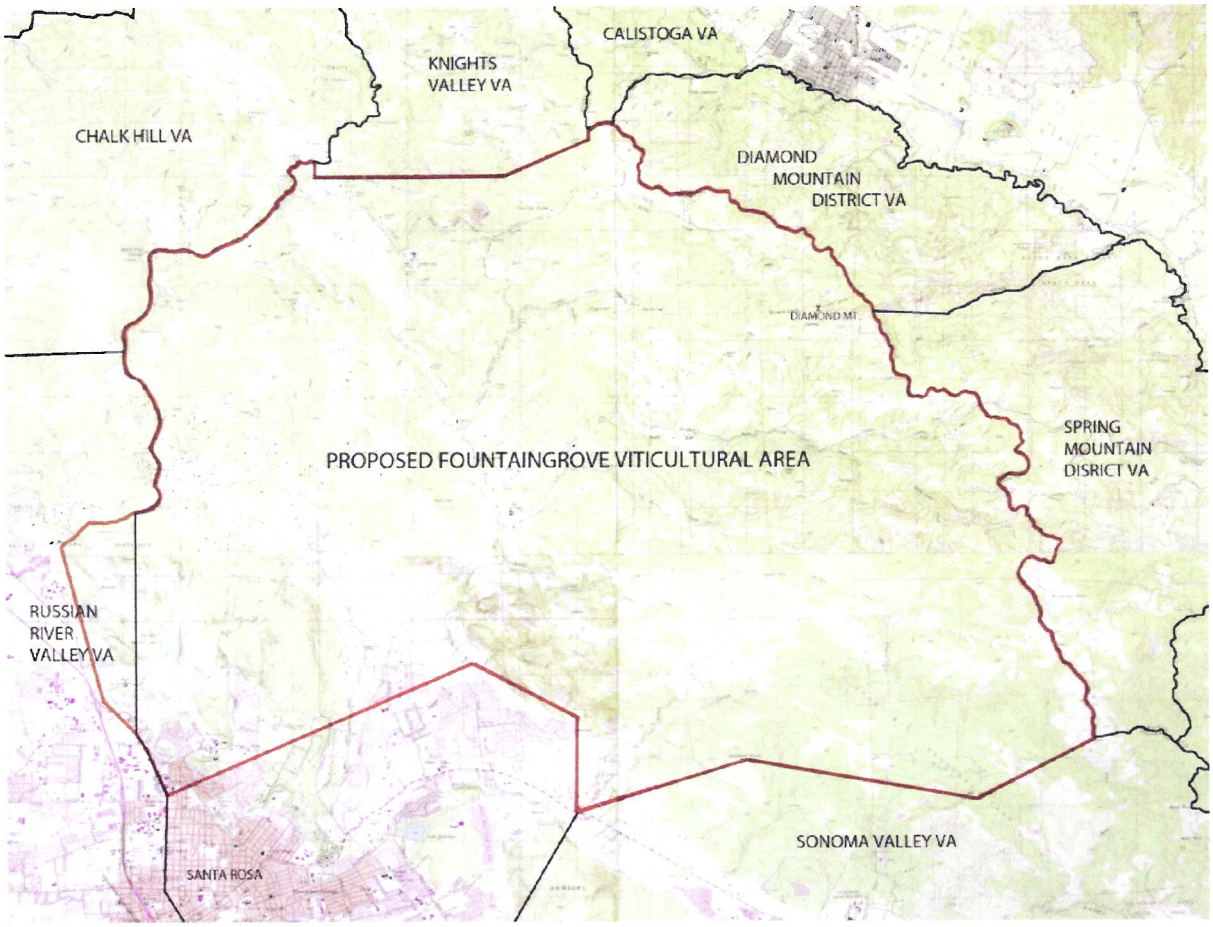
PETITION TO ESTABLISH THE "FOUNTAINGROVE" AMERICAN VITICULTURAL AREA (AVA) IN SONOMA COUNTY, CALIFORNIA

INTRODUCTION

This petition to the Alcohol and Tobacco Tax and Trade Bureau (TTB) to establish a new American Viticultural Area (AVA) called the "Fountaingrove" viticultural area in Sonoma County, California is submitted by Douglas Grigg of Walnut Hill Vineyards, LLC, representing the Fountaingrove Appellation Committee, consisting of two wineries and fourteen vineyards, out of the total of 5 wineries and at least 35 vineyards in the proposed viticultural area.

The proposed viticultural area is located entirely in Sonoma County, California and consists of approximately 38,000 acres, of which approximately 500 acres, or 1.4%, are planted to vineyards. Most of the vineyards are relatively small, as all are located on hillside or mountainside terrain. The most common varietals grown are cabernet sauvignon, chardonnay, sauvignon blanc, merlot, cabernet franc, zinfandel, syrah, and viognier.

The proposed "Fountaingrove" viticultural area is located within the North Coast viticultural area and is surrounded by the Russian River viticultural area and the city of Santa Rosa to the west, the Chalk Hill and Knights Valley viticultural areas to the north, the Sonoma Valley viticultural area to the south, and the Diamond Mountain District and Spring Mountain District viticultural areas in Napa County to the east (Map 1). The proposed viticultural area can be distinguished from the surrounding existing viticultural areas by geography, soils, and climate.



Map 1. The proposed "Fontaingrove" Viticultural Area.

USAGE OF THE NAME "FOUNTAINGROVE"

"Fountaingrove" is named after the historic Fountaingrove Winery, which was located within the boundaries of the proposed AVA, and from its founding in 1875 until its demise in 1937 was one of the ten largest wineries in California. Although Fountaingrove Winery no longer exists, and petitioner is not aware of any winery or vineyard now using the name "Fountaingrove", evidence of the usage of the name in the area exists in many other ways:

*The area encompassing the original Fountaingrove property is still referred to as Fountaingrove, because it is the site of Fountaingrove Ranch (800 homes), Fountaingrove II (500 homes) and Fountaingrove Village (21 homes and businesses), subdivisions that were developed in the 1980s. The Meadows at Fountaingrove has rental condominiums.

Related roads:

*Fountaingrove Parkway.

*Thomas Lake Harris Drive, named after the founder of Fountaingrove.

*Round Barn Boulevard, named after the famous Round Barn built at Fountaingrove in 1899.

Related Open Space:

*Fountaingrove Lake--a 33-acre reservior created by Fountaingrove Dam.
*Nagasawa Community Park, a 34-acre park founded in 2007 to honor Kanaye Nagasawa, proprietor of Fountaingrove Winery.
*Thomas Lake Harris Open Space.

Businesses using the Fountaingrove name:

*Fountaingrove Inn Hotel and Conference Center.
*Fountaingrove Lodge, a retirement community.
*Fountaingrove Golf and Athletic Club, with an 18-hole golf course.
*Fountaingrove Realty
*Fountaingrove MedSpa
*Fountaingrove Dentistry
*Fountaingrove Deli
*Fountaingrove Cleaners

THE HISTORY OF FOUNTAINGROVE WINERY

The eponymous and most famous vineyards in the proposed viticultural area were those associated with a utopian community called Fountain Grove, founded in northern Santa Rosa by Thomas Lake Harris in 1875. Harris bought 400 acres in the foothills two miles north of Santa Rosa to move the Brotherhood of the New Life commune from Brocton, New York. A few years later Harris increased the property to 1858 acres--nearly three square miles. He planted wheat on the flat lands of the Santa Rosa plain, and at first used the hills for dairy farming, but by 1878, 375 acres of vineyards were planted to cabernet, pinot noir, and zinfandel, and 25 acres to table grapes. By 1882, Fountain Grove winery was completed and was producing 70,000 gallons of wine,[1] with a capacity of 600,000 gallons.[2] In 1899, the famous Round Barn was conpleted to house 60 horses.

The man most responsible for the development of the Fountain Grove vineyards and winery was Kanaye Nagasawa. In 1890 Harris left Fountain Grove to return to New York and in 1900 he sold his interest to five members of the commune, with the deed stating that the property would pass to the last surviving party and his heirs. Outlasting the others, Nagasawa became sole owner of Fountain Grove until his death in 1934. (Nagasawa changed the name "Fountain Grove" to "Fountaingrove" after the repeal of Prohibition in 1933.)

