

## APPENDIX A

### SECTION I – GENERAL

#### **Performance Statement of Work (PWS)**

**1.1 SCOPE OF WORK:** This statement of work consists of conducting timber stand improvement, and fuels treatment activities through the commercial use of timber, felling, skidding, yarding, decking, piling, masticating, or removing designated trees from Forest Service land, and related activities. The contractor shall provide any and all labor, equipment, supplies, services, permits, supervision, workman's compensation, unemployment, and transportation to accomplish projects on the Medicine Wheel Ranger District, Bighorn National Forest. This statement of work consists of completing tasks in accordance with Section V, and performance requirements in Section VII.

**1.1.1 PERIOD OF PERFORMANCE:** All work included in this contract shall be completed and accepted by the Government as previously identified in Section F. Special considerations are identified in Section F.4.

**1.1.2 LOCATION DESCRIPTION:** Project areas that are included under this contract are located on the Medicine Wheel Ranger District, Bighorn National Forest.

**1.1.3 LEVEL OF DIFFICULTY:** Contractor is encouraged to visit each project area prior to submitting pricing to determine level of difficulty such as accessibility, terrain, slope, etc.

**1.1.4 ACCESSIBILITY:** Specific site maps identifying units and access roads shall be provided to the contractor upon request and will be included with the contract package. Periods of operation for particular units or areas may be required. Restrictions if any are listed in the main contract under Section H and in appendix B under K-G.3.1.2# - CONTRACT OPERATION RESTRICTIONS.

**1.1.5 BOUNDARIES:** Each project shall be marked separately and all markings identifying units within a project will be identified.

**1.1.6 CONTRACTOR:** The contractor or purchaser is responsible to ensure all aspects of and requirements under the contract are met and acceptable to the Government. The contractor or purchaser, are considered the same person under this contract.

**1.1.7 CONTRACTOR REPRESENTATIVE:** The contractor shall provide a contract representative for the performance of the work. The name of this person and an alternate(s) who act for the contractor when the contractor is absent shall be designated in writing to the Contracting Officer. The contractor representative or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract. The contractor representative and alternate(s) must be able to read, write, speak, and understand English.

## **SECTION II – DEFINITIONS**

### **2.1 STANDARD DEFINITIONS**

**2.1.1 ACCEPTABLE QUALITY LEVEL (AQL):** The maximum allowable deviation from perfect performance that may occur before the Government will invoke payment deduction. An AQL does not allow a contractor knowingly to offer defective service, but limits reduced payment to circumstances in which defective performance results in a measurable reduction in the value of services rendered.

**2.1.2 CONTRACT INSPECTOR:** A Government person appointed by the COR to assist the COR with surveillance of contractor performance.

**2.1.3 CONTRACTING OFFICER:** A Government person responsible for oversight and supervision of the contract. The Contracting Officer has full authority under the contract.

**2.1.4 CONTRACTING OFFICER REPRESENTATIVE (COR):** A Government person appointed by the Contracting Officer to assist the Contracting Officer with contract administration and surveillance of the contract.

**2.1.5 DEFECTIVE SERVICE:** A unit of service, which contains one or more defects, or nonconformance with specified requirements.

**2.1.6 PERFORMANCE REQUIREMENTS SUMMARY (PRS):** Identifies the key service outputs of the contract that will be evaluated by the Government to assure contract performance standards are met by the contractor.

**2.1.7 QUALITY ASSURANCE:** Those actions taken by the Government to assure services meet the requirements of the Performance Work Statement (PWS).

**2.1.8 QUALITY ASSURANCE SURVEILLANCE PLAN (QASP):** An organized written document used for quality assurance surveillance. The document contains specific methods the Government will use to perform surveillance of the contractor.

**2.1.9 QUALITY CONTROL:** Those actions taken by a contractor to control the performance of services so that they meet the requirements of the PWS. See Section E.2 of the main contract for information on the requirements of the Quality Control Plan.

### **2.2 TECHNICAL DEFINITIONS**

**2.2.1 ACCESS POINT:** The point identified for access.

**2.2.2 ACCEPTABLE (STOCKING) DENSITY:** The number of trees between the minimum and maximum specified.

**2.2.3 ACCESSIBLE - ROAD ACCESS TO A UNIT:** Unit will be considered accessible when road access is within 1/4 mile of the unit.

