia) will be reduced by 50% to 75%
- 1000 hr fuels (>3" in dia) will be reduced by 15% to 50%
- Protect soils on site and ensure long-term productivity of site by leaving at least 50% of duff cover
- Mortality of 40% to 100% of seedling/sapling size shade tolerant species
- Mortality of 10% to 30% of pole size shade tolerant species
- Mortality of less than 15% of overstory seed and shelterwood trees
- Special features- protect seeps, bogs, riparian zones, rocky areas, and other special habitats; protect fences, select trees, cultural sites, signs, bearing trees, and other improvements

Wildlife / RMEF Project Objectives

The main objectives of intent of this prescribed burning project were to: 1) maintain and improve quality of elk forage by removing understory seedling conifer encroachment, resprouting shrubs and stimulating higher density herbaceous growth, 2) reduce fuel loads and the risk of stand replacing fires to acceptable levels, and 3) maintain large ponderosa pine/bunchgrass habitat types for Forest Service sensitive species dependant upon it.

Chronological Listing of Berg 3

Compiled by: Slate Creek Ranger Station Fire Management Office and Dispatch

DATE	TIME	WHO	CHRONOLOGY
Tues 09/23/03	0723	Nuxoll	+2 to Berg E-11 +1 to Berg
	0942	68H	Off Seed Orchard pilot +4 to Berg
	0942	T Schultz	Weather for spot forecast: 0900, 4900 feet, winds calm, dry 60, wet 49, RH 47%, dew point 40, skies clear, top of unit, SE aspect, unsheltered model "C"—submitted spot forecast
	0957	68H	Off Berg to Seed Orchard – dropped 1 at burn
	1003	68H	Landed Seed Orchard
	1042	To Chaffee	Read spot forecast
	1059	Chaffee	Lit test fire @ 1100 – starting ignition
	1232	Chaffee	Need helicopter for ignition
	1237	68H	Off Seed Orchard to Berg pilot +3
	1244	68H	@ Berg – flight follow locally
	1340	Chair Point	Weather: wet 43, dry 62, RH 21%, winds SW 1-4G10, state of weather (SOW) 0, fuels 7.8%, LAL1, precip. 0.00"
	1438	68H	To Seed Orchard pilot +3
	1442	68H	Landed Seed Orchard
	1520	Lever	When does Chaffee need helicopter? Will get back to him
	1536	68H	Off Seed Orchard pilot +2 to Berg
	1542	68H	@ Berg – flight follow locally
	1620	68H	To Seed Orchard pilot +1
	1626	68H	Landed Seed Orchard
	1632	Lever	Need bucket – will be 10-15 min. for 68H to fuel
	1640	68H	Off Seed Orchard to Berg

DATE	TIME	WHO	CHRONOLOGY
Tues 09/23/03	1742	68H	Off Berg to Seed Orchard
	1748	68H	Landing Seed Orchard
	1808	68H	Off Seed Orchard to Grangeville pilot +1
	1858	Chaffee	All unit to trucks
	2006	Chaffee	@ Squaw Saddle to Slate Creek
Wed 09/24/03	0650	To CNC	Helicopter project request
	0700		In Service (I/S)
	0704	E-11	+1 to Berg
	0708	McBoyle	+4 to Berg
	0854	68H	5 min out from Seed Orchard
	0931	Lever	Have Chaffee call
	0947	Lever	ETA on jumpers? 1030
	1105	68H	Off Seed Orchard pilot +3 to Berg
	1106	Red River	Schmidt, Atkinson, Kratch, Kimble, Geringer ETA 1300
	1107	Lever	Chaffee? To Berg
	1123	68H	To Seed Orchard
	1133	68H	Off Seed Orchard to Berg
	1141	68H	Landing sheep pens – flight following locally
	1200	68H	To Seed Orchard – bucket problems
	1210	68H	Off Seed Orchard to Berg
	1216	68H	@ Berg – flight following locally
	1220	Lever	Status of contingency forces? 40 min. Red River, 1400 Powell – need 10 more
	1253	68H	Landed Seed Orchard for fuel