Born Hikosuke Isonaga in 1852 in Kagoshima, Satsuma, Japan, Isonaga changed his name to Kanaye Nagasawa when, at the age of 13, he and 14 other sons of samurai were ordered by the Daimyo of Satsuma to go to England to study western ways. The Daimyo was anticipating the overthrow of the Shogun and the opening of Japan. This contact with the west was expressly forbidden by the Shogun; hence Isonaga's change of name when in hiding awaiting ship in Hashima. The voyage was arranged by a Scots merchant in Nagasaki named Thomas Glover. In Scotland, since he was too young to attend university, Nagasawa was sent to Aberdeen to live with Glover's parents and attend secondary school. There he met Lady Oliphant and her son Lawrence, who were followers of Thomas Lake Harris and introduced him to Harris. Since funds from Japan were drying up, Nagasawa accepted Harris's offer to trade education for labor in his Brotherhood of the New Life colony in New York. There, as

Harris's protégé, Nagasawa learned viticulture from Edward Hyde.

In 1875 the colony moved to Santa Rosa and by 1880 Nagasawa was supervising the planting of 400 acres of vines. After Harris left Nagasawa in charge of Fountain Grove in 1890, it became one of the 10 largest wineries in California (Fig. 1). Most Fountain Grove wine was exported through New York, including the first California wine exported to Great Britain.[3]

Fig. 1. Fountaingrove vineyard circa 1934. The name "Fountain Grove" was changed to "Fountaingrove" after the repeal of Prohibition. Source: Peninou, *History of the Sonoma Viticultural District*.

As sole owner of Fountain Grove, Nagasawa became known in Japan as the "Grape King" of California, and the locals referred to him as "Baron" Nagasawa. Fountain Grove survived the phylloxera plague of 1908, replanting the vineyards by 1912, and during Prohibition it endured by producing grape juice and cooking sherry. After thr repeal of Prohibition in 1933, Nagasawa changed the name to Fountaingrove and opened a branch office in Los Angeles to distribute wine, but his plans for expansion were thwarted by his death in 1934. By then various anti-alien laws had been passed which prevented Fountaingrove from passing to his nephews, and the property was sold, with the new owners removing the vines for cattle ranching. In 1979, the propery was sold again for development of subdivisions, office parks, and open space.

OTHER VITICULTURAL HISTORY IN THE PROPOSED AVA

In 1894, on 185 acres on Mark West Creek, Edward Biron Payne founded a second utopian community in the hills north of Santa Rosa called Altruria. After Altruria failed financially, the property was bought in 1896 by Dr. W. P. Burke, who built a sanitarium and planted vineyards on the surrounding hills (Fig. 2).[4]

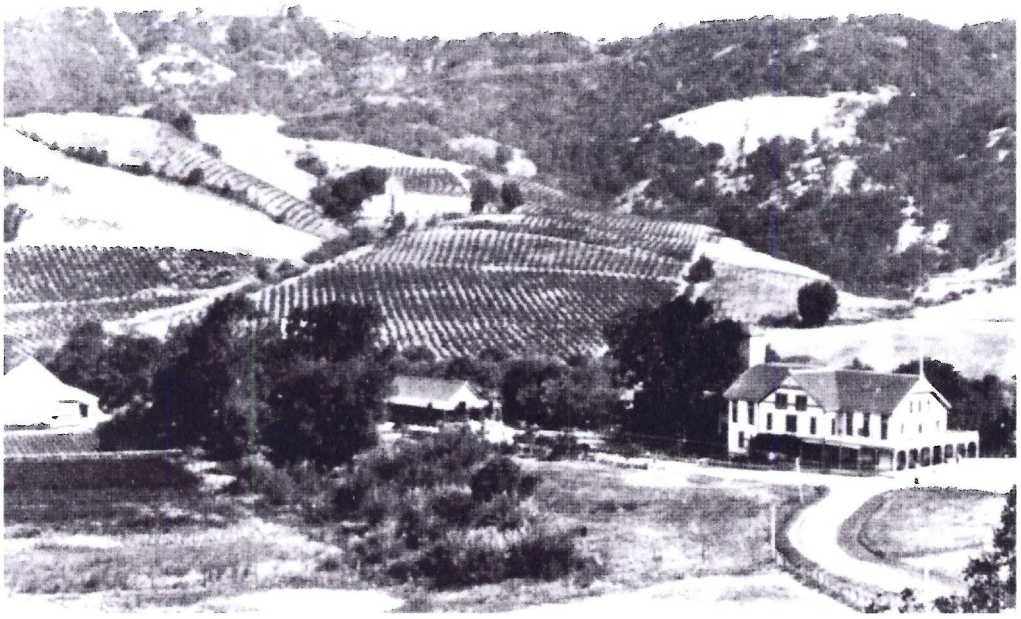


Fig. 2. Dr. Burke's Sanatarium. Source: Unzelman, *Sonoma County Wineries*.

Nearby, on Mark West Springs Road at the Mark West Mineral Springs, the "world's largest grape arbor" extended from the hotel across the road (Fig. 3).[5]

In 1898 Capt. Guy E. Grosse owned the 512-acre Rincon Heights Ranch, with 160 acres of vineyards and a 50,000-gallon winery on Rincon Creek north of the city of Santa Rosa.[6]

Table 1 lists the historical vineyards and wineries in 1893 located within the boundaries of the proposed "Fountaingrove" viticultural area.[7] Nearly all of the vineyards were planted to Zinfandel, with secondary plantings of Mission and Burger grapes.[8]

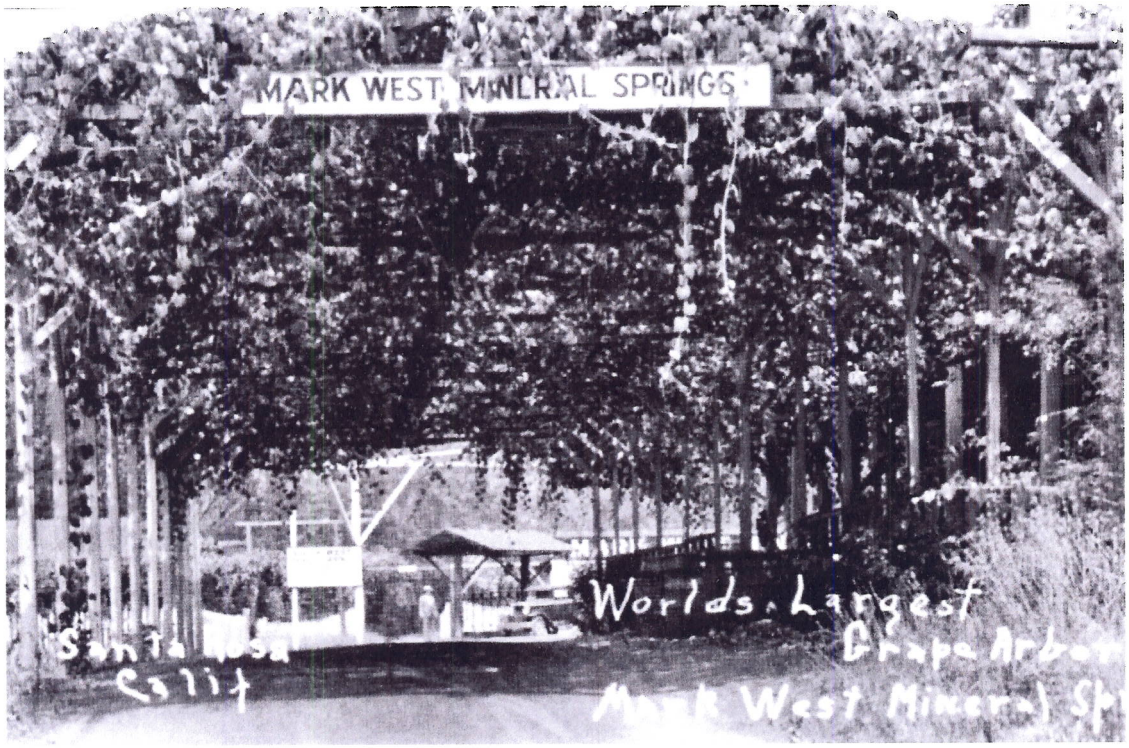


Fig. 3 The "world's largest grape arbor" at Mark West Springs. Source: Unzelman, *Sonoma CountyWineries*.

