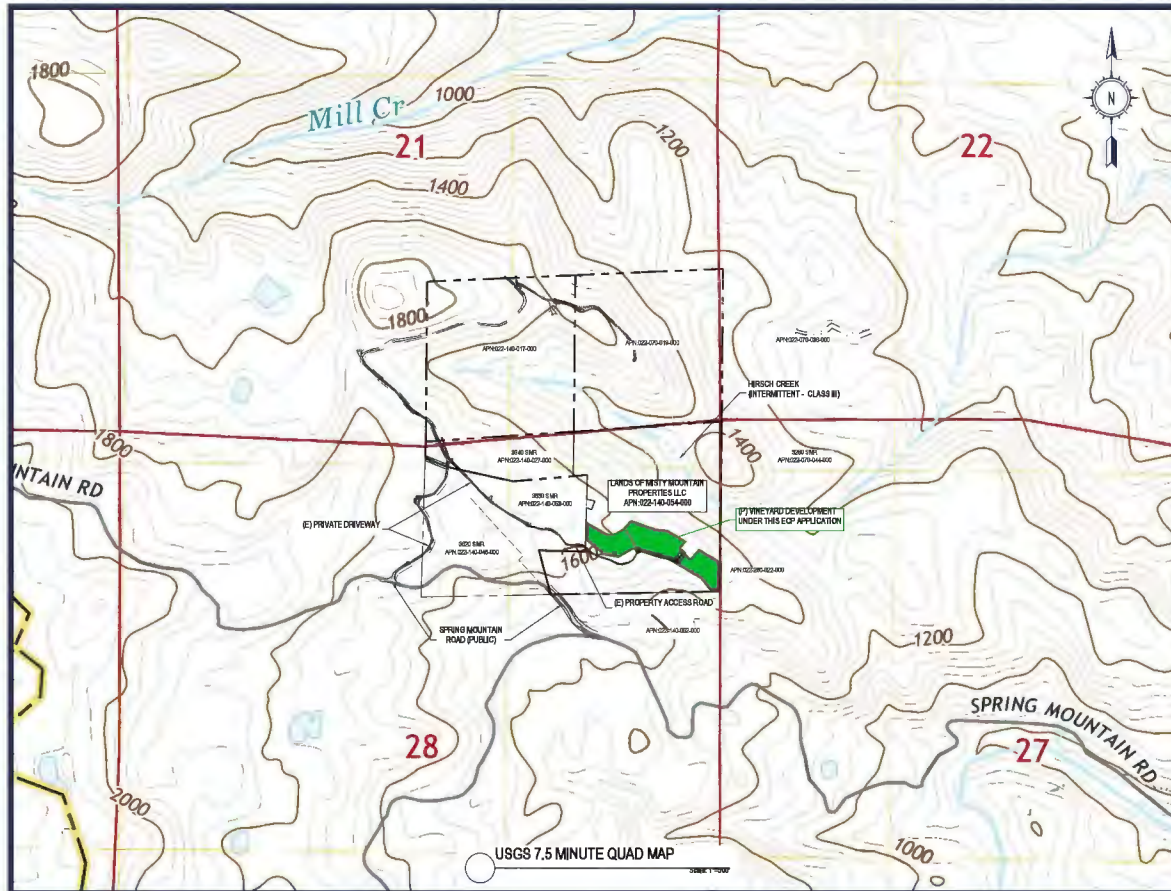


LANDS OF MISTY MOUNTAINS PROPERTIES LLC
VINEYARD EROSION CONTROL PLAN

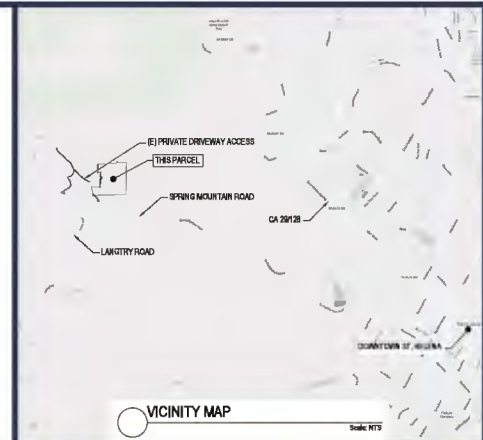
SPRING MOUNTAIN ROAD, CALISTOGA

APN:022-140-054-000



SHEET INDEX:

1. COVER SHEET & USGS
2. NOTES & DETAILS
3. AERIAL SITE PLAN (2014)
4. LAND COVER
5. SLOPE ANALYSIS
6. CANOPY CONSERVATION PLAN
7. CAN CONSERVATION PLAN
8. COMMON MANZANITA CHAPARRAL CONSERVATION PLAN
9. WINEYARD AERIAL PLAN
10. WINEYARD PLAN
11. EROSION CONTROL & IRRIGATION PLAN



PURPOSE STATEMENT:

THIS PLAN WAS PREPARED TO FACILITATE PERMITTING OF THE PROPOSED VINEYARD DEVELOPMENT UNDER MAPA COUNTY EROSION CONTROL PLAN.

PARCEL INFORMATION:

ZONING: AW
PARCEL SIZE: 40.8 ACRES ±
FLOOD ZONE: NOT APPLICABLE

OWNER INFORMATION:

MISTY MOUNTAIN PROPERTIES LLC
850 SHAWNEE AVE.
MENLO PARK, CA 94025
(650) 768-8118

DESIGN PROFESSIONAL:

TRUNORTH
DANIEL BYRNE, P.E. 80074
707 HANAMU DRIVE #274
SANTA ROSA, CA 95405
(707) 538-6858

TECHNICAL PROFESSIONALS:

SURVEYOR: HOGAN LAND SERVICES INC.
GEOLOGIST: DANIEL BYRNE, P.E. 80074
BIOLOGIST: 707 HANAMU DRIVE #274
ARCHITECT: TOM CRIDER & ASSOCIATES

VINEYARD INFORMATION:

TIMBER CONVERSION: LESS THAN 3 ACRE CONVERSION EXEMPTION
TREE CANOPY REMOVAL: 1.88 ACRES
WINDY SOIL SURVEY SOIL TYPE: HANAMU/BLACK OUTFLOP COMPLEX
BOOMER GRAVELLY LOAM

PROPOSED VINEYARD AREA:

BLOCK A - 1.18 AC
BLOCK B - 1.88 AC
BLOCK C - 1.12 AC
NET PLANTING AREA - 3.88 ACRES
GROSS DISTURBED AREA - 5.81 ACRES
AVERAGE SLOPE OF PROJECT AREA 10.7%

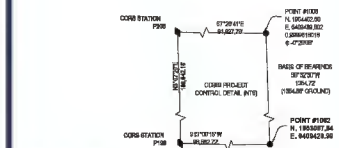
EARTHWORK QUANTITIES:

CUT - 80 CUBIC YARDS
FILL - 80 CUBIC YARDS
NET - 0 CUBIC YARDS

BASES OF BEARINGS: 10° 32' 00" W

SOUTH 0° 00' 00" WEST BETWEEN FOUND MONUMENTS 1000 & 1002 AS THE BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, COORDINATE ZONE 2 (NAD83) EPOCH 2011.00 IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8001-8015. SAID BEARINGS ARE BASED UPON FIELD OBSERVED TIES TO THE CALIFORNIA SPATIAL REFERENCE NETWORK, OR EQUIVALENT STATIONS AS SHOWN IN THE (CCRS) PROJECT CONTROL DETAIL.

THE CONTROL DIAGRAM SHOWS GRID DISTANCES. THE MAP DISTANCES SHOWN HEREON ARE GROUND DISTANCES IN U.S. SURVEY FEET AND DECIMALS THEREOF. TO OBTAIN GRID DISTANCES, MULTIPLY THE GROUND DISTANCE BY THE COMBINED SCALE FACTOR OF 0.999999998.



NOTES FROM SURVEYOR:

- 1) THE PURPOSE OF THIS MAP IS FOR A BOUNDARY RETRACTION EXHIBIT AND THE CONTENT IS RELATIVE TO THE INTENDED USE. UNAUTHORIZED CHANGES OR ADDITIONS TO THE EXISTING DATA SHOWN ON THIS MAP IS STRICTLY PROHIBITED. ANY USE OF THIS MAP BEYOND THE STATED PURPOSE REQUIRES THE AUTHORIZATION.
- 2) THIS MAP DOES NOT CONSTITUTE A BOUNDARY DETERMINATION BY THE SURVEYOR. RECORD BOUNDARY LINES SHOWN ARE BASED ON EVIDENCE FOUND AS SHOWN FROM THE RECORD MAP FILED IN BOOK 27 AT PAGE 90-91, MAPA COUNTY COUNTY RECORDS.
- 3) HORIZONTAL CONTROL: SEE BASES OF BEARINGS NOTE ABOVE.
- 4) VERTICAL CONTROL: ELEVATION DATUMS DERIVED FROM AN OPUS SOLUTION UNDER CPK 1006 (1010.56 FEET) NAVD 83. LEAST DATA PROVIDED BY NOAA NAD83 IN THE DIGITAL COAST ACCESS WEBER, 2016-2019 USGS 02L204N1, NORTHERN CALIFORNIA WILDFIRES, WWW.FISHERIES.USDA.GOV/NORTHERNCALIFORNIAWILDFIRES/
- 5)



VINEYARD ECP

OWNER INFORMATION:

LANDS OF MISTY MOUNTAIN PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000



PUBLISHED 2/9/2028

SHEET TITLE:

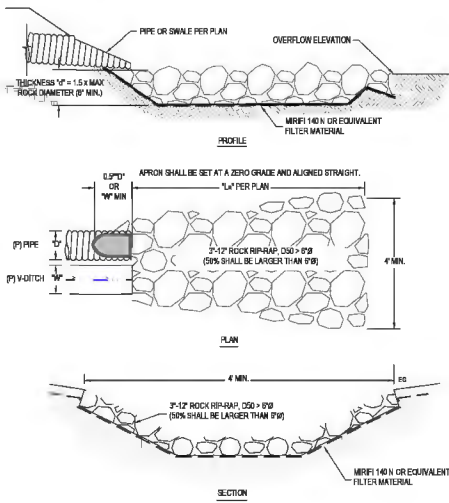
COVER SHEET & USGS MAP

SHEET NUMBER:



[illegible]

15. PERFORM AGRICULTURAL GRADING AND DRAINAGE IN ACCORDANCE WITH APPLICABLE MAH COUNTY REGULATIONS.
16. THE AGRICULTURAL GRADING OR DRAINAGE APPROVED PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
17. THE MAH COUNTY MAP 14-100 SHALL BE REVIEWED TO DETERMINE IF IT IS PERFORMED CONTIGUOUS TO THE APPROVED PLANS AND SPECIFICATIONS, PERMIT CONDITIONS, OR ANY WORK THAT HAS BECOME HAZARDOUS TO PROPERTY ON THE PUBLIC.
18. THE AGRICULTURAL GRADING OR DRAINAGE PERMIT BY THE COUNTY OF MAHARA DOES NOT ELIMINATE THE RESPONSIBILITY OF THE PROPERTY OWNER TO SECURE PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR THE USES AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS. FAILURE TO OBTAIN ALL REQUIRED PERMITS MAY RESULT IN FINES FROM OTHER AGENCIES.
19. AGRICULTURAL GRADING SHALL BE LIMITED TO THE GRADING AREA IDENTIFIED AND DELINEATED ON THE APPROVED PLANS AND SPECIFICATIONS.
20. DEVELOPMENT AREAS FOR AGRICULTURAL GRADING AND DRAINAGE SHALL BE SET BACK FROM LAKES, PONDS, RESERVOIRS, STREAMS, AND WETLANDS IN COMPLIANCE WITH THE REQUIREMENTS OF THE CONSERVATION REGULATIONS. NO GRADING OR WORK-RELATED GROUND DISTURBANCE SHALL BE ALLOWED IN ANY SETBACK AREA WITHOUT APPROVED PERMITS.
21. SHOULD AGRICULTURAL GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IMMEDIATELY IN THE CONTAMINATED AREA AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR ASSISTANCE AND REMEDIATION.
22. CONTIGUOUS ELEVATIONS, AND SHAPES OF FINISHED SURFACES SHALL BE IDENTIFIED WITH ADJACENT NATURAL TERRAIN TO ACHIEVE A CONSISTENT GRACE AND NATURAL APPEARANCE. BORDERS OF OUP SLOPES AND FILL SHALL BE ROUNDIFIED OFF TO ACHIEVE A SMOOTH AND NATURAL APPEARANCE.
23. GROUND SURFACES SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TORSION, AND OTHER UNDESIRABLE MATERIALS, AND SCORING THE GROUND TO PROVIDE A BOND WITH THE FILL MATERIAL.
24. FILL MATERIAL SHALL NOT INCLUDE CRUSHED GRAVEL, OR OTHER DELICATELY MATERIALS, NO ROCK OR OTHER MATERIALS OF AGRICULTURAL ORIGIN. FILL SHALL BE PLACED IN 6" LAYERS. CREST WHERE THERE IS A GRADIENT CHANGES A METHOD OF PLACEMENT OF LARGER ROCK, CONTINUOUSLY INSPECTED ITS PLACEMENT, AND ITS STABILITY. TORSION SHALL BE REMOVED FROM THE SURFACE OF THE FILL. THE PLANS AND SPECIFICATIONS, ROCK SHALL BE PLACED SO AS TO PROVIDE A FILLING OF ALL Voids WITH WELL-GRADED ROCK.
25. FILL SHALL BE CONSTRUCTED IN LIFTS NOT EXCEEDING 48 INCHES IN DEPTH. COMPLETED FILL SHALL BE STABLE, WELL-INTERGRADED, AND BONDED TO ADJACENT MATERIALS AND THE MATERIALS ON WHICH THEY REST. FILLS SHALL BE COMPACTED TO MEET SPECIFIED ANTICIPATED LOADS AND BE EQUAL AT THE DESIGN LOADS SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS.
26. FILL BELOW 30 INCHES FROM FINISHED GRADE SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY OF THE UNDERLYING NATURAL MATERIALS.
27. FILL AT OR ABOVE 30 INCHES FROM FINISHED GRADE SHALL BE COMPACTED TO A MINIMUM DENSITY NECESSARY FOR THE INTENDED USE OR AS SPECIFIED BY A STATE ENGINEER.
28. AGRICULTURAL GRADING OR DRAINAGE WORK SHALL NOT OCCUR DURING THE DANCEY SEASON, EXCEPT FOR THE PURPOSES OF PROTECTING THE EROSION CONTROL MEASURES.
29. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT OR TO IMPLEMENT EROSION PREVENTION OR CONTROL MEASURES.

[illegible]

3

EXISTING GRADE

FLOWLINE

1. CONSTRUCT RIP-RAP FAN-LEVEL UP FROM NATIVE ROCK GRAD. UP OF LEVEL SPREADER SHALL BE CONSTRUCTED LEVEL TO SPREAD WATER UNIFORMLY AS GUEST FLOW.
2. LAYOUT LEVEL UP ON CONTOUR, 12 MIN.
3. LEVEL UP SHALL BE CONSTRUCTED ENTIRELY ON NATIVE, NO FILL. BOTTOM GRADE SHALL BE LEVEL, 2% GRADE.
4. INSPECT PERMANENT LEVEL SPREADER PERIODICALLY FOR SOILS, UNDERCUTTING, SETTLEMENT, AND FOR CONCENTRATED FLOWS DOWNHILL FROM LEVEL SPREADER.

3 LEVEL SPREADER

7' WIDE ROW, 7' ON CENTER ORIENTED PER PLAN

VSP VERTICAL SHOOT POSITIONING (VSP) TRELLIS

CRP IRRIGATION LINE

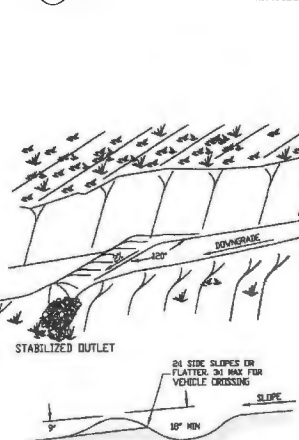
END POST & TRELLIS CONSTRUCTION PER VINEYARD MANAGER

4' ON CENTER VINE SPACING

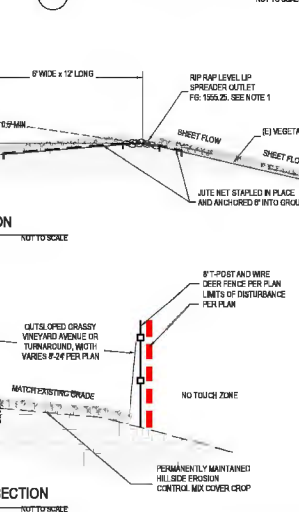
IRRIGATION SUPPLY CRP ZONE ROW VINEYARD MANAGER

1 GRASSY AREA

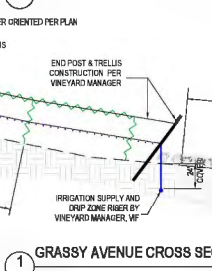
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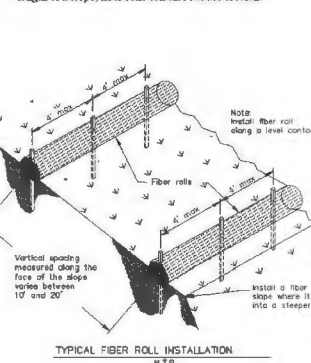
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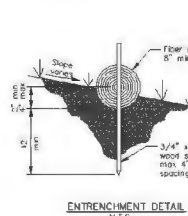
3 _____



A fiber roll consists of straw, flax, or other similar materials bound into a tight tubular roll. When fiber rolls are placed at the toe and on the face of slopes, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff. By interrupting the length of a slope, fiber rolls can also reduce erosion.



A.12



N.I.S.

