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## 4.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

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The following is an introduction to the environmental analysis of the project-specific and cumulative impacts resulting from implementation of the proposed General Plan Update. This introduction describes the general assumptions used in the analysis. The reader is referred to the individual technical sections of the DEIR (Sections 4.1 to 4.14) regarding the specific assumptions and methodologies used in the analysis for that particular technical subject.

### **ANALYSIS ASSUMPTIONS USED TO EVALUATE THE IMPACTS OF THE NAPA COUNTY GENERAL PLAN UPDATE**

#### **BASELINE ENVIRONMENTAL CONDITIONS ASSUMED IN THE DRAFT EIR**

Section 15125(a) of the State CEQA Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of a project, as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that this description of the physical environmental conditions should serve as the baseline physical conditions by which a lead agency determines whether the impacts of a project are considered significant.

The environmental setting conditions of Napa County and the surrounding region are described in detail in the individual technical sections of the DEIR (see Sections 4.1 through 4.14). In general, these sections describe the setting conditions of the County and the region, as they existed when the NOP for the project was released on October 21, 2005. In addition, the DEIR also includes setting information that has been updated since release of the NOP.

#### **GROWTH FORECASTS AND DEVELOPMENT ESTIMATES**

The following is an overview of the projected residential, non-residential and vineyard development growth in the unincorporated portion of Napa County by the year 2030. This information is utilized to evaluate the environmental effects of continued growth in the County under the three land use alternatives identified in Section 3.0 (Project Description).

#### **Residential and Non-Residential Development Forecasts**

Residential and non-residential development forecasts for the year 2030 are based on the technical analysis conducted by Keyser Marston Associates (KMA) in the "Industrial Land Use Study, Napa County General Plan Update" provided in **Appendix B** of this DEIR. This analysis is an expansion of previous market analyses that have been prepared in the County (e.g., for the Napa Airport Industrial Area) and utilizes land use data and growth projections from the County, land use inventories from the cities of American Canyon and Napa, the Napa County Economic Development Corporation business survey, ABAG projections and U.S. Census data. This data was used to develop Napa County-specific projections for residential and non-residential development between years 2005 and 2030. As noted in **Table 4.3-12**, these projections are higher than current ABAG 2005 projections and are considered conservative for use in the DEIR. As demonstrated by both ABAG projections and the KMA report, Napa County is not projected to reach buildout by the year 2030.

#### **Vineyard Development Forecasts**

As part of the environmental impact analyses provided in this DEIR, four scenarios were developed for anticipated vineyard development between 2005 and 2030 (since vineyard development is the largest land use conversion [from undeveloped conditions] occurring in the unincorporated area of the County). It should be noted that these vineyard development

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scenarios are intended to evaluate potential County-wide water resource impacts from vineyard development by the year 2030 and are not predictions of precisely where vineyard development would occur under the proposed General Plan Update. Rather, these scenarios distribute the amount of vineyard development projected for each alternative in four different ways, capturing a range of possible distributions and outcomes by the year 2030. The amount of vineyard development projected was determined by reviewing the trend line from 1958 to the present, reviewing the type and acreage of recent and pending applications for erosion control plans, considering the accessibility and availability of suitable lands, and the likely influence of other factors over time such as land economics and global competition. The amount of vineyard development projected was not assumed to vary greatly based on the various General Plan Update Alternatives considered because physical and economic requirements associated with vineyard development would be essentially the same. In terms of their geographic distribution, the scenarios described below were developed to simulate general types of potential land use development patterns and provide a basis to then evaluate impacts for the proposed General Plan Update. The four land use scenarios simulated by the modeling analysis are described below. The range of vineyard development identified in vineyard scenarios 1 through 3 (10,000 to 12,500 acres) was assumed to occur under Alternatives A, B and C.

### **Modeling Scenario 1: 2030 Conditions based on 2050 Report**

This scenario tests the effects of development of 10,000 new vineyard acres, with 75% designated within Napa River Basin and 25% in Berryessa and Suisun Basins (see Figure 1 of **Appendix H**). The distribution of vineyard development under this scenario is specifically based on future vineyard development assumed in the 2050 Napa Valley Water Resources Study (West Yost and Associates, 2005).

