# **FORESTRY**



165 South Fortuna Boulevard, Fortuna, CA 95540 707-725-1897 • fax 707-725-0972 trc@timberlandresource.com

January 16, 2020

Cali's Finest Gardens LLC Attention: Kurt Moffit 3441 L Street Eureka, CA 95503

Dear Kurt,

Re: APN 210-072-009 Application #12468

The following report is being provided to the county in response to a request by PR Professional Services and the landowner to address recent timber harvesting that occurred on the property. Timber harvesting occurred within the vicinity of an existing cannabis cultivation site and residence. Due to the proximity of the timber harvesting to a cannabis cultivation site; the RPF has evaluated the timber harvesting for potential timberland conversion and potential significant adverse impacts to wildlife, water quality, archeology resources, and other resource areas requiring protection in the Forest Practice Act and Rules. This property is presently within the permitting process for commercial cannabis cultivation in association with Humboldt County Cannabis Permit Application #12468. Please accept this letter as the RPF's written report required by Humboldt County Code, Ordinance No. 2559 (Commercial Medical Marijuana Land Use), Section 55.4.10 (j), sited below.

"Alternately, for existing operations occupying sites created through prior unauthorized conversion of timberland, if the landowner has not completed a civil or criminal process and/or entered into a negotiated settlement with CALFIRE, the applicant shall secure the services of a registered professional forester (RPF) to evaluate site conditions and conversion history for the property and provide a written report to the Planning Division containing the RPF's recommendation as to remedial actions necessary to bring the conversion area into compliance with provisions of the Forest Practices Act. The Planning Division shall provide CAL-FIRE written Notice of Availability of the RPF's report. If CAL-FIRE takes no action within ten (10) days of the notice of availability, the report recommendations shall become final."

Timberland Resource Consultants (TRC) inspected and evaluated the timber harvesting areas contained within the application on December 20, 2019. The RPF exercised due diligence in reviewing all sites and available resources to fully assess potential timberland conversion and consequential impacts. 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: 210-072-009 Acreage: 258 acres

Legal Description: Western 1/2 of Section 25,

Township 1 North, Range 4 East,

Humboldt Base & Meridian, Humboldt County

Located on USGS 7.5' Quadrangle: Larabee Valley

Humboldt County Zoning: Unclassified, Agricultural Exclusive, and Timber Production

APN 210-072-009 - Timberland Conversion Evaluation

# Project Location (Cont.)

Site Address: None

Landowner/Timber Owner: 2 Lucky Logging LLC Co

The project is located in Larabee Valley adjacent to State Highway 36. Access to the property and project area is via China Mine Road.

# 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 Douglas-fir encroachment, oak woodlands (California black oak and Oregon white oak), and natural grasslands. Review of historic aerial imagery (<a href="https://www.historicaerials.com">https://www.historicaerials.com</a>) from 1947 reveals that the majority of the property was a combination of oak woodlands and natural grassland with a minor component of old growth/mature Douglas-fir located along Mule Creek. Review of 1968 imagery reveals that the old growth/mature Douglas-fir was harvested. Review of subsequent aerial imagery from 1993 to present (NAIP, Google, and Terra Server) reveals a slow but steady progression from grassland and oak woodland to Douglas-fir. Oak woodlands and natural grasslands have been shrinking due to Douglas-fir encroachment. Present timber stand composition are a mosaic of pure oak woodland and mixed stands of Douglas-fir, California black oak, and Oregon white oak. Stand structure within the latter stand type ranges from even-aged stands dominated by Douglas-fir to all-aged stands with multiple age classes in various stages of encroachment. Since the original harvest of old growth in the southern portion of the property, there have been no subsequent commercial harvests per Cal Fire's Watershed Mapper (<a href="http://egis.fire.ca.gov/watershed\_mapper/">http://egis.fire.ca.gov/watershed\_mapper/</a>). The current landowner purchased the property in September 2018.

# **Project Description**

The recent timber harvesting has occurred in two distinct areas within the vicinity of the western-most cannabis cultivation site as shown on the attached map.