1. FIBER ROLLS ARE NOT EFFECTIVE UNLESS TRENCHED
2. FIBER ROLLS AT THE TOE OF SLOPES GREATER THAN 5:1 (V:H) SHOULD BE A MINIMUM OF 30 CM (12 INCHES) DEEP
3. STAKE ROLLS TO THE TOP OF THE SLOPE TO PREVENT SLIDING OF THE ROLLS DOWN THE SLOPE
4. LOCATE FIBER ROLLS ON LEVELS CONTAINING SPACED PIER OR AS REQUIRED TO PREVENT EROSION
5. THE LENGTH OF THE FIBER ROLL SHOULD BE 10 METERS (33 FEET) OR GREATER
6. STAKE FIBER ROLLS TO A MIN. OF 2 M (6.5 FT) TO MAINTAIN PIER WITH A WIDTH EQUAL TO THE DIAMETER OF THE FIBER ROLL
7. FIBER ROLLS SHOULD BE PLACED AT A MINIMUM OF 10 CM (4 INCHES) FROM THE TOE OF THE SLOPE
8. USE WOOD STAKES WITH A MINIMUM CLASSIFICATION OF 162 AND MINIMUM LENGTH OF 24 IN.
9. THE FIBER ROLL IS NOT TO BE USED TO PROTECT THE TOE OF A SLOPE
10. INSPECT ROLLS PRIOR TO FORECAST RAIN, DAILY DURING EXTREMELY RAINY EVENTS, AFTER RAIN EVENTS, WEEKLY DURING
FORECAST RAIN, AND WEEKLY DURING EXTREMELY RAINY WEATHER
11. REPAIR OR REPLACE SPIKE, TYPING UNPAVED, OR SLUMPING FIBER ROLL
12. IF THE FIBER ROLL IS USED AS A TEMPORARY CAPTURE DEVICE, OR AS AN EROSION CONTROL DURING CONSTRUCTION, THE
FIBER ROLL SHOULD BE ACCUMULATED TO THE TOE OF THE SLOPE IN ORDER TO MAINTAIN PIER
EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE HALF THE DESIGNATED
CAPACITY OF THE FIBER ROLL
13. FIBER ROLLS SHOULD BE REMOVED FROM MAINTENANCE AND BE INCORPORATED INTO EARTHWORK ON THE SITE OF
GROUND FAILURE. SEDIMENT REMOVED DURING MAINTENANCE MAY BE INCORPORATED INTO EARTHWORK ON THE SITE OF

6) _____ NOT TO SCALE

LANDS OF MISTY
MOUNTAIN
PROPERTIES LLC

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000



PUBLISHED 2/3/2020

NOTES & DETAILS

신용보증기금에 대한 신뢰도





**VINEYARD
ECP**

OWNER INFORMATION:

LANDS OF MISTY
MOUNTAIN
PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000

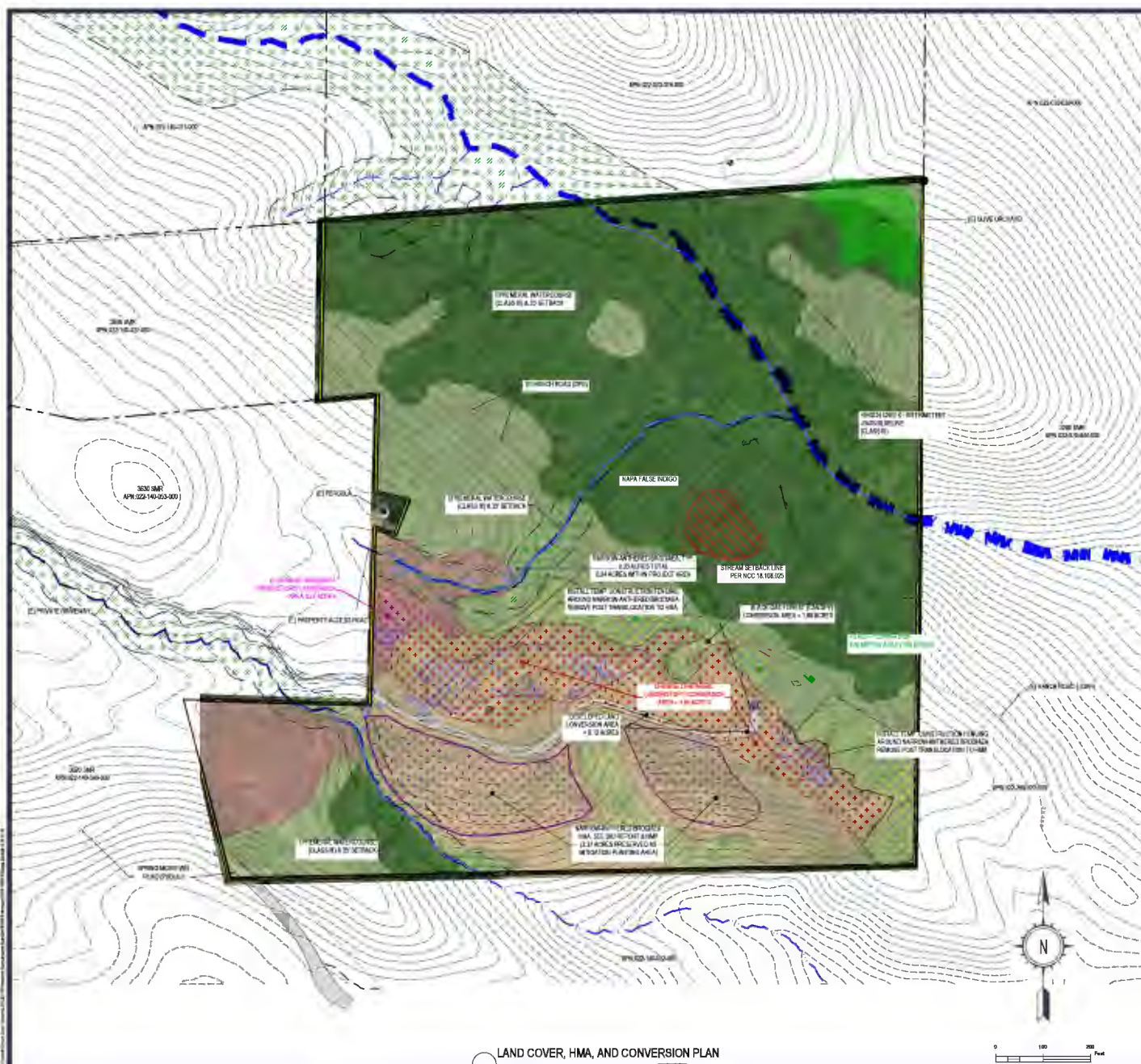


PUBLISHED 2/3/2026

SHANGHAI

LAND COVER

SHEET NUMBER





TRUNORTH

VINEYARD
ECP

OWNER INFORMATION:

LANDS OF MISTY
MOUNTAIN
PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000

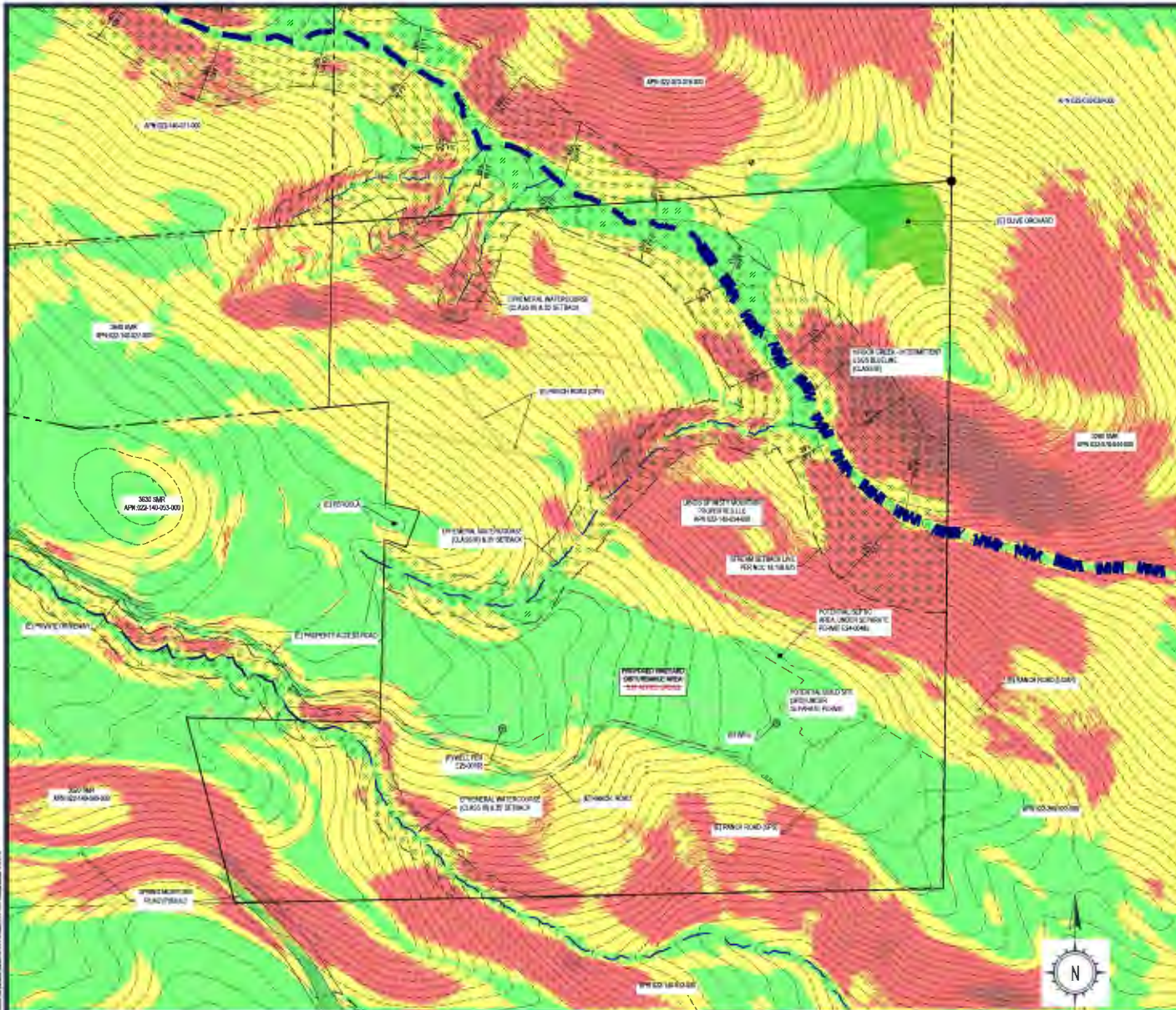


PUBLISHED 2/9/2026

SHEET TITLE:

SLOPE ANALYSIS

SHEET NUMBER:



Slopes Table				
Number	Minimum Slope	Maximum Slope	Area	Color
1	0.00%	30.00%	4323758.30	Green
2	30.00%	50.00%	4038954.96	Yellow
3	50.00%	75.00%	2862447.55	Orange
4	75.00%	100.00%	146201.83	Red
5	100.00%	125.00%	1464.30	Dark Red
6	125.00%	127.24%	3.40	Dark Red

2D surface area 7352139.81 sq. ft.
3D surface area 236888.53 sq. ft.
Minimum grade/slope 0.00%
Maximum grade/slope 33.87%
Mean grade/slope 15.73%

SLOPE ANALYSIS LEGEND
AVERAGE SLOPE OF DEVELOPMENT AREA = 15.73%

SLOPE ANALYSIS
DATE: 01/01/2018





VINEYARD
ECP

OWNER INFORMATION:

LANDS OF MISTY
MOUNTAIN
PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000

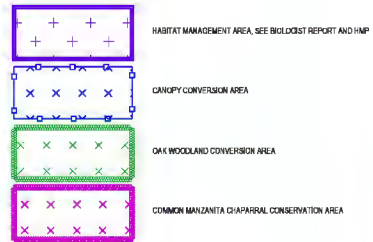


PUBLISHED 29/2026

SHEET TITLE:

OAK
CONSERVATION
PLAN

SHEET NUMBER:



CONSERVATION EASEMENT LEGEND

Slopes Table				
Number	Minimum Slope	Maximum Slope	Area	Color
1	0.00%	30.00%	24112.94	Light Green
2	30.00%	50.00%	178175.53	Yellow
3	50.00%	66.67%	0.00	Orange
4	66.67%	100.00%	0.00	Red
5	100.00%	125.00%	0.00	Dark Red
6	125.00%	127.24%	0.00	Dark Red

2D surface area	202262.47 Sq. Ft.
3D surface area	215666.30 Sq. Ft.
Minimum grade/slope	0.11%
Maximum grade/slope	49.78%
Mean grade/slope	26.81%

CONSERVATION ACCOUNTING

OAK WOODLAND 0.02 ACRES (0.0005 HAP)

OAK CONSERVATION PLAN

OWNER: TDP





OWNER INFORMATION:

SITE INFORMATION:

PUBLISHED 2/3/2026

SHEET TITLE:

SHEET NUMBER:



Environ. Sci.	854271-16 (1)
Environ. Sci.	864081-16 (1)
Water, Pollut. Res.	1175
Water, Pollut. Res.	7345
Water, Pollut. Res.	5146

COMBINATION CHAPARRAL 2.52 ACRES @ 225% AVE



TRUNORTH

VINEYARD ECP

OWNER INFORMATION:

LANDS OF MISTY MOUNTAIN PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000



PUBLISHED 2/9/2026

SHEET TITLE:

VINEYARD AERIAL PLAN

SHEET NUMBER:



VINEYARD AERIAL PLAN (APRIL 2024)



VINEYARD ECP

OWNER INFORMATION:

LANDS OF MISTY
MOUNTAIN
PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000