**2.2.4 AVERAGE SPACING:** The average distance in feet between desirable leave trees.

**2.2.5 BOLE:** Main trunk or stem of tree.

**2.2.6 BOLE SPACING:** The horizontal distance from the trunk of one leave tree to the trunk of the next nearest leave tree. Average spacing is calculated using leave trees per acre.

**2.2.7 BOUNDARY TREE:** Tree used to designate unit boundary.

**2.2.8 BRUSH:** Woody or shrubby vegetation that does not produce commercial timber, excluding aspen.

**2.2.9 CALENDAR DAYS:** Every day shown on the calendar, Sundays and holidays included.

**2.2.10 CHANGE ORDER:** An order issued to the contractor by the Contracting Officer, requiring work to be performed within the general scope of the contract.

**2.2.11 CIRCULAR PLOT:** A sample plot within a thinning unit that is used to determine the number of desirable trees left in a plot in accordance with the Supplemental Specifications.

**2.2.12 CODOMINANT:** A tree whose crown helps to form the general level of the main canopy in even-aged stands or, in uneven-aged stands, the main canopy of the tree's immediate neighbors, receiving full light from above and comparatively little from the sides.

**2.2.13 CROP TREE:** Trees that will be a component of a future commercial harvest or managed into the future. In this contract, it is interpreted as the trees specified in the technical specifications that are of preferred species; free of insect or disease, or if there is present does not threaten the tree's survival or growth; exhibits leader dominance and growth; exhibits little or no damage that affects tree survival or growth; and has crown ratio of greater than 40% (ratio of crown to overall length).

**2.2.14 CROWN SPACING:** The horizontal distance from the drip line of the live crown of one leave tree to the drip line of the live crown of the next nearest leave tree. Average spacing is calculated from the leave trees per acre.

**2.2.15 CRUSHING:** The fuel bed shall be treated such that down woody debris and fallen boles are broken up. Slash depth is lowered to the litter layer without visible air spaces.

**2.2.16 CULTURAL AND/OR THREATENED AND ENDANGERED (T&E) SITES:**

Locations where special protection is required to preserve and protect cultural values and species of plants or animals listed on the T&E list.

**2.2.17 CUT & FILL SLOPES:** Banks along the high or low side of established roadways.

**2.2.18 CUT TREES:** Trees that do not possess the characteristics of desirable leave trees, and are required to be cut.

**2.2.19 CUT TREE CHARACTERISTICS:** Cut trees shall be those trees that are not to be left as leave trees.

- Crooked Bole - Those trees with deformation so pronounced that one straight, eight-foot piece cannot be cut from the bottom twelve feet of the tree.
- Broken Tops - Treetops broken as a result of physical damage.
- Trees with broken tops and live crown ratios less than 30%.
- Trees which are overtopped and growing into the crown of an adjacent larger tree.
- Trees without broken tops with live crowns less than 20%.
- Bark Beetle infested trees or trees exhibiting signs of mountain pine beetle or engraver beetle, (IPS beetle) infestation.
- Diseased – Evidence of western gall rust or other diseases on the main bole.

**2.2.20 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 trunks, crooks, and deep scars or damage to the bark on more than  $\frac{1}{4}$  of the circumference of the tree.

**2.2.21 DBH:** Diameter of the stem measured at a point of 4  $\frac{1}{2}$  feet above the ground level on the uphill side of the tree.

**2.2.22 DECKING:** Stockpiling of commercial and non-commercial sized cut trees in a designated area.

**2.2.23 DEFECTIVE SERVICE:** A unit of service that contains one or more defects or non-conformance with specified requirements.

**2.2.24 DEFICIENT TREES:** Trees that have been cut, that should have not been cut.

**2.2.25 DESIRABLE LEAVE TREES:** Trees left because they possess desirable leave tree characteristics.

- Dominant Trees – Trees, which are taller on the average when compared to other trees in the unit. These trees are not severely suppressed.
- Co-dominant Trees – Trees of average height when compared to other trees in the unit. These trees are not severely suppressed.
- Healthy Foliage – Foliage shall be dark green in color with a full crown or over  $\frac{1}{3}$  or more of the tree, with vigorous annual terminal growth (especially in the last one to three years).

