

# Stormwater Control Plan for Small Projects

For

## 1211 Broadway

Sonoma, CA  
APN 128-181-004

JN 18363  
November 26, 2019

Prepared for:  
Shahram Bijan  
1211 Broadway  
Sonoma, CA 95476



Timothy L. Schram, RCE 67890  
My license expires 6/30/2021



Prepared by:

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Prepared By: BPC  
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**Stormwater Control Plan for Small Project for  
1211 Broadway  
Sonoma, California, 95476**

**I. Project Data Form**

<b>Project Name</b>	1211 Broadway
<b>Application Submittal Date</b>	October 2, 2019
<b>Project Location</b>	1211 Broadway, Sonoma
<b>Name of Owner</b>	Shahram Bijan
<b>Project Phase No.</b>	N/A
<b>Project Type and Description</b>	4 Lot Subdivision with 6 units total
<b>Total Project Site Area</b>	0.34 Acres (0.46 Acres) *
<b>Total New and Replaced Impervious Area</b>	4,218 SF (0.10 acres)
<b>Total Pre-Project Impervious Surface Area</b>	1,237 SF (0.03 acres)
<b>Total Post-Project Impervious Surface Area</b>	4,218 SF (0.10 acres)
<b>Runoff Reduction Measure Selected</b>	Permeable Pavement Disperse Runoff to Vegetative Areas

\*Includes proposed portion of property (1221 Broadway) to be accessed by an easement.

**II. Project Setting**

**A. Nature and Purpose of the Project**

The proposed project is located at 1211 Broadway in Sonoma, California. This project site will be subdivided into four lots and utilize a shared driveway through a portion of the southern neighboring property (1221 Broadway). Lot 1 will contain a historic home which will be fully remodeled. Lot 2 will contain a single-family home, and lots 3 and 4 will contain duplexes (two units per lot). The project proposes to construct covered (perforated roof) parking for lots 2, 3, and 4 and utilize turf blocks for the driveway and walkway surfaces. A covered trash enclosure for all lots will be located at the rear of lot 4.

**B. Existing Site Features and Conditions**

The parcel is approximately 0.34 acres consisting of an existing historical residence, dirt driveway, and two concrete slabs. The site is relatively level with slopes ranging between 1% and 3% and drains to the west. According to the United States Department of Agriculture (USDA) Web Soil Survey Program, the soil type belongs to Hydrologic Soil Group D. The majority of the runoff currently sheet flows through existing vegetation towards a shallow grade break near the western property line which flows into a drainage inlet just north of the property corner.

