

Project Description (Cont.)

Cultivation Area 3

Review of historic aerial imagery (Terra Server) reveals that the site was developed between August 2013 and July 2014 with cultivation activities clearly evident on July 31, 2014 in the form of full-term outdoor plants. The cultivation site occupies a former timber stand. The cultivation activities observed impede the use of this space for current timber growth and harvesting; in this way, the landowner has effectively converted the single use of this space from timber production to cannabis cultivation.

Cultivation Area 3a

Review of historic aerial imagery reveals that the site was initially developed between 2010 and 2012 and later expanded to its present size and configuration between 2012-2014. It's unclear when cultivation activities began at this site based on aerial imagery. However, there was signs of cultivation activities occurring summer 2018 in the form of full-term outdoor plants. The cultivation site occupies a former timber stand. The cultivation activities observed impede the use of this space for current timber growth and harvesting; in this way, the landowner has effectively converted the single use of this space from timber production to cannabis cultivation.

Cultivation Area 3b

Review of 1988 aerial imagery clearly reveals that this site was an old log landing based upon numerous skid roads terminating at this location. It's unclear when cultivation activities began at this site based on aerial imagery. However, there was signs of cultivation activities occurring summer 2018 in the form of full-term outdoor plants. The cultivation site occupies a former log landing and thus future cultivation activities would impede the use of this space for current timber growth and harvesting resulting in timberland conversion.

Cultivation Area 4

Review of 1988 aerial imagery clearly reveals that the site was an old log landing based upon numerous skid roads terminating at this location. Review of subsequent aerial imagery reveals that the site naturally regenerated with conifers and hardwood until tree clearing and development occurred between 2006 and 2008. This site appears to have been recently used for cannabis vegging, drying, and cannabis related storage. The site presently contains a metal storage building for drying, shipping container for storage, and a small greenhouse for vegging. This site occupies a former log landing and thus future cultivation related activities would impede the use of this space for current timber growth and harvesting resulting in timberland conversion.

Cultivation Area 5

Review of historic aerial imagery (Terra Server) reveals that the site was developed between November 2015 and May 2016 with cultivation activities evident on July 28, 2016 in the form of full-term outdoor plants. The cultivation site occupies a former timber stand. The cultivation activities observed impede the use of this space for current timber growth and harvesting; in this way, the landowner has effectively converted the single use of this space from timber production to cannabis cultivation.

Timberland Conversion Summary

TRC observed 2.12 acres of timberland conversion for cultivation-related purposes.

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 February 9, 2019 showed numerous 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 cultivation sites. See attached CNDDDB Map. None of these sensitive species were detected near the cultivation sites. 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 for numerous sensitive species exists on the property.

Most of the sensitive species located within the BAA are aquatic-dependent and thus direct impacts from past conversion activities would be unlikely. As previously stated, the cultivation sites are located 200+ feet away from watercourses.

Given the known presence of Fisher within the BAA, the Forest Practice Rules would have required the following measures under a Less Than 3-Acre Conversion Exemption:

1. Den Tree Definition - A potential den structure for the Coast Forest District is any hardwood with visible indicators of cavity formation (dead or alive) \geq 18 inches DBH, a conifer snag \geq 30 inches DBH, or a live green cull or green wildlife conifer \geq 30 inches DBH. A live green cull is a conifer tree with less than 25% merchantable wood by volume. A green wildlife conifer is considered a potential den structure when it has mistletoe brooms, large rest branches, and visible signs of fungus or other indications of cavity formation or visible cavity openings.
2. During the Natal den period of March 1 to May 15 - Potential den trees will not be felled.
3. During the Maternal den period of May 16 to July 31 - Potential den trees to be felled for safety reasons will not be cut until the day after all other trees intended to be felled within a ten-acre area (a 375' radius) have been felled. If a fisher has kits in a den tree within the area, this will allow her additional time to remove her young from the area.
4. Fisher sighting - If a fisher is sighted in a harvest unit during timber operations, all vegetation disturbing activities will be suspended within that unit and company biologists will be notified. If a den or habitation of a fisher is discovered, all operations (per PRC Section 4527) will additionally be suspended within a 377-foot radius buffer around the den or habitation. The Department of Fish and Wildlife (CDFW) and Department of Forestry and Fire Protection will then be immediately notified.