- **Straight Bole** – The bole or stem of the tree shall be relatively straight. Trees shall have a single branch terminal, with branches horizontal or slightly angled to bole.
- **Free of Physical Damage** – Trees shall not have physical damage from fire, animals, or weather on more than ¼ of the circumference of the bole or more than three feet of the length of the bole.
- **Free of Disease Damage** – Trees shall not have disease such as gall rust, peridermium cankers, and stalactiform rust. Symptoms of gall rust are galls on the branch and stem. Symptoms of peridermium cankers are the presence of cankers on the bole of the branches. Symptoms of stalactiform rust are elongated, diamond-shaped cankers and associated resinosis.
- **Free of Insect Damage** – Trees shall not have insect damage from Mountain Pine Beetles or Ips Beetles. Symptoms of Mountain Pine Beetles are small red to yellowish pitch tubes (less than ¼ inch) and boring dust in bark crevices and round the base of the tree. Symptoms of the Ips Beetles are dead tops and group killings without pitch tubes.

**2.2.26 DIB:** Diameter of the stem inside the bark

**2.2.27 DITCHES:** Drainages along a road that lead to a cross-drain mechanism

**2.2.28 DOMINANT TREE:** A tree whose crown extends through the upper layer of the forest canopy and receives full light from above and partly from all sides.

**2.2.29 DRIPLINE:** The line extending vertically from the exterior edge of a tree's live crown to the ground.

**2.2.30 DUFF:** Decaying organic material found on the forest floor down to mineral soil.

**2.2.31 EXCESS TREES:** Uncut trees that, according to specification, should have been cut. These include trees not severed from the stump, hang-up trees, and stumps with live limbs. When girdling or pruning is required, excess trees also includes trees not girdled or trees not pruned that, according to specification, should have been girdled or pruned.

**2.2.32 EXCESSIVE DAMAGE:** Contractor-caused damage to leave trees in excess of contract specifications. Excessive damage includes damage to the bole of the tree where the wood is exposed, broken tops, root damage as evidenced by lean or splitting of the bole, and any tree pushed out of the soil.

**2.2.33 EXISTING SLASH:** Woody debris from trees and brush on site prior to contractor's operations.

**2.2.34 EXCESS TREES:** Uncut trees not needed to meet average spacing specifications and that may qualify as leave trees.

**2.2.35 FSR:** Forest Service Road

- 2.2.36 FUELBREAK CONSTRUCTION:** The cutting of trees less than 5” DBH and piling of existing and/or created slash less than 3” DIB in timber stands creating a break in fuel and slash free strip on the ground. . Required spacing in fuel breaks is 24’ x 24’. Fuel break construction may be accomplished through the use of hand piling, machine piling, chipping, or a combination of several treatments unless otherwise identified in the Supplemental Specifications.
- 2.2.37 GIRDLE:** A cut through the bark and cambium tissue completely encircling the tree trunk for the purpose of killing the tree.
- 2.2.38 GULLY:** A channel cut by concentrated runoff, through which water flows.
- 2.2.39 HANG-UP TREE:** Any cut tree suspended above ground level.
- 2.2.40 HARDWOOD:** A broad-leaved tree, which usually has a single well-defined trunk and/or attains a height greater than 20 feet. Includes, but not limited to, species such as aspen and oak. Sprouting hardwood species may be in the form of multi-stemmed clumps, such as alder.
- 2.2.41 HAZARD:** The existence of a fuel complex that constitutes a threat of wildfire ignition, unacceptable fire behavior and severity, or suppression difficulty.
- 2.2.42 HAZARD REDUCTION:** The planned treatment or manipulation of naturally growing vegetation or any other flammable material for the purpose of reducing rate of spread and output of heat energy from any wildfire occurring in the area treated.
- 2.2.43 HEALTHY CONIFER:** Trees that are growing well, exhibited by good leader growth, green foliage, and at least 40% crown ratio (ratio of crown to overall length), has upright growth form, absence of forking or broken tops, absence of mortality causing diseases or insects in the terminal buds.
- 2.2.44 HARDWOODS:** Tree species such as green ash, box elder, cottonwood, aspen, birch, and spruce.
- 2.2.45 IMPROVEMENTS:** Trails, roads, utility lines, section corners, fences, or other similar items owned by the Government or private landowners.
- 2.2.46 KETTLE POND:** Also called Fen or Bog - Open wetland that receives some drainage from surrounding soils, and usually supports marsh-like vegetation including sedges, rushes, shrubs, and trees.
- 2.2.47 LADDER FUELS:** Fuels that provide vertical continuity between the ground and the tree crowns thus are creating a pathway for surface fire to move into the overstory.
- 2.2.48 LANDING:** An approved location where trees and or slash are decked for future disposal.