DATE	TIME	WHO	CHRONOLOGY
Wed 09/24/03	1308	Lever	Have Nick call when gets back in office
	1316	To Lever	Elk City @ Slate Creek
	1317	Lever	Need bucket work first
	1325	68H	Off Seed Orchard to Berg
	1331	68H	@ Berg – flight following locally
	1332	Chair Point	Weather: wet 46, dry 63, RH 29%, winds WNW 1-6G10, SOW 0, fuels 8.0, LAL1, precip. 0.00"
	1341	McCall	6 firefighters ETA 1541
	1341		Red River @ Slate Creek
	1357		Powell @ Slate Creek
	1442	68H	To Seed Orchard for fuel
	1504	68H	Off Seed Orchard
	1511	68H	@ Berg – flight follow locally
	1513		D-4 @ Slate Creek
	1616	68H	To Seed Orchard
	1622	68H	Landed Seed Orchard
	1646	68H	Off Seed Orchard to Berg
	1652	68H	@ Berg – flight follow locally
	1759	68H	To Seed Orchard
	1815	To 68H	Landed Seed Orchard? Yes
	2244	Marvin	@ Vehicles to Slate Creek
	2246		O/S
Thurs. 09/25/03	0700		I/S
	0717	Myers	+4 to Berg

DATE	TIME	WHO	CHRONOLOGY
Thurs. 09/25/03	0845	Chaffee	To Berg
	1231	Chaffee	Have 68H land on E flank for recon
	1247	68H	Off Seed Orchard to Berg pilot +1
	1253	68H	@ Berg – going to Air/Ground
	1306	68H	Off Berg to recon
	1311	68H	Off Berg to Seed Orchard w/Chaffe and Lever
	1317	68H	Landing Seed Orchard
	1331	Chair Point	Weather: wet 46, dry 65, RH 24%, winds WNW 3-8G15, SOW 0, fuels 7.5%, LAL1, precip. 0.00"
	1341	Hertel	Ready for sphere dispenser
	1352	68H	Off Seed Orchard to Berg pilot +3
	1358	68H	@ Berg – flight following locally
	1420	68H	To Seed Orchard pilot +1
	1429	To 68H	Status? Landed Seed Orchard
	1810	Chaffee	Payette units to McCall
	1833	68H	Off Seed Orchard to Grangeville – flight follow Grangeville
	1915	Chaffee	To Slate Creek
	2038	E-31	@ McCall
	2045		O/S
	2048	E-41	@ McCall
Fri 09/26/03	1009	Lever	Cabin within burn area is still intact
	1344	Chair Point	Weather: wet 47, dry 63, RH 32%, winds WNW 0-6, SOW 0, fuels 8.5%, LAL1, precip. 0.00"
	1604	Lever	To Slate Creek
	1720	Lever	Resources @ Riggins to Slate Creek

DATE	TIME	WHO	CHRONOLOGY
Sat 09/27/03	1003	To D Schultz	Status of burn? Nothing obvious yet – will call when @ bottom
	1602	D Schultz	Will let Slate Creek know when crew and drivers meet
	1657	D Schultz	@ vehicles
Sun 09/28/03	0921	D Schultz	+3 to Berg
	1231	D Schultz	Everything ok on Berg
	1257	Lever	Status of Berg? Leave Berg about same time or ½ hr. earlier
	1327	Chair Point	Weather: wet 50, dry 69, RH 28%, winds 2-4G8, SOW 0, fuels 7.5%, LAL1, precip. 0.00"
	1517	D Schultz	To Lake Creek
	1621	D Schultz	To Slate Creek
Mon 09/29/03	1333	Chair Point	Weather: wet 47, dry 66, RH 25%, winds 4-6G8, SOW 0, fuels 7.0%, LAL1, precip. 0.00"
	1518	D Schultz	To Lake Creek
	1610	D Schultz	Picked up Moore
Tues 09/30/03	1032	Lever	@ Berg
	1315	Lever	To Slate Creek
	1339	Chair Point	Weather: wet 49, dry 69, RH 25%, winds SW 0-6, SOW 0, fuels 7.5%, LAL1, precip. 0.00"
Wed 10/01/03			D Schultz went to patrol fire, unsure of departure time
			Asked 68H to check Berg and Fiddle Fire, unsure of time
	0907	68H	No smokes Fiddle Fire – couple of smokes creek bottom Berg
	1144	D Schultz	To Slate Creek

