

SELECTED REGIONAL FORCES OF THE LAND USE SYSTEM
OF THE UPPER NAPA VALLEY OF CALIFORNIA SINCE 1950

by

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A RESEARCH PAPER

submitted to

THE DEPARTMENT OF GEOGRAPHY

OREGON STATE UNIVERSITY

in partial fulfillment of
the requirements for the
degree of

MASTER OF SCIENCE

May 1967

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SELECTED REGIONAL FORCES OF THE LAND USE SYSTEM OF THE UPPER NAPA VALLEY OF CALIFORNIA SINCE 1950¹

ABSTRACT. The Upper Napa Valley land use system is presently agricultural and epitomized by vineyards of quality wine grapes. As the San Francisco Bay Urban Area continues to expand the Upper Napa Valley is brought into closer proximity to the urban margin, and its agricultural usefulness is being threatened. Whether the upper valley will remain agricultural or succumb to urbanization depends upon the implementation of controls which can produce a compatible combination of both agricultural and urban design.

THE STUDY THEME

During the decade 1920-1930 the total farm acreage in the United States began to decline; however, it was not until about 1950 that a pronounced nationwide decrease became evident. Between 1950 and 1964 the national decrease totaled approximately 51 million acres.² The conversion of land to non-farm use is continuing at a somewhat accelerated rate throughout the nation. Professor Higbee has aptly indicated that the principal cause of wholesale conversion of farm land is "human glaciation,"³ which, of course, is directly related to the forces making possible and necessary an increase in secondary and tertiary occupations.

It is recognized that California has undergone rapid population growth during the past twenty years, and that the focal points have been the conurbations of Los Angeles and San Francisco. Initially the centripetal force in each area was the urban core, thus

emphasizing as well as bolstering its functional importance.

Eventually, and often simultaneously, the centrifugal forces were set in motion and small, outlying towns soon became bedroom communities. As population continued to burgeon many of these communities became full-fledged suburbs.

The rapid changes that have occurred in the land use system of these areas has focused the writer's interest on the forces underlying urban sprawl. More particularly her interest has been centered upon the problems of controlling the conversion of prime agricultural land to urban uses. To examine these the Upper Napa Valley has been chosen as a case study. This area appears to be satisfactory for the purpose because:

- 1) Urban encroachment has not yet had major impact on the study area. However, if the upper valley is viewed within the regional context of the San Francisco Bay Area it seems apparent that it will become part of a typical pattern that is nationally manifest.
- 2) A local awareness of the situation, bolstered by the advantage of retrospect of other urbanization trends within the Bay Area, may generate into counter forces to preserve the present land use system. If newly enacted enabling legislation and forceful techniques are effectively implemented the conversion of prime agricultural land can be

retarded or perhaps even prevented.

The Napa Valley and Its Relation to the
San Francisco Bay Urban Area

Space adjusting techniques of the twentieth century have brought the Napa Valley within easier reach of the urban core of San Francisco and closer to its advancing margin (Fig. 1). An influx of residents into the lower valley has already wrought a significant change in land use and sprawl has become evident there.

A Department of Commerce report indicates considerable growth for Napa County during the period 1960-2020. According to the projected figures the lower valley will experience the more pronounced rate of growth but the upper valley will also be affected. As a percent of the total Bay Area during the years 1960, 1990 and 2020, Napa County projections were 1.8, 2.6 and 4.6 percent respectively.⁴

TABLE 1. --SELECTED POPULATION PROJECTIONS FOR NAPA COUNTY AND THE SAN FRANCISCO BAY AREA (COMPRISED OF NINE BAY COUNTIES), 1960-2020

Locale	(In Thousands) 1960	1980	2000	2020
San Francisco Bay Area	3,752	5,729	8,261	14,410
Napa County	67	126	243	655
(Township area of:)				
Napa City	54	111	198	558
St. Helena	10	12	39	81
Calistoga	3	3	6	16

Source: U. S. Department of Commerce, 1959⁵

BAY REGION INCORPORATED CITIES BY COUNTY



Colored Area includes 9 county San Francisco Bay Area
Each circle = 10 miles

Source: Greater San Francisco Chamber of Commerce⁶

Fig. 1.

Research Base for the Study

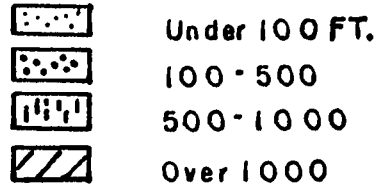
The Napa Valley, a northwest-southeast trending structural valley, is bounded on the south by the tidal marshes of San Pablo Bay. It is approximately forty miles long and varies in width from three miles in the lower valley to about one mile in the upper valley (Fig. 2). The valley is the largest lowland within Napa County and functions as its political and economic nucleus. The City of Napa, situated in the lower valley, lies approximately fifty miles northeast of the City of San Francisco.

The Upper Napa Valley, for the purposes of this study, has been delimited on the south by the Oakville Cross Road and Conn Creek. The southern boundary, thus defined, is coterminous with the arbitrary boundary utilized by various governmental agencies for dividing the upper and lower Napa River watersheds. The boundaries on the east, west and north are coterminous with the cultivated land and in most instances do not exceed the 400 foot contour. The peripheral slopes covered with natural vegetation were not included in the study.