Based upon the property's timber type, no den trees were observed. Its possible that a residual tanoak or madrone, with a basal cavity, could have occurred within the conversion areas. However, its very unlikely they were of the minimum diameter necessary. Fisher denning habitat exists on adjacent USFS lands, which contain stands of old growth and mature Douglas-fir and numerous green wildlife trees.

The query of the CNDDDB-NSO Database revealed one Northern Spotted Owl (NSO) Activity Center (HUM 178) within a 1.3-mile radius BAA surrounding the property. This activity center is located approximately 4,200 feet from the closest cultivation site (CA 3). Consequently, the 100-acre Core Area and conventional ¼-mile disturbance buffer does not overlap the subject property. Lastly, there is adequate NSO habitat for HUM 178 per Revised USFWS Attachment B Northern Spotted Owl Take Avoidance Analysis – Interior (2/27/08).

Limitations and Considerations for Timberland Conversion Activities (Cont.)

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 2.12 acres of unauthorized timberland conversion has occurred within APN 522-115-002. This total does not exceed the three-acre conversion exemption maximum. The conversion activities conducted on the property do not comply with the California Forest Practice Act and the California Forest Practice Rules.

RPF Recommendations

1. Treat all slash, woody debris, and logs at all cultivation sites except Cultivation Area 3b and Cultivation Area 4. In addition, treat slash piles along existing access roads re-opened in association with cultivation site development and use, specifically between Cultivation Area 3b and Cultivation Area 3.
2. Remove unstable fill at Cultivation Area 1 and Cultivation Area 5. The fill shall be reconstructed and thoroughly compacted in approximately one-foot lifts. The fills shall be no greater than 65 percent (1.5:1, horizontal to vertical) unless properly engineered.
3. The steep segment of road shown on the attached maps needs permanent drainage facilities installed to minimize soil erosion and slope instability.
4. The RPF recommends that any converted cultivation area not approved by the county for future cannabis cultivation or related activities be restored and restocked with conifers to improved timberland productivity. Relocation of cannabis cultivation may also be recommended in the subsequent Site Management Plan to better protect watershed and biological resources, and to minimize controllable erosion occurring on the extensive road system. The RPF has provided a Restocking Plan, which addresses all cultivation sites in the event this is required.

Sincerely,



Chris Carroll, RPF #2628
Timberland Resource Consultants

Pictures



Picture 1: Downed trees and slash above/south of Cultivation Area 1. Photo date 2-8-2019.



Picture 2: Unstable fill at eastern side of Cultivation Area 1. Photo date 2-8-2019.

Pictures



Picture 3: Logs in foreground and slash in distance south of Cultivation Area 2. Photo date 2-8-2019.



Picture 4: Logs and slash east of Cultivation Area 2. Photo date 2-8-2019.

Pictures



Picture 5: Logs and slash southeast of Cultivation Area 3. Photo date 2-8-2019.



Picture 6: Slash west and southwest of Cultivation Area 3. Photo date 2-8-2019.

Pictures



Picture 7: Logs at Cultivation Area 3a. Photo date 2-8-2019.



Picture 8: Slash at Cultivation Area 3a. Photo date 2-8-2019.

Pictures



Picture 9: Cultivation Area 3b. Photo date 2-8-2019.

Pictures



Picture 10: Cultivation Area 4. Area used for vegging, drying, and cultivation storage. Photo date 2-8-2019.

Pictures



Picture 11: Cultivation Area 5. Perched unstable fill in northwest corner. Photo date 2-8-2019.



Picture 12: Cultivation Area 5. Perched unstable fill along northern boundary. Photo date 2-8-2019.

Pictures



Picture 13: Cultivation Area 5. Perched unstable fill along eastern boundary. Photo date 2-8-2019.



Picture 14: Cultivation Area 5. Perched unstable fill at southern end of site. Photo date 2-8-2019.

