Introduction: The objective of this project is to manage stocking and species composition to lessen susceptibility to insect and disease outbreaks; reduce the risk of high severity wildfire by reducing surface, ladder and crown fuels; increase tree growth and vigor; diversify species age and composition; improve riparian habitat conditions; and decrease point source sedimentation impacts from existing roads.

Mandatory Stewardship Project Number 01 – Road Obliteration

The end result is to obliterate and re-contour approximately 0.2 mile of the existing non-system road within Subdivision 30 from the junction of the Bartlette Road (C-2030) to the end of the road at the NF Calispell Creek.

De-compact the running surface to a minimum depth of 16 inches and re-contour this road (post-harvest) with available fill material, logging slash, boulders and/or other means appropriate for site conditions. Grass seed all disturbed areas.

Mandatory Stewardship Project Number 02 – Road Decommissioning

The end result is to decommission the following 15 roads:

3520025 (Subdivision 54): 0.5 mile (from the junction of Rd 3520000 to the junction of Rd 3520200).
3520040 (Subdivision 58): 0.2 mile (from the junction of Rd 3520046 to the end of the road).
3530000 (Subdivision 40): 1.0 mile starting from the southeast corner of Subdivision 40. Remove culverts from the project area. Remove fill material from stream channels and adjacent riparian areas and deposit this material onto the running surface or other approved location.
3530015 (Subdivision 42): 1.1 miles (from the junction of Rd 3530000 to the junction of Rd 3530010).
3530020 (Subdivision 241): 0.3 mile (from the junction of Rd 3530010 to Subdivision 241).
4300302 (Subdivision 5): 0.3 mile (from the junction of Rd 4300309 to end of road in Subdivision 5).
4300303 (Subdivisions 2-4): 0.6 mile (from the junction of Rd 4300304 to end of road in Subdivision 4).
4300304 (Subdivisions 1-5): 1.5 miles from the start of the road in Subdivision 1 to the end of the road in Subdivision 5. Remove culverts from the project area. Remove fill material from stream channels and adjacent riparian areas and deposit this material onto the running surface or other approved location.
4347300 (Subdivision 43): 1.3 miles (from the junction of Rd 3530010 to end of road in Subdivision 43).
4370005 (Subdivision 32): 0.1 mile (from the junction of Rd 4370101 to end of road in Subdivision 32).
4370010 (Subdivision 32): 0.1 mile (from the junction of Rd 4370101 to end of road in Subdivision 32).
4370020 (Subdivision 31): 0.5 mile (from the east end of Subdivision 31 to North Fork Calispell Creek).
4370020 (Subdivision 37): 0.4 mile (from the junction of Rd 437027 to end of road in Subdivision 37).
Non-System Road (Subdivision 37): 0.3 mile (from junction of Rd 3530480 to end of road in Subdivision 37).
Non-System Road (Subdivision 17): 0.2 mile (from junction of Temp Rd 17 to the USFS/DNR boundary).

Remove road fill and deposit this material onto the running surface. Leave loosened material in clumps to minimize erosion potential. Within road segments lacking fill material to adequately cover the running surface to a depth of at least 4 inches (e.g. low angled side slopes) scarify the running surface to a depth of at least 4 inches or as otherwise agreed to. Add available slash, earthen berms, boulders and/or other debris to further discourage motor vehicle use. Install drainage features and grass seed all disturbed areas.

Mandatory Stewardship Project Number 03 – Road Entrance Closures

The end result is to close the following 7 roads to motorized access:

3520040 (Subdivisions 60,62) – Close road at the junction of Rd 3520000. Remove gate and deliver to the Colville Supervisor's Office or as otherwise agreed to.
3530480 (Subdivision 37)– Close road 240 feet from the junction of Rd 3530000. Remove gate and deliver to the Colville Supervisor's Office or as otherwise agreed to.
4370004 (Subdivisions 36,330) – Close road at the east end of Subdivision 330
4370101 (Subdivision 32) – Close road at the junction of Rd C-2030
4370103 (Subdivision 34) – Close road at the USFS/Riley Creek property line. Remove gate and deliver to the Colville Supervisor's Office or as otherwise agreed to.
4370106 (West of Subdivision 9) - Close road at the junction of Rd 4370103
4370442 (Subdivision 10) – Close road at the junction of Rd 4370447

Close roads using a combination of earthen berms, boulders and/or available logging slash and debris. Some road work may need to be completed outside the specified operation season and will be addressed on a site-by-site basis. Grass seed all disturbed areas.

Mandatory Stewardship Project Number 04 – Tree Planting

The end result is to re-vegetate with conifer seedlings the entrances of the following (closed) roads:

3520025 (Subdivision 54)

3520040 (Subdivisions 60,62)
3530000 (Southeast corner of Subdivision 40)
3530015 (North of Subdivision 40)
3530480 (Subdivision 37)
4370004 (East end of Subdivision 330)
4370020 (Subdivision 31)
4370101 (Subdivision 32)
4370106 (West of Subdivision 9)
4370442 (Subdivision 10)
7 Existing Non-system (temp) Roads (Subdivisions 7,17,18,20,21,30,36)

The running surface at each location shall be ripped prior to planting to a minimum depth of 16 inches for 100 linear feet. Each road entrance site shall be planted with approximately 80 trees at a spacing of 6'X6' (see ***Attachment B***). Planting stock will be provided by the government. Due to a 2-yr process for propagation of conifer planting stock coordination for completing this project is essential.