Timber Harvesting Area	Total Acreage	Converted?	Converted Acreage
Eastern Area	1.18	No	0.00
Western Area	0.64	No	0.00
TOTAL	1.82		0.00

#### Eastern Timber Harvesting Area

This site is located north, south and east of the residence. The timber stands harvested consisted of (1) California black oak located within a 100-foot radius surrounding the residence, and (2) even-aged second growth Douglas-fir with a minor component of black oak extending downslope and easterly for approximately 200-250 feet. The purpose of the timber harvesting was to create defensible space and more sun-light to the residence. The timber harvesting area ranges from 140-450 feet from the cultivation site, and does not appear to be associated with cannabis cultivation.

# Western Timber Harvesting Area

This site is located on a grassy hillside behind the cultivation site, which extends to the ridgetop. The RPF identified 12 California black oak stumps, with estimated DBH's ranging from 18-inches to 40+-inches, and 1 Douglas-fir stump with an estimated DBH of 36-inches. The RPF also identified several smaller Douglas-fir stumps less than 10-inches DBH (Douglas-fir encroachment) scattered throughout the site. The purpose of the timber harvesting is unknown. The timber harvesting area ranges from 100-500 feet from the cultivation site, and is located upslope from the graded flat on a natural hillslope and does not appear to be associated with cannabis cultivation.

# Project Description (Cont.)

#### 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.

The recent timber harvesting within the subject parcel would not have technically required a permit from Cal Fire. This is based upon the fact that no conversion of timberland occurred or was intended, and the cutting of trees were not for commercial purposes. A permit from Cal Fire is only required when "timber operations" occur as defined below.

## 4527. Timber operations; commercial purposes; criteria.

- (a) (1) "Timber operations" means the cutting or removal, or both, of timber or other solid wood forest products, including Christmas trees, from timberlands for commercial purposes, together with all the incidental work, including, but not limited to, construction and maintenance of roads, fuel breaks, firebreaks, stream crossings, landings, skid trails, and beds for the falling of trees, fire hazard abatement, and site preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities, but excluding preparatory work such as tree marking, surveying, or road flagging.
- (2) "Commercial purposes" includes (A) the cutting or removal of trees that are processed into logs, lumber, or other wood products and offered for sale, barter, exchange, or trade, or (B) the cutting or removal of trees or other forest products during the conversion of timberlands to land uses other than the growing of timber that are subject to the provisions of Section 4621, including, but not limited to, residential or commercial developments, production of other agricultural crops, recreational developments, ski developments, water development projects, and transportation projects.

Regarding the harvesting of California black oak trees at the Western Timber Harvesting Area: These oaks are part of oak woodlands and grassland savannas, and their harvesting at this particular site would not constitute a timberland conversion

Timberland, pursuant to PRC § 4526, means:

". land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species, on a district basis, is defined in 14 CCR § 895.1."

Commercial Species per 14CCR 895.1 (For the Coast Forest District:) means:

". those species found in group A and those in group B that are found on lands where the species in Group A are now growing naturally or have grown naturally in the recorded past."

#### California Oak Woodland Conservation Law - Public Resources Code 21083.4

Regarding the harvesting of California black oak trees at the Western Timber Harvesting Area: The California Oak Woodland Conservation Law (PRC 21083.4) requires counties to determine if projects involving the conversion of oak woodlands will have a significant impact on the environment, and to apply mitigation to offset the impact. However, Subsection (a) of PRC 21083.4 states: "For purposes of this section, "oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height."

# Project Description (Cont.)

California black oak is designated as a Group B species in the Forest Practice Rules per 14CCR 895.1, and therefore would not be subject to PRC 21083.4. Furthermore, the harvested oak stumps will coppice sprout.

Commercial Species (For the Coast Forest District:) means those species found in group A and those in group B that are found on lands where the species in Group A are now growing naturally or have grown naturally in the recorded past.

#### Group A:

- -coast redwood (Sequoia sempervirens)
  -Douglas-fir (Pseudotsuga menziesii)
- -grand fir (Abies grandis)
- -western hemlock (Tsuga heterophylla)
- -western redcedar (Thuja plicata)
- -bishop pine (Pinus muricata)
- -Sitka spruce (Picea sitchensis)
- -western white pine (Pinus monticola)

#### Group B:

- -tanoak (Notholithocarpus densiflorus)
- -red alder (Alnus rubra)
- -white alder (Alnus rhombifolia)
- -California black oak (Quercus kelloggii)
- -Monterey pine (Pinus radiata)

