

# REQUEST FOR PROPOSAL (RFP)

FOR CONTRACTED SERVICES TO

CALAVERAS HEALTHY IMPACT PRODUCT SOLUTIONS (CHIPS)

## UPPER MOKELUMNE FOREST RESTORATION PROJECT

## PRE-COMMERCIAL HAND THIN AND REFORESTATION



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### Key Project Information & Dates

<b>For information about the project</b>	Regine Miller, CHIPS Executive Director <a href="mailto:Regine.chips@gmail.com">Regine.chips@gmail.com</a> (530) 277-3843
<b>RFP Release Date</b>	2/25/2021
<b>RFP Package Folder Link</b>	<a href="https://www.dropbox.com/sh/5ur9s9h2m235wdh/AAAgXqcZJ0A_WnNdojfEZF_Da?dl=0">https://www.dropbox.com/sh/5ur9s9h2m235wdh/AAAgXqcZJ0A_WnNdojfEZF_Da?dl=0</a> Note the project maps included in the RFP Package Dropbox folder are georeferenced pdf files that can be viewed using Avenza or a similar app. Unit boundaries and avoidance areas are to be used by Contractor(s) as a guide for operations.

<b>Pre-Bid Questions</b>	Due to COVID-19 restrictions and seasonal road closures, we will not be hosting a pre-bid meeting or field tour. Contractor(s) are encouraged to submit questions about the RFP to the Program Facilitator at <a href="mailto:Thurman.CHIPS@gmail.com">Thurman.CHIPS@gmail.com</a> , by 3/2/2021. Responses will be compiled and distributed by email to all contractors on the vendor list by 5 pm on 3/5/2021.
<b>RFP Closing Date</b>	3/10/2021
<b>Contractor Selection</b>	Project Contractor(s) will be selected no later than 3/17/2021
<b>Project Commencement Date</b>	PCT Hand Thin Project Areas D and E: 7/15/2021  Reforestation Project Area F: 3/22/2021. Contractor must start work within 3 days of receiving notification from CHIPS that the site is ready for planting.
<b>Project Completion Date</b>	PCT Hand Thin Project Areas D and E: 12/31/2021  Reforestation Project Area F: 4/22/2021

## Project Summary

This project was developed by the US Forest Service, Eldorado National Forest, Amador Ranger District (USFS) in conjunction with the Amador Calaveras Consensus Group (ACCG) and Calaveras Healthy Impact Product Solutions (CHIPS). CHIPS will implement the program of work in close coordination with the USFS. This project aligns with the Mokelumne Avoided Cost Analysis (MACA) which was undertaken with support from Sierra Nevada Conservancy (SNC), the Nature Conservancy, the USFS, and the ACCG.

Calaveras Healthy Impact Product Solutions (CHIPS) was awarded a forest conservation grant from the Wildlife Conservation Board (WCB) to support fire recovery on the Eldorado National Forest, Amador Ranger District within the Power Fire area. The project will restore wildfire damage and reduce the risk of future fires in the upper Mokelumne River watershed to protect the remaining habitat and upper watershed and forestlands. The goals of the project are to advance fire recovery, avoid permanent type conversion, and reduce the risk of stand-replacing fires and catastrophic environmental, economic, and social loss. The project will restore damage within the Power Fire boundary and adjacent areas, accelerate the development of old forest characteristics, and reduce the risk of future fires in an effort to protect 1,915 acres in the project area. At the same time, the project will boost the local restoration and steward economy.

The project includes the post-fire reforestation interplanting of 300 acres in the Power Fire footprint in groups and individually, utilizing local microsite conditions to increase heterogeneity; the post-fire reforestation thinning of 900 acres of natural stands and young mixed conifer plantings in the Power Fire boundary using mechanical and hand treatment methods consistent with PSW GTR 220 and 237, to speed recovery by decreasing competition



and increasing growth rates; the post-fire reforestation thinning and release of 400 acres of natural stands comprised of small trees located along strategic roads, to accelerate habitat recovery and development of old-forest characteristics within the Power Fire scar; the restoration of up to 12 acres of remnant aspen stands, in areas adjacent to the Power Fire area, using temporary fencing to prevent damage to sprouts from browsing deer and cattle, support sapling vigor and age class diversification, and creating valuable wildlife habitat, and; the fuel reduction of 303 acres along roads adjacent to Power Fire area to protect existing high-value habitat, including known PACs and facilitate fire management.

### Scope of Contract

This RFP is specific to the post-fire reforestation thinning of 211 acres of natural stands and young mixed conifer plantings using hand treatment methods, and the reforestation interplanting of 146 acres in the Power Fire boundary. A Contractor may bid on one or more of the individual project areas. Contractors may also form partnerships to build the capacity needed to complete the work within the allotted time frame.

Treatments will be implemented according to the USDA Forest Service Pacific Southwest Research Station General Technical reports 220<sup>1</sup> and 237<sup>2</sup> principles to enhance fire resilience and spatial heterogeneity.