**2.2.49 LAYERING:** A form of vegetative reproduction in which an intact branch develops roots as result of contact with the soil.

**2.2.50 LEAVE TREE:** All desirable (pine) tree greater than two feet in height regardless of DBH.

**2.2.51 LEAVE TREES PER ACRE:** The number of leave trees within one acre. Generally referred to average leave trees per acre calculated from one or more plot samples.

No. of trees per plot X reciprocal of plot size = leave trees per acre

And Total trees on all plots X reciprocal of plot size = leave trees per acre

Divided by Total no. plots taken.

**2.2.52 LITTER:** Needles, duff, twigs, cones and leaves.

**2.2.53 LIVE LIMB:** A limb of any size attached to the bole of a tree that has green needles attached.

**2.2.54 LESS DESIRABLE LEAVE TREES:** When the prescribed stocking level of most desirable leave trees cannot be achieved with trees that possess the most desirable characteristics.

- Minor Defect - Trees with minor defect such as a sharp crook or a small amount of animal damage.
- Suppressed Tree - Trees that have been severely suppressed. Characteristics of suppressed trees are extremely short or nonexistent internodes, twisted gnarled stems, or an extreme sparseness of foliage.
- Other Live Trees - Trees other than insect or disease damaged trees with ¼ live crown and/or sparse crown.
- Forked Tree - Those trees with two or more terminal leaders. Two or more stems originating from the same base shall only be left if needed for spacing purposes. Either both stems shall be cut or both stems shall be left.
- Physical Damage - Trees that have physical damage on half or more of the bole circumference and greater than three feet in length. Equipment, falling trees, lightning, wind, animals, etc., may be causes of physical damage.

**2.2.55 LOP AND SCATTER:** Cutting limbs from cut trees and moving and/or rearranging of slash concentrations to achieve specific slash depth requirements.

**2.2.56 MACHINERY:** Equipment may be used to meet contract requirements. All equipment used for piling activities shall be equipped with a brush rake. Teeth on brush rake shall extend a minimum of 10” below the cutting edge of the blade.

**2.2. 57 MATERIAL TO BE SKIDDED:** Felled trees, pieces, or slash not otherwise designated for retention that is required to be skidded to landings.

**2.2.58 MICROSITE:** Natural material, generally stumps, logs, brush, or terrain features greater than 3” in diameter used to provide protection for regeneration.

- 2.2.59 MISSING LEAVE TREES:** Trees cut that have been selected as leave trees.
- 2.2.60 MINOR DAMAGE:** Trees with damage where crooks in the trunk are offset less than 3 inches from the long axis and within 13 feet of the ground, or bark damage to less than  $\frac{1}{4}$  of the circumference of the tree. Trees with forks or broken tops are not considered to have minor damage.
- 2.2.61 MOBILIZATION:** The act of delivering all ordered personnel and equipment to the project area.
- 2.2.62 PERCENT COVER:** Portion of the project area beneath the dripline of vegetation to be cut.
- 2.2.63 POL THINNING:** Selective cutting of conifer trees 1' in height and less than 9" DBH to a required spacing guideline. Cut trees between 5" DBH and 9" DBH is skidded to an approved landing unless otherwise identified in the Supplemental Specifications.
- 2.2.64 PRE-COMMERCIAL THINNING:** Selective thinning of conifer trees 1' in height and less than 5" DBH to a required spacing guideline. Also called non-commercial thinning.
- 2.2.65 PROGRESSION OF WORK:** Work conducted in a progressive and orderly manner by the contractor.
- 2.2.66 PROJECT AREA:** The gross area being treated. (With prescribed fire, it is the planned ignition unit and any escapes or spot fires resulting from the prescribed fire.)
- 2.2.67 PROTECTION OF IMPROVEMENTS:** The protection of known archeological sites and improvements. Costs to replace or repair damage, is the contractors responsibility.
- 2.2.68 RESERVED VEGETATION OR RESERVED AREAS:** Species of vegetation, vegetation size limits, locations, or all within a project area that are reserved from treatment that can be designated by the Government using paint, flagging, or sign, by written task order instructions, or contract specifications. Reserved vegetation, vegetation size limits, and areas shall not be damaged or cut, and shall not be considered in the spacing of leave trees or shrubs
- 2.2.69 RESIDUAL TREES:** Trees left standing following a desired treatment.
- 2.2.70 RIPARIAN BUFFER:** A 100-foot area extending upslope on each side of a stream channel to protect water quality.
- 2.2.71 ROADS, TRAILS, & OTHER OPEN AREAS:** All roads, and trails within the project area, including but not limited to; existing slash free fuel breaks, private property, proximity to property corners, watercourses, meadows, parks.