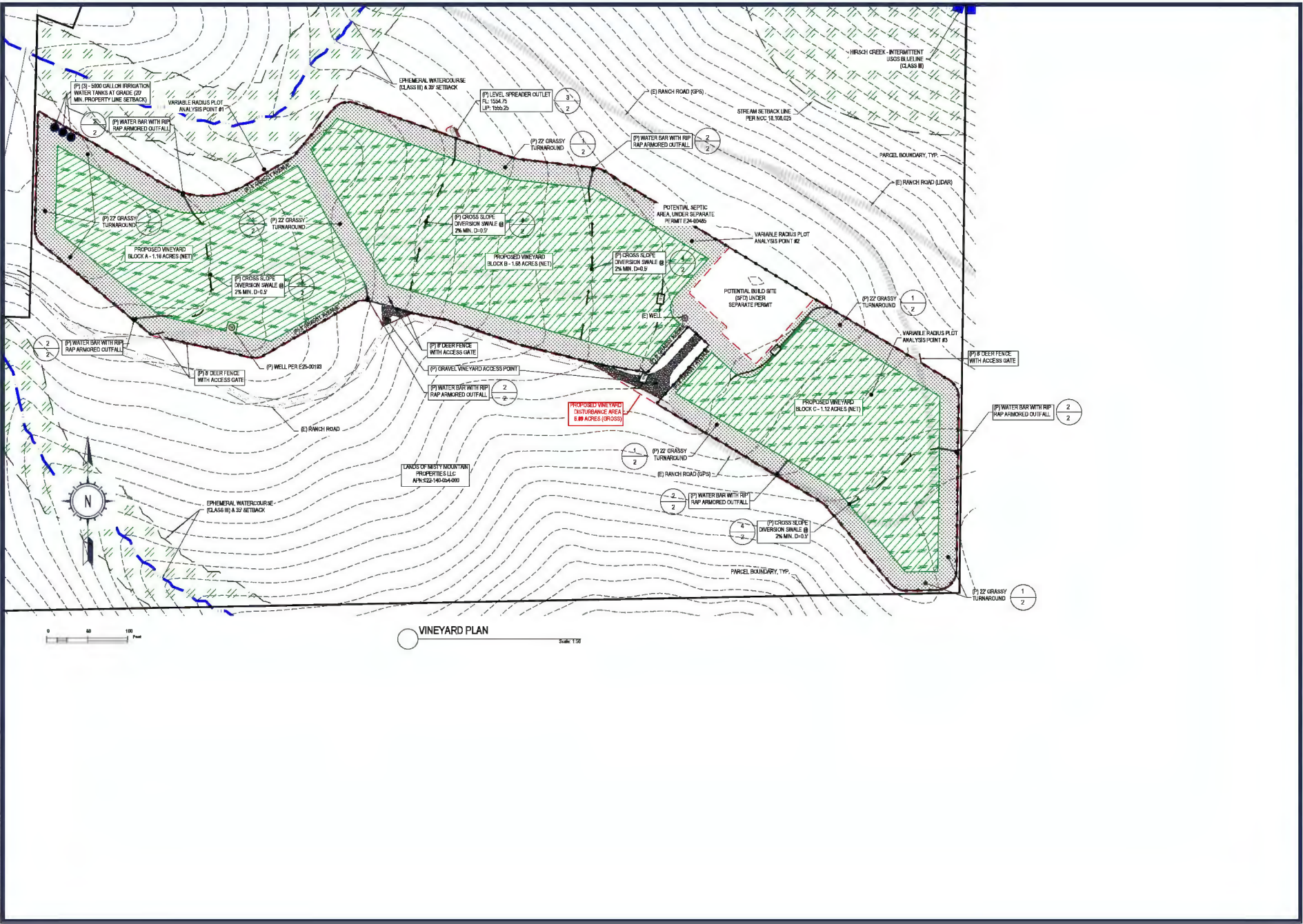


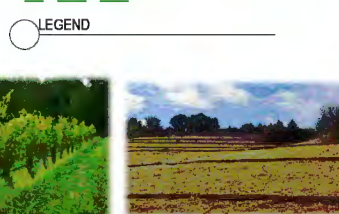
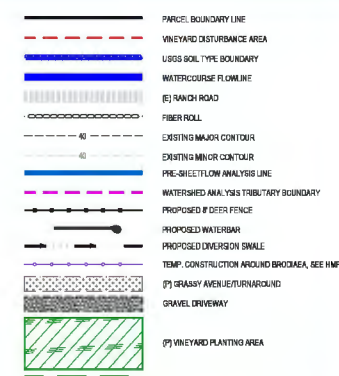
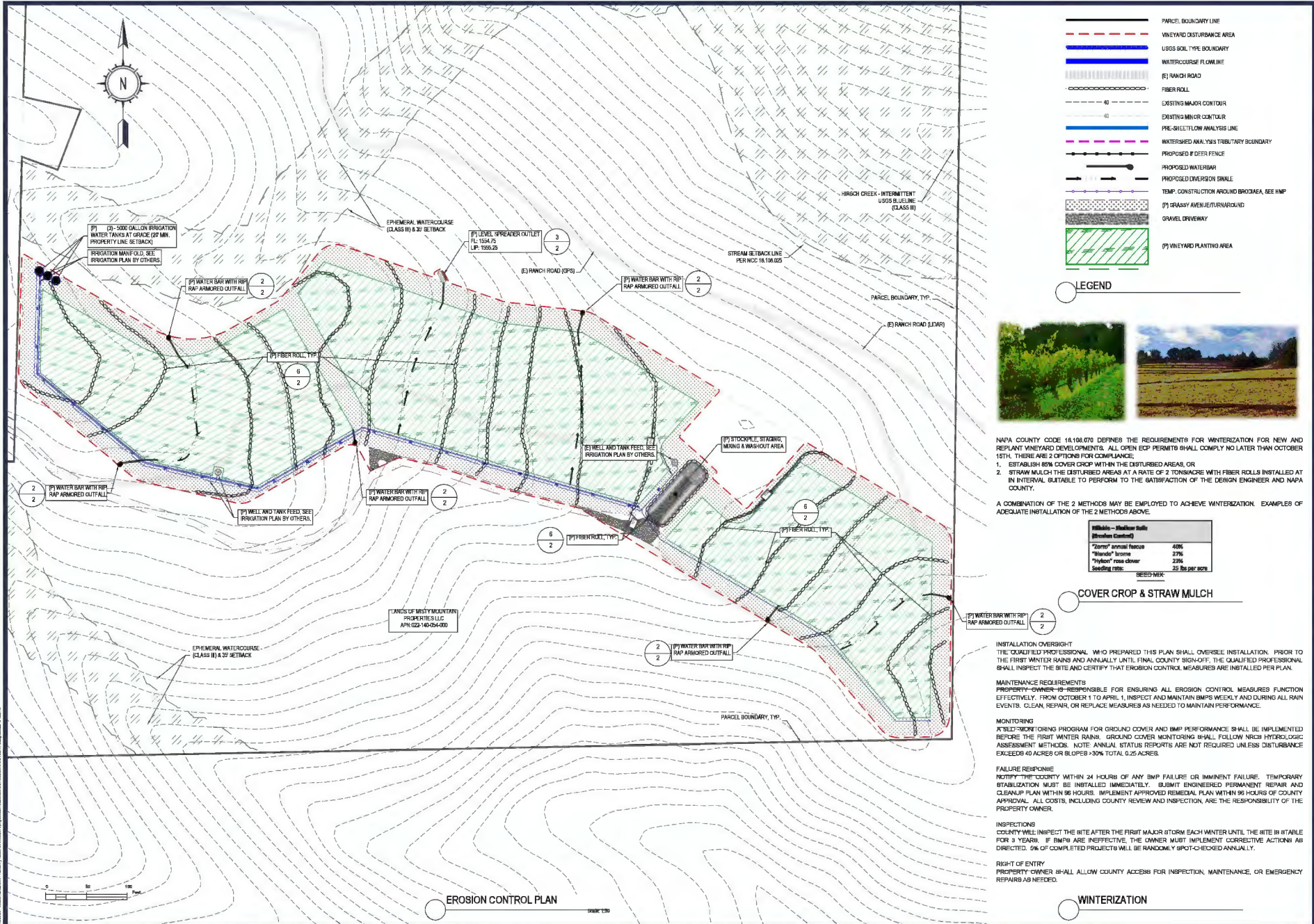
PUBLISHED 2/9/2026

SHEET TITLE:

VINEYARD PLAN

SHEET NUMBER:





NAPA COUNTY CODE 18.100.070 DEFINES THE REQUIREMENTS FOR WINTERIZATION FOR NEW AND REPLANT VINEYARD DEVELOPMENTS. ALL OPEN ECP PERMITS SHALL COMPLY NO LATER THAN OCTOBER 15TH. THERE ARE 2 OPTIONS FOR COMPLIANCE:

1. ESTABLISH 80% COVER CROP WITHIN THE DISTURBED AREAS, OR
2. STRAW MULCH THE DISTURBED AREAS AT A RATE OF 2 TONS/ACRE WITH FIBER ROLLS INSTALLED AT AN INTERVAL SUITABLE TO PERFORM TO THE SATISFACTION OF THE DESIGN ENGINEER AND NAPA COUNTY.

A COMBINATION OF THE 2 METHODS MAY BE EMPLOYED TO ACHIEVE WINTERIZATION. EXAMPLES OF ADEQUATE INSTALLATION OF THE 2 METHODS ABOVE:

Material - Straw/Roll	Material - Fiber Roll
"Zorro" annual forage	40%
"Blonde" bromegrass	27%
"Pony" rye clover	23%
Seeding rate:	25 lbs per acre

COVER CROP & STRAW MULCH

INSTALLATION OVERSIGHT
THE QUALIFIED PROFESSIONAL WHO PREPARED THIS PLAN SHALL OVERSEE INSTALLATION. PRIOR TO THE FIRST WINTER RAIN AND ANNUALLY UNTIL FINAL COUNTY SIGN-OFF, THE QUALIFIED PROFESSIONAL SHALL INSPECT THE SITE AND CERTIFY THAT EROSION CONTROL MEASURES ARE INSTALLED PER PLAN.

MAINTENANCE REQUIREMENTS
PROPERTY OWNER IS RESPONSIBLE FOR ENSURING ALL EROSION CONTROL MEASURES FUNCTION EFFECTIVELY. FROM OCTOBER 1 TO APRIL 1, INSPECT AND MAINTAIN BMPs WEEKLY AND DURING ALL RAIN EVENTS. CLEAN, REPAIR, OR REPLACE MEASURES AS NEEDED TO MAINTAIN PERFORMANCE.

MONITORING
A 30-DAY MONITORING PROGRAM FOR GROUND COVER AND BMP PERFORMANCE SHALL BE IMPLEMENTED BEFORE THE FIRST WINTER RAIN. GROUND COVER MONITORING SHALL FOLLOW NRCS HYDROLOGIC ASSESSMENT METHODS. NOTE: ANNUAL STATUS REPORTS ARE NOT REQUIRED UNLESS DISTURBANCE EXCEEDS 40 ACRES OR SLOPES > 30% TOTAL 0.25 ACRES.

FAILURE RESPONSE
NOTIFY THE COUNTY WITHIN 24 HOURS OF ANY BMP FAILURE OR IMMINENT FAILURE. TEMPORARY STABILIZATION MUST BE INSTALLED IMMEDIATELY. SUBMIT ENGINEERED PERMANENT REPAIR AND CLEANUP PLAN WITHIN 96 HOURS. IMPLEMENT APPROVED REMEDIAL PLAN WITHIN 96 HOURS OF COUNTY APPROVAL. ALL COSTS, INCLUDING COUNTY REVIEW AND INSPECTION, ARE THE RESPONSIBILITY OF THE PROPERTY OWNER.

INSPECTIONS
COUNTY WILL INSPECT THE SITE AFTER THE FIRST MAJOR STORM EACH WINTER UNTIL THE SITE IS STABLE FOR 1 YEAR. IF BMPs ARE INEFFECTIVE, THE OWNER MUST IMPLEMENT CORRECTIVE ACTIONS AS DIRECTED. 5% OF COMPLETED PROJECTS WILL BE RANDOMLY SPOT-CHECKED ANNUALLY.

RIGHT OF ENTRY
PROPERTY OWNER SHALL ALLOW COUNTY ACCESS FOR INSPECTION, MAINTENANCE, OR EMERGENCY REPAIRS AS NEEDED.

WINTERIZATION



OWNER INFORMATION:

LANDS OF MISTY MOUNTAIN PROPERTIES LLC

SITE INFORMATION:

SPRING MOUNTAIN RD.
ST. HELENA, CA
APN: 022-140-054-000



PUBLISHED 2/9/2028

SHEET TITLE:

EROSION CONTROL & IRRIGATION

SHEET NUMBER:



11



T R U N O R T H

707 Hahman Drive #2774

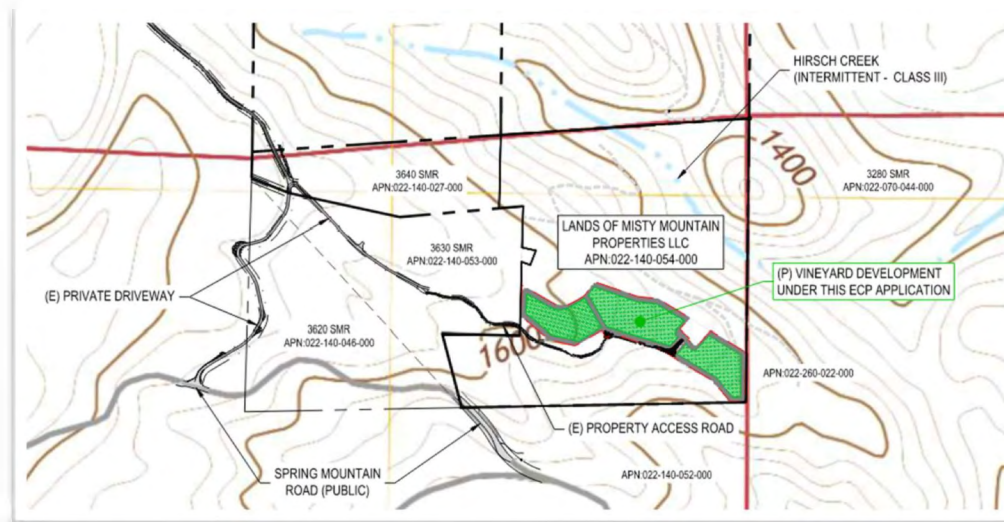
Santa Rosa, CA 95405

707.308.8638

www.TruNorth.co

VINEYARD EROSION CONTROL PLAN SUPPLEMENTAL INFORMATION PACKAGE

LANDS OF MISTY MOUNTAIN PROPERTIES LLC
____ SPRING MOUNTAIN ROAD
ST. HELENA, CA 94574
APN: 022-140-054-000

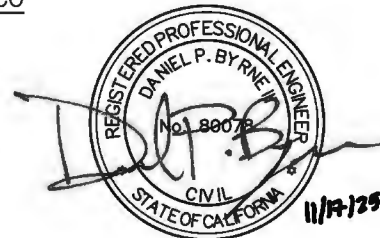


DESIGN PROFESSIONAL:

TRUNORTH
DANIEL BYRNE, RCE 80078
DAN@TRUNORTH.CO
707-308-8638

DEVELOPER:

MISTY MOUNTAIN PROPERTIES LLC
ISAAC@GOBLUE.ONE
650-766-8116





VINEYARD EROSION CONTROL PLAN

SUPPLEMENTAL INFORMATION PACKAGE

Revised: 11/17/25

Misty Mountain Properties LLC
____ Spring Mountain Road
St. Helena, Ca 94574
APN: 022-140-054-000

Project Description

Misty Mountain Properties LLC acquired the 40.8 acre undeveloped parcel in early 2024 and is seeking an Erosion Control Permit (ECP) to develop a 3.96 acre (net) hillside vineyard over a 5.81 acre development area. A pre-application meeting with Napa County Staff was held on March 6, 2025, under P25-000045.

