



165 South Fortuna Boulevard, Fortuna, CA 95540

707-725-1897 • fax 707-725-0972

trc@timberlandresource.com

April 26, 2024

Attention: Cannabis Services Division
Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501

Re: APN 221-021-026
PLN-11543-CUP

This Timberland Conversion Evaluation is being provided in response to Collin Slavey's email dated January 16, 2024, which states in part:

Another issue- so there seems to be a significant amount of timber removal that occurred in the last couple of years. This timber removal was not assessed in the previous Timber Conversion Report. Was this conversion permitted by Cal Fire? Also, it seems like the proposed mixed light greenhouses are going to be in that converted area. Do you have any info?

Thank you,



Collin Slavey

Planner

[Planning and Building Department](#)

3015 H Street | Eureka, CA 95501

Phone: 707-445-7541

Email: cslavey@co.humboldt.ca.us

Timberland Resource Consultants (TRC) inspected and evaluated the cultivation site and nearby/adjacent areas within the subject property on April 13, 2024 for potential tree removal and timberland conversion. The RPF identified three areas which have been harvested since the original Timberland Conversion Evaluation dated August 15, 2018 as listed in the table below.

Site	Total Acreage	Converted?	Converted Acreage
Greenhouse #7	0.10	Yes	0.10
Greenhouse #8	0.14	Yes	0.14
Tree Removal Area	0.87	No	0.87
Total	0.24		0.24

Greenhouse #7

Cultivation Site 2, as shown in the original Timberland Conversion Evaluation dated August 15, 2018, appears to have been slightly enlarged to the southwest near Greenhouse #7 as shown on the MIB2 Property Plan (attached). Approximately 0.10 acres was converted between 2016 and 2018 as shown in the NAIP imagery below.



2016



2018

Greenhouse #8

The original Timberland Conversion Evaluation dated August 15, 2018 did not identify this area as "converted" because there were no signs of cannabis cultivation during the field inspection. However, upon further research this area contained full-term cannabis cultivation as shown below in the 2014 NAIP imagery.



Greenhouse #8 site was slightly from 0.05 acres in 2019 to 0.19 acres in 2020, which is a net increase of 0.14 acres as shown below in the 2020 NAIP imagery.

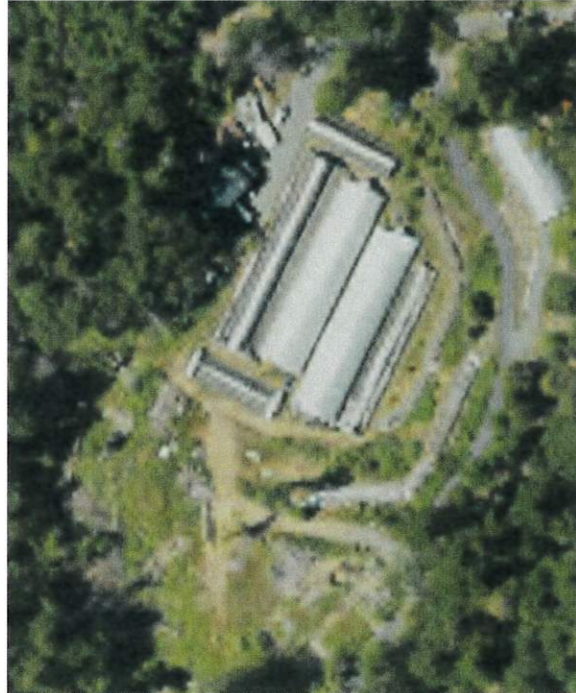


Tree Removal Area

The Tree Removal Area was harvested in September 2020 for defensible space (per the landowner) with no signs of timberland conversion observed during the April 13, 2024 field visit. At the request of the landowner, the RPF inspected the tree removal area in September 2020 concurrent with timber harvesting operations and advised the landowner of the requirements for slash cleanup per Cal Fire's General Guidelines for Creating Defensible Space, February 8, 2006. The RPF attempted to obtain a Cal Fire permit using one or a combination of the following: Structure Protection Exemption, Forest Fire Prevention Exemption, and Notice of Emergency. However, all the permits require a Licensed Timber Operator to be listed on the permit upon submission to Cal Fire and I was unable to find a LTO interested in the job based upon economic infeasibility.



