Native Tree and Coastal Sage Scrub Restoration Planting, Mitigation, Maintenance and Monitoring Plan

Topanga Elementary Charter School
22075 Topanga School Road Topanga, CA 90290

APN: 4445005903

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DRAFT Prepared for:

Los Angeles Unified School District

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INTRODUCTION

The *Native Tree and Coastal Sage Scrub Restoration Planting, Mitigation, Maintenance and Monitoring Plan* has six main sections:

1. An explanation and discussion of the three fuel modification zones associated with Topanga Elementary School (A, B and C), including what types of vegetation are to be planted/maintained/removed from each, and how it will be managed moving forward.
a. Note: *some* planting in the fuel modification zones, including the outermost zone (C) may be directed to capture mitigation requirements for the impacts done via fuel modification in 2020 (i.e., the purpose of this plan).
b. A separate firm (Architerra) will be drafting a Restoration Planting Plan, by fuel modification zone, which will be the basis of this monitoring effort.

2. Directions for implementation of the Restoration Planting Plan.
a. Site selection criteria
b. Site preparation criteria
c. Plant selection criteria
d. Seed and plant provenance requirements
e. Installation
f. Irrigation
g. Weed Management

3. A discussion of impacts, restoration and monitoring required for the coastal sage scrub habitat on-site, through which a heavy-machinery access route was established during the 2020 brush thinning activities, resulting in further damage to native plants.

4. A discussion of required annual vegetation transects and tree measurements, which will be used to monitor and document vegetation recovery at the site in the future. This includes two "subsets" of trees: 1) Impacted/existing trees, and 2) Required mitigation trees planted to offset 2020 impacts.
a. This plan follows Los Angeles County Department of Regional Planning's guidance on how to measure and assess the recovery of trees and vegetation sitewide.
b. We include initial 2023 data from our (RCDSMM) vegetation transects and (updated) tree measurements.

5. Annual Report information to be provided to LA County Regional Planning and Forestry for seven years.

6. Adaptive Management Guidelines are designed to establish metrics of success/criteria, and to establish guidelines for how to respond to failure to meet those guidelines.

PLAN PURPOSE

The purpose of the *Native Tree and Coastal Sage Scrub Restoration Planting, Mitigation, Maintenance and Monitoring Plan* is to provide a step-by-step guide on how to restore the areas impacted by unpermitted removal of native trees and vegetation in 2020 occurred and to resolve the associated outstanding violation. This plan includes performance standards to ensure that objectives are met and that restoration is successful and completed within a 7-year period for oak trees and 5-year period for all other vegetation[1] in accordance with requirements of the Santa Monica Mountains Coastal Zone Local Implementation Plan (LIP) as noted in Section 22.44.1240, *"Landscaping": Landscaping or revegetation shall provide 90 percent coverage within five years, or that percentage of ground cover demonstrated locally appropriate for a healthy stand of the particular native vegetation type chosen for revegetation.*

It also serves as a mechanism that assures that the restoration site is properly maintained and overseen by a Qualified Biologist and Certified Arborist during the 5-to-7-year monitoring period.

In addition, it sets out a detailed strategy for what will be monitored and why and identifies consequences/remedies for when restoration goals and/or performance standards are not met, and establishes responsible party for correcting problems.

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Explanation and Discussion of Fuel Modification Zones

Fuel modification zones surrounding Topanga Elementary School ("TECS") are divided thus: **Zone A**: 0-30' from structures; **Zone B**: 30-70' from structures; and **Zone C**: 70-100' from structures as shown in **Figure 1**.

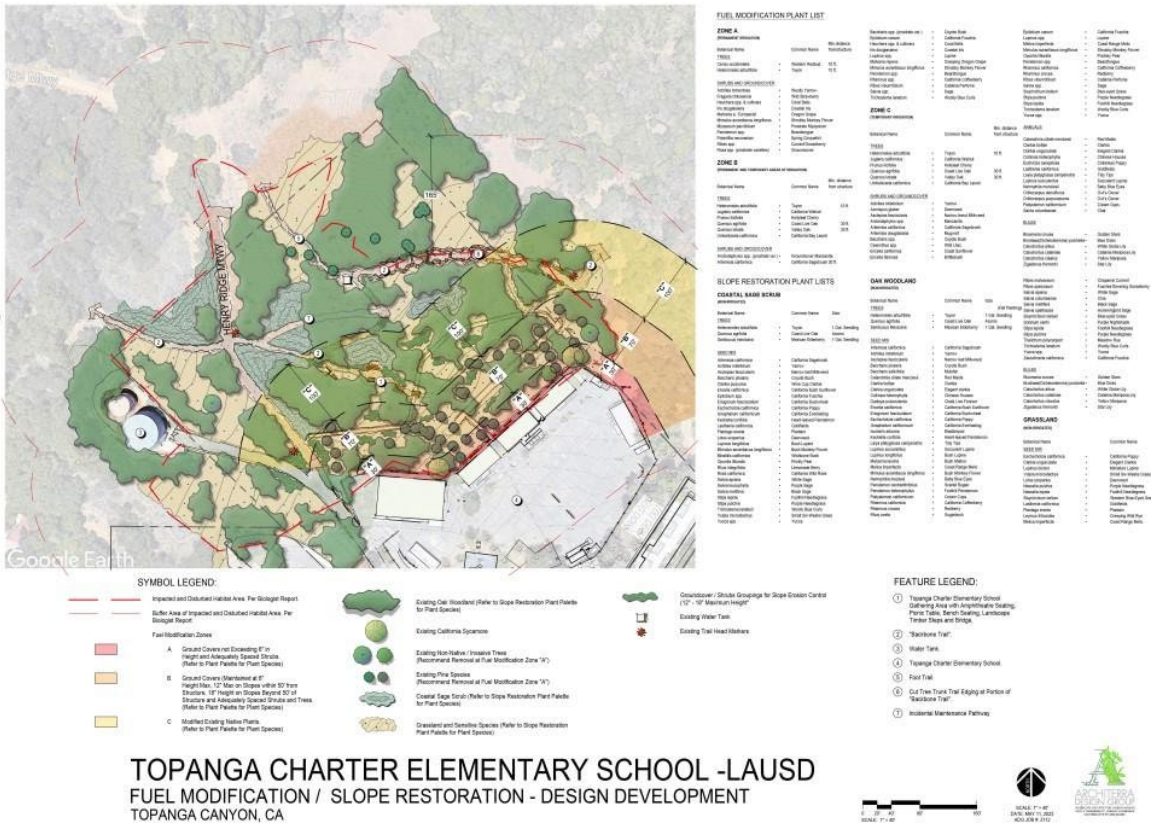

Figure 1. Fuel Modification Plan for Topanga Elementary Charter School. Provided by Architerra. (NOTE: Plan size version will be appended to this document)

Typically, Zone A is an open, irrigated zone where lawn and various ornamental shrubs are permitted. This zone is typically irrigated, maintained green and lush, particularly in the summer and fall. It may contain a significant component of non-native plants. At TECS, this zone is dominated by mature planted trees, especially pines (*Pinus* spp.), and frequently maintained. The plants identified on the Fuel Modification Plan are the only ones permitted in this zone.

The function of Zone A is twofold: a) to allow firefighter access around the perimeter of buildings, and b) to discourage spread of fire and embers, via taller and evergreen trees (flying embers) or irrigated ground-cover (ground fire).

Zone B is within the moderately degraded oak woodland area and will only be irrigated to get plants and trees established, and is more naturalistic, with native trees and shrubs maintained in a natural configuration, wide gaps between plants, "limbed-up" trees and shrubs (to 6'), and native low/open ground cover year-round. Deadwood is trimmed and "cleaned up" each year and chipped to be used a mulch on site.

Only a portion of Zone C is found on the property ~~largely extends off the property (where it would not be considered a fuel modification zone from the school's buildings),~~ and consists of a mix of moderately degraded oak woodland and native valley grasslands interspersed with some coastal sage scrub and other native shrubs. On the school property, this zone is not irrigated except to support establishment of mitigation required plantings, and largely natural, with only light trimming and deadwood pickup at most.

NOTE: Areas outside 100' from the structures at TECS are not to be impacted by ANY proposed fuel modification.

IMPLEMENTATION OF RESTORATION PLANTING PLAN

We have identified the following elements of the Restoration Planting Plan:

a. Site selection criteria
b. Site preparation criteria
c. Plant selection criteria
d. Seed and plant provenance requirements
e. Installation
f. Irrigation
g. Weed Management
h. Best Management Practices (BMPs) required for all contractors

Site Selection

The TECS Restoration Planting Plan (provided by Architerra) identifies plants suitable for the above fuel modification zones identified and approved by LA County and CDPR, which were selected based on location of impacts, augmenting oak woodland without impacting native grasslands and are arranged by habitat types, depending on the vegetation type that the part of the site would naturally support. For example, Zone B within an area that would be coastal sage scrub will support plantings of scattered California sagebrush, purple sage and square-leaf goldenbush set 6' apart, with larger shrubs like blue elderberry and laurel sumac scattered throughout. This is also the area where restoration of the pollinator plants removed during the violation will be placed.

