



# Forest Ecosystem Management, pllc

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In Cooperation with:

## Salix Natural Resource Management

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November 5, 2023

RE: P23-00057 - Arrow & Branch Winery Major Modification

This is in response to Napa County Planning, Building & Environmental Services' Application status letter dated 27JUL23, for the Arrow & Branch Winery. The County was requesting an addendum to the 11AUG21 Biological Report to ensure the conclusions are still valid for the updated project scope.

### **Arrow & Branch Winery General Information**

Project Location: 5215 Solano Avenue; Napa, California (Attachment #1)  
Legal of Project Area: Portions of Section 18, T06N, R04W MDB&M  
APN: 034-190-040-000  
County: Napa County  
Proposed Project: Phase 2 of Project (Attachment #2 – Engineer's Map)

Addendum to 11AUG21 Biological Information

### **Sensitive Species:**

The California Department of Fish & Wildlife's cnddb database does not have any new known listed plant or animal species detections within the Property Parcel (Attachment #3).

The National Oceanic & Atmospheric Administration's Essential Fish Habitat (EFH) mapper (Attachment #4), does not list any Habitat Areas of Particular Concern (HAPC) or Areas Protected from Fishing (EFHA) within the Project Area.

Newly Identified Listed Species (*Bombus spp.*): There are 30 bumble bee species (*Bombus spp.*) present in western North America; with 4 bumble bee species recently listed for candidacy under the California State Fish and Wildlife Endangered Species Act. Of the 4 protected species, 2 have historically been located within Napa County (Western Bumble Bee and Crotch Bumble Bee). The following summarizes the habitat requirements and life history of the newly protected bumble bees.

**Life History:** Bumble bees are primitively eusocial insects that live in colonies made up of one queen, female workers, and near the end of the season reproductive members of the colony (new queens, and males). New colonies are initiated by solitary queens, in the early spring. This process includes locating a suitable nest site; collecting pollen and nectar from flowers; building a wax structure to store nectar; forming a mass of pollen to lay eggs; and building a wax structure to enclose the eggs and pollen.

**Habitat:** Bumble bees are generalist foragers and have been reported visiting a wide variety of flowering plants. Bumble bees inhabit a wide variety of natural, agricultural, urban, and rural habitats; with species richness tending to peak in flower-rich meadows of forests and subalpine zones; but will be found in riparian areas, grassland, and coastal shrub habitats containing sufficient floral resources. Basic habitat requirements include suitable nesting sites for colonies, nectar and pollen from floral resources available throughout the duration of the colony period, and suitable overwintering sites for the queens.

Crotch Bumble Bees often select food plant genera including Snapdragon (*Antirrhinum*), *Phacelia*, *Clarkia*, bush poppy (*Dendromecon*), California poppy (*Eschscholzia*), and buckwheat (*Eriogonum*). A floral preference appears to be: Milkweed (*Asclepias*), California Cleome, Larkspur, Yerba, *Phacelia*, and Blue Curly. The Crotch Bumble Bee is often found within grassland and shrubland in hotter/drier conditions.

Western Bumble Bees often select food plant genera including Sweet clover (*Melilotus*), thistle (*Cirsium*), clover (*Trifolium*), star thistle (*Centaurea*), rabbitbrush (*Chrysothamnus*), and buckwheat (*Eriogonum*). A floral preference appears to be: Glacier Lily, Alpine Sweetvetch, Scarlet Gillia, Capitata Lousewort, and Snowberry. The Western Bumble Bee is often found within flower-rich meadows of forests and subalpine zones.

It is worth noting that floral associations do not necessarily represent bee preference for these plants over other flower plants, but may represent the abundance of these flowers within the bee surveyed landscape.

**Breeding Season:** Flight period of queens in CA is from early February to late November, peaking in late June and late September. The flight period for workers and males in CA is early April to early November, with worker abundance peaking in early August and male abundance in early September.

**Potential Threats:** Pesticide use, fire, agricultural intensification, urban development, and climate change.

**Project Area:** The Parcel does possess snowberry (*Symphoricarpos albus*), a floral preference for Western Bumble bees; however, that is the only floral resource within the select food plant genera for bumble bees. The open areas are primarily vineyards and structures which do not possess the necessary habitat for bumble bees. The area proposed for this Project Scope has been graded in the first phase of

the project or within the footprint of the vineyards; therefore, is not considered bumble bee habitat due to a lack of floral resources.