### **Modeling Scenario 2: 2030 Conditions Water Supply Watershed**

This scenario tests the effects of concentrating development of 10,000 new vineyard acres within the County's municipal water supply watersheds. Napa River Basin municipal watersheds include: Hennessy, Rector, Milliken, and Bell. This has the effect of concentrating the majority of new vineyard development in the Eastern Hills watersheds (see Figure 2 of **Appendix H**).

### **Modeling Scenario 3: 2030 Conditions Including Adjacent Timberlands (max slope 30%)**

This scenario tests the effects of development of 12,500 new vineyard acres with a concentration on timberlands (on slopes up to 30%) for conversion to vineyards. Timberlands are lands that include specific timber tree species or soils that can support timber tree species. This has the effect of concentrating the vineyards in the East and West Hills, as well as the Berryessa areas (see Figure 3 of **Appendix H**).

### **Modeling Scenario 4: 2030 Conditions including adjacent Timberlands (max slope 35%)**

This scenario tests the effects of development of 15,000 new vineyard acres and included an increased slope limit of 35% for both prime soils and timberlands availability, although neither General Plan Update Alternative A, B or C would relax requirements on slopes of greater than 30%. (This feature is included in Alternative E, described later in this EIR.) It is important to note that additional developable land was assigned adjacent to new vineyard acres designated in Scenario 3 (see Figure 4 of **Appendix H**).

### PROPOSED MINISTERIAL PROCESS FOR ENVIRONMENTALLY SUPERIOR VINEYARD PROJECTS UNDER ALTERNATIVES B AND C

Under Alternatives B and C, the proposed General Plan Update would include policies resulting in modifications to the County's Conservation Regulations (County Code Chapter 18.108) to provide a ministerial process for environmentally superior vineyard development projects that would not require environmental review under CEQA. This process has been proposed in order to meet the proposed General Plan Update's policy provisions for the continued promotion of agricultural activities in the County that are protective of the environment. These projects would be required to go beyond current regulatory requirements and meet performance criteria demonstrating no significant adverse effects to the environment in order to qualify for the streamlined process.

The environmental effects and associated mitigation measures are addressed under Impact 4.11.4 in Section 4.11 (Hydrology and Water Quality). This analysis includes consideration of hydrologic, water quality, biological resources and cultural resource impacts.

### STRUCTURE OF THE ENVIRONMENTAL IMPACT ANALYSIS

Sections 4.1 through 4.14 of this DEIR contain a detailed description of current setting conditions (including applicable regulatory setting), an evaluation of the direct and indirect environmental effects resulting from the implementation of the proposed General Plan Update. As noted in Section 3.0 (Project Description), the final specific details of the General Plan Update will not be known until the Steering Committee receives public comments on the Draft General Plan and a final version for review by the Planning Commission and consideration by the Board of Supervisors. This process is not intended to be complete until the end of 2007 or beginning of 2008, therefore this DEIR assesses several alternatives intended to capture the range of possible outcomes to the planning process (see Section 3.0 [Project Description] and Section 6.0 [Project Alternatives] for a detailed description of alternatives under evaluation). The alternatives described here are not expected to fully match the final plan that is adopted, but collectively the alternatives have been designed to "bracket" the final plan, providing a "worst case" examination of potential impacts. In addition, the Draft EIR evaluates the direct and indirect environmental effects of implementation of the policy provisions of the proposed General Plan Update elements, which are not directly related to the alternatives under evaluation.

The individual technical sections of the Draft EIR follow the following format.

#### **Existing Setting**

This sub-section includes a description of the physical setting conditions associated with the technical area of discussion, consistent with State CEQA Guidelines Section 15125. As previously identified above, the existing setting is based on conditions as they existed when the NOP for the project was released on October 21, 2005.

#### **Regulatory Framework**

This sub-section consists of the identification of applicable federal, state, regional and local plans, policies, laws and regulations that apply to the technical area of discussion.