The project's desired outcomes are to:

1. Accelerate the development of old forest characteristics by reducing intertree competition for moisture, sunlight, and nutrients in each stand and reducing each stand's susceptibility to western pine beetle and *lps* spp. beetle attack;
2. Increase stand variability by achieving the desired tree species composition within each stand and increasing spatial heterogeneity;
3. Promote hardwoods by retaining and releasing desirable hardwoods in each stand;
4. Reduce the risk of loss to wildfire by maintaining or increasing diameter growth rates, increasing bark thickness, and facilitating the near term (10-15 years) introduction of fire (under burning) in each stand; and
5. Improve stand health by reducing the number of trees that have poor stem form and have been damaged by insects, diseases, or storms.
6. Restore wildlife habitats and provide for the native plant and animal species associated with high levels of structural diversity over large areas comprised of roughly even-aged vegetation groups, varying in size, species composition and

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<sup>1</sup> North, Malcolm; Stine, Peter; O'Hara, Kevin; Zielinski, William; Stephens, Scott. 2009. An ecosystem management strategy for Sierran mixed-conifer forests. GTR PSW-GTR-220. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 49 p.  
([https://www.fs.fed.us/psw/publications/documents/psw\\_gtr220/psw\\_gtr220.pdf](https://www.fs.fed.us/psw/publications/documents/psw_gtr220/psw_gtr220.pdf))

<sup>2</sup> North, Malcolm, ed. 2012. Managing Sierra Nevada Forests. GTR PSW-GTR-237. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 184p.  
(<https://pdfs.semanticscholar.org/5def/b20d807189a16a88f687507d5f2589f82f90.pdf>)



structure.

### **Project Location**

The project is located on the Amador Ranger District of the Eldorado National Forest, approximately 18 miles east of the Amador Ranger District office located at 26820 Silver Drive, Pioneer, CA 95666. The location of the work sites, access to the area, size of stands, and other information pertinent to each treatment stand is contained on the vicinity and treatment area maps.

Owner: USDA Forest Service, Eldorado National Forest, Amador Ranger District.

Coordinates: 38.506535 latitude, -120.255898 longitude.

APN: 025040008000, 0250600140000, 025050012000, 025050013000, 025070002000, 02507003000, 025050014000, 025050010000, 025050009000, 028090002000, 028090013000, 028090014000, 028090010000.

Treatment Areas:      $\leq$  211 acres pre-commercial hand thin  
                               $\leq$  146 acres (approx. 23,000 trees) reforestation

### **Responsibilities**

**Contractor.** The Contractor shall provide everything including, but not limited to, all equipment, supplies, transportation, labor, and supervision necessary to complete the project, except for that which the contract clearly states is to be furnished by CHIPS. It is the Contractor's responsibility to assess the site(s) to the extent needed to make a firm fixed price offer.

Before work starts the Contractor shall designate, in writing, a person to act for him during his absence from the work site. The Contractor shall list the extent of authority his representative will have on the job. The Contractor or his authorized representative shall be on the project area whenever work is in progress. In the absence of the Contractor, his authorized representative shall receive orders and instructions from CHIPS and shall take such action as is required to keep the job in progress under the terms of the contract. The Contractor and his representative(s) shall have an oral command of the English language and the language common to the crew(s). The Contractor shall perform work in a manner that unacceptable damage is not incurred. The contractor is responsible for quality control and is required to provide sufficient oversight and inspection to demonstrate that they are meeting contract requirements.

Prior to 3:00PM each day of planting, the reforestation Contractor shall notify the Forest Service of the quantity of seedlings needed for the next day and schedule the time and place for delivery. Any trees issued to the Contractor will become the responsibility of the Contractor.

**Project Manager.** The CHIPS Project Manager, with support from the CHIPS-contracted Registered Professional Forester (RPF), will perform and quality assurance, and conduct pre- and post-operation briefings with the Contractor, USFS, and CHIPS. The Project Manager will



coordinate closely with Contractor to ensure compliance with silvicultural prescriptions, specifications, governmental regulations, and environmental permitting. The Project Manager will determine when crews have completed work on a unit, map the perimeter of areas completed and request Forest Service inspection. Upon certification of completeness by the Forest Service, the Project Manager will authorize payment for crew invoices. CHIPS will submit Contractor invoices to the Wildlife Conservation Board for payment and process payment to the Contractor(s), a process that can take six weeks.

**Registered Professional Forester.** The RPF will perform quality assurance, and participate in pre- and post-operation meetings, ensure field compliance to silvicultural prescriptions, governmental regulations and specifications, enforce all fire prevention measures and Forest Service Restrictions on Work, determine when crews have completed work on a unit and recommend Forest Service final inspection to CHIPS Project Manager, ensure NEPA and CEQA compliance, maintain close communications with CHIPS Project Manager and Project Contact.

**Forest Service.** The Forest Service will participate in pre-operations meetings, conduct final inspection of each unit within ten (10) business days of its finish as deemed by CHIPS, certify its completion and authorize the Contractor to submit an invoice for payment to CHIPS. As needed, designate all PACs, cultural sites, endangered plants, waterways, etc. The Forest Service will ensure NEPA compliance and quality assurance.