### **Recommendations set forth under 11AUG21 Biological Information:**

#### **Potential Impacts to Dry Creek & Associated Vegetative Communities**

The primary threats to riparian areas are hydrological modifications, land conversion, invasive species, and overgrazing or direct disturbances by livestock. The following are potential issues that may arise and recommendations on how this Project can avoid or reduce impacts on the riparian area around Dry Creek and the native vegetative community within the Property Boundary.

#### **Direct Disturbance of Native Vegetation (from 11AUG21):**

- There will be no removal, downgrading, or alteration of the existing native vegetation. Existing vineyards will be the only vegetation disturbed/removed as a result of this project.
- There will be no livestock grazing on the Arrow & Branch Winery property, without proper fencing to keep livestock outside the riparian area. Livestock grazing is not anticipated.
- Temporary orange construction fences shall be installed along the edge of the native vegetative zone prior to Project construction and will be maintained throughout Project construction to assist in keeping equipment outside the native vegetation (including riparian area) zone.
- Leftover material from vineyard/property maintenance has been thrown over the edge of the bank (noted in 2021). This material can be a fire hazard and hinder the growth of native vegetation. Non-organic materials can also contribute to the degradation of the watercourse.
  - Existing non-organic material should be manually removed and disposed of property.
  - Existing organic material can be left and allowed to decompose.
  - Future organic vineyard material can be mulched, removed from the property, or piled outside the native vegetation zone.
  - Storage drums/containers should be stored within a way so potential spills can be properly cleaned up and located well away from the native vegetation zone.

The above conclusions are still valid for the updated project scope for the Direct Disturbance of Native Vegetation.

#### **Invasive Species (from 11AUG21):**

- During Project Construction, heavy equipment shall be cleaned prior to coming onto the property and cleaned again if they are removed from the property and brought back.
- Avoid planting invasive non-native plants. Non-native plants that particularly threaten riparian areas in Napa County include giant reed; Himalayan blackberry; periwinkle; German and English ivy; black locust; French, Scotch, and Spanish broom; tamarisk; acacia; eucalyptus; and tree of heaven. **Planting of local, native vegetation is encouraged when landscaping.**
- Monitor and remove invasive non-native plants.

The above conclusions are still valid for the updated project scope for Invasive Species.

### **Hydrological/Land-Use (from 11AUG21):**

- Existing vineyards will be the only vegetation disturbed/removed as a result of this project.
- Stormwater control, flood hazard, septic, and plumbing will all adhere to the standards set forth by Federal, State, County, and Local requirements, codes, and permits.
- Vegetative Receiving Areas and Bioretention Areas are anticipated between the Project and the vegetative strip along Dry Creek
- There will be no new road crossings across Dry Creek installed or completed as a result of this Project.
- There will be no new water withdrawal from Dry Creek as a result of this Project.

The above conclusions are still valid for the updated project scope for Hydrological/Land-Use.

### **Direct Disturbance to Wildlife (from 11AUG21):**

- The native vegetation along Dry Creek is not expected to change; therefore, no change in habitat is anticipated.
- The native vegetative width along Dry Creek is not expected to change. Species currently using this area are used to disturbance issues.

The above conclusions are still valid for the updated project scope for Direct Disturbance to Wildlife. A new addition to Direct Disturbance to Wildlife includes:

- Pre-Project vegetation does not include bumble bee habitat; therefore, there will be no impact on bumble bee candidate species.

### **Monitoring (from 11AUG21):**

Adaptive Management Practices should be utilized. The Landowner should monitor the Riparian Area at least once a year. Photographs can help monitor efforts by showing any changes over time. Some issues that may need addressing include:

- Trampling of native vegetation by humans may require installing fencing to block human access to the riparian area but still allow for wildlife passage (i.e., decorative posts and pole fences can be used).
  - If public access is desirable, someone familiar with landscaping/recreational issues should be consulted regarding the design of trails that encourage people to stay on designated trails (i.e., boardwalks). Public Access is not anticipated.
- Invasive plant eradication may have to be completed in multiple years.
- Vineyard workers should be educated on the importance of vegetated Riparian Areas. Informational signs can be posted (“Leave No Trace” or other educational signs can be purchased or specifically made).
- Trash removal – make sure organic (i.e., vineyard waste) or non-organic material is not being dumped within the riparian area.

