“L”

Storm Water Control Plan

The Winery at Mount Veeder Use Permit P22-00248-UP, Exception to the Conservation Regulations P25-00088-UP, and Exception to the Roads and Street Standards
Planning Commission Hearing - June 4, 2025

STORMWATER CONTROL PLAN FOR A REGULATED PROJECT

Prepared for

WINERY AT MT. VEEDER
1300 MOUNT VEEDER ROAD
NAPA, CA 94558

APN 034-230-029

THIS REPORT WAS PREPARED IN CONJUNCTION WITH THE INSTRUCTIONS, CRITERIA, AND MINIMUM REQUIREMENTS IN THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) POST CONSTRUCTION MANUAL.

Property Owner:

P&M Vineyard Holdings, LLC
PO BOX 1480
Sebastopol, CA 95473

Project #4121017.0
June 26, 2023

1515 Fourth Street, Napa, CA 94559 www.rsacivil.com (707) 252-3301 v. (707) 252-4966 f.

Table of Contents

TABLES

ATTACHMENTS

I. Project Data

Table 1. Project Data Form

Project Name/Number	Winery at Mt. Veeder (4121017.0)
Application Submittal Date	
Project Location	1300 Mount Veeder Road Napa, CA 94558 APN: 034-230-029
Project Phase	Use Permit
Project Type and Description	New Winery
Total Project Site Area (acres)	115.27 Acres
Total New and Replaced Impervious Surface Area	56,360 sq. ft
Total Pre-Project Impervious Surface Area	43,880 sq. ft
Total Post-Project Impervious Surface Area	89,240 sq. ft

II. Setting

II.A. Project Location and Description

The Winery at Mt. Veeder project is located at 1300 Mount Veeder Road, in Napa County, California. Refer to Attachment 1 for Vicinity Map, USGS Map, Firmette Map, and Soils Map. The APN is 034-230-029 and the parcel has an area of 115.27 +/- acres. Access to the parcel is via Mount Veeder Road. The property currently has an existing residence with most of the parcel being undeveloped. The site is bounded by rural single-family residences and vineyards on all sides. The project will include the construction of a new cave, winery, hospitality pavilion, parking area, and landscaped areas. Refer to Attachment 2 for Drainage Management Areas Exhibit.

The proposed area to be disturbed is greater than 1 acre, so this project will require a Stormwater Pollution Prevention Plan and Notice of Intent (NOI).

II.B. Existing Site Features and Conditions

The existing site currently has a paved driveway, and one residence. Access to the parcel is via Mount Veeder Road. The site is bounded by rural single-family residences and vineyards on all sides.

The predominant soil type in the project area is Felton gravelly loam, which is of the Hydraulic Soil Group C. The remainder of the parcel surrounding the project site has the soil type Fagan clay loam which is of the Hydraulic Soil Group C. Refer to Attachment 1 for Soils Map. The project area has an average slope of 13.71%. Stormwater sheet flows west to Pickle Creek, which eventually exits to the Napa River.

II.C. Opportunities and Constraints for Stormwater Control

Stormwater treatment facilities have been integrated into the planning, design, construction, operation, and maintenance of the proposed development. The following potential opportunities and constraints were considered in determining the best stormwater control design for this development.

Opportunities for the site include landscaped areas.

Constraints include the site location and existing grades.

III. Low Impact Development Design Strategies

III.A. Optimization of Site Layout

1. Limitation of development envelope

   The area of the proposed improvements is in a currently developed area of the site.

2. Preservation of natural drainage features

   Overland flows will be restored to the maximum extent possible.

3. Setbacks from creeks, wetlands, and riparian habitats

   Setbacks are shown on Use Permit Plans.

4. Minimization of imperviousness

   Walkways and parking areas are designed to the minimum widths necessary without compromising public safety and a walkable environment. Landscaped areas are used instead of decorative impervious areas. Existing trees will be preserved to the maximum extent practicable.