The Forest Service will furnish all planting stock: 1-0 or 2-0 bare root or containerized seedlings with roots less than 12". Ten percent of the tree seedlings may have substandard roots without change in the contract price.

### **Project Goals**

The primary goal of this contract is to complete the post fire reforestation thinning and reforestation interplanting of natural stands and young mixed conifer plantings in the Power Fire boundary using methods consistent with PSW GTR 220 and 237, to speed recovery by decreasing competition and increasing growth rates. Treatments will advance development of old forest characteristics, reduce intertree competition and susceptibility to insect and disease, and increase spatial heterogeneity by creating individuals, clumps and openings.

### **Project Areas, Treatment Units and Prescription**

All project areas and individual treatment units are spatially depicted in the RFP package maps and are available as shapefiles on request ([thurman.CHIPS@gmail.com](mailto:thurman.CHIPS@gmail.com)). The maps should be considered best estimates when developing construction costs.

This project occurs on Eldorado National Forest system lands. The Eldorado NF administers the project land and has authorized CHIPS and its Contractor(s) to implement this project. The Eldorado NF has management, fire and operations-related requirements that the operator must follow, as well. The Eldorado NF agreement and Operating Plan, Fire Plan, and the USFS NEPA Decision Memo are included in the [RFP Package Dropbox Folder](#). It is important to remember that Eldorado NF owns all biomass and other forest products generated from project activities and must negotiate its sale.



All National Forest system lands identified in the attached maps will be treated except for avoidance areas noted in the geo-referenced PDF maps provided to the contractor for use in the field using the Avenza app, areas marked with pink, pink and black, and/or pink and green flagging and/or avoidance areas identified by the Forest Service or CHIPS in the field. Contractor(s) shall note that the maps provided are guides only. Stream courses and their setbacks may vary in their locations between what is shown on the maps and that in the field. If any sensitive resources are located during project implementation, the area shall be avoided until consultation with the appropriate agencies for review and mitigation of the situation.

There are two pre-commercial hand thin project areas (D and E) and one reforestation project area (F) within this RFP. See table below for unit IDs and associated acreage. Note that unit acres are based solely on GIS mapping and are not flagged or GPS'd on the ground. Actual acres may vary and payment should be based on actual acres completed and/or trees planted.

Project Area	Unit IDs	Estimated Acreage
Project Area D	131-255B , 132-250A, 132-250C, 132-258B , 132-259A	≤ 45
Project Area E	128-231A, 128-231B, 128-231C, 128-232, 128-250, 128-253, 128-351, 129-230, 129-231	≤ 166
Project Area F	128-235A, 128-235B, 143-001, 143-002, 143-051, 143-052, 143-216, 143-218, 143-230, 143-231	≤ 146

The elevation ranges from approximately 4,000' to 7,000' in elevation. The aspect varies, but is predominately south-facing. Slope varies and contains significantly steep (> 35%) areas (see Site Vicinity Map and Treatment Area Maps in the [RFP Package Dropbox Folder](#)). The stands have received varying combinations of treatments since the Power Fire, including but not limited to mechanical site preparation, tree planting, hand cutting of woody brush, herbicide release, and pre-commercial thinning. Significant amounts of sprayed brush skeletons and brush cutting slash may make tree planting difficult.

Boundaries of treatment areas will generally be defined by the edge of the surrounding mature timber or other geographic features such as roads, ridges, and/or drainages. In cases where the boundary is unclear, the Forest Service or CHIPS will, at the Contractor's request, mark the boundary in question with blue and white striped flagging. The table below outlines the three projects with their associated treatment units and prescriptions. The units contracted may vary depending upon the bid proposals received.



## Site Access

**Project Area D.** Contractor shall access the project location by exiting Highway 88 and turning south onto Panther Creek Road. The Forest Service is currently completing logging operations and planning road repairs to several small segments of Panther Creek Road which washed out during the 2019-2020 winter season. These washouts were drivable for administrative use in fall 2020 but may or may not be usable in spring 2021 and beyond. Currently, Lower Panther Creek Road (8N05) is closed to the public approximately 1.5 miles in from Highway 88 due to the washouts. There are alternative vehicle access routes, including via Ellis Road and Salt Springs Road, for units affected by this closure.

**Project Area E.** Contractor shall access this project area by exiting Highway 88 onto Ellis Road, located directly south from the USFS Lumberyard Fire Station. Ellis Road intersects Salts Spring Rd 8N21 on Henley Ridge. There is a locked gate at the intersection of Ellis Road (Road 8N25) and Road 8N29. The contractor will need to coordinate with CHIPS field management to secure a key to bypass the locked gate as there is no alternative access to the units located behind this gate.

**Project Area F.** Contractor shall access these project sites by exiting Highway 88 south onto Bear River Road and continue to Spur 19 Road (Road 8N16).

Note that winter access to all Project Areas may be restricted by snow. These roads may or may not be plowed. They are currently not plowed. Walk-ins may be necessary in instances where some roads may be impassible due to mud, snow, or other conditions while the work site is ready for treatment. It is the Contractor's responsibility to reach the work site when it is ready for treatment.