The writer interpreted 1953 U. S. Department of Agricultural aerial photographs for the area described to determine the land use system during the early 1950's.⁷ To gain understanding of the present situation data from a 1960 California Department of Water

RELIEF

LEGEND



C = Calistoga

SH = St. Helena

R = Ruthford

O = Oakville

Y = Yountville

N = Napa

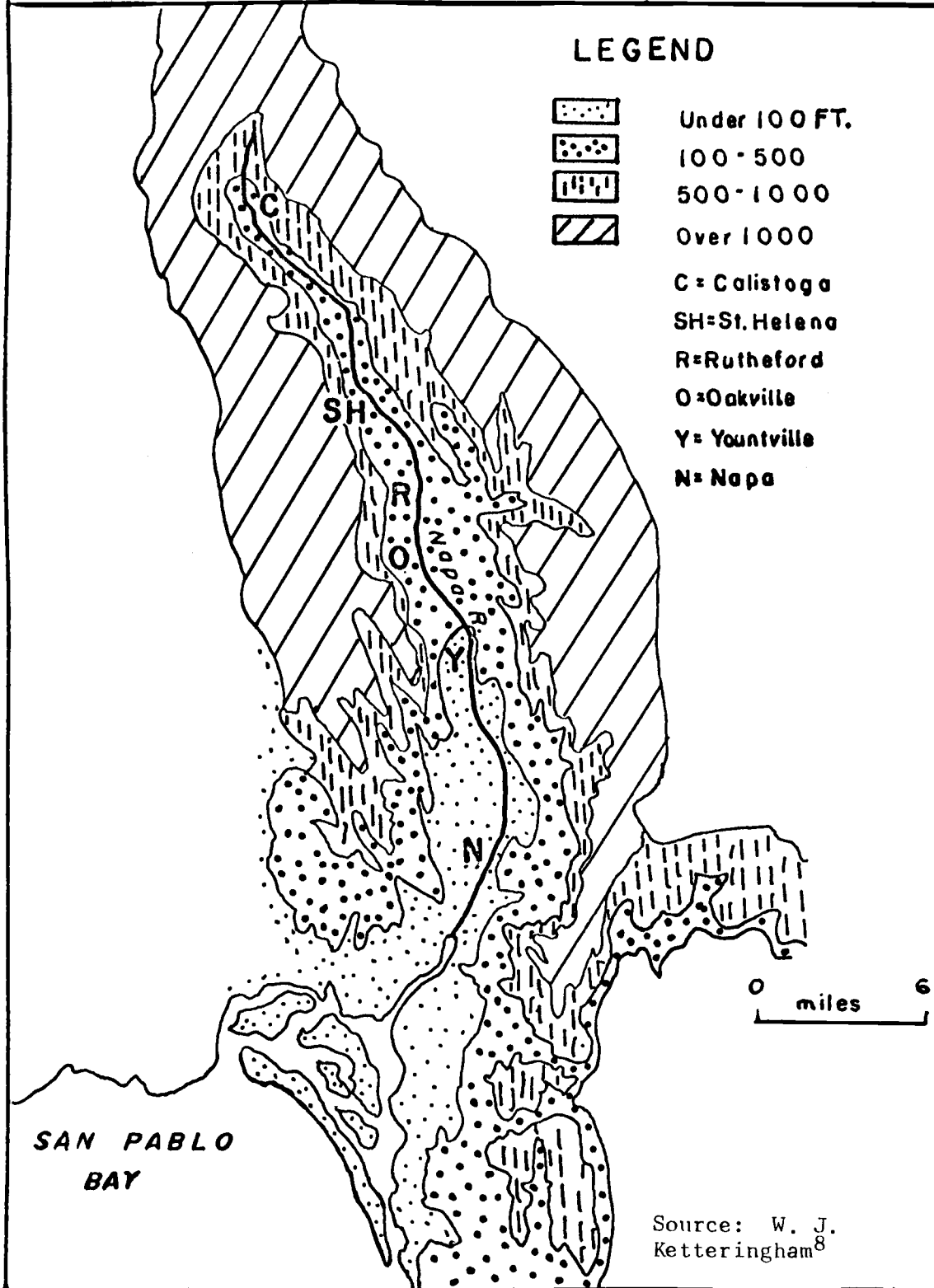


Fig. 2.

Resources land use study⁹ were analyzed and updated by field observations and interviews. By measuring acreages on the 1953 photographs and the 1960 land use maps (prepared by the Water Resources Department) the writer was able to compare land use change during a seven year period.

THE EVOLUTION OF THE PRESENT LAND USE SYSTEM

The present land use system of the upper valley had its genesis during the mid-nineteenth century. Vineyards and orchards were the dominant element of the land use system by 1872.¹⁰ The present tranquil landscape continues to reflect the productivity of the basic resource--the land. Napa Valley residents, both old and new, are proud of their heritage; and, although the lower valley is undergoing urbanization, their expressed concern reflects a desire to retain the predominantly agricultural system in the upper valley.

