

**TRACK I ECPA
for
HAAS
Vineyard Development**

Project Site Address:

APN 021-352-036
2 Swanston Rd
St Helena, CA 94574

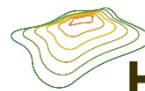
Preparation Date:

REVISED
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Erosion Control Plan

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A. Narrative

The applicant submits the enclosed development plan for 3.9 net acres of vineyard at the subject site, APN 021-352-036, 2 Swanston Road, St. Helena, CA, just north of St. Helena on the western slopes of Glass Mountain. Property is gated; call ahead for access. Two small vineyard blocks were installed in 2019 and 2020. The proposed project includes existing vineyard in its analysis and this application package was prepared to demonstrate that the project is and will be in compliance with Napa County Planning and Zoning requirements.

The property was heavily impacted by the 2020 Glass Fire that damaged vegetation and structures throughout the subject parcel and surrounding properties. The property owner preserved as many trees as possible and wanted irrigated vineyard to serve as a fire-break and harden the site against future fire damage.

“Existing Conditions” were reconstructed to the best of our ability to represent both pre-fire and pre-development conditions. All project impacts assume pre-development conditions and did not include the small portions of existing vineyard; such as for canopy, land conversion calculations, hydrology, USLE, etc.

The revised ECP qualifies for Section 17 of the Water Quality and Tree Protection Ordinance (WQTPO), which allows for a one-time exemption from the WQTPO for projects less than 5 ac and less than 30% slopes. Prior to implementation of the WQTPO, specific canopy retention was required for municipal watersheds (NCC 18.108.027) and the General Plan requires 2:1 preservation for removal of oak woodland (CON-24). The vineyard ECP only proposed removal of Doug Fir Forest, therefore no specific canopy retention is applicable for this project. Note that the forest removal is a commercial timber species and a full Timber Harvest Plan will be processed concurrently with CalFire under the direction of a Registered Forestry Professional (RFP).

1. Land Clearing, Grading or Earthmoving Activity

This vineyard permit application will require clearing of about 5.0 acres of land in order to plant about 3.9 acres of vines. The average slope in the project area is 15%. The need for spoils and disposal areas is not anticipated but would remain within the disturbed areas. Land clearing and ripping (up to 4 ft) is planned within planting areas. Minimal rocks are expected, but any encountered will be stored within the disturbed area or may be buried, or used for vineyard avenues or landscaping. The ECP Site Plan specifies areas on that may be used for rock benches. Other activities planned include trellising, installing end posts; disking; vineyard layout; drip system installation; erosion control BMP installation; planting and seeding; and mulching of areas with no cover. Vineyard areas are summarized as follows.

Vineyard Block Summary			
VB	Gross	Net	Steep Slopes 30% - 36%
	ac	ac	ac
1	1.1	0.8	0.02
2	0.9	0.6	-
3	2.6	2.1	0.11
4	0.5	0.4	-
Total	5.0	3.9	0.13

TABLE 1 Vineyard Block Summary

2. Existing Site Conditions

Topography: The subject site is located on Glass Mountain, APN 021-352-036, in the St Helena USGS Quad. The property is situated on the Napa River watershed. Elevations within the proposed vineyard blocks range 570ft to 295ft asl. Mapped bedrock units in the area are Sonoma Volcanics. Average slope across vineyard blocks ranges from 5% to 24% with an average of about 15%.

Vegetation: The biological assessment identified the vineyard blocks as primarily Douglas Fir Forest with some existing developed areas. The rest of the parcel consists of a mix of Douglas Fir Forest, Coast Live Oak Woodland, and developed areas [1].

The subject parcel contains about 22.5 acres of canopy and no grass, shrub, or brushland. 4.9 ac of doug fir forest is proposed for removal , which correlates to canopy retention of about 75%.

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Watershed: The subject site is located in the Napa River – Upper St. Helena Reach Watershed, which discharges to the Napa River, and ultimately to San Pablo Bay and the San Francisco Bay. The project is not located in a municipal watershed. The property is not located in a water-deficient area. The blueline stream closest to the proposed vineyard site is Canon Creek about 1600 ft north of the closest vineyard block. The blueline stream closest to the project well is the Napa River, which is located 1530 ft west of the well.

Cultural Resources: The Cultural Resources Study, prepared January 7, 2023 by Wolfcreek Archaeology, identified and recorded one prehistoric site on the southwestern portion of the parcel, which qualified as “significant” per the definitions in the California Environmental Quality Act (CEQA) [2]. Other isolated items were found on the site, but were not considered “significant” historic resources as defined in CEQA.