## Identification of Protected Species or Other Critical Resources

To protect environmentally sensitive areas and other critical resources, identification and avoidance during project implementation is important. If any sensitive resources are located during project implementation, the area shall be avoided until consultation with the appropriate agencies for review and mitigation of the situation. Known areas to be avoided (not treated) will be identified spatially in the georeferenced pdf maps provided to the awarded Contract(s). Note that the maps showing avoidance areas are a guide only, and contractor should expect adjustments to be made on the ground during implementation. More information on resource and species restrictions for the units within the Eldorado NF can be found in the Forest Service NEPA documents in the RFP package.

## Work Methods and Standards for All Project Areas and Units

1. Work will be carried out in a manner which ensures the safety of the Contractor(s), their employees and the public.
2. The Contractor(s) shall work through a unit in an organized fashion and complete all required work with CHIPS approval in each unit before beginning work in another unit.
3. The entire area within the boundaries shall be treated except protected areas specifically designated to be left untreated.





4. Land survey corner monuments, bearing trees, and witness markers shall be protected from damage.
5. Damage to roads, culverts, fences, land survey monuments or other improvements, caused by this operation, shall be restored to their condition prior to damage, at the Contractor(s)'s expense.
6. Contractor(s) shall avoid working or staging/servicing in areas with known invasive plants, if possible. When not possible, such as where there are known populations within treatment areas, Contractor(s) shall clean the equipment immediately after finishing work in that area.
7. The Contractor(s) shall remove any debris from roads that may occur as a result of the work.
8. Known protected areas to be avoided (not treated) will be designated on the georeferenced pdf maps prior to operations. If any additional protected, sensitive or other critical resources are located during project implementation, the area(s) shall be avoided until consultation with the Project Forester.
9. All power tools shall comply with specifications in the attached Fire Plan.
10. Contractor(s) shall carry out all operations in a manner which ensures the safety of the Public

### **Silvicultural Prescription Overview**

Spatial heterogeneity will be increased within the Project Areas by maintaining clumps of trees (generally groups of 3-10 trees) as well as creating small gaps as described below. Where feasible and practicable, and meeting desired tree density metrics, create spatial gaps by removing through hand thinning small groups of trees (groups of 3-5 trees and approximately 1-2 gaps per acre). These small gaps will take advantage of existing areas of low tree vigor, poor stem form, or mortality, and will be chosen in areas less likely to result in increased shrub competition. The size, number, and shape of gaps within units would take into consideration slope, aspect, species composition, and other factors consistent with the principles of PSW-GTR-220 and PSW-GTR-237.

Target residual tree densities will vary based on slope position and aspect with lowest densities (110 trees per acre (TPA)) being on ridge tops and south facing slopes and while higher densities (150 TPA) will be maintained on lower slopes and transitioning into Riparian Conservation Areas (RCA), as well as on north facing aspects.

Approximately 110 to 150 desirable conifer saplings will be retained per acre (17 by 17 to 21 by 21 foot average spacing). The lower branches of these trees may be pruned. Existing hardwood clumps and individuals may be cut, thinned and/or pruned as needed to release desirable hardwoods. The ratio of hardwoods to conifers would not be decreased. Woody shrubs (i.e., manzanita, deer brush, whitethorn, etc.) may be cut as needed in conjunction with treatment of conifers and hardwoods.





## Hand Thinning

1. Crop Tree Selection – Retain well-formed trees with single leader, straight bole, increasing internodal length, full crowns, long needles, local dominance, dark green foliage, absence of diseases or insect problems, and no physical damage.
2. Species Selection Priority – Ponderosa Pine and/or Jeffrey Pine are the predominant species in these plantations, but a mixed conifer stand is desired. Therefore, the other species selection will be based on the criteria listed above, except dominance, if the height is at least 1/2 that of the dominant pine. Other species selection, in descending order of priority, will generally be Sugar Pine, Douglas Fir, Giant Sequoia, Red Fir, White Fir, and Incense Cedar. All Lodgepole Pine will be cut unless no other conifers exist to provide stocking to meet spacing requirements.
3. Thin conifers as described above with the use of chainsaws.
4. All stumps shall be less than 6" inches high on the uphill side. All treated vegetation shall be severed from the stump or uprooted. No live limbs shall be left on the stump.
5. Oaks shall not be actively removed during operations. Oaks less than 8 inches DBH may be treated where necessary for access, or for roadside and powerline clearing.
6. Existing hardwood clumps and individuals may be cut, thinned and/or pruned as needed to release desirable hardwoods. The ratio of hardwoods to conifers will not be decreased.
7. Slash Treatment (trees & brush):
  - a. Treat only activity generated slash.
  - b. All cut trees shall be bucked at least in half, and to a maximum of 10 feet in length, and limbed to meet the slash height requirement.
  - c. Slash shall not exceed 18" from ground level. All slash shall be removed from within 5 feet of the bole of residual trees.
  - d. All slash shall be removed from creek drainages and roads, including associated cut banks and drainage ditches.

## Reforestation

An estimated total of 23,000 trees shall be interplanted across an approximate 146 acres of treatment area.