- -incense cedar (Calocedrus decurrens)
- -Port Orford cedar (Chamaecyparis lawsoniana)
- -California red fir (Abies magnifica)
- -white fir (Abies concolor)
- -Jeffrey pine (Pinus jeffreyi)
- -ponderosa pine (Pinus ponderosa)
- -sugar pine (Pinus lambertiana)
- -golden chinkapin (Castanopsis chrysophylla)
- -pepperwood (Umbellularia californica)
- -Oregon white oak (Quercus garryana)
- -Pacific madrone (Arbutus menziesii)

# **County Timber Harvesting Regulations**

The Commercial Medical Marijuana Land Use Ordinance was adopted by the Board of Supervisors and became effective February 26, 2016. The ordinance does not allow conversion of timberland to facilitate cannabis cultivation. Timber harvesting for any purpose and at any scale adjacent to or near cannabis cultivation sites are subject to scrutiny for the potential for timberland conversion. The timber harvesting that occurred at both areas, due to their proximity to cannabis cultivation, would have undoubtedly required review and approval from the County in the absence of a Cal Fire permit.

#### **Timberland Conversion Summary**

Despite the fact that there is no legal requirement for Cal Fire permitting for the subject timber harvesting. there are other state laws such as the California Endangered Species Act and Porter-Cologne Water Quality Control Act, which apply to timber harvesting regardless of the purpose of the tree removal. These and other laws are designed to protect "public trust" resources. These resources are protected for the benefit of the public, that is, the people of California and the United States. The public trust resources include but are not limited to air and water quality, wildlife, and certain environmental resources such as wetlands. Given the extent of the timber harvesting that occurred, and the potential for timberland conversion from adjoining development (residence and cannabis cultivation), Timberland Resource Consultants would have recommended that the landowner procure a timber harvesting permit from Cal Fire regardless of whether the project was for commercial purposes. A Fire Hazard Exemption per 14CCR 1038(c) would have been appropriate at the Eastern Timber Harvesting Area. Timber Operations conducted pursuant to this exemption allows for the cutting or removal of trees in compliance with PRC §§ 4290 and 4291, which eliminates the vertical continuity of vegetative fuels and the horizontal continuity of tree crowns for the purpose of reducing flammable materials and maintaining a fuel break to reduce fire spread, duration and intensity. Its unclear which Cal Fire permit would have been appropriate at the Western Timber Harvesting Area, given the species involved.

TRC observed approximately 1.82 acres of timber harvesting at two locations. At present, the tree harvesting has not resulted in timberland conversion. In the absence of stump removal and grading, the Eastern Timber Harvesting Area will eventually naturally regenerate with Douglas-fir, and the Western

# **Project Description (Cont.)**

Timber Harvesting Area will regenerate via coppice sprouting from the California black oak stumps. However, to maintain timberland productivity of the commercial species on the property, the Eastern Timber Harvesting Area should be artificially regenerated. Natural regeneration is less predictable and slower. Replanting with seedlings will result in superior stocking levels if done while favorable site conditions exist.

# **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)."

Watercourse per 14CCR 895.1 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.

No timber harvesting at either geographic area occurred within a Watercourse and Lake Protection Zone (WLPZ) or Equipment Exclusion Zone (EEZ). See attached Conversion Evaluation Map, which depict the locations of all watercourses on the property.

#### 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

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.

To eliminate fire hazard, the lower or eastern portion of the Eastern Timber Harvesting Area contains downed timber, which requires yarding and treatment of all associated logging slash. Several logs decks located near the residence are being processed for firewood and are not considered a fire hazard.

# 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 (CNDDB) on January 14, 2020 revealed four observations of sensitive, rare, threatened, or endangered species or species of special concern within a 1.3-mile radius biological assessment area (BAA) surrounding the timber harvesting sites. The closest siting (peregrine falcon) is located approximately 1,700 feet west of the western-most harvesting area. Golden eagle surveys have been occurring in the northeastern portions of the BAA in association with THP 1-17-026HUM with no detections.

The query of the CNDDB NSO Database revealed no known Northern Spotted Owl (NSO) Activity Centers within 1.3 miles of the project area. NSO surveys have been occurring within the BA in association with THP 1-17-026 HUM with no detections. NSO surveys are also occurring on the property directly west in association with the preparation of a NTMP with no NSO detections. NSO survey coverage overlaps the timbered portions of the subject project area.