The Restoration Planting Plan is a standalone construction document available to all contractors and copies retained on site. Required mitigation trees are a mix of existing volunteers that are tagged and mapped as well as additional new trees.

Site Preparation

The TECS site was significantly disturbed by clearance actions in 2020, and experienced some erosion since then. However, the rains in 2023 have resulted in substantial recovery of both native and invasive plants, although additional disturbance occurred during the Palisades Fire in January 2025. Prior to installing restoration seeds or plant materials, all invasive species roots will be removed to clear an area at least six times the width of the planting hole to mineral soil or the whole area to be hydroseeded. Location of new installations will make sure that proposed planting locations do not interfere with or impact any existing native plants.

We recommend that removal of any non-native trees shall be completed *prior* to the installation of the required mitigation trees.

If this is not possible, we recommend planting required mitigation trees far enough from existing non-native trees (e.g., pines) that if/when they are removed, they do not damage mitigation trees.

Plant Selection Criteria

The following comments refer to the plant list recommended for the TECS site, and are directed toward plantings *outside* of Zone A.

The TECS plant palette was selected based on species that occur at and around the project site, slightly augmented with additional native shrubs and herbaceous species to create multi-layered habitats. While an all-native plant palette is recommended for Zone A, we recognize that several non-native species are already present in this zone, and that certain species may be selected for reasons other their native-ness (e.g., other ground-cover).

Species native to central SMM, but *not* found on TECS site, are recommended for Zone B (or A) only, and *not* for Zone C, which should be local natives only.

Please refer to Appendix D, “Restoration Planting Plan”, prepared by Architerra, for a list of plant species recommended for each zone.

Seed and Plant Provenance Requirements

All native mitigation trees/shrubs will come from Santa Monica Mountains seeds and stock. Native stock will be obtained from a reputable source where the provenance of seeds is clearly documented and if container stock is used, they will be inspected before transport to the site to ensure that there is no visible evidence of soil pathogens, insects, non-native frogs or other invasive species present. This is in accordance with LA County and CDPR permit requirements for planting within and adjacent to state parks in the Santa Monica Mountains.

Approved watershed appropriate seeds/container stock are available through private vendors as well as the Los Angeles County Forestry, CDPR Angeles District, National Park Service and National Park Service. S&S Seeds and other commercial nurseries also can provide the required mitigation plant materials matching the provenance of the seed/stock appropriate for the Topanga Creek watershed.

Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species. Plants shall not show signs of prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves. Plant roots shall be normal to the plant type specified. The root system shall be reasonably free of stem girdling roots over the root collar or kinked roots from nursery production practices. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant.

Oaks are required to be mitigated by up to 1-gallon container trees from acorns of the vicinity, plants of 1-in. diameter at 1-ft. from ground. Oak mitigation trees need an acorn of the same species from the vicinity planted in the irrigation circle and oak leaf mulch or other mycorrhizal amendment.

We recommend use of the smallest possible container stock available to provide opportunity for site specific adjustments of the roots.

Using the Restoration Planting Plan (Appendix D) as a guide, final locations and spacing of container material will be determined in the field at the time of planting, under the supervision of the Qualified Biologist, with the goal of achieving a natural-appearing landscape. Tree species will generally be installed on 20’ centers, shrubs on 5-10’ centers, and herbaceous species on 1-2’ centers. The goal is to create a natural growth pattern that blends into the surrounding open space.

Qualified Biologist

Species substitutions will not be allowed without consultation with the Qualified Biologist. The Qualified Biologist shall be provided a list of the species purchased for the restoration *before* this plan is implemented so that they can check that the species and quantities are consistent with the plant palette. Totals may be adjusted depending on availability at the time of planting.

The Qualified Biologist shall be provided a list of the species and quantities purchased for the restoration before this plan is implemented so that they can check it the species and quantities are consistent with the plant palette. The container stock and seed shall be inspected to ensure that it is free of pathogens, non-native ants and other pests immediately before being transported to the site. The Qualified Biologist shall inspect the stock again immediately upon arrival at the site. If pathogens or non-native ants are

found, delivery of the stock and/or seed in which they occur shall be refused and taken back to the nursery.

Installation of Restoration Planting

The Qualified Biologist shall provide direction on ground preparation and herbivory protection for plant seedlings in years following the first seeding (if used), and planting of container plants. Seeding and planting should coincide with the first onset of rain in late fall, and should not extend past late winter (typically, Oct. 15 – Feb. 15), and should follow weeding.

Actual planting shall be performed during those periods when weather and soil conditions are suitable in accordance with locally accepted horticultural practices. Planting Soil as used in this specification means the soil at the planting site. No planting shall take place during extremely hot, dry, windy or freezing weather. No fertilizer supplements shall be applied to the plants during the planting process. However, should evidence indicate that the seedlings are being outcompeted by the non-natives, a weed barrier such as mulch over newspaper, mulch from the site or woven polypropylene fabric approximately 3 feet by 3 feet in size, or other application may be placed around the seedling to minimize the prevalence of weeds and improve soil moisture levels.

Acorns should be collected from the site in season (fall), for use in restoration and mitigation plantings in accordance with the LIP requirements (LIP Sections 22.44.950, 22.1920.K.1).

It is recommended that at least 50 % more trees are planted than required to anticipate seedling loss during the monitoring period.

Seed Preparation & Application

Hydroseeding typically consists of the application of wood fiber, seed, and stabilizing emulsion (binder) with hydro-mulch equipment, which temporarily protects exposed soils from erosion until the seeds germinate, grow, and become established. Should hydroseeding be employed during any stage of this project, we recommend the following:

1. The seed shall be mixed uniformly in slurry composed of water, certified weed-free wood fiber or cellulose mulch, and stabilizing emulsion or other suitable mix as recommended by the Qualified Biologist.
2. The hydroseed mix shall be applied using hydro-mulching equipment or other method as recommended by the Qualified Biologist. Do not apply hydroseed within 24 hours of a forecast rain event.

Container Stock Planting

1. Any container stock shall be certified as free of all insects, pathogens and disease prior to planting. Any seedlings planted in the State Park also need to be certified as *Phytophthora sp.* free and come from approved locations (within the Topanga Creek watershed or adjacent watersheds).

2. Laborers using hand tools shall dig holes approximately twice the width and depth of the root balls of the container stock.
3. The holes shall be randomly spaced in a manner that appears natural either in the understory as directed by the Restoration Planting Plan and for trees, along the edge of driplines approximately 20 ft apart.
4. Laborers shall fill the holes with water and allow them to drain before installing the container stock. NOTE: If holes do not drain in a reasonable time frame then that hole shall be backfilled and an adjacent hole prepared and tested.
4. Laborers shall then install and set the container stock so that the crown of their root balls are approximately 0.25 inch above grade and backfill them. NOTE: Any plants located outside LAUSD property will be treated with Rain Bird Root Booster strips BIO-1 (5 gallon) which are 100% wood fiber cellulose and biodegrade after approximately 1-2 years.
5. After planting, laborers shall create 18-24 inch wide water basins around the container stock and shall fill each with water, allow to drain, and repeat.
6. The basin and surrounding area will be covered with a 2-4 inch layer of natural mulch or oak leaf litter.
7. After the area has been planted and hydroseeded it shall be initially irrigated per the manufacturers hydroseeding instructions and per the direction of the Qualified Biologist Year 1 through 3.
8. All planting activities shall be conducted under the direct supervision of the Qualified Biologist.

Herbivory Control

1. To prevent herbivory from deer, rabbits, squirrels and other creatures that frequent the site, all container plants to be installed will have wire around both the roots and shoot.
2. Cylinders should be made of either chicken wire or non-galvanized, welded mesh wire with 1⁄2 inch squares.
3. All wire cylinders will be installed at the time of planting so that they can be buried at least 6 inches below ground to ensure the wire does not get pulled out or otherwise trampled and extend at least 2 feet above ground to prevent herbivory.
4. All wire cylinders will be removed from the above ground area once the plants have been properly established (Year 3).

Irrigation

While planting will be scheduled to take advantage of winter rainfall, irrigation may be necessary to ensure plant establishment. An irrigation system should be installed where it is feasible to provide a bubbler/drip system for the container plants and seeded areas in accordance with the construction pages associated with the Restoration Planting Plan. Plants located outside the irrigated zone will be hand watered as directed by the Qualified Biologist. The Qualified Biologist will monitor the restoration area to ensure proper operation of the irrigation system and that the appropriate amount of water is being delivered to the plants. The irrigation system will be used in the early fall and late spring seasons for the first two growing seasons to help establish the plants such that they can survive on their own from seasonal rainfall. Additional watering events will occur at the

discretion of the Qualified Biologist based on need. Irrigation shall be phased out per the direction the Qualified Biologist (Years 3 - 4) and shall be completely removed after they determine that the restoration has been successful.

