ATTACHMENT 1 - APPENDIX A

PERFORMANCE WORK STATEMENT FOR SERVICE ITEMS

SECTION I – DESCRIPTION OF WORK:

To advance EO 14225, Immediate Expansion of American Timber Production, and the USDA's National Active Forest Management Strategy, the Lake Tahoe Basin Management Unit shall utilize Stewardship Authority delegated to the USFS to award an Integrated Resource Service Contract to reduce hazardous fuels and promote healthy and resilient forest stands in the project area while protecting the pristine water quality of Lake Tahoe and riparian vegetation communities such as aspen, alder, willow, and meadow grasses and shrubs in Stream Environment Zones. The project area consists of NFS lands located in the Wildland-Urban Interface (WUI) and general forest, with 248 acres designated for treatment. The project compliments defensible space treatments that have been implemented by local municipal fire districts on adjacent non-federal lands.

The project objectives shall be met by performing the following service work:

1. Cut, process, forward and remove included sawtimber. A Cut-to-Length (CTL) logging system shall be used. CTL technology typically consists of a harvester to cut and process trees at the stump and create slash mat. A forwarder then transports the material to a designated landing location on top of the slash mat. This logging system is required by the NEPA Record of Decision to protect soil and water quality.
2. Cut standing dead conifer trees and transport to landings.
3. Mechanically cut small diameter trees and remove to landings.
4. Treat fuels by mechanically masticating existing dead and down material and project-generated slash. Remove slash and large dead and down to landings when necessary to meet the fuels treatment specification.
5. Remove biomass and cull logs from landings to off-Forest disposal sites.
6. Construct temporary road to facilitate thinning treatment and decommission the roads prior to demobilization.
7. Perform road maintenance and erosion control on roads used for timber haul or otherwise damaged by Contractor's operations.
8. Perform work in Optional Units 12 and 28 and remove timber subject to agreement (TSTA) as described in Bullets 1-6 if awarded. Perform road maintenance commensurate with use.

SECTION II – WORK ITEMS

Mandatory Item 1: Cut, Process, Forward and Remove Included Timber (10.0-inch DBH – 29.9-inch DBH) (Units 3, 7, 13, and 29 - 165 Acres)

Unit	Acres	Tree Designation	Harvesting Method
3	57	ITM	CTL
7	46	ITM	CTL
13	33	ITM	CTL
29	29	ITM	CTL

1. Using Cut-to-Length equipment, cut, process, forward and remove all sawtimber trees which meet the minimum tree specifications as identified in Appendix B. All Appendix B requirements apply.
   a) **Cut trees are designated with a blue tracer paint cut tree mark.**
   b) To the extent practicable, minimize damage to aspen groves.
2. Cut all standing dead conifer trees 3.0 – 19.9" DBH and transport to landings, with the following exceptions:
   a) In Unit 3: where fewer than 3 snags per acre 20" DBH or greater are not present within each treatment unit, retain the largest snags <19.9" DBH as needed to reach an average of 3 snags per acre.
   b) In Units 7, 13, 29: where fewer than 8 snags per acre 20" DBH or greater are not present within each treatment unit, retain the largest snags <19.9" DBH as needed to reach an average of 5-8 snags per acre.
3. Treat live tree cut stumps using an Environmental Protection Agency registered borate compound for stumps > 14 inches DBH to prevent *annosus* root rot.
4. Flush-cut stumps (maximum 2" stump height or as low as safely possible) within 25 feet of recreation improvements, facilities, paved county or state roads and NFS system roads and trails.
5. Restore landings after operations are complete as follows. These actions shall be taken in addition to the requirements in Appendix B.
   a) Providing ground cover, such as slash, wood chips or masticated material.
   b) Ditching, sloping, and water bars may be used where needed as determined by the Contracting Officer Representative to disconnect runoff from surface water features.
   c) Landings will be ripped to approximately a 12-inch depth after ground cover has been spread. Ripping is not permitted where known infestations of noxious weeds are present and may not be possible in rocky soils; these determinations shall be made by the Contracting Officer Representative.
6. When operations occur within 150 feet of National Forest System Trails, Contractor shall, unless relieved in writing by Forest Service, provide such flagmen, post signs, erect and maintain barricades, guards, construction signs, warning signs, and detour signs as necessary to warn and protect the public at all times from injury or damage as a result of Contractor's operations. In addition, Contractor shall provide a watchman for the area whose sole duty shall be to warn and advise the public of any hazards present in the area.

