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trc@timberlandresource.com

November 12, 2018

Georgi Stoyanov
PO Box 476
Garberville, CA 95542

Dear Georgi Stoyanov,

Re: APN 212-311-002 / Application #:11929

The following report is in response to the County's Cannabis Service Division's letter dated October 31, 2018, which states:

Staff review of aerial imagery shows what appears to be a violation of County Code. Specifically, grading and a timber conversion for the purposes of cannabis cultivation occurred without the proper permits particularly for the western pair of greenhouses. A Registered Professional Forester will need to assess the conversion and recommend remedial actions including restoration and restocking. All cannabis cultivation in this area must cease and the greenhouses must be removed.

Timberland Resource Consultants (TRC) inspected and evaluated the western cultivation site contained within the application on November 7, 2018. The RPF exercised due diligence in reviewing all sites and available resources to fully assess potential timberland conversion and consequential impacts. This report evaluates the cultivation site for timber operations only. The scope of this report does not include: all other land alteration (such as grading, construction, and other permit-regulated activities), all property features and sites unrelated to cultivation activities, or any proposed, planned, or absent cultivation-related project sites. All findings are summarized in the report below.

Project Location

APN: 212-311-002

Acreage: 14.5 acres

Legal Description: Sections 10 & 11,

Township 3 South, Range 3 East,

Humboldt Base & Meridian, Humboldt County

Located on USGS 7.5' Quadrangle: Miranda

Humboldt County Zoning: AE and TPZ

Site Address: 5841 Avenue of the Giants, Miranda

Landowner/Timber Owner: Georgi Stoyanov

The project is located in Miranda, Humboldt County, on the property known as 5841 Avenue of the Giants, Miranda

Parcel Description & Timber Harvest History

Note: The property background has been summarized using personal accounts of the current landowner, digital orthographic quadrangle (DOQ) imagery, Humboldt County Web GIS, CAL FIRE Watershed Mapper v2, and Historic Aerials. To avoid speculation and maintain relevancy, the property background focuses mainly on the past 10-15 years.

The property consists of natural grasslands and brush, conifer and hardwood encroachment, and second growth Douglas-fir and madrone. Review of 1968 historic aerial imagery revealed that the entire developed area, including the western cultivation site, was natural grasslands with a slight component of brush encroachment to the west. The balance of the property located farther downslope towards the South Fork Eel River are poorly stocked timber stands composed of Douglas-fir and hardwoods. There have been no commercial harvests per Cal Fire's Watershed Mapper (http://egis.fire.ca.gov/watershed_mapper/). The current landowner purchased the property from Dennis and Kathleen Wallen on 2-26-2016.

Project Description

Western Cultivation Area

The cultivation area presently consists of two 35-foot by 110-foot greenhouses for a total cultivation area of 7,700 ft². Review of historic aerial imagery (Terra Server) reveals that this existing site was graded and enlarged between 2-26-2016 and 7-24-2016. The RPF (Chris Carroll) visited the western site prior to development late spring 2016. The RPF recalls a large grassy opening approximately 0.20 acres in size surrounded by sapling-sized pacific madrone, coyote brush, and blue blossom. One Douglas-fir tree was observed on the southwestern corner of the site. The grassy opening and immediate surrounding areas are typical of natural grasslands being encroached upon by conifer and hardwoods throughout Humboldt County. Please note that this grassy opening is obscured in the 11-4-2015 Terra Server imagery by the trees to the south of the site due to the low angle of the sun. Better photographic evidence of this existing grassy opening can be seen from Terra Server Imagery from 6-9-2015, 7-31-2014, and 6-2-2014.

My most recent visit to the site on November 7, 2018 revealed that the greenhouses mostly occupy the former grassy opening that I observed in 2016. However, the site was clearly expanded around the periphery of the existing grassy flat to increase space and sunlight.

In 2014, the pre-developed size of the natural grassy opening was approximately 0.20 acres. In 2016, the total area of the cleared site was approximately 0.55 acres. However, please note that the approximately 0.35-acre area that was cleared and developed was understocked to poorly stocked timberland per 14CCR 912.7. It was a mixture of brush and madrone, which in the strict sense is "timberland" but certainly far from a fully-stocked productive stand.

Timberland Conversion Summary

TRC observed approximately 0.35 acres of unauthorized timberland conversion. This total does not exceed the three-acre conversion exemption maximum.