APN 522-115-002

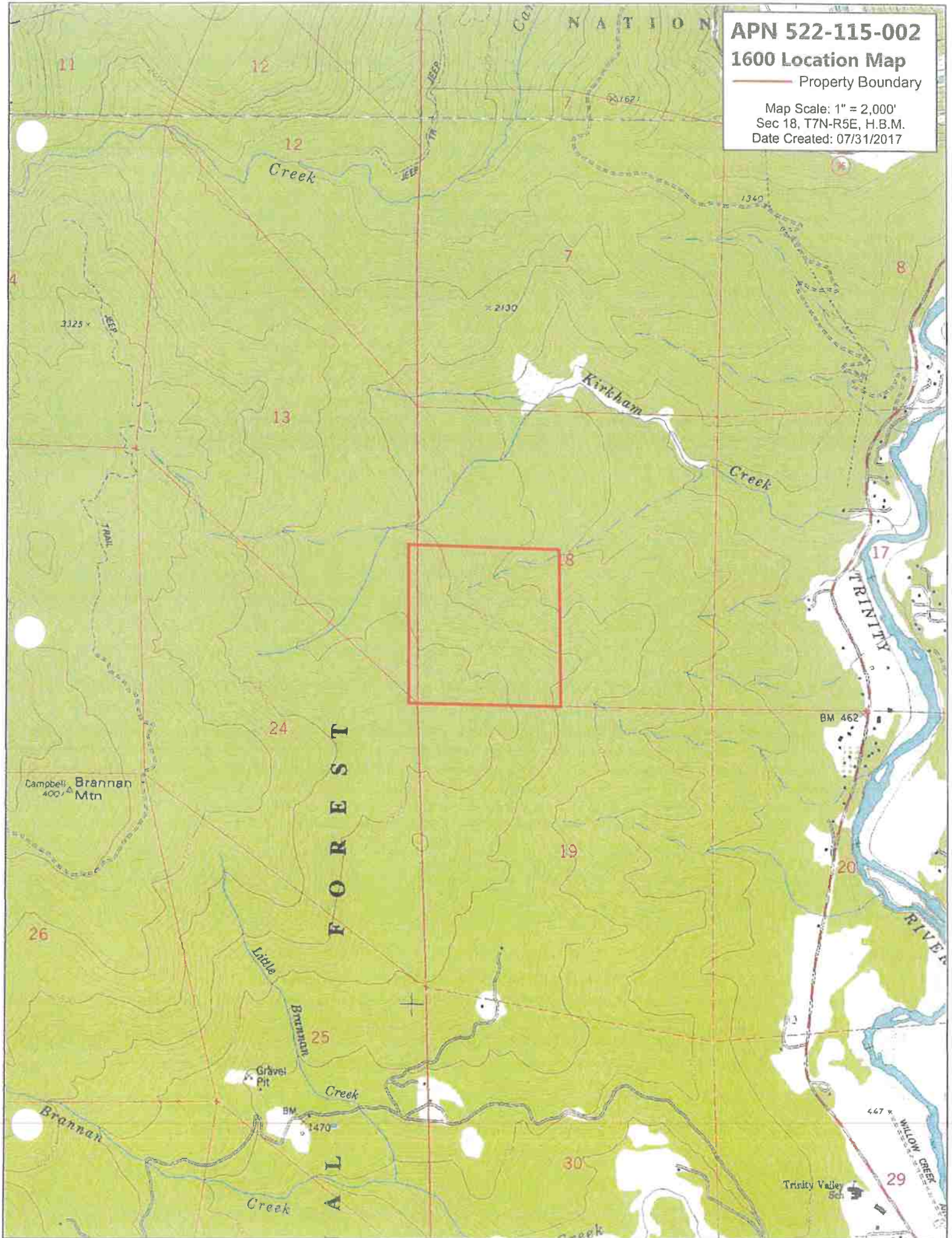
1600 Location Map

Property Boundary

Map Scale: 1" = 2,000'

Sec 18, T7N-R5E, H.B.M.