Mandatory Item 2: Mechanical Small Tree Thin (Units 3, 7, 13, and 29 - 165 Acres)

1. Using Cut-to-Length equipment, cut all Biomass trees (3.0" - 9.9" DBH) as designated in the Unit cutting description table below. All material must be removed to a designated landing location. Biomass material that is not removed will be utilized for erosion control in accordance with C6.6 (slash mats). All Appendix B requirements apply.

Unit	Cutting Description
3, 7, 13, 29	Leave 10 trees/acre of 3"-9.9" DBH trees. 10 trees per acre is roughly equivalent to 66-foot spacing, but variable spacing is acceptable. Avoid leaving ladder fuel trees when possible.

2. Retain in order of preference: sugar pine, western white pine, juniper, Jeffrey pine, incense cedar, red fir, white fir, and lodgepole pine. A healthy minor species, white fir, incense cedar, and lodgepole pine, should be left over an unhealthy Jeffery pine of comparable size. Healthy trees have a crown ratio of at least 30%, no sign of active beetle infestation, dark green needles, and a Dwarf Mistletoe Rating (DMR) of 2 or less (see Definitions). Unhealthy trees do not meet one or more of these criteria.

Mandatory Item 3: Fuels Treatment (Units 3, 7, 13, and 29 - 165 Acres)

1. Mastication of existing dead and down material (generally < 10" diameter) and project-generated slash that was used for erosion control measures (slash mats) that is greater than 6" depth. All Appendix B clauses apply.
2. Limit depth of masticated slash to an average of 6 inches. Any slash that will amount to an excess of 6" will be removed to a designated landing pile prior to being masticated.
3. Masticated material is prohibited in the Stream Environment zone (SEZ), unless necessary for erosion control.
4. Retain an average of 3 large diameter (>15 inches) logs/acre more than 300 feet from private property.
5. All other dead and down material that is sound enough to be moved, larger than 10" DBH and cannot be masticated or is not required to be retained will be taken to a designated landing for biomass removal.
6. All Appendix B requirements apply.

Mandatory Item 4: Removal of Biomass/Cull Logs/Slash at Landings (Units 3, 7, 13, ad 29)

1. Removal of material includes all the Biomass and Cull Logs at the landings which meet minimum tree specifications as identified under Appendix B. Products may be removed as log length for chipping or firewood, or as processed chip.
2. Material is inclusive of the boles, tops, limbs from small tree thin (Item 2), the material generated at landings from Item 1 (tops, limbs, cull), and any material brought to landings from Item 3. There is an estimated 2,149 tons of material to be removed.
3. All Appendix B requirements apply.

Mandatory Item 5: Temporary Road Construction and Decommissioning NTE 0.5 Mile (Units 3, 7, 13 and 29)

Roads: All Temporary Roads

Temporary road construction is required to facilitate thinning treatments. Where possible, temporary roads will be constructed on top of a non-historic, relic road prism (e.g. previously decommissioned). Construction may include installation of drainage structures to prevent surface water runoff, road widening for vehicle access (including removal of trees and brush), and road surface stabilization. Locations of temporary roads shall be agreed to by Contractor and Contracting Officer Representative prior to construction.

All temporary roads shall meet Forest Service and Tahoe Regional Planning Agency (TRPA) standards for Best Management Practices to minimize erosion risk and stabilize the surface. To satisfy required Resource Protection Measures, the following special requirements apply to the temporary road construction. Temporary roads shall be out-sloped to ensure that effective drainage is maintained. BMPs will be installed as directed to ensure that temporary roads are hydrologically disconnected from intermittent and perennial stream channels. These BMPs may include lead-off ditches, water bars, rolling dips, etc.

After mechanical operations and use are complete and the roads are no longer needed, **any temporary roads used** for the project will be decommissioned. Other rehabilitation, including provision of sufficient ground cover, will be implemented as described below and as specified in Appendix B.

Where feasible based on soil type, **temporary roads on relic road prisms** will be restored by using the following methods.

(a) Provide ground cover such as slash, wood chips, or masticated material adequate to prevent erosion.
(b) Rip the temporary road surface where the rock content of the soil allows (generally <30-40% cobbles by volume), where noxious weeds are absent, and when soils are moist or dry. Road surface shall be decompacted to a depth of 6-12 inches. The Contracting Officer Representative will determine whether ripping is feasible.
(c) Remove all temporary crossings and install drainage structures (such as water bars, dips, and leadoff ditches) as appropriate to prevent water accumulation on the decommissioned road surfaces.
(d) Install natural barriers such as large logs and rocks along open areas adjacent to roads or trails to prevent continued use of decommissioned road alignments or establishment of user-created trails. If previously existing barriers were in place, they shall be restored to prior condition at the conclusion of use.

