



Stormwater Control Plan
Kenzo Estate
P19-00396-MOD



STORMWATER CONTROL PLAN FOR A REGULATED PROJECT

Prepared for

**KENZO ESTATE WINERY
NAPA, CA**

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:
Kenzo Estate, Inc.
3200 Monticello Road
Napa, CA 94558

Project #4119018.0
September 27, 2019





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- 1. Vicinity Map, USGS Map, FIRMETTE, Soils Map**
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I. Project Data

Table 1. Project Data Form

Project Name/Number	Kenzo Estate Winery
Application Submittal Date	September 2, 2019
Project Location	3200 Monticello Road Napa, California 94558 APN: 033-110-075
Project Phase	Use Permit
Project Type and Description	Driveway from existing winery to cave portal, crush pad, and mechanical yard addition
Total Project Site Area (acres)	0.4 Acres
Total New and Replaced Impervious Surface Area	16,970 sq. ft
Total Pre-Project Impervious Surface Area	114,850 sq. ft
Total Post-Project Impervious Surface Area	132,350 sq. ft

II. Setting

II.A. Project Location and Description

The Kenzo Estate Winery project is located at 3200 Monticello Road, Napa, California 94558. Refer to Attachment 1 for Vicinity Map. The APN is 033-110-075. The parcel has an area of 36.13 +/- acres. The parcel is currently used as a winery with surrounding vineyards. The project will include a new driveway from the existing winery to the new cave portal, a mechanical yard expansion, and a covered crush pad. Refer to Attachment 2 for Drainage Management Areas Exhibit.

The proposed area to be disturbed is less than 1 acre, so this project will not require a Stormwater Pollution Prevention Plan or Notice of Intent (NOI).

II.B. Existing Site Features and Conditions

Most of the property is currently vegetated, with vineyard and rangeland to the east and wooded hills to the west. There is an existing winery complex near the northwest corner of the site, with wine caves extending into the hill. One well exists on the site, south of the winery. The property resides at a topographic saddle point, sloping generally up to the northeast and southwest, and down to the northwest and southeast. Slopes range from 1% to 15% for most of the site, and up to 25% at the wooded western hills. A blue-line creek flows east to west, south of the project site. The minimum distance from the project site to the creek is 500'. Runoff from the project site is conveyed through an existing on-site storm drain, which discharges to a vegetated ditch at the western property line. Refer to Attachment 1 for a Site Location Map, Aerial Photo, and a USGS Site Map showing the parcel topography, features and boundary.

The predominant soil type in the project area is sobrante loam, which is of the Hydraulic Soil Group C. Refer to Attachment 1 for Soils Map.



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 and existing vineyard 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 site's location in a topographic saddle point makes the chosen development area suitable for development.

2. Preservation of natural drainage features

Natural drainage features existing on the site include a creek on the property south of the winery.

3. Setbacks from creeks, wetlands, and riparian habitats

A setback exists from the blue line creek on the south side of the property.

4. Minimization of imperviousness

Driveway and mechanical yard areas are designed to the minimum widths necessary without compromising public and work place safety. 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

Self-retaining areas are incorporated into the aesthetic landscape design of the site.

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. The Self-retaining areas will collect and keep onsite stormwater.



Table 5. Self-Retaining Areas

DMA Name	Area (square feet)
SRA-1	18,000
SRA-2	20,000

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 DMA	Receiving self-retaining DMA Area (square feet) [B]	Ratio [A]/[B]
DMA-1 _{imp}	8,975	Paved	1	8,975	SRA-1	18,000	0.49
DMA-2 _{imp}	9,759	Paved	1	9,759	SRA-2	20,000	0.48

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		
					Sizing Factor	Minimum Facility size	Proposed Facility
Total>							

There are no bioretention facilities in this project.



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	8,975	8,975
DMA-2	0	9,759	9,759

Drainage Management Area Descriptions

DMA-1 consists of the upper portion of the proposed paved driveway, the crush pad, and the mechanical yard. Storm water sheet flows south and east to the self-retaining area.