Mandatory Stewardship Project Number 05 – Noxious Weed Treatment

The end result is to spray herbicide on up to **100** acres of designated roads and right-of-ways, trails, landing sites and meadows for the purpose of reducing the spread of noxious weeds. All weed control measures shall comply with all herbicide labels and the applicable laws and regulations of the State of Washington as well as the Colville National Forest 1998 Environmental Assessment for Integrated Noxious Weed Treatment as amended by the Region 6 Invasive Plant Program--Preventing and Managing Invasive Plants EIS and ROD signed 10/11/05. Weeds must be sprayed when they are at the proper physiological stage of maturity, as recommended on the herbicide label.

A Daily Spray Report which includes the "Pesticide Application Record" form along with map of application areas shall be completed daily by the Contractor. It shall be available for inspection by the Contracting Administer at any time and at a minimum submitted weekly. The Contractor shall provide other Washington State applicator requirement forms. In addition, the Contractor shall keep the contract administrator informed of their progress on a daily basis.

The Contractor shall perform spraying by using an articulated boom spray truck equipped with a computerized injection system for all roadsides. ATV may be required for some items.

Tordon 22K – *Picloram* - shall be applied at the rate of 1 quart per acre. The Contractor shall mix the Tordon 22K at a rate of 32 ounces concentrate in not less than 20, and not more than 80, gallons of mix per acre. The use of a spreader activator may be required depending on weather conditions and species of weed being targeted.

Escort – *Metsulfuron* – shall be applied at a rate of 2 oz. per acre and mixed with a crop oil or silicone-based surfactant such as Sylgard.

Transline – *Clopyralid* – shall be applied at a rate of 6-10 oz. per acre and mixed with a crop oil or silicone-based surfactant such as Sylgard.

Specific Weed Treatments

Common tansy (*Tanacetum vulgare*) is to be treated with metsulfuron (brand names Escort, Ally, etc.) at the rate of 2 ounces per acre mixed with a crop oil or silicone-based surfactant such as Sylgard, etc. at the rate of 1 pint (16 ounces) per 100 gallons of spray solution.
Dalmatian Toadflax (*Linaria dalmatica*) is to be treated with a mixture of picloram (brand name Tordon 22K) at the rate of 2 pints (32 ounces) per acre, and 0.5 ounces of metsulfuron (Escort) per acre, mixed with a crop oil or silicone-based surfactant such as Sylgard, etc. at the rate of 1 pint (16 ounces) per acre.
All other weed species are to be treated with clopyralid (brand name Transline) at the rate of 1 pint (16 ounces) per acre mixed with a crop oil or silicone-based surfactant such as Sylgard, etc. at the rate of 1 pint (16 ounces) per 100 gallons of spray solution.

The application environments are Forest Service and designated county and private roads, designated meadows, landing areas and public parking areas, right-of-ways and ditch lines. Areas designated by the Forest Service may be accessible by motorized vehicles, highway or ATV's. All riparian areas are excluded from this requirement. Designated areas may be treated two or more times.

ATV accessible roads and trails -To include all single or double track trails, 4 feet to either side of the trail unless otherwise designated. Distance shall be measured from the edge of the tread of the trail.

Bid rates will be accepted for the following treatment applications:
1) Roads/trails/meadows accessible by ATV's only.
2) Roads/trails/meadows accessible by highway vehicles.

Payment will be based on acres treated.

Mandatory Stewardship Project Number 06 – Snag Creation

The end result is to create up to 21 snags within the project area.

Project location: Snags are to be created within Subdivisions 2, 4 and 26 (42 acres).
Minimum tree diameter and size: 12 inches DBH, 20 feet in height.
Tree preference: 1) Western larch (preferably with mistletoe) or Douglas-fir; 2) Grand fir, Engelmann spruce or lodgepole pine; 3) Ponderosa pine or subalpine fir; 4) Avoid healthy, dominant and/or full-crowned trees; 5) Avoid trees with broken or dead tops, broom rusts and/or fading crowns.
Tree location: Select trees on unit edges, in leave-tree patches, or standing alone in the unit. Select trees greater than 200' from open roads to prevent their loss to firewood cutters.
Tree spacing: Select individual trees or clumps of trees (particularly lodgepole pine)
Maximum number of trees/unit: Create an average of 1 snag per 2 acres.
Marking method: Mark with contractor-supplied orange paint a "W" on each tree above DBH, clearly visible at 100 feet from all directions. Mark a 6" spot on the tree at ground level. Use galvanized nails to affix a metal wildlife tree tag (to be supplied by the govn't) to the tree at DBH and below the orange "W". Leave approximately 1" of each nail showing (not pounded into tree). Using a nail, scratch in a unique, individual tree number in lower right corner of each metal tag.
Treatment method: Top trees as high as safe operations allow.
Treatment timing: Tree selection and marking shall occur prior to harvest. Tree topping should occur at time of harvest.
Closed Road Access: A road use permit to access units located behind gated roads may be issued by the USFS Wildlife Biologist located at the Sullivan Lake Ranger Station (509-446-7500).
Tracking method: Record each tree's latitude and longitude using a GPS - NAD83 map datum. Create a paper map of trees for each harvest unit that includes locations of each tree with their unique tree numbers.