The report concluded that the project may proceed as a mitigated negative declaration provided that the Prehistoric Site is avoided and not used as a staging area. Please note that the vineyard blocks in the Cultural Survey Report were from an early planning design and have since been revised to meet recommendations to fully avoid the Prehistoric Site.

The plan preparer, Coda Rainsford of HDVine LLC (CPESC #9225), visited the site on the following occasions:

DATE	PURPOSE
6/24/21	Site visit to find property boundary markers
6/14/23	Site Visit for Block Photos and GPS data

Napa County contours were used for site design. Item 7 (Photos) contains photographs documenting existing conditions.

3. Natural and Man-Made Features

The parcel contains existing vineyard that is incorporated into this ECPA and associated analyses. Other existing infrastructure includes, a residence (reconstruction in progress after destruction in 2020 Glass Fire), cabin, and tennis courts.

4. Location and Source of Water

Water is supplied by a shared water system (Vailima Estates Mutual Water Company) that is analyzed in detail in the Tier I Water Availability Analysis prepared by HDVine LLC as part of this ECPA application package. The supply well is located on APN 021-390-012 and pumps at a rate of 105 gpm to a 61,000 gallon water storage tank located at the end of Bournemouth Rd (APN 021-390-013). Estimated water use for the proposed vineyard is 1.35 AF/year (TABLE 2).

net acres	3.85 acres
row spacing	6 ft
vine spacing	3 ft
Vines per Acre	2420 vines/acre
TOTAL Vines	9329 vines
Usage Rate	0.35 af/acre/yr
Total Usage	1.35 af/yr

TABLE 2 Estimated water usage

5. Soil Types/Soil Series

The NRCS web soil survey lists the soil types in the vineyard area as Boomer Gravelly loam, 109 [5]; see Site Plan – Aerial Map for soil boundaries. The Napa County Soil Survey [6] describes the Boomer Series as well drained soils on uplands formed in material weathered from mixed igneous rocks. The hazard of erosion is moderate and Boomer soils are typically used for timber, wildlife habitat, and recreation.

6. Critical Areas of Erosion and Slope Instability

No critical areas of erosion or slope instability were identified on this site.

7. Erosion Calculations

See Attachment 8H Soil Loss Analysis for full evaluation of soils and erosion potential [4]. See Item 5 Site Plan – Topo Map for transects used in soil loss analysis. The project was designed such that there would be no net increase in soil loss potential from the site.

8. Erosion Control Methods

Fiber rolls will be placed as noted on Site Plan, along topographic contours to distribute concentrated flow and break up slope lengths. Disturbed areas will be straw mulched at a rate of 1.5 tons per acre, crimping perpendicular to flow is recommended or trackwalking (up/down slope) if crimping is not available. Silt fence (or straw bale dikes) will be placed as noted on the Site Plan. Rocks will remain within the vineyard boundaries and may be buried or used for vineyard avenues or landscaping. Strategic rock bench areas are noted on the plan, which may be utilized for rock storage per the general schematic on ECP Site Plan (page 2); in all cases, the toe of any rock fill must remain fully within the gross vineyard boundary.

Vegetative erosion control areas are designated on the Site Plan: Topo Map. Post-cover conditions will establish 75% cover throughout. A 16-20-0 fertilizer will be applied at a rate of 100 lbs/acre the first year and as needed in future years. All seeding and mulching of disturbed areas will be completed by October 15. Any areas of cover crop that have less than their designated cover, will be seeded and mulched annually until adequate cover is reached. As an alternative, an annual cover crop may be used in the first three years. In the first three years, cover may be disked or otherwise cultivated to develop healthy soil structure; after three years a permanent, no-till cover shall be established. Please note that every year that ground is tilled will extend winterization inspection requirements by one year. Post-emergent herbicide may be applied so long as 75% cover is maintained throughout the vineyard.

9. Storm Water Stabilization Measures

The majority of run-off from the proposed vineyard area sheets to the west/north-west and flows into a network of existing drainage ditches along the roadway. There are no

significant existing stormwater or drainage features on the site and no new drainage improvements are proposed as part of this project. No significant stormwater erosion issues were identified and post-development conditions are expected to follow the same flow patterns as pre-development conditions. As such, a cover factor (Cn) analysis was conducted to evaluate any change in run-off potential as a result of vineyard development. The results showed there would be no change in the area-weighted Cn.

See Hydrology Report for full analysis [3].

