

Appendix C

Monitoring Plan for Sub-Watersheds over TOC

Alder Creek Project

Truckee Ranger District

The State of California Regional Water Quality Control Boards for the Lahontan Region require the USFS to submit a monitoring program prior to the commencement of vegetation management operations when cumulative watershed effects analysis: (1) indicates that the project may cause any sub-watershed to exceed a threshold of concern or (2) indicates that the project may increase risk values in any sub-watershed that already exceeds a threshold of concern prior to project implementation. The Alder Creek Project Cumulative Watershed Effects (CWE) Analysis reveals that sub-watershed H0952 meets the second criteria. Almost 80% of the disturbance within this watershed is associated with the residential development and roads within the Tahoe Donner sub-division. The treatments within this sub-watershed are critical to improve the long term health of the ecosystems by thinning overstocked stands and reducing the risk of wildfire within the Wildland Urban Interface. The treatments have been designed to limit disturbance and meet the Riparian Conservation Objectives, even though over the short term the proposed action increases the ERA value for a sub-watershed already over threshold. Not entering this sub-watershed ("no action") would not mean there would be no watershed effects in these drainages, in fact no action could result in a high probability of an intense wildfire and associated negative effects. Table 1 lists all treatment units, as well as, road construction and maintenance that the Alder Creek Project proposed in sub-watershed H0952.

Table1: Alder Creek proposed action for sub-watershed H0952.

Proposed Action	Sub-watershed H0952
Mechanical	3, 4, 5, 8b, 11
Mastication	6c, 6e
Combination of Skyline, Mechanical Over-the-Snow, Helicopter or Hand	6a
Hand	8a
Mechanical Over-the-Snow	6b, 6d
Helicopter	None
Temporary Road Construction	0.81 mile
Road and OHV Trail Decommissioning	0.95 mile

Sub-watersheds H0952 will be monitored to insure that water quality standards are being met through the use of: collaborative day-to-day BMP implementation monitoring of

ground disturbing operations between watershed staff and sale administrators, and the USFS Region 5 Best Management Practices Evaluation Program (BMPEP). Collaboration between watershed staff and Sale Administrators (SAs) occurs when conditions call for the District hydrologist/soil scientist to be consulted during unit layout in the most sensitive units and contract administration to minimize ground disturbance and erosion risk from mechanical equipment in all units.

The BMPEP was initiated in Region 5 in 1992 to fulfill monitoring commitments to the State Water Resources Control Board and to facilitate adaptive management by assessing and documenting the efficacy of the USFS water quality management program. The BMPEP uses 29 different onsite monitoring procedures to evaluate the implementation and effectiveness of BMPs for a variety of activities in seven different program areas: timber, engineering, recreation, grazing, mining, prescribed fire and vegetation management. According to the BMPEP monitoring takes place at randomly identified sites on a regional scale and on an annual basis. Random sites are picked from a pool of projects that meet specified criteria. The purpose of this monitoring is to draw statistical conclusions on the implementation and effectiveness of the BMPs. All Alder Creek units will be included in the Regional pool and some of these units will be selected for the BMPEP.

In addition to the day-to-day monitoring of site conditions by SAs and watershed staff and the random Regional BMPEP monitoring that will occur throughout the Alder Creek project, additional evaluations will be accomplished for sub-watershed H0952 to verify BMP implementation and effectiveness and insure that water quality protection is accomplished. The BMPEP on-site evaluation protocols will be used to document monitoring at selected sites. All units proposed for mechanical thinning, over-snow-mechanical thinning and skyline harvesting will be monitored using the protocols in Table 1 that are appropriate. All temporary road construction and road/trail decommissioning will be monitored using the engineering protocols listed in Table 2. Table 3 lists the specific BMPEP protocols that will be used to evaluate treatment on each specific unit.

Table 2: BMPEP timber protocols for use in monitoring BMP implementation and effectiveness of mechanical thinning and group selection.