#### See ftp://thp.fire.ca.gov/THPLibrary/North Coast Region/THPs/THPs2017/1-17-026HUM/

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.

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), although no symptoms, signs, and evidence of oak mortality were observed in the property. No risk assessment was made at the property; however, the recent timber harvesting does not appear to have impacted forest health. The recent timber harvesting did not include late successional stands, late seral stage forests, or old growth trees. The recent timber harvesting 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 surveyed both timber harvesting 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 (Archaeological 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

TRC observed approximately 1.82 acres of timber harvesting at two locations. At present, the timber harvesting has not resulted in timberland conversion, and the timber harvesting activities conducted on the property are not in violation with the California Forest Practice Act and/or the California Forest Practice Rules. However, the RPF recommends the following measures:

- To eliminate fire hazard, the lower or eastern portion of the Eastern Timber Harvesting Area contains downed timber, which requires yarding of the logs and treatment of all associated logging slash.
- 2. To restore timber productivity, the Eastern Timber Harvesting Area shall be re-planted per the attached Restocking Plan.

Sincerely,

Chris Garroll
No. 2628

PLE OF CALIFORNIA

Chris Carroll, RPF #2628 Timberland Resource Consultants



Picture 1: Eastern Timber Harvesting Area. Note downed timber at bottom of the site that requires removal. The yellowish-tan splotches are wood chips from slash treatment. Photo date 12-20-2019.



Picture 2: Eastern Timber Harvesting Area. Photo date 12-20-2019.



Picture 3: Eastern Timber Harvesting Area. Note the stand type harvested, which is even-aged, second growth Douglas-fir. Photo date 12-20-2019.



Picture 4: Eastern Timber Harvesting Area. Note downed timber at bottom of the site that requires removal. Photo date 12-20-2019.



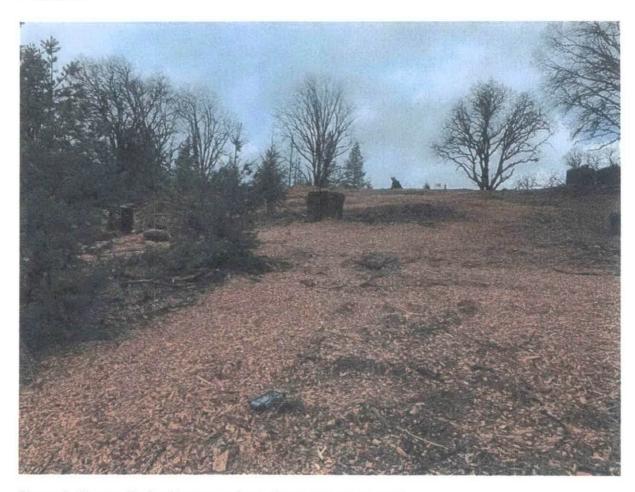
Picture 5: Western Timber Harvesting Area. The yellowish-tan splotches are wood chips from slash treatment. Photo date 12-20-2019.



Picture 6: Western Timber Harvesting Area. Photo date 12-20-2019.



Picture 7: Western Timber Harvesting Area. Photo date 12-20-2019.



Picture 8: Western Timber Harvesting Area. Photo date 12-20-2019.



# FOR APN 210-072-009

January 14, 2020

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

# **Restocking Plan for Eastern Timber Harvesting Area**

Restocking Area: To restore timber productivity, the Eastern Timber Harvesting Area shall be re-planted.

Site	Total Acreage	# Trees at 10'x10' Spacing
Eastern Timber Harvesting Area	1.18	513

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. Chemical preparation includes broadcast and directed herbicide application.

Recommendation: Prior to planting, remove the downed trees and logs from the bottom-eastern portion of the harvest area. All logging slash shall be treated per 14CCR 1104.1(a)(2)(D). No mechanical site preparation is 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, timberland within the property is characterized by Douglas-fir. The area to be planted occur within California Seed Zone 340 at approximately 2,800 feet in elevation.

Recommendation: The landowner shall plant <u>Douglas-fir seedlings</u> (best suited for Seed Zone 340 at 2,800-foot elevation) at a uniform spacing no less than 10-feet by 10-feet, or 435 trees per acre. If deer browsing is expected (based on landowner's local knowledge), then the density can be slightly increased to account for potential mortality and/or damage.