10. **Implementation Schedule**

The following is the proposed implementation schedule. Unless prior approval has been obtained, construction must occur within the grading season (April 1 – October 15) of any given year. Development schedule may shift earlier or later due to permit approval timeline.

DATE	ACTIVITY
Sep 2025 – Oct 2025	Rip and plant soil building cover crop. Install erosion control BMPs
Apr 2026 – Oct 2026	Install trellis, fence, irrigation, and plant vines.

BMP installation must be complete prior to October 15 of any given year. The following inspections will be conducted by the plan preparer as required in Napa County Code Chapter 18.108.135 - Oversight and Operation:

- a “Pre-Construction Meeting” with the owner/manager, Plan Preparer (HDVine LLC), Napa County Staff, and contractor. Scheduling request shall be made at least 2-weeks in advance.
- a “Mid-Construction Meeting” with (at a minimum), contractor and Plan Preparer, to advise on BMP placement, and
- “Winterization Inspection”. The Plan Preparer, Coda Rainsford of HDVine LLC, is required to oversee implementation of the permit. Prior to the first winter rains after construction begins and each year thereafter until the project has received a final inspection. The plan preparer is required to inspect the site and certify in writing to the director that all erosion control measures have been installed in conformance with the ECP.
 - Seed and straw mulch may be applied after close of grading season until adequate rain is in the forecast. The purpose is to minimize fire hazard and to reduce risk of straw removal in windy conditions (crimping perpendicular to flow is recommended).
 - Any requests for extension beyond the close of grading season, must be submitted at least 2-weeks prior to close of grading season. Extension requests are weather dependent and request approval is not guaranteed.

Final inspections may be conducted after all work has been completed in relation to the permit and the site has been found to be stable for three years (following last year that ground was disturbed for construction or tillage). Finalization is dependent on approval by the director of the Planning Department or his/her agent (NCC 18.108.135.E.1).

11. Estimated Cost

The estimated cost of implementing the erosion and sediment control measures defined in this plan is about \$3000 per acre. Costs are based on estimates outlined in the CA Stormwater BMP Handbook [8] and industry experience. Copies of BMP Fact Sheets were presented to site contact.

Erosion Control Materials				
Type	CA BMP Handbook	Unit Cost	ft	Cost
Silt fence	\$3.5-\$9.1 (ave \$7)/ft	\$ 7	200	\$ 1,400
fiber roll*	\$20-\$30/25ft	\$ 20	1500	\$ 1,200
straw mulch	\$2500/acre	\$ 2,500	5.00	\$ 12,500

*Length includes +8% for fiber roll overlap per installation specifications

TABLE 3 Estimated erosion control material costs

B. Site Plan

The site plan for this project is included as Item 6: Site Plan, which includes the 7½ min USGS vicinity map, Topographic map and ECP detail, and Aerial Image Map. The Site Plan also includes specifications for erosion control BMPs and all items set forth in the document titled “Erosion Control Plan (ECP) Review Application Packet,” dated 02/11/2008 and created by the Napa County Conservation, Development and Planning Department.

C. Scale and Contour Intervals for Erosion Control Plans

The site plan was prepared in accordance with the scale and contour requirements set forth in the document titled “Erosion Control Plan (ECP) Review Application Packet,” dated 02/11/2008 and created by the Napa County Conservation, Development and Planning Department.

D. References

1. Attachments B&C, *Biological Resources Reconnaissance Survey, 2 Swanston Road*, prepared by WRA, December 2023 (Updated July 2024)
2. Attachment E, *Cultural Resources Evaluation of a Portion of 2 Swanston Road, Saint Helena, CA 94574, APN 021-352-036*, prepared by Wolfcreek Archaeology, January 27, 2023.

3. Attachment G, *Hydrology Report – Haas Vineyard*, prepared by HDVine LLC, December 2023
4. Attachment H, *Soil Loss Analysis – Haas Vineyard, USLE Calculations*, prepared by HDVine LLC, December 2023
5. *Custom Soil Resource Report for Napa County, California, Haas Vineyard*, from USDA NRCS Web Soil Survey, May 2023
6. Lambert, G., Kashiwagi, J. et al., *Soil Survey of Napa County, California*, USDA in cooperation with UC Agricultural Experiment Station, August 1978
7. *Napa County's Local Procedures for Implementing the: California Environmental Quality Act*, Revised February 2020.
8. *Stormwater Best Management Practice Handbook Portal: Construction*, California Stormwater Quality Association, November 2009