Irrigation for each mitigation tree will be set up to support establishment initially and then be tapered off by Year 5. The Qualified Biologist will monitor irrigation schedules and advise LAUSD on management based on drought conditions. Each tree will receive no more than 10 gallons once per month between December and March (less if storm events provide sufficient moisture), and 5 gallons twice monthly between April and November (less depending on rain events).

Weed Management

Hand weeding with augmentation of weed whackers of the non-native plants is recommended for this particular project. In addition to the BMP's detailed in Appendix E, implementation of the following is required.

1. It is essential to clean vehicles, the equipment, and personnel clothing and shoes of trapped soil and non-native propagules before bringing equipment to the property, and at the end of each day of work, and before the equipment is removed from the property, so that there is no further dissemination of non-native invasive plants.
2. Weeds shall be removed during late spring through early summer, as necessary, before they set seed and/or before they reach approximately 12 inches in height under the direction and on-site supervision by the Qualified Biologist.
3. Weeding shall be done following transect measurements collected by the Qualified Biologist.
4. "Selective weeding" should be done in all years of restoration, to remove any noxious weed species that arrive on the site.
5. All Weed control shall mainly employ hand pulling and mechanical methods, and herbicide shall not be used.
6. All weed control activities shall be conducted with on-site supervision provided by the Qualified Biologist.

Best Management Practices required for all Contractors

A list of all required BMPs are found in Appendix E and will be provided to all contractors.

Impacts to Coastal Sage Scrub and Understory Pollinator Plants

One of the impacts from the 2020 fuel modification work was an approximately 25-meter long by 3-meter-wide swath of coastal sage scrub that was cleared to provide a temporary access route for heavy machinery working at the site.

Fortunately, this area was observed to have grown back with largely-native vegetation by spring 2023 (**Figures 2a, 2b**). Tracking the progress of this recovery is required by LA

Count and should use the template provided in Appendix A building on the Baseline Vegetation Transect Analysis (2023), as well as photo-documentation of the impacted area following the baseline site and transect photos provided. Additional information on the methods and analysis are found in the Biological Assessment Report (2023).

Figure 2a. Access route cut through coastal sage scrub on site (29 May 2020; C. McCammon).

Figure 2b. April 2023 photograph (DSC) of area of coastal sage scrub impacted by temporary access road construction in 2020 (at left; footpath at right is an established trail through the project site).

Sampling this area is required by permit for at least five years (2023-2028) post restoration.

Additionally, approximately 600 native pollinator plants installed by students under a grant from the Xerces Society were removed. Replacement will be directed by implementation of the Restoration Planting Plan and monitoring will be incorporated via the site transects described in Appendix A.

ANNUAL VEGETATION AND NATIVE TREE MONITORING

Vegetation Monitoring (sitewide line transects)

Results will be analyzed each year and included in an annual report submitted in early Summer to LA County, LAUSD and State Parks. If native cover of impacted area has not achieved 90% of unimpacted area after five years, the area will be planted with locally native species suitable for planting, similar to those approved for Zone B of the Replacement Planting Plan (including container plants and hydroseeding), and hand-watered through the dry season (along with the other restoration areas on-site).

Background

As part of the assessment and mitigation for vegetation impacts from fuel modification involving oak tree removal and coastal sage scrub clearing in 2020, we established and surveyed eleven vegetation transects around the TECS property, and adjacent California State Park lands in April 2023.

Quantitative vegetation monitoring typically uses two main methods, point-intercept transect and quadrat. The former runs a tape measure through vegetation and records all species that intersect the line at various intervals; the latter estimates cover of species within a (usually 1 meter x 1 meter) square. Beyond that, there is not an established standard of measurement applicable to all vegetation types; vegetation is too variable in height, density, and composition; and the goals of each project/analysis will vary depending on the project goals.

Therefore, we established the method for TECS by researching existing, established methods used by resource agencies, including the Bureau of Land Management (BLM's 1999 guidelines are apparently widely used[2]). We also queried our contacts at the Santa Monica Mountains National Recreation Area, who have been conducting vegetation surveys for many years (M. Mendelsohn, pers. comm.).

Ultimately, we devised a rapid-assessment methodology based on the following "needs" of our project:

- Could be relatively quickly established and conducted, over a few hours (rather than over multiple days/weeks);
- Would accurately and comprehensively capture the most common/dominant plant species of the site, without leaving major gaps (e.g., no major vegetation community would be left un-sampled);

[2] See https://riversource.net/wp-content/uploads/2013/01/Quadrat-transect-sampling-methods-outline.pdf

- Would not require very high level of plant identification skills, but could be repeated in future years by technicians with strong, but not necessarily expert, level of knowledge.
- Redundancy in the areas of the project site sampled, such that we would visit >1 examples of oak woodland, coastal scrub, grassland, etc., across the project area;
- Redundancy in prior land use/impact, with multiple sampling areas each in areas affected by prior major fuel modification/tree-cutting, moderate/light modification, and unaffected areas;
- Would not place undue burden on technicians, being placed along the contour of slopes and avoiding impenetrable shrubs, thick poison oak stands, etc.
- Maximize coverage of site, while also maximizing distance between sampling areas.

Methods

After scouting the site on 30 March 2023 and continuing surveys on 4 April 2023, we (Cooper, Danielle Picciano) established eleven (11) transects of 30 meters each (30 meters seemed to be the standard distance and was also followed by SMMNRA vegetation ecologists in the area).

We benchmarked these with 0.5-meter lengths of PVC pipe hammered into the ground at either end, marked with a permanent marker (e.g., "TECS-001 Start", "TECS-001 End").

We extended a 30-meter/100' tape measure out from the start to the end of each transect and recorded all plant species intersecting at 1-meter points, from 0 to 30. This resulted in 31 total points per transect, for 341 rows of data, or "samples", with 706 individual species (including deadwood and bare ground) records (each point had 0-4 "species" associated with it).

We recorded the GPS coordinates of both the start and end marker for each transect, and photographed the lines from each end as benchmarks (**Table 1**).

Table 1. Coordinates for TECS transects established at TECS (April 2023).

Transect#	LAT_START	LONG_START	LAT_END	LONG_END
TECS-01	34.092755	-118.60549	34.092883	-118.605789
TECS-02	34.093007	-118.605511	34.093118	-118.605808
TECS-03	34.093315	-118.605745	34.093347	-118.605448
TECS-04	34.093188	-118.605005	34.093276	-118.605255
TECS-05	34.093485	-118.604906	34.093553	-118.604592
TECS-06	34.093944	-118.604927	34.093801	-118.604637
TECS-07	34.093721	-118.604799	34.093676	-118.605083
TECS-08	34.093797	-118.605265	34.094058	-118.605316
TECS-09	34.093936	-118.605652	34.093984	-118.605954

TECS-10	34.093625	-118.605818	34.093555	-118.605502
TECS-11	34.093512	-118.605805	34.093281	-118.605987

The map depicting the location of each transect is found below (**Figure 3**).

Figure 3. Map of transect locations (April 2023). Each was measured to 30 meters; however, due to topography and vegetation height, the apparent length of each will vary slightly.

Recommendations for Data Collection and Presentation (sitewide line transects)

The following data will be collected annually and included in the Annual Vegetation Report:

- List of all plant species recorded as dominant at each point along each transect line (may be listed as an appendix);
- Plant species representation (most common, by percent of points where detected) along all transects (pooled);
- Percentage of native vegetation; and
- Percentage cover by coast live oak (*Quercus agrifolia*).

Because the site consists of a variety of vegetation types occurring in a natural mosaic, it is impractical to assign specific sitewide goals for representation of natives vs. non-natives, or percent cover by trees or shrubs, etc. Certain vegetation types may have much higher representation by non-natives than others, and may still retain high ecological function (e.g., grassland dominated by non-natives but with a significant native component).

Native Oak Tree Monitoring/Replacement Plan

The following plan is based on the NATIVE TREE REPLACEMENT PLANTING PLAN developed by RCDSMM which was approved by Los Angeles County Department of Regional Planning in 2017. A template for preparing the required annual report is found in Appendix C. The elements of this plan are incorporated into the relevant sections of this document (container selection, seed provenance requirements, etc.).

Based on the mitigation requirements for this project, 300 coast live oak acorns/saplings are required. The 124 existing oak volunteers that have been tagged and mapped can be counted, requiring installation of 176 acorns/saplings. An additional 50 trees will be planted to ensure that the required number of mitigation trees will be alive and established at the end of the 7-year monitoring period. Overplanting provides a buffer in case of loss of up to 50% of the identified mitigation trees during that monitoring timeframe.

All mitigation trees will all be monitored for a minimum of seven years as required by the Santa Monica Mountains Local Coastal Plan and the Oak Protection Permit. The locations of trees to be planted will follow the Restoration Planting Plan (Appendix D), which identifies both on-site (LAUSD) locations and immediately adjacent off-site (California State Parks) locations that have been approved by the property owners.