The landscape upon which **temporary roads were constructed for this project** shall be restored to its

original condition using the following methods:

a) Any prism made for access will be re-contoured to the surrounding landscape. Remove all temporary crossings and install drainage structures (such as water bars, dips, and leadoff ditches) as appropriate to prevent water accumulation on the decommissioned road surfaces.
(b) Road surface shall be decompacted to a depth of 6-12 inches.
(c) Provide ground cover such as slash, wood chips, or masticated material adequate to prevent erosion.
(d) Install natural barriers such as large logs and rocks along open areas adjacent to roads or trails to prevent continued use of decommissioned road alignments or establishment of user-created trails. If previously existing barriers were in place, they shall be restored to prior condition at the conclusion of use.

Mandatory Item 6: Road Maintenance and Erosion Control

See Appendix C for Road Maintenance Requirements.

Additional Requirements:
All native surface Forest Service roads that intersect with Forest Service paved or chip sealed roads will be stabilized using aggregate base material or wood chips to minimize tracking soils onto the pavement. Soil type, grade, and alignment are factors that would determine the extent of this stabilization.

If a native surface road becomes rutted, the road will be closed by the Forest Service. If it is determined that stabilization of the roadway can be accomplished by spot-rocking or other mitigation of rutted areas, road use may continue. Rutting is defined as two-inch deep depressions greater than 25 ft. in length.

Road Closure Barriers removed from National Forest System Roads to enable operations shall be replaced when Contractor use of road is not expected to occur for a period exceeding 14 days, unless otherwise agreed. Reference Appendix C, T-810 for barrier drawings.

Optional Item 7: Cut, Process, Forward and Remove Included Timber (10.0-inch DBH – 29.9-inch DBH) (Units 12, 28 - 83 Acres)

Unit	Acres	Tree Designation	Harvesting Method
12	54	ITM	CTL
28	29	ITM	CTL

1. Using Cut-to-Length equipment, cut, process, forward and remove all sawtimber trees which meet the minimum tree specifications as identified in Appendix B. All Appendix B requirements apply.
   a) **Cut trees are designated with a blue tracer paint cut tree mark.**
   b) To the extent practicable, minimize damage to aspen groves.

2. Cut all standing dead conifer trees 3.0 – 19.9" DBH and transport to landings, with the following exception:
   a) In Unit 28: where fewer than 3 snags per acre 20" DBH or greater are not present within each treatment unit, retain the largest snags <19.9" DBH as needed to reach an average of 3 snags per acre.
   b) In Units 12: where fewer than 8 snags per acre 20" DBH or greater are not present within each treatment unit, retain the largest snags <19.9" DBH as needed to reach an average of 5-8 snags per acre.

3. Treat live tree cut stumps using an Environmental Protection Agency registered borate compound for stumps > 14 inches DBH to prevent *annosus* root rot.
4. Flush-cut stumps (maximum 2" stump height or as low as safely possible) within 25 feet of recreation improvements, facilities, paved county or state roads and NFS system roads and trails.
5. Restore landings after operations are complete as follows. These actions shall be taken in addition to the requirements in Appendix B.
   d) Providing ground cover, such as slash, wood chips or masticated material.
   e) Ditching, sloping, and water bars may be used where needed as determined by the Contracting Officer Representative to disconnect runoff from surface water features.
   f) Landings will be ripped to approximately a 12-inch depth after ground cover has been spread. Ripping is not permitted where known infestations of noxious weeds are present and may not be possible in rocky soils; these determinations shall be made by the Contracting Officer Representative.
6. **Perform road maintenance commensurate with use in accordance with Appendix C.**
7. When operations occur within 150 feet of National Forest System Trails, Contractor shall, unless relieved in writing by Forest Service, provide such flagmen, post signs, erect and maintain barricades, guards, construction signs, warning signs, and detour signs as necessary to warn and protect the public at all times from injury or damage as a result of Contractor's operations. In addition, Contractor shall provide a watchman for the area whose sole duty shall be to warn and advise the public of any hazards present in the area.

<u>Optional Item 8: Mechanical Small Tree Thin (Units 12, 28- 83 Acres)</u>

1. Using Cut-to-Length equipment, cut all Biomass trees (3.0" - 9.9" DBH) as designated in the Unit cutting description table below. All material must be removed to a designated landing location. Biomass material that is not removed will be utilized for erosion control in accordance with C6.6 (slash mats). All Appendix B requirements apply.

Units	Cutting Description
12 and 28	Leave 10 trees/acre of 3"-9.9" DBH trees. 10 trees per acre is roughly equivalent to 66-foot spacing, but variable spacing is acceptable. Avoid leaving ladder fuel trees when possible.

