Item 1: Temecula Winegrowers Association Petition

Rec'd. 6-23-81

To: J. Lia Thiem 6-26-81

June 15, 1981

Director
Bureau of Alcohol, Tobacco & Firearms
Department of the Treasury
Washington, D.C. 20226

Re: Petition for Establishment
of Viticultural Area -
"Temecula"

Dear Sir:

Pursuant to the provisions of 27 CFR Section 4.25 a(e)(2), Rancho California/Temecula Winegrowers Association hereby respectfully petitions you to establish a viticulural area to be designated "Temecula". This viticultural area consists of approximately 100,000 acres in the southwestern corner of Riverside County, California, 40 miles south of the county seat at Riverside, 60 miles north of San Diego and 20 miles inland from the Pacific Coast. The area produces excellent premium wine grapes although it is geographically distant from those viticultural areas in California which consumers typically associate with comparable quality grapes. The area consists of a valley known as the Temecula Valley and the western ridge which forms that valley. Although there are some geophysical differences within the proposed appellation, the area as a whole has a unifying climate characterized by cool marine breezes which, combined with the relatively arid heat of the area, facilitate the production of excellent wine grapes. Petitioners considered limiting the proposed appellation to the Temecula Valley floor by excluding the vineyards on the western ridge but in view of the geographical isolation of the general Temecula area from other viticultural areas, the common weather pattern of the area, the area's history, the active interaction between growers and wineries within the area and the relatively small production of grapes from the area (compared to better known California appellations) the petitioners concluded that it was in the best interests of consumers, the industry and general meaningfulness of viticultural classifications to propose the appellation as described in this petition.

The following information is submitted in support of this petition:

1. Name Identification and Historical Significance

Both the name and the history of Temecula date back hundreds of years, to a native band of Indians of the Luiseno group who called themselves the "Temekus", or, in anglicized form, "Temecula". Spanish priests from the early California missions recorded visiting the Indians as early as October, 1797.[1] Later they built an "asistencia" near the village site of the Temekus, just south of where Murrieta Creek empties into the Temecula River (in what is now known as Temecula Canyon). As its name suggests, the "asistencia" assisted the nearby Mission San Luis Rey (at Oceanside) in its work and provided lodging for traveling priests.

Violent conflicts between the Temekus Indians and white settlers led the Bureau of Indian Affairs to negotiate a treaty of peace with the tribe. The "Treaty of Temecula" was signed on January 5, 1852, and included a guarantee of certain lands to the Temekus. The U.S. Senate, however, did not ratify the agreement, and it was never enforced. Nevertheless the descendants of the Temekus remain in the region to this day; they presently occupy the Pachenga Reservation at the southern end of the viticultural area.

The mistreatment of the California Indians and the Temekus in particular led to the writing and publication in 1884 of Ramona. Author Helen Hunt Jackson used as her hero a Temeku Indian named Alessandro. Ramona, the heroine, was born of a California Indian mother and white father. Fleeing Ramona's harsh, ill-tempered Caucasian aunt, the two travelled throughout the Temecula region. Ramona, a national best-seller, has gone through 28 editions and 141 printings in addition to being used four times for a movie. As a result, Temecula has become a popular literary tourist attraction.

The present town of Temecula was established in 1882-83, when the California Southern Railroad constructed a depot there. The town site is located six miles east of the original Indian village, at the junction of two historic trails: the pre-Civil War Butterfield Overland Mail route (1858-61), which was also known as the Old Southern Emigrant Road, and the route from coastal San Diego County through what today is the county of Riverside (carved out of San Diego County in 1893) to such interior points as San Bernardino.

1. B.E. McGown, Temeku-A Page from the History of the Luiseno Indians (Archaeological Survey Association of Southern California, 1955), p. 46.

In more recent times, the Temecula area has been developed by Kaiser Aluminum, Kaiser Industries and Macco Realty. Rancho California, as the 97,500 acre development is called, includes all of the Santa Rosa and Pauba Land Grants and parts of the Temecula and Little Temecula Land Grants. In 1904, Walter Vail, a prominent Arizona cattleman, had purchased this same basic area and formed Vail Ranch. The Rancho California land development program began with the purchase of Vail Ranch in 1964.

Temecula's viticultural history dates from the mid-nineteenth century, if not earlier. Evidence of that fact is found in the records of Land Case Number 55, Southern District of California. In 1843, the Mission San Luis Rey granted to Pablo Apis, one of its workers, one-half league (about 2,200 acres) of Temecula Rancho with "150 stocks of vines."[2] This area is known today as Little Temecula. So large a planting suggests that the Temecula vineyards in earlier times may have provided the Oceanside mission with wine.

Similarly, the Temecula Land Grant of 1844, which comprises six leagues (about 26,600 acres) to the north of Little Temecula, may have been the site of early vineyard activity. At the very least, the land was recognized for its viticultural potential when purchased in 1846 by Frenchman Louis Vignes, a recognized grape grower and winemaker in Los Angeles. During the previous decade, Vignes had written to his relatives in France to persuade them and other "intelligent countrymen" to join in the development of California's wine trade.[3] According to Vincent Carosso, at least eight relatives emigrated, and it is likely that Vignes selected the Temecula Land Grant as prime vineyard land.[4]

There is little official documentation of grape growing in Temecula during the latter half of the nineteenth century. Promotion of the region as suitable for vines, however, was widespread. For example, the Illustrated History of Southern California, published in 1890, described Temecula as 100 square miles (64,000 acres) of valley lands and undulating hills. "The soil is adapted to a diversified agriculture: fruit and vine growing will be largely undertaken in the future."[5]

---

2. "Transcipt of the Proceedings in Case #435, Pablo Apis vs. United States, for the Place of Temecula," Land Case Number 55, Bancroft Library, University of California, Berkeley.

3. V.P. Carosso, The California Wine Industry, 1830-95; A Study of the Formative Years (U.C. Press, Berkeley, 1951), p.9.

4. Ibid., p. 8.

5. Illustrated History of Southern California, 1891, p.53.

Vineyards still were not flourishing in 1909 when Frank McDonald wrote "Thriving, Tempting Temecula." He records only one vineyard (no acreage indicated) of Zinfandel and Mission grapes one mile north of Temecula.[6] Temecula's first real viticultural boom began with the advent of Prohibition in 1920. As the price of grapes soared, most if not all of Temecula's farmers took to planting grapes, although not in large acreage. Names like Escallier, Borel, Cazas, Domino and others to this day are recognized by old-time Temecula residents as grape growers of the 1920s and 30s. Their vineyards were scattered throughout the viticultural area.[7]

The second wine boom began in the 1960s, with the coming of Rancho California. Leon Adams, the foremost chronicler of the American wine industry, quickly picked up on the developments in Temecula. In The Wines of America, published in 1973, Adams wrote:

> My chief purpose on this trip just described was not to visit the Cucamonga vineyards, but to see two entirely new Southern districts where there were extensive new plantings of wine grapes. Philo Biane [President of Brookside Vineyard Company] had consented to show me the new Rancho California wine district at Temecula in southwestern Riverside County.[8]

Adams was particularly impressed by the area's micro-climate, of which more later. Andre Tchelistcheff, another California wine notable, added his own observations the following year on the wine potential of Temecula. Interviewed in the Great Winemakers of California, Tchelistcheff stated:

> I've got my hopes... I've even got proof that the greatest rieslings will be produced in the very cold regions of Santa Barbara County and in Temecula in Riverside County. There are two reasons: Riesling matures there very late, as it matures very late in the upper Rhine. And they are grown in gravelly, light granite soils which are available only there.[9]

---

6. F. McDonald, "Thriving, Tempting Temecula," in The Historic Valley of Temecula, H. Parker (ed.), Paisano Press Librito No. 3, Balboa Island, California, 1967.

