

## Appendix E- Miscellaneous Support, References, and Maps

### GLOSSARY

#### STANDARD CONTRACTING DEFINITIONS

**Acceptable Service.** A job performed to the standard and within the acceptable quality level. The Contractor must do the specific job, and meet the standard, and meet the acceptable quality level before one can say that performance is acceptable for payment.

**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.

**Administrative Contracting Officer (ACO).** A Contracting Officer that is delegated authority by the HCA (Head of Contracting Activity) or CO (Contracting Officer) of record to administer a contract after award.

**Best Value Basis.** A term used in procurement to describe the process of selecting a contractor based on price and non-price criteria. Evaluation factors may include past performance, work quality, experience, and benefits to the local community.

**Contracting Officer (CO).** A person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

**Contracting Officer's Representative (COR).** A Government employee appointed by the Contracting Officer (CO) to assist the CO with contract administration and surveillance.

**Contractor.** Term used to represent the prime contractor that is awarded the contract, who is also responsible for the work and conduct of all partners, employees, equipment, and subcontractors assigned by the prime to perform on the contract.

**Cost or Pricing.** Term(s) used in the process of establishing a reasonable amount or amounts to be paid for supplies or services. The amount or equivalent paid or charged for something.

**Danger Tree.** A standing tree that presents a hazard to people due to conditions such as deterioration of or damage to the root system, trunk, stem, or limbs or the direction or lean of the tree (29 CFR 1910.266(c); FSH 6709.11, glossary).

**Defective Service.** A unit of service which contains one or more defects, or nonconformance with specified requirements.

**Excess Offset Value.** A term used in the authorizing legislation to refer to a situation where the value of goods exceeds the cost of services. Payments received as a result of excess offset value are considered residual receipts.

**Federal Acquisition Regulations (FAR).** The Federal Regulations that govern Forest Service acquisitions of property and services, also supplemented by the AGAR (Agriculture Acquisition Regulations) and FSAR (Forest Service Acquisition Regulations).

**Government.** Title used to represent the United States Federal Government and its designated employees acting within their delegated contract authority. Throughout this contract the titles United States, USDA- Forest Service, Forest Service, and USFS may be used interchangeably as synonymous with Government.

**High-Priority Danger Tree Hazard.** A road or road segments where danger trees are determined to be highly likely to fail and where those failures would be highly likely to cause injuries.

**Indefinite Delivery/Indefinite Quantity (IDIQ).** “Task Order Contract” for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract.

**Performance Based Service Contract (PBSC).** A service contract that (1) Describes requirements in terms of results required rather than the methods of performance of the work; (2) Uses measurable performance standards (i.e., terms of quality, timeliness, quantity, etc.) and quality assurance surveillance plans; (3) Specifies procedures for reductions of fee or for reductions to the price of a fixed-price contract when services are not performed or do not meet contract requirements; (4) May include performance incentives where appropriate.

**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, in table form attached to the contract.

**Performance Work Statement (PWS).** Description of the statement of work in greater detail and text form that further defines the tasks and subtasks of the Performance Requirement Summary.

**Period of Performance (also Performance Period or Contract Time).** The number of calendar days allowed in this contract for completion of the contract work. Once begun on the official start date, the period of performance will be counted in consecutive calendar days, including Sundays and holidays. This time may be suspended by Government issuance of one or more written Suspend Work Order/s.

**Project Inspectors.** Government employees (appointed by the CO or COR) responsible for the surveillance of contractor performance. Project Inspectors will include Timber Sale Contracting Officer (TCO), Sale Administrator, Harvest Inspector, and Engineering Inspector.

**Quality Assurance.** Those actions taken by the Government to assure services meet the requirements of the Performance Work Statement (PWS). Government inspection for quality assurance does not substitute for the Contractor’s quality control.

**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.

**Quality Control.** Those actions taken by the Contractor to control the performance of services so that they meet the requirements of the PWS.

**Random Sampling.** A sampling method in which each service output in a unit has an equal chance of being selected. A method of inspecting a few individual items in a lot to determine the quality of that lot against the standard.