Whereas rampant conversion to urban uses has not occurred in the Upper Napa Valley, change could become imminent. The valley is well endowed with the natural features of terrain and climate. In addition, the experience and skill of both the viticulturist and the enologist have combined to make the Napa Valley one of California's select regions of premium wine production. California is the nation's leading grape and wine producer; however, the two are not completely interchangeable, whereas all grapes can produce

wine only a small percentage of the state's crop produces premium wine, thus the uniqueness of the Napa Valley.

During the period 1950-1960 only limited acreage and population changes occurred in the upper valley. What change did occur, perhaps, reflects an effort to preserve the upper valley. Although boundaries differed somewhat it is possible to draw a few conclusions from analysis of the 1953 and 1960 land use records.¹¹

TABLE 2. --ACREAGE COMPARISON OF 1953 AND 1960 UPPER VALLEY LAND USE

Description	1953	1960	Interval Change
Vineyard	6,761	6,670	- 91
Orchard	3,105	2,927	-178
Pasture and/or Field Crops	4,990	4,445	-545
Urban	<u>694</u>	<u>1,432</u>	+738
Total	15,550	15,474	

Sources: 1960 Department of Water Resource land use map¹²
and writer's 1953 aerial photo analysis.¹³

The small decline in vineyard acreage suggests that change has been minimal. This is substantiated by the Agricultural Commissioner's report for Napa County which indicates a vineyard acreage of 10,073 in 1950, followed by a decline to 9,623 in 1960, and a rise to 10,561 in 1965.¹⁴ The fluctuation in county vineyards is due to urbanization change in the lower valley which in turn stimulated new plantings. Since 1960 new vineyards have been set in the upper valley

area as well as in the Carneros area in the southwestern portion of the county. The Carneros area, considerably cooler during the summer than the upper valley, will grow grape varieties requiring less heat. Because it is climatically less desirable than other portions for residences, agriculture in this area will not experience competition as rapidly as the Napa Valley proper.

The decline of both orchard and pasture or field acreage clearly suggests that wine grapes are the preferred crop. The most widely planted tree crops are prunes and walnuts. In recent years nonirrigated prune orchards have not proven as profitable as vineyards, and disease has hampered walnut production. Thus, where marginal orchards were once kept in operation, today they are being converted to higher value vineyards. Some pasture land is also being replanted in vineyard where soil fertility and drainage conditions are inviting.

The largest acreage change has occurred in the urban sector. Whereas the comparative studies indicate a change in excess of 700 acres, some of that change is due to a difference in urban classification. An urban increase is apparent, however, particularly in the form of new residences in the environs of St. Helena and Calistoga. Population data for the county supports the evidence that change is occurring.

TABLE 3. --POPULATION DATA FOR NAPA COUNTY

Period	County	Napa City	St. Helena	Calistoga
Supplemental Data Since 1960 Census ^{1/}	76,600 (7/1/66)	29,800 (6/1/65)	3,191 (8/1/65)	1,875 (12/1/63)
1960 Census	65,890	22,170	2,722	1,514
1950 Census	46,603	13,579	2,297	1,418
1940 Census	28,503	7,740	1,758	1,124
Percent Change 1950-1960	41.1%	63.3%	18.5%	6.7%
Percent Change since 1960	16.2%	34.4%	17.2%	23.8%

Period	Total County Urban Population		Total County Rural Population	
1960	24,892		40,998	
1950	15,127		31,476	
Percent of Increase	64.6%		30.3%	

Sources: U. S. Department Commerce Census¹⁵
^{1/} California Department of Finance¹⁶

TABLE 4. --FARM DATA FOR NAPA COUNTY

Period	Number of Farms	Land in Farms
1964	1046	262,743 acres
1959	1198	296,112
1954	1576	311,907
1950	1496	349,886
Change 1950-1964	- 450 farms	- 87,143 acres

Source: U. S. Census of Agriculture¹⁷

During the period 1950-1960 the lower valley population more than doubled, but the two upper valley cities also grew, particularly following 1960. Neither St. Helena nor Calistoga enlarged their city limits from the late nineteenth century until 1966. Although both cities have considerable land within the city limits which is zoned and used for agriculture, the 1966 boundary changes annexed a few parcels of urban residential land.

The Agricultural Census indicates that land converted from farm to nonagricultural use for Napa County amounted to 87,143 acres or 25 percent of the total during the period 1950-1964.¹⁸ In view of the conversion figures for the county as a whole, compared to the study area, there appears to be a concerted effort to bolster and maintain the present agricultural system in the upper valley.

THE FORCES CAPABLE OF INITIATING CHANGE IN THE LAND USE SYSTEM OF THE UPPER NAPA VALLEY

The processes of conversion of farm acreage to urban uses are not unique to the Napa Valley or to California, rather they are observable on the national scale. For the purposes of this paper the more prominent are isolated and identified as the major forces. In combination, it is the author's judgment that they can produce significant change in the land use in the upper valley.

A stimulating aspect of the problem, characteristic of the

Upper Napa Valley, is the fact that the physical geography, ideally suited to wine producing grapes, is equally appealing and suited to the mode of modern California living. The beauty of the natural and man-made landscape are attracting features, and the upper valley is one of the few remaining vestiges of rural land within the Bay Area; but it is on the brink of a transition zone!

The forces that can possibly initiate change will now be examined.

