Little Red Goose Forest Resilience

Project Design Features

Heritage

Project Design Features		Objective
Cultural Resources		
	Avoid all resource sites during project implementation • All sites will be monitored and flagged prior to implementation to ensure avoidance	Protect cultural heritage resources

Recreation

Project Design Features		Objective
Recreation		
Groomed Routes and Parking Areas		
	• Preference would be given to using ungroomed routes for haul if possible during winter logging • If winter logging along or utilizing trails, attempts would be made to maintain minimum levels of snow to accommodate snow travel on non-haul days. • Consider alternative snowmobile routes and/or access and parking when winter log haul occurs on roads normally used as groomed snowmobile routes. Coordinate with the contractors and local organization(s) responsible for trail grooming to minimize impacts on forest visitors. • Minimize use of recreation sites such as parking areas, campground, trailhead and trails for staging, piles and landings.	Minimize impacts to recreating public within the project area during winter operations.
Campgrounds, Roads and Trails		
	• Campground infrastructure should be identified and marked to be protected during project activities • Dust would be abated on Forest service roads when conditions warrant adjacent to Last Chance Campground.	Minimize impacts to recreating public within the project area

Project Design Features		Objective
	• Hauling would be minimized on NFS roads on Memorial Day weekend or on weekends and federal holidays from July 1 through November 30 to provide for public safety • In areas within and adjacent to recreation sites and trails, stumps would be cut to a maximum 6 inches in height and slash mitigated as need to achieve desired aesthetic values • Trails impacted by harvest activities would be protected or re-established following harvest • In areas identified on MVUM as dispersed camping, coordinate with Recreation prior to obliteration of temporary roads	

Roads

Project Design Features		Objective
Engineering and Roads		
	Contamination or displacement of road surface aggregate associated with logging activities (skidding or snow plowing) would be repaired/replaced at the purchasers expense. Any damage to or debris left on the road template (shoulders, ditch line, or surface) would be repaired or removed prior to seasonal shutdown.	

Silviculture

Project Design Features		Objective
Silviculture		
	Following harvest and prescribed fire operations, the larger aspen stands would be evaluated for the need to protect aspen regeneration from damage by cattle, deer, and elk. Possible protection measures would include temporary electric fencing or rough windrow fencing using felled trees.	Protect aspen regeneration from large animal damage.
	Use the bark beetle (Scolytidae) contract provision for stands where substantial amounts of ponderosa pine would be harvested, if the proposed unit is near a plantation with a component of ponderosa pine.	Minimize bark beetle population buildup.

Soils

	Project Design Feature	Objective
SOIL, WATER, RIPARIAN AND AQUATIC RESOURCES		
	Soil Resource Protection: Harvesting, Skidding and Yarding The following measures are included to minimize detrimental impacts to soil productivity and soil-hydrologic condition and meet Forest Plan standards for soil productivity. **Soil moisture operability requirements** Ground-based heavy equipment would be allowed when soil moisture is sufficiently low, or when adequate winter logging conditions exist with a sufficient depth of packed snow and/or frozen ground. The Forest Service would ultimately determine when and where appropriate operating conditions exist. The intent is to minimize detrimental soil rutting, displacement, and compaction. • Exceptions may be made to allow limited operations on moist soils only on excavated skid trails and landings. • Adequate winter logging conditions should include a sufficient depth of frozen ground and/or packed, dense snow to support machine traffic and prevent detrimental soil disturbance. Typically these conditions are as follows: • Minimum 4 in. depth of frozen soil and no snow, or • Minimum 2 in. depth of frozen soil and 6 in. machine packed snow, or • 0 in. depth of frozen soil and minimum10 in. machine packed snow **Heavy equipment ground-based harvesting systems** • Harvesting equipment is allowed to traffic portions of units up to 40% slope **Skid Trails and Skidding** Design and designate skid trail systems to minimize new soil disturbance. Give preference to reusing and rehabilitating existing skid trails and landings. **Skidding on nonconstructed skid trails** Nonconstructed trails would be allowed on slopes up to 40% and where feasible spaced an average minimum distance of 100 feet **Skidding on constructed skid trails**	Minimize soil disturbance from heavy machinery.