DATE	TIME	WHO	CHRONOLOGY
Wed 10/01/03	1334	Chair Point	Weather: wet 49, dry 70, RH 23%, winds NE 0-6, SOW 1, fuels 7.0%, LAL1, precip. 0.00"
Thurs 10/02/03	1150	Lever	+2 to Berg
	1208	Lever	Smoke is slop over on W line 1/8 to ¼ acre – send Myers
	1209	To Myers	To Berg
	1215	To CNC	Order Payette medium helicopter for Berg w/bucket
	1234	D-4	4 total – leaving in 10 min
	1248	CNC	Helicopter QK ETD 1400 – E12 and E31 1 ½ hrs out
	1307	Barger	3 jumpers 1 ½ hrs ETA
	1309	Lever	20 acres outside – order 20 person NICI crew
	1317	GAC	2 jumpers + 2 @ Square Mtn. to Berg
	1331	Chair Point	Weather: wet 47, dry 61, RH 38%, winds WNW 0-4, SOW 0, fuels 6.5%, LAL1, precip. 0.00"
	1330	Elk City	6 pack to Berg
	1344	Lever	3 from QK (Payette medium) @ fire
	1348	Lever	McCall jumpers? No
	1354	Hertel	To Berg
	1354	Lever	Order retardant
	1411	E-12	@ Spring Bar to Berg
	1412	Myers	@ Squaw Saddle to burn
	1419	E-31	@ Spring Bar to Burn
	1428	Lever	ETA of tanker? No ETA yet
	1440	CNC	T00 27 min out
	1457	T00	10 min out from Berg – QK landed bucket malfunction

DATE	TIME	WHO	CHRONOLOGY
Thurs 10/02/03	1459	Lever	E-12, E-31 @ fire
	1501	Powell	Holt, Lear, Hazel – 1600 depart Powell
	1514	T00	8 min to McCall (ETA McCall 1522)
	1517	To McCall	Keep reload base open until done w/T00
	1533	CNC	Air Attack 7UP 10 min out
	1534	7UP	8 ½ min out
	1535	Seed Orchard	QK fueling – up in 10 min
	1537	Wilson	Beason in charge, left 1 hr ago (+4) Red River
	1553	7UP	T00 on scene
	1558	7UP	T00 to McCall load and return
	1600	Carlson	To Slate Creek ETA 1645
	1609	CNC	1555 NICI to Berg
	1629	7UP	Ops normal – QK landed sheep pens for Lever recon
	1636	7UP	T00 to Coeur D'Alene – QK recon flight tell Seed Orchard
	1640	7UP	Le Grande option for T00? Fuel and return
	1659	To 7UP	Status? Ops normal
	1703	7UP	Are times P.T.? yes
	1719	Lever	10 torches, 30 gal. Slash fuel
	1734	7UP	QK to Seed Orchard
	1751	Lever	Releasing 7UP
	1752	To 7UP	Flight follow with Grangeville
	1752	QK	2 hr fuel – off Seed Orchard to sheep pens
	1757	QK	Landing sheep pens

DATE	TIME	WHO	CHRONOLOGY
Thurs 10/02/03	1801	QK	2 hrs fuel w/5 to Price Valley – 20 min out
	1812	QK	Final Price Valley
	1830		NICI crew @ Slate Creek
	1900		Powell (3) @ Slate Creek
	2021	Lever	Stopped ops – Myers +1, D Schultz +1 to Slate Creek – 8 jumpers, 2 helitack, 5 Elk City, 5 Slate Creek, E12 w/5, E31 w/3, Lever staying
	2024	D Schultz	To Slate Creek – Myers to Slate Creek
	2149		O/S
Fri 10/03/03	0559		I/S
	0723	Lever	Have helicopter standing by @ Seed Orchard
	0738	D Schultz	+35 to Berg
	0742	Myers	Tied in w/Lever
	0747	Lever	Check avail. of Mike Vanderpass from state to be manager
	0833	CNC	68H @ Grangeville @ 0900 w/Vanderpass
	0900	Ranger	Wildfire for Berg 3 from 1150 10/02/02 – ID-NPF-000244 P1AV12
	0950	Lever	All resources @ Berg
	0953	CNC	68H to Seed Orchard – need 68H to return to Grangeville in PM
	0958	68H	Landing Seed Orchard
	1000	Lever	Fire @ creek – send 68H for bucket when ready – contact is Hertel
	1007	68H	Getting bucket ready
	1012	68H	Off Seed Orchard to fire
	1019	68H	@ fire – flight follow locally
	1105	Lever	Started burning lines