5. Use of drainage as a design element

   Landscaped areas will be retained for treatment of overland flow.

III.B. Use of Permeable Pavements

Permeable pavements are not in the scope of this project.

III.C. Dispersal of Runoff to Pervious Areas

Stormwater runoff will be directed to landscaped areas to the maximum extent practicable.

III.D. Stormwater Control Measures

Self-Retaining areas have been incorporated as stormwater control measures.

IV. Documentation of Drainage

IV.A Drainage Management Areas

Table 2. Drainage Management Areas

DMA Name	Pervious Area (square feet)	Impervious Area (square feet)	Total Area (square feet)
DMA-1	0	29,049	29,049
DMA-2	0	12,489	12,489
DMA-3	577	11,014	11,591
DMA-4	0	769	769
DMA-5	0	2,400	2,400
DMA-6	0	850	850

Drainage Management Area Descriptions

DMA 1, totaling 29,049 square feet, consists of all linear driveway improvement areas of the existing driveway. Runoff from this area sheet flows to the Self-Treating Area, STA-1. See Drainage Management Area Exhibit in Attachment 2.

DMA 2, totaling 12,489 square feet, consists of the new driveway, parking and the covered crush pad. The runoff from this area sheet flows to the Self-Retaining Area, SRA-1 between the winery, vineyard and wooded area below. See Drainage Management Area Exhibit in Attachment 2.

DMA 3, totaling 11,591 square feet, consists of the parking and covered mechanical area. The runoff from this area sheet flows to a bioretention facility, BRB-1 located in the winery landscaping. See Drainage Management Area Exhibit in Attachment 2.

DMA 4, totaling 769 square feet, consists of the western cave portal and emergency exit. The runoff from this area sheet flows to the self-treating area STA-2 located south of the portal. See Drainage Management Area Exhibit in Attachment 2.

DMA 5, totaling 3,251 square feet, consists of the pavilion which will serve as a winery hospitality building. The runoff from this area is piped to bubble-ups at a self-retaining area, SRA-2 located in vineyard south of the pedestrian gravel path. See Drainage Management Area Exhibit in Attachment 2.

DMA 6, totaling 850 square feet, consists of the walkway east of the pavilion. The runoff from this area sheet flows to the self-treating area STA-3 located east south of the walkway. See Drainage Management Area Exhibit in Attachment 2.

IV.B. Tabulation and Sizing Calculations

Table 3. Information Summary for Bioretention Facility Design

DMA Name	Total Project Area (Square Feet)
BRB-1	577

Table 4. Self-Treating Areas

DMA Name	Area (square feet)
STA-1	320,175
STA-2	14,576
STA-3	5,480

Table 5. Self-Retaining Areas

DMA Name	Area (square feet)
SRA-1	23,805
SRA-2	4,800

Table 6. Areas Draining to Self-Retaining Areas

DMA Name	Area (square feet)	Post-project surface type	Runoff factor	Product (Area x runoff factor) [A]	Receiving self-retaining name	Receiving self-retaining DMA Area (square feet) [B]	Ratio [A]/[B]
DMA-2	12,489	Paved	1	12,489	SRA-1	23,805	0.52
DMA-5	2,400	Paved	1	2,400	SRA-2	4,800	0.50

Table 7. Areas Draining to Bioretention Facilities

DMA Name	DMA Area (Square Feet)	Post-project surface type	DMA Runoff Factor	DMA Area x Runoff Factor	Facility Name		
					Bioretention Facility 1		
$DMA\text{-}3_{imp}$	11,014	Paved	1	11,014	Sizing Factor	Minimum Facility size	Proposed Facility
$DMA\text{-}3_{perv}$	577	Landscape	0.1	57.7			
Total>				11,071.7	0.04	443	577

V. Source Control Measures

V.A. Site activities and potential sources of pollutants

The site activities and potential sources of pollutants for the Rapp Equestrian Center project are listed in table 8, below.