**Standard.** An acknowledged measure of comparison.

**Stewardship Credits.** In the exchange of goods for services the credits earned by a stewardship contractor when services are performed. Stewardship credits are applied toward the value of the products removed.

**Value.** The monetary worth of something (i.e., a fair return or equivalent in goods, services, or money for something exchanged).

**TECHNICAL DEFINITIONS****ABBREVIATIONS:**

AQL – Acceptable Quality Level	PAC - Protected Activity Center (for Mexican Spotted Owl)
BA – basal area	PBSC – Performance Based Service Contract
BS – blue spruce	PFA – Goshawk Post-fledging Family Area
CTM – Cut Tree Mark	PJ – Pinyon-Juniper
DF --Douglas-fir	PP – ponderosa pine
DBH – diameter breast height	PRS – Performance Requirements Summary
DIB – diameter inside bark	PWS – Performance Work Statement
DMR – dwarf mistletoe rating	QASP - Quality Assurance Surveillance Plan
DRC – diameter root collar	Rx - Prescription
DxD – Designation by Description DxP – Designation by Prescription	RW -- Roundwood
ED – ephemeral drainage	ST -- Sawtimber
FR – Forest Road	SFZ – Streamside/Spring Filter Zone
Fx – Fuel Treatment	SWP – southwestern white pine
GPS – Global Positioning System	TSI – Tree Thinning and Slash Treatment
LTM – Leave Tree Mark	TPA – Trees Per Acre
MSO – Mexican spotted owl	UDMR – unit dwarf mistletoe rating
MUTCD – Manual on Uniform Traffic Control Devices for Streets and Highways	UI – Unit Information
Green Tons – Weight measure of wood products removed including current moisture content.	VSS – vegetative structural stage
	WF – white fir

**Acceptable Stocking Density.** The number of trees between the minimum and maximum specified in the Unit Information.

**Access.** Access to treatment units is primarily over existing roads, which must be maintained commensurate with product removal use. Very little new construction of temporary roads is expected.

**Basal Area.** The cross section of a tree at dbh, measured as square feet per acre, a measure of stand density.

**Biomass.** (Also referred to as fuel, slash or residue). Any portion of any tree designated for cutting that is not considered roundwood or sawtimber, including bole, bark, branches, tops and needles. The anticipated end product for most material included in this project is both sawtimber and fiber with the objective being the highest end-product value

that can be obtained with current market and technology. Biomass can either be removed and hauled off the National Forest, or treated in place.

**Biomass Treatment.** The act of processing biomass in excess of desired conditions. These treatments usually leaves the biomass in the forest as chips, piles, or scattered. More than likely, a percentage of biomass would be harvested and the balance of excess biomass “treated” on site.

**Block.** A group of units grouped geographically.

**Bole.** The trunk or stem of a cut tree or snag.

**Brush.** A woody perennial plant such as gambel oak, buck brush, and New Mexican locust.

**Buckling.** Cutting the boles and/or limbs to required lengths for a specific purpose, such as for merchantability standards, or slash pile size requirements.

**Canopy Cover.** The percentage of a fixed area covered by the crowns of plants delimited by a vertical projection of the outermost perimeter of the spread of the foliage.

**CCF.** The unit of measure for wood volume, representing 100 cubic feet, used for quantity estimates for sawtimber and roundwood (Forest Products) which are estimated for this project.

**Chipping/Shredding (Mastication) On Site.** Use of any machine which chops, shreds, or masticates slash into small pieces or chips. These are considered acceptable forms of on-site slash treatment.

**Coarse Woody Debris. (CWD)** Woody debris purposefully left in the forest after a management activity to provide a number of ecological functions. CWD must be at least 3” in diameter and 4 foot in length or larger and measured as tons per acre.

**Conifer.** A cone-bearing tree with needles or leaf scales, usually evergreen, (e.g. pines, firs, spruces, junipers).

**Controlled Area.** Areas delineated by flagging for the purpose of protecting sensitive plants or heritage resources and other improvements to protect. The areas are marked on the ground, however, they are not located on the solicitation map. A map that displays these marked areas will be available to the successful bidder.