Limitations and Considerations for Timberland Conversion Activities

Watercourses and Water Resources

14CCR 1104.1(a)(2)(F): "No timber operations are allowed within a watercourse and lake protection zone unless specifically approved by local permit (e.g., county, city)."

No conversion areas exist within a Watercourse and Lake Protection Zones (WLPZ) or Equipment Exclusion Zone (EEZ) on the property. The RPF closely inspected areas within 100 feet of the cultivation site and observed no watercourses per 14CCR 895.1 as defined below:

Watercourse means any well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil, including but not limited to, streams as defined in PRC 4528(f). Watercourse also includes manmade watercourses.

Conversion activities did not impact watershed resources. The closest watercourse (Class III) is approximately 200 feet north of the site per the WRPP Map.

Slash, Woody Debris, and Refuse Treatment

14 CCR 914.5(b): "Non-biodegradable refuse, litter, trash, and debris resulting from timber operations, and other activity in connection with the operations shall be disposed of concurrently with the conduct of timber operations."

14CCR 1104.1(a)(2)(D) – Treatment of Slash and Woody Debris

- 1) Unless otherwise required, slash greater than one inch in diameter and greater than two feet long, and woody debris, except pine, shall receive full treatment no later than April 1 of the year following its creation, or within one year from the date of acceptance of the conversion exemption by the Director, whichever comes first.
- 2) All pine slash three inches and greater in diameter and longer than four feet must receive initial treatment if it is still on the parcel, within 7 days of its creation.
- 3) All pine woody debris longer than four feet must receive an initial treatment prior to full treatment.
- 4) Initial treatment shall include limbing woody debris and cutting slash and woody debris into lengths of less than four feet, and leaving the pieces exposed to solar radiation to aid in rapid drying.
- 5) Full treatment of all pine slash and woody debris must be completed by March 1 of the year following its creation, or within one year from the date of acceptance of the conversion exemption by the Director, whichever comes first.
- 6) Full slash and woody debris treatment may include any of the following:
 - a) Burying;
 - b) Chipping and spreading;
 - c) Piling and burning; or
 - d) Removing slash and woody debris from the site for treatment in compliance with (a)-(b). Slash and woody debris may not be burned by open outdoor fires except under permit from the appropriate fire protection agency, if required, the local air pollution control district or air quality management district. The burning must occur on the property where the slash and woody debris originated.
- 7) Slash and woody debris, except for pine, which is cut up for firewood shall be cut to lengths 24 inches or less and set aside for drying by April 1 of the year following its creation. Pine slash and woody debris which is cut up for firewood shall be cut to lengths 24 inches or less and set aside for drying within seven days of its creation.
- 8) Any treatment which involves burning of slash or woody debris shall comply with all state and local fire and air quality rules.

No slash, woody debris, and/or logs were observed.

Limitations and Considerations for Timberland Conversion Activities (Cont.)

Biological Resources and Forest Stand Health

14 CCR 1104.1 (2)(H): "No sites of rare, threatened or endangered plants or animals shall be disturbed, threatened or damaged and no timber operations shall occur within the buffer zone of a sensitive species as defined in 14 CCR 895.1"

A query of the California Natural Diversity Database (CNDDDB) on November 9, 2018 revealed two observations of sensitive, rare, threatened, or endangered species or species of special concern within a 0.7-mile radius biological assessment area (BAA) surrounding the property. Common porcupine and white-flowered rein orchid were observed within the BAA but are at a distance greater than 3,000 feet from the conversion area. Neither of these species are state or federally listed species which warrant protection under the Forest Practice Rules. No sensitive, rare, threatened, or endangered species or species of special concern were observed during the TRC field assessment of the project area, though potential habitat may exist on the property. The query of the CNDDDB revealed no known Northern Spotted Owl (NSO) Activity Centers within 0.7 miles of the project area.

No major forest health issues were observed during the field assessment. Though the property is located within Humboldt County, a Zone of Infestation (ZOI) for Sudden Oak Death (SOD), no symptoms, signs, or evidence of oak mortality were observed (*Oak Mortality Disease Control*). According to UC Berkeley's Mobile SOD Map, no SOD infections are located within a one-mile radius of the property. No risk assessment was made at the property. The conversion activities do not appear to have impacted forest health.