DMA-2 consists of the lower portion of the proposed driveway. Storm water sheet flows south to the self-retaining area.

IV.B. Tabulation and Sizing Calculations

Table 3. Information Summary for Bioretention Facility Design

DMA	Total Project Area (Square Feet)

There are no bioretention facilities in this project.

Table 4. Self-Treating Areas

DMA Name	Area (square feet)

There are no self-treating areas in this project.



V. Source Control Measures

V.A. Site activities and potential sources of pollutants

The site activities and potential sources of pollutants for the Kenzo Estate Winery 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)	<ul style="list-style-type: none"> Mark all inlets with the words "No Dumping! Flows to River" or similar. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Interior floor drains and elevator shaft sump pumps will be plumbed to the sanitary sewer. 	<ul style="list-style-type: none"> Inspect and maintain drains to prevent blockages and overflow.
C. Interior parking garages	N/A	N/A
D ₁ . Need for future indoor & structural pest control	<ul style="list-style-type: none"> Building design shall incorporate features that discourage entry of pests. 	<ul style="list-style-type: none"> Provide Integrated Pest Management information to owners, lessees, and operators.
D ₂ . Landscape / outdoor pesticide use / building and grounds maintenance	<ul style="list-style-type: none"> Final landscape plans will accomplish all of the following: <ul style="list-style-type: none"> Preserve existing native trees, shrubs, and ground 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. 	<ul style="list-style-type: none"> Maintain landscaping using minimum or no pesticides. See applicable operational BMPs in Fact Sheet SC-41, "Building and Grounds Maintenance." Provide IPM information to new owners, lessees and operators.

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Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
	<ul style="list-style-type: none"> ▪ 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. 	
E. Pools, spas, ponds, decorative fountains, and other water features	N/A	N/A
F. Food service	N/A	N/A
G. Refuse areas	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ All process activities to be performed indoors. No processes to drain to exterior or to storm drain system 	<ul style="list-style-type: none"> ▪ Industrial discharge will be mitigated to the winery process wastewater system and will not be discharged to storm drains
I. Outdoor Storage of Equipment or Materials	N/A	N/A
J. Vehicle / equipment cleaning	<ul style="list-style-type: none"> • Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. 	<ul style="list-style-type: none"> • Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. See Fact Sheet SC-21, “Vehicle and Equipment Cleaning,” in the CASQA Stormwater Quality Handbooks
K. Vehicle / equipment repair and maintenance	<ul style="list-style-type: none"> • No vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area • There are no floor drains or if there are floor drains, note the agency from 	<ul style="list-style-type: none"> • No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.

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Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
	<p>which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.</p> <ul style="list-style-type: none"> There are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. 	<ul style="list-style-type: none"> No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. No person shall leave unattended parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.
L. Fuel dispensing areas	N/A	N/A
M. Loading docks	N/A	N/A
N. Fire sprinkler test water	<ul style="list-style-type: none"> Fire sprinkler test water shall be discharged to the sanitary sewer. 	<ul style="list-style-type: none"> See the note in Fact Sheet SC-41, "Building and Grounds Maintenance"
<p>O. Miscellaneous drain or wash water or other sources</p> <ul style="list-style-type: none"> Boiler drain lines Condensate drain lines Rooftop equipment Drainage sumps Roofing, gutters, and trim Other sources 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> If architectural copper is used, implement the following BMPs for management of rinsewater during installation: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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



Potential Sources of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
		washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

V.C. 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 9. Construction Checklist

Stormwater Control Plan Page #	Source Control or Treatment Control Measure	Sheet
4	Self-Retaining Areas	UP2
5	A. On-site storm drain inlets	UP4
5	B. Interior floor drains and elevator shaft sump pumps	ARCH
5	D1. Need for Future indoor & structural pest control	ARCH
5	D2. Landscape/ outdoor pesticide use/ building and ground maintenance	UP2
6	G. Refuse areas	UP2
7	N. Fire sprinkler test water	UP4
7	O. Miscellaneous drain or wash	UP2
7	P. Plazas, sidewalks, and parking lots	UP3

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.