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### Impacts and Mitigation Measures

The Impacts and Mitigation Measures sub-section identifies direct and indirect environmental effects associated with implementation of the proposed General Plan Update. Standards of significance are identified and utilized to determine whether identified environmental effects are considered “significant” and require the application of mitigation measures. Each environmental impact analysis is identified numerically (e.g., Impact 4.2.1 – Division of Established Communities) and is supported by substantial evidence included in the discussion.

Mitigation measures for the proposed General Plan Update were developed through a thorough review of the environmental effects of the General Plan Update by consultants with technical expertise as well as by environmental professionals. The mitigation measures identified consist of “performance standards” (The use of performance standard mitigation is allowed under State CEQA Guidelines Section 15126.4(a) and is supported by case law (*Sacramento Old City Association v. City Council of Sacramento* [3d. Dist 1991] 229 Cal.App.3d 1011, 1028 [280 Cal.Rptr. 478]) that identify clear requirements that will avoid or minimize significant environmental effects.

### Cumulative Setting, Impacts, and Mitigation Measures

Section 5.0 (Cumulative Impacts) provides an analysis of the proposed General Plan Update’s contribution to cumulative impacts to the environment. The analysis focuses on whether the General Plan’s contribution is “cumulatively considerable” (State CEQA Guidelines Section 15130). A cumulative impact occurs from 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 future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time CEQA Guidelines Section 15355(b). Accordingly, the cumulative setting includes related past, present, and reasonably foreseeable projects in the region.

### INFORMATION UTILIZED IN THIS EIR

This Draft EIR utilizes technical information and analyses from previously prepared EIRs and other documents that are relevant to the consideration of environmental effects of the proposed General Plan Update, which is supported by the State CEQA Guidelines (see Sections 15148 [Citation] and 15150 [Incorporation by Reference]). In addition to materials cited, the DEIR makes substantial use of the Napa County Baseline Data Report (BDR) (Napa County, BDR 2005). Given the size of the BDR, this document was not appended to this DEIR. However, this document and other referenced materials are available for review upon request at the Napa County, Conservation, Development and Planning Department, 1195 Third Street, Napa, CA 94559.

### TERMINOLOGY USED IN THE DRAFT EIR

This Draft EIR uses the following terminology:

***Cumulatively Considerable:*** A cumulative significant impact would result when the project would contribute considerably to a significant physical impact on the environment expected under cumulative conditions.

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***Less Than Significant Impact:*** A less than significant impact would cause no substantial change in the physical condition of the environment. (No mitigation would be required for project effects found to be less than significant.)

***Significant Impact:*** A significant impact would cause (or would potentially cause) a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance provided in each technical section of the EIR. Identified "significant" impacts are those where the project would result in an impact that can be measured or quantified, while identified "potentially significant" impacts are those impacts where an exact measurement of the project's effect cannot be made but substantial evidence indicates that the impact could exceed standards of significance. A potentially significant impact may also be an impact that may or may not occur and where a definite determination cannot be made. Mitigation measures and/or project alternatives are identified to avoid or reduce to a less than significant level project effects to the environment.

***Potentially Significant:*** a potentially significant impact is one that may or may not occur and where a definite determination cannot be made. Feasible mitigation measures and/or project alternatives are identified to avoid or reduce the project's effects on the environment to a less than significant level.

***Significant and Unavoidable Impact:*** A significant and unavoidable impact would result in a substantial change in the environment that cannot feasibly be avoided or mitigated to a less than significant level if the project is implemented.

***Standards of Significance:*** A set of significance criteria used by the CEQA lead agency (Rancho Cordova) as well as by other public agencies with regulatory jurisdiction over the project to determine at what level or "threshold" an impact would be considered significant. Significance criteria used in this EIR are derived from the following: the State CEQA Guidelines; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and, goals, objectives, and policies of the proposed General Plan. Specified significance criteria are identified at the beginning of the impact analyses in each technical section of the EIR.

***Subsequent Projects/Activities:*** Anticipated activities (e.g., residential, commercial, industrial, vineyards) that would occur in the future and would implement the General Plan Update. This would include public infrastructure projects including, but not limited to, roadway widenings and extensions, intersection improvements, and water, stormwater, and wastewater distribution improvements.