CHIPS will inform the contractor in advance that the planting window is approaching. Contractor must start work within 3 days of receiving notification from CHIPS that the site is ready for planting.

Boundaries of treatment units will be designated by description by Forest Service personnel on site at the time of treatment. Boundaries will generally be identifiable features on the ground, such as property lines, roads, ridges, drainages, or the residual tree line. Boundaries may also be indicated with blue and white striped flagging. The number of existing trees varies between treatment units.

The following planting arrangements will be used:



**Planting Arrangement M3.C.** Plant approximately 140-200 trees per acre by hand. Trees are to be planted individually or in groups of 2 to 10 trees.

**Planting Arrangement M3.D.** Plant approximately 150-250 trees per acre by hand. Trees would be planted individually or in groups of 2 to 10 trees.

**Planting Arrangement M3.E.** Plant approximately 250-450 trees per acre by hand. Trees would be planted individually or in groups of 2 to 10 trees.

See table below for summary of the planting arrangement for each unit ID.

Planting Arrangement	Planting Type	Trees Per Acre	Unit ID	Acres to be Planted
M3.C	Interplant	140-200	143-001 143-002 143-216 143-218 143-230 143-231	≤ 122
M3.D	Interplant	150-250	128-235A 128-235B 143-052	≤ 20
M3.E	Interplant	250-450	143-051	≤ 4

In addition to the specified tree spacing prescriptions, the Forest Service or CHIPS may direct that clusters of trees be planted on closer spacing within treatment units, in locations to be designated at time of treatment.

Trees shall be spaced off healthy residual green conifers (trees that survived the fire and are expected to recover) by the same distance specified between planting spots in the applicable spacing prescription, or outside the drip line, whichever is greater. Trees shall be spaced off areas of natural conifer regeneration (where the stocking of existing conifer seedlings is greater than the stocking in the applicable planting spacing) by the same distance specified between planting spots in the applicable spacing prescription.

Trees shall be spaced 20' outside the drip line of all living mature oaks, resprouting oak clumps, and oak saplings greater than 1" dbh. Trees shall be spaced off the high water mark of seasonal drainages by the same distance specified between planting spots in the applicable spacing prescription. Trees may not be planted less than 5' from any other tree.

**Care, Transportation and Temporary Storage of Trees.** The Forest Service will cull seedlings to meet specification during the nursery lift and pack operation. The Forest Service will also store the seedlings at the Amador Ranger Station, pick up and transport them to the site in a cooler box and issue the trees to the contractor. The contractor shall adhere to the specifications provided herein and any additional provided by the Forest Service for care and protection of tree seedlings in his possession, including transportation between work locations.



Tree seedlings must be protected at all times from drying, heating, smothering, freezing, crushing, drowning, abrasion, rapid temperature fluctuations or contact with injurious substances. Trees stored in boxes, bags or bundles must not be exposed to direct sunlight. Punctured or torn bags or boxes must be promptly resealed. Containers of trees shall be opened only in full shade. Bundles, bags or boxes shall be separated to provide free air movement. Trees shall not be removed from shipping or cooler box containers until needed for preparation for planting.

Tree seedlings shall be planted without further root or top pruning or culling. If pruning or culling appears necessary, or if mold, dry roots, evidence of injury or dying is seen, the condition shall immediately be reported to the Forest Service personnel on site or CHIPS. Seedlings that are frozen shall not be handled until completely thawed. They shall be thawed in full shade. Seedlings removed from cold storage facilities shall not be allowed to stand, or lay in water or snow or be covered with snow.

**Preparation of Trees.** All tree bagging shall be done in shaded areas protected from winds. Roots shall be kept moist at all times. Roots of bare-root trees shall be dipped up to the original ground line in a root-protecting solution such as vermiculite, Terra-sorb, Agri-sorb, etc. when provided by the government. The dipping solution shall be prepared at least five minutes prior to the bare-root trees being dipped into the slurry. When the dipping solution is not specified, the contractor shall dip the roots of bare-root trees in water. The Contractor is required to provide dipping water. The Forest Service will provide the root-protecting solution. Before dipping and bagging, all bare-root tree banding material shall be cut or removed over the tops of the tree seedlings, and bundles of trees shall be loosened sufficiently to allow the dipping solution to coat the roots of all trees in the bundle.

Tree dipping and bagging shall be conducted in an organized manner so that root exposure does not exceed 15 seconds. Planting bags shall be emptied of debris and water prior to bagging the next load of trees. Tattered strings on planting bags or liners shall be trimmed prior to bagging to prevent root entanglement with strings and later root stripping when planter removes trees from bags.

Trees in possession of planters shall be handled with care in the field. Trees in planting bags or trays shall have only their tops exposed. Trees shall not be removed from planting bag or tray until immediately before placement in a properly prepared planting hole.

Seedlings shall be gently removed, one at a time, to prevent stripping or other injury, and quickly and gently inserted into the planting hole. Seedlings carried in planting bags or trays shall not exceed the amount that can be carried and removed without damage to the tree or plug material, and can be planted before critical heating or drying occur. Trees placed in bags or trays must be planted out and not returned to storage. Trees in planting bags shall be planted within four (4) hours.



