



**RESTOCKING PLAN  
FOR  
APN 217-271-002**

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## Restocking Plan

Site to Planted	Acreage	# Trees to be Planted
Cultivation Site 1	0.15	65

**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:* No mechanical site preparation via heavy equipment is necessary. However, the RPF recommends manual scalping. Scalping is the removal of the sod layer to a depth of one – three inches, in strips or patches of at least one foot wide. Trees are planted in the middle of the scalped area. Scalping can be accomplished manually with a planting shovel or a heavy hoe.

**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 planting site occurs within California Seed Zone 340 at approximately 1,600 feet in elevation.

*Recommendation:* The landowner shall plant with Douglas-fir seedlings (best suited for Seed Zone 340 at 1,600-foot elevation) at a uniform spacing no less than 10-feet by 10-feet. If deer browsing is expected (based on landowner's local knowledge), then the density can be slightly increased to 8-feet by 8 feet to account for potential mortality and/or damage. This would require 65 trees at 10-feet by 10-feet spacing or 96 trees at 8-feet by 8-feet spacing.

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 conifer 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.

**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.

**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.

Sincerely,



Chris Carroll, RPF# 2628  
Timberland Resource Consultants