The above conclusions are still valid for the updated project scope for Monitoring.

**Attachments:**

Attachment #1 = Project Location  
Attachment #2 = Engineer's Map  
Attachment #3 = cnddb Around Project Area (2023)  
Attachment #4 = E-FISH Report

**This Report was prepared by:**

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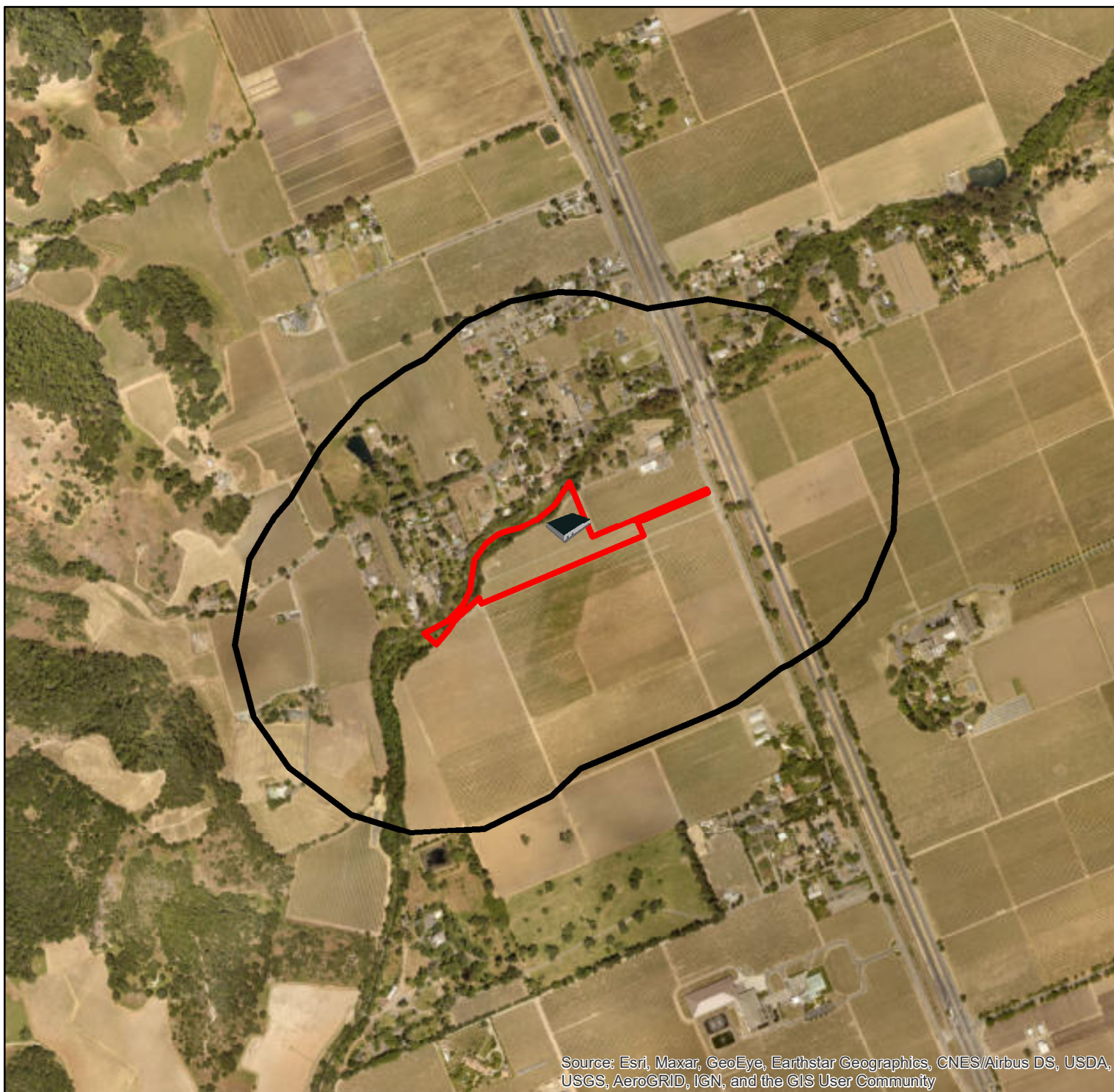
**References:**

California Department Fish & Wildlife. California Natural Diversity Database (CNDDDB). California Department of Fish and Wildlife, Biogeographic Data Branch. RareFind Version 5. Accessed 2023.