THE BOUNDARY OF THE PROPOSED AVA

The proposed boundaries of the Fountaingrove AVA are drawn to include an area which shares the same general characteristics of hillside vineyards on similar soils, but the most important defining characteristic of this specifically defined area is climate, which distinguishes it from the surrounding AVAs. This is due to the existence of a unique gap in the Sonoma Mountains at the city of Santa Rosa, which allows maritime influence to penetrate into the area defined by the proposed boundary (see below and Map 2).

Table 1

HISTORICAL VINEYARDS AND WINERIES WITHIN THE BOUNDARIES OF THE PROPOSED FOUNTAINGROVE VITICULTURAL AREA IN 1893

VINEYARD OWNER/WINERY	VINEYARD ACREAGE	LOCATION
Badger, D.	12	Badger Rd.
Bailiff, John/Bailiff Winery	65	St. Helena Rd.
Brush, J. H.	15	Calistoga Rd.
Buckner Bros./Summit Hill Winery	70	Parker Hill Rd.
Bussman, A.	14	Wallace Rd.
Coulter, S. T.	12	Calistoga Rd.
Fulkerson, S. T.	16	Calistoga Rd.
Garrison, W.	12	Calistoga Rd.
Gregg, G. L.	13	Baird Rd.
Gross, Guy E./Rincon Heights Cellars	portion of 160	Brush Creek Rd.
Hall, W.	42	Baird Rd.
Harris/Fountain Grove	400	Old Redwood Hwy.
Hessian, Thomas	13	Wallace Rd.
Kauffman, J.	10	Alpine Rd.
Klotz, Mrs. C. G./Klotz Winery	25	Petrified Forest Rd.
Norris, Martha	28	Wallace Rd.
Ralston, Andrew	25	Calistoga Rd.
Ross, Richard	26	Calistoga Rd.
Smithers, G. E.	6	St. Helena Rd.
Underhill, Milly & Charles	40	Wallace Rd.
Wells, C.	16	Wallace Rd.
Wells, P./(building a winery in 1893)	150	Wallace Rd.
Wright, Samson B.	5	Sharp Rd.

Sources: Report of Allen B. Lemmon of the vineyards in Sonoma County, 1893, in Peninou, Ernest P., *History of the Sonoma Viticultural District*, Nomis Press 1998, pp. 372-383; cross-referenced with Renolds & Proctor, *Illustrated Atlas of Sonoma County, California*, 1898.

Table 2 lists most of the current vineyards and wineries within the boundaries of the proposed viticultural area.

Table 2
CURRENT VINEYARDS AND WINERIES
IN THE PROPOSED FOUNTAINGROVE VITICULTURAL AREA

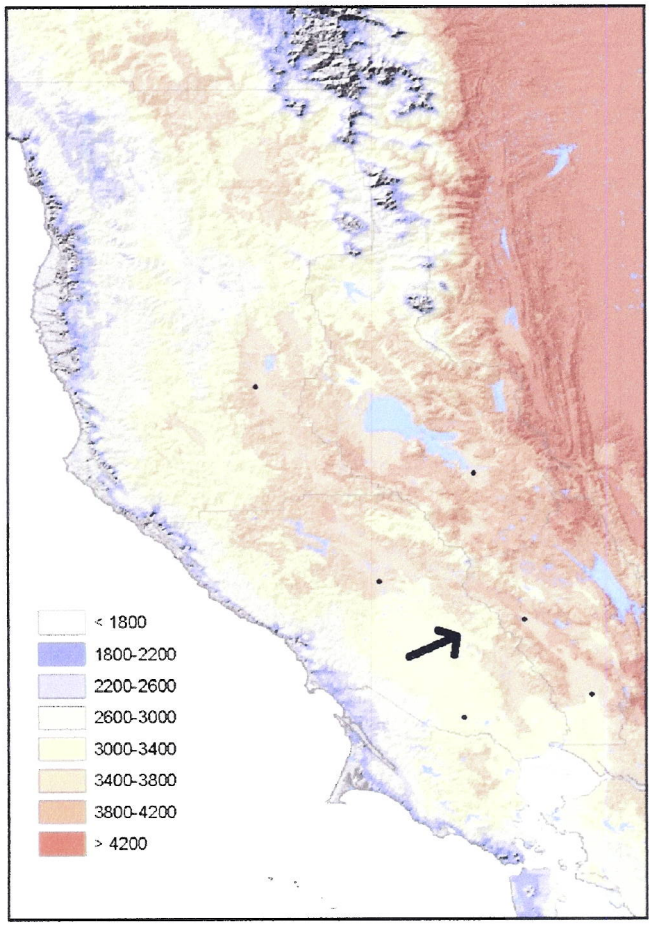
VINEYARD/WINERY	VINEYARD ACREAGE	LOCATION
Aldina	2	Redwood Hill Ct.
Alpicella	2	Los Alamos Rd.
Alpine Valley Vineyard	14	St. Helena Rd.
Antonina's/Rincon Grade	0.5	Plum Ranch Rd.
Bastoni Vineyards	36	Riebli Rd.
Baum	3	Winter Brook Lane
Boeck	15	Riebli Rd.
Brigden	3	Plum Ranch Rd.
Buck Hill Vineyard	4	Amber Lane
Bugay Vineyards	24	Crystal Springs Ct.
Chartrand	3	Kings Hill Rd.
Constant Vineyard (partial)	20	Diamond Mt. Rd.
Dante	8	Calistoga Rd.
Fisher Vineyards	30	St. Helena Rd.
Fouché (partial)	20	Melita Road
Freeman	8	Riebli Rd.
Hans Fahden Winery	25	Petrified Forest Rd.
Heller Family/H.L.R. Cellars	12	Sharp Road
Henry Cornell	23	Wappo Road
Hidden Ridge	57	St. Helena Rd.
Kick Ranch	46	Harville Rd.
Lambert Bridge	21	Riebli Rd.
McCoy	37	Plum Ranch Rd.
Petrichor Vineyards	2	Redwood Hill Ct.
Petrified Forest	8	Petrified Forest Rd.
Pride Mountain Winery (partial)	30	Spring Mt. Rd.
Redwood Hill Vineyard	6	Redwood Hill Rd.
Richards-Brown	16	Wallace Rd.
Rio Piefras Vineyards	1	Wallace Rd.
St. Helena Road Winery	19	St. Helena Rd.
Shinabargar	12	Riebli Rd.
Viluko Farms	5	Alpine Road
Wagner	1	Blue Gate Road
Walnut Hill	14	Sharp Road
WD Enteprises	5	Rolling Oaks Rd.

Sources: www.everyvine.com; Google maps; Sonoma County Assessor's Office

GEOGRAPHY AND CLIMATE
OF THE PROPOSED FOUNTAINGROVE VITICULTURAL AREA

The proposed "Fountaingrove" viticultural area can be distinguished from the surrounding viticultural areas by geography, climate, and soil characteristics.

The Sonoma Mountains define the eastern edge of the Santa Rosa plain—the flatlands of the Russian River Valley and the Cotati Valley west of the city of Santa Rosa. However, there is a gap in the Sonoma Mountains between Taylor Mountain (elev. 1401) to the south of Santa Rosa at the western boundary of the Sonoma Valley viticultural area and Redwood Hill (elev. 1120) to the north of Santa Rosa near the southeastern corner of the Chalk Hill viticultural area. This gap in the Sonoma Mountains allows the Santa Rosa plain to extend east under the city of Santa Rosa and allows maritime influence from the Petaluma Gap to enter the proposed "Fountaingrove" viticultural area (Map 2--note the cool area northeast of the arrow).



