

17 Standard Responses

Introduction

During the public review periods for the Draft Supplemental EIR/EIS and the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, the Authority received a total of 82 comment submittals through a combination of letters, e-mails, comment cards at public meetings/hearings, and oral comments (court reporter) provided at the CEQA public hearing. Many of the comments received during these public comment periods raised similar issues about the project and its environmental impacts. The Authority has therefore prepared a chapter of standard responses to address the most frequently raised issues.

The standard responses below provide a comprehensive response to an issue so that multiple aspects of the issue are addressed in an organized manner in one location. This reduces any repetition of responses. When an individual comment raises an issue discussed in a standard response, the response to the individual comment includes a cross reference to the appropriate standard response.

17.1 General Standard Responses

17.1.1 CVY-Response-GENERAL-1: Oppose HSR Project

Multiple commenters expressed general opposition to high-speed rail (HSR) in California.

As discussed in Chapter 1 of the Draft Supplemental EIR/EIS, California's population is growing rapidly and, unless new transportation solutions are identified, traffic conditions will only become more congested and airport delays will continue to increase. The proposed 220 mph HSR system would have lower passenger costs than air travel for the same city-to-city markets and service that would be competitive with automobile travel. It would increase mobility while reducing air pollution, decreasing dependence on fossil fuels, protecting the environment by reducing greenhouse gas emissions, and promoting sustainable development in the areas near the stations compared with existing trends. By moving people quicker and at lower cost than today, the HSR system would boost California's productivity and enhance the economy (see the discussion under Section 1.2.4, The Merced to Fresno Section's Contribution to Meeting the Statewide and Regional Need for the HSR System, in the Draft Supplemental EIR/EIS).

HSR systems around the world cover their own operating costs through revenues, which is a key reason why 13 nations have built almost 10,000 miles of HSR lines in the last few decades and why 24 countries are planning and building another 16,000 miles. The financial analysis of the California system, described in the 2018 Business Plan (Authority 2018, page 96), demonstrates that ridership and revenues would cover the cost of operating the system, meaning that no operational subsidy would be required.

It is anticipated that the HSR project will be financed through a combination of federal, state, and private funds. To date, the Authority has secured funding through Federal Transit Administration (FTA) High-Speed Intercity Passenger Rail Program; California's Proposition 1A, the Safe, Reliable High-Speed Passenger Train Bond Act, adopted by state voters in November 2008; and cap-and-trade proceeds. Through these funding sources, California has identified \$9.95 billion for investment in development of its HSR project, including approximately \$3.48 billion in federal grant funds obligated through cooperative agreements with FTA (Authority 2018, page 42).¹

¹ In a February 2019 letter to the Authority, FTA stated that it would terminate the cooperative agreement with the Authority and deobligate the FY10 funding to the Authority associated with that agreement. The Authority responded to this letter in March 2019, inviting FTA to reconsider and to continue discussions. On May 16, 2019, FTA formally terminated the cooperative agreement, putting the state on notice regarding the proposed deobligation of funding. On May 21, 2019, the Authority filed a lawsuit in U.S. District Court challenging this termination on several grounds. The FTA and the Department of Transportation have stipulated that the FY10 funds will not be re-obligated, transferred, or awarded to any other program, except through a public process that would provide time for the Authority to seek a preliminary injunction.

Employment Opportunities

Designing, planning, and building the nation's first HSR system is already stimulating job growth across the state. In fiscal year 2017/2018, 9,400 full-time jobs were created. The Draft Supplemental EIR/EIS estimates that the Central Valley Wye Alternatives would generate between 2,330 and 2,720 direct construction jobs over the anticipated 4 years of construction, depending on the alternative selected. It is expected that the workers for these jobs would be drawn from local labor force available in Madera, Merced, Fresno, and Stanislaus Counties. It is also expected that this increase in construction activity would induce job growth in the area even further, in the range of 5,790 to 6,730 jobs over the 4 years of construction, depending on the alternative selected.

Ticket Prices

As stated in the 2018 Business Plan, HSR service would ultimately be provided by a rail operator. Although the Authority would set fare guidelines and policies, the rail operator would ultimately establish ticket prices. For the purposes of forecasting ridership and revenue, the 2018 Business Plan assumed the average cost of a trip from San Francisco to Los Angeles would be \$93 in 2018 dollars.

Air Quality

As noted in Draft Supplemental EIR/EIS Section 3.3.6.3, long-term operation of any of the Central Valley Wye Alternatives would help improve air quality in the San Joaquin Valley Air Basin by reducing vehicle miles traveled (VMT) compared with the No Project Alternative. Automobiles produce a major portion of the air pollutants generated in the air basin; reducing VMT would reduce these emissions.