The conversion areas did not include late successional stands, late seral stage forests, or old growth trees. The conversion area did not include any trees that existed before 1800 A.D. and are greater than sixty (60) inches in diameter at stump height for Sierra or Coastal Redwoods, and forty-eight (48) inches in diameter at stump height for all other tree species.

Cultural Resources

14 CCR 1104.1 (2)(I): "No timber operations are allowed on significant historical or archeological sites."

No archeological sites were observed during the TRC field assessment. The RPF conducted pre-field research for the project's geographic location and closely surveyed the converted sites and surrounding undisturbed areas for presence or evidence of prehistoric or historic sites. The archaeological survey was conducted by Chris Carroll, a certified archaeological surveyor with current CALFIRE Archeological Training (Archeological Training Course #575). The survey consisted of examining boot scrapes, rodent disturbances, natural and manmade areas of exposed soils, and road and cultivation site surfaces.

Per 14 CCR 1104.2(2)(I), all required Native American tribes and organizations have been notified of the project location and are encouraged to respond with any information regarding archaeological sites, cultural sites, and/or tribal cultural resources within or adjacent to the project area.

Recommendations

In summary, a total of 0.35 acres of unauthorized timberland conversion has occurred within APN 212-311-002. This total does not exceed the three-acre conversion exemption maximum. The conversion activities conducted on the property comply with the California Forest Practice Act and the California Forest Practice Rules.

The conversion occurred around the perimeter of a non-stocked grassy opening composed of an understocked to poorly stocked stand of brush and madrone. Based upon my site visit in 2016, which occurred pre-expansion; it is my professional opinion that the greenhouses occupy the existing grassy opening. It appears that the conversion area was associated with the expansion of the site, which is presently a graded flat surrounding the greenhouses.

The conversion of poorly stocked madrone growing along the periphery of the existing grassy opening can be easily mitigated by the planting of Group A Species at a ratio of 3:1. The Applicant/landowner shall interplant the surrounding/adjacent timber stands with a minimum 500 redwood and/or Douglas-fir trees. The 0.35 acres of conversion will require a minimum of 1.05 acres of re-stocking with conifers. The planting of 500 trees at approximately 10-foot by 10-foot spacing around Group A and Group B species will likely involve much more than 1.05 acres of area planted. The planting area is depicted on the attached map, which is approximate and is expected to be larger. The re-planting with conifers (Group A) will meet the intent of the Forest Practice Rules (14CCR 897 Implementation of Act Intent), which states; *"The goal of forest management on a specific ownership shall be the production or maintenance of forests which are healthy and naturally diverse, with a mixture of trees and under-story plants, in which trees are grown primarily for the production of high-quality timber products..."*. The planting of conifers shall occur per the attached Regeneration Plan.