Map. 2. The arrow points to the gap in the Sonoma Mountains ar Santa Rosa. Note the cool area east of the gap in the location of the proposed AVA. Source: George Vierra, *North Coast Wines: Marin, Mendocino, and Lake Counties;* Napa Valley.edu.

The result of this maritime influence is a cooler climate in the proposed viticultural area than in the Knights Valley viticultural area to the north and the Sonoma Valley viticultural area to the south. Knights Valley is removed from this maritime influence by the hills around Franz Valley. The Sonoma Valley is sheltered by Hood Mountain and Buzzard Peak on the north end of the valley and by Bennett Mountain and Sonoma Mountain to the west.

All the vineyards in the proposed viticultural area are relatively small, as they are all either hillside or mountainside vineyards, unlike in the surrounding Sonoma County viticultural areas, which have both hillside and valley floor vineyards.

Table 3 lists climate data for 16 of the vineyards in the proposed viticultural area for which data are available (source: www.everyvine.com). These vineyards have a total acreage of 267 acres at elevations ranging from 454 to 2115 feet. These vineyards are well distributed within the proposed viticultural area (Map 3) and as such should be representative of the average climate of the proposed viticultural area. The median values of the climate measures for these 16 vineyards are: growing season temperature (GST): 17.72 °C (63.9 °F); growing degree-days (GDD °C units): 1663; Huglin index (HI °C units): 2226; biologically effective degree-days (BEDD °C units): 1712.

Table 4 compares these median values with comparable data for the surrounding existing viticultural areas.[9] The proposed viticultural area is warmer than the Russian River Valley and Bennett Valley viticultural areas, about the same as the Chalk Hill viticultural area, cooler than the Sonoma Valley viticultural area, and significantly cooler than the Knights Valley, Spring Mountain District and Diamond Mountain District viticultural areas.

The proposed "Fountaingrove" viticultural area is classified as Warm Region II on the Winkler scale.

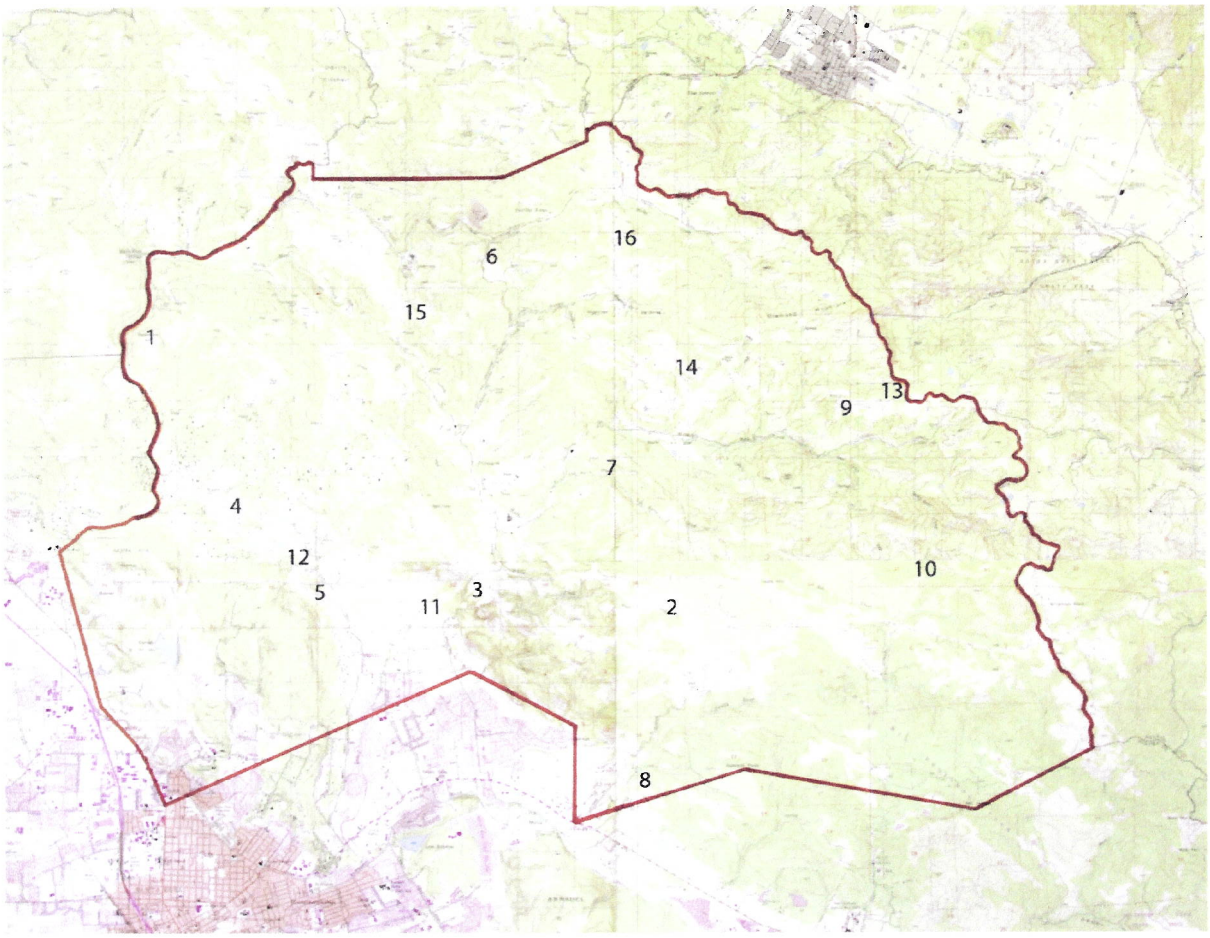
There is little climate variation with change in elevation in the proposed viticultural area. This is probably due to the phenomenon know as a thermal belt, which traps warm air on hillsides, creating cooler days and warmer nights than on valley floors.

Climate is the most important factor in viticulture defining the concept of *terroir*. Other factors are soil and underlying bedrock, vineyard slope and orientation, drainage, growing season rainfall or irrigation, wind direction and velocity, humidity, latitude, and perhaps winter chilling, soil microorganisms, native yeasts, and soil reflectivity.

Although the temperature differences between AVAs shown in Table 4 may seem so small as to be insignificant, in fact, they are extremely important and critical to viticulture. For example, a different in average growing season temperature (GST) of 2°C. is the difference bwtween Knights Valley (Region III) and Lodi (Region V)--between growing cabernet sauvignon and Thompson seedless.

Table 3
CLIMATE DATA FOR 16 VINEYARDS IN THE PROPOSED
FOUNTAINGROVE VITICULTURAL AREA
Source: www.everyvine.com

VINEYARD	ACREAGE	ELEVATION (average)	GST (°F)	GDD (°C units)	HI (°C units)	BEDD (°C units)	SOILS
Aldina	1.59	1079	63.1	1718	2325	1791	Felta, Red Hill
Alpicella	2.06	1368	64.3	1697	2255	1700	Henneke, Montarra
Antonia's Vineyard	0.43	949	64.1	1673	2252	1738	Raynor
Bastoni	36.17	465	63.1	1562	2134	1684	Spreckels, Felta, Guenoc
Buck Hill	2.58	454	63.4	1594	2128	1685	Guenoc, Spreckels
Dante	7.84	1111	64.8	1767	2373	1797	Laniger, Spreckels
Fisher Vineyards	30	1110	64.8	1759	2342	1777	Boomer
Fouché (partial)	20.15	492	64.1	1667	2227	1743	Felta, Haire, Boomer
Henry Cornell	22.55	1733	63.6	1618	2084	1550	Goulding
Hidden Ridge	56.96	1384	63.7	1632	2225	1720	Goulding
Kick Ranch	46.25	466	63.5	1610	2196	1726	Goulding, Pleasanton
Lambert Bridge	9.32	512	63.3	1580	2149	1694	Goulding, Guenoc, Spreckels
Pride Mountain (partial)	19.01	2115	63.9	1658	2100	1547	Goulding, Henneke
Saint Helena Rd.	19.18	1574	63.9	1657	2189	1611	Sobrante
Viluko Farms	4.8	842	65.5	1850	2494	1877	Goulding
Walnut Hill	16.49	1452	64.3	1706	2282	1703	Laniger, Goulding
MEDIAN			63.9	1663	2226	1712	