California Natural Diversity Database (cnddb). October 2023. Special Animal List. California Department of Fish & Wildlife. Sacramento, CA.

National Oceanic & Atmospheric Administration (NOAA). United States Department of Commerce. NOAA Essential Fish Habitat Mapper. [www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper](http://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper). Accessed 2023.

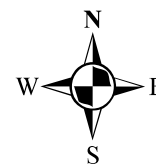
# Arrow & Branch Winery Project



**Legend**

-  Property Boundary
-  Project Area - Winery
-  1/4 Mile Assessment Area

Portions Sec. 18 T06N, R04W MDB&M  
APN: 034-190-040-000  
Napa County



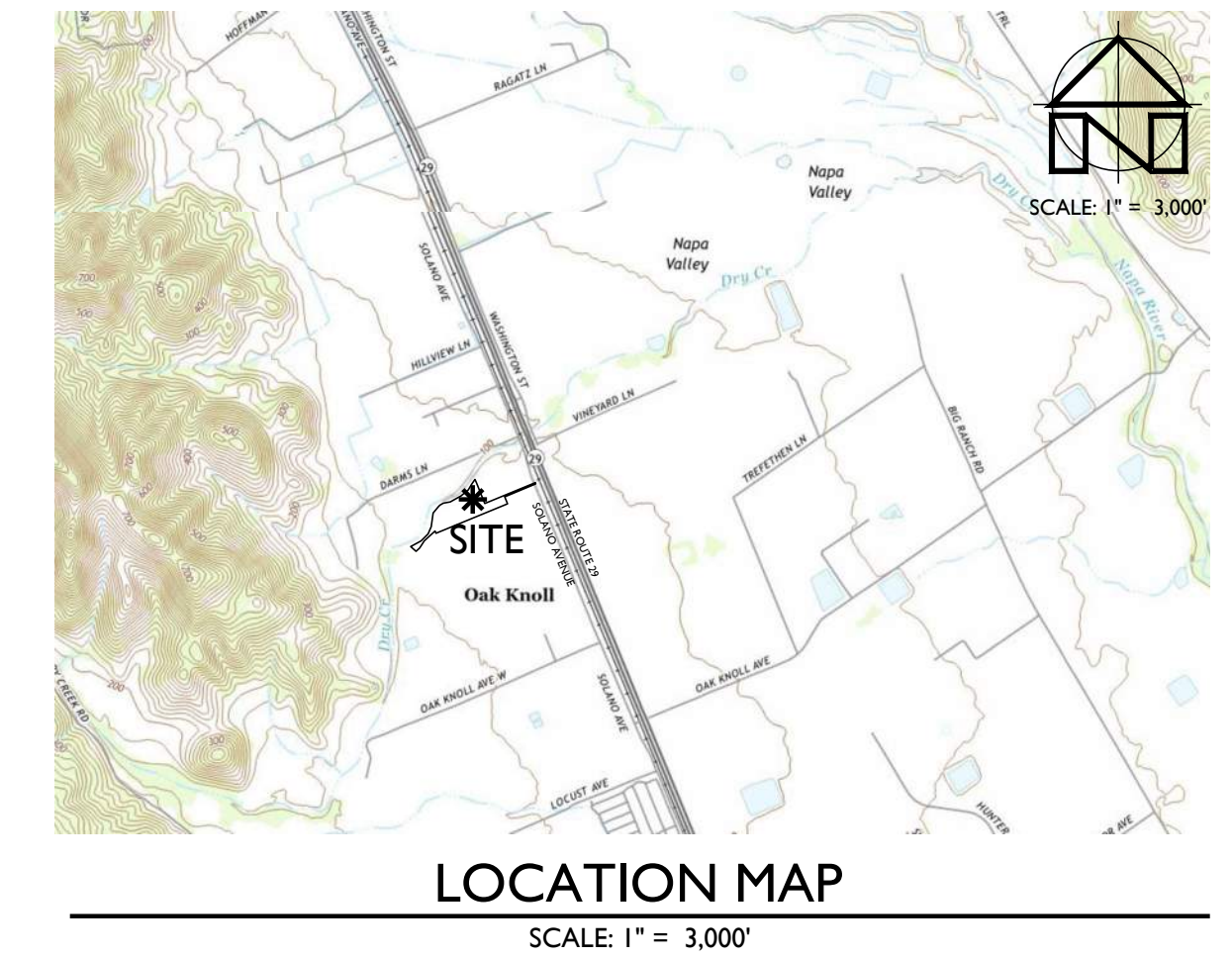
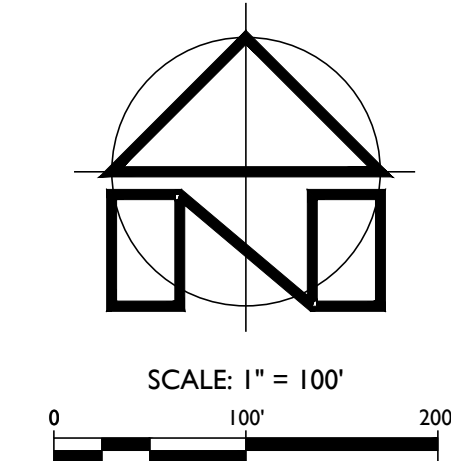
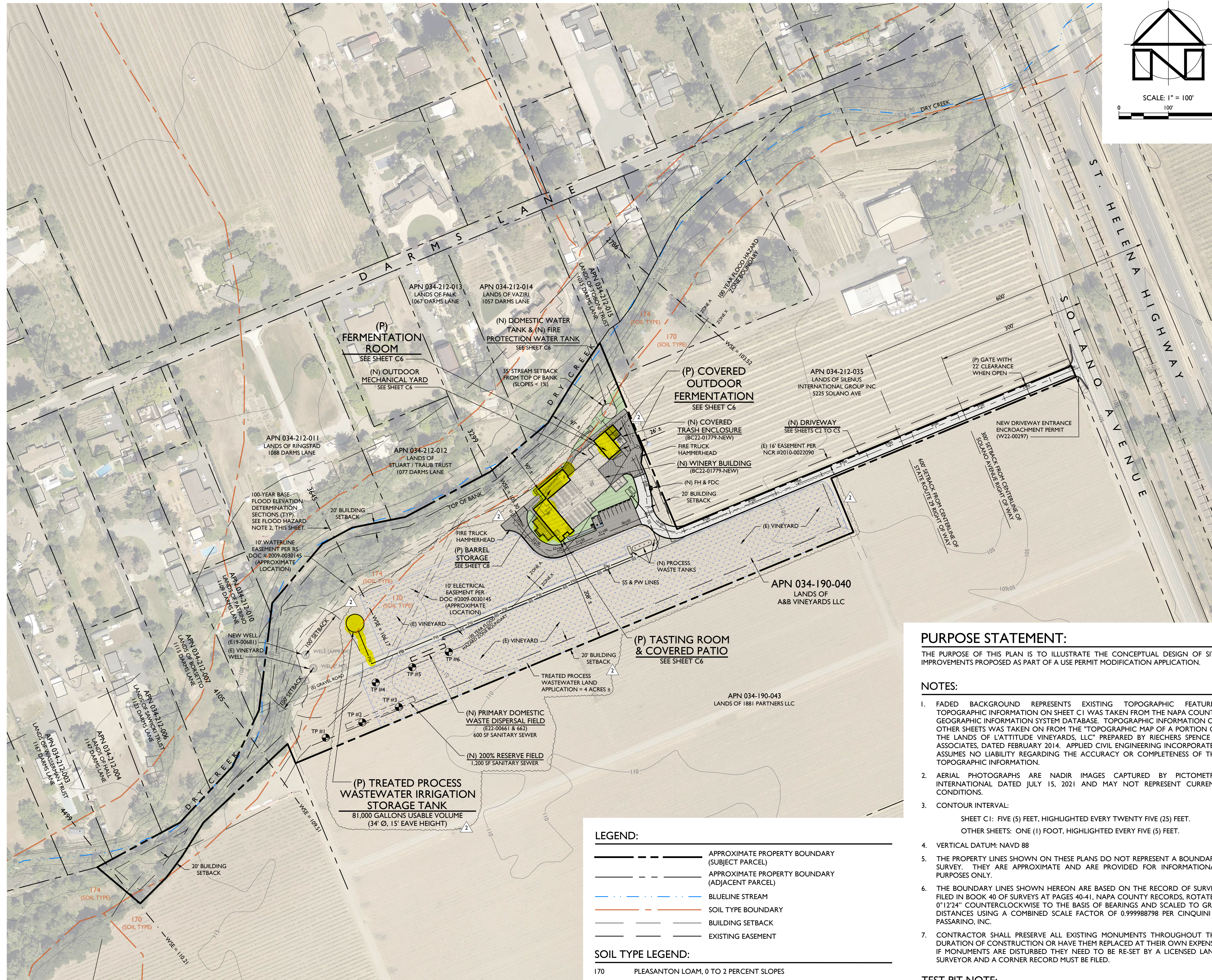
1 in = 1,250 ft