7. W. Heintz, "Temecula: A Grape and Wine History" (Exhibit I, submitted herewith).

8. L. Adams, The Wines of America (Houghton Mifflin, Boston, 1973), p. 284.

9. R. Benson, Great Winemakers of California: Conversations with Robert Benson (Capra Press, Santa Barbara, California, 1977), p. 110.

Today, there are some 2,500 acres of vines planted in the proposed Temecula viticultural area. The predominant varietal is White Riesling, which accounts for about 30% of the plantings, followed by Chardonnay, Cabernet Sauvignon, Sauvignon Blanc, Chenin Blanc and Petite Sirah. Wineries include Brookside, Callaway, Cilurzo and Piconi, Hugo's Keller and Mount Palomar. Grapes from the proposed appellation also supply premium wineries in other areas of the state, including Franciscan Vineyards Winery, San Martin Winery, Wente Bros. Winery and the Monterrey Vineyard Winery.

In sum, the nonmenclature and historical significance of Temecula are well-established. Designation of the Temecula viticultural area will contribute to the preservation of this distinguished heritage.

Submitted herewith, as Exhibit I, is an historical manuscript by William Heintz, entitled "Temecula: A Grape and Wine History."

2. Geographical Features

The geographical features of Temecula - physical characteristics, soil and climate - sharply distinguish the viticultural area from the surrounding areas in Riverside and San Diego Counties. These unique features, described below, have a marked influence on the quality and distinctiveness of Temecula's grapes and wine.

a. Physical Characteristics

In physiographic terms, the viticultural area of Temecula consists of a 48,000 acre plateau along the southern extension of the Elsinore Mountains and a 51,000 acre basin lying to the east of these mountains. These areas are easily identified by sight and on relief maps.

The Santa Rosa Plateau is named after the Santa Rosa Land Grant in which it is located. The plateau is characterized by two units of surface geology: mesa-forming basalts of some age between Paleocene and early Pleistocene (for example, at Mesa de Burro and Mesa de Colorado) and several outcrops of metamorphic rocks of Mesozoic age (for example, near Santa Rosa Ranch). Although this area is described physiographically as a plateau, it is not entirely flat. Instead, there are several mesas (Mesa de Burro, Mesa de Colorado, Redonda Mesa) with an elevation of between 2000 and 2200 feet and other areas, particularly in the southern portion between Sandia and Temecula Canyons, where the elevation decreases to less than 1000 feet above sea level.

Temecula Basin lies to the east of the Santa Rosa Plateau. It is both a structural and topographic basin of roughly triangular shape. The southern portion of the Elsinore Mountains establishes the northwest to southeast axis of the basin. This part of the mountain range, which follows the Elsinore fault, runs from Wildomar in the north to the Riverside-San Diego county line in the south. The eastern perimeter of the basin is demarcated by Oak Mountain Barrier, a bedrock ridge formed by Oak, Vail and Dorland Mountains. The northern boundary of the structural basin, which separates it from the Perris Block, consists of rolling hills and is less defined than the other boundaries. (See Diagram 1, below, as well as Exhibit II, "Geology of a Portion of the Elsinore Fault Zone," submitted herewith.)

Within Temecula Basin are alluviated plains and sedimentary mesas of relatively low relief. The lowest elevation, which is less than 1000 feet, occurs at the eastern end of Temecula Canyon. The relief of the remainder of the basin, in which are found several valleys, rarely amounts to as much as 500 feet. In contrast to this low, rolling topography, Oak Mountain Barrier, on the eastern side of the basin, is characterized by steep slopes.

All the drainage from the viticultural area (except for one small portion at the western end of the Santa Rosa Plateau) passes to the ocean through Temecula Canyon. (See Diagram 2, below.) The main stream of the region is the Temecula River (or Temecula Creek), whose name changes in the Temecula Canyon to the Santa Margarita River.

b. Soils

The Santa Rosa Plateau contains well-drained soils, with a surface layer of fine sandy loam and sandy loam, which developed in some places in decomposing gabbro and other basic igneous rocks and in other places on metamorphised sandstone and mica-schist. According to the Soil Survey: Western Riverside Area, California, there is no single soil association[10] which predominates on the plateau. In fact, there are three soil associations within this portion of the viticultural area. Not all these soils are suitable for wine grapes; presently there are some 100 acres under vine on the plateau.

---

10. "A soil association is a landscape that has a distinctively proportional pattern of soil. Normally, an association consists of one or more major soils and at least one minor soil." Soil Survey: Western Riverside Area, California, Soil Conservation Service, U.S. Department of Agriculture, 1971, p. 2.

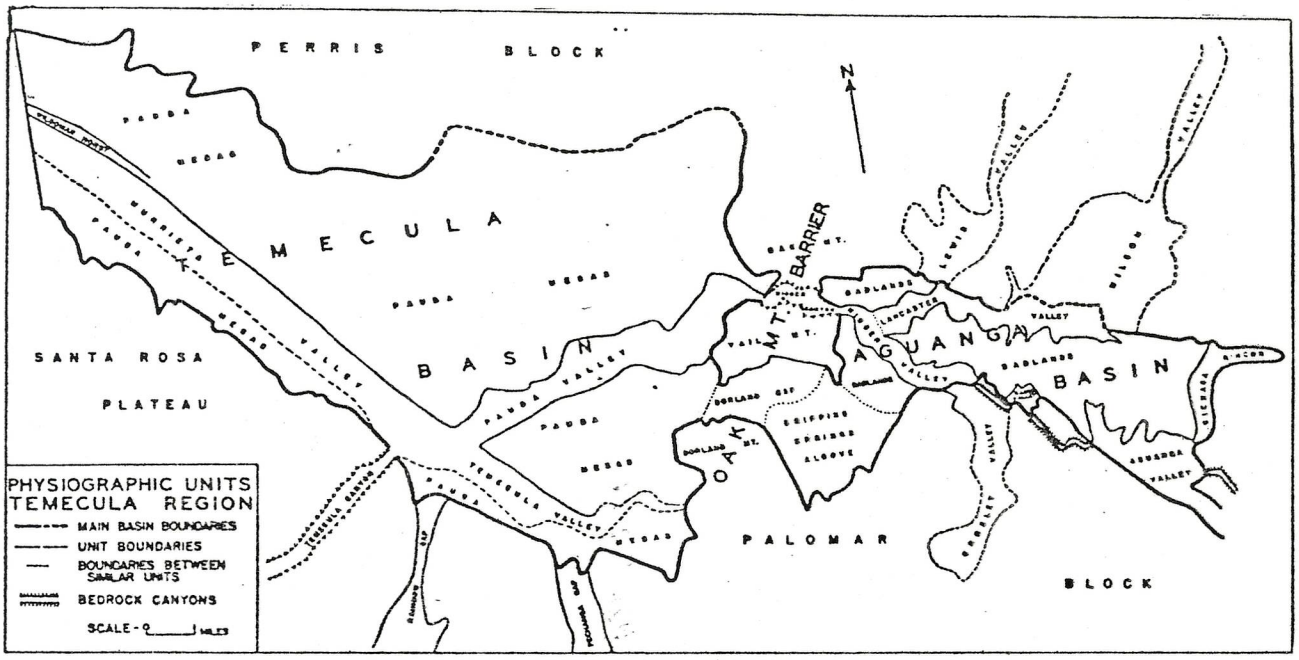


Diagram 1. Physiographic Units of the Temecula Region
Source: "Geology of a Portion of the Elsinore Fault Zone," Exhibit II.