Table 8. Control Table

Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
A. On-site storm drain inlets (unauthorized non-stormwater discharges and accidental spills or leaks)	▪ Mark all inlets with the words “No Dumping! Flows to River” or similar.	▪ Maintain and periodically repaint or replace inlet markings. ▪ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ▪ See applicable operational BMPs in Fact Sheet SC-74, “Drainage System Maintenance.” ▪ Include the following in lease agreements: “Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
B. Interior floor drains and elevator shaft sump pumps	N/A	N/A
C. Interior parking garages	N/A	N/A
D_1. Need for future indoor & structural pest control	▪ Building design shall incorporate features that discourage entry of pests.	▪ Provide Integrated Pest Management information to owners, lessees, and operators.
D_2. Landscape / outdoor pesticide use / building and grounds maintenance	Final landscape plans will accomplish all of the following: ▪ Preserve existing native trees, shrubs, and ground	▪ Maintain landscaping using minimum or no pesticides. ▪ See applicable operational BMPs in Fact Sheet SC-41,

Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
	cover to the maximum extent possible. ▪ Minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ▪ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ▪ Use pest-resistant plants, especially adjacent to hardscape. ▪ To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	"Building and Grounds Maintenance." ▪ Provide IPM information to new owners, lessees and operators.
E. Pools, spas, ponds, decorative fountains, and other water features	N/A	N/A
F. Food service	N/A	N/A
G. Refuse areas	▪ Refuse areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, and screened to prevent off-site transport of trash. ▪ Refuse areas shall contain a roof to minimize direct precipitation. ▪ No drain connections shall be made to the Refuse area.	▪ Provide adequate number of receptacles. ▪ Inspect receptacles regularly; repair or replace leaky receptacles. ▪ Keep receptacles covered. ▪ Prohibit/prevent dumping of liquid or hazardous wastes. ▪ Post "no hazardous materials" signs. ▪ Inspect and pick up litter daily and clean up spills immediately. ▪ Keep spill control materials available on-site. ▪ Clean by dry-sweeping only, or with wet/dry vacuum. ▪ See Fact Sheet SC-34, "Waste Handling and Disposal"
H. Industrial processes	N/A	N/A
I. Outdoor Storage of Equipment or Materials	N/A	N/A
J. Vehicle / equipment cleaning	N/A	N/A
K. Vehicle / equipment repair and maintenance	N/A	N/A
L. Fuel dispensing areas	N/A	N/A
M. Loading docks	N/A	N/A

Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
N. Fire sprinkler test water	▪ Fire sprinkler test water shall be discharged to the sanitary sewer.	▪ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance"
O. Miscellaneous drain or wash water or other sources • Boiler drain lines • Condensate drain lines • Rooftop equipment • Drainage sumps • Roofing, gutters, and trim • Other sources	▪ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain. ▪ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ▪ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ▪ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.	▪ If architectural copper is used, implement the following BMPs for management of rinsewater during installation: ▪ If possible, purchase copper materials that have been pre-patinated at the factory. ▪ If patination is done on-site, prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling off-site. ▪ Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. ▪ Implement the following BMPs during routine maintenance: ▪ Prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling off-site.
P. Plazas, sidewalks, and parking lots		▪ Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

V.B. Features, Materials, and Methods of Construction of Source Control BMPs

Source control BMPs will be designed and implemented per construction specifications and CASQA BMP fact sheets.

VI. Stormwater Facility Maintenance

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

The applicant accepts responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner.

VI.B. Summary of Maintenance Requirements for Each Stormwater Facility

The site incorporates no Bioretention Facilities so there is no need for maintenance.