Date: 8/9/2021

Forest Ecosystem Management

# A&B VINEYARDS LLC

## USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS



**PROJECT INFORMATION:**  
**PROPERTY OWNER & APPLICANT:**  
 A&B VINEYARDS LLC  
 1042 NORTH COAST HIGHWAY  
 LAGUNA BEACH, CA 92651

**SITE ADDRESS:**  
 5215 SOLANO AVENUE  
 NAPA, CA 94558

**ASSESSOR'S PARCEL NUMBER:**  
 034-190-040

**PARCEL SIZE:**  
 10.1 ± ACRES

**PROJECT SIZE:**  
 2.0 ± ACRES

**ZONING:**  
 AGRICULTURAL PRESERVE (AP)

**DOMESTIC WATER SOURCE:**  
 PRIVATE WELL

**FIRE PROTECTION WATER SOURCE:**  
 STORAGE TANK

**WASTEWATER DISPOSAL:**  
 ONSITE TREATMENT AND DISPERSAL

**SHEET INDEX:**

- C1 OVERALL SITE PLAN
- C2 DRIVEWAY PLAN & PROFILE STA 0+50 TO STA 9+25
- C3 DRIVEWAY PLAN & PROFILE STA 9+25 TO STA 53+25
- C4 DRIVEWAY CROSS SECTIONS STA 1+00 TO STA 11+25
- C5 DRIVEWAY CROSS SECTIONS STA 11+50 TO STA 53+00
- C6 BUILDING AREA CONCEPTUAL SITE IMPROVEMENT PLAN
- C7 STORMWATER CONTROL PLAN
- C8 IMPERVIOUS SURFACE EXHIBIT

**FLOOD HAZARD NOTES:**

- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 06055C0505F, EFFECTIVE SEPTEMBER 29, 2010, ALL OR A PORTION OF THE PROJECT SITE IS LOCATED IN A SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% CHANCE ANNUAL FLOOD (100 YEAR FLOOD). THE APPROXIMATE FLOOD HAZARD BOUNDARY LINE IS SHOWN ON THIS PLAN. SEE FIRM FOR ADDITIONAL INFORMATION.
- A DETAILED FLOOD STUDY WAS PREPARED BY SCHAFF AND WHEELER AND THE BASE FLOOD ELEVATION AT THE BUILDING SITE ACCORDING TO THAT STUDY IS APPROXIMATELY 105.30 +/- (NAVD 88). THE FLOODWATER ELEVATION WOULD BE CONTAINED WITHIN THE BANKS OF DRY CREEK. THE BUILDING WILL NONETHELESS BE ELEVATED MORE THAN 1' ABOVE THE BFE.

EXISTING WINERY PERMIT SUMMARY:	
PURPOSE:	PERMIT NUMBER:
PRIOR WINERY USE PERMIT MODIFICATION	P21-00087 (PHASE 1)
GRADING PERMIT	ENG22-00010
FLOODPLAIN PERMIT	ENF22-00020
WINERY BUILDING PERMIT	BC22-01079-NEW
UTILITY-OTHER PERMIT	BC22-01081
FIRE SPRINKLERS PERMIT	F22-00292
FIRE ALARM PERMIT	F22-00258
PROCESS WASTEWATER	E22-00644
SANITARY WASTEWATER	E22-00622

**PURPOSE STATEMENT:**  
 THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE THE CONCEPTUAL DESIGN OF SITE IMPROVEMENTS PROPOSED AS PART OF A USE PERMIT MODIFICATION APPLICATION.