**Contractor-Created Severe Damage to Leave Trees.** Any one or more of the following criteria apply, when inflicted by any of the Contractor’s operations:

- 15% or more of the bark circumference severed or removed.
- Pushed to leaning over 30 degrees from vertical.
- Bole/stem broken below the 4” diameter top, for single-stem conifer species.
- More than 10% of the bole or main stem fork broken off aspen, oak, juniper, hardwood species.
- Less than 1/3 of the live green branches left fully attached to the bole.

**Crown Drip Line.** Point of the longest live tree limb tip end projected vertically downward to the ground, on each side of the tree.

**Crushing.** Flattening of unsound slash down to the ground surface by driving heavy equipment over it one or more times.

**Cut.** To completely sever the bole of the tree from the stump by chainsaw or mechanical saw/shears.

**Cut Tree.** All trees and snags which are to be cut under this contract. Any tree that is designated by the Forest Service for felling, either by being marked with tracer paint color designated on Unit Information or designated by prescription standards.

**Dangle Head Processor.** A device used in tree harvesting that fells and processes the trees into logs of specified dimensions. Used either “in the woods” or exclusively at the landing.

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

**DBH.** Diameter at Breast Height – Outside diameter of the tree stem at a point 4-1/2 feet above the ground, measured from the uphill side of the base of the tree.

**Deck.** A stack of logs or the action of stacking logs at the landing.

**Dead and Down Trees.** (Dead and or down) Dead standing (or leaning) trees and/or dead trees that have fallen to the ground. In areas next to private land, Unit Information may prescribe treatment of the dead and/or down material (existing slash) to reduce the fuels hazard.

**Decking.** Gathering and stacking of boles at designated landings.

**Designated Skid Trail.** A trail flagged by the Contractor prior to cutting and approved by the COR to operate designated equipment on.

**Diameter Inside Bark (DIB).** The diameter of a cross section of the bole measured inside the bark. Usually designating the small end diameter limit.

**Diameter Root Collar (DRC).** Diameter of the trunk of a tree measured at the root collar, which is at the smallest circumference of the main bole near ground level, above exposed root swellings, but below branching. This point of diameter measurement is used for the following native species groups: Oaks, Junipers, Pinyon pine, New Mexico Locust, Mountain Mahogany, Alders, Willows, Maples, and most other riparian hardwood species.

**Directional Felling.** Felling cut-trees or snags a predetermined direction to protect natural resources and land improvements, and/or to facilitate planned skidding.

**Dominant Tree.** A tree whose crown extends above the general level of the main tree canopy, or in some cases, a tree whose canopy is above the main canopy of the tree’s immediate neighbors, receiving full light from above.

**Drip Line.** Point of the longest live tree limb tip end projected vertically downward to the ground, on each side of the tree.

**Dwarf Mistletoe Rating.** A measure of an individual tree dwarf mistletoe infection intensity. The measurement is done by dividing the live crown into thirds and rating each third as: 0 - no mistletoe; 1 - light mistletoe (less than half the branches infected); and 2 - heavy mistletoe (more than half the branches infected). The ratings of each third are added to obtain a total for the three. A tree with an infection on the bole, but not the branches, is rated class 1. Otherwise bole infections are not considered in the rating system.

**Elevation.** The elevation recorded in feet above sea level for the majority of the site.

**Ephemeral drainage.** A drainage which forms the lowest spot of the surrounding ground. It forms obvious channel continuity along its length and joins with more obvious channels downstream. It shows evidence of having run water on previous occasions, i.e., litter and vegetation has moved, or there is a lack of litter in the channel.

**Equipment.** All machinery, operating supplies, and tools necessary for the proper performance and acceptable

completion of the work.

**Exchanging Goods for Services.** Used when a stewardship contract involves removal of some forest materials having market value, mixed with a requirement to do non-related service work. Instead of charging the Contractor a fee for the merchantable materials and paying the vendor (cash) for service work, the government provides the materials in exchange for an equivalent amount of service work.

**Excess Trees.** Government inspection term for uncut trees that, according to specification, should have been cut. Excess trees may be defined as not severed from the stump, hang-up trees, or stumps with live limbs. Excess trees also include trees not girdled or pruned that, according to specification, should have been girdled or pruned.