Payment will be based on the number of green trees marked, recorded and topped.

Mandatory Stewardship Project Number 07 – Designation by Prescription (DxPre) Specifications

The end result is to retain the *best available trees* to the specified stocking level and/or other *desired condition* as summarized within the Flowery Trail DxPre Specifications ***(****see* ***Attachment C***).

Within their technical proposal, the contractor shall specify which DXPre subdivision(s) they propose to mark. See the list of subdivisions to select in the DxPre Table, Attachment C. Once selected, the contractor shall mark the entire subdivision. Partial marking of subdivisions shall not be permitted.

The contractor shall use non-tracer orange paint to mark designated leave trees.

Payment will be based on acres marked.

Mandatory Stewardship Project Number 08 – Mechanical Piling

1) The end result is to treat areas where residual slash exceeds 6 tons/acre for 0-3" diameter material and 6 tons/acre for 3-6" diameter material. 'Slash' is as defined in K-G.7.4.2#.
   a. Slash may be piled in small openings, on landings, or in locations as approved prior to operations. Removal of additional live trees to provide burn bays will be approved prior to operations. Piles shall be located at least 20 feet from standing live trees.
   b. Piles shall be located within the contract boundaries.
   c. Piles shall not be located on the road prism of system roads, within 150 feet of a stream, or within 60 feet of a Genetic Reserve Tree.
   d. Piles shall not be located next to existing snags. A snag is any standing bole greater than 20 feet in height and 10 inches at DBH.
   e. Except when used to close roads and skid trials all piles shall be compact and free of dirt. Machines used for piling shall be equipped with an excavator-mounted brush blade, rake or grapple. Equipment used for piling shall also not exceed 7 psi ground pressure.
   f. Piles should be less than 10 feet in height, and 20 feet in length and width or as otherwise approved.

Subdivisions to be determined post-harvest (100 to 750 acres estimated.)

Payment will be based on acres piled.

Mandatory Stewardship Project Number 09 – Pre-commercial Thinning

The end result is to use hand tree felling to reduce ladder fuels and increase the vigor of shade intolerant and fire resistant species. Average conifer leave-tree spacing: 14'X14'. Spacing may be vary by 25% to select the best leave tree. Designated cut trees shall be from 1 foot in height to a maximum size of 5.9 inches DBH. Preferred species will be determined as per unit prescription (*see* ***Attachment D***).

Units: ***See Pg 2 of 2 CAM*** (700 to 950 acres estimated).

Payment will be based on acres thinned.

Mandatory Stewardship Project Number 10 – Slashing (Whipfelling)

The end result is to reduce ladder fuels, increase the vigor of shade intolerant and fire resistant species, and to remove diseased and/or damaged sub-merchantable conifer species. Cut all diseased and/or damaged trees <4.0" DBH. Healthy, un-damaged conifer species may be retained as per unit prescription. Whip-felled slash depth and stumps shall be 2 feet or less. Leave a 15' uncut buffer along all roads open to public use.

Subdivisions: 2,4,23,33,34,37,55 plus additional units as determined post-harvest (50 to 130 acres estimated).

Payment will be based on acres slashed (whipfelled).

Mandatory Stewardship Project Number 11 – Unit 18 Rec Site Restoration

The end result is to repair the damage in and around the dispersed camp site at the junction of Rd 3520000 and C-2022. Fill in rutted areas and depressions with approximately 60 cubic yards of certified weed-free 3" minus crushed gravel. Install 350 lineal feet of barrier rock; gaps between rocks not to exceed 42 inches apart to discourage unauthorized ATV use at locations as shown on the attached map (*see* ***Attachment E***). Barrier rock shall be 3 to 4-foot in diameter. Scatter 1 to 2-foot diameter rocks (i.e. iceberging) outside the barrier rock perimeter; approx. 4 ten-yard dump truck loads. Exact location for the barrier rock and iceberging will be as flagged by the contract administrator. Decommission 650 lineal feet of the 50-inch wide unauthorized OHV trail as shown on the attached map. Scarify the running surface to a minimum depth of 4 inches and leave loosened material in clumps to minimize erosion. Add available fill material, forest debris, boulders, slash and/or other means to further discourage motor vehicle use.