VII. Construction Checklist

Table 4. Construction Checklist

Stormwater Control Plan Page #	Source Control or Treatment Control Measure		Sheet
5	A.	On-site storm drain inlets	C4.0
5	D1.	Need for Future indoor & structural pest control	Arch
5	D2.	Landscape/ outdoor pesticide use/ building and ground maintenance	LSA
6	G.	Refuse areas	Arch
7	N.	Fire sprinkler test water	Arch
7	O.	Miscellaneous drain or wash	Arch
7	P.	Plazas, sidewalks, and parking lots	C1.0

VIII. Conclusion/Certifications

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA Post-Construction Manual, dated January, 2019.

ATTACHMENT 1

VICINITY MAP, USGS MAP, FIRMETTE MAP, SOILS MAP

P&M VINEYARD HOLDING
VICINITY MAP
NAPA COUNTY CALIFORNIA

VICINITY MAP

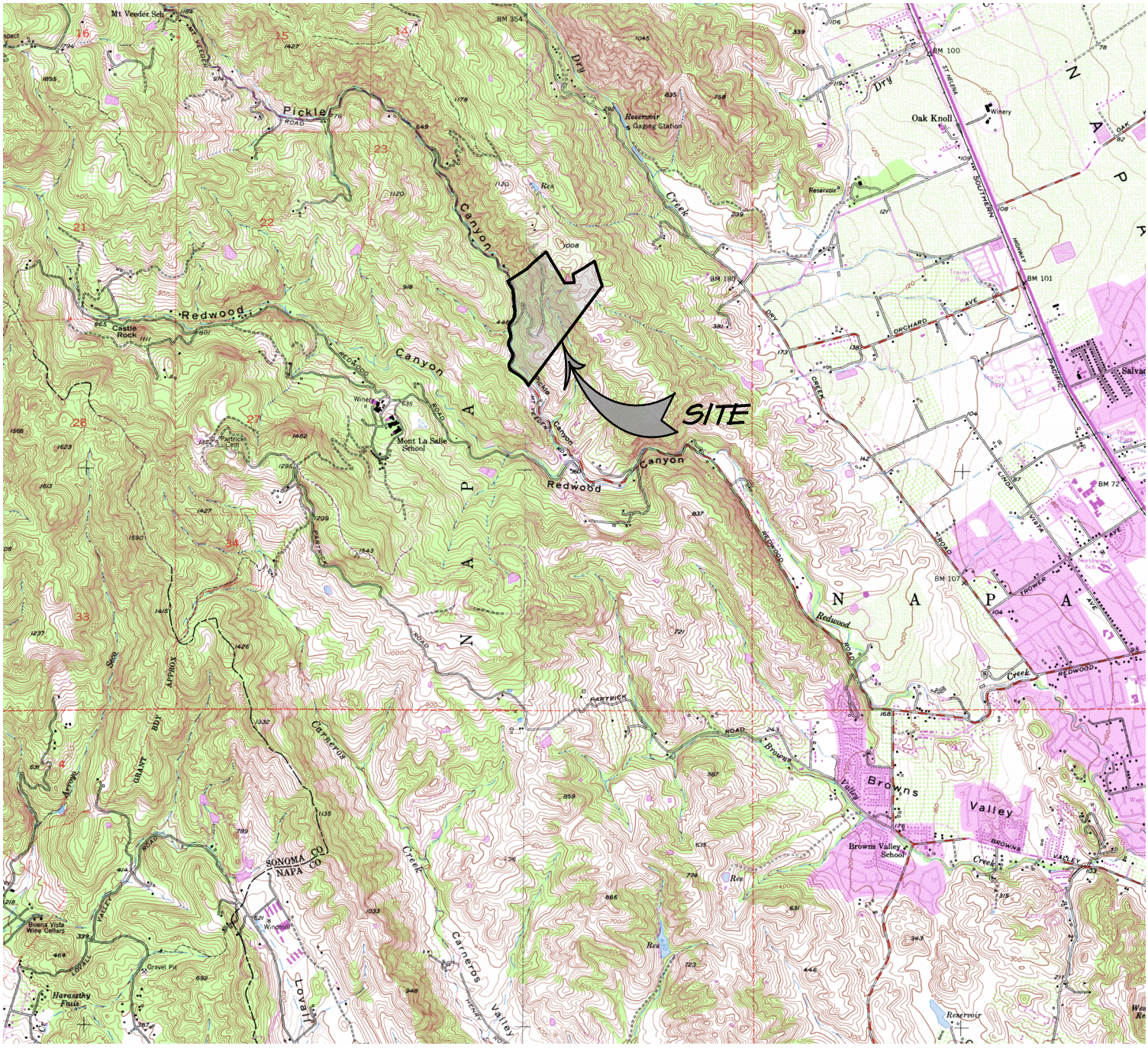
SCALE: 1" = 4000'