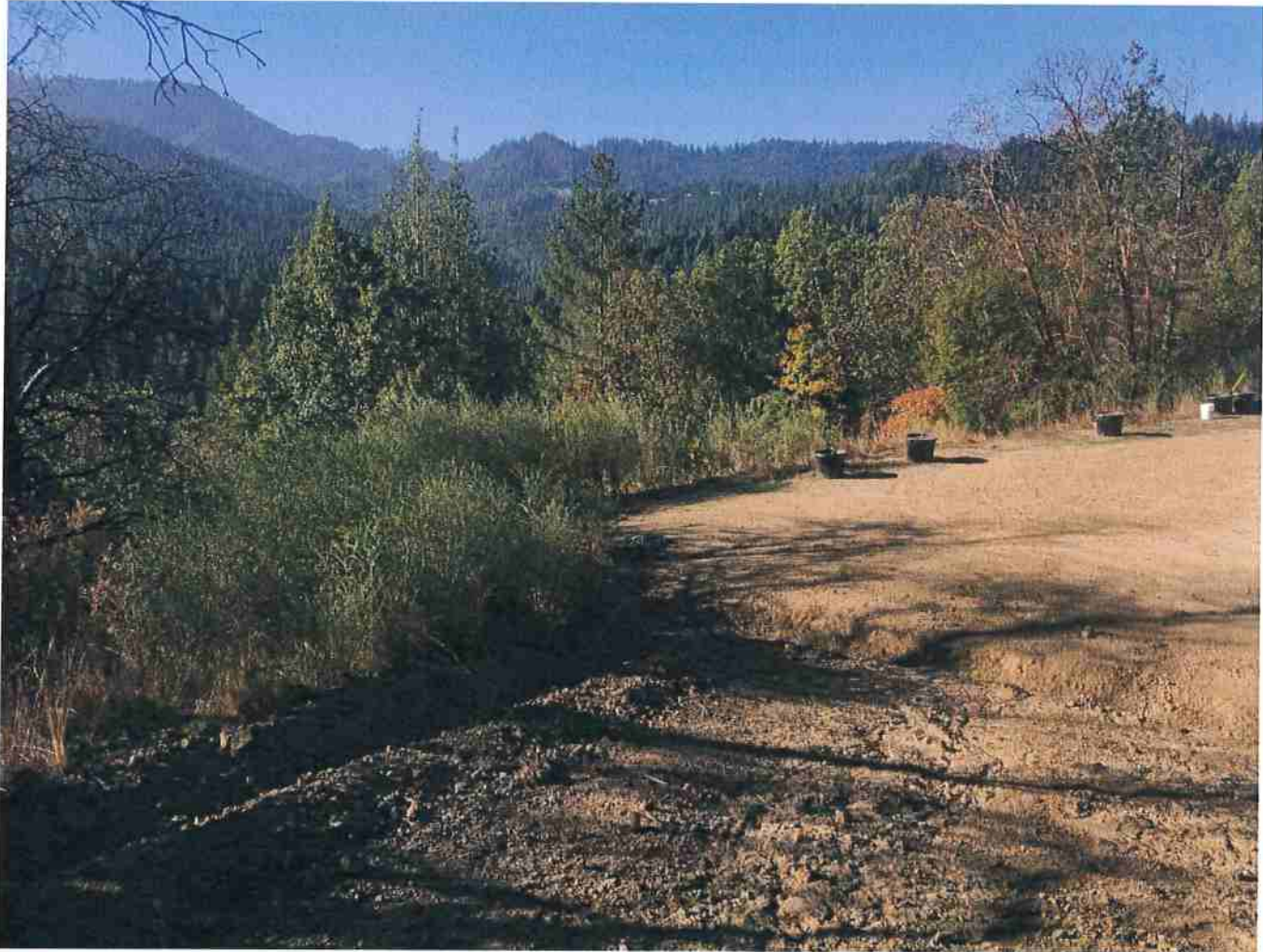
The RPF does not recommend moving the western cultivation site to another location because of the recent conversion activities that occurred post 2016. This site is excellent for the protection of watershed resources due to its flat, ridge-top location and distance from watercourses and wet areas.

Sincerely,



Chris Carroll, RPF #2628
Timberland Resource Consultants

Pictures



Picture 1: Brush and poorly stocked timberland in background (looking westerly), which shall be planted per the Regeneration Plan. Photo date 11-7-2018.