DATE	TIME	WHO	CHRONOLOGY
Fri 10/03/03	1111	68H	To Seed Orchard for fuel
	1119	68H	Landing Seed Orchard
	1147	68H	Off Seed Orchard to Berg
	1152	68H	@ Berg – flight follow locally
	1155	Lever	Moore headed to Slate Creek +1 from Weiser – needs ride to Weiser (sick)
	1215	Lever	Moore +1 to Slate Creek
	1303	68H	To Seed Orchard
	1307	68H	Landing Seed Orchard
	1342	68H	Off Seed Orchard to Berg
	1349	68H	@ Berg – flight follow locally
	1356		Troy Butterfield to Weiser (illness)
	1408	Lever	Burn looks good – may have problems in creek bottom
	1435	Lever	Jumped Berg Creek
	1441	To CNC	Order QK from Payette
	1443	Lever	Order retardant – pre-treat ridge W of fire
	1446	68H	To Seed Orchard – shut down
	1455	68H	Landing Seed Orchard
	1505	Lever	To Slate Creek – Hertel IC
	1506	CNC	QK off McCall to Seed Orchard
	1507	QK	12 min ETA
	1520	Hertel	Air Attack w/T00? Yes
	1523	QK	Landing Seed Orchard
	1527	CNC	7UP off Coeur d’Alene to fire 55 min out – T00 26 min out

DATE	TIME	WHO	CHRONOLOGY
Fri 10/03/03	1559	Hertel	T00 to McCall for load and return
	1608	7UP	10 min out
	1627	To 7UP	Status? Ops normal – spot on E end – launch 2 helicopters
	1632	68H	Off Seed Orchard to Berg
	1635	68H	@ Berg – flight follow locally
	1640	7UP	T00 load and return – 68H and QK @ fire
	1655	To 7UP	Status? No contact
	1658	7UP	Ops normal
	1659	Ranger	Order type 2 team
	1710	Hertel	100 acres W side of Berg – retardant line holding on ridge between Little Berg and Berg
	1715	7UP	Ops normal
	1729	7UP	T00 to Coeur d'Alene
	1745	7UP	Ops normal – QK 1 more drop the to Price Valley
	1749	Hertel	Releasing Red Hotz
	1750	7UP	Both helicopters to Seed Orchard
	1754	68H	Landing Seed Orchard
	1759	Hertel	All but Nuxoll, Hull, and Red Hotz staying on hill
	1807	QK	2 hr 10 min fuel – 6 on board – to Price valley
	1809	Hertel	Red Hotz to Riggins – Nuxoll +1 to Slate Creek
	1809	68H	+2 2 hrs fuel off Seed Orchard to Grangeville
	1817	Nuxoll	To Slate Creek
	1822	QK	Final @ Price Valley
	1823	68H	In contact w/Grangeville
	1853	Hertel	All units off fire