Map 3. Locations of 16 vineyards for which climate data is available.
Source: www.everyvine.com

1. Aldina
2. Alpicella
3. Antonina's vineyard
4. Bastoni
5. Buck Hill
6. Dante
7. Fisher Vineyards
8. Fouché
9. Henry Cornell
10. Hidden Ridge
11. Kick Ranch
12. Lambert Bridge
13. Pride Mountain
14. St. Helena Road
15. Viluko Farms
16. Walnut Hill

Chart 1 illustrates the approximate range of growing season temperatures required for maturing various grape varietals. The proposed Fountaingrove AVA is Warm Reion II, which is too warm for pinot noir. Within each range, the character of the varietal will vary considerably. For example, chardonnay grown in Warm Region II will have ripe, tropical fruit flavors as opposed to the dry minerality of chardonnay grown in Region I. It should probably only be grown on north or east facing slopes. Cabernet Sauvignon grown on south and west facing slopes in Warm Region II is potentially low-alcohol with subtle flavors compared to the ripe, plummy, high-alcohol cabernets grown in Region III and even Region IV in the Napa Valley. These differences are essential to producing and blending fine wine.

Table 4

COMPARATIVE CLIMATE DATA

Source: Supplemental Data for Jones, G.V., A.A. Duff, A. Hall, and J.W. Myers, 2010, *Spatial Analysis of Climate in Winegrape Growing Regions in the Western United States.* Am. J. Enol. Vitic. 61:313-3

AVA	GST (°C)	GDD (°C units)	HI (°C units)	BEDD (°C units)	WINKLER REGION
Russian River Valley	17.1	1520	2152	1747	Region II
Bennett Valley	17.4	1589	2140	1713	Region II
Chalk Hill	17.6	1634	2244	1787	Warm Region II
Proposed Fountaingrove	17.7	1663	2226	1712	Warm Region II
Sonoma Valley	17.8	1676	2255	1770	Cool Region III
Knights Valley	18.3	1788	2416	1852	Region III
Spring Mountain District	18.3	1785	2426	1841	Region III
Diamond Mountain District	18.7	1818	2524	1927	Region III

The Winkler Scale:	GDD °F	GDD °C	Region
	<2500	<1388	I
	2500-3000	1388-1667	II
	3000-3500	1667-1944	III
	3500-4000	1944-2222	IV
	>4000	>2222	V

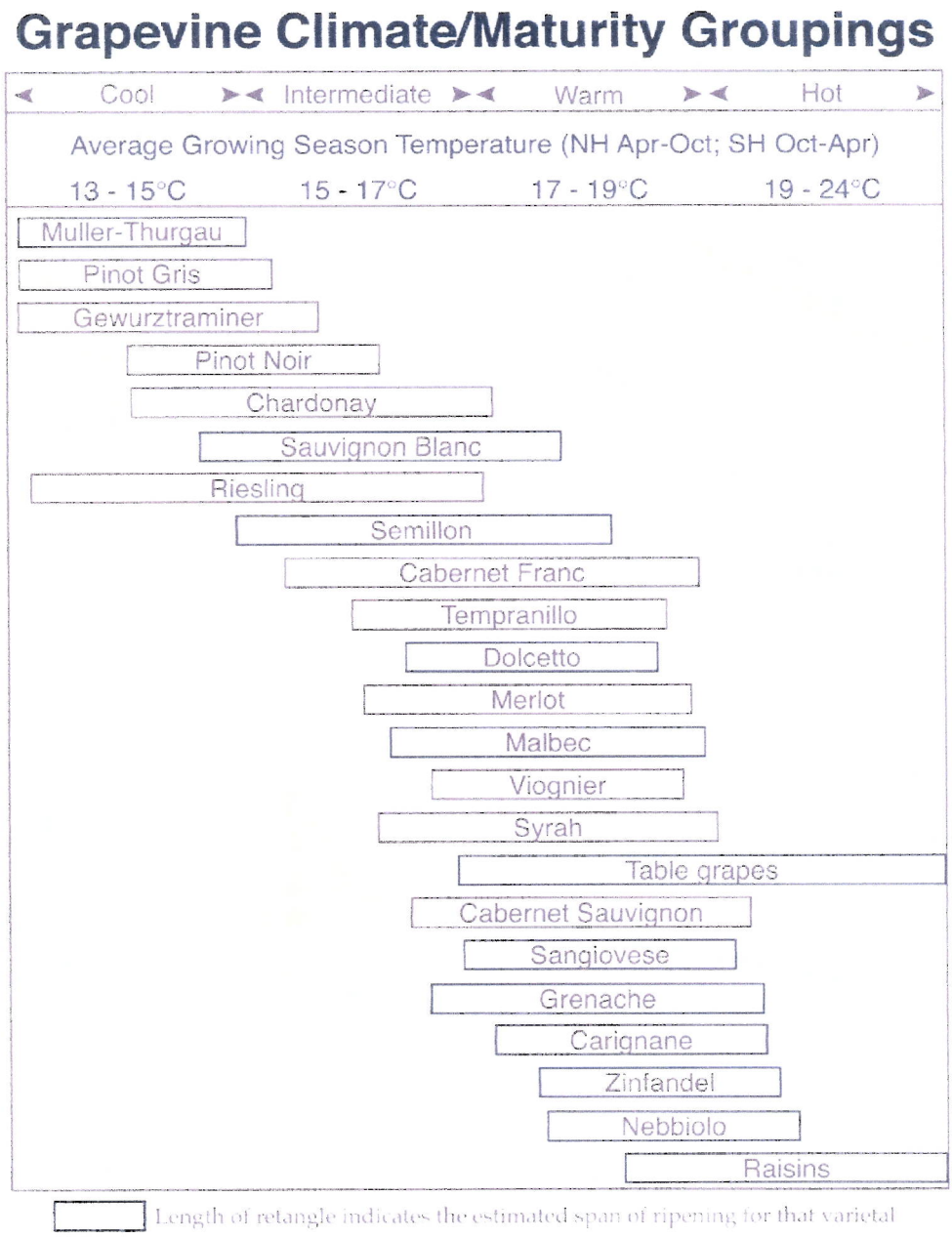
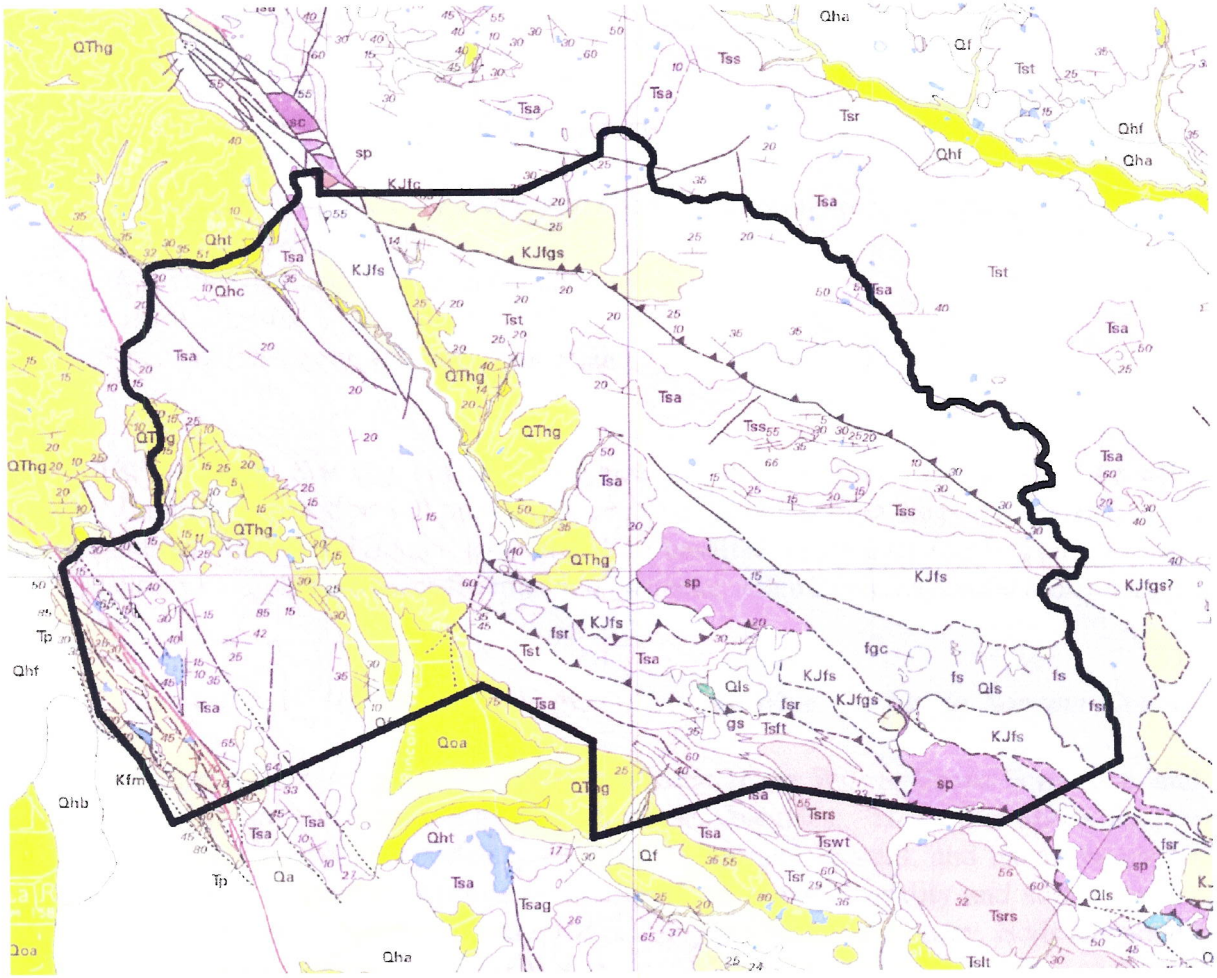