	•Construction (i.e., benching) of excavated skid trails would be allowed on hillslopes up to 45% slope for use in cable-yarding systems. •Constructed trails should not exceed 30% grade, except for short distances. Where feasible, construct trails an average minimum distance of 200 feet between constructed trails	
34	**Soil Disturbance Rehabilitation** *Remediation should occur within 1 year following harvest activities.* Areas of relic soil compaction outside of designated skid trail network and identified during implementation are candidates for remediation, as determined by the Forest Service. Constructed skid trails, landings, and temporary road surfaces should be decompacted to full depth of compaction and recontoured to the natural slope profile. Exceptions to decompacting and recontouring may be permitted due to operational infeasibility. Nonconstructed skid trails would be fully decompacted on the entire width if compacted (typically >4 in. depth of compaction with strong platy or massive structure). Typically this is a minimum distance of 100-200 feet from landings and primary skid trails. Exceptions are as follows: • If impacts are mainly limited to track ruts and the centerline of the skid trail is not compacted and still vegetated, subsoil only within defined track ruts if they are compacted to > 4 inch depth. • If decompaction would fracture the roots of tree greater than 8 inches diameter breast height, decompaction should be restricted in that specific area. This area is typically defined by the tree drip line, or a set radius around such trees would be determined by the Forest Service. **Soil Displacement Rehabilitation** Displaced mineral topsoil would be pulled back according to the general criteria below, unless otherwise approved by a soil scientist. This work may be completed by hand or with an excavator on slopes up to 40%.Otherwise this work needs to be completed by hand on slopes >40%. • When treatments activity displaces a continuous >4 inch depth of mineral topsoil on > 10 sq. ft. area OR	Drive post-disturbance soil recovery; minimize newly created or existing areas of total soil resource commitment and detrimental disturbance.

	• In defined ruts with continuous displaced mineral topsoil berms > 4 inches in height and longer than 10 feet • Reclaim disturbed soil by pulling displaced mineral topsoil berms back to original configuration **Soil Cover** Following harvest activities, slash, fine and coarse woody debris would be placed as a protective cover and nutrient source on disturbed soils. This activity should provide 50-80% effective ground cover, OR the minimum amount necessary to inhibit overland flow.	
38	**Coarse Woody Debris** If needed for meeting CWD tonnages, available cull material longer than 6 feet or other noncommercial material (e.g. decked firewood, operational trees, snags felled for safety reasons) would be utilized to meet the CWD requirement. Preference should be given to larger-diameter material to meet these requirements (prioritize >15 in. diameter if available).	Maintain CWD for long-term site productivity and for wildlife species.
39	**Prescribed Fire** Prescribed burn activities should employ the following techniques to minimize the degree and extent of soil damage: • **Pile burning:** To minimize effects of hand piles within treatment units, piles should be <10 feet in diameter, < 6 feet tall and well dispersed. When feasible, hand piles should be decked on logs to create an insulating air cushion. When feasible, locate landing piles (hand and machine) on previously disturbed areas. For new landing site locations that result in high soil burn severity, rehabilitate. Rehabilitation may include mixing ash and surface scorched soils with deeper unburned soils with placement of available slash, fine and coarse woody debris as a protective cover and source of organic matter to initiate soil recovery. Weed treatment and planting/seeding of pile-burning areas would also improve recovery. • **Fireline reclamation** when necessary to meet recovery objectives in poor recovery soils, fireline rehabilitation may occur following burn activities. Reclamation activities would include, but are not limited to: pulling all material removed for fireline construction back onto fireline (including mineral soil as available), pulling available slash onto the surface to achieve a minimum 50% ground cover	Maintain CWD for long-term site productivity and for wildlife species.

	of the disturbed soil. Construct waterbars only when full reclamation is not possible. *Reclamation should take place within the same season as the burn, if possible.*	