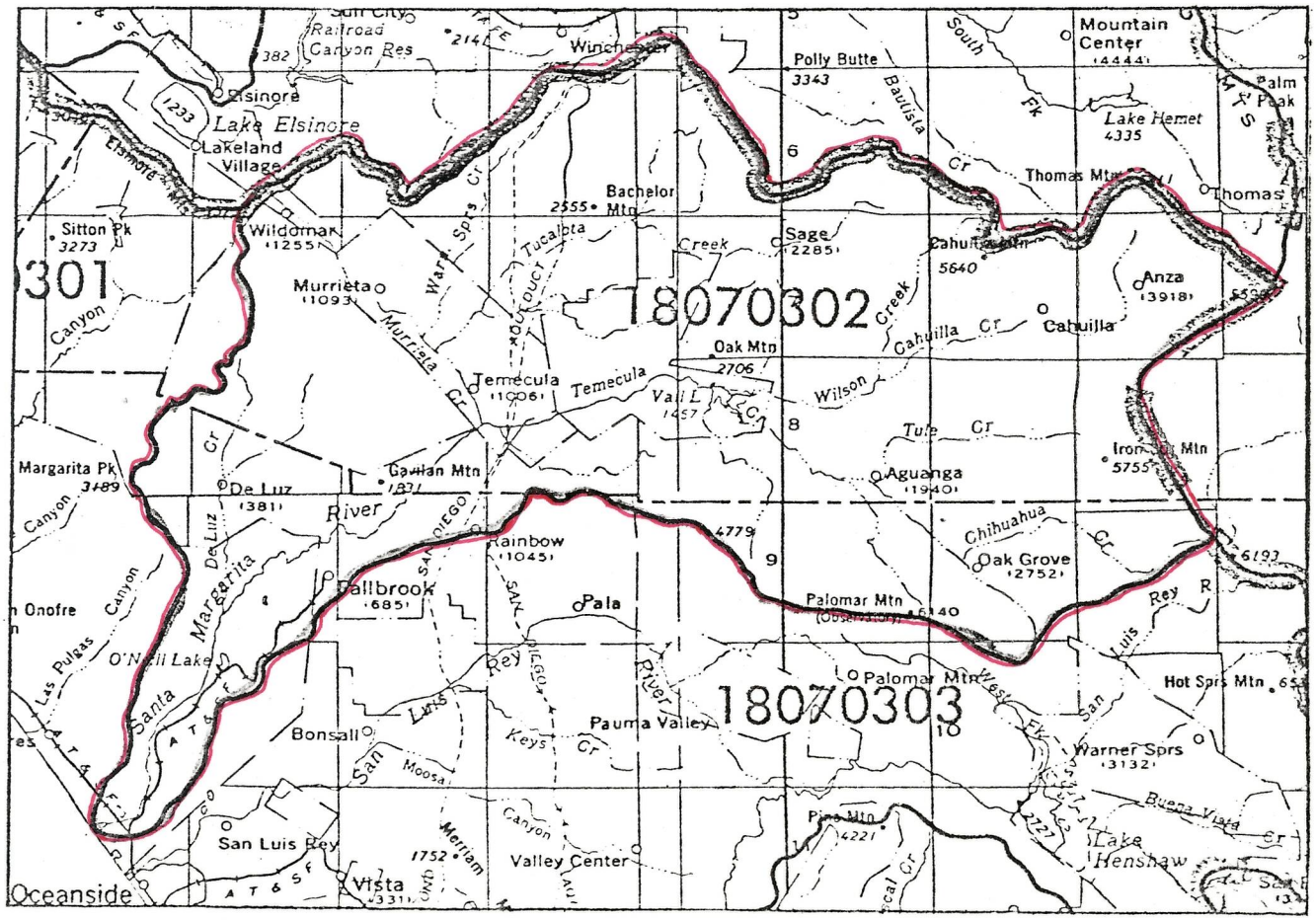


Diagram 2. Santa Margarita River Basin (in red)
Source: "Hydrologic Unit Map - 1978, State of California," U.S.G.S.

The larger Temecula Basin consists of two soil associations - Hanford-Tujunga-Greenfield and Monserate-Arlington-Exeter [11] both of which are considered suitable for wine grapes. The boundaries of these adjoining soil associations coincide almost exactly with those of Temecula Basin. (Compare the geologic map inset in Exhibit II with Exhibit III, "General Soil Map," submitted herewith.) In a typical profile, these basin soils consist of a surface layer of sandy loam which formed in granitic alluvium washed from the uplands. The subsoil is well-drained and moderately deep.

c. Climate

The climate of the Temecula viticultural area is perhaps its most distinguishing feature. In contrast to the hot climate of the surrounding areas (for example, Region V at Elsinore and Sun City), Temecula is cooled in summer and warmed in winter by afternoon ocean breezes which enter through passes in the Santa Rosa Mountains. Thus, the viticultural area has a comparatively cool micro-climate.

This fact has been confirmed by extensive climatological studies conducted by Rancho California. John Moramarco, a well-known viticulturalist in the area who presently works for Callaway Vineyards, discussed this subject in an interview with the Riverside Press-Enterprise, published on November 28, 1970:

> Moramarco found climatological conditions at Rancho California ideal for growing the grape varieties which make premium wines.
>
> A longer growing season allows a slower process of maturing. Grape vines barren of greenery last week near Ontario, were still full of harvest leaves at Rancho California. Climatological studies have shown that although the Rancho land is about 40 miles south of Riverside, the season is three weeks later and longer. Temperatures, critical to wine grapes, are about 12 degrees cooler in the summer than in Riverside.
>
> The temperatures are comparable to the prime wine producing areas which surround Livermore in the north.

The western side of the proposed appellation is the coolest in degree-days because of its direct exposure to cool coastal air, although the Temecula and Pauba Valleys experience a

---

11. See the section on "Estimated Yields" in the aforecited Soil Survey, pp. 82-96.

similar micro-climate (all classified as Region II).[12] Areas farther to the east (for example, Buck Mesa and Long Valley) also are affected by the sea breeze but to a lesser extent. Generally, these areas are Region III, although this varies with elevation and the vagaries of wind patterns. And still farther to the east as well as to the north and south, outside the viticultural area, the rise of the land restricts the marine influence and hotter, continental air prevails (Region V). (See Diagram 3, below.)