Date Created: 07/31/2017




APN 522-115-002

Conversion Evaluation Map


 Property Boundary

 Cultivation Site

 Class II Watercourse

 Seasonal Road

Slash Treatment Required

 Slash Pile

 Scattered Slash and Logs

Map Scale 1" = 300'
SW ¼ of Section 18
Township 7 North, Range 5 East,

Unstable Fill
Cultivation Area 1

Cultivation Area 2

Cultivation Area 3b

Cultivation Area 4

Cultivation Area 3a

Cultivation Area 3





Steep Road

Unstable Fill
Cultivation Area 5
Unstable Fill




NORTH

APN 522-115-002

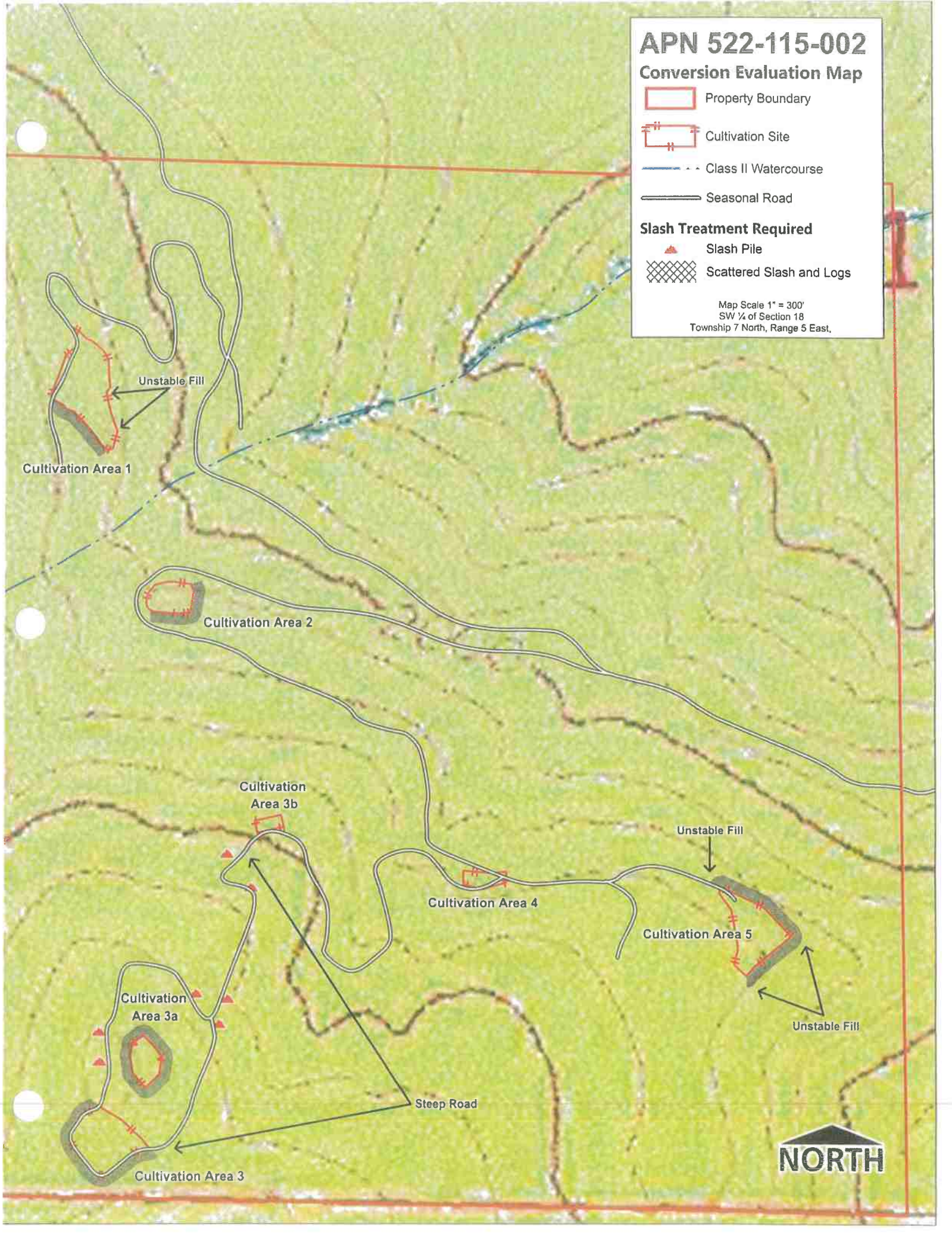
Conversion Evaluation Map

-  Property Boundary
-  Cultivation Site
-  Class II Watercourse
-  Seasonal Road