DATE	TIME	WHO	CHRONOLOGY
Sat 10/04/03	0657	Hertel	61 on fire today – lots of fire activity near ridge between Berg and Little Berg
	0736	Hertel	Need helicopter soon as possible
	0749	To Mick Carlson	Said we can use sheep pens on S side of Main Salmon Rd. and do the paperwork tomorrow (5Oct03) when he is available
	0751	Nuxoll	To Berg
	0811	To CNC	Order QK for shift today
	0824	McCall	QK needs to demob people around noon
	0826	68H	Off Grangeville to Seed Orchard
	0827	McCall	QK off in 10 min
	0841	68H	Landing Seed Orchard
	0842	QK	Pilot +5 2 hrs fuel 16 min ETA – off Price Valley to Seed Orchard
	0830	68H	Off Seed orchard to Berg
	0856	68H	@ Berg – flight follow locally
	0858	To QK	Status? Final @ Seed Orchard
	0908	QK	Off Seed Orchard to Berg 3
	0909	Hertel	Order Air Attack
	0916	QK	@ Berg – flight follow locally
	0922	861	To Seed Orchard – hold @ Seed Orchard
	0929	861	Landing Seed Orchard
	0957	68H	To Seed Orchard
	0959	Hertel	Air Attack ETA? 45 min
	1003	68H	Landing Seed Orchard
	1027	QK	To Seed Orchard
	1028	7UP	12 min out

DATE	TIME	WHO	CHRONOLOGY
Sat 10/04/03	1031	QK	Landing Seed Orchard
	1039	68H	Off Seed Orchard to Berg
	1043	68H	@ Berg – flight follow locally
	1046	7UP	Order 2 tankers
	1100	7UP	Ops normal
	1104	7UP	Order 861 w/bucket
	1121	861	Off Seed Orchard to Berg
	1122	7UP	Ops normal
	1131	CNC	T00 25 min out
	1141	7UP	Ops normal
	1142	CNC	Plumis - 2000 ETA
	1157	7UP	Status? Ops normal – T00 @ Berg
	1203	68H	2 min out landing Seed Orchard
	1206	68H	Landing Seed Orchard
	1213	7UP	Ops normal – canceled 2 nd tanker
	1221	7UP	To Grangeville for fuel – QK Bittenbender is contact
	1227	68H	Off Seed Orchard to Berg – flight follow locally
	1230	CNC	7UP to Wenatchee for mech. Problems – about 2 ½ hrs
	1237	QK	Pilot +3 w/45 min fuel to Seed Orchard
	1247	QK	Final Seed Orchard
	1256	861	To Seed Orchard
	1256	QK	Off Seed Orchard to Berg
	1302	QK	@ Berg – flight follow locally

DATE	TIME	WHO	CHRONOLOGY
Sat 10/04/03	1304	861	Landing Seed Orchard
	1334	Hertel	Order lead plane
	1336	861	Off Seed Orchard to Berg
	1349	68H	To Seed Orchard
	1350	QK	To Seed Orchard
	1353	68H	Landing Seed Orchard
	1356	QK	Landing Seed Orchard
	1413	Hertel	Lead plane ETA? 1425-1430
	1441	Seed Orchard	QK avail. – send to fire
	1444	68H	Off Seed Orchard for recon
	1444	L47	Use 124.025 as Air/Air
	1508	Hertel	ETA 7UP? No ETA yet
	1519	68H	To Seed Orchard
	1524	68H	Landing Seed Orchard
	1527	861	Landing Seed Orchard
	1529	Hertel	1 Red Hotz off hill due to illness
	1532	QK	@ Fire
	1545	68H	Off Seed Orchard to Berg
	1546	Hertel	1830 estimated demob
	1550	861	Off Seed Orchard to Berg
	1550	68H	@ Berg – flight following locally
	1555	861	@ Berg – flight following locally
	1610	QK	To Seed Orchard

DATE	TIME	WHO	CHRONOLOGY
Sat 10/04/03	1613	CNC	7UP not available rest of day
	1615	QK	Landing Seed Orchard
	1623	QK	Off Seed Orchard to Berg
	1628	QK	@ Berg – flight following locally
	1706	68H	To Seed Orchard
	1711	68H	Landing Seed Orchard
	1732	68H	Off Seed Orchard to Berg
	1736	68H	@ Berg – flight following locally
	1739	861	To Seed Orchard
	1743	QK	To Seed Orchard
	1744	861	Landing Seed Orchard
	1748	QK	Landing Seed Orchard
	1805	68H	To Seed Orchard
	1809	68H	Landing Seed Orchard
	1811	QK	Off Seed Orchard +5 1hr 40 min fuel 16 min to Price Valley
	1817	Hertel	Red Hotz to Allison camp
	1827	QK	Final @ Price Valley
	1830	Hertel	4 Slate Creek and E12 staying at fire – 3 Powell, 5 Elk City, 2 jumpers, and 3 Slate Creek to Slate Creek
	2129	Warden	To Slate Creek