2. Retain in order of preference: sugar pine, western white pine, juniper, Jeffrey pine, incense cedar, red fir, white fir, and lodgepole pine. A healthy minor species, white fir, incense cedar, and lodgepole pine, should be left over an unhealthy Jeffery pine of comparable size. Healthy

trees have a crown ratio of at least 30%, no sign of active beetle infestation, dark green needles, and a Dwarf Mistletoe Rating (DMR) of 2 or less (see Definitions). Unhealthy trees do not meet one or more of these criteria.

Optional Item 9: Fuels Treatment (Units 12, 28 - 83 Acres)

1. Mastication of existing dead and down material (generally < 10" diameter) and project-generated slash that was used for erosion control measures (slash mats) that is greater than 6" depth. All Appendix B clauses apply.
2. Limit depth of masticated slash to an average of 6 inches. Any slash that will amount to an excess of 6" will be removed to a designated landing pile prior to being masticated.
3. Masticated material is prohibited in the Stream Environment zone (SEZ), unless necessary for erosion control.
4. Retain an average of 3 large diameter (>15 inches) logs/acre more than 300 feet from private property.
5. All other dead and down material that is sound enough to be moved, larger than 10" DBH and cannot be masticated or is not required to be retained will be taken to a designated landing for biomass removal.
6. All Appendix B requirements apply.

Optional Item 10: Removal of Biomass/Cull Logs/Slash at Landings (Units 12, 28)

1. Removal of material includes all the Biomass and Cull Logs at the landings which meet minimum tree specifications as identified under Appendix B. Products may be removed as log length for chipping or firewood, or as processed chip.
2. Material is inclusive of the boles, tops, limbs from small tree thin (Item 8), the material generated at landings from Item 7 (tops, limbs, cull), and any material brought to landings from Item 9. There is an estimated 998 tons of material to be removed.
3. All Appendix B requirements apply.

Optional Item 11: Temporary Road Construction and Decommissioning NTE 1.5 Mile (Units 12, 28)

Roads: All Temporary Roads

Temporary road construction is required to facilitate thinning treatments. Where possible, temporary roads will be constructed on top of a non-historic, relic road prism (e.g. previously decommissioned). Construction may include installation of drainage structures to prevent surface water runoff, road widening for vehicle access (including removal of trees and brush), and road surface stabilization. Locations of temporary roads shall be agreed to by Contractor and Contracting Officer Representative prior to construction.

All temporary roads shall meet Forest Service and Tahoe Regional Planning Agency (TRPA) standards for Best Management Practices to minimize erosion risk and stabilize the surface. To satisfy required Resource Protection Measures, the following special requirements apply to the temporary road construction. Temporary roads shall be out-sloped to ensure that effective drainage is maintained. BMPs will be installed as directed to ensure that temporary roads are hydrologically disconnected from

intermittent and perennial stream channels. These BMPs may include lead-off ditches, water bars, rolling dips, etc.

After mechanical operations and use are complete and the roads are no longer needed, **any temporary roads used** for the project will be decommissioned. Other rehabilitation, including provision of sufficient ground cover, will be implemented as described below and as specified in Appendix B.

Where feasible based on soil type, **temporary roads on relic road prisms** will be restored by using the following methods.

(e) Provide ground cover such as slash, wood chips, or masticated material adequate to prevent erosion.
(f) Rip the temporary road surface where the rock content of the soil allows (generally <30-40% cobbles by volume), where noxious weeds are absent, and when soils are moist or dry. Road surface shall be decompacted to a depth of 6-12 inches. The Contracting Officer Representative will determine whether ripping is feasible.
(g) Remove all temporary crossings and install drainage structures (such as water bars, dips, and leadoff ditches) as appropriate to prevent water accumulation on the decommissioned road surfaces.
(h) Install natural barriers such as large logs and rocks along open areas adjacent to roads or trails to prevent continued use of decommissioned road alignments or establishment of user-created trails. If previously existing barriers were in place, they shall be restored to prior condition at the conclusion of use.

The landscape upon which **temporary roads were constructed for this project** shall be restored to its original condition using the following methods:

b) Any prism made for access will be re-contoured to the surrounding landscape. Remove all temporary crossings and install drainage structures (such as water bars, dips, and leadoff ditches) as appropriate to prevent water accumulation on the decommissioned road surfaces.
(e) Road surface shall be decompacted to a depth of 6-12 inches.
(f) Provide ground cover such as slash, wood chips, or masticated material adequate to prevent erosion.
(g) Install natural barriers such as large logs and rocks along open areas adjacent to roads or trails to prevent continued use of decommissioned road alignments or establishment of user-created trails. If previously existing barriers were in place, they shall be restored to prior condition at the conclusion of use.