Standard for Replacement Planting

Should any of the mitigation plants or trees die or lose sufficient vigor that their continued survival is not certain, then either a) one of the extra plants installed as a buffer will be counted and monitored as their replacement, or b) a replacement plant will be installed.

"Tree Condition" will be rated using the score sheet shown in **Table 2**, which uses the criteria from the Guide for Plant Appraisal 9th Edition (Council for Tree and Landscape Appraisers 2000).

Table 2. Guide to Plant Condition.

Condition Scoring system	Points	%	Rating
No problems (based on inspection)	5	90-100	Excellent
No apparent (immediately visible) problems	4	70-89	Good
Minor problem(s)	3	50-69	Fair

Major problem(s)	2	25-49	Poor
Extreme problem(s)	1	0-24	Very Poor

The Qualified Biologist/Certified Arborist will annually note any potential need for replanting and notify the property owners and Los Angeles County Department of Regional Planning and Forestry.

The Annual NATIVE TREE Report will provide details and recommendations for all replacement plantings each year. A template for preparing the annual report is found in Appendix B.

Maintenance Practices Plan

Regular inspection of the irrigation system to ensure that all plants/ trees are receiving water as prescribed as well as providing direction on hand pulling weeds from within and adjacent to the wire cages are to be done by LAUSD. Additional details on maintenance BMPs are found in Appendix E.

The Qualified Biologist and Certified Arborist shall be available to discuss the maintenance practices outlined in Appendix E with the site contractors.

FUEL MODIFICATION PRACTICES

Detailed directions for Fuel Modification actions and hiring a suitable contractor are provided in **Appendix E**. Fuel modification needs to be supervised by a Qualified Biologist and Certified Arborist.

Weed removal within the restoration planting area will be ongoing and limited to the use of hand tools only (including weed whackers).

Timing the fuel modification actions will vary each year depending on rain and should be coordinated between

Monitoring Schedule

The Qualified Biologist will visit the restoration areas of the project site twice per month (or as necessary) during the first 120 days after planting and seeding, to monitor site conditions.

Following this initial establishment period, the Qualified Biologist should conduct monitoring visits as shown in Table 3. This assumes that the restoration success criteria are being met. If any problems arise, the Qualified Biologist will prepare a letter documenting the issues and share with LAUSD, State Parks and LA Count

Table 3. Qualified Biologist Schedule: Monitoring replacement coastal sage scrub and understory pollinator species according to the Restoration Planting Plan

Year 1 post installation	1 time/month after first 120 days to check plants, weeds and irrigation. Submit Initial Monitoring Report after first 120 days. Conduct 11 transect survey in spring, update photo documentation and prepare the Vegetation Annual Report
Year 2	Every other month check plants, weeds and irrigation. Conduct 11 transect survey in spring, update photo documentation and prepare the Vegetation Annual Report
Year 3	Quarterly site visits to check plants, weeds and irrigation. Conduct 11 transect survey in spring, update photo documentation and prepare the Vegetation Annual Report
Year 4	Site visit in Fall Conduct 11 transect survey in spring, update photo documentation and prepare the Vegetation Annual Report
Year 5	Site visit in Fall. Conduct 11 transect survey in spring, update photo documentation, and prepare Vegetation FINAL Report

The Certified Arborist will visit the site according to the following schedule:

Table 4. Certified Arborist Monitoring Schedule

Year 1 post installation	1 time/month after first 120 days to check trees, weeds and irrigation. Submit Initial Monitoring Report after first 120 days. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 2	Every other month site visit to check trees, weeds and irrigation. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 3	Quarterly site visits to check trees, weeds and irrigation. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 4	Site visit in Fall to check trees, weeds and irrigation. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 5	Site visit in Fall. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 6	Site visit in Fall. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree Annual Report
Year 7	Site visit in Fall. Conduct survey and document condition of all existing and mitigation trees, update photo documentation and prepare the Native Tree FINAL Report

These site visits will also be used to determine if the container stock and trees are becoming adequately established, verify that seed application and germination has been successful, check that irrigation is adequate, and identify any problems or potential problems with regards to plan implementation.

During this post-planting period and in future years, the Qualified Biologist and/or Certified Arborist will provide recommendations in writing to the applicant's contractor regarding any necessary remedial actions. The applicant's contractor shall be responsible for ensuring that all remedial actions are taken and completed in a timely manner.

Annual Monitoring Reports

The Qualified Biologist will provide an Initial Monitoring Report to the Los Angeles County Planning Department, LAUSD and State Parks within 30 days of completion of the 120-day initial monitoring period. The report will include details and maps as necessary with regards to site preparation, irrigation, the species names and amount of container stock used, the species names and amount of seed applied, and any deviations from the recommended plant palette.

A Baseline Native Tree Replacement Report will also be prepared following installation of mitigation plants and start the clock ticking for the required survival times. The report will provide sources of seeds/stock, container size (if applicable), and details of installation, tables and maps showing the locations of all plants, access information, site condition information and any other pertinent details. A series of photo-documentation points will be established to document growth over time based on the template provided in Appendix B.

Tree photos will be taken in fall each year prior to preparation of the annual report to illustrate condition at the end of each monitoring year. The Baseline Native Tree Replacement Report will also include a map of all tagged plants, species, size, condition, canopy cover, and GPS coordinates. This table will be set up to allow additional notation of growth and condition over time, as well as document any problems (as found in Appendix B). The report will be submitted to LAUSD, State Parks, and LA County Department of Regional Planning upon annual completion.

FINAL REPORT

A final report will be provided when either the time period of the permit is completed or the success criterion is achieved if the permit is extended. The FINAL reports for both vegetation monitoring and tree monitoring will include, but not be limited to, a summary of all monitoring data, cumulative photo documentation, analysis of success in meeting the metrics for establishment and documentation of any problems or concerns encountered such as need for replacement planting, impacts of wildfire, etc.

Success Criteria

The restoration/revegetation projects in the Santa Monica Mountains Coastal Zone all have an overriding Success Criterion, specified in §22.44.1240.B.5:

"Landscaping or revegetation shall provide 90 percent coverage within five years, or that percentage of ground cover demonstrated locally appropriate for a healthy stand of the particular native vegetation type chosen for revegetation."

and two years have passed with only weeding as maintenance (no irrigation or other restoration process).

Therefore, we recommend that the TECS site show the following, after five years:
1. A trend toward increased cover by native species, currently (2023) at c. 45%; no specific threshold identified; and
2. A trend toward increased cover by coast live oak, currently (2023) at 32%.

The standard for success for native tree replacement is considered to be growth (appropriate to species and initial planting size) and establishment of 100% of all required mitigation plants. If any of the original mitigation trees dies, then a replacement plant is installed (either through use of the buffer mitigation planting) or a newly installed plant, a new unique tag and associated information incorporated into the reporting matrix. A mitigation replacement is monitored for the remainder of the original term of 7 years for oaks. A mitigation replacement tree that deteriorates is replaced within the year deterioration is noted.

The Qualified Biologist and Certified Arborist will take photographs during every scheduled monitoring visit from permanent stations. Quantitative data regarding the general health, growth rate, and mortality of plants will be recorded and compared to the reference distribution. The Qualified Biologist will also collect data during site visits using transect methods. This data will be used to determine if the success criteria set for the restoration are being met and to identify any necessary remedial actions as they arise. No woody invasive species shall be present. No temporary irrigation or maintenance (other than weeding and on-going fuel modification) required for two years' time.

If performance standards are not being met, the Qualified Biologist or Certified Arborist shall provide recommendations in writing to the property owners regarding necessary remedial action. At the end of 7 years of restoration, in the case when the restoration criteria have not been met, the monitoring plan shall be extended until the standards are met or for 5 additional years. If success criteria are not met within 10 years, the applicant shall submit an amendment proposing alternative restoration (SMM LIP §22.44.1920.L). The applicant's contractor shall be responsible for ensuring that all remedial action is taken and completed in a timely manner.

Adaptive Management Guidelines

An inherent part of any restoration plan is the ability to detect problems regarding the success of the restoration, to determine the cause of the problem, and to take corrective measures. The Qualified Biologist and Certified Arborist will ensure that the property owner corrects minor problems, such as isolated instances of plant mortality, or small-scale weed or pest infestations during routine site visits. If more than 50% of the plants used for the restoration die, the monitoring biologist will make recommendations to correct the problem and coordinate with LA County and State Parks to determine the appropriate action.