Pictures



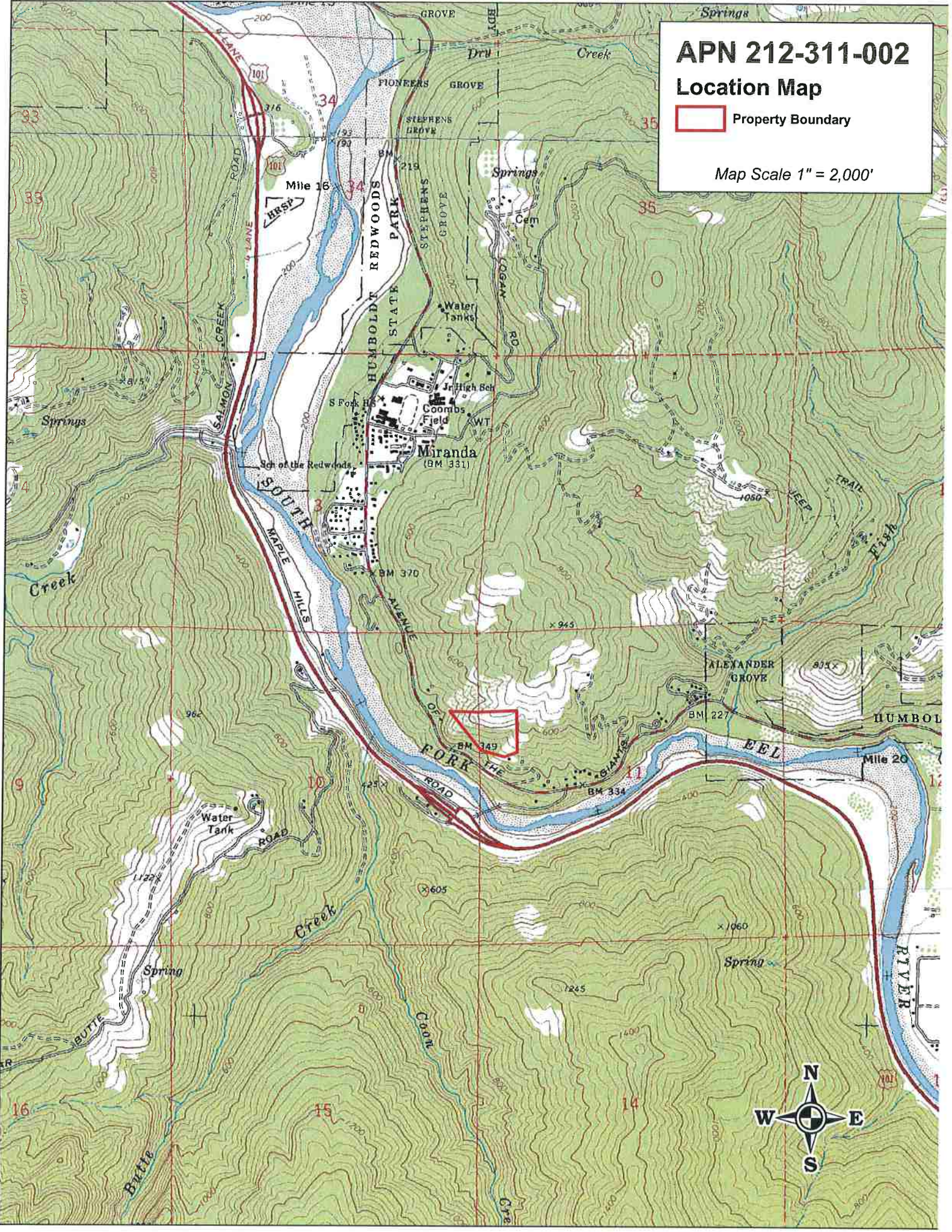
Picture 2: Brush and poorly stocked timberland (photo right-easterly), which shall be planted per the Regeneration Plan. Photo date 11-7-2018.

APN 212-311-002

Location Map

 Property Boundary

Map Scale 1" = 2,000'