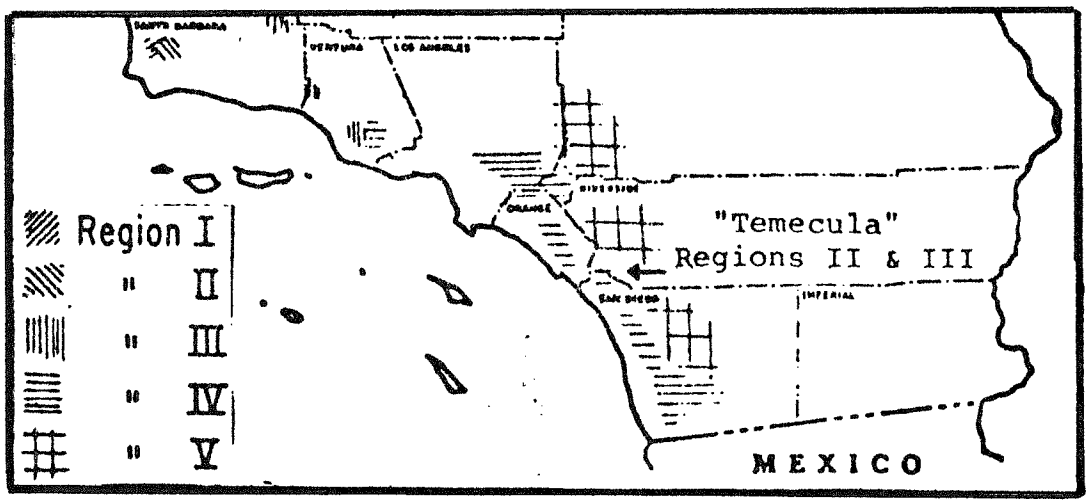


Diagram 3. Climatic Regions of Southern California
Source: A.J. Winkler, et. al., General Viticulture, U.C. Press, 1974, pp. 62-3.

The world "Temeku" itself is a reference to the area's climate. Roughly, it means "in the mist of the morning sun" or "glare of the morning sun." This name, by which the Indians of the area referred to themselves, strongly suggests that the Temeku Indians awoke to fog penetrated by bright sunlight. Viticulturally speaking, this fog, which forms on cool nights, is not hazardous to the vine because it is penetrated by sunlight and generally burns off completely by mid-morning.

---

12. Professors Amerine and Winkler (1944) used heat summation data to segregate the grape-producing areas of California into five climatic regions: I, less than 2500 degree-days; II, 2501 to 3000 degree-days; III, 3001 to 3500 degree-days; IV, 3501 to 4000 degree-days; and V, more than 4000 degree-days. Heat summation means the sum of the mean monthly temperature above 50°F. for the period from April through October. The base line is set at 50°F. because the grape does not grow or mature its fruit below this temperature. The period chosen represents the growing season. The summation is expressed in degree-days.

The Temecula area is semi-arid. Within the viticultural area there is some mild variation in precipitation due to terrain differences. Individual frontal storms generally move from the coast inland (southwest to northeast). As the moving air encounters hills and mountains, precipitation is increased due to the effect of the mountains, with air being forced aloft. This produces a pattern in which precipitation is heaviest (on the order of 20 inches per year) on the Santa Rosa Plateau. In the more interior parts of the viticultural area, precipitation declines to 10 to 13 inches per year.

As is usual for this climatic zone, the precipitation is concentrated in the winter months. During the growing season, the vines are irrigated with groundwater from within the viticultural area.

3. Boundaries

The proposed appellation is formed by physically distinct boundaries. The Temecula Valley floor and the western ridge which forms a side of the valley are easily identifiable to one viewing the area. The boundaries of the Temecula viticultural area (referred to herein as "the boundary") are located on the following 7.5-minute U.S.G.S. maps: Wildomar, Fallbrook, Murrietta, Temecula, Bachelor Mountain, Pechanga and Sage. These seven maps are submitted under separate cover, with the boundary marked prominently in red.

The beginning point of the boundary lies to the north of Cole Canyon at the intersection of longitude line 117°15' and the Santa Rosa Land Grant boundary. The boundary follows the Santa Rosa Land Grant boundary, first in a northwesterly direction, then to the southwest. The boundary, the Santa Rosa Land Grant boundary and the Riverside-San Diego county line converge and proceed to the southwest and then southeast. The boundary continues to follow the Santa Rosa Land Grant boundary after the county line diverges.At the intersection with the Temecula Land Grant boundary, the boundary proceeds along that land grant boundary to the southeast, past the San Diego Aqueduct, and then to the northeast, to the Little Temecula Land Grant boundary.

Following the Little Temecula Land Grant boundary in a southeasterly and then a northeasterly direction, the boundary joins the Pauba Land Grant boundary. It travels southeast and then northeast along the Pauba Land Grant boundary and includes the following adjoining section:

Township	Range	Section Number
8 South	2 West	13

From this section, the boundary travels north along range line R2W/R1W, past State Highway 71/79, to the 1400-foot contour line of Oak Mountain. The boundary follows this contour line to the 117°00' longitude line. Traveling north less than one mile along that longitude line, the boundary rejoins the Pauba Land Grant boundary.

The boundary follows the Pauba Land Grant boundary to the west for less than one mile and then to the northeast. While continuing to follow the Pauba Land Grant boundary to the west, the boundary is enlarged to include the following sections which lie between the Pauba and Temecula Land Grants:

Township	Range	Section Number
7 South	2 West	13,22,21,33, 28,29,30,20,19
7 South	3 West	24

The boundary then rejoins the Temecula Land Grant boundary and travels along it in a northwesterly direction. The boundary continues to follow the Temecula Land Grant boundary to the southwest. At the intersection with the Santa Rosa Land Grant boundary, the boundary travels to the northwest, along the Santa Rosa Land Grant boundary, to the beginning point.

It should be noted that the boundaries of Santa Rosa, Temecula, Little Temecula and Pauba Land Grants have been utilized to demarcate large portions of the viticultural area. These land grants are readily identifiable on the U.S.G.S. maps.

The boundary of the Temecula viticultural area thus coincides to a considerable degree with the boundaries of Santa Rosa, Temecula, Little Temecula and Pauba Land Grants. The boundary departs from these land grant boundaries only when the area in question is markedly similar to, or different from, the viticultural area in its historical associations and viticultural features.

Two such areas are worthy of mention. First, the sections which have been added in the northern portion of the viticultural area are all part of Temecula Basin. They possess the same soil associations as are found in the basin. They experience the same general micro-climate. And there are some 300 acres currently under vine there (specifically, in section 13, township 7 south, range 2 west). Second, the area around Vail Lake has been excluded from the viticultural area because it is part of Oak Mountain Barrier at the eastern end of Temecula Basin. The elevation there rises rapidly to as high as 2100 feet, and the soil types differ from those of the basin. Finally, this area, known as Vail Lake - Butterfield Country, is a private recreational development without any vines.

* * * * * *

To summarize, the Rancho California/Temecula Winegrowers Association, having as its membership virtually all of such winegrowers, respectfully requests that the Bureau of Alcohol, Tobacco & Firearms determine that the viticultural area

described in this petition be designated an appellation bearing the name "Temecula". This petition is based upon the facts that the area has a common history, including a history of viticultural activity; that the area is geographically distinct and viticulturally different from surrounding wine grape areas; that the wine grapes produced from the proposed appellation reflect the common weather pattern of the area; that grapes from the area are used by wineries in other areas to produce premium wines; and that it is in the wine consumer's interest to identify wine produced from Temecula grapes whether such wine is produced by Temecula wineries or by wineries located elsewhere.

In the opinion of petitioners, the Temecula appellation, as described herein, is both truthful, in terms of the accuracy of the information presented, and meaningful, insofar as Temecula represents a viticulturally distinct area.

Respectfully submitted,

RANCHO CALIFORNIA/TEMECULA
WINEGROWERS ASSOCIATION

BY: Joan C. Hanley

Enclosures include the following exhibits and maps:

- Exhibit I, "Temecula: A Grape and Wine History"
- Exhibit II, "Geology of a Portion of the Elsinore Fault Zone;"
- Exhibit III, "General Soil Map;"
- seven, 7.5-minute U.S.G.S. maps: Wildomar, Fallbrook, Murietta, Temecula, Bachelor Mountain, Pechanga and Sage. (By separate cover.)