Transportation Routes

Change within any area is normally associated with ease of access. Historically the early development of the Napa Valley was related to both tidewater and rail transportation along a popular avenue of travel. These means of transportation are today, however, less vital than highway travel. To date the lack of a developed freeway system, that would provide cohesion within the county and easy connection with adjoining areas, has been restrictive to urban development.

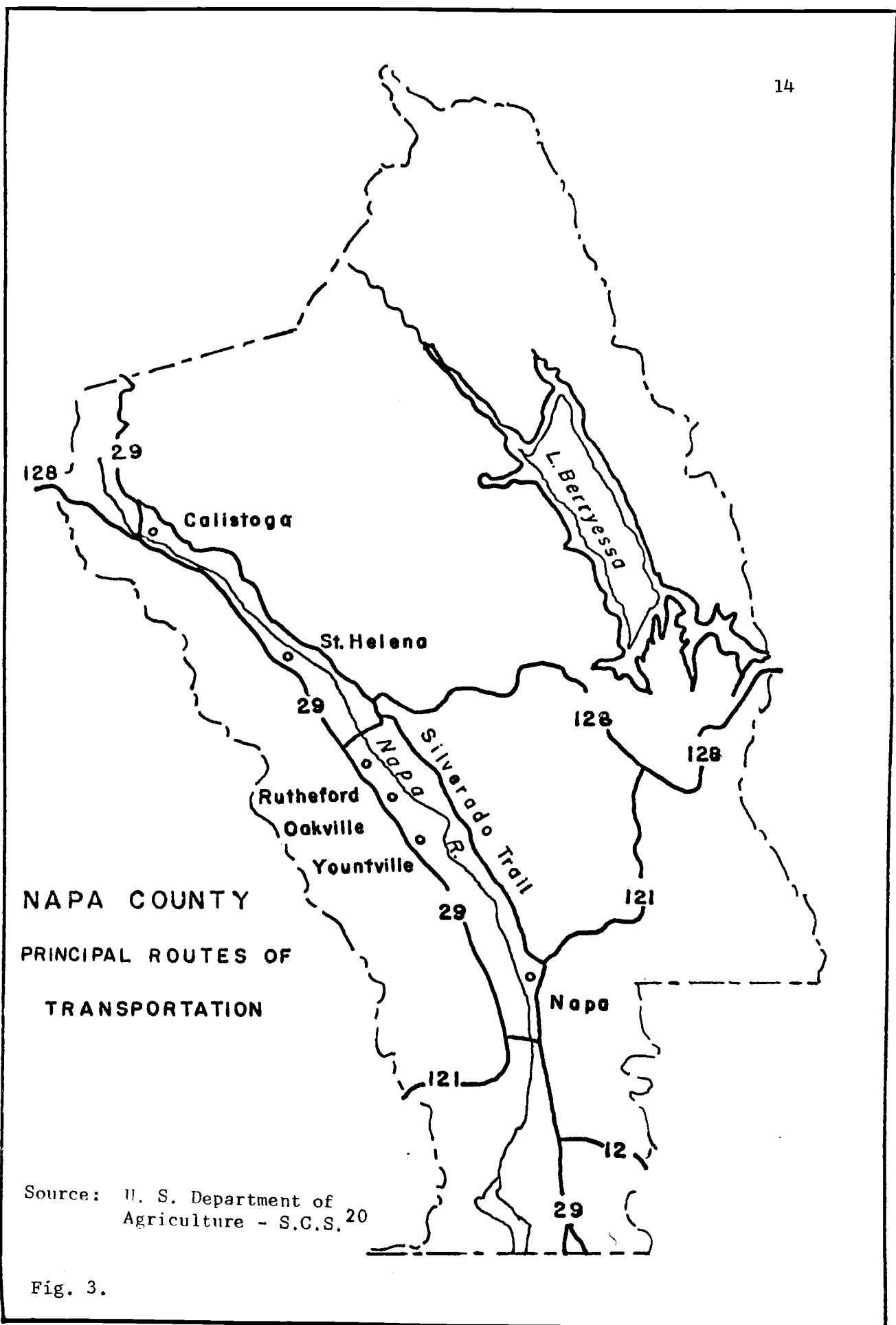
The Napa Valley is serviced and traversed by Route 29, which alternates between a two lane highway and four lane expressway throughout its length, and connects directly with Interstate 80 only at Vallejo, beyond the Napa Valley. Within the Napa Valley Route 29 connects with other state or county roads, which in turn ultimately

connect with either Interstate 80 or Highway 101. However, access to either of these two freeways is twelve to twenty-five miles distance from the Napa Valley.

Development in the Napa Valley reflects a linear pattern that is aligned to the topography (Fig. 3). Route 29 provides the level and direct route along the western side of the valley. The Silverado Trail, a two lane county road, parallels the eastern side and while it is a good road it is less convenient for most travellers.

Distance from St. Helena to the core of San Francisco or to Oakland remains an obviating force for much daily commute travel. Vallejo, the largest city in close proximity to the valley, lies approximately fifteen miles south of Napa. A significant number of people commute daily between the lower valley and Vallejo and traffic congestion is evident at peak hours. The largest single employer of Napa County personnel in Vallejo is the Naval Shipyard at Mare Island, employing 2,510 county residents.¹⁹ The vast majority of the above group, 2,408 live in the Napa City area, 74 live in St. Helena, 14 live in Calistoga, and 11 others live in areas of the upper valley. About twenty Napa County residents work at Hunter Point, the Naval Shipyard in San Francisco.