**2.2.72 SLASH:** Any debris such as limbs, tree tops, boles, and other wood fiber pieces that are present and/or created as a result of violent storms, logging operations, thinning operations, or by the contractor's activities.

- **Activity Slash** - Trunks of cut trees, limbs, and/or brush created by the contractor's operations.
- **Existing Slash** - Woody debris from trees and brush that are on site prior to contractor's operations.

**2.2.73 SLASH PILING:** Piling of existing slash and slash created as part of an activity. Size of material to be piled will vary depending on cutting requirements, terrain, and method of piling.

**2.2.74 SKID:** Method of pulling or dragging trees, slash, or pieces to landings using crawler, or rubber tired equipment.

**2.2.75 SNAG:** A standing dead tree over 10 feet in height and greater than 8" DBH.

**2.2.76 SPIKE:** Sharp pointed limbs of living or dead vegetation.

**2.2.77 SPECIAL PROTECTION AREA:** A zone that has special characteristics, such as riparian vegetation, wildlife calving areas, etc. Special protection areas are noted on the Contract Area Map and they may require special treatment such as an alteration to the tree cutting, slash treatment, vehicle travel or fueling of saws.

**2.2.78 SPACING:** The horizontal distance from the bole of one leave tree to the bole of another leave tree.

**2.2.79 STREAMCOURSE:** The area along a stream with riparian vegetation and other riparian characteristics. Streamcourses are noted on Contract Maps and typically require special treatment as described in H.14 Streamcourse Protection.

**2.2.80 STREAM CHANNEL:** That area influenced by high water at the time of the year with the highest flow.

**2.2.81 STUMP HEIGHT:** The height of a stump on the uphill side. Stumps are cut to an angle of less than 30 degrees from horizontal.

**2.2.82 THINNING:** A cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality, including:

- **Crown Thinning** - The removal of trees from the dominant and codominant crown classes in order to favor the best trees of the same crown classes – synonym: thin from above or high thinning.
- **Free Thinning** - The removal of trees to control stand spacing and favor desired trees, using a combination of thinning criteria without regard to crown position.
- **Low Thinning** - The removal of trees from the lower crown classes to favor those in the upper crown classes – synonym: thin from below.

- **Selection Thinning** - The removal of trees in the dominate crown class in order to favor the lower crown classes –synonym: dominant thinning or overstory removal.

**2.2.83 THINNING UNIT:** An individual area on the ground in which thinning will be performed and which may appear as a separate pay item in the Schedule of Items.

**2.2.84 THINNING & SLASH TREATMENT:** The cutting of trees and limbs in excess of those left for future management and treatment of the associated slash.

**2.2.85 TONS PER ACRE:** Unit of measurement of dead and down fuel.

**2.2.86 TREE QUALITY:** Trees left to meet stocking levels specified in thinning guides and supplemental specifications.

**2.2.87 TREE SIZE:** The contractor shall select cut or leave trees in accordance with these tree size guidelines.

- Generally trees under 5.0 inches DBH (pre-commercial thinning) - Live conifer trees over two feet in height and up to 5.0 inches DBH shall be cut unless they qualify as a desirable leave tree or they are needed to maintain the specified average spacing intervals. However, in no case shall any conifer tree under 5.0 inches DBH be left closer than ten feet to any other conifer.
- Generally trees Over 5.0 inches DBH and under 7.0 Inches DBH (POL thinning) - Live conifer trees over 5.0 considered merchantable and are designated in Appendix B. Trees in this size class shall be cut if one or more of the following conditions exist:
- Generally trees 5.0 inches D.B.H. and Over: Trees 5.0 inches D.B.H. and over are considered merchantable and are designated in Appendix B.
- Unmerchantable trees greater than 5.0 inches DBH shall be cut if one or more of the following conditions exist:
  - Trees with deformation so pronounced that one straight eight-foot piece cannot be cut from the bottom twelve feet of the tree.
  - Trees with active peridermium cankers anywhere on the tree bole.
  - Trees with broken tops and live crown ratios less than 30%.
  - Trees which are overtopped and growing into the crown of an adjacent larger tree.
  - Trees without broken tops with live crowns less than 20%.
  - Bark Beetle infested trees or trees exhibiting signs of mountain pine beetle infestation, or engraver beetle, (IPS beetle).