BMPEP On-site Evaluation Protocols	BMPs Evaluated by Protocol
T01: Streamside Management Zones (SMZs)	<ul style="list-style-type: none"> ▪ SMZ Designation (1-8) ▪ Streamcourse and Aquatic Protection (1-19) ▪ Slash Treatment in Sensitive Areas (1-22)
T02: Skid Trails	<ul style="list-style-type: none"> ▪ Tractor Skidding Design (1-10) ▪ Erosion Control on Skid Trails (1-17)
T04: Landings	<ul style="list-style-type: none"> ▪ Log Landing Location (1-12) ▪ Log Landing Erosion Control (1-16)
T05: Timber Sale Administration	<ul style="list-style-type: none"> ▪ Erosion Prevention & Control Measures During Timber Sale Operations (1-13) ▪ Erosion Control Structure Maintenance (1-20) ▪ Acceptance of Timber Sale Erosion Control Measures Before Sale Closure (1-21) ▪ Modification of Timber Sale Contract (1-25)
T07: Meadow	<ul style="list-style-type: none"> ▪ Meadow Protection During Timber Harvesting (1-18)

Protection	<ul style="list-style-type: none"> ▪ Slash Treatment in Sensitive Areas (1-22) ▪ Tractor Operation Limitation in Wetlands and Meadows (5-3)
Helicopter / Skyline Harvester	<ul style="list-style-type: none"> ▪
Over the snow operation	<ul style="list-style-type: none"> ▪

Table 3: BMPEP engineering protocols for monitoring BMP implementation and effectiveness of road construction and maintenance.

BMPEP On-site Evaluation Protocols	BMPs Evaluated by Protocol
E08: Road Surface, Drainage & Slope Protection	<ul style="list-style-type: none"> ▪ Erosion Control Plan (2-2) ▪ Road Slope Stabilization Construction Practices (2-5) ▪ Control of Drainage (2-7) ▪ Construction of Stable Embankments (2-10) ▪ Maintenance of Roads (2-22) ▪ Road Surface Treatments to Prevent Loss of Materials (2-23)
E09: Stream Crossings	<ul style="list-style-type: none"> ▪ General Guidelines for Location and Design of Roads (2-1) ▪ Road Slope Stabilization Construction Practices (2-5) ▪ Control of Road Drainage (2-7) ▪ Construction of Stable Embankments (fills) (2-10)
E11: Control of Sidecast Material	<ul style="list-style-type: none"> ▪ Control of Sidecast Material During Construction & Maintenance (2-11)
E13: In-Channel Construction Practices	<ul style="list-style-type: none"> ▪ Controlling in-Channel Excavation (2-14) ▪ Diversion of Flows Around Construction Sites (2-15)

Table 4: Evaluation protocols that will be used to evaluate BMP implementation and effectiveness for treatment units within sub-watershed H9052.

Unit	Proposed Action	BMPEP Evaluation Protocol	Time of Monitoring/comments
5,3	Mechanical	T02,T04,T05	Per protocol.
6c, 6e	Mastication	T07, T01	Per protocol.
6a	Combination of Skyline, Mechanical Over-the-Snow, Helicopter or Hand	Follow applicable protocol depending on method used. T07, T01	T07 and T01- Check during layout, and when operating in vicinity
8a	Hand	None	
6b, 6d, 6a	Mechanical Over-the-	T01	Check specific aspects of

	Snow		snow logging criteria, during logging at periods of critical temperature and snow depth. Check prior to SA unit approval.
None	Helicopter	T04	Check location prior to construction. Prior to unit approval check landing for erosion control.
0.81 mile	Temporary Road Construction	E11, E13, E09, E08	During layout or prior to approval, and after implementation.
0.95 mile	Road and OHV Trail Decommissioning		Check after implementation to ensure drainage and erosion controls are functional.