Chart 1. Climate maturity groupings bases on average growing season temperatures and the estimated span of varietal ripening potential that occurs within and across the groups. Source: Gregory V. Jones et al.; *Climate and Wine: Quality Issues in a Warmer World*, p. 23; www.sou.edu/envirostudies/gjones_docs/VDQS%20Climate%20Change.pdf

GEOLOGY AND SOILS

The predominant bedrock in the proposed viticultural area consists of Sonoma Volcanics, primarily volcanic ash/rhyolite and basalt lavas. Secondary bedrock consists of Franciscan Complex, with minor outbreaks of Clear Lake Volcanics (Glen Ellen Formation) in the western portion of the proposed viticultural area (Map 4).[10]



Map 4. Geology of the proposed "Fountaingrove" Viticultural Area. Source: U.S.G.S.: *Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties, California*, by R. W. Graymer, E. E. Brabb, D. L. Jones, J. Barnes, R. S. Nicholson, and R. E. Stamski, 2007.

Key to Map 4:

Sonoma Volcanics: (light and medium pink areas)

Tsa=Andesite to basalt lava flows
Tst=Pumicious ash-flow tuff
Tsft=Tuff
Tp=Petaluma formation
Tss=Volcanic sand and gravel

:
Franciscan Complex: (grey and red areas)

fsr=Melange, including blocks, mapped locally of:
sp=Serpentinite
Kjfs=Greywacke and melange
fs=Greywacke
fgc=Greenstone and chert
gs=Greenstone

Surficial Deposits: (yellow, orange, and white areas)

QThg=Clear Lake volcanics: Huichica and Glen Ellen formations, undivided
Qhc=Stream channel deposits
Qoa=Alluvium (late and early Pleistocene)
Qf=Terrace deposits
Qa=Alluvium (Holocene and late Pleistocene)

The prevalent Sonoma Volcanics produce excellent, well-drained soils for growing grapes.[11] Pumiceous ash-flow tuff produces the most prevalent soils in the proposed viticultural area: Goulding, Spreckels, Laniger, and Felta. The basalt lavas produce Guenoc and Toomes. The Franciscan Complex produces Boomer and Henneke. Glen Ellen Formation rock produces Huichica.[12]

To quote W. H. Wright in *Geology, Soils, and Wine Quality in Sonoma County, California:*

"The highest quality grapes grow on sandstone of the Wilson Grove Formation, and extrusive rhyolitic lavas/volcanic ash of the Sonoma Volcanics. These formations tend to produce soils that are close to perfectly balanced in nutrient content, and have low cation exchange capacities. Alluvial deposits produce soils of variable quality and suitability for wine grape growth, owing to their variable source composition and chemistry. Soils developed on or from Franciscan Complex bedrock also may be suitable for wine grape growth, but may contain the magnesium-and nickel-rich mineral serpentine which can cause magnesium imbalance in the soil, or nickel toxicity. Because magnesium is a highly mobile chemical element, its presence in alluvium can change soil suitability for wine growth both downslope and downstream from magnesium sources such as serpentine-bearing bedrock. Franciscan greywacke sandstone produces ideal soils for quality grapes in high coastal climate zones."[13]

Table 5 lists most of the soil types found in existing vineyards in the proposed AVA as well as in the six surrounding AVAs.

Table 5. SOIL TYPES IN EXISTING VINEYARDS Source: Everyvine.com

SOIL				AVA			
	CHALK	RUSSIAN	SONOMA	KNIGHTS	DIAMOND	SPRING	FOUNTAIN-
FROM SONOMA	HILL	RIVER VALLEY	VALLEY	VALLEY	MT. DIST.	MT. DIST.	GROVE
VOLCANICS							
Goulding			x	x	x	x	x
Laniger				x			x
Felta	x	x	x				x
Forward			x	x	x	x	
Spreckels	x	x	x				x
Toomes	x	x		x			x
Guenoc							x
Kidd					x	x	
Sobrante						x	x
Hambright					x		
FROM FRANCISCAN							
COMPLEX							
Dibble	x	x					
Maymen						x	x
Laughlin		x		x			
Boomer					x	x	x
Aiken					x	x	x
Red Hill			x	x			
Suther				x			x
Yorkville*		x		x			x
Henneke*						x	x
Raynor*							x
Montara*	x	x					x
FROM RIVER AND							
TERRACE DEPOSITS							
Cotati		x					
Wright		x	x				
Clear Lake		x	x				
Arbuckle	x	x		x			
Huichica	x	x	x				
Yolo	x	x		x			x
Zamora		x	x				
Pleasanton						x	x
Cortina				x			
Haire	x	x	x	x			x
Los Robles							
Clough			x	x			
Positas	x	x					
FROM WILSON							
GROVE FORMATION							
Gold Ridge		x					
*Serpentine soils							

Several conclusions can be drawn from Table 5:

1. Besides the prime soils derived from Sonoma Volcanics, the other prime soil for vineyards is Gold Ridge, derived from Wilson Grove formation bedrock. This soil occurs only on the west side of the Russian River Valley AVA from Sebastopol to Green Valley.

2. Chalk Hill, Russian River Valley, Sonoma Valley, and Knights Valley AVAs all have vineyards extensively planted on alluvial floodplains and therefore have a majority of soils derived from river and terrace deposits.

3. Diamond Mountain District and Spring Mountain District AVAs have almost no soils derived from river and terracs deposits, as all the vineyards are on steep hillsides.

4. Fountaingrove AVA has a few soils derived from river and terrace deposits.

5. In isolated areas (the dark red areas in Map 4), Fountaingrove has outbreaks of serpentine soils (Yorkville, Reynor, Heneke, and Montara) which are unsuitable for vineyards.

6. On the other hand, Fountaingrove has a significant selection of soils (Maymen, Suther, and Aiken) derived from greywacke, and Boomer, derived from iron rich igneous rock, which are excellent for wine grapes.

7. Of all these AVAs, Fountaingrove has the widest selection of soils derived from Sonoma Volcanics, which are prime soils for vineyards.

