

CHAPTER 5. OTHER CEQA REQUIRED DISCUSSIONS

This chapter provides discussions of the following CEQA-mandated discussions: growth inducement, cumulative impacts, significant irreversible environmental changes that would be involved in the Project, should it be implemented, and unavoidable significant effects.

5.1 GROWTH INDUCEMENT

An EIR must discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines, Section 15126.2(d)). Projects that would remove obstacles to population growth, such as an expansion of a wastewater treatment plant, are also considered when discussing growth inducement. Increases in population may also tax community service facilities, requiring construction of new facilities that could cause significant environmental effects.

The Project would not have any direct or indirect effect on inducement of additional population growth in Napa County. While the vineyard would expand acreage under agricultural production in the County in accordance with the General Plan and zoning for the Project site, it would not stimulate significant additional growth in the agricultural industry. In addition, permanent employment of one vineyard manager, and employment of approximately 30 seasonal workers during the harvest would not be sufficient to induce population growth in the County.

5.2 CUMULATIVE IMPACTS

Cumulative impacts refer to two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines, Section 15355).

Analysis of cumulative effects must include both regional effects in addition to potentially cumulatively significant localized effects. Napa County *as a whole* is the *principal* region considered for the cumulative biological resources, *although more localized contexts are also considered, as shown on Figures 5.2-1 and 5.2-2*. For

[INSERT Figure 5.2-1 Vegetation Communities] 11x17

Back of 11x17 figure *5.2-1*

[INSERT Figure 5.2-2 Oak Woodland] 11x17

[Back of 11x17 figure 5.2-2]

the cumulative geology and hydrology evaluations, the Rodgers Southwest, South and Southeast Gulch, Sage Canyon Road Gulch and Lake Hennessey Gulch catchments are considered because these are the areas affected by the Project.

5.2.1 Biological Resources

Impact 5.2-1: Serpentine and Native Perennial Grasslands (Cumulative: Significant and Unavoidable)

The project would eliminate 1.37 acres out of 8.47 acres of serpentine grassland on the site, and 0.26 acre out of 0.85 acre of native perennial grassland on the site. This impact is not considered significant at a project-level; however, it is considered a considerable contribution to a significant County-wide cumulative impact.

Grassland areas throughout the project area and other areas within the Napa Valley are being converted to vineyard and wineries at a rapid rate. While the project would ~~eliminate~~ *eliminate* ~~disturb~~ *1.37 acres out of 8.47 acres* of serpentine grassland *on the site, and 0.26 acre out of 0.85 acre of native perennial grassland on the site*, this impact is not considered significant *at a project-level* because there are no state or federal protections ~~to this species~~ *for these communities*, there are no special-status species within the *affected* habitat, and because the majority of the habitat *on the site* would be avoided. ~~Furthermore, this impact would not be cumulatively considerable, given that~~ *According to the Napa County Baseline Data Report*, there ~~is~~ *are* a total of 2,119 acres of serpentine grassland in Napa County, which represents 0.42% of the land area within the County. *The same source does not contain a comparable county-wide total and percentage for the native perennial grassland distinct from other native (annual) grasslands* (Napa County Baseline Data Report, 2005). *Vegetation Communities found on the project site are shown on Figure 4.1-1: Biological Resources. Vegetation Communities mapped at a County-wide level (including grassland), and located within a one-, two-, three- and four-mile radius of the project site are shown in Figure 5.2-1. Portions of the radii west of Silverado Trail are omitted from Figure 5.2-1 because these areas are almost wholly agricultural and (at the north end) urban.*

The potential cumulative loss of sensitive natural plant (grassland) communities is difficult to assess because while past and pending projects can be surveyed to determine their impact on these communities, the amount of cumulative future disturbance that is reasonably foreseeable has always been difficult to determine.

The EIR that was prepared to assess impacts of the Napa County General Plan Update (GPU) overcomes this difficulty by relying on projections of future (non-agricultural) development and projections of vineyard development over the planning period (2005 to 2030).

As explained on pp. 4.5-47 and 48 of the GPU Draft EIR, the analysis uses population and employment projections together with four hypothetical vineyard development scenarios to assess cumulative impacts under the plan. Each of the vineyard development scenarios assumes a different geographic distribution of new vineyards in order to test the type and degree of potential impacts that could occur if 10,000 to 12,500 additional acres of vineyards are developed in the County over the next 25 years as projected (one of the scenarios considers the impacts of up to 15,000 new acres because it assumes that it would become easier to approve new vineyards on slopes of between 30 and 35%, something that was not included in the General Plan Update adopted June 3, 2008.)