SECTION III – CONTROL OF WORK

The Contractor agrees to conduct its operations under this contract and other related business activities in compliance with Federal, State, and local statutes, standards, orders, permits and other regulations.

The Contractor shall meet all State and local environmental quality laws applicable to National Forest system lands.

Work may be done any time during the term of the contract, except under the following conditions:

(1) When conditions are such that operations shall be restricted or ceased due to increased fire risk.

(2) When soil moisture conditions create excessive risk of damage to the soil; reference the Wet Weather Operations Agreement attachment.

(3) When snow depth creates a situation where requirements cannot be met and/or work cannot be inspected, as determined by the COR.

(4) When seasonal operating restrictions for active raptor nests are in effect. Restrictions are detailed in the solicitation under Protection Measures Needed for Plants Animals, Cultural Resources, and Cave Resources. If new nests are discovered, new restrictions may apply.

(5) The government reserves the right to prioritize the order in which Units are treated.

(6) If any cultural or archeological sites are discovered during operations of this contract, work will be suspended in the immediate vicinity of the site until a reconnaissance survey is completed by the Forest Archeologist. Areas excluded from treatment shall be deleted from the contract.

SECTION IV – INSPECTION AND ACCEPTANCE

For All Work Items:
At any point during the project, the Contractor and/or Project Manager may request (documented through email, text, or hand-written request) an in-the-field consultation with the Forest Service to inspect work progress, review contract specifications, or clarify issues. The Forest Service shall respond to Contractor's request within 5 working days, excluding weekends and federal holidays.

GOVERNMENT QUALITY ASSURANCE SURVEILLANCE PLAN

Government Inspection Procedures - The COR, or a designated inspector (GTM), will make periodic inspections while work is in progress, usually daily at first, as needed to assure work is proceeding satisfactorily. The Contractor shall notify the COR when units are started, when problems are encountered and when contract work needs government oversight.

1. Each unit will be inspected as a separate unit. Unit will not be averaged with other units for acceptance or payment.

2. When units are completed and ready for government inspection, Contractor's designated Project manager shall request unit inspection in writing, prior to moving out of the general area.

3. The COR, or designated inspector, will determine compliance with contract specifications through informal visual inspections. In the event visual inspection indicates work to be in non-compliance with specifications, prompt corrective action and/or rework shall be required.

Government Inspection Procedures – Formal (Plots)

1. In the event visual inspection indicates work and / or rework to be in non-compliance with contract specifications, a series of verification plots shall be installed by the Government to determine compliance with specifications and percent of satisfactory work for treatment of each unit not meeting specification as observed with visual inspection.

2. Government verification plots will consist of a series of fixed area plots and variable radius plots along transects to record whether density, basal area, best tree selection, and other requirements are being met and to what extent.

3. Plots and grid will be distributed so that a representative sample is obtained.

4. The COR or designated inspector will mark the center of each plot on the ground using flagging, stakes, or pin flags. Additional flagging will be hung near the plot center so that it may be seen from a distance. The inspector will include the plot number, their initials and date on the flagging.

5. Plots will be numbered to correlate with the inspection form and transects on a unit map.

6. The minimum number of verification plots, per treatment unit, shall be as follows:

Unit Acreage	Minimum No. of Plots
1 – 9	1 plot per 2 acres
10 – 29	10 plots
30 – 59	1 plot per 4 acres
60 – 99	20 plots
100	1 plot per 5 acres

7. Determination of acceptability of the work performed will be based on Government verification inspections and will be considered conclusive.

8. At each plot, the Government will examine the plot area and record findings on the items listed below:

   a. Plot number
   b. Number of trees to be left on plot.
   c. Number of trees left on plot.
   d. Number of satisfactory trees.
   e. Number of deficient trees.
   f. Number of excess trees.

   - Stumps containing live limbs which are not in accordance with specifications herein will be counted as excess trees.
   - Cut trees which are still attached at the stump will be counted as excess trees

- Trees meeting cut specifications will be counted as excess trees
- Trees in excess of trees to be left will be counted as excess

9. Work quality will be calculated on the form as follows:

$$\frac{\text{No. Trees Deficient} + \text{No. Excess Trees}}{\text{No. Trees to be left}} = \text{\% Unsatisfactory work}$$

100% – % Unsatisfactory work = % Work Quality

Unsatisfactory Cutting

1. If the work quality falls below 85 percent, the COR will immediately notify the Contractor, in writing, and order him to improve the quality of subsequent tree cutting. If the quality of subsequent tree cutting is not raised above the 85 percent minimum acceptable standard within 24 business hours after receipt of such written notice, the Contractor's right to proceed may be terminated and the contract considered in default.