Hillside vineyards, with better soils and drainage, are increasingly sought after.

DISTINGUISHING FOUNTAINGROVE FROM THE SURROUNDING AVAs

Table 6 summarizes the distinguishing characteristics of the proposed Fountaingrove AVA and the surrounding existing AVAs.

Diamond Mountain District AVA and Spring Mountain District AVA share the same basic topography, geology, and soils as the proposed Fountaingrove AVA, but they are warmer and subject to less maritime influence, since they are in Napa on the east side of the spine of the Mayacamas Mountains. The difference in climate would be even more pronounced but for the fact that the basic orientation of these two Napa AVAs is toward the northeast, as opposed to Fountaingrove's orientation to the southwest.

Knights Valley AVA is also warmer than Fountaingrove, with more vineyards on floodplains than on hillsides, with a preponderance of soils derived from alluvial deposits rather than from Sonoma Volcanics.

Chalk Hill AVA, a subdivision of the Russian River Valley AVA, shares the same

Table 6
COMPARING FOUNTAINGROVE TO NEIGHBORING AVAs
Source for vineyard elevation data: Everyvine.com

AVA	CLIMATE--WINKLER SCALE	VINEYARD GEOGRAPHY	PRIMARY SLOPE ORIENTATION	AVERAGE ELEVATION (ft)	PRIMARY/SECONDARY GEOLOGY	MARITIME/FOG INFLUENCE	PRIMARY GRAPE VARIETAL
Fountaingrove	Warm Region II	Hillside only	SW	1069	Sonoma Volcanics/ Franciscan Complex	Moderate	Cab. Sauv.
Diamond Mt. District	Region III	Hillside only	NE	945	Sonoma Volcanics/ Franciscan Complex	Weak	Cab. Sauv.
Spring Mt. District	Region III	Hillside only	NE	1498	Sonoma Volcanics/ Franciscan Complex	Weak	Cab. Sauv.
Knights Valley	Region III	Floodplain and Hillside	None	690	Alluvial Deposits/ Sonoma Volcanics	Weak	Cab. Sauv.
Chalk Hill	Warm Region II	Floodplain and Hillside	None	312	Alluvial Deposits/ Sonoma Volcanics	Limited	Cab. Sauv.
Russian River Valley	Region II	Floodplain	None	192	Alluvial Deposits/ Franciscan Complex	Strong	Pinot Noir
Sonoma Valley	Cool Region III	Floodplain and Hillside	None	463	Alluvial Deposits/ Sonoma Volcanics	Varies N-S	Chardonnay

climate with Fountaingrove, but has more vineyards on floodplains than on hillsides, whereas Fountaingrove has hillside vineyards only. As a result, Chalk HIll has a much lower average vineyard elevation, with more soils derived from alluvial deposits than from Sonoma Volcanics.

The Russian River Valley AVA has almost no hillside vineyards. As a result, it has a very low elevation with soils derived from alluvial deposits and Franciscan Complex bedrock. It is subject to more maritime influence and fog and has a cooler climate than Fountaingrove. As a result, the primary grape grown in the Russian River Valley AVA is pinot noir, which cannot be grown successfully in Fountaingrove.

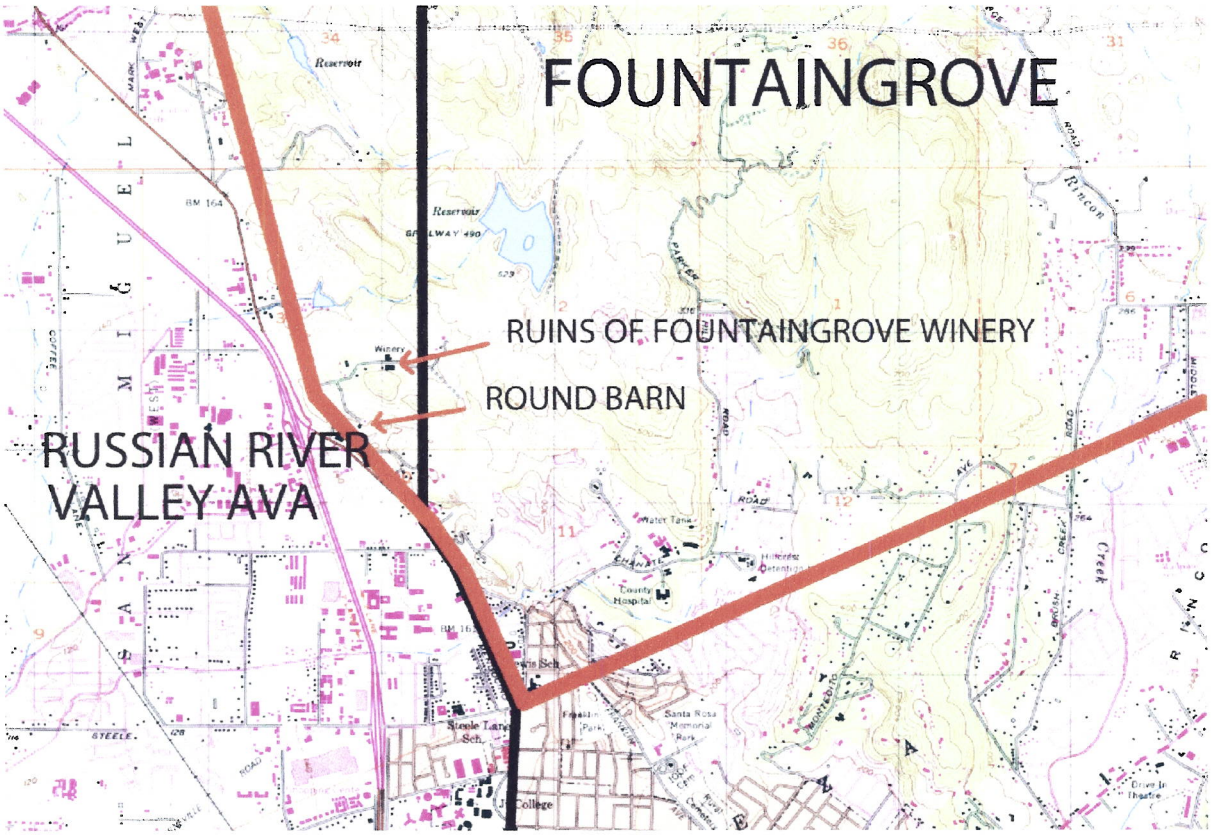
The Sonoma Valley AVA is warmer than Fountaingrove because it is more protected from maritime influence by the Sonoma Mountains (except at the southern end, which is Los Carneros AVA). It has more vineyards on floodplains than on hillsides, and as a result has a lower average elevation and more soils derived from alluvial deposits than from Sonoma Volcanics.

The proposed Fountaingrove AVA is part of the North Coast AVA, a large AVA that encompasses grape-growing regions in Sonoma, Napa, Mendocino, Lake, Marin, and Solano counties. The distinguishing feature of the North Coast AVA is that there is enough maritime influence from the Pacific Ocean to preclude the existance of Winkler Region V heat in this AVA. By coincidence, the average climate of the North Coast AVA turns out to be Warm Region II--the same as the proposed Fountaingrove AVA. However, it is meaningless to characterize the climate of the North Coast AVA as Warm Region II, because the North Coast AVA includes such a wide range of climates--from Region I in Fort Ross--Seaview AVA to Region IV in Solano County Green Valley AVA. Also, the North Coast AVA includes a very wide range of topography, geology, and soil types, with the potential of growing every wine grape varietal somewhere within the AVA. In contrast, the proposed Fountaingrove AVA can be characterized briefly as having a climate of Warm Region II, with vineyards on hillsides only, with a preponderance of excellent soils derived from Sonoma Volcanics.