2020



2022

Cal Fire Timber Harvesting Regulations

The California Department of Forestry and Fire Protection (CAL FIRE) enforces the laws that regulate logging on privately-owned lands in California. Compliance with the Forest Practice Act and Board rules apply to all commercial harvesting operations and timberland conversion. Permitting from Cal Fire is required if the operation involves the cutting of the trees for commercial purposes or for timberland conversion. A permit from Cal Fire is only required when "timber operations" occur per Public Resource Code §4527.

If the timber removed in association with the creation of defensible space is offered for sale, barter, exchange, or trade; then permitting through Cal Fire is required. If the creation of defensible space results in timberland conversion; then permitting through Cal Fire is required

Humboldt County Regulations

The subject property is zoned Unclassified. Timber harvesting is a principally permitted activity within such zoned lands and no Special Permit is required. There is no legal requirement for Humboldt County permitting for the timber harvesting that occurred. However, due to the Tree Removal Area's proximity to the cannabis cultivation operation, and the potential for additional timberland conversion, the RPF advised the landowner to avoid use and/or development of the tree removal area, and allow it to naturally regenerate

without further disturbance. In addition, the RPF advised the landowner to obtain the services of an RPF for any future timber harvesting. Based upon the conditions observed on April 13, 2024 the tree removal area is naturally regenerating with Douglas-fir seedlings black oak stumps sprouts, and tanoak and pepperwood stump sprouts. Provided there is no additional disturbance to the area; the RPF expects the Tree Removal Area to meet the stocking standards of 14CCR 912.7 by January 1, 2025 with no requirement for artificial regeneration.

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)."

Greenhouse #7 and Greenhouse #8 are not located within a Watercourse and Lake Protection Zone (WLPZ). Further, neither are not located within a riparian buffer per State Water Resources Control Board Order WQ 2019-0023-DWQ, or a Humboldt County Stream Management Area.

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

Slash and woody debris generated during the development of Greenhouse #7 and Greenhouse #8 has been treated.

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 April 25, 2024 revealed no 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. The query of the CNDDDB NSO Database revealed no Northern Spotted Owl (NSO) Activity Centers within a 0.7-mile radius biological assessment area (BAA) surrounding the property.

Sudden Oak Death

No major forest health issues were observed during the field assessment. The property is located within Humboldt County, a Zone of Infestation (ZOI) for Sudden Oak Death (SOD) but the RPF observed no symptoms, signs, and evidence of oak mortality within the subject property.

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 site 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.

Recommendations

In summary, a total of 0.24 acres of unauthorized timberland conversion has occurred within APN 221-021-026. The RPF has the following recommendations:

1. Remove any man-made/artificial material except solar panels from the Tree Removal Area and avoid use and/or development of the area and allow it to naturally regenerate without further disturbance.
2. To mitigate the minor loss of timber at Greenhouse #7 and Greenhouse #8, the landowner shall replant Cultivation Site 3 (0.3 acres) as shown in the original Timberland Conversion Evaluation dated August 15, 2018. The trees shall be planted per the attached Restocking Plan.

Sincerely,



Chris Carroll, RPF #2628
Timberland Resource Consultants

Photos



Photos 1-2: Douglas-fir regeneration at Tree Removal Area. Photo date 4-13-2024

Photos



Photos 3-4: Black oak coppice sprouting at Tree Removal Area. Photo date 4-13-2024

Photos



Photo 5: Greenhouse #8. Photo date 6-11-2020










Photos



Photos 6-7: Restocking site. Photo date 6-11-2020

APN 221-021-026

2024 Conversion Evaluation Map

-  Property Boundary
-  Timberland Conversion
-  Restocking Area
-  Tree Removal Area
-  Class III Watercourse
-  Swale Feature
-  Class II Watercourse
-  Paved Road
-  Seasonal Dirt Road

Map Scale 1" = 150'
Section 4, T3S, R2E, HBM
Ettersburg USGS Quadrangle

Greenhouse #7










Greenhouse #8


NORTH

2022 NAIAP DOQ

APN 221-021-026

2024 Conversion Evaluation Map

-  Property Boundary
-  Timberland Conversion
-  Restocking Area
-  Tree Removal Area
-  Class III Watercourse
-  Swale Feature
-  Class II Watercourse
-  Paved Road
-  Seasonal Dirt Road