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're 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 <u>containerized seedlings</u> 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 for Eastern Timber Harvesting Area

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

- 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.

Seedling Survival: Although a newly planted stand immediately fulfills stocking standards, the timber stand must continually contain an average density of at least 300 trees per acre (or 12-foot by 12-foot spacing) in order to meet the intent of the California Forest Practice Rules (CFPRs). Seedling survival can vary widely depending on several factors including genetics, weather, herbivory, etc. Monitoring growth and success of planted seedlings is key to ensure a 300-point count stocking level is maintained 2-3 year after planting.

Recommendation: Monitor growth and success of planted trees one year after planting. Conduct a point count stocking sampling survey (protocol described in CFPRs 14CCR 1072). If less than 55% of the planted area meets the 300-point count minimum stocking level, repeat the replanting process. Consider consulting an RPF for continued timber management in this area.

**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 Green Diamond Resource Company's nursery in Korbel, California. For inquiries, contact Nursery Superintendent Glen Lehar at (707) 668-4439. He will recommend the appropriate stock based on geographic area and site conditions.

Monitoring Seedling Survival: Although a newly planted stand immediately fulfills stocking standards, the timber stand must continually contain an average density of at least 300 trees per acre (or 12-foot by 12-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. Seedling survival can vary widely depending on several factors including genetics, weather, herbivory, etc. Monitoring growth and success of planted seedlings is key to ensure a minimum 300-point count stocking level is maintained or achieved 2-years after planting.

Recommendation: Monitor growth and success of planted trees one year after planting. Conduct a point count stocking sampling survey (protocol described in CFPRs 14CCR 1072). If less than 55% of the planted area meets the 300-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.

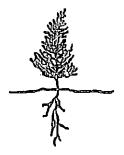
# Sincerely,



Chris Carroll, RPF# 2628 Timberland Resource Consultants

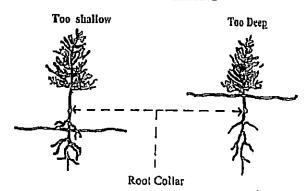
# APPENDIX A

# 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.

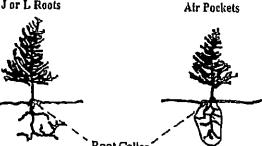
# ERROR IN PLANTING



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

- Hale is too deep.
- Root collar buried.

Jor L Roots



Root Collar Hole is not deep enough — planting in rocky

Roots cannot effectively take up water.

Tree not wind-firm.

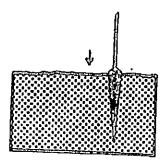
- Soil not firmly packed around roots.
   Air pocket forms.
- Roots dry out.

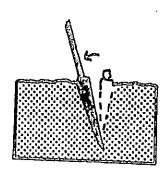
# APPENDIX B

# PLANTING WITH A FLAT BAR

1. Insert flat bar straight down.

2. Pull flat bar backward to open hole.



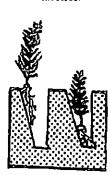


Remove flat bar and place seedling at correct depth with root collar at or slightly below ground level.

Correct



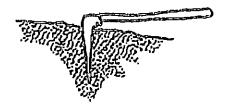
Incorrect



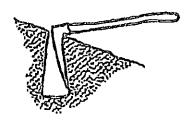
# APPENDIX C

# PLANTING WITH A HOE

1. Swing hoe to get full penetration.



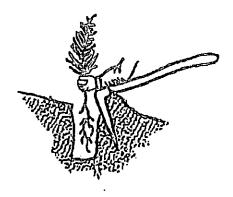
2. Lift handle and pull up to widen hole.



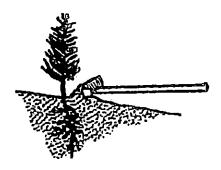
3. Place seedling while using hoe to hold back soil.



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



5. Use hoe to pack soil at top hole.



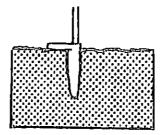
6. Firm soil around seedling with feet.



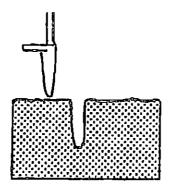
# APPENDIX D

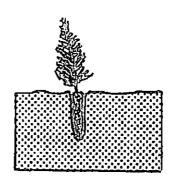
# PUNTING WITH A PLUG BAR

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.