Appendix A

Vegetation Transect Annual Report Template

Topanga Elementary Charter School 22075 Topanga School Road Topanga, CA 90290

APN: 4445-004-903
APN: 4445-004-900
APN: 4445-005-902
APN: 4445-004-901
APN: 4438-029-900
APN: 4438-029-901

Code Enforcement #: RPCE2020002177 Application #: RPPL2020006795

Template Prepared for:

Los Angeles Unified School District

Prepared by:

Rosi Dagit

RCD of the Santa Monica Mountains

540. S. Topanga Canyon Blvd. Topanga, CA 90290 310-455-7528

rdagitrcd@gmail.com

Report Date:

18 May 2023

Project

The subject property is the Topanga Elementary Charter School (APN 4445005903) centered at approximately 34.092844, -118.604506 and is approximately 12.25 acres in size. The impact area is on the north/northwest portion of the subject property and encompasses approximately 4.75 acres. Access is along Topanga School Road in the central Santa Monica Mountains of unincorporated Los Angeles County, California. California State Park boundary abuts the project site with a regionally significant multi-use trail, the Backbone trail, running through and adjacent to the project site.
The applicant intends to restore and mitigate damage done to the habitat during a fuel modification treatment. The impact area shows the area that was assessed as receiving damage during the extensive fuel modification clearing. The impact area was given a 200-foot buffer for which the habitat was assessed.

Objectives

As part of the assessment and mitigation for vegetation impacts from fuel modification involving oak tree removal and coastal sage scrub clearing in 2020, there are eleven established vegetation transects around the Topanga Elementary School (TES) property, and adjacent California State Park lands, in April 2023 for site monitoring.
We recommend that the site show the following, after five years:

1. A trend toward increased cover by native species, currently (2023) at c. 45%; no specific threshold identified; and
2. A trend toward increased cover by coast live oak, currently (2023) at 32%.

Transect Description

There are 11 Established transects of 30 meters each which are marked with 0.5 Meter lengths of PVC pipe at beginning and end of each transect, labeled (e.g., “TES-001 Start”, “TES-001 End”).

Table 1. Coordinates of transects established at TES (April 2023).

Transect#	LAT_START	LONG_START	LAT_END	LONG_END
TES-01	34.092755	-118.60549	34.092883	-118.605789
TES-02	34.093007	-118.605511	34.093118	-118.605808
TES-03	34.093315	-118.605745	34.093347	-118.605448
TES-04	34.093188	-118.605005	34.093276	-118.605255
TES-05	34.093485	-118.604906	34.093553	-118.604592
TES-06	34.093944	-118.604927	34.093801	-118.604637
TES-07	34.093721	-118.604799	34.093676	-118.605083
TES-08	34.093797	-118.605265	34.094058	-118.605316
TES-09	34.093936	-118.605652	34.093984	-118.605954
TES-10	34.093625	-118.605818	34.093555	-118.605502
TES-11	34.093512	-118.605805	34.093281	-118.605987

Map of

transect locations (April 2023). Each was measured to 30 meters; however, due to topography and vegetation height, the apparent length of each will vary slightly.

Data Collection Instructions

A 30-meter (100') measuring tape should be run between PVC pipe start/end markers. Walking along the transect tape, all plant species that intersect the tape at the meter point (starting with meter 0) should be recorded. This includes vegetation hanging above point. All plant species at each meter point will be recorded, from 0 to 30 meters for a total of 31 points. There may be multiple species intersecting at any one point, all of which should be recorded. If there are no species intersecting at a meter point, this should be recorded as well (e.g.; "bare ground.")

From data collected, a database of species (including deadwood and bare ground) can be created to determine species representation along each transect and with all 11 transects combined.

Transect Data Collection Template

Date	Transect	Meter	Species	Native
		0	1	
			2	
			3	
			4	
			5	
		1	1	
			2	
			3	
			4	
			5	
		2	1	
			2	
			3	
			4	
			5	
		3	1	
			2	
			3	
			4	
			5	
		4	1	
			2	
			3	
			4	
			5	
		5	1	
			2	
			3	
			4	
			5	
		6	1	
			2	
			3	
			4	
			5	
		7	1	
			2	
			3	

			4	
			5	
		8	1	
			2	
			3	
			4	
			5	
		9	1	
			2	
			3	
			4	
			5	
		10	1	
			2	
			3	
			4	
			5	
		11	1	
			2	
			3	
			4	
			5	
		12	1	
			2	
			3	
			4	
			5	
		13	1	
			2	
			3	
			4	
			5	
		14	1	
			2	
			3	
			4	
			5	
		15	1	
			2	

			3	
			4	
			5	
		16	1	
			2	
			3	
			4	
			5	
		17	1	
			2	
			3	
			4	
			5	
		18	1	
			2	
			3	
			4	
			5	
		19	1	
			2	
			3	
			4	
			5	
		20	1	
			2	
			3	
			4	
			5	
		21	1	
			2	
			3	
			4	
			5	
		22	1	
			2	
			3	
			4	
			5	
		23	1	

			2	
			3	
			4	
			5	
		24	1	
			2	
			3	
			4	
			5	
		25	1	
			2	
			3	
			4	
			5	
		26	1	
			2	
			3	
			4	
			5	
		27	1	
			2	
			3	
			4	
			5	
		28	1	
			2	
			3	
			4	
			5	
		29	1	
			2	
			3	
			4	
			5	
		30	1	
			2	
			3	
			4	
			5	

Appendix B

Site and Transect Photos
To be retaken each year for Annual Report

SITE PHOTOS

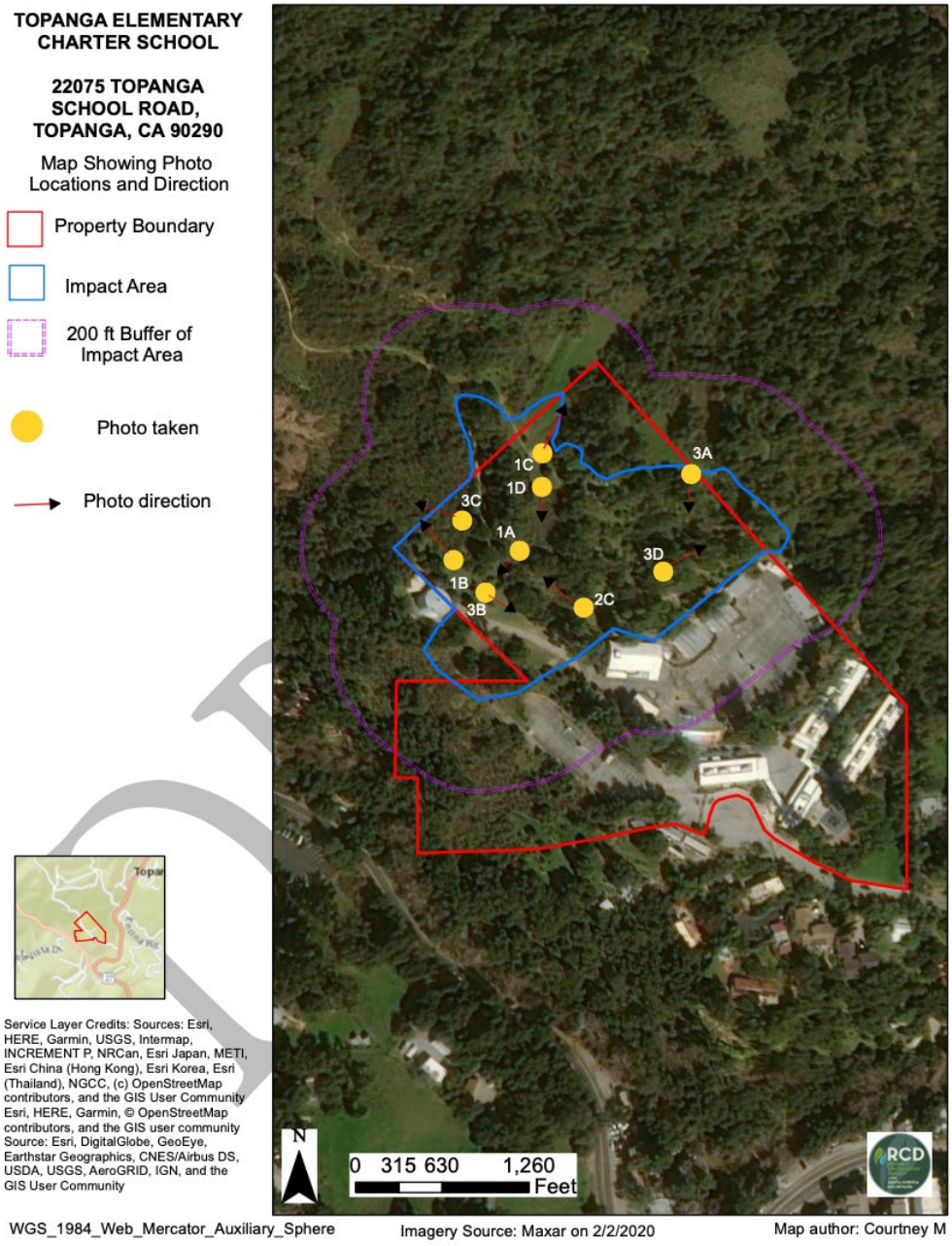

Photo 1A – View looking west at the obvious cut through coastal sage scrub habitat in the middle of the photo.