Map Scale 1" = 150'
Section 4, T3S, R2E, HBM
Ettersburg USGS Quadrangle

Greenhouse #7










Greenhouse #8



2016 NAIP DOQ

APN 221-021-026

2024 Conversion Evaluation Map

-  Property Boundary
-  Timberland Conversion
-  Restocking Area
-  Tree Removal Area
-  Class III Watercourse
-  Swale Feature
-  Class II Watercourse
-  Paved Road
-  Seasonal Dirt Road

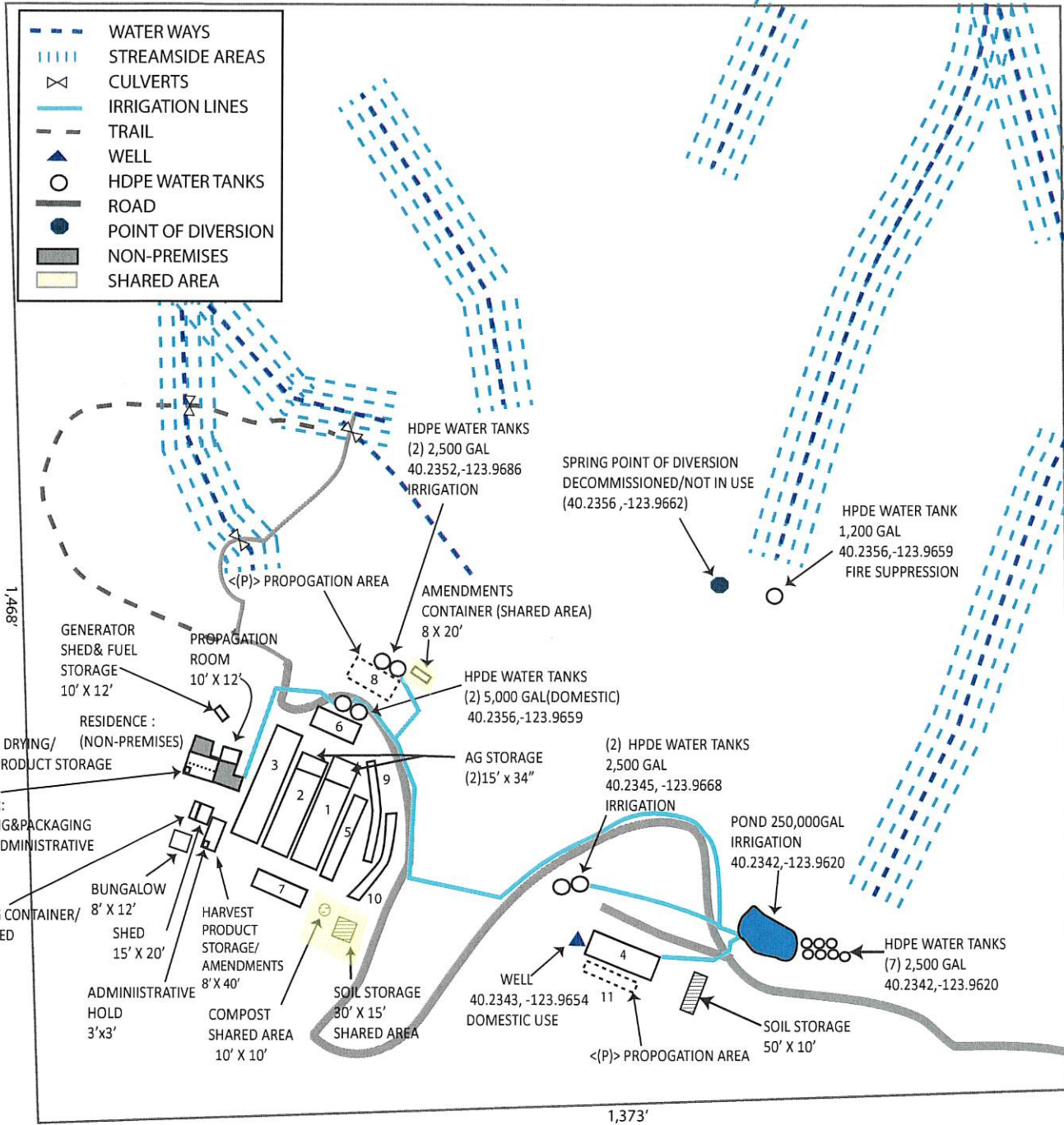
Map Scale 1" = 150'
Section 4, T3S, R2E, HBM
Ettersburg USGS Quadrangle