C. RICHARD LEMON

DICKENSON, PEATMAN & FOGARTY
ATTORNEYS AT LAW
809 COOMBS STREET
NAPA, CALIFORNIA 94558
TELEPHONE 707-252-7122

ST. HELENA OFFICE
1360 ADAMS STREET
TELEPHONE 963-7149

July 21, 1981

Mr. John Linthicum
Bureau of Alcohol, Tobacco and Firearms
Department of Commerce
P.O. Box 385
Washington, D.C. 20044

Dear Mr. Linthicum:

Enclosed please find the following documents which supplement the section on climate in the Temecula viticultural area petition:

1. "Southwest Territory General Plan Research and Analysis Report," Riverside County Planning Department, April, 1977. Chapter II of this report is concerned solely with climate.

2. A listing of heat summation calculations for several weather stations within and outside of the proposed viticultural area. Exact locations of these weather stations are noted on the attached maps. I have not forwarded the raw data from which the calculations were made, as these comprise hundreds of pages.

3. A copy of a map, prepared by the Cooperative Extension Service, showing heat summation isobars for Napa Valley.

4. A copy of page 30 of Bill Heintz's manuscript, "Temecula: A Grape and Wine History."

The above climatological data suggest that the viticultural area of Temecula is characterized by its coolness. Compared to the immediately surrounding areas which are in Regions IV and V, the Temecula viticultural area is predominantly in Regions II and III. Moreover, the micro-climatic variations which exist within the viticultural area are no more significant than those found in other appellations, for example, Napa Valley.

We contend, therefore, that the proposed viticultural area is distinguished from surrounding areas by virtue of its cool climate. This climatic distinction is both accurate

and meaningful to consumers. We contend also that it would be unjustified to exlude the western ridge from the viticultural area insofar as the climatological data suggest that the coolest positions of a generally cool area lie on and along that ridge. Although to date the plantings in this area are quite limited, the area has perhaps the highest potential for quality premium table wine grapes in the entire viticultural area.

I trust this information will suffice for your purposes. If it does not, please do not hesitate to call.

Very truly yours,

DICKENSON, PEATMAN & FOGARTY

C. RICHARD LEMON

CRL:tj
Enclosures

HEAT SUMMATION CALCULATIONS

1. Within the Viticultural Area. The following are based on Rancho California micro-climatic data:

Weather Station*	Elevation	1971	1972	1973	3-Year Average
P2	1375'	3528	3452	4101	3694(IV)
P-6	1446'	3447	3390	3442	3426(III)
SR-11	1230'	2686	2517	3148	2783(II)

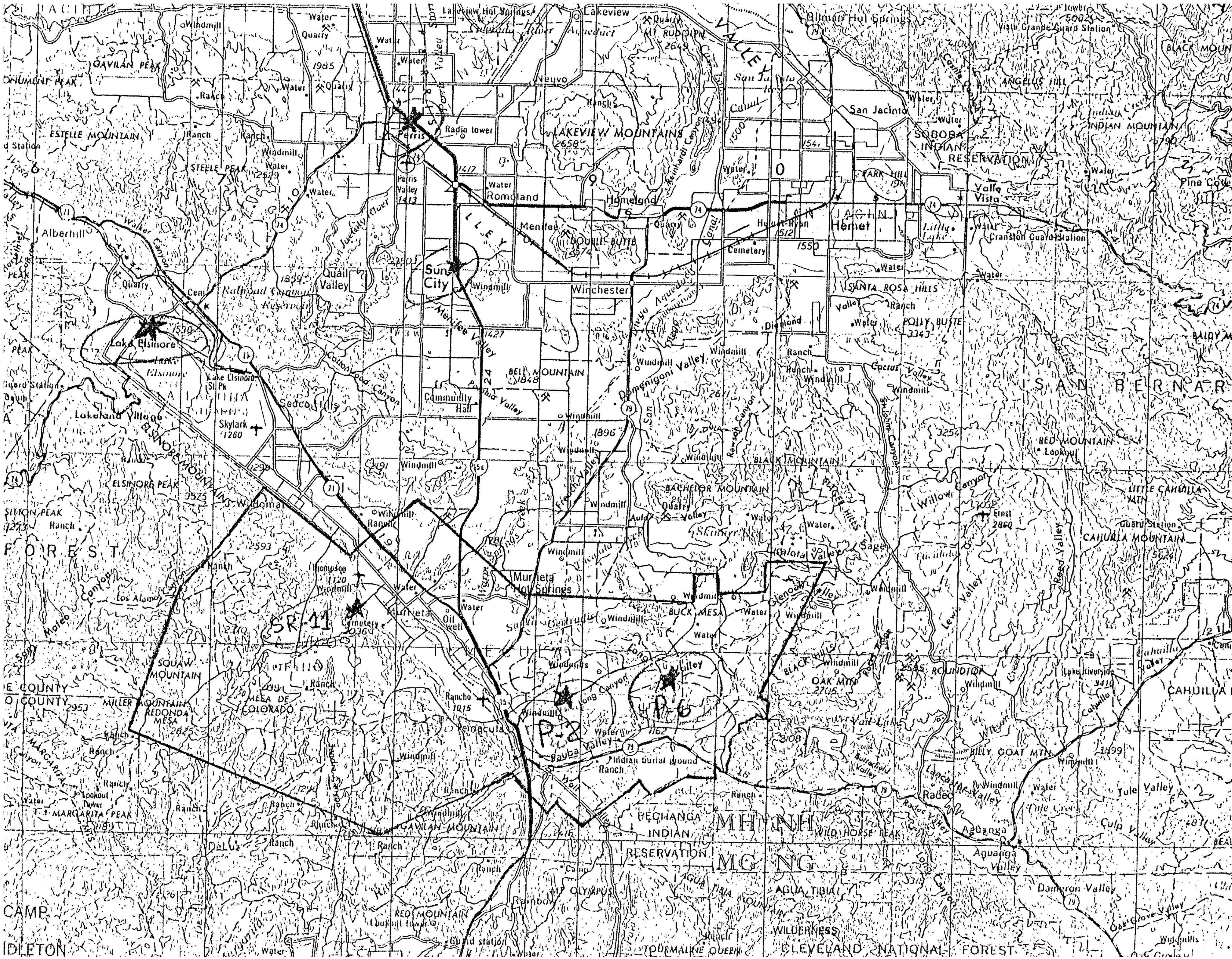
*Location marked on accompanying Rancho California map.

2. Outside the Viticultural Area. The following are based on data compiled by the National Oceanic and Atmostpheric Administration (NOA), National Climatic Center, Department of Commerce.