**C. Runoff Reduction Measure and Stormwater Control**

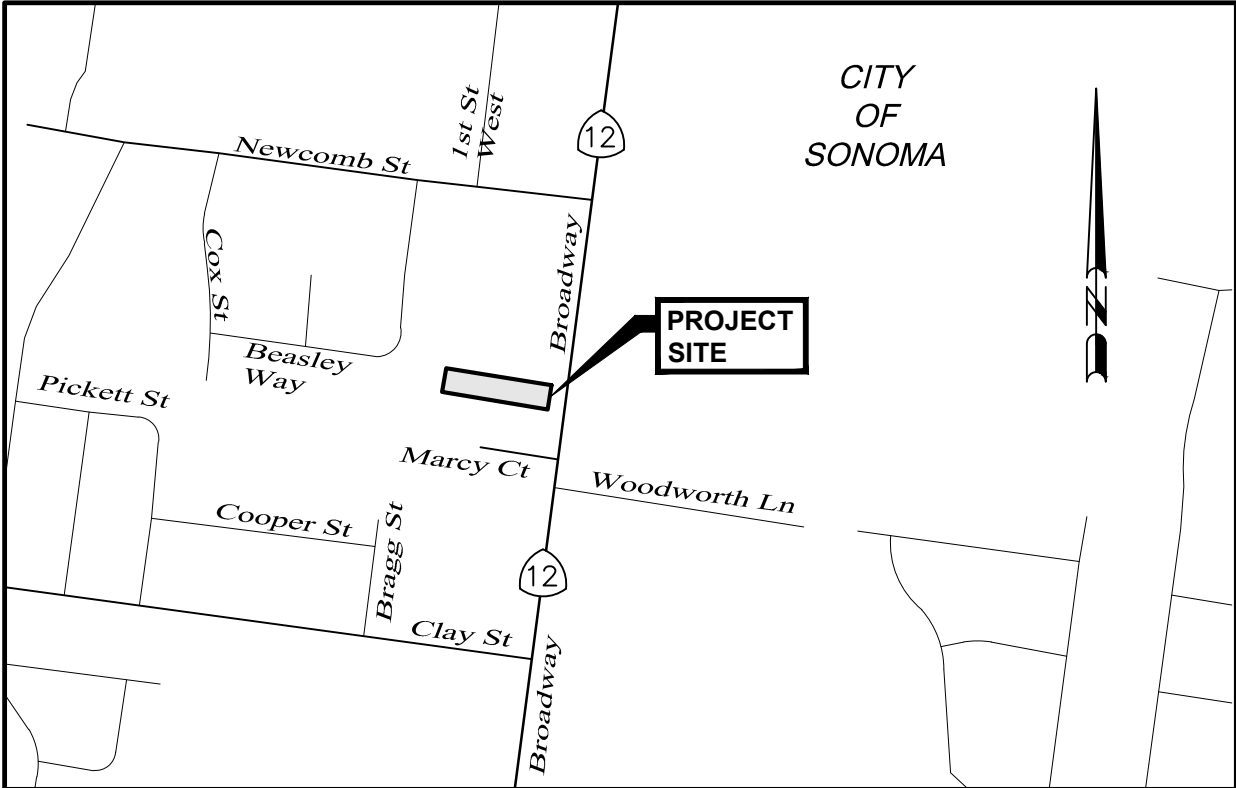
Pursuant to the BASMAA Post – Construction Manual, this project is classified as a Small Development Project. This style of project is required to direct runoff from impervious surfaces to vegetated areas, see **Storm Water Control Pan (SWCP) Exhibit in Appendix B.**

Stormwater that lands on the roof of the buildings will discharge into downspouts that will outfall in the back yards of the proposed residences. Stormwater from the pervious turf block driveway will receive treatment via infiltration and will be contained in a structural gravel section for retention. During a large storm event, excess water that does not infiltrate the pervious pavers will be directed to the west towards a proposed drainage inlet near the property line. The rear yard areas will each contain a drainage inlet connected to a stormdrain network which discharges into the proposed storm drain system. The proposed storm drain system will discharge into an existing 48” public stormdrain along the western property line. Proposed Drainage Management Areas (DMAs) and BMPs are shown in the **Stormwater Control Plan Exhibit** in Appendix B.

# **APPENDIX A**

## **Vicinity Map**

File: T:\2018 PROJECTS\18363\DWG\ADOBE-DESIGN-EXHIBITS\18363\_VICINITY MAP.DWG.5/15/2019 12:18:37 PM.Brendon Clymer