Greenhouse #7

Greenhouse #8



PROPERTY BOUNDARY



TOTAL CANOPY AREA: 31,910 SQFT / APN: 221-021-026

OUTDOOR

CULTIVATION AREA: 21,914

- GREENHOUSE #3 : 34' X 167' = 5,678 SQFT
- GREENHOUSE#4: 34' X 119' = 4,046 SQFT
- GREENHOUSE#5: 20' X 142' = 2,840 SQFT
- GREENHOUSE#6 25' X 75' = 1,875 SQFT
- GREENHOUSE#7: 25' X 75' = 1,875 SQFT
- GREENHOUSE#9: 8' X 190' = 1,520 SQFT
- GREENHOUSE#10: 8' X 170' = 1,360 SQFT

MIXED-LIGHT (ML) CULTIVATION

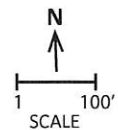
(5,650 RELOCATED FROM SMA, 4,350 SWAPPED FROM GH4)

CULTIVATION AREA: 9,996 SQFT

- GREENHOUSE#1: 34' X 162' = 5,508 SQFT
- GROW AREA : 34' X 147' = 4,998 SQFT
- GREENHOUSE#2 : 34' X 154' = 5,236 SQFT
- GROW AREA : 34' X 147' = 4,998 SQFT

PROPOSED PROPOGATION

- GREENHOUSE #11: 20' X 75' = 1,500 SQFT
- GREENHOUSE#8: 34' X 80' = 2,720 SQFT





RESTOCKING PLAN

FOR

APN 221-021-026

PLN-11543-CUP

April 26, 2024

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

Restocking Plan

Restocking Area: See 2024 Conversion Evaluation Map.

Site	Total Acreage / Square ft ²	# Trees at 18'x18' Spacing
Restocking Area	0.30 / 13,068	40

Site Preparation: Site preparation is commonly utilized to facilitate timber stand establishment. The primary objective of this practice is to create an area suitable for planting seedlings and establishing a new stand of trees. Site preparation activities remove or reduce competing vegetation, reduce, or remove unwanted trees and logging debris, and prepare the soil to ultimately 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. Subsoiling/ripping is a mechanical site prep method for heavy soils on cutover timberlands 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.

Recommendation: No heavy equipment is required for restocking this site. If compacted surface soil is encountered; trees can be planted with a gas-powered hand auger if necessary.

Types of Seedlings: Harvested and/or understocked timberlands should be artificially regenerated with naturally-occurring conifer species and cultivars well-adapted to the timber stand's specific climate, elevation, and other environmental conditions. Planting seedlings from appropriate seed zones and elevation ranges ensures better seedling success and, eventually, a more resilient timber stand. Specifically, conifer timberland within the property is characterized by Douglas-fir. The area to be planted occurs within California Seed Zone 303 at approximately 1,500 feet in elevation.

Recommendation: The landowner shall plant Douglas-fir (best suited for Seed Zone 303 at approximately 1,500 elevation) at a uniform spacing no less than 18-feet by 18-feet, or 134 trees per acre.

Most conifer seedlings that come from nurseries are 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 individually in a variety of hard-walled vessels or in peat pots from seed. They are typically more expensive than bareroots but usually have a higher survival rate after planting due to their well-formed root system.

Recommendation: Given the conditions of the site and the higher survival rate associated with containerized stock, use containerized seedlings if available.

Seedling Care: Seedling care and handling is extremely important to ensure post planting survival.

Recommendation: For long-term storage (more than 3 days), store seedlings at 33 to 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 not to let the roots dry out and avoid exposure to the sun or warmer temperatures.

Restocking Plan

Planting Instructions: When planting seedlings, the landowner or tree planter should abide by the following:

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 Appendices A-D for illustrations for correct planting techniques.

Stock Purchase: Ideally, landowners should procure seedlings from sources growing local, site-specific stock. Appropriate stock is determined by stand type, seed zone, elevation, as well as other factors like soil type, site quality, and weather.