The GPU EIR analysis concludes that the development that could occur under the proposed General Plan Update could result in a significant and unavoidable loss of sensitive biotic communities and oak woodlands (p. 4.5-63 of GPU Draft EIR). The magnitude of the potential loss is calculated by overlaying the hypothetical vineyard development scenarios with GIS data from the Baseline Data Report (pp. 4.5-49 and 50 of GPU Draft EIR).

Due in part to the level of uncertainty about the location of vineyards that will be developed in the County in the future, and the limited areal extent of serpentine and native perennial grassland thought to exist Countywide, the County has concluded that the loss of serpentine grassland and native perennial grassland that would occur with the proposed Upper Range Vineyard (Rodgers) Project could constitute a considerable contribution to the significant County-wide cumulative impact. Feasible mitigation measures to address this impact have not been identified because of the low likelihood that the lost acreage could be successfully replanted with those endemic species (due to the absence of appropriate soils and the continued presence of cattle grazing), and the project proponent's inability to ensure long-term preservation of remaining populations on-site due to their poor quality and discontinuous distribution. As a result, the project would result in a significant and unavoidable cumulative impact unless the serpentine and perennial grassland areas are avoided, as provided for in the

Resource Conservation Alternative (see Chapter 6 of this Draft EIR, page 6-4 -- for a discussion of avoidance.)

Mitigation Measure: Mitigation is infeasible without redesign of the proposed project to avoid the grassland areas as provided for in the Resource Conservation Alternative.

Impact 5.2-2: Oak Woodland (Cumulative: Significant)

The proposed project would remove approximately 121 acres of mixed oak woodland (roughly one third of the property's oak woodlands), and approximately 295 acres of oak woodlands would remain intact. While the loss of 121 acres has been shown to be less than significant at the project level (Impact 4.1-1), it would noticeably contribute to an overall trend which the GPU EIR conservatively concludes is cumulatively significant, despite the total existing acreage effectively protected from development County-wide.

There is no single definitive source for information regarding the conversion of oak woodlands over time in Napa County or in California as a whole. Available sources refer to active management of woodlands in California by native peoples in the time before European settlement, and grazing/agricultural impacts and harvesting of wood from the Mission period through the nineteenth century. The Twentieth Century saw pressures related to development, and the increasing threat of catastrophic fires due to fire suppression activities. Estimates of oak woodlands lost on a statewide basis include one million acres between 1945 and 1973 (Bolsinger 1988), 200,000 acres between 1973 and 1987 (Davis et al. 2000), and 60,000 to 130,000 acres between 1984 and 1994 (Waddell & Barrett 2005). By 2001, researchers blamed commercial and residential development statewide for loss of over 30,000 acres of oak woodland per year (Standiford & Scott 2001). The California Oak Foundation is now predicting that approximately 750,000 acres or 20% of California's oak woodlands are at risk of development before 2040 (Gaman & Firman 2006).

Napa County has seen less conversion of oak woodlands relative to the rest of California in recent decades, and less residential and commercial development than most other places in California, mainly because of agricultural protections put in place beginning in 1968 with adoption of the Agricultural Preserve. These protections have endured such that the California Oak Foundation notes that "Development pressures in the form of major population densification and urban expansion into oak woodlands are lighter than in other parts of the region" (ibid). According to the Foundation, 33% of Napa County is currently covered by oak woodlands, giving it the greatest density of oak woodlands in the state,

and although the woodlands are 93% privately owned, persistent risks are from grazing and vineyard planting, rather than development (ibid).

Computerized mapping (GIS) data assembled by Napa County indicates that there were approximately 162,000 acres of oak woodland county-wide in 1993. Between 1993 and 2005, approximately 723 acres of oak woodland within the Napa River Watershed were converted to vineyard, as were 112 acres in other areas of the County. This leaves a County-wide total of approximately 161,000 acres of oak woodland, of which approximately 58,500 acres are considered to be at risk of being converted.¹ Within a four-mile radius of the project site, approximately 4,000 acres are considered to be at risk of being converted. Areas of oak woodland County-wide, and located within a one-, two-, three- and four-mile radius of the project site are shown in Figure 5.2-2. Portions of the radii west of Silverado Trail are not included in Figure 5.2-2 because these areas are almost wholly agricultural and (at the north end) urban.

When viewed in connection with the almost 1,000 acres of oak woodlands converted to vineyard in Napa County over the last 12 years, and the approximately 1,100 acres associated with pending vineyard applications,² the proposed project's 121 acre conversion could be viewed as a considerable contribution to a significant cumulative impact requiring mitigation. Specifically, while the loss of 121 acres has been shown to have no significant adverse biological impacts on site due to the preservation of the remaining 295 acres of oak woodland habitat, retention of wildlife corridors, protection of water resources, and the lack of special status species identified in the areas of the project site proposed for conversion, the loss would noticeably contribute to an overall trend which the GPU EIR concludes is potentially significant, despite the total acreage effectively protected from development County-wide.