During August 1966 the writer, in a random door-to-door survey in a newer section of St. Helena, talked to nine people. This revealed that four had retired to the area, two were employed in



NAPA COUNTY
PRINCIPAL ROUTES OF
TRANSPORTATION

Source: U. S. Department of
Agriculture - S.C.S. 20

Fig. 3.

Napa, one at Mare Island (Vallejo), and one in St. Helena. One family was maintaining two residences; an apartment in San Francisco and the family home in St. Helena. The head of the household maintains a business in San Francisco and commutes to St. Helena on weekends and once during the week. Several of the interviewees were ambivalent in their opinions about the future of the upper valley; they had selected the area because they enjoyed the rural atmosphere, yet felt there was a need for more urban type development. Albeit the interviews were limited in number, it seems apparent that if St. Helena were more accessible more people would select it as a place of residence.

Several new highway locations are presently under consideration by the California Division of Highways. In most instances these plans include converting present routes to either expressways or freeways. It appears that ultimately Route 29 will become a freeway. At the present time the planned nine mile portion of Route 29, known as the St. Helena Bypass, is a controversial issue between various local interest groups and the Division of Highways. The present design calls for the routing of the bypass through the center of the valley, an area presently in productive vineyards. No compromise agreement has been reached by the two factions and no change in plans has been made. The controversy is important because if adopted it will eliminate about 270 acres of productive vineyard or orchard and it will also serve as a catalyst by providing access. Some individuals have expressed the hope that Route 29 could

become a part of the Scenic Highway Act, and thereby help to retain much of the valley in its present state.

Whereas highway development has not enhanced large scale growth of the upper valley, the lack of such development has not been a completely successful deterrent to growth. It seems reasonable to suggest that population increase will foster improved highway access or vice versa.

Employment Potential

Napa County is the least urban or industrial of the nine Bay Area Counties. In 1965 the Agricultural Commissioner reported the gross agricultural value for the county was \$22, 349, 975, and by value the leading products were beef (\$5, 785, 603), and wine grapes (\$4, 807, 560).²¹

The 1960 Census indicated that 1, 160 males were employed in agriculture while 13, 245 males were employed in nonagricultural industries in Napa County.²² Thus, whereas agriculture is an important segment of the economy and the dominant form of land use it is not the principal means of support for wage earners. During the period 1959-1964 the number of full farm owners decreased by 159 and the number of part owners, part-time farmers and managers also decreased slightly.²³ The "agricultural" county is undergoing a change and the reverberations are being felt in the once remote

extremity of the upper valley.

Between 1950 and 1960 the population of Napa County increased by 19,287 (Table 3). It is interesting to note that half of the increase added to the urban population and the other half increased the rural population by an unusually high ratio. The new rural population, however, is not deriving its livelihood from farm practices; rather it is representative of those, who for various reasons, have sought temporary refuge in the country.

Perhaps the underlying attraction for many new residents is not rural solitude, but rather the opportunity for investment. While a land owner may realize a monetary gain from the sale of agricultural products the true value of his investment may lie in the expected increase in the market value of the land. Agricultural land in the county is presently selling for as much as \$3,000 per acre. County zoning laws are such that a one acre minimum is required for a single dwelling, and in addition sanitation laws are stringent. Both these factors, plus the cost of land are an effective deterrent to the typical tract home development. How long they will continue to be effective is a moot question. Needless to say many new rural residents may be sincere in their pursuit of open space, but it is doubtful that all are.

The new population is not commuting from the Napa Valley to the metropolitan core of San Francisco because of the distance factor.

Therefore, it is obvious that closer employment opportunities have increased and have thus permitted an increase in the number of people who can live in a rural residence.

The upper valley has virtually no manufacturing industry except the wineries to attract working people; however, the lower valley and vicinity have, and are providing a source of employment for an increasing number of valley residents. In May of 1965 the Napa Chamber of Commerce listed thirty-seven major employers of Napa County residents, an extract from that list follows:

TABLE 5. --MAJOR EMPLOYERS OF NAPA COUNTY PERSONNEL

<u>Industry (Address & Business)</u>	<u>Number of Employees</u>	<u>Estimated Annual Payroll</u>
1) Mare Island, Vallejo (Naval Shipyard)	2,400 (Napa Co.)	\$21,000,000 (Napa County)
2) Napa State Hospital, Napa (Mental Hospital)	1,925	\$14,000,000
3) Kaiser Steel Corp., Napa (Steel Pipe, Tanks)	950	\$ 7,000,000
4) Veteran's Home, Yountville (Home/Hospital)	778	\$ 3,694,000
5) Rough Rider Mfg. Co., Napa (Sportswear)	500	\$ 2,225,000
6) Basalt Rock Co., Napa (Building supplies)	450	\$ 3,500,000
7) Pacific Tele. & Tele., Napa (Utilities)	427	\$ 3,733,000
8) Napa Valley Wineries (Wine)	355	\$ 1,065,000
9) St. Helena Sanitarium & Hospital (Private Hospital)	325	\$ 1,000,000

TABLE 5. --CONTINUED.