Site Information & Existing Conditions

- **Location:** The parcel is in unincorporated Napa County within the Spring Mountain District AVA, located 4 miles east of St. Helena at (3630) Spring Mountain Road, Calistoga. The address number for the undeveloped parcel has not been assigned, however the parcel shares a driveway with the Residential Development at 3630 Spring Mountain Road.
- **Site Access:** Access to the site is via an easement over a private road heading north from Spring Mountain Road, about 0.5 miles west of the Langtry Road intersection. The private asphalt road serves several parcels, including four Single-Family Residential Developments and the Commercial/Residential uses at Keenan Winery (3660 Spring Mountain Road). An existing private asphalt driveway serving 3630 Spring Mountain Road provides access to the subject parcel via shared driveway easement. At the gate for the residential development at 3630 Spring Mountain Road, there is an existing dirt/gravel agricultural road & access easement that veers right leading to the subject parcel with direct access to the development area. The existing access road is sufficiently constructed to accommodate the anticipated agricultural vehicle and equipment traffic associated with vineyard operations. As a result, no upgrades or improvements to the access routes are proposed under the current Erosion Control Permit development plan.
- **Existing Site Features:** The 40.8-acre Agricultural Watershed (AW) zoned parcel includes a dirt/gravel agricultural access road, a network of logging roads and skid trails, an on-site well, a designated septic area (unimproved), and an unmanaged olive orchard.
- **Topography:** The parcel is situated on the east-facing slope of Napa Valley, with elevations ranging from approximately 1,350 to 1,625 feet, featuring moderate to steep slopes generally between 15% and 100%. The contiguous development area is located at elevations between 1,500 and 1,625 feet and encompasses slopes ranging from 0% to 33.87% with an average slope of 16.73%. The project plans utilize the 2018 NOAA



LiDar ground surface model for ground topography. The parcel is characterized by moderate to steep slopes predominantly covered by fire-scorched Doug Fir Forest, California Black Oak Forest, and Chamise & Manzanita Chaparral. Hirsch Creek (USGS Blueline) bisects the northeast quadrant of the parcel. Setbacks and conservation areas were established for each side of the creek bank based on slope and NCC 18.108.025 regulations. There are three ephemeral watercourses tributary to Hirsch Creek, located north of the vineyard development area, each requiring a 35-foot setback/conservation area from the top of the bank. Additionally, another ephemeral watercourse tributary to York Creek bisects the southwest quadrant of the parcel, requiring a 35-foot setback/conservation area.

- Soil Types: Soil type within the development area is predominantly Hambright-Rock Outcrop Complex (Hydraulic Soil Group D) with approximately 20% being mapped as Boomer Gravelly Loam (Hydraulic Soil Group C).
- Irrigation & Water Source: The parcel is not located within a Sensitive Domestic Water Supply area. Water for the project will be sourced from an existing on site well (96-11339). A 2024 dry-weather water yield test spanning 5 hours yielded 13 gallons per minute which is alone sufficient to accommodate the irrigation needs. A supplemental well is proposed near block A under E25-00193 and will be drilled later this year. Up to (3) 5000 gallon water tanks are proposed, 10,000 gallons dedicated solely to vineyard irrigation. Tanks will be auto fed from the onsite well, with a zoned drip irrigation system strung on the vineyard trellis wire.
- Power Source: The existing well operates using a generator. An application for permanent power service for both Residential and Agricultural uses is in review at PGE under application number 12773897.
- Glass Fire (2020): The Glass Fire, which began on September 27, 2020, affected approximately 67,484 acres before being fully contained on October 20, 2020. The fire burnt the project parcel and all surrounding parcels, causing significant damage to the trees and understory on the parcel. A Notice of Emergency Timber Operations was approved by Cal Fire on August 27, 2024 with salvage logging operations for the merchantable timber conducted through August 26, 2025. With the completion of Cal Fire's salvage logging operations, the felling of non-merchantable trees that are dead, dying, or pose a hazard may proceed in accordance with Napa County Fire Management and Conservation Regulations.
- Proposed Vineyard Development:
 - The project disturbs 5.81 acres netting 3.96 acres of vineyard over blocks A, B, & C.
 - The cover type within the vineyard development area is predominantly Chamise Chaparral (3.55 acres – 61.1%), California Black Oak Forest with mixed hardwoods and sporadic firs (1.86 acres – 32.1%), Common Manzanita Chaparral (0.27 acres – 4.6%) and developed dirt road (0.12 acres – 2.1%)
 - Using a variable radius prism with a basal area factor (BAF) of 25, three sample plots from within the Black Oak Forest development area were surveyed to estimate stand density and structure. Across the three samples, a total of 17 qualifying trees were tallied, yielding an estimated basal area of



approximately 142 square feet per acre. The average diameter at breast height (DBH) of the tallied trees was approximately 12 inches. Based on the combination of basal area and average DBH, the estimated trees per acre (TPA) is approximately 180. For the proposed 1.86-acre canopy conversion to vineyard, it is estimated that approximately 335 trees will be removed. The species within the conservation area are predominantly Oak; however, there is also a significant presence of intermixed Fir, Bay, and Madrone trees.

- The preliminary vineyard development schedule has vineyard clearing and preparation taking place in summer 2026. Upon completion of clearing and stump removal, the planting areas will be ripped to a depth of 2-3 feet. During the ripping process, pre-plant soil amendments such as calcitic lime and compost will be incorporated into the soil to elevate soil pH values and enhance soil fertility. End posts and trellis construction will occur in late summer. Upon completion of vineyard preparation cover crop will be established and the site will be winterized by October 15th 2026.
- An 8-foot deer fence is planned for installation around the perimeter of the vineyard development area. The fence will not connect with any neighboring fences, so existing wildlife pathways will remain open, with the vineyard area enclosed and surrounded by natural habitat.
- The project does not propose major earthwork or grading, as the vineyard blocks are to be constructed at existing grade. The only spoils anticipated are rock spoils from ripping and the excavation from the proposed cutoff swales and access from the existing ranch road to the turnaround between blocks A and B (amounting to approximately 60 cubic yards). The rock spoils will be used for erosion protection at drainage outfalls and to armor steeper sections of vineyard avenues. Earth spoils will be used for the construction of the proposed water bars. If excess rock exists, it will be stockpiled within the disturbance area within the turnaround area between Blocks B and C and may be used in landscaping and/or road base for potential future residential development, under separate permit.
- Vines are scheduled for initial planting in spring of 2027.
- Estimated Cost for Vineyard Prep: The estimated cost of the erosion measures undertaken for the vineyard development is based on a time and materials basis due to the numerous variables involved. Generally, the cost for Erosion Control Plan (ECP) vineyard preparation with moderate tree removal is approximately \$50,000 per acre. For the 4 acres (+/-) to be planted, we are budgeting a total of \$200,000.
- Vineyard Operations:
 - Ongoing Vineyard Management: Annual Pruning will occur in January or February over a 5-day period consisting of a 15-person crew plus ATV. The crew is transported to the site in a van, with the foreman showing up in a separate vehicle. Sulfuring (Fungicide Spray) generally occurs 6 times per year typically in May-June in the cooler evening or night hours via 1-2 person crew and ATV.



Weed eating and mowing will typically occur 3 times per year in the spring and summer months consisting of a tractor with implement and single person crew.

- Harvest: Harvesting a 3.96 acre vineyard can easily be accomplished over a 5-day period by the standard 15-person farm worker crew and foreman. Its likely 3-4 trips will be necessary for grape haul over the 5-day harvest window.
- Potential Future Ministerial Site Development: The landowner has obtained or is seeking permits for a supplemental well (E25-00193), an on-site wastewater treatment system (OWTS) (E24-00485), and a single-family dwelling. These ministerial permits are CEQA exempt and unrelated to this ECP development and review.

Technical Studies

Landslide Hazard Evaluation

RGH Consultants conducted a Landslide Hazard Evaluation in December 2024 to assess the geologic feasibility of proposed vineyard development. Using geologic maps, LiDAR data, and a site reconnaissance on December 13, 2024, the evaluation indicated no evidence of large-scale slope instability or landslides within the vineyard development area and concluded that the risk of global slope failure is low, both currently and post-development. It notes that surface soil erosion is the primary concern and suggests adherence to Napa County erosion control regulations to address this issue.

