Appendix: Temecula Valley Wine Country Land Use Build-Out Assumptions & Methodology

The Temecula Valley Wine Country Policy Area, which applies to lands located easterly of the City of Temecula and northerly of Highway 79 South, has been established as a distinct area to ensure the continuation of equestrian rural lifestyle and wine production in southwestern Riverside County. The many wineries and equestrian uses here provide a significant tourist attraction to the region, which in turn provides a continual economic benefit to the surrounding businesses. Not only that, the Temecula Valley Wine Country area also is an important part of the character of the Southwest Area Plan and has become ingrained in the culture of the surrounding communities.

The following provides a description of the assumptions and methods used to determine population, housing, and employment/tourism projections for the Riverside County's Temecula Valley Wine Country General Plan Land Uses. These factors, assumptions, and methods were used in preparing various associated studies and analyses.

Assumptions & Methodology
The projections developed in the plan represent a range of estimates for potential population, dwelling units, and employment for the Wine Country area of Riverside County. The General Plan land uses serve as the basis for these projections, but additional studies were also included to portray a commercial tourism that is unique to Wine Country. A key assumption in understanding the magnitude of these projections is that the projections reflect a theoretical build-out of the area, rather than what is likely to appear on the ground over the next 24 years based on the market trends. It is a good tool in measuring the capacity of the uses that can be accommodated within the area using a spatially driven land uses.

Land use designations differ among jurisdictions for a variety of reasons including unique physical and geographic characteristics, market forces, and varying community desires. There are no industry set standards for population density or building intensity that can be applied to the land use designations created for the Wine Country Study Area. Riverside County General Plan, SCAG Existing Use Data, Riverside County Land Management System, Riverside County Assessors Data, and community specific planning characteristics have been used to define and localize the factors below to estimate the Wine Country land use assumptions.

Land Use Assumptions: Residential

Gross Acres: Land use designation acreages were derived from GIS-based polygon calculations for each of the Zoning Districts in Wine Country. (Winery, Residential, and Equestrian)

DU/AC (dwelling units per acre): A range of dwelling units per acre were identified for residential and agricultural land use designations in the County's General Plan. The range includes a minimum and maximum density for each designation as well as a midpoint. These ranges in the current General Plan have been established based on actual product types and account for roads, rights-of ways, easements and public facilities typically found in residential areas such as elementary schools, parks, etc. For Wine Country, midpoint of the density range was selected for the calculation of land use projections of residential uses which is the same as the current County General Plan.

Table 1. Residential Housing Density Ranges in Wine Country

Land Use Designation	DU/AC		
	Minimum	Midpoint	Maximum
Agriculture (AG)	0	0.05	0.1
Rural Residential (RR)	0.1	0.15	0.2
Rural Mountainous (RM)	0	0.05	0.1
Estate Density (RC-EDR)	*0.2*	*0.35*	*0.5*

Dwelling Units (DU): Dwelling unit projections are estimated by multiplying the number of gross acres by the DU/AC factor ranges (density) for each land use designation. For example, 400 acres of Rural Residential with a density range of 0.15 DU/AC would result in a 60 DUs.

Average Household Size: Currently in the General Plan, to reflect the variations of household size between different regions of Riverside County, average household size figures were used to determine population in an Area Plan level basis. Since geographically Wine Country is located within the South West Area Plan, a 3.17Average Household Size was assumed, in order to be consistent with the General Plan.

Population: Population is determined by multiplying the projected number of dwelling units by the average persons per household factor. The result was then multiplied by 0.95 to reflect a true and healthy community vacancy rate of 5%. For example, 1,000 dwelling units with an average persons per household size of 3.17 with a healthy community vacancy rate of 5% would yield 3012 residents.

Land Use Assumptions: Non-Residential

Employment/Tourism generation for commercial land uses in the Wine Country was calculated using the following method and henceforth referred to as the Winery Factors:

Net Parcel Acres: To determine the actual amount of land available for development, gross acres must be converted to net acres. For Commercial land uses, 25% of the gross area is assumed to be reserved for roads, right-of-ways, easements, etc. The remaining 75% of the area is the net acreage. For example, 200 gross acres of Commercial Tourist is equal to 150 net acres. In Wine Country, wineries and other commercial activities are required to plant 75% of the development in mainly grapes or other allowable agricultural products. This leaves a 25% buildable lot coverage for the actual intensified commercial uses and 75% as agricultural uses.

Net Parcel Square Feet: To convert net acres to net square feet, net acres are multiplied by 43,560 *feet per acre*.

Floor Area Ratio (FAR)*:* Floor Area Ratio, or FAR, indicates the ratio of gross building square footage permitted on a parcel to net square footage of the parcel. Commercial Tourist (CT) designation in Wine country was modified to correctly represent the FAR of wineries and its related special event activities and lodging facilities. The average FAR of selected sample wineries that are approved and proposed is around 0.05.