2. When the work quality falls below 90 percent as a result of excess trees, the Government may elect to do one of the following:

   (a) Order rework to be performed and withhold payment until excess trees are cut and the results of a post-rework Government inspection show work quality to be at least 85 percent or more. No rework shall be performed unless ordered or authorized by the COR.

   (b) Order that no rework be performed and payment will either be made at a reduced rate, or not at all, as determined from the Thinning Inspection Report.

3. Repeated failure to produce work quality at or above the 85 percent minimum acceptable standard will be considered reason for contract termination and default action.

Reinspection Upon Contractor Request

1. If Government inspection results are unacceptable to the Contractor, a reinspection may be requested, in writing, within 5 business days after receipt of notice of said inspection results. The same inspection procedure will be used; however, the inspection pattern will be shifted so that new inspection plots will not overlap previously inspected plots.

2. If reinspection results – rounded up to the nearest whole percent – indicate a variance of more than 5 percent from the first inspection, the results of the second inspection will be used to calculate work quality and payment, and the Government will bear the cost of reinspection.

3. If reinspection results – rounded up to the nearest whole percent – are within 5 percent of the first inspection, plots from the initial inspection and the reinspection will be combined and used to calculate work quality and payment, and the Contractor shall bear the cost of reinspection.

Government Inspection Procedures – All Items

Table 1 – Minimum Acceptable Quality Levels (AQL) of Work

ITEM	DESCRIPTION	SCHEDULE	UNIT	Min AQL
1	**Cut, Process, Forward and Remove Included Timber**	MANDATORY	ACRES	95%
2	**Mechanical Small Tree Thin**	MANDATORY	ACRES	95%
3	**Fuels Treatment**	MANDATORY	ACRES	95%
4	**Removal of Biomass/Slash at Landings**	MANDATORY	TONS	95%
5	**Temporary Road Construction and Decommissioning**	MANDATORY	MILE	100%
6	**Road Maintenance and Erosion Control**	MANDATORY	LUMP SUM	100%
7	**Cut, Process, Forward and Remove Included Timber – Units 12 and 28**	OPTIONAL	ACRES	95%
8	**Mechanical Small Tree Thin – Units 12 and 28**	OPTIONAL	ACRES	95%
9	**Fuels Treatment – Units 12 and 28**	OPTIONAL	ACRES	95%
10	**Removal of Biomass/Slash at Landings – Units 12 and 28**	OPTIONAL	LUMP SUM	95%
11	**Temporary Road Construction and Decommissioning – Units 12 and 28**	OPTIONAL	MILE	100%

SECTION V – PAYMENT METHODS

Method of Measurement for Acreages

Acreages were determined by using Global Positioning Systems (GPS). The acreage for each work item will be rounded to the nearest acre and is final unless:

a. The contract is modified or,
b. The Government makes a determination to remeasure or,
c. The Contractor exercises his/her option under the following Remeasurement provisions:

Remeasurement

1. The Contractor may request, in writing, remeasurement of any units under this contract if he/she feels that acreage stated on the project maps is incorrect. The remeasurement must be within the existing perimeter of the respective unit. No variance of the unit perimeters as laid out on the ground for this contract will be allowed. All requests for remeasurement must be made prior to payment for each completed unit. Remeasurement will be performed by the Government.
2. If remeasurement indicates that a variance of ten percent or less exists on units of 1 to 5 acres, five percent or less exists on units of more than five but less than 20 acres, or if three percent or less exists on units of 20 acres or larger, the Contractor shall pay for the actual costs of the remeasurement. Under this condition, payment will be made on the acreage stated on the project maps. If the remeasurement indicates the actual acreage varies by more than the above factors from that stated on the project maps, the payment will be made on the remeasured acreage and the Forest Service will pay for the cost of the remeasurement.