Biotic Resource & Special Species Assessments

A Biological Resources Reconnaissance Survey was conducted for the proposed vineyard development by WRA Inc. (Revised November 2025). Two special-status plant species were identified within the 40.8-acre Study Area. Narrow-anthered brodiaea (*Brodiaea leptandra*) occurrences were found both inside and out of the vineyard development area. A Habitat Management Plan (HMP) for *Brodiaea leptandra* is proposed to mitigate impacts, including translocating individuals from the Project Area to a designated permanently conserved Habitat Management Area (HMA), with detailed protocols for collection, planting, monitoring, and success criteria. Assuming a 75% attrition rate, over 80% of *Brodiaea leptandra* is retained—22% in place and the remaining as HMP translocation.

Napa false indigo (*Amorpha californica* var. *napensis*) was found outside the development area and beyond the impact zone.

Although Common Manzanita Chaparral is not classified as a sensitive natural community in the current Napa Baseline Data Report (BDR), it has recently been designated as State and Global Vulnerable (3) by the California Department of Fish and Wildlife. Consequently, Napa County now recognizes it as a sensitive natural community. The proposed project demonstrates compliance with local and state conservation requirements through the retention and permanent preservation of over 80% of the existing Common Manzanita Chaparral. This approach ensures that the majority of this habitat will remain undisturbed and protected in perpetuity, aligning with County policies and contributing to long-term resource conservation goals. The project plans to convert 0.27 of 2.55 acres of Common Manzanita Chaparral into vineyard, while preserving the remaining land through a conservation easement.



No special-status wildlife species were observed, although eight species have the potential to occur based on habitat suitability. Mitigation measures include seasonal timing (or surveys) for tree removal to protect bats, and nesting bird surveys if vegetation removal occurs during the breeding season.

Northern Spotted Owl Assessment

A Northern Spotted Owl (NSO) assessment was conducted for the project by consulting wildlife biologist Pamela Town. The assessment confirms that the project site lies within the range of the federally and state-listed Threatened NSO and is within 1.3 miles of two historic NSO territories (NAP0005 and NAP0033), with the most recent detections in 1998 and 2012, respectively. The project area was impacted by the 2020 Glass Fire and is considered marginal NSO habitat, with suitable habitat within ¼ mile of the site. As a result, protocol-level NSO surveys were initiated in 2024 and are ongoing in 2025. Thus far, no surveys have detected owl activity within the project area or immediate vicinity. The report recommends that no tree removal occur until surveys are complete, and if NSOs are detected, all applicable U.S. Fish and Wildlife Service and California Department of Fish and Wildlife protection measures will be implemented. The assessment follows current federal and state guidance for NSO take avoidance and habitat evaluation.

Water Availability Analysis

O'Connor Environmental, Inc. prepared the Water Availability Analysis evaluating the hydrogeologic conditions and water use impacts of a proposed vineyard development. The analysis concludes that the proposed water use of 2.85 acre-feet per year (AFY) on the parcel—part of a total projected use of 76.2 AFY across the 590-acre recharge area—represents only 14% of the parcel's estimated average annual groundwater recharge (20.7 AFY) and 26% of the recharge area's total (298.2 AFY), indicating sustainable use. No Tier 2 well interference or Tier 3 streamflow depletion analyses are required, as the proposed well will be sited more than 500 feet from neighboring wells and over 1,500 feet from significant streams.

Cultural Resource Evaluation

Tom Origer & Associates conducted a cultural resources study in accordance with CEQA and County of Napa requirements, included archival research, Native American outreach, and an intensive field survey. No archaeological or built environment resources were identified within the study area, and the potential for buried cultural resources was determined to be very low due to the area's Pliocene-aged geology. As such, no resource-specific recommendations were warranted. However, standard CEQA protocols for accidental discovery of cultural materials or human remains remain applicable.

Middletown Rancheria responded to our notice of intent letter conducting a Cultural Resource site survey on 11/14/2025. Their survey identified limited isolated specimens of obsidian in the lower block. Mitigation measures resulting from the site visit will be developed and incorporated into the project's conditions of approval to ensure that any cultural resources are appropriately protected and managed as part of the development process.



Regulatory Requirements & Compliance Analysis

New vineyard developments in Napa County must adhere to PBES guidelines, Napa County's Conservation Regulations (NCC Chapter 18), the 2019 Water Quality & Tree Protection Ordinance, and the California Environmental Quality Act (CEQA).

Policy CON-13 – Wildlife Habitat Preservation

No special-status wildlife species were observed, although eight species have the potential to occur based on habitat suitability. Mitigation measures include seasonal timing (or surveys) for tree removal to protect bats, and nesting bird surveys if vegetation removal occurs during the breeding season. Wildlife habitat preservation will occur through adherence to the Best Management Practices outlined in the Project Biological Study. The proposed habitat preservation areas will forever preserve critical habitat on the parcel. These preservation areas have been strategically selected adjacent to watercourse conservation areas, thereby creating a larger, contiguous, and permanently preserved habitat area.

Policy CON-17 – Sensitive Biotic Communities & Special Status Plant Preservation

Two special-status plant species were identified within the 40.8-acre Study Area. Narrow-anthered brodiaea (*Brodiaea leptandra*) occurrences were found both inside and out of the vineyard development area. A Habitat Management Plan (HMP) for *Brodiaea leptandra* is proposed to mitigate potential impacts, including translocating individuals from the Project Area to a designated Habitat Management Area (HMA), with detailed protocols for collection, planting, monitoring, and success criteria. Napa false indigo (*Amorpha californica* var. *napensis*) was found outside the development area and beyond the impact zone.

The Common Manzanita Chaparral is identified as a sensitive biotic community; therefore, site disturbance will be restricted to 0.27 acres, with the remaining area permanently preserved in place. This project achieves an 89.7% retention rate and establishes a permanent preservation ratio of 8.67:1.

Policy CON-24 – Oak Woodland Preservation

The site development aims to preserve and enhance oak woodlands for slope stabilization, soil protection, biodiversity, and wildlife support through post-fire management and establishment of strategic permanent preservation areas. Under this plan, 83% of the site's California Black Oak Forest will be retained. The project meets the Oak Woodlands Preservation Act by preserving woodlands at a 2.86:1 ratio (143% of requirement), primarily on slopes under 30%, and up to 50% in high-value areas near conservation zones to maximize environmental and wildlife benefits. The average slope of the Oak Conservation Area is 36.81%.

Infeasibility Analysis & Justification

This justification addresses the infeasibility of avoiding the conversion of 1.86 acres of California Black Oak Forest as part of the proposed 3.86-acre vineyard development. The project retains 83% of the onsite oak woodlands and permanently preserves 5.32 acres of oak woodland, achieving a 2.86:1 preservation ratio.



Under Napa County General Plan Policies CON-14, CON-17, CON-24, and CON-26, discretionary projects must avoid impacts to protected resources “to the extent feasible.” CEQA defines feasibility as the ability to accomplish a project in a successful manner within a reasonable timeframe, considering economic, environmental, legal, social, and technological factors.

Justification of Infeasibility:

1. Environmental and Operational Constraints

- The vineyard development area was chosen based on criteria such as slope suitability, solar exposure, and proximity to existing access roads. Avoiding the 1.86-acre oak woodland conversion would necessitate relocating vineyard blocks to smaller, scattered areas on steeper, less stable slopes or regions with less favorable growing conditions, which could increase the risk of erosion and reduce agricultural viability. Access to these smaller, remote, non-contiguous blocks could lead to additional environmental impacts, which can be minimized by keeping all blocks contiguous in an easily accessible area of the site.
- The site has already been impacted by the 2020 Glass Fire, and the proposed development integrates post-fire forest management and salvage logging efforts. Retaining the fire-damaged oak woodland in its current state would not provide the same ecological or agricultural value as the proposed prime less fire impacted preservation areas.

2. Biological and Habitat Considerations

- The project conserves 83% of existing oak woodland, including a 5.32-acres prioritizing areas adjacent to watercourse setbacks to support habitat connectivity. All oak woodlands under 30% slope outside the development are preserved, with additional conservation up to 50% slope; the average slope in conserved areas is 36.81%.
- The preserved areas include a diverse mix of oak, fir, bay, and madrone species, supporting biodiversity and slope stabilization.

3. Economic and Practical Limitations

- Vineyard development is limited to 3.96 net acres on a 40.8-acre parcel. Avoiding the 1.86-acre oak woodland would reduce the vineyard footprint by over 46%, undermining the economic feasibility of the project.
- The remaining areas for development are limited by terrain, setbacks, and infrastructure, leaving no alternative sites for vineyards of similar size and quality without significant improvements that could harm the environment.

4. Compliance with Preservation Standards

- The project exceeds the 2:1 oak woodland preservation ratio required under the Oak Woodlands Preservation Act, achieving a 2.86:1 ratio (143% of standard requirement).
- Best Management Practices (BMPs) are incorporated to minimize environmental impacts, including erosion control measures, habitat preservation, and pre-construction biological surveys.

Conclusion:



Considering site-specific constraints, environmental factors, and the preservation commitment, avoiding the 1.86-acre oak woodland conversion without affecting the project's viability is not possible. The proposed mitigation measures and preservation strategy comply with relevant policies and represent a balanced approach to resource protection and agricultural development for the 3.96-acre vineyard on the 40.8-acre parcel.

Policy CON-30 – Wetland Preservation

According to the Biological Report, no wetlands were identified within the proposed project area. Consequently, the vineyard expansion project is assessed to have no potential impact on wetlands.

