

7 Other NEPA/CEQA Considerations

This chapter describes any unavoidable adverse and significant unavoidable impacts resulting from the proposed Merced to Fresno Section: Central Valley Wye alternatives of the high-speed rail (HSR) project. It also describes the relationship between short-term uses of the environment and long-term productivity. Finally, this chapter discusses significant irreversible or irretrievable commitments of resources or foreclosures of future options that implementing the selected Central Valley Wye alternative would create. This chapter is based on the detailed analysis of environmental resources of concern presented in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures.

7.1 Unavoidable Adverse and Significant Unavoidable Impacts

Chapter 3 describes the potential environmental consequences of implementing each Central Valley Wye alternative. The following sections describe unavoidable adverse impacts under the National Environmental Policy Act (NEPA) and significant and unavoidable impacts under the California Environmental Quality Act (CEQA) for all of the Central Valley Wye alternatives.

7.1.1 Unavoidable Adverse Impacts under NEPA

Section 2.1, Background, explains how the Federal Railroad Administration and the California High-Speed Rail Authority have used the tiered project development and environmental review process to design the HSR system, the Merced to Fresno Section Hybrid Alternative, and the proposed Central Valley Wye alternatives in a manner that avoids and minimizes impacts. Under NEPA, mitigation is prescribed for adverse effects, but in some cases the mitigation would not be sufficient to avoid the impact. The unavoidable adverse impacts are the following:

- **Noise and Vibration.** Operations of all Central Valley Wye alternatives would generate noise levels above ambient levels from train pass-bys, resulting in unavoidable adverse impacts from the exposure of sensitive receptors to severe noise. The number of adversely affected sensitive receptors would range from 23 to 39 single-family residences, depending upon the Central Valley Wye alternative. In addition, the realignment of portions of SR 152 associated with the three SR 152 alternatives would expose two sensitive receptors to an increase in ambient noise levels that would exceed the Noise Abatement Criteria of the Federal Highway Administration.
- **Socioeconomics and Communities.** Construction and operations of the SR 152 (North) to Road 13 Wye, SR 152 (North) to Road 19 Wye, and SR 152 (North) to Road 11 Wye Alternatives would have unavoidable adverse impacts on community cohesion resulting from road closures that disrupt pedestrian, bicycle, and transit circulation patterns; noise; and visual impacts that would divide and disrupt the community of Fairmead. All Central Valley Wye alternatives would have unavoidable adverse impacts on the agricultural economy from the acquisition and conversion of farmland to a nonagricultural use, and permanent disruptive noise impacts on communities adjacent to the Central Valley Wye alternatives.
- **Agricultural Farmland.** Construction of all Central Valley Wye alternatives would have unavoidable adverse impacts from the conversion of Important Farmland to nonagricultural use within the alternatives' project footprints, including the creation of remnant parcels of Important Farmland.
- **Aesthetics and Visual Resources.** Construction of all Central Valley Wye alternatives would have unavoidable adverse impacts on visual quality:
 - All Central Valley Wye alternatives would require removal of some historic palms that line Robertson Boulevard, identified as an important visual resource in the Madera County and Chowchilla General Plans, which would disrupt the continuous line of trees along Robertson Boulevard. The linear feet of disturbance to the tree row would range from 4,088 for the SR 152 (North) to Road 11 Wye Alternative to 5,590 for the Avenue 21 to Road 13 Wye Alternative. The HSR viaduct would also block views along Robertson

Boulevard, diminishing the visual presence of the tree row and contrasting with the scale and context of residential areas.

- The SR 152 (North) to Road 13 Wye, SR 152 (North) to Road 19 Wye, and SR 152 (North) to Road 11 Wye Alternatives would result in the loss of distant scenic views for residential viewers in the community of Fairmead.
- Cultural Resources. Construction of the Central Valley Wye alternatives would have unavoidable adverse effects on historic architectural resources from the destruction of a portion of the historic Robertson Boulevard Tree Row.

7.1.2 Significant Unavoidable Impacts under CEQA

Under CEQA, mitigation is prescribed for significant impacts, but in some cases the mitigation would not reduce the impact to a less-than-significant level. The impacts that cannot be mitigated to a less-than-significant level are the following:

- Noise and Vibration. Operations of the Central Valley Wye alternatives would generate noise levels above ambient levels from train pass-bys, causing significant noise impacts on sensitive receptors. The number of sensitive receptors exposed to severe noise would range from 23 to 39 single-family residences, depending upon the Central Valley Wye alternative. In addition, the realignment of portions of SR 152 associated with the three SR 152 alternatives would expose two sensitive receptors to an increase in ambient noise levels that would exceed the Noise Abatement Criteria of the Federal Highway Administration.
- Socioeconomics and Communities. Construction and operations of the SR 152 (North) to Road 13 Wye, SR 152 (North) to Road 19 Wye, and SR 152 (North) to Road 11 Wye Alternatives would have a significant and unavoidable impact on community cohesion in the community of Fairmead. The three SR 152 alternatives would introduce a new physical barrier that would divide and disrupt the existing community of Fairmead because of road closures that disrupt pedestrian, bicycle, and transit circulation patterns, generate new noise and visual impacts, and affect overall community cohesion.
- Agricultural Farmland. Construction of the Central Valley Wye alternatives would directly convert Important Farmland to nonagricultural use within the alternatives' project footprints, including the creation of remnant parcels of Important Farmland.
- Aesthetics and Visual Resources. Construction of the Central Valley Wye alternatives would have significant and unavoidable impacts on visual quality:
 - All Central Valley Wye alternatives would require removal of some historic palms that line Robertson Boulevard, identified as an important visual resource in the Madera County and Chowchilla General Plans, which would disrupt the continuous line of trees along Robertson Boulevard. The linear feet of disturbance to the tree row would range from 4,088 for the SR 152 (North) to Road 11 Wye Alternative to 5,590 for the Avenue 21 to Road 13 Wye Alternative. The HSR viaduct would also block views along Robertson Boulevard, diminishing the visual presence of the tree row and contrasting with the scale and context of residential areas.
 - The SR 152 (North) to Road 13 Wye, SR 152 (North) to Road 19 Wye, and SR 152 (North) to Road 11 Wye Alternatives would result in the loss of distant scenic views for residential viewers in the community of Fairmead.
- Cultural Resources. Construction of the Central Valley Wye alternatives would have significant and unavoidable impacts on historic architectural resources from the destruction of a portion of the historic Robertson Boulevard Tree Row.

7.2 Relationship between Short-Term Use of the Environment and the Enhancement of Long-Term Productivity

Construction of the Central Valley Wye alternatives would require an investment of materials to create new transportation infrastructure and upgrade existing electrical infrastructure. This investment of materials is expected to include natural resources such as rock and aggregate (e.g., for the production of cement for construction activities and for alignment and other facility foundations), dirt (e.g., for buildup of embankments), steel (e.g., for rail structures, catenary structures, and tubular steel poles), wood (e.g., for wood poles), other building materials, and the various structural components of the high-speed trains. Fossil fuels would be consumed during construction of the selected Central Valley Wye alternative. In addition, the Central Valley Wye alternatives would require permanent conversion of land to accommodate the new transportation infrastructure. In many cases, the land has an economic use supporting productive farmland, rural structures (including residences, businesses, and parks), and local roads and state highways. The consequences of these land conversions are described in Chapter 3.

As indicated in Chapter 1, Introduction and Purpose, Need, and Objectives, the capacity of California's intercity transportation system, including systems in the San Joaquin Valley, is insufficient to meet existing and future travel demand. The current and projected future congestion of the system will continue to result in deteriorating air quality, reduced reliability, and increased travel times. The Central Valley Wye alternatives would provide benefits such as increased safety from grade crossings, improved intercity transportation, reduced pollutant emissions, and reduced greenhouse gases. Because the California HSR system would provide a new alternative to regional transportation options that consume fossil fuels (e.g., automotive trips and commercial air travel), and because the Authority has committed to using 100 percent renewable energy resources (e.g., sun, wind, geothermal, bioenergy) to power the high-speed rail system, the Central Valley Wye alternatives, as part of the Merced to Fresno Section of the HSR system, would make an important contribution to greenhouse gas reduction efforts. As described in Section 3.18, Regional Growth, the proposed California HSR system would provide direct and indirect economic benefits, including short- and long-term employment benefits. The HSR system would improve accessibility to labor and customer markets and induce regional job growth by providing a more attractive market for commercial and office development. The new connectivity to the San Francisco and Los Angeles metropolitan regions provided by the HSR system could increase the regional work force and require the construction of new housing, provide new community services, and generally increase land consumption. Improved accessibility would increase the economic competitiveness of the San Joaquin Valley, as well as the state's industries and overall economy. The benefits of the HSR system are described in more detail in Chapter 1.

7.3 Irreversible Environmental Changes and Commitment of Resources

Section 15126.2(c) of the CEQA Guidelines requires that an environmental impact report address any significant irreversible environmental changes associated with a project. Similarly, the NEPA regulations require that the discussion of environmental consequences include "...any irreversible or irretrievable commitment of resources which would be involved in the project should it be implemented" (40 Code of Federal Regulations § 1502.16). The selected Central Valley Wye alternative would require the commitment of material and energy for construction and operation and the commitment of land for HSR facilities. All Central Valley Wye alternatives would require an investment of materials such as rock, aggregate, dirt, steel, wood, and other building materials. Fossil fuels would be consumed during construction. In addition, the Central Valley Wye alternatives would require the conversion of land, including productive agricultural land, to accommodate the new transportation infrastructure (including track, electrical interconnection facilities, and ancillary facilities). These environmental changes and commitments would be irreversible. These impacts under NEPA and CEQA are discussed throughout Chapter 3.