- NOTES:**
- FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEET C1 WAS TAKEN FROM THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATABASE. TOPOGRAPHIC INFORMATION ON OTHER SHEETS WAS TAKEN FROM THE "TOPOGRAPHIC MAP OF A PORTION OF THE LANDS OF L'ATTITUDE VINEYARDS, LLC" PREPARED BY RIECHERS SPENCE & ASSOCIATES, DATED FEBRUARY 2014. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
  - AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.
  - CONTOUR INTERVAL:  
 SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.  
 OTHER SHEETS: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
  - VERTICAL DATUM: NAVD 88
  - THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
  - THE BOUNDARY LINES SHOWN HEREON ARE BASED ON THE RECORD OF SURVEY FILED IN BOOK 40 OF SURVEYS AT PAGES 40-41, NAPA COUNTY RECORDS, ROTATED 0°12'24" COUNTERCLOCKWISE TO THE BASIS OF BEARINGS AND SCALED TO GRID DISTANCES USING A COMBINED SCALE FACTOR OF 0.999988798 PER CINQUINI & PASSARINO, INC.
  - CONTRACTOR SHALL PRESERVE ALL EXISTING MONUMENTS THROUGHOUT THE DURATION OF CONSTRUCTION OR HAVE THEM REPLACED AT THEIR OWN EXPENSE. IF MONUMENTS ARE DISTURBED THEY NEED TO BE RE-SET BY A LICENSED LAND SURVEYOR AND A CORNER RECORD MUST BE FILED.

**TEST PIT NOTE:**  
 TEST PITS ONE THROUGH SIX (TP #1 - TP #6) WERE EXCAVATED BY DELTA CONSULTING AND ENGINEERING ON FEBRUARY 26, 2014 AND WERE WITNESSED BY A REPRESENTATIVE OF THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT - ENVIRONMENTAL HEALTH DIVISION.

**LEGEND:**

- APPROXIMATE PROPERTY BOUNDARY (SUBJECT PARCEL)
- APPROXIMATE PROPERTY BOUNDARY (ADJACENT PARCEL)
- BLUELINE STREAM
- SOIL TYPE BOUNDARY
- BUILDING SETBACK
- EXISTING EASEMENT

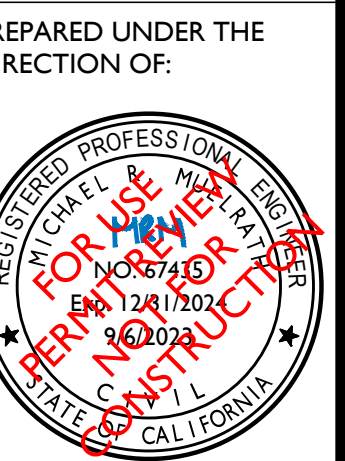
**SOIL TYPE LEGEND:**

- 170 PLEASANTON LOAM, 0 TO 2 PERCENT SLOPES
- 174 100% RIVERWASH

SOIL TYPE BOUNDARIES SHOWN ON THIS MAP ARE BASED ON THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATA AND SHOULD BE CONSIDERED APPROXIMATE.

**OVERALL SITE PLAN**  
 SCALE: 1" = 100'

A&B VINEYARDS LLC  
 USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS  
 OVERALL SITE PLAN



**DRAWN BY:**  
 Power/CAD LLC

**CHECKED BY:**  
 MRM

**DATE:**  
 SEPTEMBER 6, 2023

**REVISIONS:**

NO.	DATE	BY	DESCRIPTION
1	3/10/2023	YMS	PERMIT SUBMITTAL
2	5/10/2023	YMS	PERMIT RESUBMITTAL
3	9/6/2023	YMS	PERMIT RESUBMITTAL

**JOB NUMBER:**  
 20-139

**FILE:**  
 20-139CONC-OSP.DWG

**ORIGINAL SIZE:**  
 24" X 36"

**SHEET NUMBER:**  
 C1



## EFH Mapper Report

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### EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

### EFH

No additional Essential Fish Habitats (EFH) were identified at the report location.

### Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

### Atlantic Salmon

No Atlantic Salmon were identified at the report location.

### HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

### EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

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