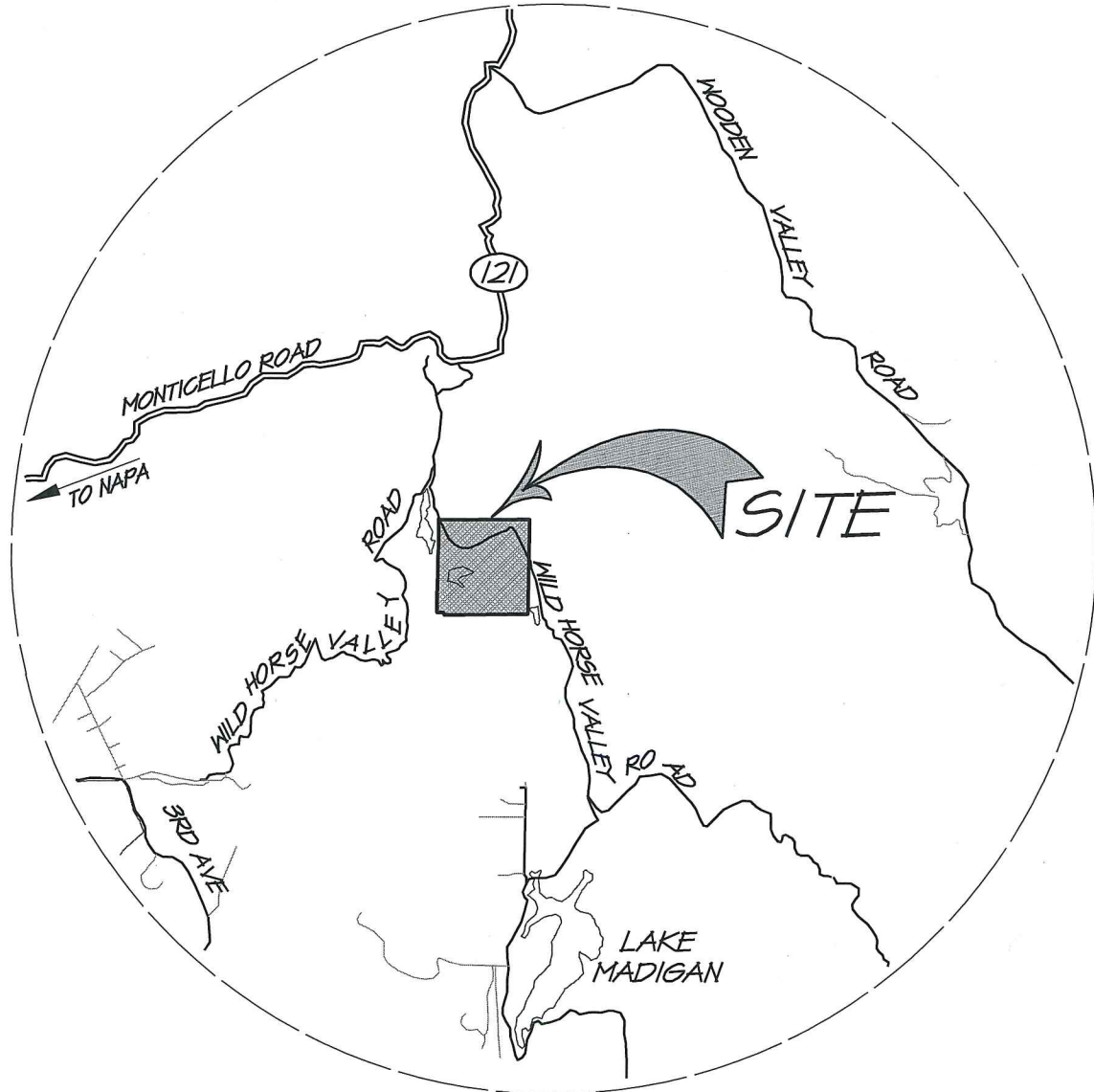


ATTACHMENT 1

VICINITY MAP, USGS MAP, FIRMETTE, SOILS MAP

KENZO ESTATES SITE VICINITY MAP

NAPA COUNTY CALIFORNIA



VICINITY MAP

SCALE 1" = 5,000'