**Felling.** Completely severing a live tree bole from the stump, by any means except explosives, to place the tree on the ground. Also includes completely repositioning a dead snag from standing or leaning, to place it on the ground. This may include cutting, pushing, winching, or other hand or mechanical means, but not by means of hydro-axe, fire or explosives. Maximum stump heights apply to both snags and live trees felled.

**Flagging Color Designations.** The colors of flagging to be used by the Forest Service and the Contractor will be determined prior to operations.

**Healthy Tree.** The trees specified in the Unit Information that are the most preferred leave trees of commercial conifer species to be left on site to grow. They typically have the most, green and fullest crown, upright boles with no or only minor forks, no broken or missing tops, no physical damage visible to the crowns or boles, and no insect or disease indicators.

**Desirable leave tree characteristics:**

- Straight stem
- Small branch diameter
- Good coloration
- Well formed-crown
- Branches horizontal or slightly angled to bole
- Free of insect or disease damage and/or symptoms. In the case of dwarf mistletoe, within the acceptable DMR range in the prescription.
- Vigorous annual terminal growth (especially in last 1 to 3 years)
- Crown class of dominant or co-dominant
- Live crown ratio of 30% or greater
- Lean is less than 30 degrees from vertical

**Hand Thinning.** Trees specified or allowed to be cut by hand (chainsaw), not by mechanized equipment.

**Hang-up Tree.** A cut tree suspended above the ground by a leave tree or brush.

**Hardwood.** A tree with broad leaves rather than needles (e.g. aspen, oak, willow, cottonwood)

**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.

**Imminent Beetle Kill.** Any conifer tree showing visible evidence of successful bark beetle attack, which as determined by the COR or District Silviculturist, will lead to certain tree mortality during the life of this contract.

**Included Material.** All product material and biomass to be harvested subject to agreement as defined in the awarded project proposal.

**Included Timber (Product).** Sawtimber (Product) size trees, designated to be cut, which are at least 33.3% sound.

All such trees have been cruised and appraised as “Goods” having market value, which the Contractor will cut and remove at his/her cost.

**Inspector.** A Government person responsible for the surveillance of contractor performance.

**Involved Landowner Acres.** Those portions of the National Forest in which the adjacent private landowners accepted the Forest Service’s invitation to become directly involved with paint designation of cut trees according to project objectives.

**Jackpot. (Jackstraw)** A loose concentration of slash or natural fuels, heavier than the surrounding areas that a dangle-head processor might create.

**Ladder Fuels.** Fuels that provide vertical continuity between the ground and the tree crowns, thus creating a pathway for surface fire to move into the overstory tree crowns.

**Landings.** Areas used to stage and load wood or slash materials just prior to removal from the block. Existing openings along edges of haul roads which are large enough to hold decks, slash piles, and accommodate loading equipment to place removal materials onto haul vehicles.

**Leave Tree.** Any live tree that is selected or required to be left standing and protected, as provided in the specifications.

**Limb and Top Removal.** The moving, during yarding/skidding, of cut tree with tops to a designated location at the landing.

**Live Crown Ratio.** Percent of live crown in relation to the total height of the tree accounting for gaps and holes.

**Live Limb.** A limb of any size that has green needles attached.

**Log Length Skidding.** Transporting the upper portion (bole) of a tree with the top and limbs cut off and bucked into final log lengths to a central location (Landing), typically in lengths of 16 or 32 feet.

**Lop and Scatter.** Cutting limbs from the trunks of cut trees and moving and rearranging of slash usually to a specified maximum depth above the ground surface.

**Lopping.** Cutting limbs of trimmed and/or bucked boles down to a specified vertical height above the ground.

**Manual/Manually Treat.** Completely severing a live non-sawtimber or biomass sized tree bole from the stump to place the tree on the ground by hand, without using any mechanized vehicle. This is usually done with a chain saw.

**Merchantable Materials.** Forest Products with a stated value.

**Minor Damage.** Crooks in the trunk which are offset less than 3 inches from the long axis and within 13 feet of the ground, no forks, broken top, or bark damage extending less than one-fourth the circumference of the tree.