**Tree Spacing Requirements.** Trees shall be planted in planting spots distributed over the area at the intervals prescribed provided that, for individual planting spots the spacing may be varied as much as 25 percent in any direction to find the best suitable planting spot. Where an unplantable planting spot is encountered, the planter shall disregard spacing limits and plant in the closest suitable planting spot, however average spacing shall be maintained for the stand and the number of trees for the stand shall not be materially increased or decreased by the method of selecting planting spots. In initial plant areas no planting spot shall be closer than half the specified average spacing distance from a planted planting spot or suitable acceptable existing trees as defined in elsewhere in this contract. In areas that are being interplanted, no tree shall be planted within the minimum interplant distance of an acceptable existing tree. If a tree is planted within the minimum interplant distance of said conifer, then payment will not be made for planting that tree and that tree shall be counted as a wasted tree.

**Planting Spot Selection.** Whenever possible, within requirements set forth in the contract, planting spots shall be where stumps, logs, dead brush, and terrain features provide partial protection from sun, wind, animals, loose debris, and other agents detrimental to tree survival and growth. Areas not considered suitable planting spots include, but are not limited to, mounds of loose soil subject to unusual drying or erosion; abnormal small depressions subject to filling with soil or debris; areas with a low fine-earth fraction, such as areas with a high rock content,; solid rock outcrops and permanent roadways. Planting spot spacing will vary in order to utilize suitable and avoid non-suitable areas.

**Planting Spot Preparation.** Before preparing the planting hole, contractor shall clear the planting spot of all limbs, logs, debris, ash, duff, snow, frost, bark, rotten wood, rocks, roots, crowns of living plants, and other material to expose moist mineral soil and facilitate proper planting and growth of seedlings. The planting spot shall be scalped to a maximum size of 14"X14" (.36m X .36m) for each tree in the planting spot and to a depth sufficient to expose moist mineral soil. The contractor shall not be required to scalp deeper than 12 (.30m) to reach moist mineral soil as measured from the average surface level. Scalped material, such as snow, duff, debris, and/or dry mineral soil, shall be dispersed. The seedling shall be planted in the center of the scalped area. A variance of 25% will be allowed for off-center placement of the seedling in the scalp but this will not decrease the overall area of the scalp. All vegetation, except for the planted conifer, shall be removed from the specified scalp area. This shall also include the aerial portion of vegetation which enters into the space directly over the scalped area.

**Preparing the Planting Hole.** Planting holes shall be located near the center of the prepared area and shall be oriented at an angle between perpendicular to the slope and true vertical. An open hole, broken out and deep enough to fully accommodate the roots of the trees to be planted. Slit planting, or not using the planting tool as a lever to break open the hole in order to properly orient the roots, shall not be permitted. The Contractor is expected to open planting holes in hard as well as easy plantable ground. The Contractor is required to provide dipping water. The Forest Service will provide the terra-sorb.



## **Tree Placement.**

1. Bare Root Trees: The trees shall be suspended in the hole with roots in a near natural arrangement at a depth that after filling, packing, and leveling, the soil comes to a point one inch higher than the original ground line of the tree. No portion of the roots should be exposed nor any needles or branches covered with soil. The roots shall not be doubled up, twisted, spiraled, or bunched. The root system shall be aligned with the axis of the planting hole with all roots extending downward. A tree seedling shall not be planted near the edge of the scalped area. The Contractor shall enlarge the scalp so the seedling is centered.

2. Containerized Trees: The trees shall be suspended in the hole with the plugs at a depth that after filling, packing, and leveling, the soil comes to a point two inches higher than the top of the plug material. No portion of the roots should be exposed nor any needles or branches covered with soil. The roots shall not be doubled up, twisted, spiraled, or bunched. The root system shall be aligned with axis of the planting hole with all roots extending downward. A tree seedling shall not be planted near the edge of the scalped area. The Contractor shall enlarge the scalp so the seedling is centered.

**Filling and Firming.** Moist mineral soil shall be filled in and firmed around tree roots or plug. Dry soil, ash, organic matter, rock, and other foreign material shall be kept out of holes. Soil shall be filled in and firmed progressively so no loose soil or air pockets remain and tree is as firmly planted as soil conditions will allow. The contractor shall not wedge the sides of the hole or pry against the side of the hole with the planting tool in a manner that compresses the fill soil and seedling root system against the other side of the hole. Firming the soil around the tree shall be done in a manner that assures the tree and root system are not damaged. After the soil is firmed around the tree, it shall be smoothed out to the level of the surrounding mineral soil surface. After planting, the tree stem shall be erect and free to grow. The tree shall not be weighted down with mud or debris.

**Mixture of Species.** The species to be planted will be indicated by the Forest Service. When species mixture is by location, the placement of individual species will be designated in advance of planting by the Contracting Officer. If the species mixture requires a distribution of species over an area, a ratio of the species designated will be planted by each planter. Example: If the ratio of JP to RF is 2:1, each planter will be required to plant a red fir every third tree he plants.