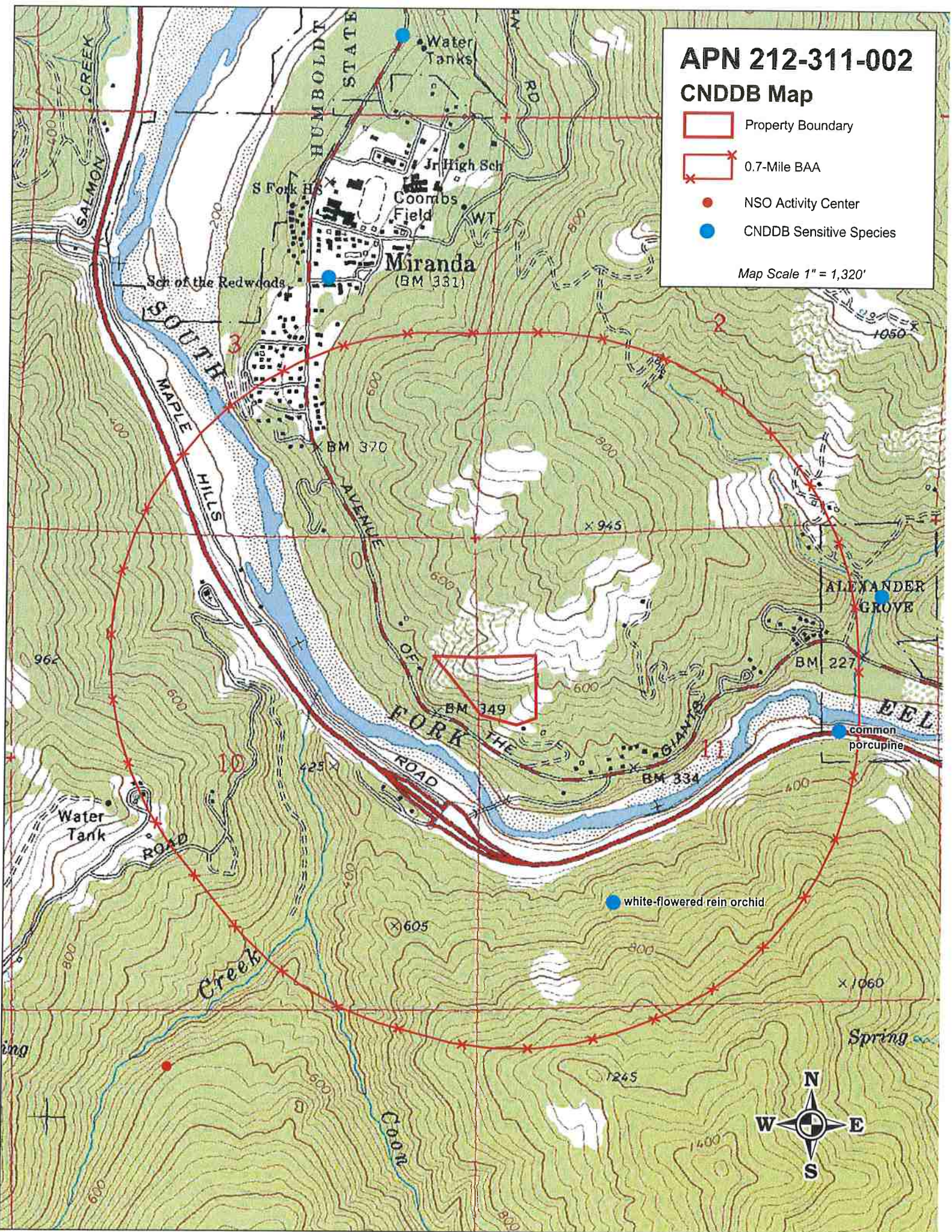


APN 212-311-002

CNDDDB Map

-  Property Boundary
-  0.7-Mile BAA
-  NSO Activity Center
-  CNDDDB Sensitive Species


Map Scale 1" = 1,320'



APN 212-311-002

Conversion Map

 Property Boundary

 Western Cultivation Site

 Planting Area

Map Scale 1" = 125'



APN 212-311-002

Conversion Map

 Property Boundary

 Western Cultivation Site

 Planting Area

Map Scale 1" = 125'





**RESTOCKING PLAN
FOR
APN 212-311-002**

November 11, 2018

165 South Fortuna Blvd
Fortuna, CA 95540
707-725-1897
707-725-0972 Fax
trc@timberlandresource.com

Regeneration Plan

Site Preparation: Site preparation is a widely used method to facilitate the establishment of a desirable stand of trees. Site preparation activities remove or reduce competing vegetation, reduce or remove unwanted trees and logging debris, and prepare the soil to promote the growth and survival of desired tree species. There are many methods of site preparation that fall under either chemical or mechanical site preparation. The primary objective is to have an area suitable for planting and establishing a new stand of trees. If heavy equipment is available, the RPF recommends subsoiling/ripping the planted sites. Subsoiling/ripping is a mechanical site prep method for heavy soils on cutover or agricultural lands that have a compacted layer at or below the soil surface that limits root growth and development. Subsoiling/ripping increases aeration and water-holding capacity of compacted soils and breaks up root restricting hardpans and/or traffic pans.

Planting: The RPF recommends planting 500 redwood and Douglas-fir seedlings at a spacing no less than 10 feet by 10 feet or 435 trees per acre. If deer browsing is expected (landowner's local knowledge), then the density can be slightly increased to account for mortality and/or damage. The planting area is delineated on the Conversion Map and consists of the area located along the periphery of the Western Cultivation Site. Tree shall be interplanted between madrone and Douglas-fir.

Seedlings: Most conifer seedlings that come from the nursery are usually available in two forms; bareroot seedlings and containerized seedlings. Bareroot seedlings are essentially stock whose roots are exposed at the time of planting. Bareroot seedlings are grown in nursery seedbeds and lifted from the soil in which they are grown to be planted in the field. Containerized seedlings are grown in a variety of hard-walled vessels or in peat pots from seed. Given the conditions of the site and the higher survival rate associated with containerized stock, the RPF recommends using containerized seedlings if available. Seedling care and handling is extremely important to ensure post planting survival. For long-term storage (more than 3 days) store at 33-36 degrees Fahrenheit. For short-term storage (several hours to less than 3 days) store below 42 degrees Fahrenheit. At the planting site take care to not let the roots dry out and avoid exposure to the sun or warmer temperatures.