Mandatory Stewardship Project Number 12 – Unit 31 Rec Site Restoration

The end result is to repair the damage in and around the dispersed camp site near Subdivision 31. Install 1,500 feet of 3-rail buck-and-pole fence parallel to Rd 4370020 as flagged by the contract administrator. 3-Rail Buck-and-pole fence specifications: Height: minimum 4.5 feet; Rails: minimum 5 inches diameter, not less than 8 feet in length; Posts: Pressure-treated 6-8 inches diameter; Fence construction includes one top rail, two front rails plus one cross-brace on backside every third section. Use 1/2-inch rebars to fasten notched cross bucks and 8" helical spikes to fasten rails (see ***Drawing A***). Decommission 900 lineal feet of the 50-inch wide unauthorized OHV trail as shown on the attached map (*see* ***Attachment F)***. Scarify the running surface to a minimum depth of 4" and leave loosened material in clumps to minimize erosion. Add available fill material, forest debris, boulders, slash and/or other means to further discourage motor vehicle use.

Mandatory Stewardship Project Number 13 – Unit 330 Rec Site Restoration

The end result is to repair the damage in and around the dispersed camp site near Subdivision 330. Install 80 lineal feet of barrier rock; gaps between rocks not to exceed 42 inches apart to discourage unauthorized ATV use at locations as shown on the attached map (*see* ***Attachment G***). Barrier rock shall be 3 to 4-foot in diameter. Install 350 feet of 3-rail buck-and-pole fence at locations as shown on the attached map. 3-Rail Buck-and-pole fence specifications: Height: minimum 4.5 feet; Rails: minimum 5 inches diameter, not less than 8 feet in length; Posts: Pressure-treated 6-8 inches diameter; Fence construction includes one top rail, two front rails plus one cross-brace on backside every third section. Use 1/2-inch rebars to fasten notched cross bucks and 8" helical spikes to fasten rails (see ***Drawing A***). Scatter 1 to 2-foot diameter rocks (i.e. ice-berging) within areas as shown on the attached map; approx. 4 ten-yard dump truck loads. Exact location for the barrier rock and ice-berging will be as flagged by the contract administrator. Decommission 600 lineal feet of the single track road within the meadow as shown on the attached map. Scarify the running surface to a minimum depth of 4" and leave loosened material in clumps to minimize erosion. Add available fill material, forest debris, boulders, slash and/or other means to further discourage motor vehicle use.

Optional Stewardship Project Number 14 – Mastication

The end result is to reduce ladder fuels and residual slash. Masticated ladder fuels and slash shall be reduced to a depth of 12” or less. Results of treatment shall be small debris (limbs, sticks, needles, chips) with a maximum debris size of 4 inches in diameter and 4 feet in length on over 90% of the treatment area. Areas excluded from mastication include the pine marten travel corridors, ATP’s, and big game screening cover strips along open roads.

Subdivisions to be determined post-harvest (0 to 150 acres estimated).

Payment will be based on number of acres masticated.

Optional Stewardship Project Number 15 – Machine Fuelbreak and Fireline Construction

The end result is to provide a fireline and fuel break on the boundary of proposed prescribed burn units. Locations are to be determined post-harvest. Fuelbreak: Remove brush and slash greater than 2” diameter and 6’ length for a width of 15’ to 20’. Fireline: From the outside edge of the fuelbreak construct an 18”-24” wide line to mineral soil.

Subdivisions: 7,17,18,20 plus additional units as determined post-harvest (0 to 2.0 miles estimated).

Payment will be based on miles of fuelbreak/fireline constructed.

Optional Stewardship Project Number 16 – Grinding and Removal

The end result is to remove most slash from the landings and decking areas. End-hauling, chipping, and/or grinding with removal of biomass would be acceptable measures to meet this treatment.

Subdivisions to be determined post-harvest (15,000 tons estimated)

Payment will be based on tons chipped and hauled.

Optional Stewardship Project Number 17 – Landing Treatment – Post Grinding

Landings would be drained, scarified to a minimum depth of 4 inches and grass-seeded.
Remaining slash would be scattered on the landing or decking area.

Subdivisions to be determined post-harvest (50 landing sites estimated.)

Payment will be based on number of landing sites treated.

Optional Stewardship Project Number 18 - Miscellaneous Road/Trail Decommissioning

The end result is to decommission up to 1 mile of designated roads and/or unauthorized ATV trails. Locations are to be determined post-harvest. Remove road fill and deposit this material onto the running surface. Leave loosened material in clumps to minimize erosion potential. Within road segments lacking fill material to adequately cover the running surface to a depth of at least 4 inches (e.g. low angled side slopes) scarify the running surface to a depth of at least 4 inches or as otherwise agreed to by the contracting administrator and contractor. Add available slash, boulders and/or other debris to further discourage motor vehicle use. Install drainage features and grass seed all disturbed areas as directed by the contract administrator.

Payment will be based on of miles of roads/trails decommissioned.

Optional Stewardship Project Number 19 – Miscellaneous Road/Trail Ripping

The end result is to de-compact up to 1 mile of designated roads and ATV trails. Locations are to be determined post-harvest. As flagged, excavate and/or rip the roadbed to a minimum depth of 16”. Leave loosened material in clumps to avoid erosion. Grass seed disturbed sites as directed by the contract administer.

Payment will be based on miles of road/trail ripped.