Using stream surveys to monitor sediment and bank instability resulting from treatment within this watershed will not be done as part of this monitoring effort since the majority of the disturbance is the result of Tahoe Donner development and it would be impossible to attribute changes in stream condition to the proposed action. However, shade measurements will be taken after implementation in locations where they were previously observed, within the 100 foot buffer, and according to the same protocol as when acquired initially. Using the BMPEP program as discussed will monitor the most likely sources of sediment within the project and allow for corrective actions to occur to prevent Forest Service actions from contributing to any further stream disturbance related to water quality.

This monitoring focuses on units where the risk of adverse cumulative watershed effects is considered to be the highest, therefore hand and mastication units were not included since the risk associated with these treatments is considered low. Implementation monitoring will be done during or within the field season of operation and effectiveness monitoring will be delayed until the location has over wintered. Documentation of monitoring will be available upon request from the Truckee Ranger District.

Attachment 1- Best Management Practices

Best Management Practices

Best Management Practices (BMPs). These practices are required to meet the regional policy and to be consistent with the provisions of the 1981 Management Agency Agreement between the State Water Resource Control Board (SWRCB) and the Forest Service as the designated Water Quality Management Agency (WQMA) on National Forest Service Lands. These practices are also provided to meet requirements of the Lahontan Region Water Quality Basin Control Plan.

1-1 TIMBER SALE PLANNING PROCESS

During the inter-disciplinary team (IDT) process sensitive areas were identified and specific management requirements were included and described below under the applicable BMP. Watershed response to road building, harvest, and post-harvest activities are assessed under the ERA and road BMPs discussed here and in the Environmental Consequences section of the Watershed Report. Logging systems and layout are the primary means of minimizing impact in this analyses area, additional measures are added to minimize or mitigate the ground disturbance in the project area.

1-2 TIMBER HARVEST UNIT DESIGN

Logging systems and layout are the primary means of minimizing impact in this analyses area. Units 1a - 1c, and 6a - 6e, are units with features such as aspen stands, perennial water, springs and meadows. Table 1.3 from the “Proposed Action and Purpose and Need” document applied specific unit thinning methods to address areas of a sensitive nature. These areas are proposed for thinning by hand, skyline, or helicopter or by mechanical thinning over snow. Additionally, a minimum of three LWD (12” or greater) diameter downed logs/acre will be retained when available, and 3 of the largest snags/acre will be retained.

1- 4 DESIGNATE PROTECTION AREAS ON SALE AREA MAPS

The Sale Area map identifies areas to be protected such as streamcourses, wetlands and RCAs, it identifies harvest unit boundaries, specified roads, roads where log hauling is encouraged, areas of prohibited or restricted access, areas designated for specific skidding and yarding methods, rock sources, and water sources.

1-5 LIMITING THE OPERATING PERIOD OF TIMBER SALE ACTIVITIES

1) Over Snow Operations

Over the snow logging will be required for Units 6b, 6d, 1c, and as an option under 1a, and 6a. Where snow logging operations are implemented limitations for operations include: Maintaining a minimum of 15 inches of compacted snow and overnight temperatures below 25 degrees F for mechanical operation unless otherwise agreed to by the Soil Scientist after a site evaluation. Operations should

cease if afternoon temperatures exceed 35 degrees F; if nighttime temperatures are at or below 20 degrees F then temperatures above 35 degrees F may be tolerated for short durations of less than two hours.

2) Mechanized Operations

Skidding, Masticating and Tractor operations are only allowed when the soil meets the moisture requirement for dryness.

1-8 FUEL STORAGE-APPLICABLE TO ALL RCAS

Servicing and refueling of equipment will be completed outside of the RCA, or within areas designated by the Contract Officer or a Designated Forest Representative.

1-9 STREAM SIDE MANAGEMENT ZONE (RCA) DESIGNATION

The Sierra Nevada Plan Amendment FEIS ROD set standard RCA widths for perennial, intermittent, and ephemeral streams and other hydrologic features. The management activities allowed within this width are described through the associated BMP's and unit thinning method. For example most sensitive areas are to be treated by mechanized equipment over snow, skyline or hand thinning techniques. The Alder Creek Road lies within the RCA, and it forms a boundary for upland units for much of the area on the north side of Alder Creek. See additional BMP's for tractor keep out zones.