Slash Treatment Required

-  Slash Pile
-  Scattered Slash and Logs

Map Scale 1" = 300'
SW 1/4 of Section 18
Township 7 North, Range 5 East,



APN 522-115-002

Conversion Evaluation Map

 Property Boundary

 Cultivation Site

 - - Class II Watercourse

 Seasonal Road

Slash Treatment Required

 Slash Pile

 Scattered Slash and Logs

Map Scale 1" = 300'
SW ¼ of Section 18
Township 7 North, Range 5 East,

Unstable Fill

Cultivation Area 1

Cultivation Area 2

Cultivation Area 3b

Unstable Fill

Cultivation Area 4

Cultivation Area 5

Unstable Fill

Cultivation Area 3a


Steep Road

Cultivation Area 3

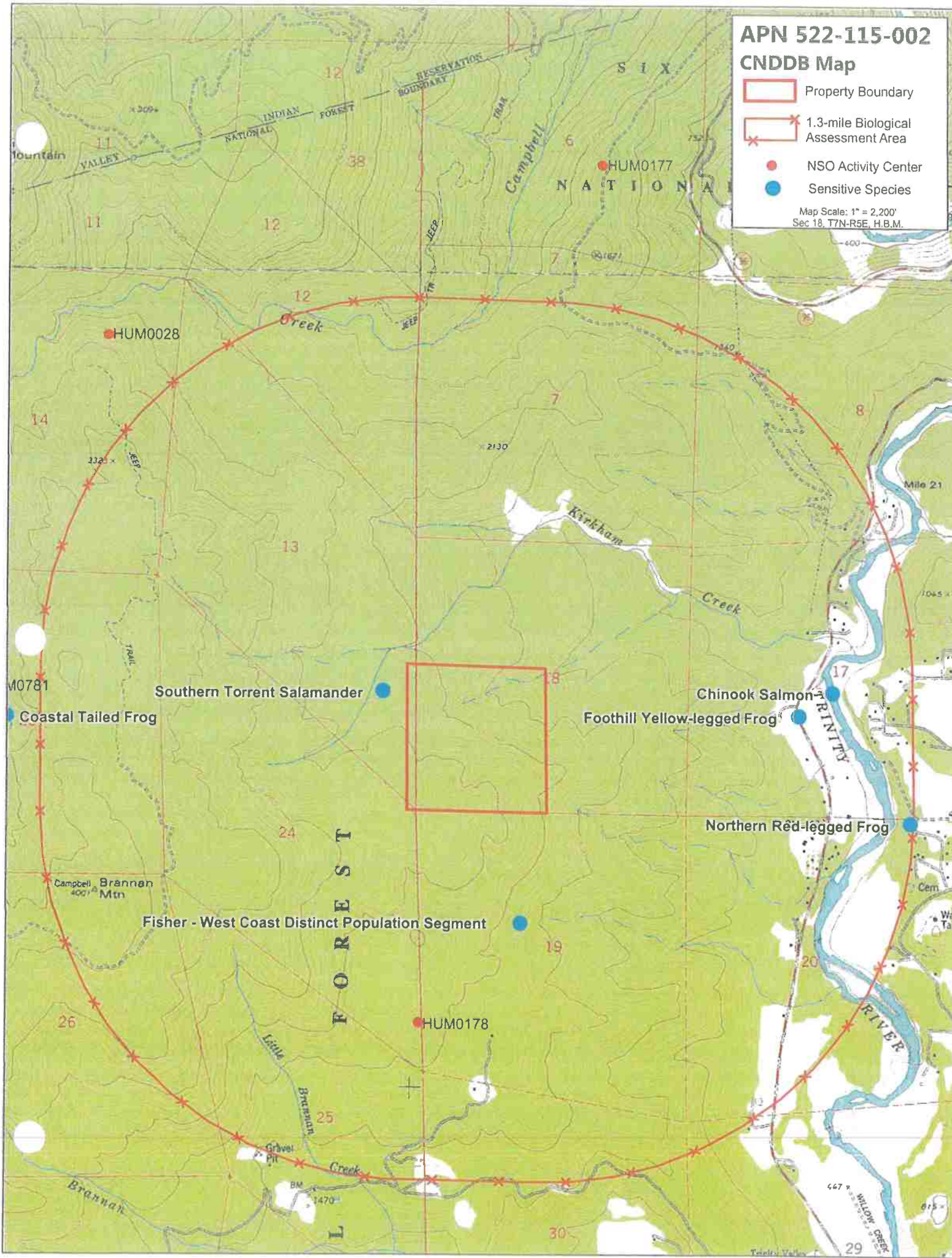

NORTH

APN 522-115-002

CNDDDB Map

-  Property Boundary
-  1.3-mile Biological Assessment Area
-  NSO Activity Center
-  Sensitive Species

Map Scale: 1" = 2,200'
Sec 18, T7N-R5E, H.B.M.