Optional Stewardship Project Number 20 – Miscellaneous Road Entrance Closures

The end result is close up to 6 roads to motorized access which may include non-system roads within Units 7,17,18,20,21,36. Locations are to be determined post-harvest.

Close roads using a combination of earthen berms, boulders and/or available logging slash and debris. Some road work may need to be completed outside the specified operation season and will be addressed on a site-by-site basis. Grass seed all disturbed areas as directed by the contract administrator.

Optional Stewardship Project Number 21 – Miscellaneous Barrier Rock Placement

The end result is to close designated roads and/or unauthorized ATV trails with barrier rock. Locations are to be determined post-harvest.

Purchase and haul 3'-4' diameter boulders to be installed at up to 4 sites (3-4 boulders per site) as directed by the Contracting Administer.

Payment will be based on number of sites closed with barrier rock.

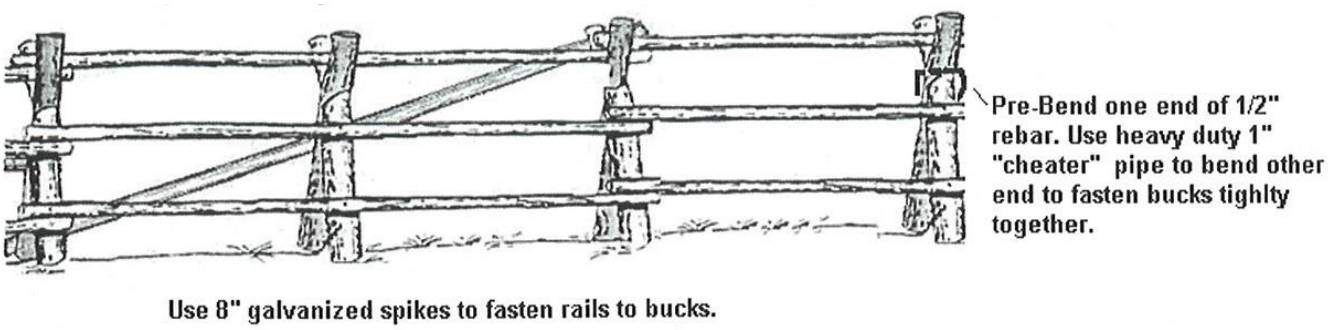
Optional Stewardship Project Number 22 – Bartlette Meadow Aspen Enclosure Fencing

The end result is to protect aspen stands from grazing.

Install 1,600 feet of pressure-treated buck-and-pole fence at locations as shown on Attachments K,L,M.
Section 13 – 300 feet of fencing (see ***Attachment H***)
Section 17 – 800 feet of fencing (see ***Attachment I***)
Section 20 – 500 feet of fencing (see ***Attachment J***)

3-Rail Buck-and-pole fence specifications: Height: minimum 4.5 feet; Rails: minimum 5 inches diameter, not less than 8 feet in length; Pressure-treated Posts: 6-8 inches diameter; Fence construction includes one top rail, two front rails plus one cross-brace on backside every third section. Use 1/2-inch rebars to fasten notched cross bucks and 8" helical spikes to fasten rails (see ***Drawing A***).

Drawing 'A'



GENERAL SPECIFICATIONS FOR ALL PROJECTS

The Contractor may use yarding equipment, mechanical treatments, hand treatments, or other methods to reduce slash.

DEFINITIONS

Basal Area: The cross-sectional (sq ft) area of trees measured at DBH. Basal Area is typically determined by a wedge prism, angle gauge or relaskope

Best Available Trees: The best available tree is one with the best vigor, health and/or growth. Given a choice between two trees with equal vigor/health/growth the best available tree is the preferred specie.

Calendar Days: Every day shown on the calendar, Saturdays, Sundays and holidays.

Chipping and Grinding: Use of mechanized equipment to reduce slash and non-merchantable material to a size which will meet local mill utilization standards.

Clumps: 3-4 leave trees with crowns within 5' of one another.

Mastication: Use of mechanized equipment to reduce the size and height of the residual slash and ladder fuels to facilitate decomposition.

Contract Administrator: The delegated on-site inspector. The duties and responsibilities of the CA are defined in the letter of designation issued by the Contracting Officer.

Contract Time: See Period of Performance.

Damage: Defect or deformity of a tree resulting from agents such as wind, snow, animals, insects, disease, and equipment, and evidenced by such things as dead or broken tops or boles, crooks, and deep scars or damage to the bark on more than ¼ of the circumference of the tree.

DBH (Diameter at Breast Height): A point on the bole of a tree 4.5 feet above the ground measured on the uphill side.

Desired Condition: Includes any applicable direction within the marking plan.

Hawksworth Mistletoe Rating: Divide the crown of the tree into 6 sections. Rate each section for presence of mistletoe. The sum of the sections equals the Hawksworth Mistletoe Rating.

Height to Diameter Ratio: The relationship between dbh and height. Trees that are overly tall for their diameter size generally have a poor height to diameter ratio. These trees usually bend over once nearby trees have been removed. A 50' height and 6" dbh is 100:1 ratio.

