

2/21/2024

Native Oak Replanting Plan Acierno Vineyard Proposed Block G, H, I 7070 Silverado Trail, Napa County

Introduction

This Plan addresses replanting native trees on the property for 15-Oaks that were removed by the property owner prior to vineyard development. Approximately 9,021 sq ft. of oak canopy was removed by the project.

The property is located north of the city of Napa, and is within the watershed of the Napa River. The study site is within the USGS Mt. George Quadrangle. Plate I provides the location of the property and site map of the parcel. The project proposes to develop three small Blocks G, H, and I that total 0.73-acres.

This Replanting Plan is initiated to comply with Napa County General Plan Policy CON-24 Paragraph (c) stating that a project should “provide replacement of lost oak woodlands or preservation of like habitat at a 3:1 ratio.” Replanting will occur onsite at a 3:1 ratio for Live and Blue Oaks and 10:1 for Valley Oaks removed. A total of 52 native Oaks will be planted onsite.

Tree Removal consisted of 5-Live Oaks, 9 Blue Oaks and 1 Valley Oak, a total of 15 Oaks >6” DBH. (Tree count provided RSA Civil Engineers+Surveyors+Land Planners) Plate II shows the conditions on the site in 2021 before tree removal.

Replanting will occur within three areas. **Area 1**) planting within a portion of abandoned Block F where vines will be removed within the stream setback. Vines were planted by the previous owner. **Area 2**) open grassland, and **Area 3**) planting within stream setback (See Plate III. Planting Locations) Total = 27,284 Sq ft. area.

Replanting Plan

The site is on land under the ownership of the applicant. The proposed re-planting will have available water for establishment and an onsite vineyard manager with experience in maintaining native vegetation. Replanting will occur in three areas.

Once vines and hardware are removed within **Area 1**) 30 native trees will be installed. Following vine removal this area will also be seeded with a native erosion control mix. See Erosion Control Seed Mix.

Replacement Plantings – Species

Common Name	Scientific Name	Removed	Proposed
Coast Live Oak	<i>Quercus agrifolia</i>	5	15
Blue Oak	<i>Quercus douglasii</i>	9	27
Valley Oak	<i>Quercus lobota</i>	1	10

Total = 52 Trees

Area 1. Blue Oak = 25
Live Oak = 5
Total = 30 Oaks

Area 2. Blue Oak = 2
Live Oak = 5
Valley Oak = 5
Total = 12 Oaks

Area 3 Live Oak = 5
Valley Oak = 5
Total = 10 Oaks

(See Plate III. for Planting Location)

Planting Design and Layout: Trees should be placed at approximately (20-30 foot centers) and placed in a random spacing pattern within the planting zone.

Planting Stock: Planting stock should be purchased from local native plant nurseries. Recommended plant size of one gallon size, D-pot, treepot or equivalent. Tree species specified are commonly available at local native plant nurseries. If the species specified above are unavailable, ecologically appropriate substitutions of species and/or changes in composition will be made by a qualified specialist.

Plant Protection: All plants should receive a 3'x3' woven polypropylene weed mat. The mats must be secured to the ground with heavy gauge steel staples or pins. The weed mat will serve as mulch for soil moisture retention and weed suppression purposes. Woven polypropylene is recommended over other weed control fabrics because of its durability and resistance to punctures. Because rodents are active near the project area, all planting stock should also have browse protection.

If tubes are used (such as Tubex®, BluEx®, or similar product) it is recommended that grow tubes which are specifically designed for restoration activities be used. Protective bird netting must be installed atop of the grow tubes, if tubes are used. Collar and screen hardware may be an option if a restoration contractor is used for the plant installation.

All plant protection hardware should be removed at the end of the project monitoring period or when plants are established, typically 3 years after installation. Failure to remove planting hardware may ultimately lead to plant mortality.