Weather Station	1971	1972	1973	3-Year Average
Elsinore	4368	4461	4232	4354(V)
Perris	3937	4175	*	4056(V)
Sun City	*	*	4317	4317(V)

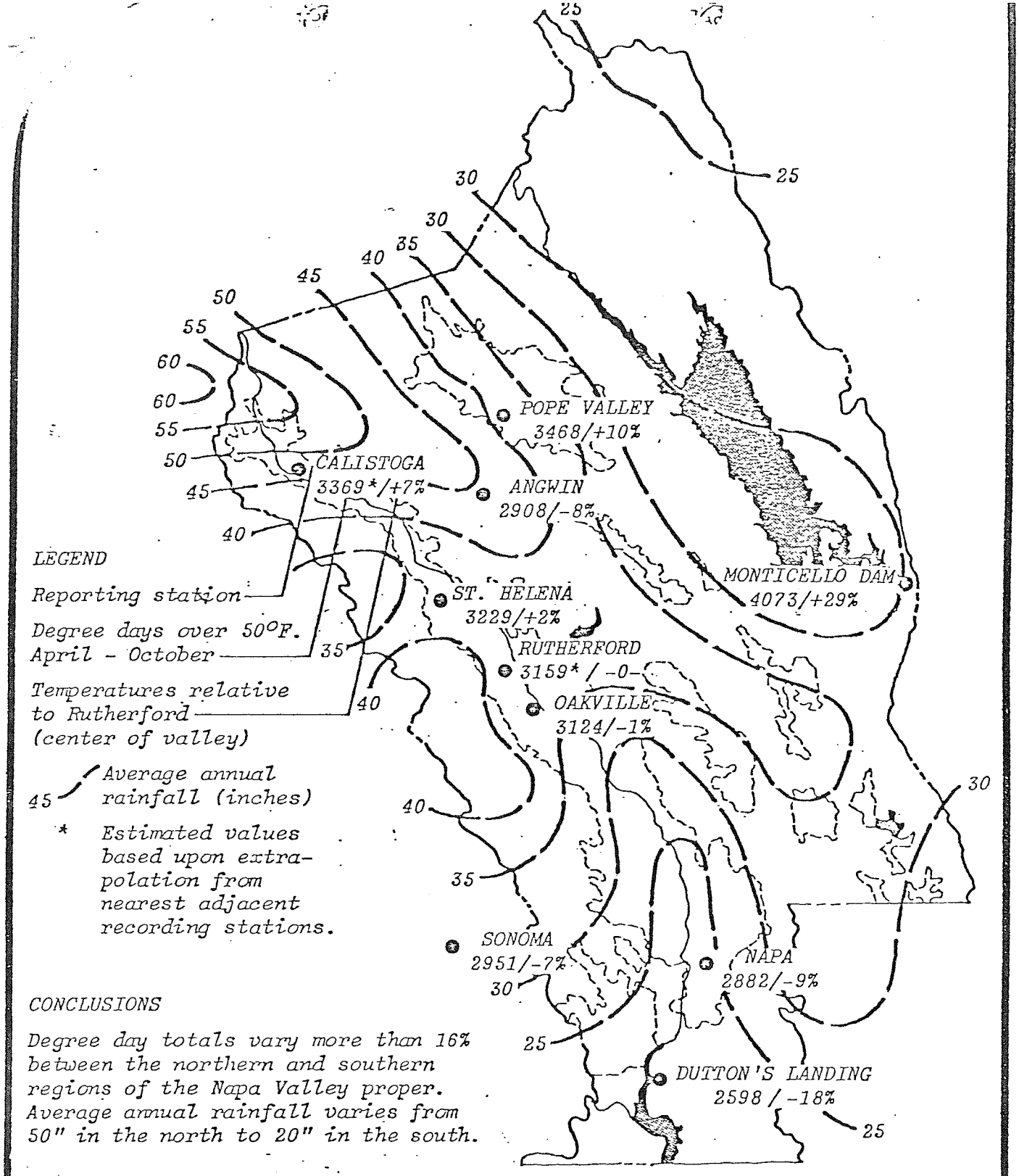
*No data reported.

Note: There are no other tracking stations in the immediate vicinity of the viticultural area.



Lakeview
Perris
Sun City
Lake Elsinore
Nuevo
Romoland
Homeland
Menifee
Winchester
San Jacinto
Hemet
Valle Vista
LAKEVIEW MOUNTAINS
SOBOBA INDIAN RESERVATION
Quail Valley
Lakeland Village
Wildomar
Murrieta
Murrieta Hot Springs
Temecula
BUCK MESA
SR-11
P-2
PECHANGA INDIAN RESERVATION
Aguanga
CLEVELAND NATIONAL FOREST


VITICULTURAL AREA
Perris
Sun City
Lake Elsinore
Hemet
San Jacinto
Homeland
Romoland
Menifee
Winchester
Quail Valley
Sedco Hills
Lakeland Village
Skylark 1260
Wildomar
Murrieta
Murrieta Hot Springs
Temecula
Rancho 1015
Lakeview
Lakeview Hot Springs
Nuevo
Gilman Hot Springs
Valle Vista
Hemet-Ryan 1512
Perris Valley 1413
Alberhill
Aguanga
Radec
PECHANGA INDIAN RESERVATION
SOBOBA INDIAN RESERVATION
RIVERSIDE COUNTY
SAN DIEGO COUNTY
LAKEVIEW MOUNTAINS 2658
MT RUDOLPH 2649
BERNASCONI HILLS
DOUBLE BUTTE 2574
SANTA ROSA HILLS
POLLY BUTTE 3343
BELL MOUNTAIN 1848
BACHELOR MOUNTAIN 2555
BLACK MOUNTAIN
BUCK MESA
BLACK HILLS
OAK MTN 2706
ROUNDTOP
BILLY GOAT MTN
CAHUILLA MOUNTAIN 5624
LITTLE CAHUILLA MTN
RED MOUNTAIN Lookout
ELSINORE MOUNTAINS
ELSINORE PEAK 3575
SITTON PEAK
SQUAW MOUNTAIN
MILLER MOUNTAIN
REDONDA MESA 2825
MESA DE COLORADO
GAVILAN MOUNTAIN
GAVILAN PEAK
MONUMENT PEAK
ESTELLE MOUNTAIN
STEELE PEAK 2529
MARGARITA PEAK
SANTA MARGARITA MTS
WILD HORSE PEAK
AGUA TIBIA MOUNTAIN
MT OLYMPUS
ANGELUS HILL
INDIAN MOUNTAIN 5790
PARK HILL
SAN BERNARDINO
FOREST
Menifee Valley
Paloma Valley
Domenigoni Valley
French Valley
Tucalota Valley
Glenoak Valley
Long Valley
Pauba Valley
Wolf Valley
Lewis Valley
Reed Valley
Cactus Valley
Auld Valley
Butterfield Valley
Lancaster Valley
Radec Valley
Aguanga Valley
Tule Valley
Culp Valley
Dameron Valley
Oak Grove Valley
Cottonwood Canyon
Walker Canyon
Los Alamos Canyon
San Mateo Canyon
Sandia Canyon
Long Canyon
Willow Canyon
Rawson Canyon
St Johns Canyon
Reinhardt Canyon
Castile Canyon
Indian burial ground
Thompson 1120
Ernst 2860
Lake Riverside 3410
Cranston Guard Station
Vista Grande Guard Station
Community Hall
Oil well
Cemetery
DeLuz
Rainbow
Pine Cove
MH NH
MG NG