A NOTE ON THE BOUNDARIES OF THE PROPOSED AVA

Part of the southern boundary of the proposed Fountaingrove AVA coincides with the northern boundary of the Sonoma Valley AVA. The eastern boundary of the proposed AVA coincides with the western boundaries of the Spring Mountain AVA and the Diamond Mountain AVA. The northern boundary of the proposed AVA coincides with the southern boundaries of the Calistoga and Knights Valley AVAs. The northwestern boundary of the proposed AVA coincides with the southeastern boundary of the Chalk Hill AVA. Part of the western boundary of the proposed AVA north of Mark West Springs Road coincides with the eastern boundary of the Russian River Valley AVA, but part of the western boundary of the proposed AVA south of Mark West Springs Road overlaps the eastern boundary of the Russian River Valley AVA, creating a triangular area of hillside that is in both AVAs. The reason for this is that, although most of the vineyards of the original Fountaingrove Winery lay east of the Russian River

Valley AVA boundary, the ruins of the Fountaingrove winery, which burned in 1991, and the famous Fountaingrove Round Barn are located a few hundred feet west of the boundary of the Russian River Valley AVA, and the proposed boundary of Fountaingrove AVA has been moved west to include the winery ruins and the Round Barn (Map 5). This triangular area is of hillsides which share the same climatic and soil conditions as the rest of the proposed AVA.



Map 5. Detail of Map 1.

BOUNDARIES OF THE PROPOSED "FOUNTAINGROVE" VITICULTURAL AREA

The proposed "Fountaingrove" viticultural area is located in Sonoma County, California. The appropriate maps for determining the boundary of the proposed viticultural area are the four U. S. G. S. Topographic maps titled:

1. Mark West Springs Quadrangle, California, 7.5' Series, dated 1993
2. Calistoga Quadrangle, California, 7.5' Series, dated 1997
3. Kenwood Quadrangle, California, 7.5' Series, dated 1954, photorevised 1980
4. Santa Rosa Quadrangle, California-Sonoma County, 7.5' Series, dated 1994

Boundary: The proposed "Fountaingrove" viticultural area is entirely within Sonoma County, California and is located east and north of the city of Santa Rosa. From the beginning point on the Mark West Springs Quadrangle map at the intersection of Petrified Forest Road and the Napa-Sonoma county line in Section 3, Township 8 North (T. 8 N.), Range 7 West (R. 7 W.), Mount Diablo Base and Meridian, the boundary proceeds:

(1) In a southeasterly direction (on the Calistoga Quadrangle map) along the meandering Napa-Sonoma county line (the western boundary of the Diamond Mountain District and the Spring Mountain District viticultural areas) to a point (on the Kenwood Quadrangle map) at an unnamed peak, elevation 2530, in Section 9, T. 7 N., R. 6 W.;

(2) Then in a southwesterly direction in a straight line (along the northern boundary of the Sonoma Valley viticultural area) to the peak of Hood Mountain (Mt. Hood) in Section 8, T. 7 N., R. 6 W.;

(3) Then westerly in a straight line to the top of Buzzard Peak in Section 11, T. 7 N., R. 7 W.;

(4) Then southwesterly in a straight line to the intersection of Highway 12 and Los Alamos Road (on the Santa Rosa Quadrangle map);

(5) Then north in a straight line to the southern boundary of Section 9, T. 7 N., R. 7 W.;

(6) Then northwesterly in a straight line along the southern boundary of Sections 9, 4, and 5, T. 7 N., R. 7 W., to the northern corner of Rancho Cabeza de Santa Rosa and Rancho Los Guilicos;

(7) Then southwesterly in a straight line along the southern boundary of Sections 5, 6, and 7, T. 7 N., R. 7 W., and Sections 12 and 11, T. 7 N., R. 8 W. (the northern boundary of Rancho Cabeza de Santa Rosa), to the intersection of Mendocino Avenue and Steele Lane;

(8) Then northwesterly along Mendocino Avenue to the southeastern corner of Section 10, T. 7 N., R. 8 W.;

(9) Then northwesterly along the eastern boundary of Rancho San Miguel (West) to the intersection of the eastern boundary of Rancho San Miguel (West) with Mark West Springs Road (on the Mark West Springs Quadrangle map);

(10) Then northerly along Mark West Springs Road and northeasterly along Porter Creek Road (part of the eastern boundaries of the Russian River VA and the Chalk Hill VA) to the intersection of Porter Creek Road and Franz Valley Road in Section 12, T. 8 N., R. 8 W.;

(11) Then northeasterly along Franz Valley Road to the intersection of Franz Valley Road with the western boundary of Section 6, T. 8 N., R. 7 W.;

(12) Then south in a straight line along the western boundary of Section 6 to the southwest corner of Section 6;

(13) Then east along the southern boundary of Sections 6, 5, and 4, T. 8 N., R. 7 W., (the southern boundary of the Knights Valley viticultural area) to the southeast corner of Section 4;

(14) Then north along the eastern boundary of Section 4 to the intersection of the eastern boundary of Section 4 with the Napa-Sonoma county line;

(15) Then easterly along the Napa-Sonoma county line to its intersection with Petrified Forest Road and the point of beginning.

FOOTNOTES

[1] Hine, Robert V., *California's Utopian Colonies*, Norton Library, 1973, p. 18.
[2] www.discovernikkei.org/wiki/Kanaye Nagasawa
[3] *Ibid.*
[4] Unzelman, Gail, and the Wine Library Associates of Sonoma County, *Sonoma County Wineries*, Arcadia, 2006, p.96.
[5] *Ibid.*, p. 74.
[6] Reynolds & Proctor, *Illustrated Atlas of Sonoma County, California*, 1898.
[7] Report of Allen B. Lemmon of the vineyards in Sonoma County, 1893, in Peninou, Ernest P., *History of the Sonoma Viticultural District*, Nomis Press, 1998, pp.372-383; cross-referenced with Reynolds & Proctor, *Illustrated Atlas of Sonoma County, California*, 1898.
[8] Peninou, op. cit., pp. 339-343: Directory of the Grape Growers, Wine Makers and Distillers of California—The Sonoma Viticultural District, 1891.
[9] Source: Supplemental Data for Jones, G.V., A.A. Duff, A. Hall, and J.W. Myers, 2010, *Spatial Analysis of Climate in Winegrape Growing Regions in the Western United States*. Am. J. Enol. Vitic. 61:313-326.
[10] USGS: *Geologic and Geographical Framework of the Santa Rosa 7.5" Quadrangle, Sonoma County, California*, by R. J. McLaughlin et al., 2008.
USGS: *Geology, Tephrochronology, Radiometric Ages, and Cross Sections of the Mark West Springs 7.5' Quadrangle, Sonoma and Napa Counties, California*, by R. J. McLaughlin et al.
USGS: *Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties, California*, by R.W. Graymer, E.E. Brabb, D.L. Jones, R.S. Nicholson, and R.E. Stamski, 2007
[11] Wright, W. H., *Geology, Soils, and Wine Quality in Sonoma County, California*, Table 1. www.terrywrightgeology.com/gcpaper22fin.doc.
[12] U. S. Department of Agriculture, Natural Resources Conservation Service, published web soil survey for Sonoma County, California.
[13] Wright, W. H., *op.cit., p. 1-2.*

FOUNTAINGROVE APPELLATION COMMITTEE

The following representatives of vineyards and wineries located within the boundaries of the proposed "Fountaingrove" viticultural area petition the Alcohol and Tobacco Tax and Trade Bureau (TTB) to establish the "Fountaingrove" viticultural area in Sonoma County, California:

VINEYARD/WINERY	REPRESENTATIVE
Alpicella Vineyard	Dan Sanchez
Alpine Valley Vineyard	Muriel Price
Antonina's Vineyard/Rincon Grade Winery	George Marek
Bastoni Vineyards	Russ Messana
Boeck Family Vineyard	P. K. Boeck
Buck Hill Vineyard	Randal Apel
Chartrand Vineyard	Lloyd Chartrand
Fouché Estate Winery	Coralee Barkela
Freeman Vineyard	Mark Freeman
Heller Family Vineyards/H.L.R. Cellars	Steve Heller
McCoy Vineyards	Charles E. McCoy, Jr.
Redwood Hill Vineyard	Stephan P. Vermut
Shinabargar/Lambert Bridge Vineyards	Norman Shinabargar
Walnut Hill Vineyards	Douglas Grigg