NOT TO SCALE

May 15, 2019

## VICINITY MAP

1211 BROADWAY  
Sonoma, California  
APN 128-181-004

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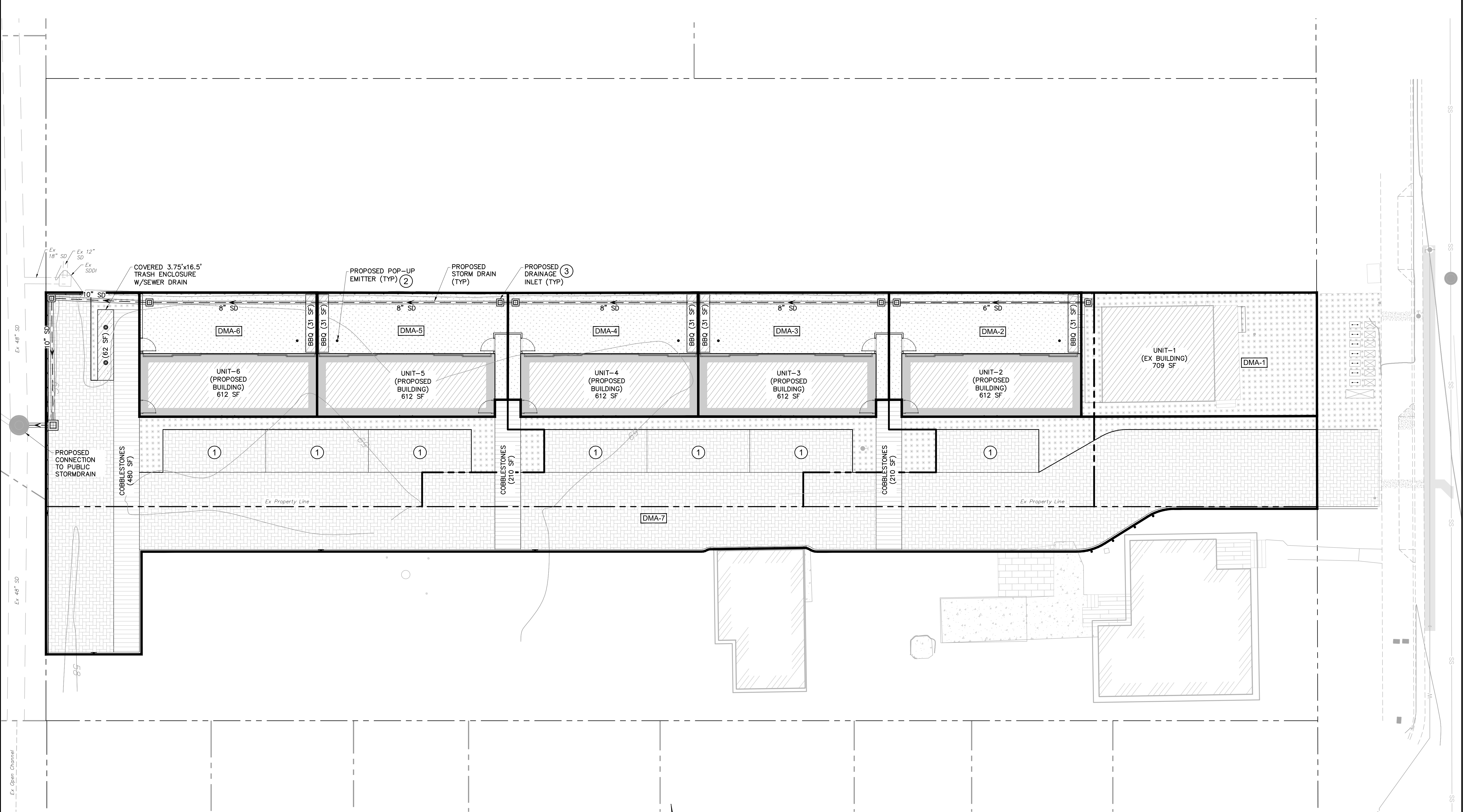
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# **APPENDIX B**

## **Stormwater Control Plan Exhibit**

T:\2018 PROJECTS\18363\18363-Design\18363-Stormwater Control Plan.dwg, Brenda Cymet, 11/28/2018 5:11:26 PM



**DRAINAGE AREA TABLE**

A1 = 0.037 AC (1,591 SF)	A5 = 0.029 AC (1,278 SF)
A2 = 0.030 AC (1,290 SF)	A6 = 0.028 AC (1,204 SF)
A3 = 0.029 AC (1,278 SF)	A7 = 0.23 AC (10,045 SF)
A4 = 0.029 AC (1,278 SF)	

