

## **CHAPTER 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

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## Chapter 3. Affected Environment and Environmental Consequences

Chapter 3 is organized by the physical, biological, social, and economic resources of the project area that could be affected by implementing any of the alternatives. The description of each of the existing conditions is followed by a description of the environmental effects (direct, indirect, and cumulative) that would be expected to result from implementation of the proposed action or other alternatives. Together, these descriptions disclose the scientific and analytical basis for comparison of effects by alternative.

The environmental analysis for each resource topic includes discussion of the issues raised through public scoping. The analysis also reflects the comments and suggestions made from consultation with federal, state, and local agencies.

The effects analysis presented in this chapter includes implementation of all the design criteria described in Chapter 2. However, where impacts are identified that are not avoided or reduced to less than significant levels by the design criteria, mitigation measures are included.

### Organization of Chapter 3

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Chapter 3 combines information on the Affected Environment (including both regulatory and environmental settings) and Environmental Effects of the proposed project and alternatives for the various resources. For ease in reading, the discussion of alternatives is organized by resource area and presented in the following order:

1. Land Use
2. Aesthetics & Visual Resources
3. Recreation
4. Cultural Heritage Resources
5. Traffic & Transportation
6. Air Quality
7. Greenhouse Gases
8. Noise
9. Vegetation Resources
10. Fire & Fuels
11. Geology
12. Soil Resources
13. Hydrology & Watershed Resources
14. Aquatic Wildlife
15. Terrestrial Wildlife
16. Management Indicator Species
17. Special Status Plant Species
18. Noxious & Invasive Weeds
19. Agricultural Resources
20. Public Health and Safety
21. Social & Economic Conditions
22. Environmental Justice
23. Other NEPA & CEQA Considerations and Issues

## Scope of the Analysis and Indicators of Effects

The scope of the analysis briefly describes the geographic area(s) for the individual resource and the indicators potentially affected by implementation of the alternative. The scope of the analysis varies according to individual resource area and may also vary for direct, indirect, and cumulative effects.

## Affected Environment

The Affected Environment section consists of three subsections: Environmental Setting, Regulatory Setting, and Significance Criteria, which include the following information.

- **Environmental Setting** provides a description of the current resource conditions,
- **Regulatory Setting** identifies the plans, policies, laws, and regulations that are relevant to each resource. The applicant would fully comply with all regulations, will prepare any required plans, and will obtain any necessary permits or waivers.
- **Significance Criteria** provides the criteria used to define the level at which an impact would be considered significant in accordance with CEQA and NEPA. Significance criteria used in this EIS/EIR are based on the checklist presented in Appendix G of the State CEQA Guidelines (Association of Environmental Professionals, 2009); factual or scientific information and data; and regulatory standards of federal, state, and local agencies. These thresholds also encompass the factors taken into account under NEPA to determine the significance of an action in terms of context and the intensity of effects.

## Direct and Indirect Effects Analysis

In accordance with NEPA and CEQA, this document discloses the significant direct and indirect environmental effects of the project and its alternatives. This chapter provides the scientific and analytic basis for comparing the proposed project and its alternatives (40 CFR 1502.16). Direct and indirect environmental effects of implementing each of the alternatives are based on the indicators and issues identified for individual resources. Effects are determined to be detrimental or beneficial, and can be a result of direct, indirect or cumulative actions.

- *Direct effects* are caused by the actions to implement an alternative, and occur at the same time and place.
- *Indirect effects* are caused by the implementation action and are later in time or removed in distance, but are still reasonably foreseeable (i.e., likely to occur within the duration of the project).

## Cumulative Effects

NEPA defines cumulative effects as the result of the incremental direct and indirect effects of any action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant actions, taking place over a period of time (40 CFR 1508.8).

State CEQA Guidelines (Section 15355) defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact results from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probably future projects.” Cumulative impacts may also result from two project specific impacts which, when combined create a cumulative effect, such as with greenhouse gas emissions resulting from both construction activities and delayed vehicular traffic.