Industry (Address & Business)	Number of Employees	Estimated Annual Payroll
10) Pacific Union College, Angwin (Seventh Day Adventist College)	280	\$ 750,000
11) Queen of the Valley Hospital, (Community Hospital), Napa	240	\$ 600,000
12) Montgomery Ward, Napa (Department Store)	150	\$ 700,000
13) Travis Air Force Base, Fairfield (U. S. A. F.)	134 (Napa Co.)	\$ 469,000 (Napa County)

Source: Napa Chamber of Commerce²⁴

The federal or state governments and private institutions head the list, thus indicating that presently tertiary services provide the greatest employment opportunities. Primary and secondary manufacturing have been established only to a limited degree in the county, although the Napa Chamber of Commerce is currently inviting both to the lower valley.

The Napa Valley land resource which has provided a sound base for exotic vineyards and an associated low population density can, and most certainly will, support a larger population with secondary and tertiary activities. Present trends indicate that the valley has been "discovered" and as employment opportunities increase they will escalate change in the land use system.

Water Availability

Water development in the Upper Napa Valley is critical for urban development and could influence future agricultural intensification. Under present farming practices, which are dependent upon rainfall, water needs are adequate, but if urban use becomes competitive additional water will be required. All local surface water of the Napa Valley which is economically feasible has been impounded, and any additional requirements for either irrigation or a growing urban population will have to be imported.

Napa County has contracted with the State of California for additional water delivery via the North Bay Aqueduct. Initial delivery will commence in 1968 at a cost of \$29 per acre foot for untreated water. The annual flow will increase by increments to an ultimate of 25,000 a. f. by 1990.²⁵

The lower valley will benefit from North Bay Aqueduct water but none will be delivered to the Upper Valley because distance makes the cost prohibitive. The proposed Knights Valley Project, which lies approximately five miles northwest of the tip of the upper valley, can possibly provide the upper valley with a supplemental water source.

The county possesses an irrigable potential of 44,300 acres, but it is likely that urbanization will preclude total development.

But, while overall agricultural acreage is expected to decline the total irrigated crop acreage is expected to increase. One projection places total irrigated fruit and nut crops within the Napa River drainage basin at 23,200 acres, out of a total irrigated acreage of 25,700, by the year 1975.²⁶ The 1960 Department of Water Resource land use survey revealed slightly over 1,000 acres of irrigated orchards and vineyards and a total of 4,070 acres for their study area.²⁷

At the present time vineyards are unirrigated because irrigation water is generally lacking and also because some growers believe that the irrigation of premium wine grapes is undesirable. Recent studies, however, indicate that limited irrigation will enhance the establishment of new vineyards as well as increase total production by eliminating the problems brought on by drought. In addition, one method of quickly raising the temperature of the vineyard microclimate is irrigation. Thus, irrigation could provide an alternate means of combating killing frost. These do occur in the spring.

Cost and the amount of available water will be a controlling force in the land use system, whether it be for urban or agricultural use. Competition may become a factor.

TOOLS AND INTEREST FOR GUIDING DEVELOPMENT

Each year various interest groups and policy making bodies express concern and labor to plan and control urban growth, but the indifferent and apathetic segment of the population also continues to increase. Concerned Napa Valley residents are caught in the crux of the problem, knowing on the one hand that growth is inevitable, as well as desirable, but on the other hand realizing growth may be self defeating, at least in terms of the present attractions of the beauty, charm, and uniqueness of the valley.

Growth by its very nature is dynamic, and how to control it is a dilemma. Up to the present time no effort has proven completely effective in California, and unless restraints are imposed immediately in the upper valley any later effort will be in vain.

Within recent years several enabling legislative measures have been made available to the California Public. These measures, if implemented in the Upper Napa Valley, might act as a counter force to uncontrolled urbanization.

The California Land Conservation Act of 1965

The California Land Conservation act (also known as AB 2117, Williamson) became effective September 17, 1965. The purpose of the act is to preserve prime agriculture land, which is defined as

land in Soil Conservation Classes I or II, or alternately as land which yields a gross income of \$200 per acre per year for any three of five previous years.²⁸ The implementation of the act is dependent upon the desires of the property owners and the local government. Under the legal terms of the act the County Board of Supervisors function as the responsible administering agency.

The basic contract will prevent nonagricultural use of land for definite periods of time (ten year minimum), provide for transfer of contract obligations between successive owners or successive local governments, include automatic annual renewal of the ten-year contract unless designated action is taken by either party of the contract, provide public notice of the nature and extent of contracting in those areas where contracts are executed, and, in general fulfill the necessary legal requirements for a binding contract. A contract may be cancelled prior to natural expiration only if the public interest justifies such cancellation. Penalties for prior cancellation are provided so that unwarranted benefits would not accrue to the property owner.²⁹

The farmer would benefit directly from the act because he would be given preferential tax treatment. In an urban-rural transitional zone such treatment could mean the difference between agricultural survival or demise.