Mitigation Measures:

Mitigation Measure 5.2-1: The project's contribution to the cumulative loss of oak woodland in the County shall be mitigated through the following measure, which may be phased in conjunction with ECP implementation:

¹ Areas at risk of being converted are general those considered by Napa County to be Potentially Productive Soils (PPS). The PPS area does not include areas owned by federal, state or local agencies or those areas owned outright by the Napa County Land Trust; areas located on slopes greater than 35%; areas outside developed urban areas that are designated for industrial development and lie within the Clear Zone of airports; areas within riparian corridors or areas covered with water or containing vernal pools; and areas where soil types are not potentially productive using the 2004 SSURGO soil data provided by USDA National Resources Conservation Service.

² The list of 32 pending vineyard-related erosion control permits as of August 2008, include proposals that would remove a total of 1,112 acres of oak woodlands of various types.

a. Preservation. *Long-term protection of on-site oak woodland habitat of like quality at a 2:1 ratio. In total, 242 acres of on-site oak woodland habitat shall be preserved via a deed restriction or other covenant. Evidence of protection at a 2:1 ratio (two acres protected for every acre removed) shall be submitted to the Napa County Department of Conservation Development and Planning prior to each phase of vineyard development.*

To ensure effectiveness of this measure, prior to any tree removal or earth-moving activities on the project site, a written evaluation of the oak woodland designated for long-term protection shall be submitted to the Napa County Department of Conservation Development and Planning. The evaluation shall verify that the oak woodland areas designated for long-term protection are capable of supporting habitat of equal or greater value as the areas being removed such that the 2:1 ratio requirement is met. The evaluation shall be conducted by a qualified biologist approved by the County.

If long-term protection of on-site oak woodlands at a 2:1 ratio, as described above, cannot be achieved, mitigation shall be accomplished through one of the following measures:

b. Restoration/Replacement. *Restoration or replacement of the habitat to be lost, either on- or off-site (but within Napa County) with habitat of equal or greater value. Replacement location and methods, together with monitoring requirements and success criteria shall be contained in a management plan that is prepared by a qualified professional and submitted to the Napa County Department of Conservation Development and Planning with sufficient security to ensure implementation prior to any tree removal or ground disturbance. The plan shall specify species, size and location of plantings and the location and species of established vegetation. The survival rate shall be 80 percent of all plantings at the end of seven years. Oaks found to be diseased, dying, or dead within seven (7) years of planting shall be replaced to meet the 80 percent threshold. The applicant shall be solely responsible for all costs to purchase, install, establish, and monitor replacement trees. Monitoring requirements shall at a minimum include the preparation and submittal of an annual report to the Napa County Department of Conservation Development and Planning on or before July 1st of each year, which documents the condition of the trees and identifies which trees have been replaced or will need to be replaced. The annual report shall include photographs of each of the replacement trees to illustrate their condition. A site inspection may be made by the Napa County*

Department of Conservation Development and Planning to verify the information contained in the report. Achieving these criteria may require initiation of restoration or replacement of habitat at a greater ratio than 1:1 to ensure successful restoration/replacement of the required acreage of comparable habitat.

c. In-Lieu Fee. Contribute a fee to the California Wildlife Conservation Board Oak Woodlands Conservation Fund or other mitigation fund established or designated by Napa County. Only mitigation funds designed to protect oak woodland habitat via purchase of property or conservation easements in Northern California shall be eligible for use.

The amount of the fee shall be determined either by calculating the value of the land with oak woodland habitat proposed for removal, or by some other calculation developed by a qualified biologist in collaboration with the California Department of Fish and Game. This alternate calculation shall reflect differences in the quality of habitat proposed for removal, and may consider the cost of comparable habitat (fee title or easement) in nearby counties.

Significance After Mitigation: Less than Considerable

5.2.2 Geology and Soils/Hydrology

Currently there are no projects planned within the off-site catchment areas of the Long and City of Napa properties evaluated in this cumulative analysis. There would be no off-site (i.e. downstream) impacts to sediment yield due to the project, under future and cumulative conditions. With the proposed project, there would be a reduction in surface erosion ranging between 44% and 85% within the individual vineyard blocks, with an average hillslope surface erosion reduction of 54.3%. This decrease in surface erosion is primarily a result of the increased ground surface cover that would be established as part of the project. Under project conditions, ground surface cover would increase from the existing 60% (or 50% in places of intense grazing) to 80% in the proposed vineyard blocks. Due to continued cattle grazing on the property, it is assumed that current levels of surface erosion in areas outside of the proposed vineyard blocks would remain unchanged.