Nutrients: All plants should be given an appropriate amount of fertilizer at the time of planting to promote healthy growth in the first growing season. General purpose, slow release fertilizers, such as Ozmocote® 14-14-14 or Agriform® pellets are commonly used in plant installations. It is important that the fertilizer is applied directly to the root site of the plants (sub- soil surface) to avoid encouraging weed growth.

Timing: Typically, the best time of year to install native plants is in the late fall, when the soil has become adequately wet from fall rain. Getting plants in the ground early gives the plants more time to develop roots and site familiarity before breaking dormancy in the spring. Delaying planting into the late winter and spring, can decrease planting success if an irrigation system is not online. If planting techniques such as direct seeding and vegetative propagation are used, the planting window is narrowed and controlled by the timing required by the type of seeds used.

Irrigation: To minimize drought stress and to encourage successful establishment, the plants must be irrigated during the dry season. The first year of establishment is the most critical, and supplemental irrigation may be needed for the first three to five years. A simple above-ground drip irrigation system is recommended. All plants should be targeted with drip emitters. The irrigation system should run at regular intervals and the system should be checked on a regular basis to insure that the system is functioning properly and that the plants are getting the proper quantity of water. A typical irrigation regime for a first year of project is a once weekly watering of 1 to 3 gallons per plant. Lengthening the period between watering to two weeks may be adequate during subsequent years.

Irrigation should be activated in the spring when soil on the site begins to dry out, typically in mid to late April. Drought conditions may require an earlier activation date, and heavier spring rains may allow for a later activation date. Irrigation to the site would typically be shut down by mid-October. Early fall rains may allow for an earlier shut down date, and a prolonged fall drought may require that irrigation occur later into the fall.

Maintenance: Weed control can be just as important as irrigation during the first few years of native planting. Weeds directly compete with the plantings for water, light, and nutrients. Heavy weed growth can also provide habitat for rodents, such as mice, voles, and gophers, which can girdle young plants and damage drip irrigation lines.

Hand Weeding: Spring hand weeding of all weeds growing inside the plant protection hardware and weed mat openings will have the most profound positive effect on the young plant. It is important to carefully perform hand weeding when weeds have not become too large and the soil is still soft and moist from winter rains. Periodic hand weeding may be necessary throughout the growing season if irrigation is used. It is very important that crews performing hand weeding are familiarized with the different species selected, so that the project plants are not accidentally damaged or removed.

Weed Mowing/Weed-Eating: It may be desired by the property owner and/or property manager to mow weeds in the project area. Weed removal can also be very beneficial to the plantings, as long as great care is taken not to damage the plants, plant protection

hardware, weed mats, or the irrigation system. It is very important that personnel performing weed-eating be shown the various elements of the enhancement planting and that steps be taken to prevent any damage to the plants, hardware, or the irrigation system.

Erosion Control Seed Mix (Area 1.)

Following removal of vines within Area 1. all exposed or disturbed ground as a result of the vine removal shall be restored by seeding with a blend of native erosion control grass seed. Seeding placed after October 15 must be covered with broadcast straw, jute netting, coconut fiber blanket or similar erosion control blanket.

Seeds can be broadcast by hand and then can then be gently raked into the soil to cover it with a thin layer. Seeds should be broadcast onto a well-prepared, firm seedbed. Lightly incorporate the seed into the soil 1/8 to 1/4- inch deep by raking, or dragging (do not disc). Seeds should be watered in with a fine spray, making sure it is not soaked to the point of ponding or running off.

It is recommended that seeding occur in the early winter, when the likelihood of having sufficient moisture for germination and growth of grass seedlings. Summer heat and the lack of moisture can cause seeds to not germinate or die. Seed survival is dependent on a well developed root system.

Two seed mixes are recommended:

Napa County Erosion Control Seed Mix (with added Native Grass).