1-10 TRACTOR SKIDDING DESIGN

- 1) Skidding distances will be extended up to ½ mile long in Unit 6b (removal over snow), and ¾ mile long in Units 2a and 4 to minimize road and landing development.
- 2) Construct a designated skid trail in the RCA, in Unit 6b to access portions of Unit 4, and thus avoid the need for additional road construction. The skid trail would be located and approved by the District Hydrologist and Soil Scientist prior to skidding operations and decommissioned after use.
- 3) Main skid trails would be spaced at least 75 feet apart except when converging;
- 4) No new skid trails, roads or landings would be constructed within any RCA without consultation with a riparian specialist.
- 5) Feller buncher and skid trail grades will be as gentle as possible: generally less than 30% with pitches (\leq 200 feet) of up to 35%.
- 6) Avoid skid trail uses that parallels stream within the RCA.

1- 11 SUSPENDED LOG YARDING

- 1) Skyline system: Units 1a and 6a (or over snow removal).
 - a) Utilize only where anchors are available on the northside of Alder Creek
 - b) Require a yarder that is capable of lateral yarding.
 - c) Require whole-tree removal to minimize ground fuel accumulation.
 - d) Require full suspension of material across the Alder Creek floodplain to avoid ground disturbance and deposition of material in the floodplain.
 - e) Require a minimum, one-end suspension of material outside floodplain to minimize ground disturbance.

- f) Space skyline corridors approximately 150' apart at the back end, to limit the number of corridors needed, while minimizing lateral yarding distances.
 - g) Require skyline landings outside the RCA.
 - h) Minimize corridor width to meet Visual Quality Objectives.
 - i) Restore slope stability by raking to the natural contour, mulching, and installing waterbars, as needed to restore slope stability and the natural contour.
- 2) Helicopter system:
Require whole-tree removal to minimize ground fuel accumulation. Strategically locate landings outside the RCA and so that helicopters do not fly with payload across private property, or the Alder Creek, Schussing, and Carpenter Valley Roads.

1-12 LOG LANDING LOCATION

Minimize landing construction by utilizing existing landings, where practicable: after use mulch landings to stabilize soil. Till landings where the soil scientist determines that such measures would provide additional stabilization. Landings will be located outside RCAs and on stable lands. Existing landings and skid trails would be reused where practicable; landing locations will be carefully planned to minimize the overall number; landings may be tilled following the project after the review of a watershed specialist; landings will be appropriately drained as needed.

1-13 TIMBER SALE EROSION PREVENTION AND CONTROL MEASURES

Erosion control work will be completed within 15 days from completion of skidding operations, or completed as promptly as possible after October 15th. The Sale Administrator may designate on the ground erosion prevention measures. Additionally, within RCAs all bare ground created by logging activities will be mulched by October 15th, or concurrently with erosion control work after October 15th.

Any Bare ground resulting from timber sale operations within the RCA will be mulched as needed to maintain greater than 60% cover.

1-17 EROSION CONTROL ON SKID TRAILS

- 1) Stabilize skid trails restoring the natural contour by back blading soils, providing drainage and mulching. Measures will be applied as needed.
- 2) Restore slope stability in logging transport corridors by raking to the natural contour, mulching and installing waterbars. Measures will be applied as needed.
- 3) Waterbar spacing follows the standards for soil EHR rating and slope.
- 4) Berms are pulled where appropriate.
- 5) Ground cover is maintained at 45 -70 % based on slope, channel proximity, and soil EHR.

1-18 MEADOW PROTECTION DURING TIMBER HARVESTING

Unauthorized operation of vehicular or skidding equipment on meadows designated on SAMs and marked on the ground is prohibited. Vehicular or skidding equipment shall not be used on meadows except where roads and track equipment movement are previously approved; landings are prohibited in meadows unless agreed to by both the biologist and hydrologist. Unless otherwise agreed, trees felled into meadows shall be removed by end-lining, and resulting slash shall be removed where necessary to protect cover, soil, and water. Meadows protected here are those that are wet all or most of the year as defined by EO 11990.