**Missing Leave Trees.** Government inspection term for cut trees that, according to requirements, should have been left uncut.

**MUTCD.** Manual on Uniform Traffic Control Devices Street and Highway.

**Non-merchantable wood.** Any woody debris that does not meet the Utilization Standards of included timber in A2 of Appendix B, or does not meet the Biomass Removal Specifications in the Performance Standards of Appendix A.

**Pile – Hand.** A method of piling slash by hand without using any mechanized vehicles.

**Pile – Machine.** A method of piling slash with the use of mechanized equipment. The PI is responsible for the project inspection for an identified task order. This person has fire behavior, fuels management experience and is qualified to conduct oversight and evaluation of the Contractor's operations. The PI provides technical expertise to the COR regarding fuels mitigation.

**Precommercial Thinning.** The cutting of trees for silvicultural purposes that do not have a Forest Product value. Such trees may be removed and utilized as biomass. Contractor may or may not be charged for these trees.

**Pre-existing Severe Damage.** Any one or more of the following criteria apply, when already existing in a tree by natural or other causes prior to the Contractor's entry into the block:

- 33% or more of the bark circumference severed or removed.
- Leaning over 30 degrees from vertical.
- Bole/stem broken below the 4" diameter top, for single-stem conifer species.
- More than 10% of the bole or main stem fork broken off aspen, oak, juniper, hardwood species.
- Less than 1/3 of the live green branches left fully attached to the bole.

**Product.** A class of forest woody fiber that has a value under this contract. Product description and rate of payment to the Forest Service by a unit of measure (CCF, Green Ton, Acre) has been established by the successful bidder.

**Project Area.** A number of units within an individual environmental analysis area. A project area may have one or more blocks.

**Project Information.** A document included with the task order with specific information about the Project Area, including treatment acres, tree quantity estimates, road maintenance, timing of logging restrictions, erosion control seed mix and application rate, and restricted road use limitations.

**Protected Reserve Trees.** All Leave trees and/or Snags which have intrinsically greater ecosystem values, due to rarity, size, species, or other resource criteria described in Unit Information.

**Pullback.** Location/relocation of slash a specified distance away from boundaries, roads, fences, utilities, burner trench edges, other improvements or resources. Also includes placement of chips over a certain distance from specified resources.

**Removal.** Transportation of cut whole trees, boles, slash, and/or equipment on designated haul roads from landings within the contract area to completely off of the National Forest, usually within a specified time frame.

**Reserved Trees or Reserved Areas.** Individual species of trees or certain areas within a treatment unit that the contract or COR designates are reserved from treatment.

**Right-of-way.** A general term denoting land, property, or interest acquired for or devoted to a road.

**Riparian Hardwoods.** Broadleaf tree and shrub species that are riparian (water) dependant. Examples of native deciduous species include: willow, alder, cottonwood, maple, boxelder, sycamore, etc. They are primarily found living in association with springs, seeps, ponds, wet meadows, perennial streams, and intermittent drainages.

**Satisfactory Leave Tree.** Government inspection term for leave trees that, according to requirements, should have been left as the most "Healthy" leave trees available within the proper spacing range. To be satisfactory, leave trees should not possess any criteria listed under the "Pre-existing Severe Damage" or "Contractor-Created Severe Damage" definitions.

**Scaled Contract.** A sampled estimate of Product Materials is awarded to the Contractor. The Contractor only pays for the material that is measured coming off the National Forest. Weight is the most common method of scaling low value, small diameter timber.



**Skidding.** Transportation of felled whole trees or snags, trimmed boles, bucked boles, and/or slash from the point of origin to designated landings along haul roads. Skidding is done only on pre-approved skid trail locations. It may include transport by machine, vehicle, animal, or hand.

**Slash.** Any Contractor generated residue from cutting, limbing, or bucking standing live trees, plus all dead and down woody material existing prior to Contractor's operations greater than 3" diameter and longer than 6 feet. See the following section Slash Treatment for a complete description of slash treatment methods and specifications.

**Snag.** Any dead standing or leaning tree taller than 6 feet. Unit Information will describe if and how snags and existing dead and down woody material are to be treated as existing slash.