Much of the Upper Napa Valley cropland would qualify. The largest portion of the land is in Soil Conservation Service Class II,³⁰ and much that is not of satisfactory class could qualify on the basis of gross income per acre, assuming an average grape yield of four tons per acre. Varietal grapes usually range in value from \$100 to \$300 per ton, depending upon the varietal itself.³¹

The minimum qualifying prime land area must be one hundred contiguous acre increments. The increments may be under single or multiple ownership. Incremental area would be the most difficult qualifying criteria for farmers to meet because many do not own 100 contiguous acres; however, a combination of owners could qualify. Several of the larger wineries in recent years have bolstered their vineyard acreage from a few to in excess of 500 acres and could easily qualify. It is, in fact, the wineries which could become the strongest proponents of the conservation act. The larger wineries have purchased land and/or vineyard acreage:

- 1) To guarantee themselves minimal vineyard acreage and an operative base in the advent of accelerating land values, and
- 2) to guarantee minimal varietal selection.

At the present time, however, more than one-half of all vineyard acreage in Napa County is owned by private operators, not the wineries. Wineries normally contract with individual growers to meet their production needs and they are frequently obliged to accept excessive quantities of standard variety grapes from the growers in order to obtain the more desired varieties.

Because the conservation act introduces a totally new concept untried throughout most of the state, some hesitancy as to its effectiveness exists. It seems reasonable to believe that the conservation

act could provide a catalyst for continued vineyard and farm production. An examination of the reaction of Napa Valley growers to the act, however, reveals some interesting attitudes. The Vintner's Association, consisting of the various wineries, endorsed the act and on September 20, 1966, the association submitted a formal request to the County Supervisors to proceed with plans for implementation.

Although the general consensus reveals that the act is desirable, the individual grower appears to be hesitant. The Census of Agriculture reveals the average age of the county farmer is fifty-six, and whereas his preferred occupation is farming, none appear willing to commit land for a ten year period, even with the prospect of a tax preferential. Thus, while many decry speculation, the farmers appear to be ambivalent in their goals. Within ten years the average farmer could be about sixty-six years old and within the same period the market value of the land will undoubtedly continue to increase. Thus, the farmer may be hesitant to commit his land to a ten year contract, because during the ten year interim the increase in market value of his land may far exceed the income from sale of products from the same land. On the other hand, when the County Supervisors and the Vintner's Association agree and implement the conditions of the conservation act, many independent farmers may follow suit. The act, however, is contrary to the political beliefs of many county residents and will therefore never be acceptable to some.

In the final analysis it is difficult to determine if the hesitancy of the farmer is due to the untried and unknown feasibility of the conservation act, or if the anticipated profits that can be realized from increased land values are causing his hesitancy. The Conservation Act of 1965 provides a means to retain the present land use system, but only if it is adopted soon.

California Assembly Bill 80

A newly enacted tax law for the state, AB 80, may also affect the future land use of the upper valley. The law became effective during the summer of 1966 and by fiscal year 1971-72 the law requires the assessing of all property subject to general property taxation at 25 percent of its full cash value.³²

Napa County land is presently assessed at about 22.5 percent of its value, although some vacant land is allegedly assessed at only 18.2 percent of its value.³³ The goal of AB 80, like AB 2117 (The Conservation Act), is in part designed to preserve prime agricultural land by taxing it at its agricultural value.

AB 80 makes the same attempt (as AB 2117) to save agriculture by making it easier to have farm land considered farm land instead of a potential subdivision. . . . These changes place the assessor in the position that if he wants to assess more than agricultural value, he has to prove there is a reasonable probability that this land will be used in the near future for purposes other than agriculture.³⁴

The law will thus enable the farmer to continue his practices. Some observers have indicated that while the land will be taxed at an agricultural value the aggregate tax increase to 25 percent may force some farmers to sell land that is not being used to its optimum to pay the additional tax rate. If such occurs the land market may be flooded, which in turn may promote the purchase of land for continued farm purposes, as well as non-farm purposes.

The Napa Valley National Preserve

A novel proposal that could affect the land use system of the upper valley was presented in 1966 by William Bronson of Cry California.³⁵ In essence the proposal calls for the creation of a national vineyard in which all nonagricultural development rights would be brought under the control of a federal administering agency, somewhat similar to those of a national park or national recreation area. The idea had its genesis in the British system of an agricultural preserve or greenbelt.

The objectives of the proposal are to retain the upper valley in its present agricultural state by providing a protective land policy. Secondly, the preserve could also function equally well as an area of open space within the Bay Area, as cited in a 1960 proposal.³⁶

Tourism has become an important and popular activity in the wine country and is an adjunct to the recreational activities available in

the county. The Napa vineyards could, and in fact do, add another parameter to the open-space concept of a growing urban region.

Preliminary overtures to facilitate implementation of the proposal have been made. Again, because it is a new approach toward land use planning, general acceptance by both the land owners and the government will require time.

The Traditional Resistance to Change

Of all the counter forces that may deter urbanization the most readily recognized is the traditional resistance to change. Change, particularly in the south bay, where counties such as Santa Clara and San Mateo underwent almost instant urbanization following World War II, are vivid reminders for Napa residents. Santa Clara County had many similarities with Napa County with respect to land use and agricultural activity.