RSA+
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE|707|252.3301
+ www.RSAcivil.com +

RSA+| CONSULTING CIVIL ENGINEERS + SURVEYORS + est. 1980

MAY 4, 2021 4121017.0 Exh-Vicinity Map.dwg

P&M VINEYARD HOLDING
USGS QUAD MAP
NAPA COUNTY CALIFORNIA



GRAPHIC SCALE

4,000' 0 4,000'

(IN FEET)

1 INCH = 4,000 FT

RSA+

1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE|707|252.3301
+ www.RSAcivil.com +

RSA+| CONSULTING CIVIL ENGINEERS + SURVEYORS + est. 1980

DEC 21, 2022 4121017.0 Exh-Topo.dwg

National Flood Hazard Layer FIRMette

FEMA

122°22'44"W 38°20'52"N

122°22'6"W 38°20'23"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

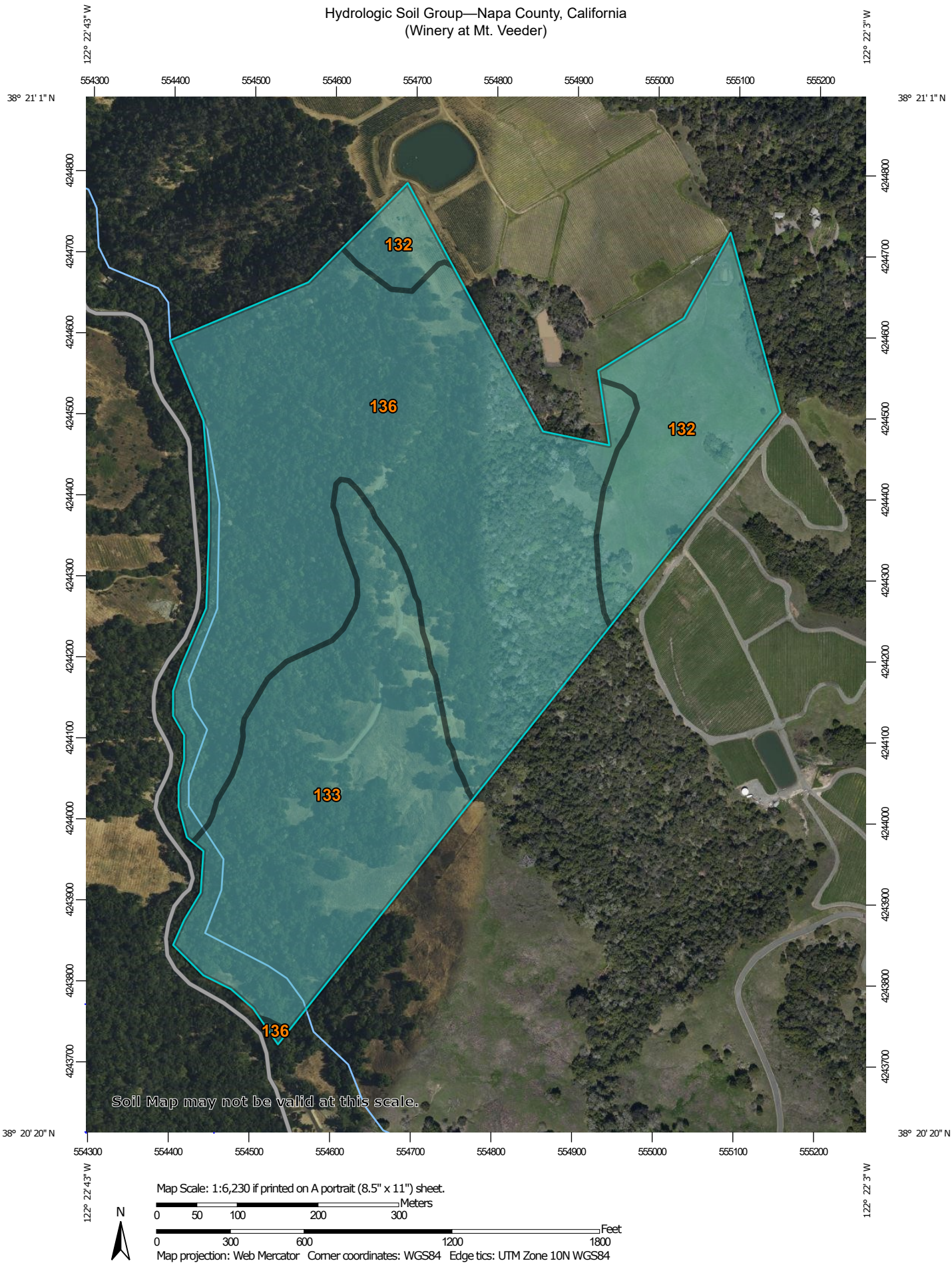
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/3/2021 at 6:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Hydrologic Soil Group—Napa County, California
(Winery at Mt. Veeder)