KENZO ESTATES
3200 MONTICELLO ROAD
NAPA, CA 94558

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

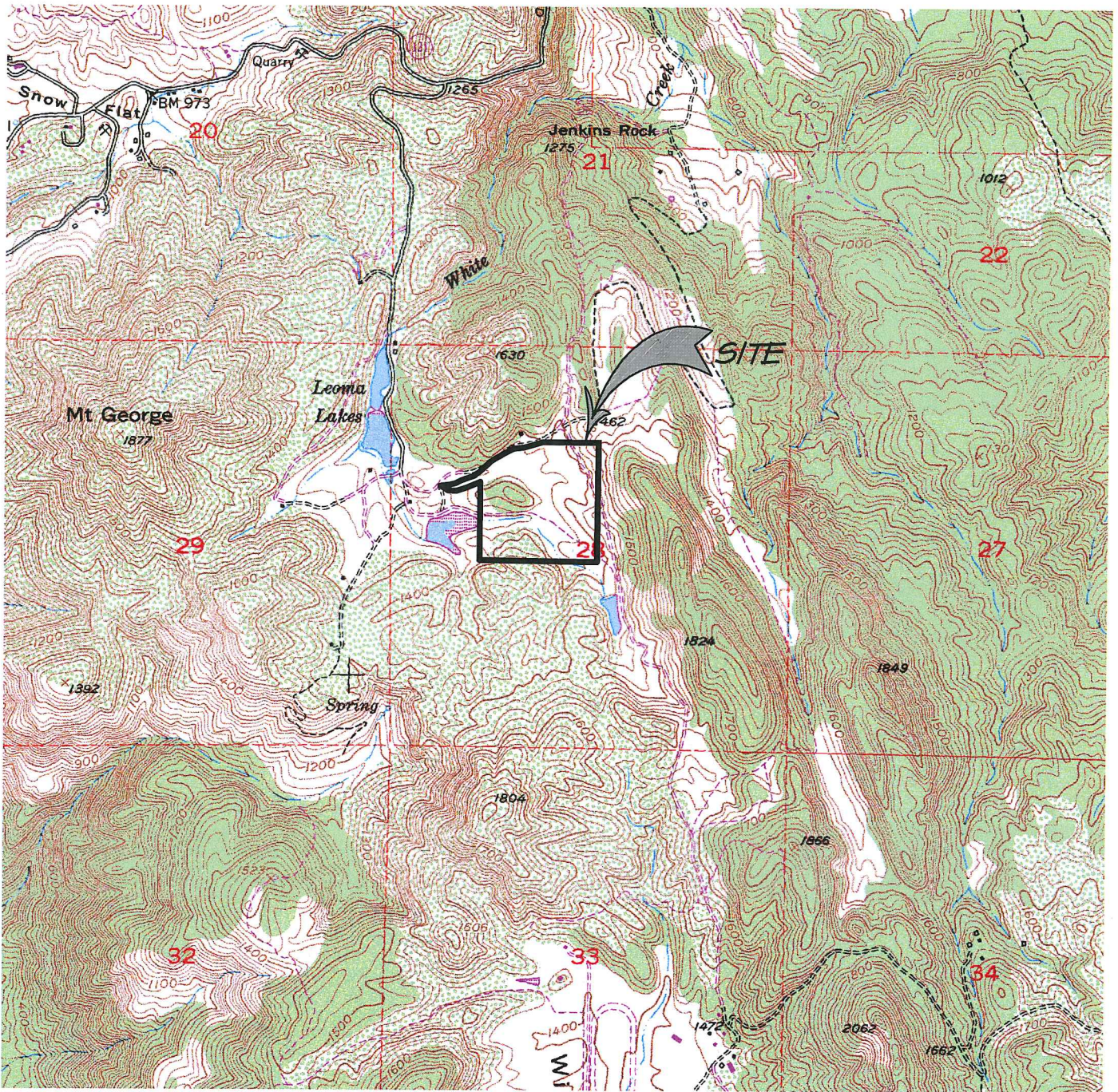
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AUG 26, 2019

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Exh-Vicinity.dwg

KENZO ESTATE WINERY USGS MAP



SCALE: 1" = 2000'

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

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National Flood Hazard Layer FIRMette



38°20'38.00"N



USCS The National Map: Orthimagery. Data refreshed April, 2019.



