

6.0 CEQA/NEPA Decision Process and Other Considerations

This chapter describes any unavoidable adverse, potentially significant impacts that implementing the proposed Merced to Fresno Section of the HST Project would create and the relationship between short-term uses of the environment and long-term productivity. This chapter discusses significant irreversible or irretrievable commitments of resources or foreclosures of future options of their use that implementing the proposed HST and HMF would create. Finally, this chapter identifies the environmentally superior alternative and the environmentally preferable alternative as well as the Least Environmentally Damaging Practicable Alternative. This chapter is based on the detailed analysis of environmental resources of concern presented in Chapter 3.0, Affected Environment, Environmental Consequences, and Mitigation Measures.

6.1 Preferred Alternative

This Final EIR/EIS considers the No Project Alternative, three HST alternatives (with design options), HST stations, and five HMF alternatives. This document was available for public review and comment from August 15, 2011, until October 13, 2011, and comments were submitted at the public hearings and in writing to the Authority and the FRA. This Final EIR/EIS addressed these comments, which are available in Volume IV, Comments and Responses to the Draft EIR/EIS. Comments received from the public and agencies on the alternatives presented in the draft document (Authority and FRA, August 2011) were considered in the identification of the Authority's and FRA's Preferred Alternative. The Preferred Alternative is the alternative that best fulfills the purpose and need and agency objectives for the project while balancing impacts on the natural and human environment. This Final EIR/EIS presents a comparative analysis of the potential impacts of the alternatives, identifies the Authority's and FRA's Preferred Alternative for the HST alignment and station locations, and addresses public and agency comments. The Authority and FRA will consider both the San Jose to Merced Section EIR/EIS and the Fresno to Bakersfield Section Final EIR/EIS and select a preferred HMF alternative. The Authority and FRA will consider the east-west alignment connecting the Merced to Fresno Section to the west (i.e., the wye) in the San Jose to Merced Section Final EIR/EIS and select a preferred alternative. HMF sites and wyes are included in the EIR/EIS analysis for information purposes.

In making decisions, the Authority and FRA consider the physical and operational characteristics, and potential environmental consequences associated with the HST alignments in which relative differences are identified, including:

- Physical and Operational Characteristics:
 - Travel time
 - Capital cost
 - Right-of-way availability and ability to reach agreement with stakeholders to acquire easements or operating rights
 - Construction complexity
 - Impacts on existing railroad facilities and operations
 - Available funding limitations (e.g. American Recovery and Reinvestment Act of 2009 (ARRA) deadlines)

- Potential Environmental Impacts:
 - Transportation-related topics (air quality, noise and vibration, and energy)
 - Human environment (land use and community impacts, farmlands and agriculture, aesthetics and visual resources, socioeconomics, utilities and public services, and hazardous materials and waste)
 - Cultural resources (archaeological resources, historic properties) and paleontological resources.
 - Natural environment (geology and seismic hazards, hydrology and water resources, and biological resources and wetlands)
 - Section 4(f) and 6(f) resources (certain types of publicly owned parklands, recreation areas, and historic sites)

The Authority and FRA have not identified relative differences with regard to other HST System criteria. For example, all alternatives are expected to have operational independence, generate equal ridership, equally connect to other modes of transportation, and provide for logical expansion of the HST System.

6.2 Environmentally Superior Alternative and Environmentally Preferable Alternative

The CEQA guidelines [Section 15126.6(e)(2)] state that if the environmentally superior alternative is the No Project Alternative, then the EIR must also identify an environmentally superior alternative among the other alternatives. For the reasons described in this Final EIR/EIS, the environmentally superior alternative is not the No Project Alternative. The HST alternatives would provide benefits such as reducing vehicle trips on freeways and reducing regional air pollutants that would not be realized under the No Project Alternative. Therefore, CEQA does not require identification of an environmentally superior alternative. However, based on the Draft EIR/EIS and comments received during the public review process, the Authority identifies the Hybrid Alternative as the environmentally superior alternative in this Final EIR/EIS.

The environmentally preferable alternative is a NEPA term for the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. In this Final EIR/EIS, FRA identifies the Hybrid Alternative as the environmentally preferable alternative. The FRA will determine the environmentally preferable alternative in its Record of Decision (ROD) on the project.

6.3 Least Environmentally Damaging Practicable Alternative

Pursuant to the federal Clean Water Act (CWA), EPA, in conjunction with USACE, regulates the discharge of dredged or fill material into waters of the United States. Under Section 404(b)(1) of the CWA, discharge is generally not allowed if there is a practicable alternative that would have less adverse impact on aquatic ecosystems (so long as it does not have other significant adverse environmental consequences). This alternative is commonly known as the "Least Environmentally Damaging Practicable Alternative," or LEDPA.

Prior LEDPA determinations apply to the Merced to Fresno Section of the California HST Project. The FRA consulted with EPA and USACE on the Bay Area to Central Valley Program EIR/EIS. In 2008, EPA and USACE concurred that the preferred network alternative was most likely to contain the LEDPA. In the Central Valley, the Authority selected the UPRR/SR 99 corridor as part of the preferred network alternative, but recommended continued study of the BNSF corridor. The "most likely" LEDPA

determination at the program level assumed that a final LEDPA determination would be confirmed for each of the individual HST sections.