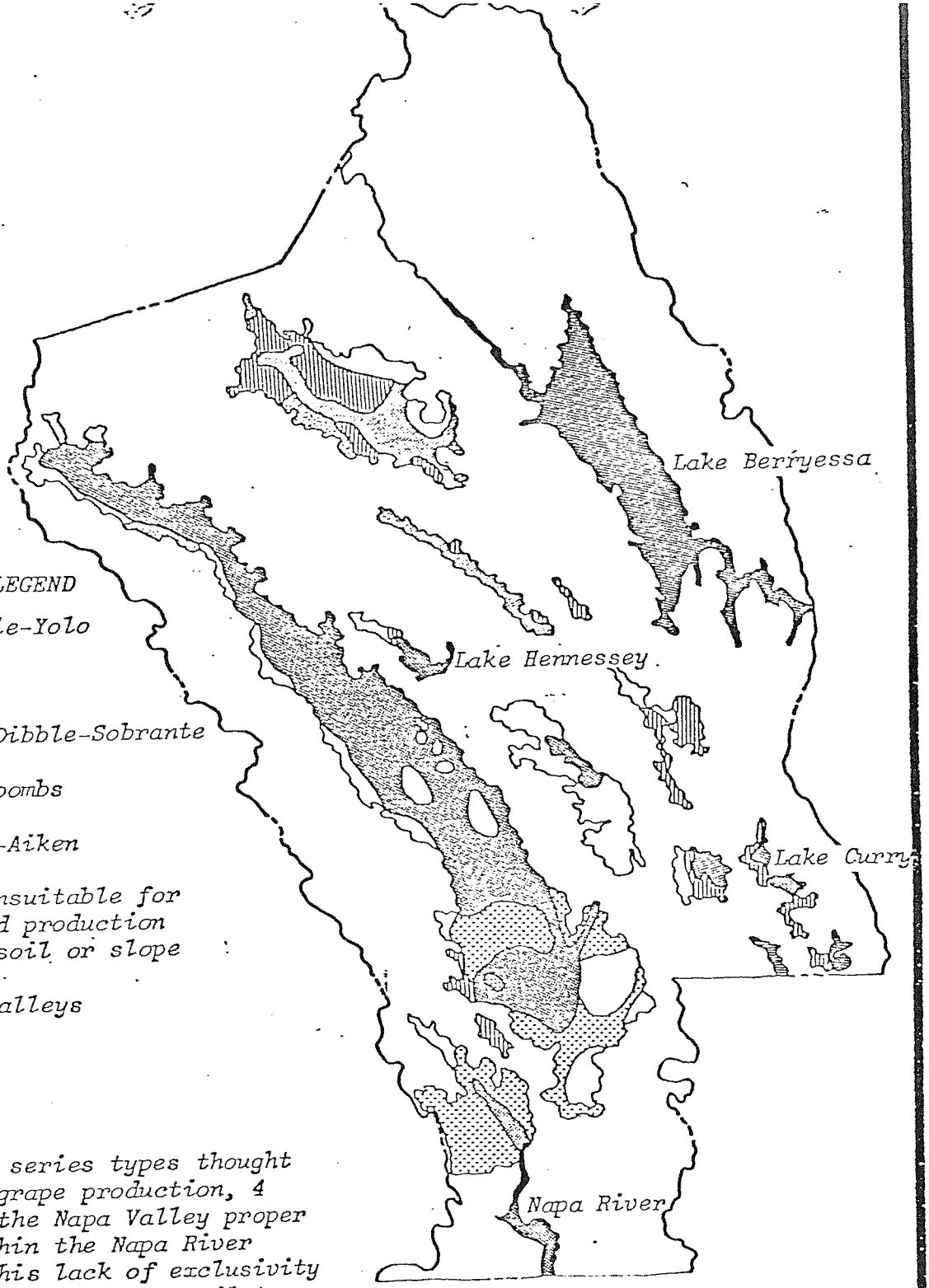


CONCLUSIONS

Degree day totals vary more than 16% between the northern and southern regions of the Napa Valley proper. Average annual rainfall varies from 50" in the north to 20" in the south.

SOURCE

Cooperative Extension, University of California, Napa Valley



SOILS SERIES LEGEND

- Bale-Cole-Yolo
- Tehama
- Bressa-Dibble-Sobrante
- Haire-Coombs
- Forward-Aiken
- Areas unsuitable for vineyard production due to soil or slope
- Major Valleys

CONCLUSIONS

Of the 5 soil series types thought suitable for grape production, 4 are found in the Napa Valley proper and all 5 within the Napa River Watershed. This lack of exclusivity makes it difficult to use soil type as a determinant in setting the viticultural area boundary (unless a zone smaller than the Napa Valley floor is to be advocated).

SOURCE

U.S.D.A. Soil Conservation Service in cooperation with the University of California Experimental Station

TEMECULA: A GRAPE AND WINE HISTORY

A brief look at a rediscovered viticulture region in Southern California with its own distinctive climate and which was once the locale for RAMONA, one of the most famous novels in American literature.