**2.2.88 UNMERCHANTABLE TREE:** Tree not meeting merchantability specifications or Minimum Specifications as listed in A2 of this Contract.

**2.2.89 UNSATISFACTORY TREE:** Unsatisfactory trees are considered a deficiency or discrepancy in contract inspection. As pertaining to the stewardship contract items; cutting of a tree that fails to meet contract standards; includes but is not limited to:

- Cutting the wrong tree, failing to cut a correct tree, failure to completely sever a live limb, etc.

- Failure to prune a tree or pruning that is not in contract.
- Failure to girdle a tree that meets the specifications.

**2.2.90 VARIABLE DENSITY THINNING:** Variable density thinning addresses all size classes of trees. Spacing for leave trees can range from the minimum spacing to the maximum spacing so specified. Leave trees exceeding the maximum DBH cutting limits shall be left regardless of the spacing. Leave tree spacing may vary up to 50 percent in order to select the most desirable tree. Spacing control using the specified leave tree guidelines shall be maintained wherever possible.

**2.2.91 WATER INFLUENCE ZONE (WIZ):** The land next to streams and lakes where vegetation plays a major role in sustaining the long-term integrity of aquatic ecosystems (Hynes 1970, Odum 1971). Includes the geomorphic floodplain, riparian ecosystem, and inner gorge, and has a minimum horizontal width (from top of each bank) of 100 feet or the mean height of mature dominant late-seral vegetation, whichever is greater (36 CFR 219.27e). In Bighorn Management Area 5.4 the horizontal width is 300 feet.

**2.2.92 WHIP FALLING:** The removal of damaged trees less than 5" DBH.

**2.2.93 WEED & RELEASE (WHIPS & CULLS):** Trees left as a result of the initial timber harvest which have not been designated as wildlife trees (no sign and/or blue paint) that are bent, spindly, broken-topped, crooked, or have sparse crowns. Exhibit C identifies examples of whips and culls.

**2.2.94 WILDLIFE TREES:** Standing dead or live trees left for nesting, feeding, perching and shelter for birds and mammals. Trees may be marked with paint and/or designated with a tag stating it is a wildlife tree or as identified by the CO.

**2.2.95 YARD UNMERCHANTABLE MATERIAL (YUM):** The removal or decking of material not meeting utilization specifications.

### **SECTION III – GOVERNMENT FURNISHED PROPERTY**

- Contract Area Maps
- Log Load Receipts

### **SECTION IV – CONTRACTOR FURNISHED ITEMS/SERVICES**

The contractor shall furnish all items required to perform this PWS.

### **SECTION V – PERFORMANCE WORK STATEMENT TASKS AND CRITICAL SUBTASKS**

**5.1 PROJECT WORK ITEMS:** Mandatory Service work items are identified below. Mandatory Construction work items are identified in Appendix D. Acceptable Quality Levels (AQL) and performance standards are listed in Section VII – Performance Requirements Summary.

### Roads, Trails, Gates, and Other Open Areas

Trails and old roads exist throughout units. The Contractor may use these roads to access units. All closed roads may be opened for thinning activities, however shall be closed prior to unit acceptance. The Forest Service closes gates to protect wildlife during specific seasons; a Contractor, upon request, may work behind locked gates during this time if agreed to by CO. The Contractor shall provide the COR or Inspector a padlock/key, which will be installed on the gate for convenience to the Contractor.

### Acreage and Measurement

Approximate unit acreage was determined by differentially corrected Global Positioning System (GPS) data traverses or existing GIS coverages. Refer to the Summary Information Table for spacing guidelines for each unit. Government-provided acreages are estimated. The Contractor is encouraged to visit each unit prior to submitting a contract price. The Government shall not re-measure the units under this contract.

#### **5.1.1 Fuels Treatment (Designate by Spacing, Non-Commercial Thinning/Pile Slash)**

This mandatory item includes non-commercial thinning and remove, crush, mastication, or piling of slash and is intended to take place in conjunction with the commercial harvest.

#### **Silvicultural Goal and Desired Condition**

The overall goal is to reduce hazardous fuels while attaining a healthy, vigorous forested stand. Desirable Leave trees are described in Definitions and below. Trees will be spaced as described in the table below. Slash shall be treated as described below.