**DRAINAGE AREA LEGEND**

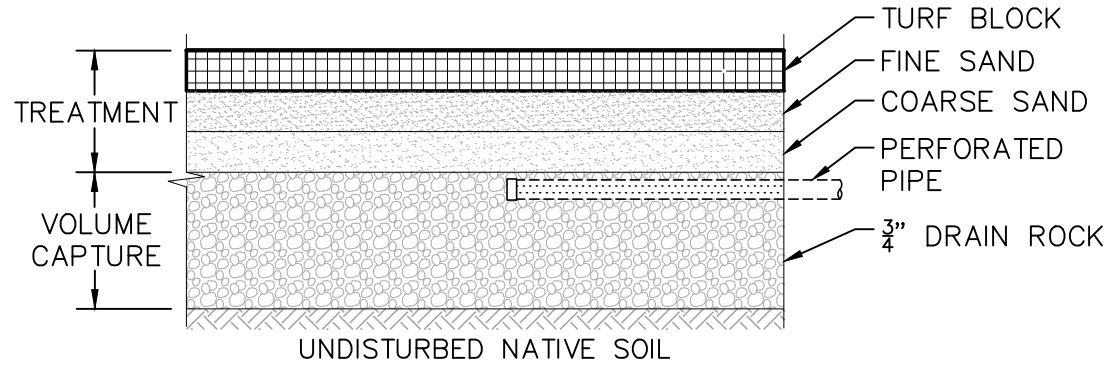
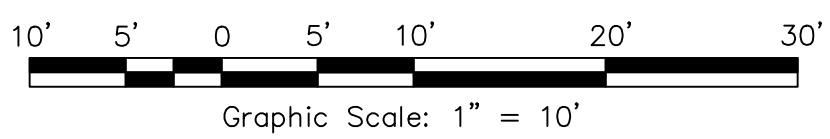
- DMA-1** DRAINAGE MANAGEMENT AREA
- DRAINAGE AREA BOUNDARY

- KEY NOTES:**
- PERFORATED SHADE STRUCTURE OVER PARKING STALL (10' x 24')
  - ROOF DRAINAGE SHALL DISCHARGE THROUGH POP-UP EMITTERS.
  - DRAINAGE INLET GRATE SHALL BE 3" MINIMUM ABOVE FINISHED GRADE.

**HATCHING LEGEND**

- IMPERVIOUS
  - ROOF AREA
  - COBBLESTONE BANDS (SLD)
  - CONCRETE
- PERVIOUS
  - LANDSCAPE (SLD)
  - TURF BLOCK (SEE DETAIL)

**PRELIMINARY STORMWATER CONTROL PLAN**



**NOTE:**  
REFER TO SUBMITTED GRADING & DRAINAGE PLANS FOR INVERTS, FLOW LINES, TOP OF GRATE ELEVATIONS AND DRAINAGE SPECIFICATIONS

**PRELIMINARY STORMWATER CONTROL PLAN**

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November 26, 2019

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# **APPENDIX C**

## **Soil Analysis**

# Custom Soil Resource Report Soil Map



Map Scale: 1:543 if printed on A landscape (11" x 8.5") sheet.

0 5 10 20 30 Meters

0 25 50 100 150 Feet

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



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)


### Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### 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 1:20,000.

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: Sonoma County, California  
Survey Area Data: Version 12, Sep 13, 2018

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

Date(s) aerial images were photographed: May 29, 2015—Jun 3, 2015

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.

## Sonoma County, California

### WgC—Wright loam, 0 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* hfkl  
*Elevation:* 60 to 300 feet  
*Mean annual precipitation:* 30 inches  
*Mean annual air temperature:* 55 degrees F  
*Frost-free period:* 240 to 260 days  
*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Wright and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Wright

##### Setting

*Landform:* Terraces  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

##### Typical profile

*H1 - 0 to 15 inches:* loam  
*H2 - 15 to 25 inches:* loam  
*H3 - 25 to 62 inches:* clay  
*H4 - 62 to 73 inches:* sandy clay loam

##### Properties and qualities

*Slope:* 0 to 9 percent  
*Depth to restrictive feature:* About 25 inches to abrupt textural change  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 3.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

#### Minor Components

##### Clear lake

*Percent of map unit:* 5 percent  
*Landform:* Depressions

## Custom Soil Resource Report

*Hydric soil rating: Yes*

### **Huichica**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

### **Zamora**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*