By

William F. Heintz

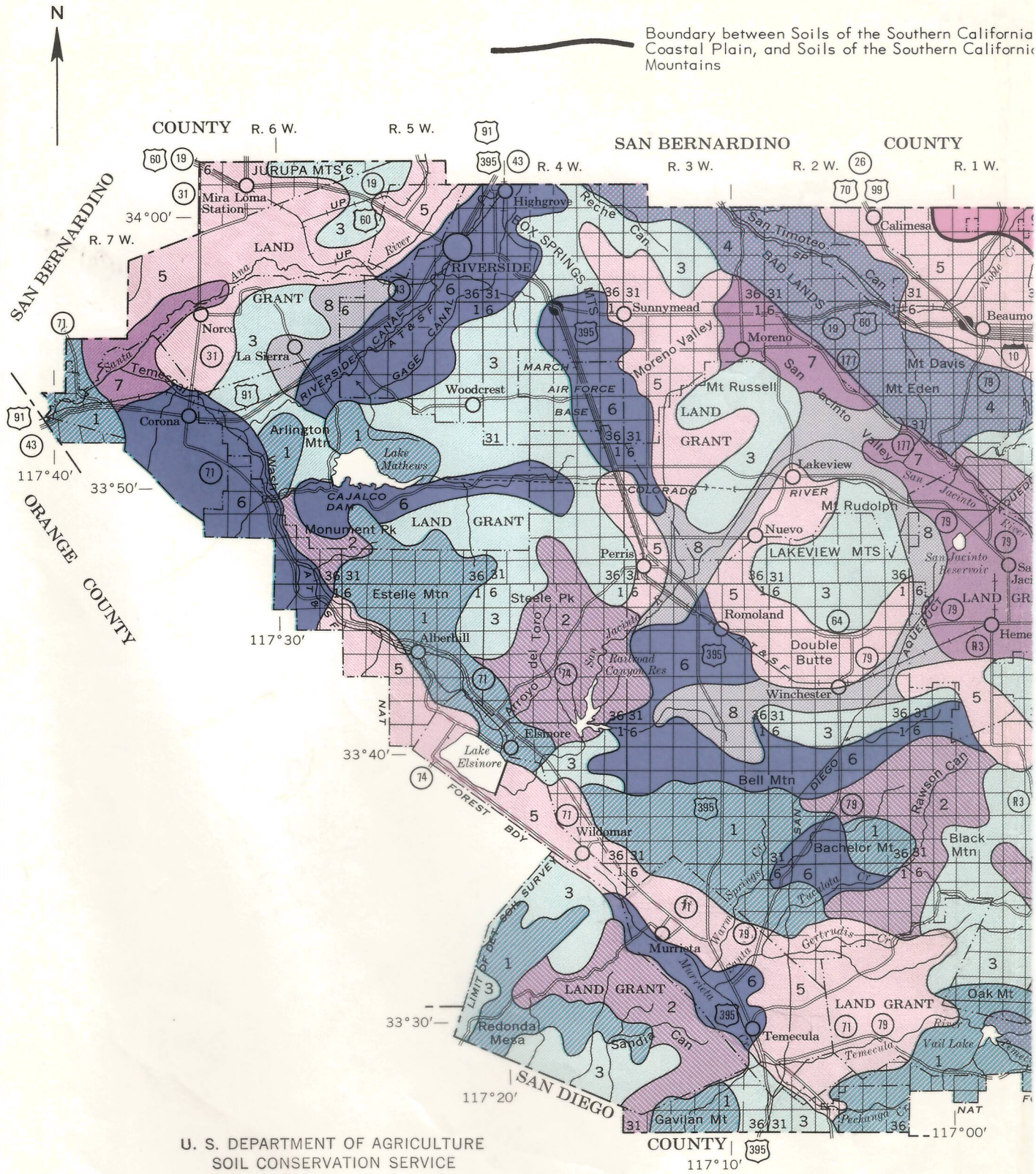
EXHIBIT II

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

GEOLOGY OF A PORTION OF THE
ELSINORE FAULT ZONE
CALIFORNIA

SPECIAL REPORT 43

DIVISION OF MINES
FERRY BUILDING, SAN FRANCISCO



GENERAL SOIL MAP

WESTERN RIVERSIDE AREA, CALIFORNIA

EXHIBIT III

SOIL ASSOCIATIONS

SOILS OF THE SOUTHERN CALIFORNIA COASTAL PLAIN

1 — Cajalco-Temescal-Las Posas association: Well-drained, undulating to steep, moderately deep to shallow soils that have a surface layer of fine sandy loam and loam; on gabbro and latite-porphyry

2 — Friant-Lodo-Escondido association: Well-drained and somewhat excessively drained, undulating to steep, shallow to deep soils that have a surface layer of fine sandy loam and gravelly loam; on metamorphosed sandstone and mica-schist

3 — Cieneba-Rock land-Fallbrook association: Well-drained and somewhat excessively drained, undulating to steep, very shallow to moderately deep soils that have a surface layer of sandy loam and fine sandy loam; on granitic rock

4 — Badland-San Timoteo association: Well-drained, rolling to very steep, moderately deep calcareous loam, and very shallow soils; on inland sea sediment and soft sandstone

5 — Hanford-Tujunga-Greenfield association: Very deep, well-drained to excessively drained, nearly level to moderately steep soils that have a surface layer of sand to sandy loam; on alluvial fans and flood plains

6 — Monserate-Arlington-Exeter association: Well-drained, nearly level to moderately steep soils that have a surface layer of sandy loam to loam and are shallow to deep to a hardpan

7 — San Emigdio-Grangeville-Metz association: Very deep, poorly drained to somewhat excessively drained, nearly level to strongly sloping soils that have a surface layer of calcareous loamy sand to loam; on alluvial fans and flood plains

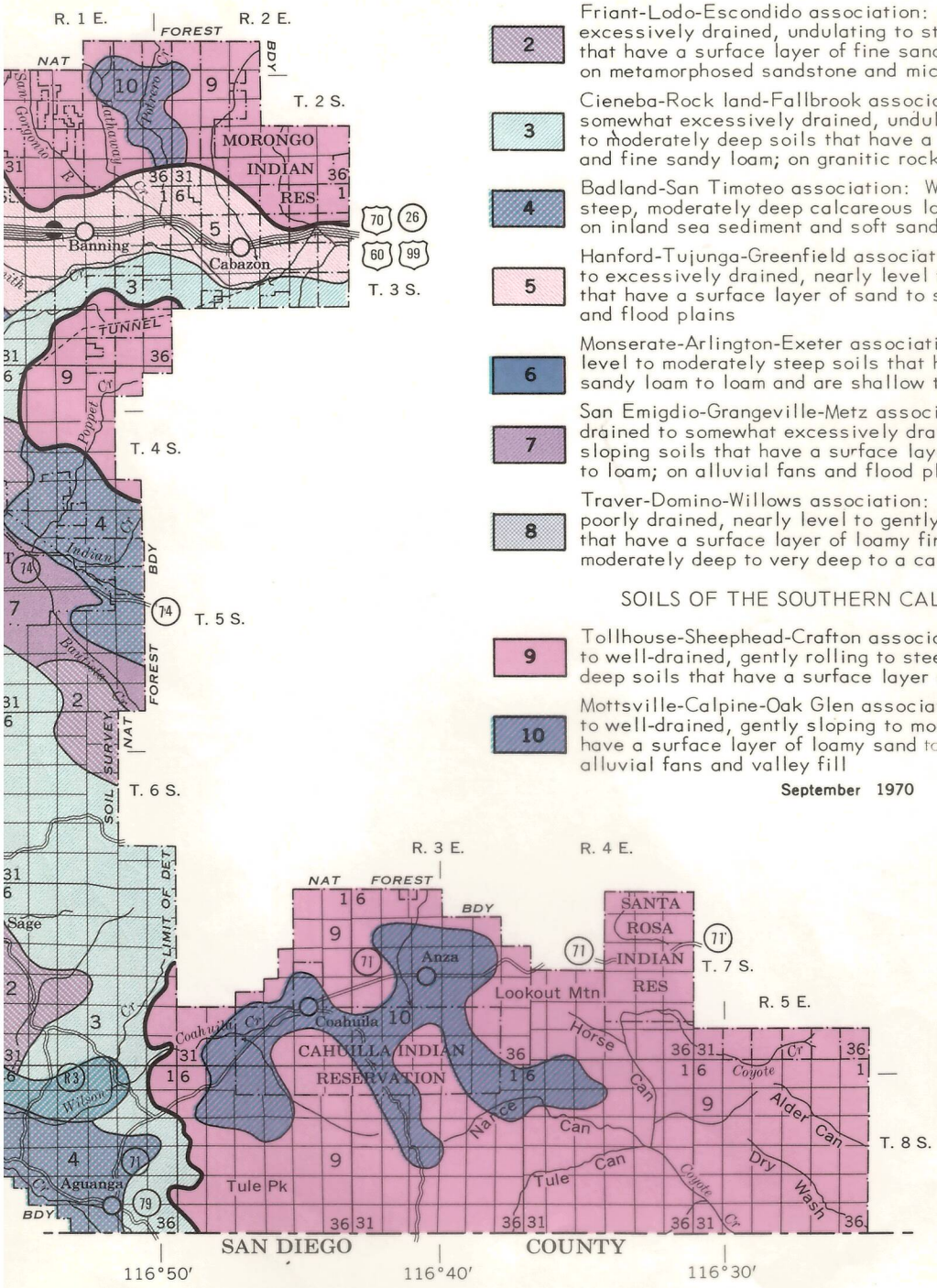
8 — Traver-Domino-Willows association: Moderately well drained to poorly drained, nearly level to gently sloping, saline-alkali soils that have a surface layer of loamy fine sand to silty clay and are moderately deep to very deep to a calcareous hardpan

SOILS OF THE SOUTHERN CALIFORNIA MOUNTAINS

9 — Tollhouse-Sheephead-Crafton association: Excessively drained to well-drained, gently rolling to steep, shallow to moderately deep soils that have a surface layer of loam; on granitic rock

10 — Mottsville-Calpine-Oak Glen association: Excessively drained to well-drained, gently sloping to moderately steep soils that have a surface layer of loamy sand to fine sandy loam; on alluvial fans and valley fill

September 1970



Scale 1:380,160

1 2 3 4 5 6 Miles

NOTE—

This map is intended for general planning. Each delineation may contain soils having ratings different from those shown on the map. Use detailed soil maps for operational planning.