During the preparation of this project-level EIR/EIS, the Authority and FRA continued to consult with EPA and USACE regarding the project's environmental impacts and refinement of the LEDPA determination from the Bay Area to Central Valley Program EIR/EIS. USACE is a NEPA cooperating agency on all nine sections of the HST System. Moreover, FRA and EPA executed an MOU outlining roles and responsibilities for integration of Section 404 of the CWA, Section 408 of the Rivers and Harbors Act, and NEPA, which includes milestones for agreement/concurrence such as purpose and need, the range of alternatives and the LEDPA determination. The selection of the LEDPA considers USACE's permit program (33 CFR Part 320-331) and EPA's Section 404(b)(1) Guidelines (40 CFR 230-233). EPA and USACE issued letters concurring with the Hybrid Alternative as the LEDPA on March 23 and 26, 2012, respectively.

6.4 Unavoidable Adverse Potentially Significant Impacts

Chapter 3 describes the potential environmental consequences of developing the Merced to Fresno HST Project. Mitigation is prescribed for significant adverse impacts, but in some cases the mitigation would not reduce the impact's severity to a less-than-significant level. Impacts that cannot be mitigated to a less than significant level follow:

- **Air Quality.** Operation of the HMF may cause the total PM₁₀ and PM_{2.5} ambient concentrations to exceed California Ambient Air Quality Standards.
- **Noise and Vibration Effects.** The HST alternatives would have significant and unavoidable noise and vibration impacts on sensitive receptors after mitigation in some locations as decided in coordination with local communities. Additional vibration impacts could occur along the BNSF East of Le Grand design option if mitigation is not feasible. Mitigation measure N&V-MM#7 includes options that depend on concurrence by the affected property owner, for example, building modification or a noise easement.
- **Biological Resources.** Various segments of the HST alternatives would have significant and unavoidable impacts on biological communities, special-status species, and habitat of concern. Habitat for animals and plants, including wetlands and water courses, protected under federal and state law would also be affected.
- **Socioeconomics, Communities, and Environmental Justice.** The guideway between the Castle Commerce Center HMF and the Merced HST station would bisect an existing mobile home community and Joe Stefani Elementary School, which would have a significant and unavoidable impact on the community.
- **Agricultural Lands.** All HST alternatives would convert agricultural land to nonagricultural use, which would have significant and unavoidable impacts on agricultural land.
- **Parks, Recreation, and Open Space.** All HST alternatives would have significant and unavoidable impacts on public parks in Merced County and the City of Fresno. The UPRR/SR 99 Alternative would have significant and unavoidable impacts on public parks in the City of Madera.
- **Aesthetics and Visual Resources.** All HST alternatives would have significant and unavoidable visual quality degradation impacts in Le Grand, Chowchilla, Fairmead, Downtown Madera, Madera Acres, or Fresno. In some locations, installation of sound barriers to mitigate noise impacts in some locations could impair visual quality.
- **Cultural Resources.** All alternatives would have significant and unavoidable impacts on historically significant built-environment resources, including resources listed on or eligible for listing on the NRHP.

6.5 Relationship between Short-Term Uses of the Environment and the Enhancement of Long-Term Productivity

Developing the Merced to Fresno Section of the HST Project would require an investment of materials to create new transportation infrastructure. This investment of materials is expected to include natural resources such as rock and aggregate (e.g., for alignment and other facility foundations), steel (e.g., for rail and catenary structures), other building materials, and the various structural components of the HST trainsets. Fossil fuels would be consumed for project construction. In addition, the project would require conversion of land to accommodate the new transportation infrastructure. In many cases, the land required is already being put to economic use as productive farmland, urban and rural structures (including homes, 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, Project Purpose, Need, and Objectives, the capacity of California's intercity transportation system, including in the San Joaquin Valley, is insufficient to meet existing and future travel demand, and the current and projected future congestion of the system will continue to result in deteriorating air quality, reduced reliability, and increased travel times. The Merced to Fresno Section of the HST Project would provide benefits (such as increased safety, reduced carbon dioxide emissions, reduced greenhouse gases) and accessibility improvements (such as transit linkages to the Bay Area, Sacramento, and Southern California). HST service will provide linkages to a number of bus, light rail, and commuter rail services for intercity travelers to other areas. Because the HST System would provide a new alternative to regional transportation options that would require consumption of fossil fuels (e.g., automotive trips and commercial air travel), and because of the Authority's policy goal to obtain the power required from the HST System from 100% clean, renewable resources, the Merced to Fresno Section of the HST Project would make an important contribution to greenhouse gas reduction efforts. As described in Section 3.18, Regional Growth, the proposed HST System would provide direct and indirect economic benefits, including short- and long-term employment benefits. The HST 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 in station areas. Regional job growth is expected to be primarily internal to Merced, Madera, and Fresno counties (i.e., not by population shifts from the Bay Area and Southern California). Improved accessibility would increase the competitiveness of the San Joaquin Valley, as well as the state's industries and overall economy. The benefits of the HST Project are described in more detail in Chapter 1, Project Purpose, Need, and Objectives.

6.6 Significant Irreversible Environmental Changes That Would Result from the Proposed Project if Implemented

The Merced to Fresno Section of the HST Project would require the commitment of material and energy for construction and operation, and the commitment of land for HST facilities. As previously described, the project would require an investment of materials such as rock, aggregate, steel, and other building materials. Fossil fuels would be consumed for project construction. In addition, the project would require the conversion of land to accommodate the new transportation infrastructure (including stations, ancillary facilities, and potentially an HMF). These environmental changes would be irreversible. The significance of these impacts is evaluated throughout Chapter 3. Overall, it is expected that residents and businesses within the region would benefit from the improved quality of the transportation system (e.g., improved accessibility, increased capacity, energy savings), which would outweigh the irreversible commitment of resources.