RESTOCKING PLAN
FOR
APN 522-115-002

February 24, 2019

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

Regeneration Plan

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: Employ mechanical site preparation in the form of subsoiling/ripping at all cultivation areas prior to planting. No cultivation areas are located in or near a riparian buffer.

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 tanoak-dominated stands with minor a component of Douglas-fir. The property occurs within California Seed Zone 303 from 2,200 to 2,800 feet in elevation.

Recommendation: If any of the existing cultivation sites are relocated or required to be restored, the landowner shall plant Douglas-fir seedlings (best suited for Seed Zone 303 at 2,200- to 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.

Cultivation Site/Associated Area	Total Acreage	# Trees
Cultivation Area 1	0.67	291
Cultivation Area 2	0.20	87
Cultivation Area 3	0.48	209
Cultivation Area 3a	0.17	74
Cultivation Area 3b	0.05	22
Cultivation Area 4	0.10	44
Cultivation Area 5	0.45	196

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 containerized seedlings if available.

Regeneration Plan

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.

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 seedling 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 Korb, 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.

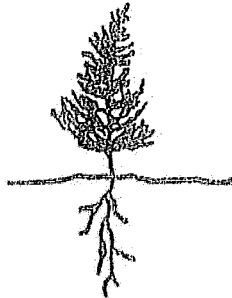
Sincerely,



Chris Carroll, RPF# 2628
Timberland Resource Consultants

APPENDIX A

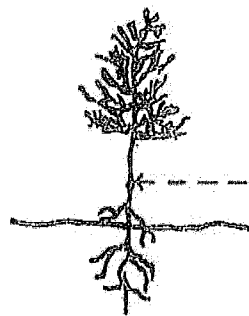
CORRECT METHOD OF SEEDLING PLANTING



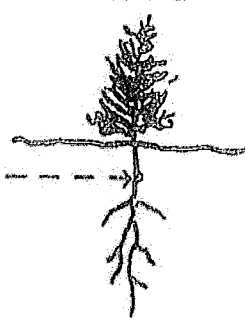
- Soil firmly packed around roots.
- No air pockets.
- Roots straight with no J or L bends.
- Root collar at or slightly below ground level.
- Root not pruned.

ERROR IN PLANTING

Too shallow



Too Deep

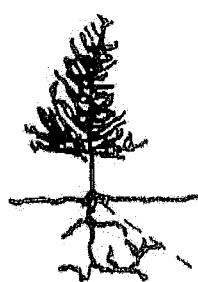


Root Collar

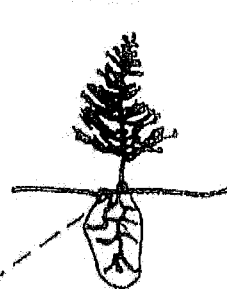
- Hole not deep enough.
- Root collar and upper roots exposed.
- Roots dry out.

- Hole is too deep.
- Root collar buried.

J or L Roots



Air Pockets



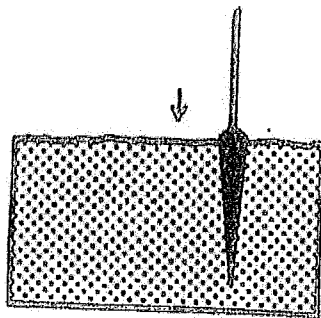
Root Collar

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

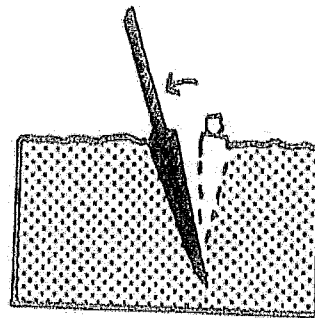
- Soil not firmly packed around roots.
- Air pocket forms.
- Roots dry out.