Species	Percent of Mix	Species	Percent of Mix
(Blue Wildrye)	20	Lana Vetch	12
Blando Brome	20	Rose Clover	15
Zorro Annual Fescue	8	Crimson Clover	15
Sub Clover	10		

Native Erosion Control Mix

Bromus carinatus/California Brome

Hordeum brachyantherum/Meadow Barley

Vulpia microstachys/Three Weeks Fescue

Trifolium wildenovii/Tomcat Clover

Mix from Pacific Coast Seed. 45 Total Lbs./acre

Native seed is also available at Hedgerow Farms, Inc or LeBallister's Seed & Fertilizer. Seeding rates are typically 20-30 lbs per acre. Consultation with a seed provider to determine quantity based on available seed is recommended.

Yearly Maintenance

Native grasses co-evolved with grazing animals and fire. Inevitably they will need to be clipped back or “mowed” at least once a year. Mowing should occur in the late summer and early fall.

Cutting height should be above 2 inches and typically should be between 4 to 6 inches high for native grasses.

Straw: Straw must be spread on all areas with bare soil. Straw mix must be sterile or native species only. Straw will be derived from wheat, oats or barley and free of all noxious weeds. Straw that is rotted or has been used for stable bedding shall not be used. No invasive exotic plants or seed shall be used.

Performance Standards: Replacement plantings shall achieve an 80% survival rate and be monitored for 5 years to demonstrate that success criteria have been met. Each year, percent survival, vegetated cover and the success of the planted stock shall be monitored, recorded and reported.

Disturbed areas or bare ground within Area 1. that is seeded, shall have a minimum of 80% coverage at the end of five years. Bare ground should attain 70% cover after 3 years and 80% cover after 5 years.

The encroachment by invasive species shall be noted and if called for, removal programs of invasive species shall be implemented.

Monitoring Plan

A monitoring plan is essential for assurance of the goals of the replanting plan. The monitoring plan proposed is an assessment of the project upon completion of the prescribed work at the end five years. At the end of five years total survivorship should be 80% of the total planted oaks as per the performance standard.

To ensure success all plantings shall be monitored (survival counts and photo monitoring) and maintained as necessary for a minimum of five years.

If the 80% survival of planted oaks is not achieved, the permittee is responsible for replacement plantings, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plantings shall be monitored with the same survival and growth requirements for five years after planting.

Disturbed areas or bare ground within Area 1. that is seeded, shall attain 70% cover after 3 years and 80% cover after 5 years.

Monitoring should be conducted in the fall a year following initial planting. Monitoring reports should be submitted to the Napa County Planning, Building & Environmental Services by December 1st of each year.

Monitoring Report Contents

1.0 Project Information

1.1 Project name

1.2 Applicant name, address, and phone number

- 1.3 Consultant name, address, and phone number
- 2.0 Site Information
 - 2.1 Location of the site (including regional map)
 - 2.2 Specific purpose/goals for the replanting
 - 2.3 Date planting was completed
 - 2.4 Dates, and summary of previous monitoring visits
 - 2.5 Name, address and contact number of responsible parties for the site
 - 2.6 Summary of remedial action, if any
- 3.0 Tabulated Results of Monitoring Visits, Including Previous Years
- 4.0 Summary of Field Data
- 5.0 Photo Monitoring
- 6.0 Problems Noted and Proposed Remedial Measures

Contingency Plan & Adaptive Management

Death of new plants will necessitate replanting. Yearly monitoring for achievement of the success will identify problems and remedial adaptive management to correct any problems must implemented.

Responsible Party For Short -Term and Long-Term Maintenance

Responsible party for development, short term maintenance and long-term maintenance will be the property owner. It is the owner's responsibility to keep the biologist informed as to the progress of work. The biologist shall prepare annual monitoring reports for submittal to Napa County Planning, Building & Environmental Services.

Should you have any questions, please do not hesitate to contact us at: Email kjeldsen@sonic.net, or phone (707) 544-3091.