Photo 1C – View looking east showing the grassland habitat on the project site and Topanga State Park, oak woodland habitat in the background.

Photo 1B – View looking northwest at the coastal sage scrub on the right and the clearing of vegetation that occurred on the left of the photo.

Photo 1D – View looking south at the coastal sage scrub on the project site with oak woodland habitat surrounding it to the east, south, and west.

Photo 2A – View to the north showing a cut coast live oak tree in the northern section of the impact area.

Photo 2C – View to the northwest showing the cut coastal sage scrub habitat with the culvert in the foreground.

Photo 2B – View to the northeast showing cut stumps of coast live oak trees.

Photo 2D – View to the south showing cut stumps of coast live oak trees. These are located on Topanga State Park property.

TRANSECT PHOTOS

NOTE: Map showing transect locations is found in Appendix A.

Figure 1a. TES-01-Start

Figure 1b. TES-01-End

Figure 2a. TES-02-Start

Figure 2b. TES-02-End

Figure 3a. TES-03-Start

Figure 3b. TES-03-End

Figure 4a. TES-04-Start

Figure 4b. TES-04-End

Figure 5a. TES-05-Start

Figure 5b. TES-05-End

Figure 6a. TES-06-Start

Figure 6b. TES-06-End

Figure 7a. TES-07-Start

Figure 7b. TES-07-End

Figure 8a. TES-08-Start

Figure 8b. TES-08-End

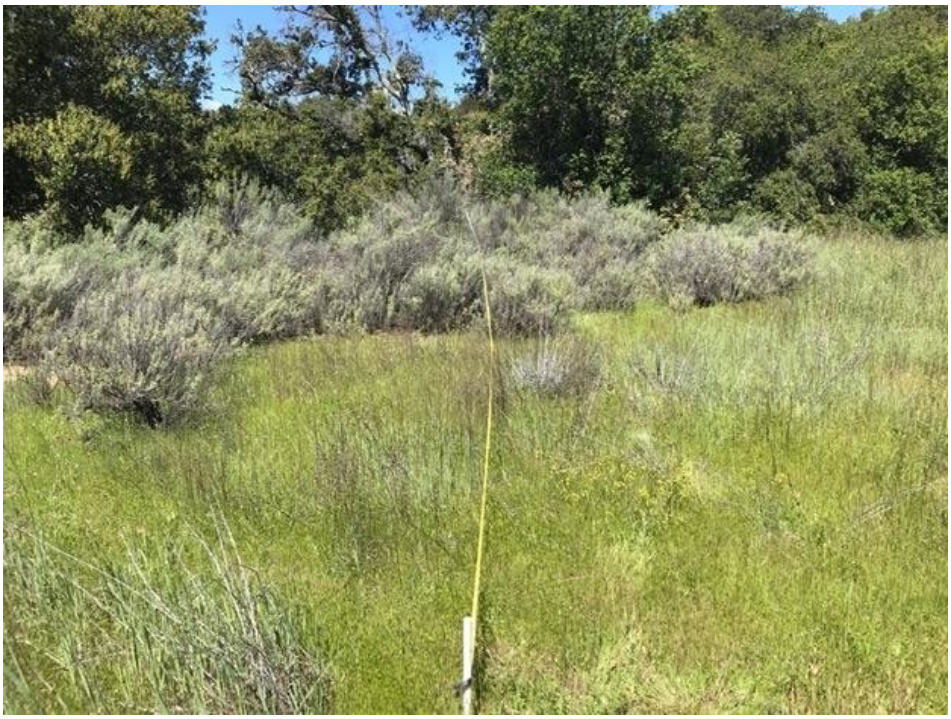

Figure 9a. TES-09-Start

Figure 9b. TES-09-End

Figure 10a. TES-10-Start

Figure 10b. TES-10-End

Figure 11a. TES-11-Start

Figure 11b TES-11-End

Appendix C

Native Tree Monitoring Annual Report Template

Topanga Elementary Charter School 22075 Topanga School Road Topanga, CA 90290

APN: 4445-004-903
APN: 4445-004-900
APN: 4445-005-902
APN: 4445-004-901
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Code Enforcement #: RPCE2020002177 Application #: RPPL2020006795

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Los Angeles Unified School District

Prepared by:

Rosi Dagit

RCD of the Santa Monica Mountains

540. S. Topanga Canyon Blvd. Topanga, CA 90290 310-455-7528

rdagitrcd@gmail.com

Report Date:

18 May 2023

Project

According to the LCP LIP requirements, an Annual Native Tree Replacement Report shall be prepared in January of each calendar year following initiation of a project mitigation planting and include, but not be limited to, the following elements:

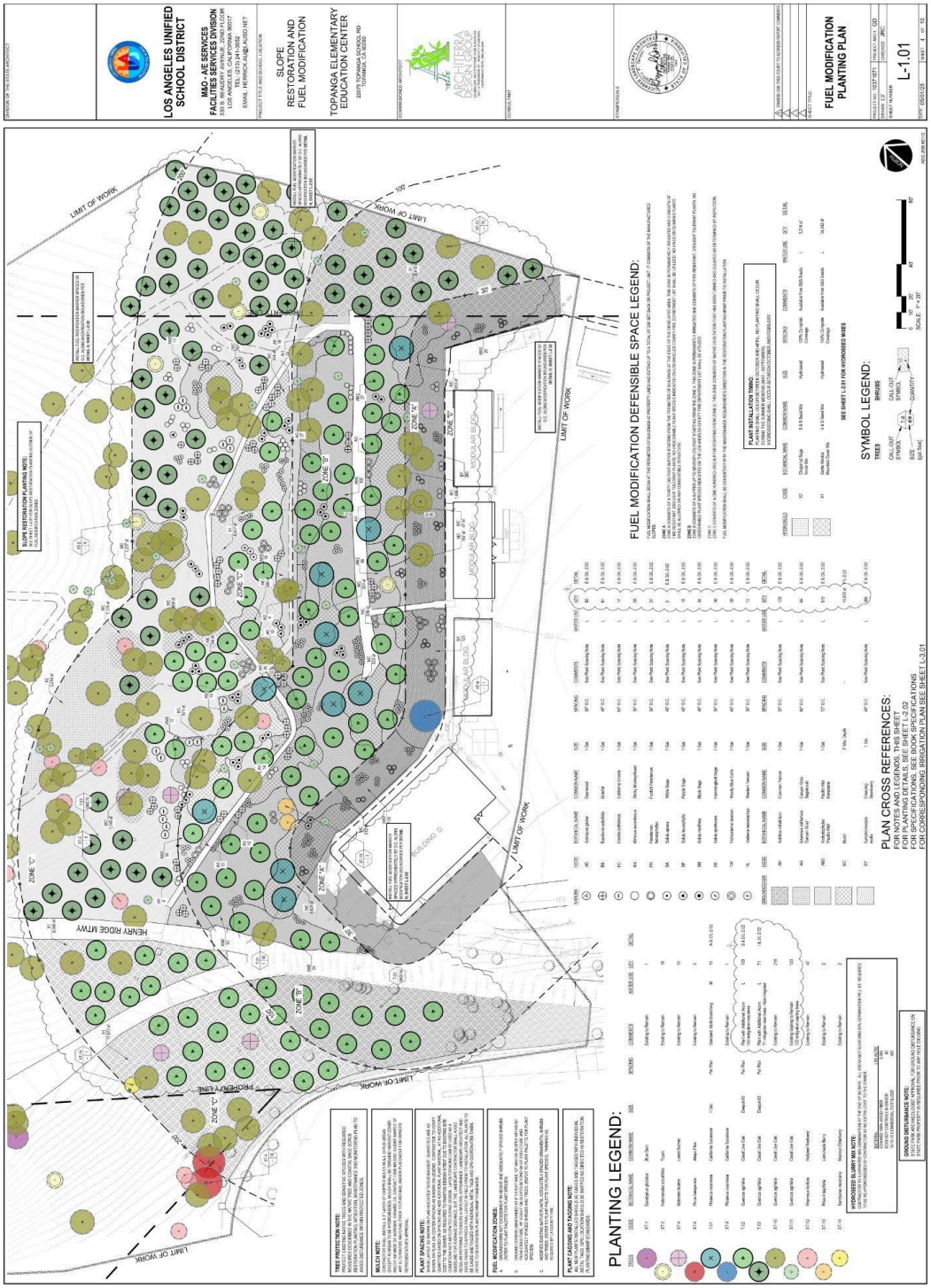
1. Summary of previous reports. This will be a table listing protected trees and mitigation trees by number, showing results of tree DBH and health in columns for each year of monitoring. "DBH" for mitigation trees will be measured at 1-ft. from the ground.
2. For years of construction disturbance, the Q will describe instituted tree protective measures for all original protected trees, results in terms of tree condition. Deterioration or death of any original protected tree will need to be mitigated by planting 10 additional mitigation trees of that species within the year following assessment of the deterioration.
3. Table of all enumerated trees listing unique number, tree species, original trunk or two trunks' DBH, original canopy diameters in N-S and E-W dimensions, health and DBH of tree at monitoring for year in columns by year. For mitigation trees, measurement of "DBH" is done 1-ft. from ground, measured along the trunk. For original protected trees, DBH is measured at 4.5-ft. from ground along the trunk(s).
4. Entry in yearly columns for DBHs and tree condition. Trees that decline beyond the performance limit need to be indicated for mitigation planting. Table should indicate protected tree being mitigated and new unique identification numbers of mitigation trees. Mitigation trees need to be planted within a year of the assessment of deterioration if it exceeds the number of buffer plants installed initially.
5. Map of all protected and mitigation trees on project site, [additional map(s) for each offsite mitigation area] with tree position shown by number keyed to table. Different tree species should have different symbols, and legend as a key to symbol.
6. Summary by species of trees retained in good condition, trees retained in condition worse than performance level specification (includes deaths), and new mitigation trees planted. Overall totals for the three categories.