38°20'9.78"N

122°11'44.98"W

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, AF
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Area 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

- Area of Minimal Flood Hazard (Zone X)
- Effective LOMRs
- Area of Undetermined Flood Hazard (Zone X)

GENERAL STRUCTURES

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

OTHER FEATURES

- Cross Sections with 1% Annual Chance 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

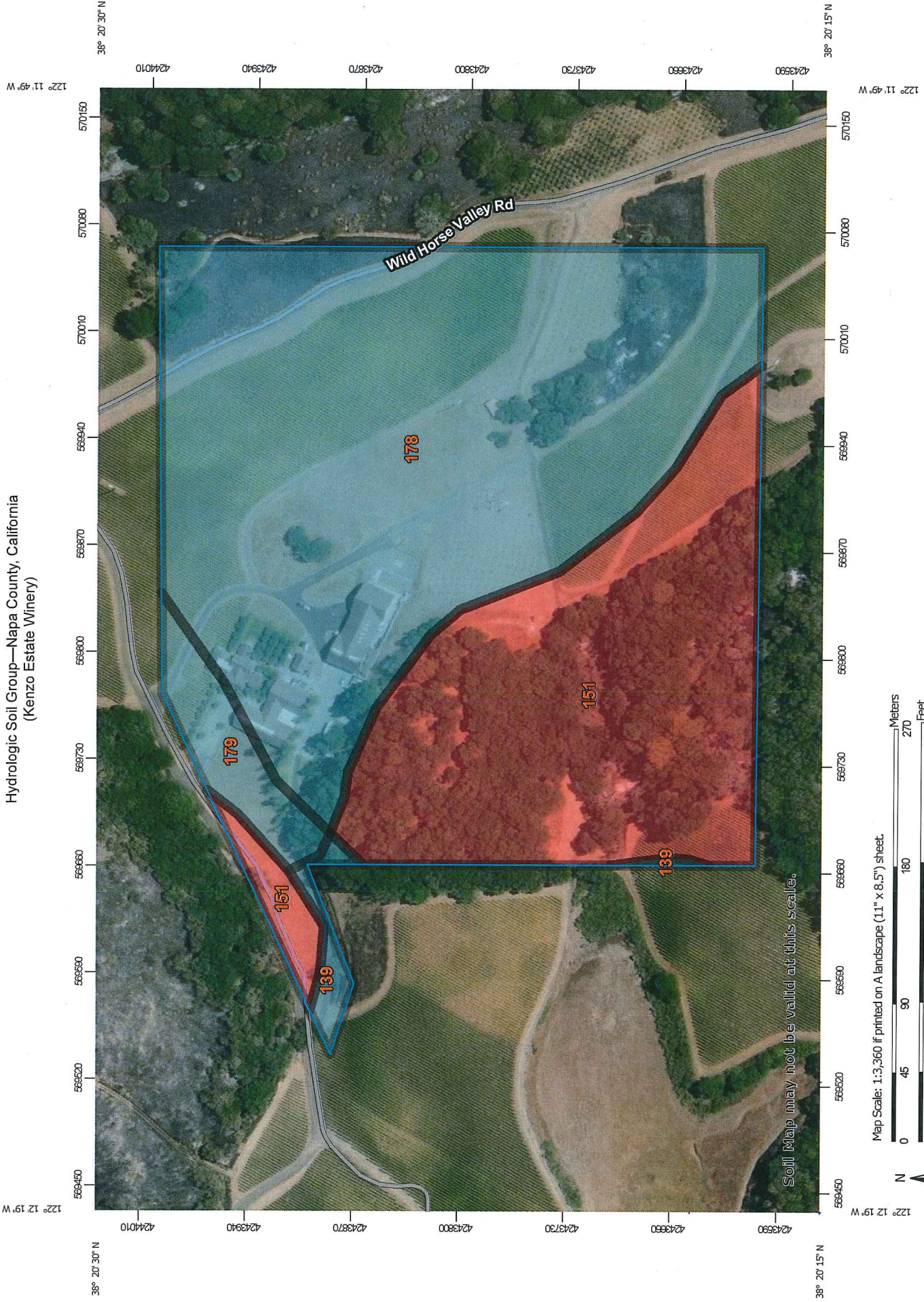
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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.