Installation of the ECPA would result in an increase in volume and peak discharge in the Rodgers Southeast Gulch and the Sage Canyon Road Gulch catchments. Mitigation measures that require the use of mechanical contouring techniques for portions of the

proposed vineyard blocks within the relevant catchments would reduce these impacts, such that no downstream, or cumulative, impacts would result.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

“Significant irreversible environmental changes” include the use of nonrenewable natural resources during the initial and continued phases of the Project, should this use result in the unavailability of these resources in the future. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with projects. Irretrievable commitments of these resources are required to be evaluated in an EIR to assure that such current consumption is justified (CEQA Guidelines, Section 15126.2(c)).

Natural resources include minerals, energy, land, water, forestry, and biota. Nonrenewable resource are those resources that cannot be replenished by natural means, including oil, natural gas, and iron ore. Renewable natural resources are those resources that can be replenished by natural means, including water, lumber, and soil.

Although the Project would use minor amounts of both renewable and nonrenewable natural resources for Project construction, this use would not increase the overall rate of use of any natural resource, or result in the substantial depletion of any nonrenewable natural resource.

The Project is not proposing the development of a previously inaccessible area. Vineyard development has occurred and would continue to occur in the area with or without the Project, based on development allowed by the existing Napa County Land Use Plan and zoning. Thus, the Project would not commit future generations to a significant irreversible change. Conversion to agricultural land is not considered an entirely irreversible type of development.

Lastly, the Project is not anticipated to result in irreversible damage from environmental accidents, such as an accidental spill or explosion of a hazardous material. During the construction of the Project, equipment would be using various types of fuel (petroleum products, as would be diesel fuel and gasoline). In the State of California, the storage and use of hazardous substances are strictly regulated and enforced by various local and regional agencies. The enforcement of these existing regulations would preclude significant Project impacts related to environmental accidents.

5.4 UNAVOIDABLE SIGNIFICANT EFFECTS

As required by the CEQA Guidelines (Section 15126.2(b)), an EIR must describe any significant impacts that cannot be avoided, including those that can be mitigated but not reduced to a less than significant level. Chapter 4 of this Draft EIR provides a description of the potential environmental impacts of the Project and identifies various mitigation measures to reduce impacts, to the extent feasible. *In addition, Section 5.2 of this chapter provides a description of the potential cumulative environmental impacts of the Project and identifies mitigation measures to reduce impacts to the extent feasible.* After implementation of the identified mitigation measures, all of the impacts associated with the Project would be reduced to a less-than-significant level, *with the exception of the project's contribution to the significant County-wide cumulative impact related to the loss of serpentine grassland and native perennial grassland, described in Section 5.2. The loss of serpentine grassland and native perennial grassland is a significant cumulative impact that cannot be mitigated to a less than significant level unless these areas are avoided as provided for in the Resources Conservation Alternative (see Chapter 6).*

5.5 CLIMATE CHANGE

Global climate change is a new area of inquiry for State and local agencies when considering the potential effects of land use decisions, and the State legislature instructed the Governor's Office of Planning and Research (OPR) to update the State CEQA Guidelines to address this issue. On June 17, 2008, OPR issued a technical advisory containing guidance regarding the analysis of climate change and green house gas emissions in CEQA documents. No specific threshold of significance was provided, and OPR has requested assistance from staff of the California Air Resources Board. Despite the absence of definitive guidance on this issue, Napa County is concerned about emissions of the green house gases that contribute to global climate change, and has considered the proposed project in light of this issue.

While substantial additional research needs to be done on this subject, it is thought that the removal of oak woodlands and soil disturbance associated with conversion of oak woodlands to vineyards results in releases of CO₂, one of the gases that contribute to climate change. Grapevines are woody perennials, however, and therefore have value in terms of carbon sequestration when mature. In addition, the use of cover crops, as proposed by the Upper Range Vineyard Project, as well as vineyard management practices which limit the amount of organic matter input through harvest and herbicide application tend to result in

less soil CO2 loss from vineyard soils than from some other soils. In addition, project implementation would result in a relatively limited amount of traffic. Construction vehicles would be turned off when not in use; therefore engines would not idle. In addition, most of the construction vehicles would remain on-site during the construction period, further reducing the number of trips to and from the site.

Due to these factors, the project's proposed design -- which would retain substantial existing woodlands on site -- the reduction in grazing, and proposed vineyard operations which include use of a cover crop and other responsible industry practices (integrated pest management, and limited if any applications of nutrients for e.g.), Napa County does not consider the project's contribution to global climate change to be "considerable."