Summary Information Table

Unit No.	Range of Slopes	Tree Size	Avg. Leave Tree Spacing (ft)	Acceptable Stocking Density Trees/Acre	Maximum Slash Depth
1, 2, 3, 4, 5	0-30%	24" tall to 4.9" DBH ( <u>5.9" stump diameter</u> )	15 x 15	194	18"

- A. Desirable leave tree characteristics are described, above, in Definitions section.
  - a. **Leave Tree Selection** - Live conifer trees as displayed in above table under tree size shall be cut unless they qualify as a desirable leave tree and are needed to maintain the specified average spacing intervals.
- B. **Species Preference:** The order of preference by species for leave trees is 1) lodgepole pine, 2) Engelmann spruce, 3) limber pine, 4) Douglas-fir, and 5) subalpine fir.
- C. Do not cut any aspen.
- D. Subalpine fir stems layering around a larger parent subalpine fir leave tree shall not be cut or considered in spacing requirements (see definition for layering).

- E. For all cut trees: stump height is 6.0" above the ground level or 6.0" above natural obstacles with an angle of less than 30 degrees from horizontal. All live limbs below the cutting point shall be removed.
- F. Within Units **1, 2, 3, 4, and 5** Contractor shall either a) remove from the Forest, b) Crush, c) masticate, or d) pile by hand or machine all contractor generated slash and 80% of pre-existing slash up to **24"** in diameter at the large end, having a minimum length of **6'**. The end result is to reduce the fuel loading in unit, lower the wildland fire hazard from accumulations of wildland fuels, and protect the soil, water, and residual trees from damage.
- a. Remove slash from the Forest
    - i. Slash will be removed from the Forest.
  - b. Crush slash in units.
    - i. Slash shall be crushed down so as to be in contact or be incorporated with the soil over 80% of the area.
  - c. Masticate Slash in the units:
    - i. Masticate slash with masticator. Masticator chips shall be spread in patches across the unit. Chips will need to be spread on site chipped material shall not be greater than 3" deep.
    - ii. No slash or chips will be left on established Forest System trails or roads, or any other improvements, in protected streamcourses, wetlands, or in the WIZ, or outside designated treatment units. Slash will not be left within 5' of culverts or culvert channels.
  - d. Pile slash in units.
    - i. To minimize damage to residual trees and maximize consumption when burned, slash piles should be constructed as follows:
      1. Slash skidded to landings:
        - a. All slash accumulated at landings shall be removed from the National Forest or piled. Piles shall be reasonably compact and free of soil to facilitate burning. Piles will not be less than **10'** in height. Piles shall be of a size and location which will not impair road use or result in damage to residual timber or improvements. Generally, the distance from residual trees or improvement will need to be at least 3 times the pile height.
      2. Slash piled in the units:
        - a. Piles shall be no larger than **10'** wide by **10'** long by **10'** high.
        - b. Piles shall be no smaller than **5'** wide by **5'** long by **5'** high.
        - c. Generally, the distance from the pile to a residual tree or improvement will need to be at least 3 times the pile height.
        - d. If conditions make it impractical to locate piles so that damage to residual green trees and improvements cannot be avoided, an area designated by the Forest Service will be cleared and used as a piling area.
        - e. Material to be piled shall be cut into sections not longer than 6'.

- ii. All limbs with foliage and fine fuels less than 1/4" should be placed in the lower portion of the pile with heavier fuels on top.
  - iii. Branches and limbs shall be piled parallel to each other and perpendicular to the contour of the slope to prevent rolling of material.
  - iv. To maximize consumption, ends of piled slash will be trimmed even and placed in piles.
- G. No slash or cut material shall lean against an uncut tree, stump, log or any obstacle. It shall be secure and not able to roll down the hill.
- H. All trails indicated on the Contract Area Map and all open roads within or adjacent to a unit shall be kept free of slash at all times.
- I. The following improvement and developments shall be free from contractor generated slash:
  - a. Any area adjacent to cut and fill slopes and ditches for a distance of 15' measured from the upper cut slope and the lower shoulder of the road.
  - b. Culverts and channels for a distance of 15'.
  - c. Improvements such as Forest Service trails and roads, telephone lines, stock driveways, fence lines, and established land corners.
  - d. Stream courses identified on Contract Area Map.
- J. Any slash comprising the 20% left on site shall be lopped and scattered to no higher than 18" above the ground.
- K. Payment will be made based on the AQL in accordance with Section G.3 of the contract.