Map Scale: 1:6,230 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Napa County, California
Survey Area Data: Version 14, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 15, 2019—Jul 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
132	Fagan clay loam, 15 to 30 percent slopes	C	15.5	15.2%
133	Fagan clay loam, 30 to 50 percent slopes	C	29.8	29.3%
136	Felton gravelly loam, 30 to 50 percent slopes	C	56.4	55.5%
Totals for Area of Interest			**101.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

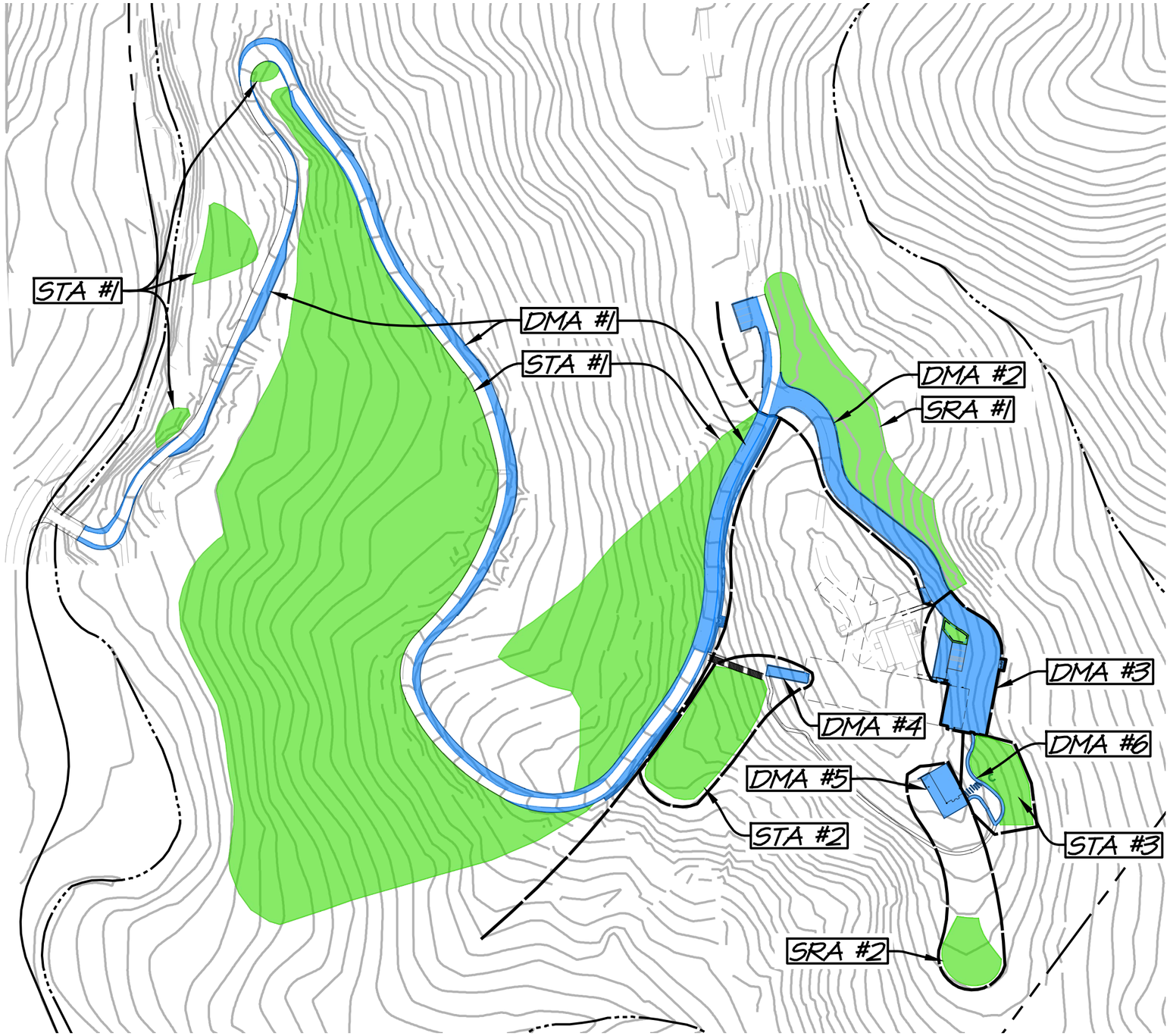
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ATTACHMENT 2

DRAINAGE MANAGEMENT AREAS EXHIBIT

THE WINERY AT MT. VEEDER
DRAINAGE MANAGEMENT AREAS EXHIBIT



DRAINAGE MANAGEMENT AREAS			
DMA #	AREA	IMPERVIOUS	PERVIOUS
DMA #1	LINEAR DRIVEWAY WIDENING	29049 SF	-