1-19 STREAMCOURSE PROTECTION

- 1) Retain downed woody material in the Alder Creek floodplain, remove designated wood that is approved by the East Zone Fish Biologist, East Zone Soil Scientist, District Hydrologist, and District Wildlife Biologist.
- 2) Movement of mechanized equipment over Alder Creek is prohibited even for mechanized over snow timber removal practices.
- 3) No trees that provide bank stabilization will be removed beyond the break in slope along the stream channel or within 10 feet of the stream, whichever is greater.
- 4) Remove only trees with overlapping crowns, where the District Hydrologist and East Zone Fisheries Biologist identify a need to maintain shade within the first 100 feet of the Alder Creek RCA. Within the remaining 200 feet of the RCA, retain approximately 40% canopy closure.
- 5) Skyline corridors inside and outside the RCA will be raked, mulched and waterbarred to restore slope stability and the natural contour.
- 6) Bare ground, created by operations, within the RCA will be mulched.

1-20 EROSION CONTROL STRUCTURE MAINTENANCE

Erosion control structures will be maintained during the period of the timber sale contract. Maintenance will be provided until the site is stabilized up to one year following construction.

1-21 ACCEPTING EROSION CONTROL MEASURES

Erosion control work is inspected prior to sale closure to determine whether the work is adequate, if maintenance work is needed, the practicality of treatments, and the necessity for modifying standards. Erosion control work which fails to meet requirements for erosion control under the Timber Sale Contract and SA Handbook would not be accepted and would be redone to accepted standards.

1-22 SLASH TREATMENT (Prescribed Burn)

All units must meet effective ground cover goals as required in the applicable standard and guidelines. Native slash can be spread where needed to meet ground

cover goals. (Planning Forester, Fuels Specialist - During NEPA Process; Prep Forester, Fuels Specialist - During Sale Prep; SA - During Administration of the Sale; Fuels Specialist - During Site Prep)

2-3 TIMING OF CONSTRUCTION ACTIVITIES (Temporary Roads)

Construction activities are conducted when weather and ground conditions are such that impacts to soils and water quality are minimized. Erosion control measures are implemented by the end of the normal operating season, (usually October 15 for this area) and kept current when road construction occurs outside that period. Stabilization of fills and completion of winterization is required by October 15.

2-7 CONTROL OF ROAD DRAINAGE

The intent of the design, location, and management of these new temporary roads is to: make them nearly hydrologically neutral on the watershed, make them have minimal disturbance on wildlife habitats, make them storm proof, and make them self-maintaining during periods of non-use as practicable:

1) Temporary Roads

- a) Each temporary road is specific to a particular treatment stand and would be used only during the season when the mechanical thinning is accomplished.
- b) Where a road crosses riparian areas the road will be surfaced with aggregate.
- c) Outsloping, rolling dips, and rocked low-water crossings will be designed into the road to manage surface runoff.
- d) Dips will be placed at all of the ephemeral and intermittent stream crossings to eliminate stream diversion potential and retain natural drainage patterns.
- e) Roads would be opened only during approved activities Provide site specific erosion control measures and measures to minimize sediment transport and soil disturbance.
- f) Log and earth barriers, scattered slash, and possibly other methods will control access to vehicles.
- g) Erosion control for road drainage will be provided as needed.

2) Permanent Roads

- a) Maintain an out-sloped road surface wherever possible.
- b) Avoid designing inside drainage ditches: they are not self maintaining and lead to increased erosion. Preferred drainage design is to utilize drivable dips and out sloped road surfaces instead of a ditch/culvert network (unless crossing intermittent or perennial streams).
- c) Avoid cut and fill construction.
- d) Stay on the contour where possible.
- e) Preferred drainage design is to utilize drivable dips and out sloped road surfaces instead of a ditch/culvert network (unless crossing intermittent or perennial streams.)