**5.3 PROTECTION OF IMPROVEMENTS:** The protection of known archeological sites and improvements. Costs to replace or repair damage are the contractor's responsibility.

#### **5.4 SUBMITTALS**

**5.4.1 QUALITY CONTROL PLAN:** The contractor shall establish and maintain a complete Quality Control Plan acceptable to the Government to ensure the requirements of the contract are provided as specified.

**5.4.2 WORK PLAN:** The contractor provided Work Plan shall describe how the contractor plans to perform the project, including methods, personnel, and equipment.

**5.4.3 PROGRESS SCHEDULE:** The contractor shall prepare and submit a practical schedule showing the order in which the contractor will perform the work and the dates on which the contractor contemplates starting and completing each task.

#### **SECTION VI – GOVERNMENT PUBLICATIONS/INDUSTRY STANDARDS/ STATE STANDARDS/ GOVERNMENT STANDARDS/TECHNICAL EXHIBITS**

Attachments, including maps, are incorporated in the Contract package.

**SECTION VII – PERFORMANCE REQUIREMENTS SUMMARY**

ITEM	PERFORMANCE STANDARD	ACCEPTABLE QUALITY LEVEL (AQL)	MONITORING METHOD	INCENTIVES/ DEDUCTIONS MEETING STANDARDS
<b>5.1.1 Mandatory Item 1 - Fuels Treatment</b> (Designate by Spacing, Non-Commercial Thinning/Remove or Pile Slash)	<p>Non-Commercial Conifer trees are cut to achieve required spacing</p> <p>In no case will orange painted leave trees be cut to meet spacing requirements</p> <p>Leave trees shall meet definitions of desirable leave trees as defined in 2.2.25, above.</p> <p>Variable density thinning, if required, allows contractor to select the most desirable leave trees regardless of spacing requirements</p> <p>Number of trees per acre shall be maintained wherever possible to meet minimum spacing requirements</p> <p>Stump height shall not exceed 6” on uphill side of tree, and less than 30% angle from horizontal</p> <p>Existing and activity slash shall not exceed a height of 18”</p> <p>Hardwood species shall not be cut unless they pose a hazard to the contractor</p> <p>Meets 90% slash treatment requirements.</p>	90% Acceptable level of performance	<p>Review contractor’s records of inspection system and sampling results</p> <p>Perform random on-site inspections.</p> <p>Verifying compliance of contractor through inspection of 1/40 acre (18.6’ radius) plots</p>	<p>Incentives for meeting AQL:</p> <ol style="list-style-type: none"> <li>1. Full per unit price; for example: acres or chains completed</li> <li>2. Positive or Good Past Performance Rating</li> </ol> <p>Disincentives for not meeting AQL:</p> <ol style="list-style-type: none"> <li>1. Rework at Contractor’s expense.</li> <li>2. Contractor is responsible for reinspection costs (Section G.3)</li> <li>3. Negative or Poor Past Performance Rating</li> </ol>
<b>5.4 - Submittals</b>	<p>All submittals are received within 15 days after contract award</p> <p>Quality Control Plan (QCP) includes contractor’s inspection system and the method for identifying and preventing defectives in the quality of service performed. Includes method and frequency of inspections</p> <p>On-site records of all quality control inspections are submitted weekly</p>	100% Compliance	Submittal review	Will not issue Notice to Proceed until acceptable submittals are received

## **SECTION VIII - QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)**

### **8.1. Objective:**

The purpose of this plan is to provide a Quality Assurance Surveillance Plan for contract bid items and tasks performed. This plan provides a basis for the Contracting Officer's Representative (COR) to evaluate the quality of the Contractor's performance on awarded bid items/tasks. The oversight provided for the contract and this plan will help to ensure that quality levels of Contractor's service(s) reach the required levels of performance.

By monitoring the Contractor's service work, the COR will determine whether the performance levels set forth in the contract have been attained.

The Government has the right to inspect all tasks issued in task order(s), to the extent practicable at all times and places during the term of the contract. The Government will perform inspections and tests in a manner that will not unduly delay the Contractor's work.

If any of the services do not conform to contract requirements, the Government may require the Contractor to submit a written plan addressing how the services will be reworked in order to conform to specifications, with no increase in contract amount. The written plan will be agreed to by the Government and Contractor prior to tasks or portions of tasks being reworked. When the defects in services cannot be corrected by reworking, the Government may:

- a. Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and/or
- b. Reduce the contract price to reflect the reduced value of the services performed (see Section G.3).