**Planting Conditions.** The Forest Service or CHIPS may delete from this planting contract any stand which does not meet the following conditions during the period of planting. CHIPS is not liable for the deficit acreage.

1. Soil moisture sufficient to promote seedling survival.
2. Soil temperature sufficient to promote seedling survival and root growth.

**Planting Tools and Equipment.** Contractor's planting tools shall include Hoedads or planting shovels capable of digging a 12 inch deep hole. To do required scalping, the tool selected shall be capable of removing all material at the planting spot down to moist mineral soil. The hand



tools used by the Contractor for planting shall have a planting blade with a minimum 12-inch length and 4-inch width.

Planting bags shall be a light color that do not retain water or heat and a minimum depth of 15 inches, unless otherwise specified, and be free of defects. Planting bags will have removable liners of open cell construction and will be a minimum of one-half inch in thickness. Liners will be free of defects.

**Exclusion Areas.** Exclusion areas to be designated by the Forest Service shall include:

1. Areas adequately stocked with residual green conifers, as designated by verbal description at time of treatment.
2. Areas adequately stocked with acceptable existing trees, as designated by verbal description at time of treatment.
3. Heritage resource sites.
4. Sensitive plant sites.
5. Buffers on drainages, springs and wet areas designated by verbal description and as outlined in tables in the section below.

Additional exclusion areas may be designated by pink and black flagging and pink and green flagging. Contractor personnel are prohibited from entering exclusion areas. No treatment shall occur within exclusion areas.

### **Restrictions on Work**

Known sensitive areas to be avoided (not treated) will be designated on the georeferenced pdf maps prior to operations. If any additional protected, sensitive or other critical resources are located during project implementation, the area(s) shall be avoided until consultation with the RPF and mitigation of the situation.

Within the treatment area boundaries, the Forest Service or CHIPS may exclude non-work areas, such as residual timber, rocky areas, archaeological sites, sensitive plant sites, wildlife areas, riparian areas, and other special areas. Such areas will be designated on georeferenced PDF maps or through the use of pink, pink and black, and/or pink and green flagging.

Work may be performed at any time during the period of the agreement, except as outlined here. Restrictions are as follows:

1. All work shall be conducted per the Eldorado National Forest Fire Plan (see *Eldorado NF Fire Plan.pdf* in [RFP Package folder](#)). Fire Precautionary Period is April 1 through December 1 of any year.
2. When the Forest Service project coordinator determines that adverse weather has made access too dangerous or that continued vehicular travel would cause unacceptable road damage.
3. Unless specified by the Forest Service, the Forest Service project coordinator will determine the sequence in which each unit will be treated.
4. During certain Limited Operating Periods (LOPs):



- a. California Spotted Owl: Nesting window period March 1 through August 15.
  - b. Northern Goshawk: Nesting window period: February 15 through September 15.
  - c. Unit IDs affected: 0, 7, 8, 9, 32, and 39.
5. After work or staging/servicing is completed within an invasive plant area identified on the georeferenced maps and/or by orange flagging with the words “Noxious Weeds” in black, Contractor shall immediately clean all equipment with a high pressure sprayer prior to deployment to and between units and Project Areas to prevent the possible introduction and spread of weed seeds.
  6. The aquatic buffers for the pre-commercial hand thin treatment and reforestation treatment are outlined in the tables below. These criteria are intended to avoid, eliminate or reduce unintended and undesirable effects of project activities, and to ensure that the project is consistent with the Forest Plan, policy direction, and other laws and regulations.

**Pre-Commercial Hand Thin Aquatic Buffers**

Aquatic Feature Type	Elevation	
	≤4,500'	>4,500'
Perennial Stream	25'	82'
Intermittent Stream	10'	82'
Ephemeral Stream	0'	0'
Meadow/Spring/Pond/Lake	25'	82'

**Reforestation Aquatic Buffers**

Aquatic Feature Type	Elevation	
	≤4,500'	>4,500'
Perennial Stream	50'	107'
Intermittent Stream	25'	107'
Ephemeral Stream	10'	10'
Meadow/Spring/Pond/Lake	50'	107'

Note: all distances are measured from the high water mark or associated riparian vegetation, whichever is greater.

7. Thinning slash shall be removed to a stable position above the high water mark of drainages.
8. All work within and near a waterway must first be surveyed and cleared to ensure the Sierra Nevada Yellow-legged Frog are not present.

**Cultural Resources.** "Protection of Cultural Resources. Location of known historic or prehistoric sites, buildings, objects, and properties related to American history, architecture, archaeology and culture, such as settler or Indian artifacts, protected by the Antiquities Act of 1906 (16 U.S.C. 431-433), National Historic Preservation Act of 1966 (16 U.S.C 470), the Archaeological Resources Protection Act of 1979 (P.L. 96-95), and 36 CFR 261.9(g) will be identified on the ground and shown to the Contractor by the Forest Service before work commences. Discovery of new sites or objects by either party shall be promptly reported to the





other party, and may result in contract modification. The Contractor shall protect all known and identified historic or prehistoric sites, buildings, objects, and properties related to American history, architecture, archaeology and culture against destruction, removal or damage during the Contractor's operations. If such damage is negligently or willfully caused by the Contractor's operations, the Contractor shall be required to bear costs of restoration, provided that such payment shall not relieve the Contractor from civil or criminal remedies otherwise provided by law."