Planting Instructions:

1. Tree planting shall only occur in winter or early spring. Tree planting should not occur if the ground is frozen, or during unusually warm periods.
2. Dig a hole at least one inch deeper and wider than the seedling roots. If planting from a container, dig the hole an inch deeper and wider than the container.
3. Place the seedling into the hole taking care not to bend the taproot, or main vertical root, and cover with soil.
4. Pack the soil down firmly around the seeding to remove any air pockets.
5. See Appendix A-D for illustrations for correct planting techniques.

6. The RPF recommends acquiring conifer seedlings from Green Diamond Resource Company's nursery in Korbek. Contact Glen Lehar @ 707-668-4439. Indicate the elevation and geographic area of the planting site and he will recommend the appropriate stock.

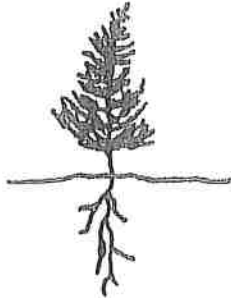
Sincerely,



Chris Carroll, RPF# 2628
Timberland Resource Consultants

APPENDIX A

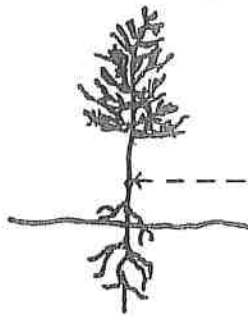
CORRECT METHOD OF SEEDLING PLANTING



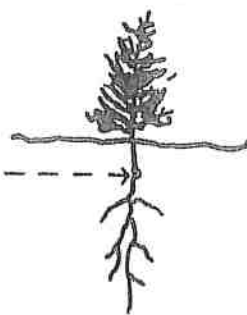
- Soil firmly packed around roots.
- No air pockets.
- Roots straight with no J or L bends.
- Root collar at or slightly below ground level.
- Root not pruned.

ERROR IN PLANTING

Too shallow



Too Deep



Root Collar

- Hole not deep enough.
- Root collar and upper roots exposed.
- Roots dry out.

- Hole is too deep.
- Root collar buried.

J or L Roots



Air Pockets



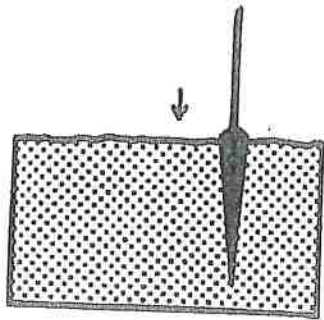
Root Collar

- Hole is not deep enough — planting in rocky soil.
- Roots cannot effectively take up water.
- Tree not wind-firm.

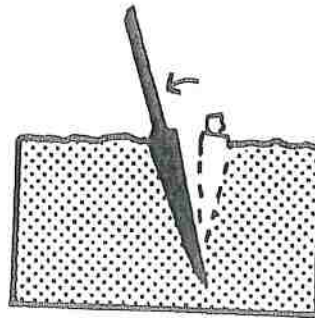
- Soil not firmly packed around roots.
- Air pocket forms.
- Roots dry out.