Native Tree Monitoring Report Template
Excel spreadsheet will be provided upon request.

ID	LAUSD Tag	Tag #	Botanical	lat	lon	Year7 DBH total	Largest Stem 1	Largest Stem 2	2023 health	2023 DBH total	2023 Largest Stem 1	2023 Largest Stem 2	2021 Height	Canopy Spread N/S	Canopy Spread E/W	Notes
246		204	Rhamnus ilicifolia	34.093823084	-118.6035414				0%- Dead	7	4	3	8'			
304	No Tag	259	Quercus agrifolia - Sapling	34.09408904	-118.603188				20%- Critical	2	2	0	10'			
58	No Tag	81	Malosma laurina	34.093942072	-118.6037344				20%- Critical	3	3	0	18'			
79		96	Quercus agrifolia	34.093311885	-118.6035083				20%- Critical	8	8		33'			
8	1065063	24	Pinus halepensis	34.093263373	-118.6036981				40%- Poor	26	26	0	72			
197	1065492	537	Pinus halepensis	34.093200035	-118.6046934				40%- Poor	5	5	0	24'			
168	1065135	593	Pinus halepensis	34.093065943	-118.6046028				40%- Poor	24	24	0	59'			
471	1065041	757	Pinus halepensis	34.09291915	-118.6052778				40%- Poor	22	22	0	60'			
181	1065130	773	Pinus halepensis	34.093037355	-118.6049655				40%- Poor	11	11	0	42'			
173	1065115	774	Pinus halepensis	34.093033823	-118.6047396				40%- Poor	19	19	0	65			
176	1065116	776	Pinus halepensis	34.093030413	-118.6048523				40%- Poor	12	12	0	54'			
177	1065122	777	Pinus halepensis	34.093019652	-118.6048503				40%- Poor	14	14	0	55'			
178	1065121	778	Pinus halepensis	34.093017396	-118.6048714				40%- Poor	8	8	0	42'			
170	1065114	935	Platanus racemosa	34.092953368	-118.6047419				40%- Poor	15	15	0	45'			
229	No Tag	176	Quercus agrifolia	34.093766259	-118.6056191				40%- Poor	16	7	9	18'			
234	No Tag	177	Quercus agrifolia	34.093795024	-118.6056958				40%- Poor	22	22	0	35'			
273	1065365	183	Quercus agrifolia	34.093811106	-118.6051711				40%- Poor	35	19	16	35'			
429	No Tag	196	Quercus agrifolia	34.093764677	-118.6053941				40%- Poor	34	23	11	20'			
259	1065364	213	Quercus agrifolia	34.093784232	-118.6052261				40%- Poor	14	10	4	10'			
264	No Tag	214	Quercus agrifolia	34.093919487	-118.6053269				40%- Poor	24	24	0	25'			
	No Tag	230	Quercus agrifolia	34.094025	-118.603299				40%- Poor	1	1	0				
	No Tag	243	Quercus agrifolia	34.094025	-118.603299				40%- Poor	2	1	1				
295	No Tag	283	Quercus agrifolia	34.093935118	-118.6051765				40%- Poor	45	25	20	35'			
281	1065316	313	Quercus agrifolia	34.093863388	-118.6049033				40%- Poor	6	6	0	15'			
306	1065332	336	Quercus agrifolia	34.093865804	-118.6051348				40%- Poor	22	22	0	30'			
317	No Tag	343	Quercus agrifolia	34.093859612	-118.604975				40%- Poor	17	17	0	25'			
326	1065432	384	Quercus agrifolia	34.093866727	-118.6047046				40%- Poor	22	22	0	40'			
330	No Tag	388	Quercus agrifolia	34.093834779	-118.6045777				40%- Poor	8	8	0	20'			
118	No Tag	392	Quercus agrifolia	34.093949064	-118.604981				40%- Poor	5	3	2	8			
117	No Tag	397	Quercus agrifolia	34.093946174	-118.6049781				40%- Poor	1	1	0	5			
135	1065454	429	Quercus agrifolia	34.09394651	-118.6047449				40%- Poor	22	22	0	20'			
432	1065438	471	Quercus agrifolia	34.093834461	-118.6049305				40%- Poor	38	20	18	30'			
549	1065497	489	Quercus agrifolia	34.093941933	-118.6046973				40%- Poor	13	7	6	18'			
498	No Tag	501	Quercus agrifolia	34.093941253	-118.6049861				40%- Poor	7	7	0	18'			
329	1065566	503	Quercus agrifolia	34.093832045	-118.6049001				40%- Poor	22	22	0	15'			
331	1065567	506	Quercus agrifolia	34.093948856	-118.6045712				40%- Poor	9	9	0	8'			
464	No Tag	739	Quercus agrifolia	34.093947337	-118.6050412				40%- Poor	3	3	0	8'			
260	No Tag	240	Quercus agrifolia - Sapling	34.093933428	-118.6052219				40%- Poor	3	3	0	6'			
131	No Tag	426	Quercus agrifolia - Sapling	34.093945026	-118.6048823				40%- Poor	2	1	1	4			
189	No Tag	762	Quercus agrifolia - Sapling	34.093915211	-118.6050276				40%- Poor	4	4	0	5			
	No Tag	238	Rhamnus ilicifolia	34.094025	-118.603299				40%- Poor	1	1	0				
261	1065390	239	Rhamnus ilicifolia	34.093932659	-118.6053414				40%- Poor	2	2	0	8'			
169	1065132	934	Pinus torreyana	34.092958541	-118.6046821				40%- Poor	19	19	0	74			
498		502	Pinus halepensis	34.093942289	-118.604468				40%- Poor	32	20	12	40'			
249		207	Quercus agrifolia	34.093815908	-118.6053817				40%- Poor	4	4		12'			
302		306	Quercus agrifolia	34.093941158	-118.6051979				40%- Poor	20	20		30'			
480		194	Heteromeles salicifolia	34.093866857	-118.6056053				40%- Poor	4	2	2	15'			
205	No Tag	538	Quercus agrifolia	34.093215551	-118.6047442				60%- Fair	34	17	17	4			
412	No Tag	447	Pinus halepensis	34.093317205	-118.6045415				60%- Fair	22	22	0	50'			

APPENDIX D.

RESTORATION PLANTING PLAN PLANT LIST



APPENDIX E

FUEL MODIFICATION GUIDELINES
Planting, Maintenance and Monitoring Requirements
AND
BEST MANAGEMENT PRACTICES (BMP's)

TOPANGA ELEMENTARY CHARTER SCHOOL
18 May 2023

Annual Fuel Modification will be done in accordance with the Santa Monica Mountains Local Coastal Implementation Plan (LIP Sections 22.44.950, 22.1920.K) and the County of Los Angeles Oak Tree Protection Ordinance (Title 22: Part 6). These guidelines incorporate some but not all of the LAUSD Maintenance and Operations Scope of Work for Fire Clearance and Tree Trimming. Fuel reduction for brush clearance will minimize impacts to the native trees and oaks and the native understory vegetation.

A copy of these Guidelines will be kept on site for reference during any of the proposed permitted activities and provided as part of the Scope of Work for any contractors.