Policy CON-48 & CON-50(c) – Hydromodification, Erosion & Sediment Control, and Soil Loss (USLE)

Hydromodification:

- A. Requirement
 - a. New vineyard projects must show that post-development peak runoff for 2-, 10-, 50-, and 100-year storms does not exceed pre-development levels.
- B. Methodology
 - a. The NRCS TR-55 Graphical Peak Discharge method was used to estimate stormwater runoff for pre- and post-development conditions. The project area was divided into three watershed tributaries identified by distinct concentration points. Composite Curve Numbers were determined for each tributary based on land cover and Hydraulic Soil Group. Time of concentration for the longest flow path in each tributary was calculated per TR-55, Chapter 3. NOAA's Atlas 14 provided the IDF curve inputs for the Hydrograph models.
- C. Assumptions, Impacts, and Conclusions
 - a. The project area has two soil types: Hambright-Rock Outcrop Complex (Hydraulic Soil Group D) and Boomer Gravelly Loam (Hydraulic Soil Group C).
 - b. Composite Curve Numbers were calculated for both pre- and post-development conditions using USDA TR-55 Table 2-2 base CN values, considering land cover and hydraulic soil group.
 - c. The composite Curve Number (CN) for Tributary A decreases from 80.5 to 80.3 as a result of changes in land cover, which results in a post-development decrease in stormwater levels.
 - d. The composite Curve Number (CN) for Tributary B increases from 81.5 to 81.6 as a result of changes in land cover, however, the time of concentration increase as a result of increases in sheet flow length under vineyard conditions and the cross slope diversion swale was adequate to maintain pre-development stormwater levels.
 - e. The composite Curve Number (CN) for Tributary C increases from 74.6 to 74.9 as a result of changes in land cover, however, the time of concentration increase as a result of increases in sheet flow length under vineyard conditions paired with the cross slope diversion swale and level spreader were adequate to maintain pre-development stormwater levels. See comprehensive analysis and Hydrograph in attachment H.



Soil Loss Analysis (USLE)

Stormwater runoff is the primary factor in soil erosion and sedimentation during new hillside vineyard development. Runoff from the vineyard area will initially occur as sheet flow before turning into shallow concentrated flow, eventually merging with watercourses on site as open channel flow in the headwaters of Hirsch Creek (North) and York Creek (South). Effective control measures include implementing Best Management Practices (BMPs), such as limiting sheet flow to non-erosive lengths, limiting shallow concentrated flows to non-erosive flow velocities, and most importantly stabilizing disturbed soils planting cover crops before the rainy season.

The three worst case sheet flow transects for the project development area were analyzed using the Universal Soil Loss Equation (USLE) for both pre- and post-development conditions to confirm no net soil loss. Soil loss is a critical consideration in hillside vineyard development, where stormwater-driven erosion poses significant challenges. The Universal Soil Loss Equation (USLE) model was employed to quantify potential soil erosion and guide the implementation of effective mitigation measures.

The Rainfall ($R=50$) and Soil Erodibility ($K=0.24$) factors do not change between pre- and post-development and thus do not affect soil loss ratio. The Topographic Factor (LS) decreases post-development due to cross-slope diversion swales. Pre-development Vegetation Factor (C_i) is 0.032 for tall grass and brush conditions with P at 1.0. Post-development Vineyard Cover Factor (C_f) is 0.022 with 80% ground cover; P is 0.8, reflecting non-tilled partial cross slope vine row management. USLE results show a soil loss ratio well below 1.0, indicating no increase in soil loss if winterization, erosion control BMPs, and swales are properly implemented.

Cross Slope Diversion Swales:

To prevent erosion, cross-slope diversion swales are proposed at intervals that will prevent prolonged shallow concentrated flows through the vineyard development area. Proposed swales are to be draped along the natural grade with flowline grade of 2%. Cross slope diversion swales were sized using the Incremental Rational Method for a 100-year storm. The runoff coefficient is 0.45, and a Manning's roughness coefficient of 0.035 was used. The worst-case flow of the proposed swales was 1.58 cfs, adequate for a 3' wide, 0.5' deep grassy swale with a 2% running slope. The maximum flow velocity within the swale was 2.19 ft/s, below the erosive flow velocity threshold of 5 ft/s. Vineyard Avenue water bars align with cross-slope diversion swales and discharge to rip-rap outlets designed according to USDA-Soil Conservation Service standards based on exit velocity.

Water Quality & Tree Protection Ordinance

On April 9, 2019, the Napa County Board of Supervisors (BOS) amended the County's Conservation Regulations with the adoption of the Water Quality and Tree Protection Ordinance (WQTPO) to enhance requirements for stream, wetland, and municipal reservoir setbacks, and to increase tree canopy retention and preservation. These new requirements went into effect on May 10, 2019 with an implementation guide developed to assist developers with compliance with the new requirements.



Stream Setbacks

The stream setbacks for the on-site watercourses were determined according to NCC 18.108.025 & Implementation Guidelines and are shown on sheet 3 of the plan set. The vineyard development area complies with the required watercourse setbacks.

Wetland Setbacks

According to the Biological Report, no wetlands were identified within the proposed project area.

Vegetation Retention & Preservation (AW Zoning District)

As the project is located outside sensitive domestic water supply drainage areas and within the Agricultural Watershed zoning district, it is required to retain at least seventy percent vegetation canopy cover as of June 19, 2018 (2020 Glass Fire Burn Site). There is no mandate for understory retention in the AW zone outside sensitive drainage areas. Detailed information regarding Canopy Retention and Understory Retention can be found on sheet 4 of the plan set. The project will retain 94% of the canopy (Black Oak) and 66% of the understory (Chamise and Manzanita Chaparral), thereby surpassing both Conservation Regulations and Implementation Guidelines.

Canopy Removal Mitigation

New vineyard developments must conserve comparable canopy at a 3:1 ratio. Conservation areas will be placed under perpetual protective easements. The proposed conservation areas include California Black Oak and Doug Fir forests, prioritizing first all remaining Canopy area under 30% slope, and extending to slopes up to 50% in areas of high biological value. Many conservation areas are adjacent to stream conservation zones, creating larger contiguous areas for maximum biological value. This thoughtful approach allowed us to surpass the required conservation ratio, proposing an 8.07-acre preservation area, which equates to a 4.33:1 canopy conservation ratio with an average slope of 35.33%.

Greenhouse Gas/Carbon Sequestration

The project is required to comply with Greenhouse Gas sequestration standards as outlined by the Bay Area Air Quality Management District under the updated CEQA Air Quality Standards. To facilitate this compliance, the County of Napa has developed a proprietary Greenhouse Gas analysis spreadsheet for evaluating projects against these regulations. Upon entering the relevant information for this project into the spreadsheet, it was determined that the project satisfies the new GHG sequestration requirements without necessitating further analysis or mitigation measures.

Cal-Fire <3 Acre Timber Conversion

The proposed vineyard development involves the conversion of 1.86 acres of California Black Oak Forest to vineyard. The canopy area to be converted aligns with Cal Fire's definition of Commercial Timberland and necessitates a Less Than 3 Acre Conversion Exemption Notice from Cal Fire. Prior to commencing construction, the developer must obtain the less than 3 acre conversion approval from Cal Fire. Cal Fire required the conversion be completed within 1 year of application approval, therefore the official <3 acre conversion exemption will be filed once this ECP application is found complete.



Conclusion

In conclusion, the proposed vineyard development has been meticulously planned to comply with all applicable regulatory frameworks and best management practices (BMPs). The project aligns with Napa County's ECP standards by retaining existing drainage patterns, avoiding sensitive environmental zones, implementation of a Habitat Management Plan to translocate impacted *Brodiaea leptandra* bulbs, and implementing effective erosion control strategies. Rigorous geologic and biotic assessments confirm the project's feasibility, ensuring that adequate setbacks and mitigation measures are in place to prevent adverse impacts on the environment. Such measures have been incorporated into the proposed project as elective measures.

Comprehensive hydrologic and soil loss analyses, utilizing techniques such as TR-55, Incremental Rational Method, and USLE models, demonstrate post-development conditions with non-erosive flow velocities and soil loss ratios within permissible limits. Moreover, the planned agricultural avenues and seasonal water bars are designed to enhance slope stability and minimize erosion risks. Conservation measures, including canopy preservation and permanent conservation exceeding minimum standards, further affirm the project's commitment to sustainable agricultural practices.

Additionally, the vineyard development fully complies with Greenhouse Gas sequestration standards as specified by the Bay Area Air Quality Management District and the updated CEQA Air Quality Standards. Using Napa County's proprietary Greenhouse Gas analysis spreadsheet, the project was found to meet all current GHG sequestration requirements without the need for further analysis or mitigation. Furthermore, permanent conservation easements are proposed that surpass the required conservation ratios for developable lands. Timber conversion activities conform to Cal Fire regulations, with the developer securing the necessary Less Than 3 Acre Conversion Exemption Notice prior to construction.

With these thoughtful considerations and proactive measures, the project seeks a Mitigated Negative Declaration under CEQA, thereby demonstrating its dedication to environmental stewardship, regulatory compliance, and sustainable development practices. The attached documents, including ECP Plans, provide robust evidence to support the project's environmental integrity and compliance.

Attachments

- A. *ECP Plans*
- B. *Web Soil Survey*
- C. *Landslide Hazard Evaluation*
- D. *Biotic Resource & Special Species Assessment*
- E. *Northern Spotted Owl Assessment*
- F. *Water Availability Analysis*
- G. *Cultural Resource Evaluation*
- H. *Hydromodification Analysis*
- I. *Incremental Rational Method Swale Calculations*
- J. *Soil Loss Analysis*
- K. *Cal Fire Emergency Timber Operations*
- L. *Habitat Management Plan*