Recommendation: The RPF recommends acquiring conifer seedlings from one of the following sources: <https://www.jonsteen.com/>, <https://www.samararestoration.com/>, <http://www.calforest.com/>, <https://sequoiatrees.com/>, <https://rngr.net/>, or contact Timberland Resource Consultants for assistance.

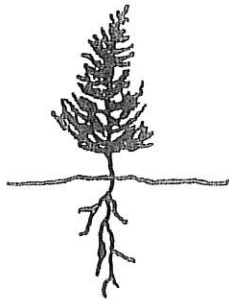
Monitoring Seedling Survival: Although a newly planted stand immediately fulfills stocking standards, the timber stand must continually contain an average density of at least 125 trees per acre (or 18.66-foot by 18.66-foot spacing) in order to meet the intent of the California Forest Practice Rules (CFPRs). A **Countable Tree** per 14CCR 895.1 must be in place at least two growing seasons among other requirements.

Recommendation: Monitor growth and success of planted trees one year after planting. An RPF should conduct a point count stocking sampling survey per 14CCR 1072. If less than 55% of the planted area meets the 125-point count minimum stocking level, repeat the planting process.

Certification: Within five years of planting, a report of stocking shall be submitted to the county by an RPF, which certifies that the area meets the minimum stocking standards of 14 CCR 912.7.

APPENDIX A

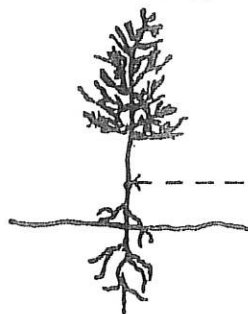
CORRECT METHOD OF SEEDLING PLANTING



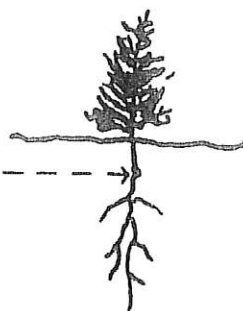
- Soil firmly packed around roots.
- No air pockets.
- Roots straight with no J or L bends.
- Root collar at or slightly below ground level.
- Root not pruned.

ERROR IN PLANTING

Too shallow



Too Deep



Root Collar

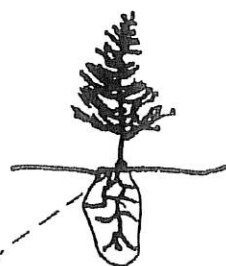
- Hole not deep enough.
- Root collar and upper roots exposed.
- Roots dry out.

- Hole is too deep.
- Root collar buried.

J or L Roots



Air Pockets

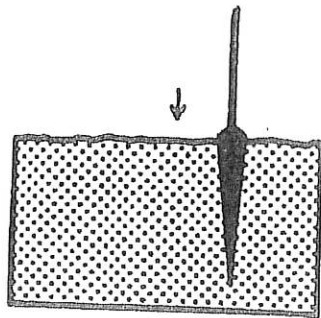


Hole is not deep enough — planting in rocky soil.
 Roots cannot effectively take up water.
 Tree not wind-firm.

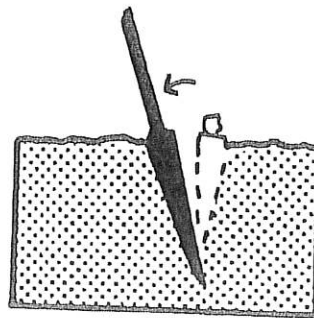
- Soil not firmly packed around roots.
- Air pocket forms.
- Roots dry out.