DMA #2	LINEAR NEW DRIVEWAY	12489 SF	-
DMA #3	PARKING COURT + MECH. PAD	11014 SF	571 SF
DMA #4	CAVE BACK EXIT	769 SF	-
DMA #5	TASTING (PAVILION)	2400 SF	-
DMA #6	LINEAR PATHWAY	850 SF	-
STA #1	LINEAR DRIVEWAY WIDENING RECEIVING AREA	-	320175 SF
STA #2	LINEAR NEW DRIVEWAY WIDENING RECEIVING AREA	-	14576 SF
STA #3	LINEAR PATHWAY RECEIVING AREA	-	5480 SF
SRA #1	NEW PAVING RECEIVING AREA	-	23805 SF
SRA #2	TASTING PAVILION RECEIVING AREA	-	4800 SF

GRAPHIC SCALE

150 0 150 300

(IN FEET)
1 inch = 150 FT

RSA+
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE|707|252.3301
+ www.RSAcivil.com +

RSA+| CONSULTING CIVIL ENGINEERS + SURVEYORS + est. 1980

JUNE 26, 2023 4121017.0 SHEET 1 OF 1

R:\2021\4121017.0_P&M_Vineyard_Holdings_Mt_Veeder_Winery\DESIGN\EXHIBITS\Exh-DMA.dwg 06/26/2023