Viewed in the time-space continuum, some Napa residents realize that they have now arrived at the point of decision, if they are to have rational control of the course of the land use system. Perhaps no evidence is more convincing or discernible than that which the beholder can personally see. Many Napan's are beholding their valley in the perspective of the evolving Bay Area with a critical and displeased eye. To be sure, not all residents view the prospect of change within the context of an identical value system. Directed

growth of the Upper Napa Valley land use system will occur only if the majority choose to act immediately.

CONCLUSION

The Upper Napa Valley cannot be divorced from its regional context within the San Francisco Bay Area. It is difficult to prognosticate its future development. If the current trend follows its usual course the land use system will succumb to relatively uncontrolled urbanization. If however, the modern tools of planning and legal restraint are employed immediately the Upper Napa Valley agricultural land use system may be only slightly modified while, at the same time, urbanization increases within a predominantly agricultural context.

FOOTNOTES

1. The writer wishes to express her gratitude to Professor Richard M. Highsmith, Jr., for his assistance and guidance in the preparation of this paper. Acknowledgment is also given to the many governmental agencies, as well as various individuals, who provided information and assistance.
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6. San Francisco, Greater San Francisco Chamber of Commerce, in cooperation with the City and County of San Francisco, 1964-1965 Economic Survey, An Economic Appraisal and Review of San Francisco and the Bay Area (San Francisco, 1965), p. 9.
7. U. S., Department of Agriculture, Aerial Photographs of Napa County, 1952-1953.
8. William J. Ketteringham, "The Settlement Geography of the Napa Valley" (unpublished Master's thesis, Stanford University, 1961), p. 10.
9. California, Department of Water Resources, "Present and Future Land Utilization and Water Demand in the North Bay Area," (unpublished data based upon 1960 research).
10. Campbell A. Menefee, Historical and Descriptive Sketchbook of Napa, Sonoma, Lake and Mendocino Counties (Napa: Reporter Publishing House, 1873), p. 352.

11. The Department of Water Resources used census tract divisions for the boundaries of their study whereas the writer used only the cultivated land area of the upper valley. The writer measured the land use area on the 1960 Department of Water Resources maps in the same manner as she did the 1953 aerial photos in order to make a comparison.
12. "Present and Future Land Utilization. . . North Bay, " (1960), op. cit., maps.
13. Aerial Photos, op. cit.
14. County of Napa, Office of the Agricultural Commissioner, "Annual Crop Report" (Napa: 1950, 1960, 1965).
15. U. S. , Bureau of the Census, Eighteenth Census of the United States: 1960, Population, I, Part 6, California, p. 6-23, 25, 28-30, 54-56.
16. California, Department of Finance, California Population - 1965, (Sacramento: 1965), p. 28. Supplemental population estimates, December 15, 1965 and August 15, 1966 also included.
17. Census of Agriculture, op. cit., 1954, I, Part 33, p. 52, 65. 1964 Preliminary Report, Napa County, p. 2.
18. During 1957 the Bureau of Reclamation completed Monticello Dam and inundated the area to form Lake Berryessa. The maximum surface area of the lake is over 22,000 acres. The writer was unable to determine how much farm land was lost due to the inundation but because of arid conditions it is doubtful that as much as one-tenth of the area was cropland.
19. The Napa Register, October 17, 1966, p. 14.
20. U. S. , Department of Agriculture, Soil Conservation Service, Base Map of Napa County.
21. "Annual Crop Report, " 1965, op. cit.
22. Eighteenth Census: 1960, op. cit., p. 6-423.
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24. Napa, Chamber of Commerce, "Napa County Industries and Major Employers" (Napa: May 20, 1965), pp. 1-2.
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26. Feasibility of Serving Napa County, op. cit., p. 23.
27. "Present and Future Land Utilization. . . North Bay, " (1960), op. cit.
28. California, Assembly Bill No. 2117, (1965), p. 3.
29. J. H. Snyder, "California Land Conservation Act of 1965, A New Approach to Problems of Agricultural Land Use, " California Agriculture, Vol. 19, (1965), pp. 3-4.
30. U. S. , Department of Agriculture, Soil Conservation Service and The Association of Bay Area Governments, "Report and General Soil Map of Napa County, California, " unpublished (Napa, February 1966), pp. 1-26.
31. Grapes that are named for their variety rather than a generic (often geographic) name are known as varietal grapes. "Federal regulations require a varietal wine to derive at least 51% of its volume, and its characteristic flavor and aroma from the grape variety named. Cabernet, Chardonnay, Muscatel, Pinot Noir, Riesling and Zinfandel are the best known varietal names for wine types in the United States. Most wines with varietal names also fit into the broad generic name groups; for instance, Riesling is a Rhine Wine, Zinfandel and Cabernet are Clarets. " Source: The Story of Wine and Its Uses (San Francisco, Wine Institute, 1965), p. 48.
32. California, Assembly Bill No. 80, (1966), p. 12.
33. The Napa Register, August 25, 1966, p. 1.
34. The Napa Register, September 21, 1966, p. 17.
35. William Bronson, "The Napa Valley National Preserve, " Cry California, I (Summer, 1966), pp. 14-19.

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37. Following is a selected list of publications, not cited above, which directly or indirectly provide information pertinent to the Napa Valley.

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