IRTC: Integrated Resource Timber Sale Contract

Ladder Fuel Reduction: Cutting and/or removal of small diameter (generally <4.0 DBH) trees growing under other more desirable trees to reduce risk of fire moving from the ground to the tree crowns.

Leave Trees: Trees not designated for removal or other prescribed treatment.

Live (green) Snags: Trees that have broken or missing tops >10" diameter at the point of breakage and yet have live limbs remaining on the stem.

Overstory Removal (HOR): Removal of the overstory trees with the intent of managing the understory.

Period of Performance: (also Performance Period or Contract Time). The number of calendar days allowed in the contract for completion of contract work.

Piling: Use of mechanized equipment to concentrate slash for fall/winter burning.

Quality Assurance: The actions taken by the Government to assess the results to determine that they meet contract requirements. The methods for quality assurance are described in the Quality Assurance Surveillance Plan (QASP).

Quality Control: Those actions taken by a Contractor to control the production of outputs to ensure that they conform to the contract requirements.

Shelterwood Harvest (HSH): Silvicultural method designed to retain 16-20+ overstory trees/acre, sufficient to produce a new age class of desirable trees.

Slash (created): Boles, branches and limbs produced by the Contractor's operations.

Selection Harvest (HSL): Selection of individual trees or small groups of trees designed to retain a stand with high forest cover while simultaneously providing for an orderly development of trees with a range of ages and/or size classes.

Severe insect or disease problems: Trees with **mistletoe** in more than half the crown. Brooms, cankers, and swellings on stems and branches are indicators of mistletoe. Mistletoe is common in western larch. Trees showing symptoms of **root disease** should be removed. Frequently these trees are Douglas fir near a root disease centers (an area of dead broken off trees). Indicators of root disease include a white fungus growing between the bark and the wood, resin flow at the base of the tree and or a lighter color crown with fewer needles, when compared to other Douglas fir in the area. Fading crowns and/or sap flow from the bole of Douglas-fir and grand fir. **Blister Rust** is common in western white pine. Symptoms of blister rust include heavy resin flow on the stem from a diamond shaped wound, dead branches and/or a dead top. Grand fir with **scolytus** scars on both sides of the tree. Numerous pitch tubes where **beetles** have bored into tree. Symptoms of mountain pine beetles are small red to yellowish pitch tubes (less than one-fourth inch) and boring dust in bark crevices and round the base of the tree. Symptoms of Ips beetles are dead tops and group killings without pitch tubes.

Severe mechanical defects: heavy leans, v-shaped forks, sharp crooks, bear damage or bird peck girdling the tree, broken trees with few live branches remaining.

Stream course: The area along a stream with riparian vegetation and other riparian characteristics. Stream courses are noted on the Contract Area Map. Protection of streamcourses is outlined in the IRTC.

Thinning (HTH): Selection of individual trees designed to retain a stand with high forest cover. Leave-trees are generally those with 'desirable' characteristics and meet the prescribed spacing and/or BA retention requirements.

Trees not expected to live for 10 years: Trees with red needles, few live branches or other indicators of recent or expected tree mortality.

Trees per acre: A method of measuring stocking level. The number of live trees >4" dbh per acre.

Vegetative Screen: Available vegetation such as shrubs, seedlings, saplings, full crown and/or wolfy trees. When designated, available vegetation is to be retained at a level sufficient to screen at least 90% of a large animal at 200 feet.

Vigor/Growth: Relative health and growth of forest trees. Leave-tree preference shall favor trees possessing relatively high vigor/growth, free of disease and defect over trees with relatively poor vigor and growth, regardless of specie preference. For example, a WH with a relatively healthy crown will be favored over and a similarly-sized DF with a faded crown. If the two trees possessed similar vigor/growth characteristics, the DF shall be the preferred leave-tree.

CONTRACTOR WORK REQUIREMENTS AND STANDARDS

Locked gates: In cases where units are behind locked gates, the Contractor shall close and lock gates after entering or exiting each gate and will be subject to all other restrictions of administrative use. The Contractor shall be permitted to drive from the locked gate to the unit with only the minimum number of vehicles necessary for efficient transport of the crew and equipment as well as product removal. All entrances into closed areas shall be clearly signed "For Logging Use Only" during periods of active operations.

Leave trees: 1) all snags that do not pose a hazard to operations as defined by the Washington State Labor and Industry standards, or are not identified for removal in the fireline construction end products specifications shall be considered leave trees and left uncut. 2) All designated leave trees both in the treatment units and in the Optional Units shall be left uncut and undamaged. Operations shall be conducted in such a manner so as to minimize damage to any leave trees during operations. See the IRTC for details related to damage and/or cutting of commercial timber within the project area.

Unless otherwise approved by the Contracting Officer, green biomass trees removed under the Mandatory and Optional work items shall be completely severed below the lowest live limb and within six (6) inches of the ground at an angle parallel to the slope, except when prevented by natural obstacles. A live limb is a limb of any size that has green needles attached. Cut trees shall be secured so they do not roll down hill and shall not be hung up on other trees or vegetation.