- f) Where culverts are used ensure that the culverts are placed at grade, provide for aquatic passage, and road fill over a culvert segment is minimized.
- g) Road design shall not interrupt hydrologic connectivity.
- h) Erosion control for road drainage will be provided as needed.

2-9 TIMELY EROSION CONTROL MEASURES FOR ROADS AND STREAMCROSSINGS

Erosion control measures will be in place by the end of the normal operating season (October 15) and will be kept current when construction occurs beyond that date. This will include the removal of temporary culverts, culvert plugs, diversion dams, or elevated streamcrossing causeways. It also includes installation of crossdrains, energy dissipators, sediment basins, berms, debris racks, or other facilities needed to control erosion. Other preventive measures include the removal of debris, obstructions, and spoil materials from channels and floodplains.

2-14 CONTROLLING IN-CHANNEL EXCAVATION

Wheeled or track-laying equipment shall not be operated in streamcourses except at designated crossings or as essential to construction or removal of culverts and bridges. Also, material deposited within the stream area from excavation shall not be discharged directly into live streams. If a channel is disturbed during construction, it must be restored as nearly as possible to its original configuration without causing additional disturbance. (ER - During Road Construction)

2-16 STREAMCROSSINGS ON TEMPORARY ROADS

Where it is necessary to cross designated drainages on temporary road crossings, drainage structures will be of sufficient size to provide for unobstructed flows and the passage of fish (where applicable), and will minimize damages to streamcourses. The number of crossings will be kept to a minimum and be perpendicular to the streamcourse. Streambank excavation would be avoided where possible or minimized and entry and exit ramps should be rocked. Fords or turnpike crossings hardened with washed rock or landing mats are acceptable alternatives when crossing intermittent or ephemeral streams.

2-19 DISPOSAL OF RIGHT-OF-WAY AND ROADSIDE DEBRIS

Work before haul (pre-haul maintenance) consists of removing roadside brush, removal of occasional small trees (less than 6" D.B.H.) and limbs that interfere with traffic, and visible sight distance clearing around curves. Concentrations of slash generated from clearing would either be chipped on site or, if within a treatment unit, treated the same as the slash within that unit. Isolated occurrences of clearing slash may be scattered.

2-21 WATER SOURCE (All drafting sites)

- 1) Use an approved water source for obtaining water. Water drafting sites in the project area will be established on permanently flowing streams that have sufficient flow to avoid depletion of pool habitat.
- 2) Install screens on water intake lines to prevent entrainment of biota.

2-22 MAINTENANCE OF ROADS

Roads would be inspected and maintained for proper drainage prior to, during and after each operating field season and each spring for three years after harvesting activity ends. Problem areas would be corrected. The FS and purchaser would annually agree at the beginning of the operating season on an Annual Road Maintenance Plan. (O&M Engineer - During Administration of the Sale)

2-23 ROAD SURFACE TREATMENT TO PREVENT LOSS OF MATERIALS

Other maintenance during haul includes dust abatement using dust palliatives and water.

2-24 TRAFFIC CONTROL DURING WET PERIODS

Hauling on all roads would be restricted to the dry season when roads are stable or as per the 9/95 Wet Weather/Winter Hauling/Logging Guidelines if that option is implemented. (O&M Engineer - During Administration of the Sale)

2-25 SNOW REMOVAL CONTROLS TO AVOID RESOURCE DAMAGE

If snow removal is envisioned to gain early access, this must be done in conformance with TSC provision C5.414. It must also be agreed to with the hydrologist or soil scientist at which time additional management requirements must be considered. (SA, O&M Engineer, Hydrologist or Soil Scientist - During Administration of the Sale)