**Sound (referring to green wood).** A log meeting sawtimber utilization specifications size and has at least a 10.67 cubic-foot merch-factor (equivalent to 33.3% Scribner sound).

**Sound (referring to dead wood).** Wood that is solid enough to hold together for skidding as an intact piece.

**Streamside and Spring Filter Zone (SFZ).** A linear or circular strip of land set at a designated width along the edges of protected drainages and around springs, in which ground disturbance by mechanized equipment is restricted. Maintaining a mat of herbaceous vegetation and ground cover in place to filter out overland movement of sediment or ash into the water channel is the primary objective. All SFZ boundaries are field designated by the Government.

**Stump Height.** Stump height is the acceptable maximum level left above ground, measured from the uphill side, after a tree is felled. Stumps shall not exceed 12 inches for trees 12.0"DBH and larger. They shall not exceed 8 inches for trees under 12.0"DBH, which may require lowering the stump after felling. Maximum stump height may be modified in both cases to 4 inches above fixed natural obstacles, such as large rocks. Trees designated for felling which are wired into established fence lines shall be cut at 4 inches above the top fence wire.

**Timing of Logging Restriction.** A period during the year when there are restrictions to tree removal operations. Descriptions of Timing of Logging restrictions in this contract include:

- MSO (Mexican Spotted Owl) – No activities from March 1 – August 31
- GSH (Northern Goshawk) – No activities from March 1 – September 30
- BTL (Bark Beetles) – No breeding material creating activities (woody material > 3" in diameter left in the woods for longer than 3 weeks) from May 1<sup>st</sup> to December 1<sup>st</sup>, All breeding material created from December 1<sup>st</sup> to March 30<sup>th</sup> must be removed or treated so that it is no longer suitable breeding habitat by May 1<sup>st</sup>.

**Tree Designation.** Trees will be designated as trees to be removed with a Cut Tree Mark (CTM), as trees to be left by a Leave Tree Mark (LTM), or to be removed or left by a Designation by Description (DxD). DxD may be fairly simple, such as a diameter limit under story removal, or fairly complex, involving selection of trees based on characteristics such as species, spacing, basal area, and diameters. The Contractor will be required to sample mark all DxD's for approval prior to operations, to demonstrate understanding of the prescription and ability to apply it.

**Tree Length Skidding.** Transporting the upper portion (bole) of a tree to a central location (Landing) with the top and limbs cut off near the stump.

**Trimming.** Completely severing the top and limbs from the bole. A specified bole diameter for top trimming may be required. Also called "de-limbing" or "limbing" when just limbs are cut from the bole.

**Unhealthy Tree.** The least preferred leave tree of commercial conifer species, due to poor tree longevity. These trees may only be left to maintain spacing if no other healthier tree of any size is available to leave as a better substitute.

**Characteristics of trees that are not desirable for leave trees**

- Multiple tops
- Poor crown form
- Crook or seep in bole
- Dead or broken tops
- Poor coloration
- Large branch diameter
- Presence of insects or diseases
- Branches more than 45 degrees from horizontal
- Physical or mechanical damage
- Suppressed
- Poor annual growth
- Sucker limbs

**Unit.** A specifically defined area with a specific Silvicultural treatment prescribed to achieve resource objectives for that particular forest condition.

**Unit Dwarf Mistletoe Rating (UDMR).** The average dwarf mistletoe rating for all the trees, including the non-infected trees, in the unit.

**Unit Information.** A document included in the task order that describes the treatment and activities that will occur in the unit. It may describe desired condition, how the trees are designated, slash treatments, and any special considerations or restrictions that apply to a given unit.

**Volume Estimate.** The estimated volumes of timber by species designated for cutting, and expected to be cut under Utilization Standards listed in Section C.4.4. and on subsequent Task Orders after award. The estimated volumes are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

**Whole Tree Skid.** Removing an entire upper portion of a tree consisting of trunk, top, branches, and leaves or needles remaining attached to a central landing.

**Winching.** Pulling or end-lining felled trees or slash over inaccessible ground, or a specified protected distance, or out of a group of trees where damage may occur if normally skidded, by means of cable drawn out from the skidder or skidding vehicle. May also be used to assist felling or dropping snags.