Table 2. Development FAR Factors

Land Use Designation	FAR
Current General Plan Commercial Tourist (CT)	0.25
Wine Country Commercial Tourist (CT)	0.05

**Factor used for theoretical planning estimates.*

Square Feet (SF)/Winery Factor: This factor indicates the number of employees and tourists typically associated with a given amount of square feet of building space. It is used to estimate the number of jobs, tourists, and other temporary special occasion factors resulting from a given Commercial Tourist (CT) designation. See Table 3 for SF/Winery Factor assumptions in Wine Country Commercial Tourist Designation. The Winery Factor for a winery in Wine Country considers three different industry classification system; service, manufacturing, and agriculture as noted in the 2007 Economic Census. In terms of traffic generation, the Winery Factor represents the weekend peak hour trip generation assumptions.

Table 3. Wine Country Commercial Tourist Winery Factors

Land Use Designation	SF/Winery	Yield/Acre
Current General Plan Commercial Tourist (CT)	500	3
Wine Country Commercial Tourist		
Commercial Tourist 1 (CT1: Small Wineries)	200	8
Commercial Tourist 2 (CT2: Medium Wineries)	150	11
Commercial Tourist 3 (CT3: Resort Wineries)	50	33

Winery Impact Assumption:
The impact for Commercial Tourist land uses in Wine Country is calculated by dividing the total number of building square feet by the SF/Winery Factor. For example, 1 AC of buildable space in small winery will have 32,670 of net parcel square feet and which would equal to winery impact of 1,634 square feet after multiplying a FAR of 0.05. 1,634 square feet is then divided by the Winery Factor of 200 to yield a Winery impact generation number of 8.

Employment generation for Agriculture land use was calculated by multiplying gross acreages by assumed employee per acre factors which is the same as the current General Plan. The employee per acre figure of 0.05 in Agriculture land use designation was calculated by dividing the total number of farm workers in Riverside County in 1998 by the total number of agriculture acres in 1998[1].

Land Use Assumptions: Special Land Use Districts

Three Special Land Use Districts of Wine Country
Unlike the geographically specific land use designations of the usual General Plan Land Uses, special overlay districts were placed over the Temecula Valley Wine Country Area to depict the region's three distinct characteristics: Winery, Residential, and Equestrian. As such, these districts require unique methodologies for determining population, dwelling unit and employment/winery projections.

Table 4 below, provides a typical land use breakdown for each districts. The following are general guidelines intended to indicate the anticipated mix of uses and to provide a means for calculating estimated build-out projections. The actual land use breakdown will be determined on a case by case basis and will differ from the assumptions below. As described above, the Winery impact generation for commercial land uses in the Winery District differs from the commercial land use assumptions of the Residential and Equestrian Districts. Residential and Equestrian Districts use combination of assumptions in General Plan and Winery since the two districts could potentially have other commercial uses different from the Winery District, especially in the Equestrian District.

Table 4. Wine Country Planning Assumptions

Land Use	Winery	Residential	Equestrian
Agriculture*	54%	30%	75%
Rural Residential	9%	30%	16%
Rural Mountainous		5%	3%
Estate Density Residential (RC)	9%	33%	
Open Space-Conservation Habitat	10%		
Commercial Tourist (General Plan)			4%
Commercial Tourist 1 (Small)	3%	2%	2%
Commercial Tourist 2 (Medium)	6%		
Commercial Tourist 3 (Large)	9%		
Acreage Total	***100%***	***100%***	***100%***

Table 5 exhibits development pattern for wineries based on the land use capacity of the Wine Country Winery District. The reasonable total build out of the wineries in the district have been assumed to be around year 2035. Total of 56 new wineries have been proposed by the year 2035 while 32 wineries are calculated to be existing currently in the district. To calculate the number of wineries, a land use study was conducted: 1. analyzing existing and proposed winery uses to determine appropriate proportion of commercial, agricultural, and manufacturing uses, 2. inventorying

[1] Source: County of Riverside, General Plan 2003

parcel sizes in the area to determine the land use capacity of the Winery District based on acreages, and 3. examining existing and proposed winery records from the County Planning Department and Temecula Wine Growers Association (TVWA) to determine the development trends of the area for forecasting. As the table 5 indicates, the capacity of land for wineries is at about 88 wineries with 21 large size, 37 medium size, and 30 small size wineries in the Winery District.

Wine Country Wienry Parcel Analysis and Winery Capacity to the Parcel Size

	2010	2015	2020	2025	2030	2035 (B.O.)	Exisitng Wineries in Winery District	Proposed Wineries in Winery District	Total Wineries in Winery District
Small	20	6	4	0	0	0	20	10	30
Medium	8	5	5	5	6	8	8	29	37
Large	4	3	5	3	3	3	4	17	21
TOTAL	32	14	14	8	9	11	32	56	88

Note:
Small Size Wineries = Vineyard and tasting room
Medium Size Wineries = Vineyards, tasting room, and combination of one or two more uses such as restaurants, special occasion facilities, or lodging facilities,
Large Size Wineries = Vineyard, tasting room and resort type of uses

105 Total Wineries have been assumed for the entire Wine Country (47 Small, 37 Medium, 21 Large). 88 in Winery, 6 in Equestrian, and 11 in Residential. All wineries in Equestrian and Residential Districts are small size wineries.