Review Team Findings

Weaknesses:

1. Given the presence of a drying trend, the use of infrared sensing equipment may have been beneficial during the patrol and monitoring phase of this project.
2. Boundaries for both control lines and maximum allowable perimeter could have been located in more defensible locations due to shifts from spring to fall burning.
3. The silvicultural prescription should be attached to the burn plan per 5140 Forest Service Manual.
4. Prescribed burn prescription parameters need to speak separately to both activity fuels and natural fuels.
5. Identify ignition pattern and holding plan on a map in the burn plan appendix.

Strengths:

1. Commend District Fire Management Staff for taking on this project under fall conditions to meet objectives.
2. District fire management personnel were well organized and highly skilled, made good timely decisions.
3. Fuel treatments implemented were effective.
4. Documentation during ignition days was good.
5. District should be commended for identifying high-risk of treating this stand and mitigating the risk associated with the burn as it related to fire fighter safety.
6. Were cognizant of the available contingency resources and coordination was effective.
7. Coordination between Supervisor's Office and Regional Office was timely.
8. Prescribed Burn Plan Adequacy:

The Berg Salvage #3 prescribed burn plan required technical review and District Ranger level signature. The plan was written by a Type 2 Burn Boss trainee/District Assistant Fire Management Officer. The burn plan conforms to the Clearwater/Nez Perce Fire Management, Aviation and Air Quality Plan. This format is compliant with Forest Service manual direction and contains all the

required elements that are to be covered by a burn plan. A Type 1 Prescribed Fire Manager (District Fire Management Officer) and the Forest Aviation Officer reviewed the burn plan and the District Ranger signed/approved it.

Prescribed Burn Plan Compliance:

A review of the prescriptive elements of the burn plan determined the ignition operation was conducted in compliance with all elements.

Smoke Management Compliance:

All requirements were met.

Safety:

The Burn Boss followed all required procedures, including briefing on the job hazard analysis, expected areas of concern, plus anticipated holding/contingency/mop up plans that may be looked for during ignition.

Burn Plan Objectives:

The burning objectives were identified in the environmental analysis and silvicultural prescriptions were included in the burn plan. Project specific objectives were further refined in the project burn plan during project development. These objectives were consistent with the Environmental Analysis and silvicultural prescription.

Holding and Contingency Resources:

The holding, mop up, and contingency resources were identified and available to meet the requirements of the burn plan. The methodology used to determine contingency resources is not well defined and relies heavily upon the experience and skill level of the DFMO and AFMO.

Conversion from a Prescribed Burn to Wildfire:

Based on the chronology of implementation of the burn plan the conversion was well thought out and timely.

Summary

The Berg Salvage prescribed burn was conducted by fully qualified personnel and was within all prescription parameters set forth in the prescribed burn plan. All personnel assigned met or exceeded qualification requirements. The prescribed burn was

declared a wildfire due to the threat to private ownership and the anticipation that the burn was going to exceed the maximum allowable perimeter (MAP).

Operationally, the District Fire Management personnel possess the skills and knowledge to manage the wildfire, but logistic support was the primary factor in ordering a Type 2 Incident Management Team.

Recommendations

1. Ensure that infrared sensing equipment is used when weather conditions are forecasted to be warm and dry.
2. When modifying a burn plan that has been designed for a different season or fuel model, ensure that all elements have been reviewed and changed as necessary.
3. Consider entering into a participating agreement with private landowners when the use of defensible boundaries is more advantageous to the government.
4. Ensure that written silvicultural prescriptions be completed prior to burn plan development.
5. In the event of an escape prescribed burn, ensure that timely notification to F/A staff in the Regional Office has been completed.

**Berg Salvage # 3 Prescribed Burn Review
Salmon River Ranger District
Nez Perce National Forest
November 4-5, 2003**

Dick Rath, Team Leader _____ Date: _____

Ron Hvizdak _____ Date: _____

Rick Carlson _____ Date: _____