Slash Treatment: Treatments of slash is to include slashing, bucking, dispersion, commercial off-site removal, chipping, or piling. Slash created and/or trees dropped by the Contractor's operations outside the unit boundaries will be pulled back onto Forest Service property unless agreed to in writing by the Forest Service.

Resource Protection: The Contractor shall exercise extreme care to prevent damage to existing facilities, developments, and resources in all aspects of the contract work.

CONTRACTUAL ARRANGEMENT

(a) This is a contract for the Mandatory and Optional services specified and effective for the period stated in the Contractor's Proposal and made a part of this contract. The quantities of services specified in the Schedule are estimates only and are not purchased by this contract, except as orders are

placed in accordance with the ordering clauses. Minimum and maximum quantity requirements, if any, are as stated in A.4.3 STEWARDSHIP CREDITS.

(b) Performance shall be made only as authorized by the Contracting Officer in writing in the form of a Cutting Unit Release. Timber Removal activities within the Optional Units shall be scheduled and carried out in accordance with the Contractor's proposal, as approved by the Contracting Officer and in accordance with all relevant provisions of the 2400-13 Contract provisions.

(c) Subject to any limitations in this contract, the Contractor agrees to furnish to the Government the services specified in the Schedule and called for by Work Orders/Subdivision releases, issued by the Contracting Officer. The Contractor shall furnish to the Government the services specified in A.4.3 STEWARDSHIP CREDITS, up to and including the quantity as shown in A.4.3.

(d) The Government will obtain performance of all services in the Schedule exclusively from the Contractor, until such time as the Government requires performance and the contractor is unable to provide.

ORDERING OF STEWARDSHIP CREDIT MANDATORY AND OPTION WORK ACTIVITIES.

(a) Authorized Ordering Officials: The following individuals are designated as Ordering Officials under this contract and are authorized to place orders within their respective levels of authority: Susan Rinke, Contracting Officer.

(b) Ordering Procedure. The Government will determine which Stewardship Credit Work Activity Items are required and place work orders with the Contractor to provide the item as specified. Reasonable time will be negotiated at time of order to allow for mobilization. Performance period will be agreed to at the time the contract is signed, based upon the RFQ, or as otherwise mutually agreed at time of order.

(c) Contractor Obligation. Upon issuance of a work Order/Cutting Unit Release order, the order becomes a binding contract under all terms and conditions of this contract and the Contractor is obligated to meet the requirements of the order as accepted. Return of the signed order and/or delivery and operation of ordered equipment constitutes acceptance. Failure to accept a work order for Work Activities Items in the Schedule may constitute partial default of the contract.

(d) Documentation. Facsimile documentation of order and acceptance is acceptable insofar as the documentation thus received is clearly legible. Return of the signed task order to the Ordering Official, by hard copy or FAX, documents acceptance of the order.

INSPECTION AND ACCEPTANCE

A. UNSATISFACTORY PERFORMANCE

If the work is determined to have major defects, the Government will immediately notify the Contractor in writing and order improvement of the quality of future work. If the defects requiring action are not corrected within two consecutive workdays after receipt of notice in writing of unsatisfactory work, the Contractor's right to proceed may be suspended and the contract considered in breach. Repeated failure to perform work at an acceptable quality level shall also be considered breach of contract.

B. REWORK AND REINSPECTION AFTER REWORK

When inspection results show a defect and the deficiency is correctable, payment will not be made until the deficiency has been corrected. Re-inspection after rework will be made in the same manner as the first inspection.

C. INSPECTION

CONTRACTOR QUALITY CONTROL PLAN

A. Quality Control Plan

The Contractor shall provide a Quality Control Plan (QCP) as part of the technical proposal. The Plan must demonstrate how the Contractor shall assure that quality of performance meets the objectives and requirements of the contract. The QCP shall specify:

- How quality will be monitored to ensure performance standards are met.
- How the work will be supervised.
- How results of the monitoring will result in quality performance.
- Identify the personnel responsible for performing quality control.

B. Contractor Quality Control Inspection

The Contractor shall assure that performance meets contract specification prior to requesting the Government to inspect for payment or acceptance. Upon completion of a unit, the Contractor shall contact the Contract Administrator to set a mutually agreed upon date for inspection of completed work. The Contract Administrator may observe the Contractor's inspection at any time and shall otherwise have unlimited access to the inspection data.

GOVERNMENT-QUALITY ASSURANCE SURVEILLANCE PLAN

The Government will conduct inspections of each unit to determine work quality. Initial inspections will normally consist of a 100 percent visual inspection preferably in conjunction with the contractor or the contractor's field representative and will be based on adherence to contract technical specifications. If visual inspection shows that the work is inadequate, final inspections and payment will not be made until the deficiency has been corrected by the Contractor. It is clearly defined here to be the complete responsibility of the contractor to monitor all work and to request final inspections based upon their knowledge that the work has been complete to the contract defined specifications.