Appendix E provides a list of projects that were considered in determining cumulative effects of the project.

Under NEPA, the No Action alternative is a projection of existing conditions to the most expected and reasonable future condition if the proposed project were not approved. It includes predictable actions by others. Under CEQA, the environmental setting of the No Project alternative normally represents the “existing” baseline conditions in addition to what would be reasonably expected to occur if the proposed project were not approved based on current plans and consistent with available infrastructure and community services. With respect to electrical energy production, future conditions expected to occur under the NEPA No Action and CEQA No Project effects to resources may differ.

For purposes of this document, the NEPA No Action alternative analyzes effects based on energy production as forecasted for build-out of the Kirkwood community and resort as described in the approved Kirkwood Specific Plan (2003) and Kirkwood Mountain Master Development Plan (2007). Under CEQA, the No Project alternative assumes the level of energy produced by the new 5-megawatt powerhouse operating at full capacity as authorized by the Great Basin Unified Air Pollution Control District. To minimize redundancy, when effects to resources are the same under either alternative, the NEPA No Action Alternative and the CEQA No Project Alternative are discussed together. When effects to resources differ as a result of the NEPA No Action Alternative and the CEQA No Project Alternative, such as for air quality and greenhouse gases, the two alternatives are discussed separately.

## Maps and Figures

All maps and figures referenced within the text are located at the end of Chapter 3.

## Resources Eliminated from Detailed Analysis

CEQA Guidelines provide for the identification and elimination from detailed study the issues that are not significant or that have been covered by prior environmental review (Public Resources Code 21002.1). The NEPA regulations provide similar provisions (40 CFR 1501.7 [a][3]).

Based on initial scoping with the public and governmental agencies, and based on information obtained through literature review, agency correspondence and consultations, and field data collection, the following resources would not experience any potential environmental impacts resulting from the Proposed Project or any of the alternatives. These resources are not addressed further in this EIS/EIR, but are identified below with a brief explanation as to why impacts to each resource are not anticipated.

### Mineral Resources

The proposed project and alternatives would not affect any known mineral resource or result in the loss of availability of any known mineral resource. The project corridor would pass the entrance to Tragedy Spring quarry, but access would be maintained. Construction activities would be coordinated in advance with quarry operators to avoid affects to quarry access and traffic, and the project would not affect mineral resources. Therefore, no further evaluation is included in this EIS/EIR.

### Public Services (fire and police protection, schools, parks, and other public facilities)

As discussed below under the subsection “Growth Inducing Impacts” the proposed project would not directly or indirectly result in population growth or visitor use within Kirkwood beyond that already planned for and analyzed within the approved 2002 Kirkwood Final Environmental Impact Review and 2003 Kirkwood Specific Plan for build out of the Kirkwood community. Therefore, the project would not increase long-term demand for public services, such as fire and police protection, schools, parks, or other public facilities. The project would not disrupt emergency access during construction, as construction activities along public roadways are required to maintain emergency access. This requirement is discussed in further detail under the Traffic, Transportation, and Public Safety subsection below. No further evaluation of this resource is included in this EIS/EIR.

### Utilities and Service Systems (wastewater treatment facilities, storm water drainage facilities, water supplies, land fills)

As discussed below under the subsection “Growth Inducing Impacts” the proposed project would not directly or indirectly result in population growth or visitor use within Kirkwood beyond that already planned for and analyzed within the approved 2002 Kirkwood Final Environmental Impact Review and 2003 Kirkwood Specific Plan for build out of the Kirkwood Community. Therefore, this project would not require the construction of new water or wastewater treatment facilities, or storm water

drainage facilities. KMPUD has adequate capacity to treat existing and projected wastewater loads, and wastewater treatment requirements would continue to be met. The project does not affect KMPUD's ability to provide sufficient supplies of water to meet demand at build out, as approved in the Kirkwood Specific Plan. Solid waste would continue to be hauled from Kirkwood by a private contractor to a designated disposal site. No further evaluation of Utilities and Service Systems is included in this EIS/EIR.