Hydro/Fisheries

Project Design Features	Objective
SOIL, WATER, RIPARIAN AND AQUATIC RESOURCES	
General	
Use all applicable Best Management Practices (BMPs) and Soil Water Conservation Practices (SWCPs) for harvest, road, and ground disturbing activities.	Reduce levels of soil disturbance, erosion and potential sedimentation, meet requirements of the State of Idaho non-point source pollution Management Plan, Maintain, water quality and associated beneficial uses.
Locate and approve water drafting sites prior to use. The project fisheries biologist or hydrologist must approve the sites. No vehicles would be allowed in stream courses at any time for the purpose of withdrawing water. Drafting hoses would be required to be fitted with screens with a 3/32 inch mesh and the appropriate surface area to be consistent with NOAA guidelines.	Minimize impacts to stream channels and RCAs
SWRA - Vegetation Treatments	
The project has selected Option 2 (Appendix B of the Forest Plan) to delineate RCAs. Field verification of RCAs would be completed using the following criteria. Perennial Streams – flood-prone width or two site-potential tree heights (240 feet), whichever is greatest. Intermittent Streams – flood-prone width or one site-potential tree height (120 feet), whichever is greatest. Buffers would also be applied to any unmapped streams, springs, or wetlands discovered during implementation.	Maintain riparian function (including Bull Trout, Steelhead and Chinook salmon designated critical habitat where applicable).
The following guidelines would be used for RCA treatment layout and implementation: 1. Areas with early seral species in the outer portion of the RCA would be treated with intermediate Silvicultural treatments. Commercial thinning could only occur in the outer half of RCA's No ground-based harvest equipment is allowed in RCAs unless otherwise approved by an aquatics or soils specialist. Jammer or skyline yarding would be completed from existing roads or from outside the RCA, unless otherwise approved. RCA treatments would retain 10-15' canopy spacing between seral species according to the RCA prescription.	Maintain riparian processes and function.

Project Design Features	Objective
Prescribed Fire	
In RCAs identified for treatment, no ignitions within the outer portion of the RCA burning within RCA's should result in a mosaic pattern of desired fire effects. No construction of mechanical (heavy equipment) fireline shall occur in RCAs. Handline should be minimized in RCAs by using existing roads, natural features, and the use of hoselays. Promptly (as soon as perimeter control is no longer necessary) reclaim all fireline following all burn activities.	Maintain riparian function.
Non Commercial/Ladder Fuel Thinning	
Non-commercial thinning would only occur in outer RCAs (described above) where active ignition is anticipated. Non-commercial thinning in RCAs would be completed by hand and would not cut trees larger than 10 inches DBH. Piling of slash should not occur within RCAs.	Maintain riparian function.
Temporary Road Construction and Skid Trails	
Avoid temporary road construction, skid trails, skyline corridors in RCAs. Any ground disturbance in RCAs should use sediment fences, wood straw, jute matting or other erosion control measures deemed necessary by a fisheries biologist and/or hydrologist (or designee).	Promote native revegetation and reduce erosion and sediment input to stream channels.
Within areas that may contribute sediment to stream channels, construct slash filter windrows at the toe of fill slopes on newly constructed landings and temporary roads concurrent with construction. Limit the height of windrows to less than three feet; dispose of excess material as necessary. Provide breaks (every 100-300 feet) to allow passage.	Minimize the extent of sediment routing to stream channels.

Wildlife

Northern Goshawk

	Known northern goshawk (NOGO) nests would be protected within a 30-acre forested nest stand as determined by the wildlife biologist in coordination with the sale administrator and/or timber staff. During vegetation management operations, if a new NOGO nest is located, onsite activities should cease until a survey can determine if the nest is active. If the nest is active, operations in those 30 acres should be halted until the end of the nesting season (March 1 to Sept. 30). Operations may resume earlier than Sept. 30 if it is determined that the birds are no longer present. As per Forest Plan direction, nest stands would have a Post-Fledging Area (PFA) established. Refer to the Project Record for nest site locations, PFA protocol and associated units.	Minimize effects to northern goshawk from project activities. Compliance with Forest Plan direction
Great Gray Owl		
	Great gray owl nesting sites that have not been identified prior to vegetation or Rx fire treatments, may require protected activity centers (PACs) to retain nesting and rearing habitat that is sufficient to rear fledgling great gray owls *e.g.* PVG 6 clumps w/in 300 ft. of meadow habitat.	Minimize effects on great gray owls, primarily during nesting
Elk		
	As per Forest Plan direction (WIGU08), provide a radius of 2 elk sight distances (total of 400 feet) of vegetation to protect mineral licks and elk wallows. No harvest or prescribed burning would be allowed in these sites, without approval by the wildlife biologist.	Minimize vulnerability to hunting mortality and provide habitat security