General Acceptance and Payment

1. Percentages as calculated herein shall be rounded to the nearest whole percent.
2. No allowance for variation or portion of a variation will be added which will create a percentage greater than 100 percent.
3. When formal plots are used, the payment rate for work at or above 85% will be calculated as follows:

   % Work Quality + 5 % Statistical Variation (SV) = % Payment rate

   Examples:

   (a) 2 Trees Deficient + 4 Trees Excess 6
   ---------- = --------- = 5.22% = 5% Unsatisfactory work
   115 Trees to be left 115

   100% – 5% = 95% Work Quality
   95% + 5% (SV) = 100% Payment rate

   (b) 2 Trees Deficient + 9 Trees Excess 11
   ---------- = --------- = 11.96% = 12% Unsatisfactory work
   92 Trees to be left 92

   100% – 12% = 88% Work Quality
   88% + 5% (SV) = 93% Payment rate

   2 Trees Deficient + 14 Trees Excess 16
   ---------- = --------- = 16.84% = 17% Unsatisfactory work
   95 Trees to be left 95

   100% – 17% = 83% Work Quality - - No payment made

Acceptance and Payment – Item 1 & 7 Cut, Process, Forward and Remove Included Timber

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.
2. In the event that formal inspections are used, the rate of payment to the Contractor will be calculated as follows:
   (a) For work quality of 95 percent or higher, 5 percent (adjustment for statistical variation) will be added and the Contractor will be paid 100 percent of their bid rate.
   (b) For work quality from 85 to 94 percent, the 5 percent will be added to the work quality percent and the Contractor will be paid the total multiplied by the bid rate.
   (c) For work quality 84 percent and less, the 5 percent <u>will not</u> be added and there will be no payment made to the Contractor.

(d) If, after rework, the percentage of satisfactory work is between 85% and 94%, payment will be made by the actual percentage. If the percentage is less than 85%, the work is unacceptable, and no payment will be made.

Acceptance and Payment – Item 2 & 8 Mechanical Small Tree Thin

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.

2. In the event that formal inspections are used, the rate of payment to the Contractor will be calculated as follows:

   (e) For work quality of 95 percent or higher, 5 percent (adjustment for statistical variation) will be added and the Contractor will be paid 100 percent of their bid rate.

   (f) For work quality from 85 to 94 percent, the 5 percent will be added to the work quality percent and the Contractor will be paid the total multiplied by the bid rate.

   (g) For work quality 84 percent and less, the 5 percent will not be added and there will be no payment made to the Contractor.

   (h) If, after rework, the percentage of satisfactory work is between 85% and 94%, payment will be made by the actual percentage. If the percentage is less than 85%, the work is unacceptable, and no payment will be made.

Acceptance and Payment – Item 3 & 9 Fuels Treatment

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.

2. Only one rework opportunity will be allowed for this item.

Acceptance and Payment – Item 4 & 10 Removal of Biomass/Cull Logs/Slash at Landings

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.

2. Only one rework opportunity will be allowed for this item.

3. Payment shall be made for the actual tons of product removed Not to Exceed the total tonnage awarded. The contractor shall provide acceptable proof of transport for quantities invoiced. Removal of material in excess of the awarded amount shall not be performed without contract modification.

Acceptance and Payment – Item 5 & 11 Temporary Road Construction and Decommissioning

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.

2. Only one rework opportunity will be allowed for this item.

Acceptance and Payment – Item 6 Road Maintenance and Erosion Control

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.

2. Only one rework opportunity will be allowed for this item.

*** Stewardship Credits will be earned first, whenever practical. Forest Service Funds will be used if the availability of Stewardship Credits is exhausted or if appropriated dollars are obligated to a specific item.**

SECTION VI – DEFINITIONS

ACCEPTABLE QUALITY LEVEL (AQL): Acceptance of work will be based on compliance with all specifications corresponding to the appropriate task(s). A minimum AQL is required for all service work – hand or mechanical. The minimum AQL will receive a satisfactory performance rating.

BIOMASS TREES: Any conifer material 2 feet in height to 4.9 inches DBH.

BOLE SPACING: The horizontal distance in feet from the edge of one leave tree bole to another leave tree bole, measured from the outside bark of each tree.

CIRCULAR PLOT: A sample plot within a thinning unit that is used to determine the number of desirable trees and other contract specifications.

COARSE WOODY DEBRIS: Woody material left on the ground to meet wildlife habitat requirements.

CROWN RATIO: The ratio of live crown length (tip of leader to base of the crown) to total tree length/height.

CROWN SPACING: The horizontal distance in feet between the dripline of a live crown to another live crown.

CLEARCUT: A cutting prescription in which all trees within a boundary are designated to be cut.

CROWN RATIO: The ratio of live crown length (tip of leader to base of the crown) to total tree length/height.

CROWN SPACING: The horizontal distance in feet between the dripline of a live crown to another live crown.

CUT TREES: Trees that do not possess the characteristics of desirable leave trees and are required to be cut. As described by the contract or otherwise marked to be cut.

CUT-TO-LENGTH: is a mechanized harvesting system in which trees are delimbed and cut to length directly at the stump.

CUTTING UNIT: See Treatment Unit definition.