**Yarding. (Skidding)** Transporting cut trees from the place where they are felled to a loading point (landing). Generally implemented using mechanical equipment.

## **Overview**

In an effort to display to potential offerors, the levels of harvest anticipated under this RFP, we looked at five actual, cruised projects that will be offered in the first year of this contract. These projects span a spectrum of forest conditions represented across the majority of the stewardship area. These projects have all been leave tree marked (LTM) and cruised to tree measurement standards. This data represents the best estimate of trees and volume to be harvested the Forest Service can provide.

While ponderosa pine forest restoration is an evolving science and art, these projects represent the latest effort in “clumpy-groupy” tree retention with emphasis on managing multiple age classes which features maintaining most of the largest trees. This is not to say that this sample will necessarily represent every treatment over the 10 year span of this contract. It does represent our best, current interpretation of forest restoration.

Five projects are represented in this analysis. Three projects from the Coconino National Forest, and two from the Kaibab National Forest.

Project Name	National Forest	Acres of Harvest
Bob's	Coconino	2,1017
Weatherford*	Coconino	1,613
Elk Park	Coconino	2,901
Pomeroy	Kaibab	1,743
KA	Kaibab	1,047

\* Although partially burned in the Schultz Fire (June 2010), the cruise data represents restoration treatments within the stewardship area.

With inclusion the cruise data in this Request for Proposal, the reader can calculate volumes for any diameter break point. For this analysis we partitioned the data to reflect 5-16.5" DBH and 16.6"+ DBH to a 4" DIB top. This cruise data does not attempt to measure biomass volume in trees less than 5" DBH, nor biomass volume in limbs and tops.

### Summary Data

Project Name	CCF/Ac. 5-16.5"	Trees/Ac. 5-16.5" DBH	CCF/Ac. 16.6"+	Trees/Ac. 16.6"+ DBH	Total CCF/Ac.
Bob's	10.67	130	2.2	5.55	12.87
Weatherford*	5.44	70	1.75	4.6	7.19
Elk Park	7.99	115.4	1.91	4.6	9.9
Pomeroy	4.79	59.25	2.12	5.7	6.91
KA	4.9	53	4.02	10.2	8.92
5 Project Average	7.16	95.4	2.23	6	9.42

To view photo series depicting various fuel loads and measured tons per acre click on <http://www.fs.usda.gov/goto/4fri/rfp> to view "2011\_SW\_Photo\_PIPO\_Guide\_Carabajal"

To view photos depicting "Desired Conditions" in Arizona Ponderosa Pine Forests click on <http://www.fs.usda.gov/goto/4fri/rfp> Shelf Stock Cruise Data

Sample of Harvest Volume  
Phase 1 of 4 Forest Restoration Initiative  
Request for Proposals  
Shelf Stock Cruise Data

To view and analyze full cruise data set spreadsheets click on <http://www.fs.usda.gov/goto/4fri/rfp>

## MAPS

The following are a listing of maps which are located on the website.

## General Vicinity Maps

1. General Vicinity
2. General Vicinity of First EIS Area
3. General Vicinity of Williams RD and Coconino NF
4. General Vicinity of General Vicinity of Tusayan Ranger District, Kaibab NF
5. General Vicinity of Tonto and Apache-Sitgreaves NF's
6. General Vicinity of Flagstaff Center Projects (South)
7. General Vicinity of Flagstaff Center Projects (North)
8. General Vicinity of Coconino NF, Mogollon Rim Projects
9. General Vicinity of Williams AZ Projects
10. General Vicinity of Tonto and Apache-Sitgreaves "RIM" Projects

## Project Area Maps

11. Bobs
12. Elk Park
13. Clark
14. KA and Pomeroy
15. Jack Smith/Shultz
16. Eastside
17. Weatherford
18. Railroad
19. East Clear Creek
20. Community Tank
21. Dogtown
22. Upper Beaver
23. Munds Park
24. City
25. McCracken
26. Christopher
27. Myrtle
28. Timber Mesa
29. Rim Lakes