APPENDIX B
PLANTING WITH A FLAT BAR

1. Insert flat bar straight down.

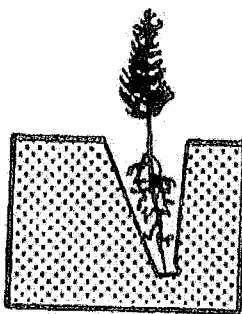


2. Pull flat bar backward to open hole.

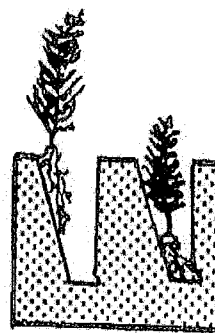


3. Remove flat bar and place seedling at correct depth with root collar at or slightly below ground level.

Correct

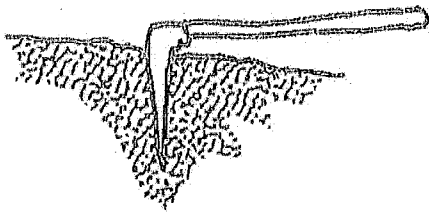


Incorrect

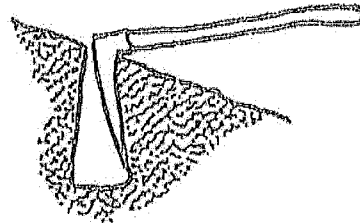


APPENDIX C
PLANTING WITH A HOE

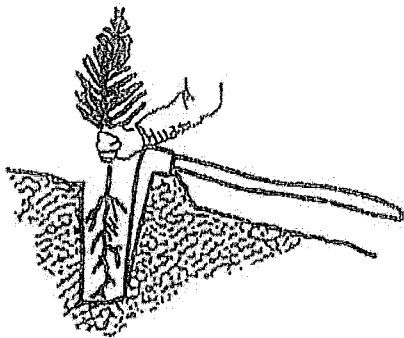
1. Swing hoe to get full penetration.



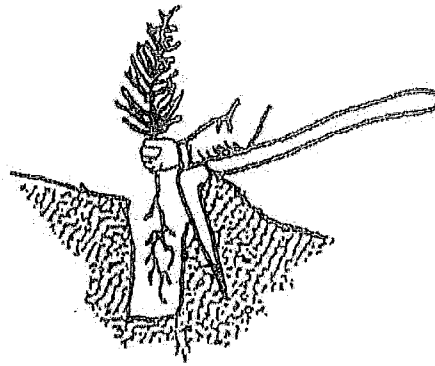
2. Lift handle and pull up to widen hole.



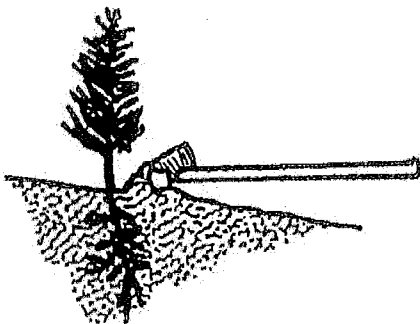
3. Place seedling while using hoe to hold back soil.



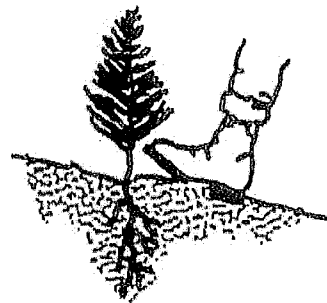
4. Use hoe to pack soil at bottom of hole.



5. Use hoe to pack soil at top hole.

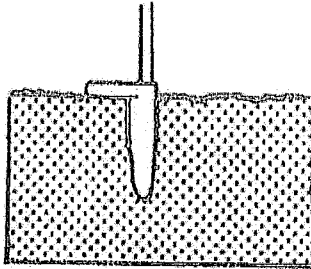


6. Firm soil around seedling with feet.

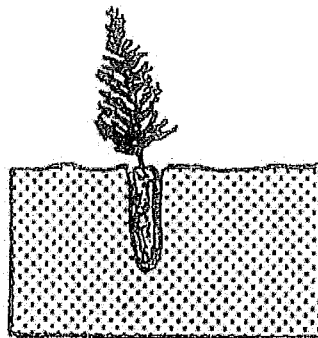
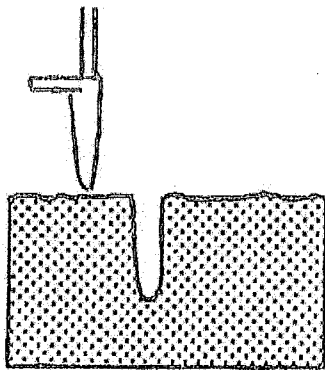


APPENDIX D
PUNTING WITH A PLUG BAR

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.