When the contractor's work is deficient the government will install a series of circular plots to determine final payment results. Plots will be randomly located throughout each sub-item to obtain a representative sample of the work. Plots may be established within units that are being worked on at option of the Government if needed to determine if work is actually within the contract defined limits. If these plots are found to be acceptable they, may be added to plots taken after the remaining portion of the unit is completed and used to determine the compliance rating/percentage for the unit.

Re-inspection of Work Activities upon Contractor Request

If original inspection results are unacceptable to Contractor and a second inspection is requested without rework, the same inspection procedure will be used following a different plotline. If the second inspection shows less than 5 percent variance from the first inspection, the Contractor shall pay the cost of the second inspection, and results of the second inspection will be used in determining payment. Re-inspection requests shall be in writing and submitted within three (3) calendar days of the original inspection notification.

MEASUREMENT AND PAYMENT

MEASUREMENT

All linear and area measurements under this contract are measured on a horizontal plane within the established boundaries. Boundaries are marked with paint, flags and tags in the commercial units and flags and/or tags in the noncommercial units.

Re-measurement: The Contractor may at any time after award request re-measurement of any sub-item. The request must be in writing within 10 days after completion of a unit or pay item. The Government's re-measurement of the unit/sub item will be made within established boundaries.

If re-measurement indicates a variance of 5 percent or less in the acreage stated in the list of services, there will be no adjustment in acres and the Contractor shall pay for the actual cost of re-measurement.

If re-measurement results in a variance greater than 5 percent in the acreage stated in the list of services, payment shall be based on the re-measured acreage and the Government shall pay for the re-measurement.

The Government reserves the right to charge for cutting of designated reserve trees under the thinning tree selection criteria at the Damage Tree Rates as outlined in K-G.3.2# - Protection of Reserve Trees

Acceptable Quality Level

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
Quality Control Plan	Non-compliance with the approved plan.	Non-compliance with the approved plan.	**0**	**0**	**Suspend work until in compliance**	**Suspend work until in compliance**
Use of Ground based equipment	Non-compliance with pre-approved stream crossing sites.	**n/a**	**0**	**n/a**	**Non-compliance and possible breach of contract. Repair and stabilize**	**Repair and stabilize**
	Mechanical felling treatments do not occur under dry soil conditions and using a single-pass scenario.	**n/a**	**0**	**n/a**	**Non-compliance Detrimental soil conditions shall be repaired**	**Repair and stabilize**
	Non-compliance with pre-approved excavated skid trails.	**n/a**	**0**	**n/a**	**Non-compliance and possible breach of contract. Repair, rand stabilize**	**Repair and stabilize**
	Mechanical yarding equipment not confined to trails.	**n/a**	**0**	**n/a**	**Detrimental soil conditions shall be repaired**	**n/a**
	Ground-based equipment on trails with average spacing less than contract specifications.	**n/a**	**0**	**n/a**	**Non-compliance and possible breach of contract. Repair and stabilize.**	**n/a**
	Equipment operating in riparian habitat conservation area (RHCA)	**n/a**	**0**	**n/a**	**Non-compliance and possible breach of contract. Repair and stabilize**	**Repair and stabilize**
	Detrimental soil conditions exceeding forest plan standards occur.	**n/a**	**0**	**n/a**	**Detrimental soil conditions shall be repaired**	**n/a**

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
	Non-compliance with pre-approved mechanical operations on slopes >35% (except for short pitches of 200 feet up to 45% slope).	Non-compliance with pre-approved mechanical operations on slopes >35% (except for short pitches of 200 feet up to 45% slope).	0	1	Detrimental soil conditions shall be repaired	Repair and stabilize
Stump Heights	Heights exceeding 12 inches except next to obstructions.	Heights exceeding 12 inches except next to obstructions.	0	=<10% stumps/acre	Stump heights shall be reduced to 12 inches	n/a
	Stumps contain lower live limbs.	n/a	0	n/a	Live limbs will be removed	n/a
Mastication and Lopping and/or Scattering	Ladder fuels or slash exceeds 12 inches in height.	n/a	0	n/a	Reduce slash height	n/a
Mechanical Piling	Slash less than 10 inches large end diameter not scattered outside RHCA.	n/a	0	n/a	Disperse slash outside RHCA or 50 feet from stream channel	n/a
	Piles containing material exceeding 12 inches diameter on the small end and exceeding 16 feet in length.	n/a	0	n/a	Remove material and scatter away from a pile to be burned.	n/a

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
	Piles are placed closer than 10 feet from the bole of a tree, snag, or ditch	**n/a**	**0**	**n/a**	**Move pile**	**n/a**
	Piles are placed on any improvement such as road, fence, sign, etc.	**n/a**	**0**	**n/a**	**Move pile**	**n/a**
	Pile is placed outside unit e.g. Riparian Habitat Conservation Areas	**n/a**	**0**	**n/a**	**Move pile**	**n/a**
	Except as noted to close skid trails and roads, piles contain soil and /or foreign material that would retard burning.	**n/a**	**0**	**n/a**	**Remove soil and re-pile.**	**n/a**
	Piles are not tightly compacted.	**n/a**	**>5%**	**<=5%**	**Compact or re-pile**	**n/a**