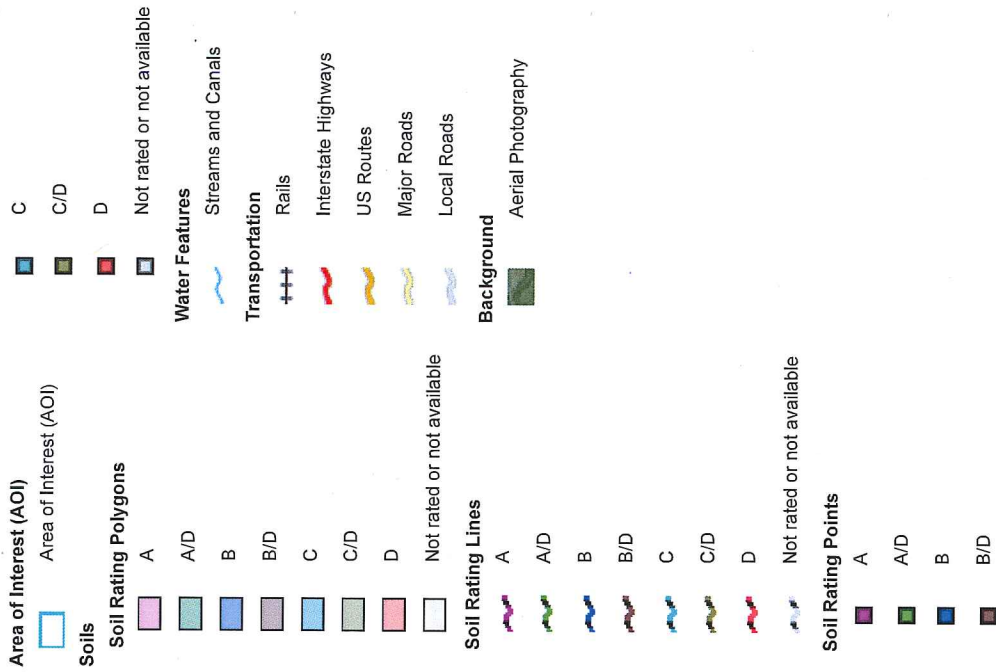
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/3/2019 at 5:04:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by 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
(Kenzo Estate Winery)



MAP LEGEND



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 11, Sep 12, 2018

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

Date(s) aerial images were photographed: Dec 31, 2009—Oct 31, 2017

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
139	Forward silt loam, 5 to 39 percent slopes, MLRA 15	C	0.5	1.4%
151	Hambright-Rock outcrop complex, 2 to 30 percent slopes	D	14.2	35.7%
178	Sobrante loam, 5 to 30 percent slopes	C	23.4	58.8%
179	Sobrante loam, 30 to 50 percent slopes	C	1.6	4.1%
Totals for Area of Interest			39.8	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