Plate I. Location

Plate II. Aerial Photo 2021

Plate III. Proposed Planting Location

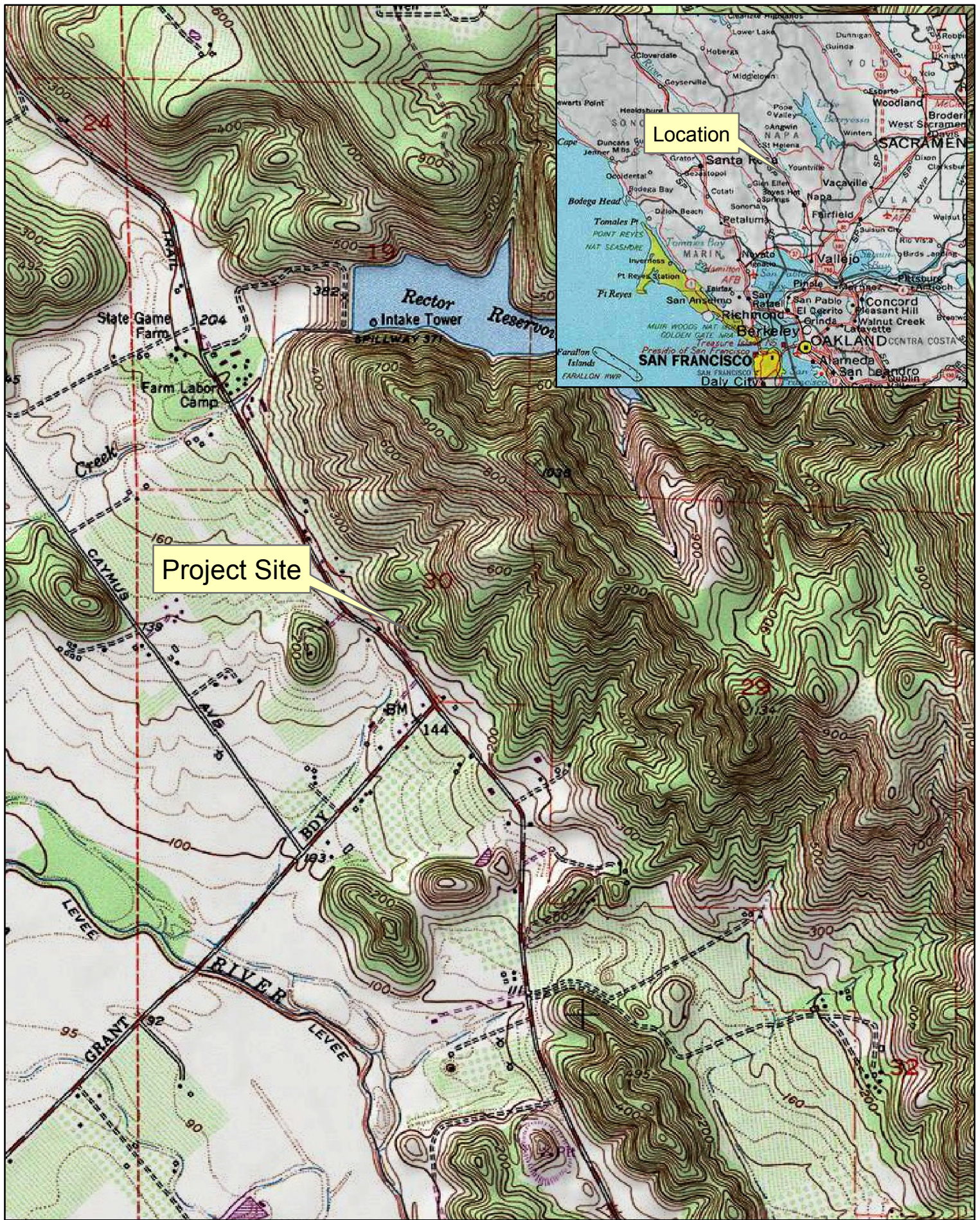


Plate I. Location and Site Map

(Yountville Quadrangle)