**COVID-19.** Contractor shall adhere to federal, state and local health department guidelines for coronavirus and COVID-19 to ensure protection of CHIPS and Forest Service employees and contractors.

**Evaluation Criteria and Scoring**

The award will be issued to the Contractor based on best value, not lowest bid. A Review Committee shall be responsible for performing the evaluations of each proposal based on the following criteria. Each member of the Committee shall rate the proposals separately. The scores of each Committee member shall be averaged to provide a final score for each of the proposals. The Committee shall meet to consider the scores, discuss the merits of the competitive bids and rank them on value.

1	Completeness of Proposal	Pass/Fail
2	Qualifications & Experience	30 points
3	Approach/Strategy	30 points
4	Cost per Acre for Logging, Mastication and Chipping	30 points
5	Local Benefit	10 points
	Total	100 points

**Completeness of Proposal.** Bid must describe all items listed in rows 2-5 above and include a statement on compliance with the insurance requirements listed below.

**Qualifications & Experience.** Provide Contractor(s) name, license number and proof of licensing currency. Provide an image and a short description with age of the equipment, including fire suppression equipment that will be used on the project, and the names/years of experience of each operator. Specify the name and experience of the Side Rod (Contractor’s representative who will be on-site managing the project on a daily basis). In addition, CHIPS and the Forest Service recognize that projects often require adjustments and is therefore seeking a flexible contractor with the demonstrated ability to negotiate disputes in minimal time to the mutual benefit of both parties. Please provide examples and references, if possible, that demonstrate how your company builds working relationships with contracting agencies that facilitate the pace and scale of forest restoration. Since the project will be implemented during the fire season, provide a written fire plan or customize that in the [RFP Package Folder](#). Provide before and after photos of previous relevant work to demonstrate qualifications for pre-commercial thinning, and creation of individuals, clumps and gaps and spatial heterogeneity, as



feasible. Describe your company's approach and past efforts to foster good community relations with the Forest Service and public at large utilizing National Forest system lands located adjacent to work areas.

**Approach.** Describe the strategy and sequence of operations. CHIPS is seeking a contractor with a history of quality work that is performed safely without interruption apart from fire season restrictions and weather constraints. A history of failures to meet timelines that impact project administration, the schedules of collaborating contractors, and delays in contract closure will reduce your score. Finally, describe your most recent jobs that included a hand thin and/or tree planting including the date that each contract was executed, the date the contract was closed, and the acreage treated.

**Cost.** Provide your cost per acre for each of the units included in your bid as well as the total cost for each Project Area.

**Local Benefit.** In the interest of supporting local business, 10 points will be given to companies based in Calaveras, Alpine and Amador counties. Preference may also be given to companies based in El Dorado and Tuolumne Counties.

### **Insurance**

Selected Contractors, and their Subcontractors as applicable, must provide the CHIPS Project Manager the following documents prior to executing the contract with CHIPS.

1. Workers Compensation Insurance with statutory limits (not less than \$1,000,000 per occurrence);
2. A general Liability Insurance policy (not less than \$2,000,000 for personal injury and property damages per occurrence);
3. Business Auto Liability Insurance (not less than \$1,000,000 combined single limit for bodily injury and property damages covering all vehicles including hired cars, owned and non-owned vehicles);
4. Contractor(s) shall add CHIPS to said insurance policies named as "additionally insured" and provide CHIPS with proof of insurance certificates for all insurance policies throughout the full duration of this Agreement.
5. Contractors are encouraged to purchase Loggers Broad Form insurance.
6. Proof of license in good standing.

### **Non-Discrimination**

CHIPS is an equal opportunity employer. In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free voice (866) 632-9992,



TDD (800) 877-8339, or voice relay (866) 377-8642. USDA is an equal opportunity provider and employer.

**Training, Evaluation and Certification of Sawyers**

Any of the Contractor’s employees, and any participants and volunteers engaged on behalf of the Contractor, who will use chain saws or crosscut saws on National Forest System lands to conduct the program of work contained in this agreement must be trained, evaluated, and certified in accordance with Forest Service Manual 2358 and Forest Service Handbook 6709.11, section 22.48b. The Contractor is responsible for providing this training, evaluation, and certification.

**Bid Sheet**

Project Area	Unit IDs	Estimated Acreage (units of measure)	Unit Price (\$/Acre)	Total Price (\$)
Project Area D	131-255B 132-250A 132-250C 132-258B 132-259A	45		
Project Area E	128-231A 128-231B 128-231C 128-232 128-250 128-253 128-351 129-230 129-231	166		
Project Area	Unit IDs	Estimated Acreage (Estimated Number of Trees)	Unit Price (\$/Tree)	Total Price (\$)
Project Area F	128-235A 128-235B 143-001 143-002 143-051 143-052 143-216 143-218 143-230 143-231	146 (23,000)		