APPENDIX B
PLANTING WITH A FLAT BAR

1. Insert flat bar straight down.

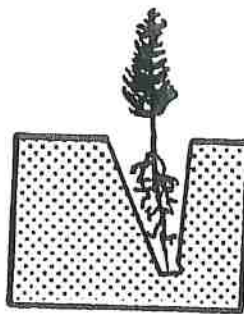


2. Pull flat bar backward to open hole.

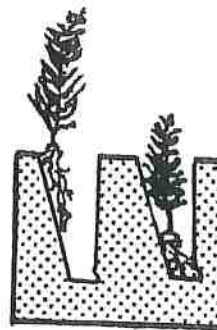


3. Remove flat bar and place seedling at correct depth with root collar at or slightly below ground level.

Correct

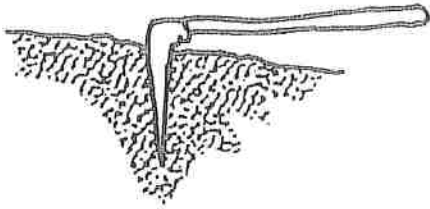


Incorrect

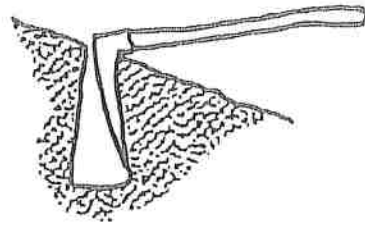


APPENDIX C
PLANTING WITH A HOE

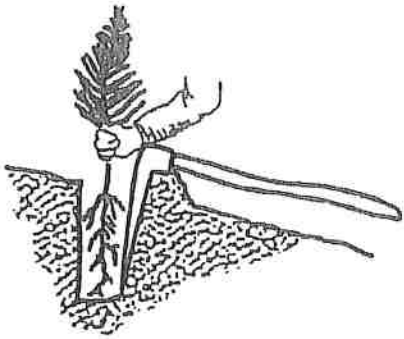
1. Swing hoe to get full penetration.



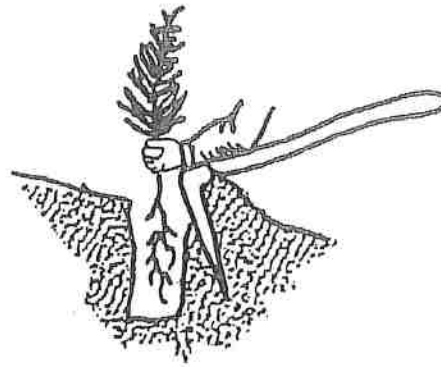
2. Lift handle and pull up to widen hole.



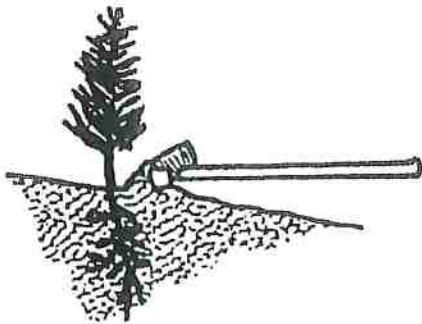
3. Place seedling while using hoe to hold back soil.



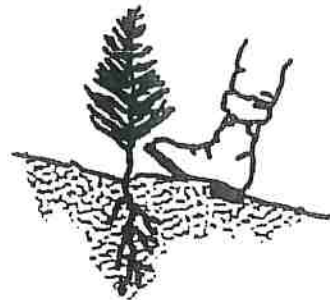
4. Use hoe to pack soil at bottom of hole.



5. Use hoe to pack soil at top hole.



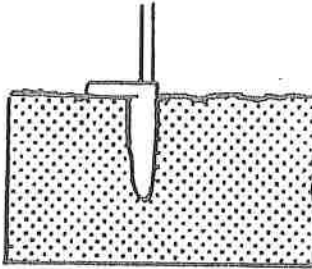
6. Firm soil around seedling with feet.



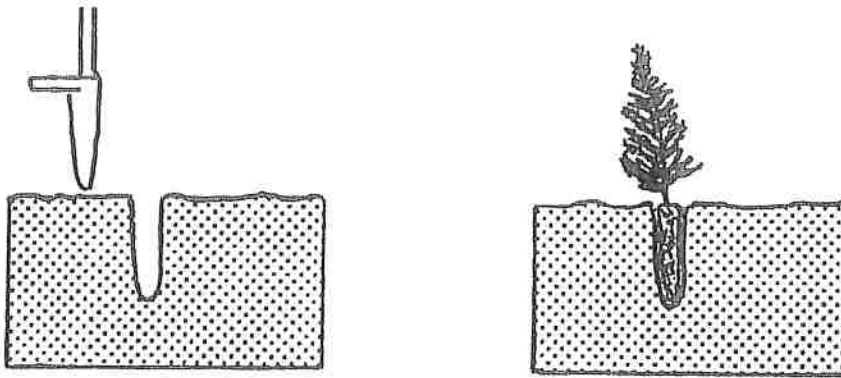
APPENDIX D

PUNTING WITH A PLUG BAR

1. Insert plug bar straight down until plug bar footrest is level with ground.



2. Remove plug bar and place seedling in hole.



3. Firm soil around seedling with heel of boot.