LAUSD AND California Department of Recreation (CDPR) Requirements:

1. LAUSD will oversee contractor for fuel modification and tree care in coordination with CDPR.
2. Contractor shall be licensed by the Contractors State License Board with a D-49 license.
3. Contractor shall provide (acceptable to the District) General Liability Insurance, Workman Compensations Insurance and insurance on all vehicles, owned, non-owned or hired. Contractor shall be listed on Los Angeles Unified School District Safety Pre-Qualify Requirements Log. See LAUSD Contractor Safety Pre-Qualifications Requirements page in the Project Manual.
4. Contractor shall be responsible for complying with relevant permits and Right of Entry agreements with California Department of Parks and Recreation, Angeles District.
5. Contractor will work with LAUSD and CDPR to obtain a Los Angeles County Oak Tree Permit if tree removal, or branches greater than 2 inches need pruning, or any other potential impact requiring compliance with the Oak Tree Protection Ordinance.
6. The LAUSD Tree Department and the site administrator shall arrange a job start meeting with CDPR to coordinate start date and award the contract. The accepted Best Value Rank contractor shall be present at this meeting and will be awarded the contract by signing the B-Letter and reviewing these Guidelines and BMP's.
7. Performance Bonds for jobs of $15,000 or more shall be delivered within ***6 working days after opening of bids*** to the Tree Department.
8. All work shall be completed in its entirety within the schedule established by the site administrator and CDPR.
9. Contractor must have a minimum of six (6) employees on the job site. All employees must wear a company uniform or safety vest at all times, preferably with company and employee names in plain sight.
10. Contractor must have a least one (1) foreman on sight at all times who can communicate clearing in ENGLISH or any language spoken by other crew members that do not speak ENGLISH during the performance of this contract.

11. Only competent workers shall be employed by the contractor. Any worker who is found to be incompetent, intermate, troublesome, disorderly or otherwise objectionable, or who fails or refuse to perform work properly and acceptable shall be immediately removed from the district and CDPR work site and not be reemployed on future District contracted work.
12. Contractor shall provide an International Society of Arboriculture (ISA) Certified Arborist to direct and apply ISA tree trimming standard to all contracted tree trimming functions. The certified Arborists shall be onsite for the initial kick off meeting with LAUSD and CDPR and be present on site to supervise and document all tree trimming activities. Inspections by the District shall not relieve the contractor of the obligation to fulfill the conditions of the contract.
13. Contractor shall provide a Qualified Biologist or Restoration Ecologist to direct and CNPS and SMMLCP standards to all contracted fuel modification within the restoration planted areas in Zones A and B. The Qualified Biologist or Restoration Ecologist shall be onsite for the initial kick off meeting with LAUSD and CDPR and be present on site to supervise and document all fuel modification activities. Inspections by the District shall not relieve the contractor of the obligation to fulfill the conditions of the contract.
14. The Contractor shall employ the American National Standard (ANSI) for Tree Care Operations – Tree, Shrub, and other Woodly Plant Maintenance- Standard Practices (Pruning) with a limit of no more than 15% of living material removed unless there is a documented Risk Assessment that dictates additional removal.
15. The contractor will employ ANSI 2133.1- American National Standard for Arboriculture Operations - Pruning, Repairing, Maintaining and Removing Trees and Cutting Brush- Safety Requirements.
16. Contractor will notify LAUSD Tree Department and CDPR upon completion of all work.
17. The Tree Department, site administrator and CDPR must authorize any change in schedule.
18. While engaging in work during closed school hours the contractor shall notify School Police (213) 625-6631 by phone at the beginning and end of the work day.
19. Contractor shall contact State Parks DISPATCH 951.443.2969 at the start of each work day where activities will occur within Topanga State Park.
20. Contractor shall provide a temporary restroom such as a mobile porta potty for the length of the contract. If contractor leaves portable restroom overnight, contractor is required to provide secured temporary fencing and lock restroom with padlock.

GENERAL BMP's

1. Comply with all LA County LCP regulations including but not limited to 22.44.810, 22.44.950 A,B,B3, 22.44.1780, 22.44.1900, 22.44.1920A, , All work will be done using hand tools that are disinfected between trees with a 10% Clorox solution.
2. All vehicles, machinery, tools and equipment shall be in good and safe conditions. Such equipment shall meet all requirements of applicable ordinance and laws including OSHA requirements.
3. Any vehicles used to access existing fire roads shall be thoroughly cleaned and undercarriage, tires and axles washed prior to arrival at the site. Contractor shall operate all vehicles in a manner that will not cause scrapes, marks, stains, scuff or any other marks to hard surfaces such as, but not limited to, concrete walks, landing and driveways and not cause damage to planted or native wildland areas.

4. Clean and remove all trash and debris (excluding natural materials to remain as mulch) from hillsides.
5. A nesting bird survey should be conducted according to industry standards no earlier than 14 days prior to any activities in or around the trees. If nests observed, they will be marked and a 100 ft buffer for songbirds and 500 ft buffer for raptors will be installed on site using survey tape. A letter report documenting conditions and nest locations will be submitted to the landowners and contractors. An additional survey will occur 3 days prior to start of activities and buffer zones adjusted as needed. No work is permitted within the identified buffer areas until the nest is no longer active.

6. Any woodrat nests or middens will also be marked and a 25 ft buffer installed using survey tape.

7. No dumping of liquids or solvents, paints, concrete washout or other harmful substances will be permitted. All cleaning fluids will be disposed of properly.

8. Monitoring will continue for 7 years post approval of the permit. The Certified Arborist will submit a yearly report documenting the condition of all tagged and planted mitigation trees based on two visits per year.

VEGETATION REMOVAL TREATMENTS

1. Prior to commencing work the Qualified Biologist will walk the site, especially the H1 areas within the 100 foot fuel modification area and mark any sensitive plants that should be retained in addition to those noted on the Restoration Planting Plan.
2. Removal of understory vegetation within Zone A will be supervised by a Qualified Biologist or Restoration Ecologist.
3. Removal will be done with hand tools and avoid impacts to native understory plants.
4. Clearance will be focused on Zone A with less intense removal in Zone B.
5. Weed whacking and cutting tools shall be kept sharpened to a condition that will leave a smooth final cut. Such tools shall be kept clean, disinfected with a 10% Chlorox solution and kept free of infections materials.
6. Removal will be done in late winter through early summer before invasive grasses seed set or plants reach 12 inch height.
7. Hand removal of invasive species such as *Euphorbia terricina*, etc. shall be implemented as directed by the Qualified Biologist or Restoration Ecologist in coordination with CDPR ecologist to reduce spread into the adjacent state park.
8. Cut invasives, especially seeds, shall be placed in closed containers and disposed of at a landfill.

TREE PLANTING AND TRIMMING TREATMENTS

1. The removal of any living limbs and all deadwood will be done under the supervision of a Certified Arborist or other qualified professional in accordance with the standards of the LA County Oak Tree Protection Ordinance, the Local Coastal Plan, ANSI and ISA standards. A LA County Oak Tree Permit will be required to be on site at all times if pruning or tree care needs meet the standard for need. Remedial pruning to remove stub cuts should also be done. No trees will be “lolly-popped”.

2. Pruning and cutting tools shall be kept sharpened to a condition that will leave a smooth final cut. Such tools shall be kept clean, disinfected with a 10% Chlorox solution between cuts and kept free of infections materials.

3. Pruning Cuts:

- All pruning cuts shall be made just outside the branch bark ridge collar, without causing injury to the tree.
- NO FLUSH CUTS permitted.
- No stubs shall be left in the tree. Cuts shall have no ripping or tearing of the bark.

4. General Pruning:

- Remove NO MORE than 15 % of tree foliage unless otherwise directed by the onsite Certified Arborist in accordance with the Tree Maintenance Dept. and CDPR.
- Sufficient branch structure should remain in the interior of the tree.
- Foliage shall be removed in a manner to leave the tree in symmetrical balance.
- Remove dead, diseased, damaged and crossing limbs ONLY within the first 100 ft (Zone B).
- All trunks and branches larger than 6 inches in diameter shall be cut in sections not to exceed 6 feet in length and shall be lowered to the ground using ropes or other mechanical devises. ANY SUCH REMOVAL SHALL BE COVERED BY AN OAK TREE PERMIT.
- Smaller limbs with the potential for property damage or personal injury shall also be lowered using ropes or other mechanical devices. The use of ropes or other mechanical devices to lower limbs shall not relieve the contractor of liabilities resulting from property damage or personal injury.
- No crown reduction or drop crotch pruning shall be done at this site.

5. Native trees will be limbed up from the ground a maximum of 6 feet only within the first 100 feet (Zone B).

6. No native trees will be removed without a LA County Oak Tree Permit and approval from CDPR.

7. Certified Arborist will survey and document presence of any invasive beetles, diseases or pathogens. Reports will be shared with LAUSD, CDPR and Los Angeles County Agricultural Commissioner to determine appropriate follow up treatment.

8. Any roots larger than 1” diameter will be kept if possible. While exposed, they will be wrapped in burlap and kept moist. If it is necessary to cut any roots, they shall be cut cleanly.

9. All work done in the protected zone (edge of the dripline plus 5 feet) of the trees shall be done using hand tools in accordance with the LA County Oak Tree Protection Ordinance.

10. Soil compaction within the root zone shall be minimized. No equipment, spoils or debris will be stored within the protected zone of the trees.

11. All trees shall be planted in accordance with the requirements detailed in the *Native Tree and Coastal Sage Scrub Restoration Planting, Mitigation, Maintenance and Management Plan*.