 Proposed Blocks

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plate II. Aerial Photo 2021



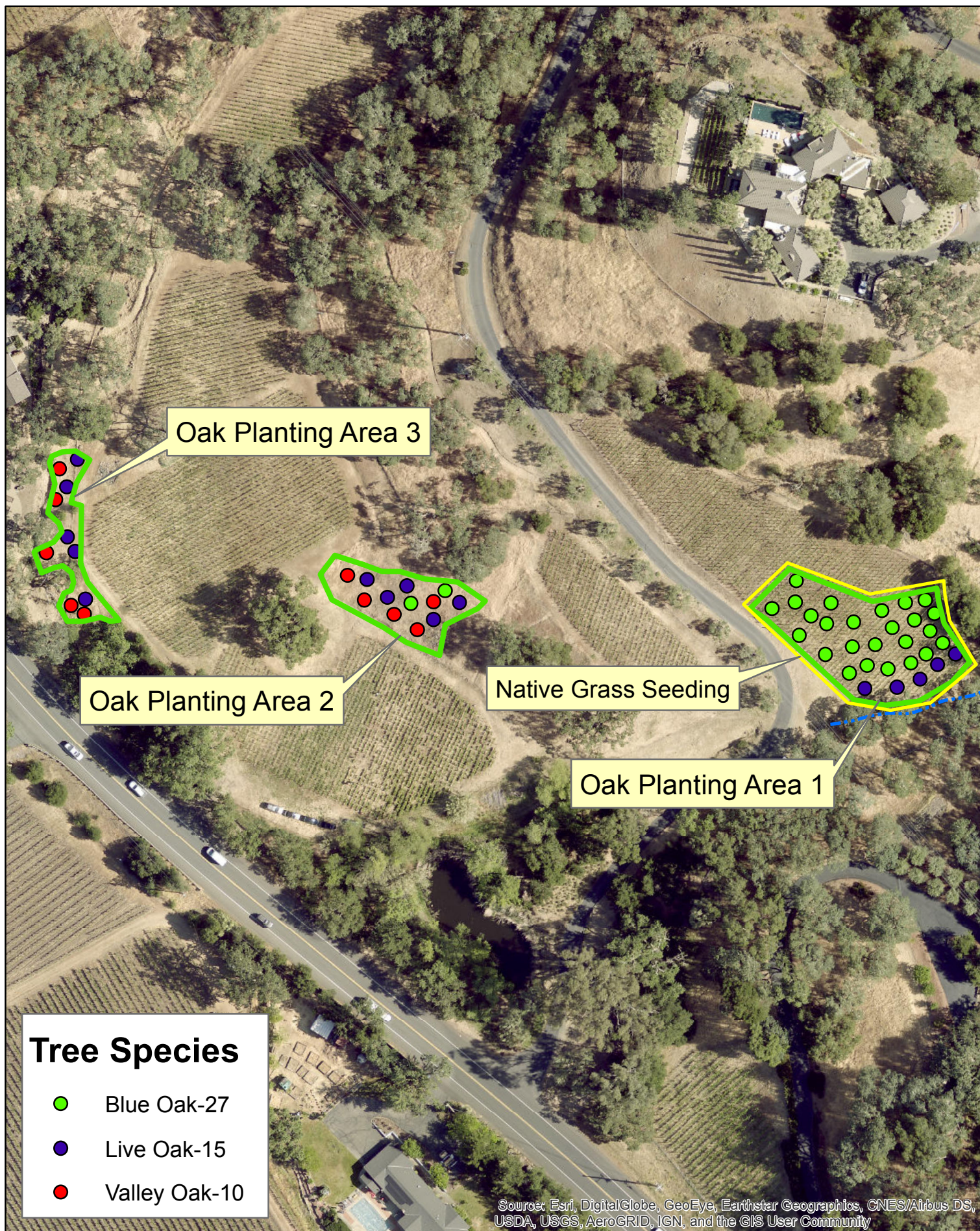


Plate III. Proposed Planting Location