APPENDIX B
PLANTING WITH A FLAT BAR

1. Insert flat bar straight down.

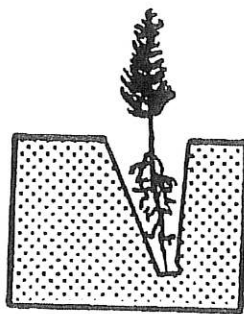


2. Pull flat bar backward to open hole.

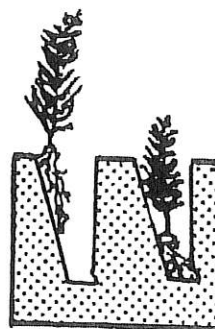


3. Remove flat bar and place seedling at correct depth with root collar at or slightly below ground level.

Correct

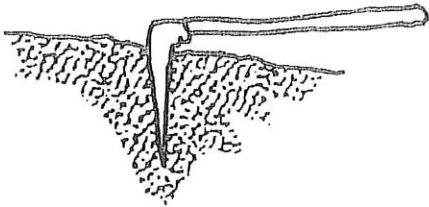


Incorrect

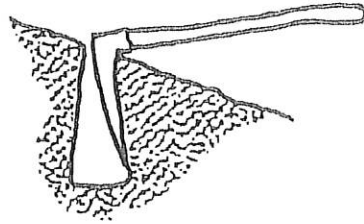


APPENDIX C
PLANTING WITH A HOE

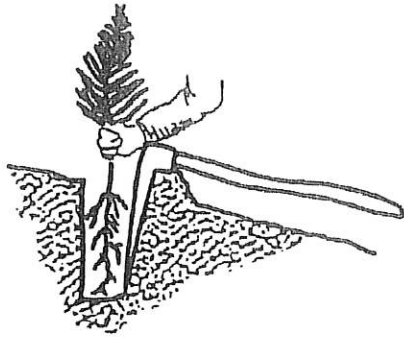
1. Swing hoe to get full penetration.



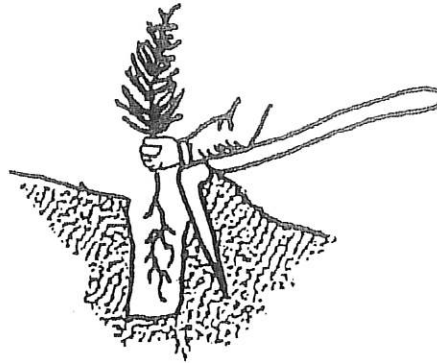
2. Lift handle and pull up to widen hole.



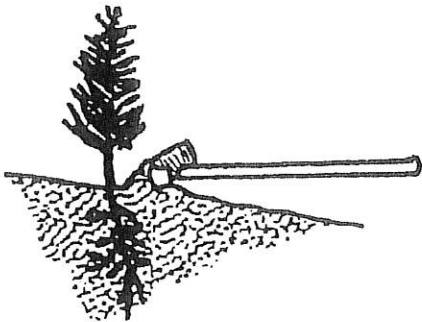
3. Place seedling while using hoe to hold back soil.



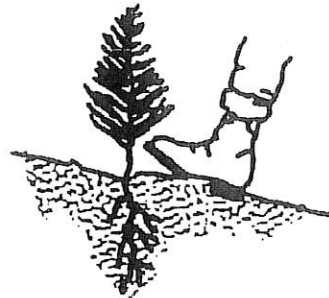
4. Use hoe to pack soil at bottom of hole.



5. Use hoe to pack soil at top hole.



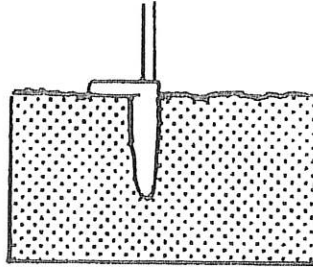
6. Firm soil around seedling with feet.



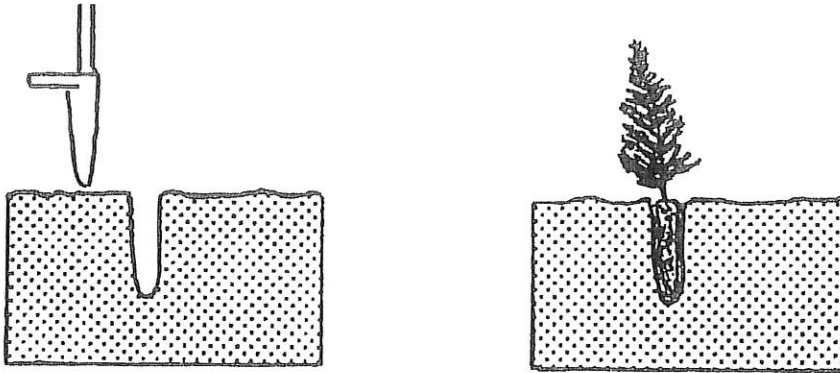
APPENDIX D

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 seeding with heel of boot.