DAMAGED TREES: Trees damaged beyond recovery. A tree that is larger than 2 feet in height, and has the top knocked out, is leaning more than 10 degrees, has less than one half of its original limbs, or has approximately 50% of bark removed from the circumference of the bole.

DBH: Diameter at breast height, measured at a point of 4.5 feet above the ground level on the uphill side of the tree.

DECKING: Stockpiling of trees in a designated area.

DEAD/DYING TREES: Trees with the crown foliage changing from green to red, yellow, or needleless. Any tree that has pitch tubes indicating Mountain Pine Beetle infestation.

DESIGNATION BY SPECIES AND DIAMETER (DXSD): A cutting prescription in which species and diameter are used to determine which trees will be left and which will be cut.

DMR: Dwarf mistletoe rating (see diagram below).

DIB: Diameter inside bark.

HANG-UP TREE: Any cut tree suspended above ground level.

HEALTHY REGENERATION: Young, healthy, dwarf mistletoe free conifers, less than 4.9 inches in diameter, free of defect or characteristics listed in Section II, 2.2.

LADDER FUEL: Small trees growing within the dripline of larger trees.

LEAVE TREE: Trees that possess desirable characteristics and that serve to create the basis for designated spacing requirements or are otherwise designated to be left.

NON-SAWTIMBER TREE: For all conifer species, minimum diameter of 5 inches DBH to minimum diameter by species identified in Appendix B, Division A.

OVERSTORY REMOVAL: A cutting prescription where all trees greater than a specified size are cut. Trees less than the specified size are protected.

PAYMENT UNIT: See Treatment Unit.

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.

PILING: Material moved to an agreed upon location shall be piled for future treatment by Forest Service.

PROGRESSION OF WORK: Work conducted in a progressive, workmanlike and orderly manner by the Contractor.

RESERVE CLUMPS: Groups of trees within a treatment area that are protected from cutting, may also include Individual Reserve trees.

SAWTIMBER TREE: Included timber meeting sawlog size specifications as defined in Appendix B, Division A.2.

SLASH: Woody material existing or created that has accumulated on the forest floor. Woody material includes logs, pieces of logs, tops, and branches.

TEMPORARY ROADS: Non-permanent roads that are constructed by Contractor for the purpose of treatment unit access.

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

UNIT: See Treatment Unit.

UNSATISFACTORY WORK: If work quality falls below the AQL, the COR will issue a work order or notice of noncompliance to the Contractor in writing. Untreated or unsatisfactory treated areas shall be reworked to obtain satisfactory work quality.

WHOLE TREE YARDING: Whole tree logging includes cutting tree and removing the entire tree, including tops and branches, to the landing.

WILDLIFE TREE: Standing tree marked to be reserved as a wildlife tree. Used by birds and small mammals for shelter, nesting, perching, etc.

Exhibit 1 - Dwarf Mistletoe Rating System

Dwarf mistletoe management should only be considered after an analysis of the impacts that the parasite has in the trees, stands, and ecosystems they inhabit. One tool has been used for over 25-years to standardize the quantity of dwarf mistletoe parasitism within a stand. The Hawksworth 6-class dwarf mistletoe rating system (DMR) provides a quantitative reference scale for determining the relative population status of a dwarf mistletoe infestation within a stand and its potential for spread and intensification.

The 6-class dwarf mistletoe rating system (DMR)
(Hawksworth 1977)

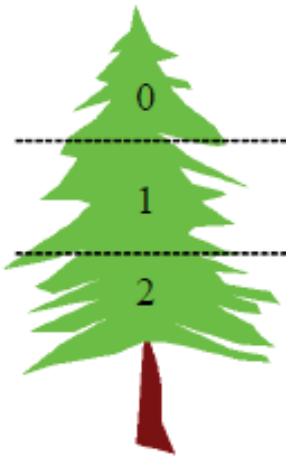
Instructions

STEP 1. Divide live crown into thirds.

STEP 2. Rate each third separately. Each third should be given a rating of 0, 1 or 2 as described below.
(**0**) No visible infections.
(**1**) Light infection (1/2 or less of total number of branches in the third infected).
(**2**) Heavy infection (more than ½ of total number of branches in the third infected).

STEP 3. Finally, add ratings of thirds to obtain rating for total tree.

Example



If this third has no visible infections, it's rating is (**0**)

If this third is lightly infected, it's rating is (**1**)

If this third is heavily infected, it's rating is (**2**)

The tree in this example will receive A rating of **0+1+2=3**.

Hoffman, James T. "Management Guide for Dwarf Mistletoe". Forest Health Protection and State Forestry Organizations, May 2004. Web.