2-26 OBLITERATION OF TEMPORARY ROADS

All temporary roads would be effectively drained and blocked. Temporary culverts and bridges would be removed and the natural drainage configuration would be reestablished. The road surface would be tilled to break up the compacted layer. Reseeded to grass/brush species or covered with slash or a straw mulch may be required in special circumstances as specified by soil scientist and/or hydrologist. Otherwise they would be allowed to re-vegetate naturally. (Sale Administrator, Earth Scientist)

5-2, 5-3, 5-6 LIMITATIONS ON TRACTOR OPERATIONS:

Tractor yarding would normally be restricted to slopes under 30 percent. Tractors would be prohibited from entering wetlands and meadows. Tractor yarding would not occur when soil (moisture) conditions are such as would result in excessive compaction, rutting and/or gullyng; for uncertain situations a soil scientist must be consulted.

Ground-based equipment operates on slopes with a gradient of generally less than 30%, with the exception of short pitches of less than 200 feet up to 35%; all skid

trails on slopes greater than 30% would be mulched; use of benched skid trails will be minimized, and skid trail grades would be as gentle as possible, avoiding straight up and down the slope skidding where ever possible.

Equipment is to work perpendicular to the stream corridors; limiting disturbance of duff and soil: limiting equipment to $\leq 20\%$ when operating above stream channels.

Along ephemeral and intermittent drainages a minimum tractor keep out zone (TKO) of 25 feet will be maintained during dry ground conditions. Thinning and feller buncher operations will not be allowed within 150 feet of Alder Creek and most cases will be limited to 200 feet from the streambank. The number of stream crossings will be minimized.

Over snow operations will maintain a 25 foot TKO along Alder Creek, and no equipment is to cross the creek.

The COET trail thinning operations will allow the chipper to cross the channel crossing at established trail crossings as needed.

5-8 PESTICIDE APPLICATION MONITORING AND EVALUATION

Contract Administrators monitor activities related to label requirements, application rate etc. to ensure contract requirements are followed. A contract clause is provided that requires the contractor to follow the label. The label addresses disposal requirements, application methods and rates procedure. A copy of the label can be found in

5-10 PESTICIDE SPILL CONTINGENCY PLAN

All unattended Sporax[®] shall be stored in its original container, and covered from exposure to weather. A Spill Plan was prepared for this project that details containment and notification measures should a spill occur.

5-12 STREAMSIDE AND WET AREA PROTECTION DURING PESTICIDE APPLICATION

To minimize the risk of pesticides inadvertently entering waters or unintentionally altering the riparian area, a streamside buffer zone is established that limits the application to stumps 25 feet from riparian vegetation or live surface water.

6-2 WATER QUALITY AND FORMULATING FIRE PRESCRIPTIONS

A fuels specialist identified fuels treatment prescriptions (and/or harvest restrictions) needed to meet soil ground cover and RHCA effective ground cover goals. Follow-up on the ground reviews may dictate alteration of the fuels treatment prescriptions and documentation as supplementary text to the original EA.

6-3 PRESCRIBED BURNING AND PROTECTION OF WATER QUALITY

Construct fireline, as needed and decommission after use with slash or waterbars. Pull back berms to restore the original land contour. Focus on areas where berms will concentrate water.

7-1 WATERSHED RESTORATION

- 1) Enhance stream shading with willow plantings along Alder Creek.
- 2) Maintain stream shading over a 100 foot width from the channel embankment across units on Alder Creek; only remove trees with overlapping crowns.

7-4 HAZARDOUS SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN

Heavy equipment will be physically examined for oil or hydraulic leaks prior to entering an RCA. Heavy equipment will be parked in a designated area away from the stream when not in operation. A hazardous spill kit will be available to control a spill or other hazardous material that may accidentally reach the stream. All tools necessary to control such spills will be available on site.

7-8 CUMULATIVE OFF-SITE WATERSHED EFFECTS

A cumulative watershed effects (CWE) analysis is completed done as part of the Environmental Consequences section of the EA process.

Note that site-specific measures constituting these BMPs are included in appropriate contract provisions, on activity cards, as part of the road design package, etc.