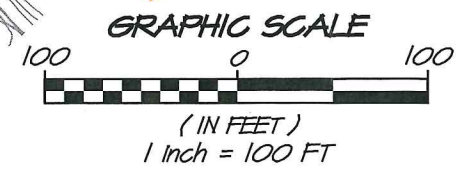
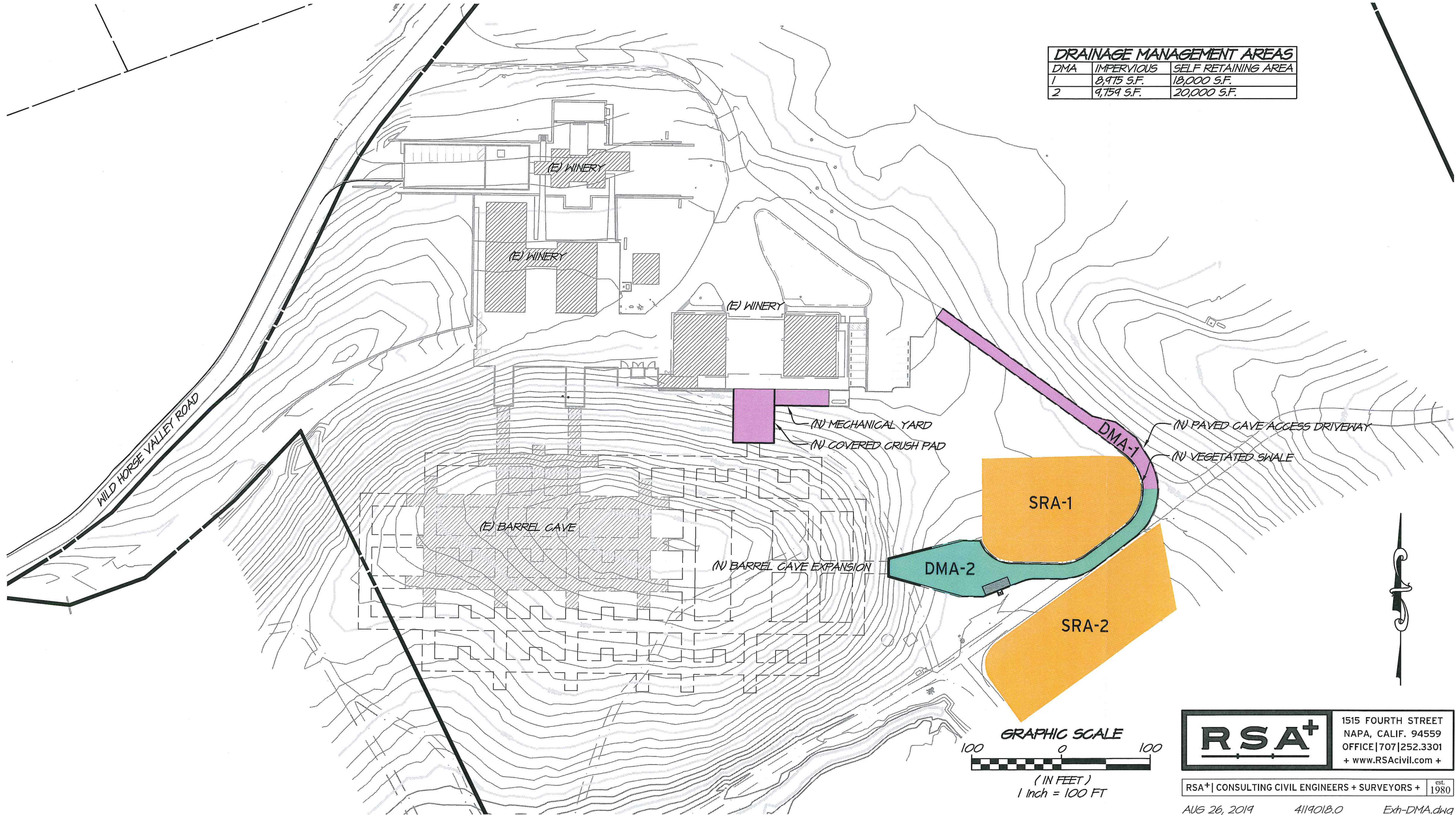
DRAINAGE MANAGEMENT AREAS EXHIBIT

KENZO ESTATES DRAINAGE MANAGEMENT AREAS EXHIBIT

NAPA COUNTY

CALIFORNIA

DRAINAGE MANAGEMENT AREAS		
DMA	IMPERVIOUS	SELF RETAINING AREA
1	8,915 S.F.	18,000 S.F.
2	9,759 S.F.	20,000 S.F.



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