Wildlife and Habitat

All alternatives have both direct and indirect effects on wildlife habitat as well as associated special-status species of plants and wildlife. Construction-related effects would occur during site preparation and system building. Operational effects would occur because of runoff, noise, motion, and/or startle. During site preparation, plant communities, some of which comprise elements of wildlife habitat, would be removed from the project footprint, prior to construction activities. Construction activities may cause wildlife to be displaced or otherwise affected through the clearing, scraping, and removal of vegetation. The displacement of wildlife into the adjoining habitat could create increased pressures for survival because other individuals would compete for finite resources, which generally reduces the local populations.

In the vicinity of the Central Valley Wye Alternatives, State Route (SR) 99, SR 152, the BNSF Railway (BNSF) and Union Pacific Railroad (UPRR) railroad tracks, and urban development are key existing impediments to wildlife movement. Six designated or modeled wildlife movement corridors have been identified within the study area for the Central Valley Wye Alternatives. As noted in Section 3.7.7.5 (Impact BIO#45), each of the Central Valley Wye Alternatives would cross the same wildlife corridors but with varying distances. The SR 152 (North) to Road 11 Wye Alternative would cross with the least distance.

The Draft Supplemental EIR/EIS includes mitigation for impacts on plant and wildlife habitat, including off-site habitat restoration, enhancement, and preservation; the purchase of credits from one or more agency-approved mitigation banks; or in-lieu fee contributions, to compensate for impacts from construction or operation of the preferred alternative. The Draft Supplemental EIR/EIS also includes mitigation to address temporary and permanent impacts on wildlife movement corridors. It is worth noting that, separate from the Central Valley Wye Alternatives, the HSR program has successfully preserved more than 2,000 acres of natural habitat to date.

Farmland

Each of the Central Valley Wye Alternatives would require the conversion of farmland to transportation use. As shown in Section 3.14.6.3, the total acreage of Important Farmland converted by the Central Valley Wye Alternatives would range from a low of 2,145 acres (associated with the SR 152 [North] to Road 11 Wye Alternative) to 2,305 acres (the SR 152 [North] to Road 19 Wye Alternative). This is a very small percentage of the land dedicated to agricultural use in Madera and Merced Counties (more than 1.9 million acres total in both counties).

The Authority will acquire land from property owners whose land is directly affected by the project, in accordance with the Uniform Relocation Act (42 United States Code [U.S.C.] Chapter 61). The Uniform Relocation Act establishes minimum standards for the treatment of and compensation to individuals whose real property is acquired for a federally funded project. The project must also adhere to California Relocation Assistance Act requirements (see Appendix 3.12B, Relocation Assistance Documents, for more information). Nevertheless, the potential for temporary disruptions to agricultural operations would exist as production is reallocated between owners and as facilities are relocated. Related economic sectors, such as processing facilities, could also experience some short-term multiplier effects from reduced production.

The California High-Speed Rail Authority is committed to working with local, state and federal agencies as well as local stakeholders to develop a HSR system that preserves the open spaces and environmental resources that make California golden. On November 15, 2012, the Authority Board of Directors approved an agreement with the Department of Conservation regarding agricultural preservation. This agreement will identify suitable agricultural land for mitigation of project impacts and fund the purchase of agricultural conservation easements from willing participants. On November 25, 2014, the Department of Conservation and the Authority announced that they would begin soliciting farmland mitigation proposals. To learn more about this program, please visit the Department of Conservation's Agricultural Land Mitigation Program webpage:

<https://www.conservation.ca.gov/dlrp/grant-programs/mitigation/>.

With the help of the Department of Conservation, the Authority has protected more than 1,200 acres of program-wide agricultural lands to date.

Agriculture Impacts

The Central Valley Wye Alternatives would adversely affect individual farms and other agricultural operations. Construction of the HSR system would result in disruptions to or removal of existing infrastructure, such as buildings and other structures, pumps and wells, reservoirs/tailwater ponds, irrigation systems (including distribution lines, canals, and gravity-flow systems), power supplies, and access routes. These disruptions and removals would be, understandably, very important to individual farm owners and operators and, in extreme cases, could result in existing agricultural operations being unable to continue.

The right-of-way for the Central Valley Wye Alternatives would sever parcels, including parcels of agricultural land. Although some parcel severance is inevitable with any of the Central Valley Wye Alternatives, the Authority has made great efforts to minimize this impact through the selection and careful project design. Moreover, each of the Central Valley Wye Alternatives would incorporate overcrossings or undercrossings at reasonable intervals to preserve access across the proposed rail right-of-way. Nevertheless, in some areas, severance would create small remnant parcels that would be rendered uneconomic for farming operations.

The Authority is committed to working with agricultural property owners to resolve or mitigate, if possible, acquisitions that result in the division of farmlands. The Authority has therefore incorporated a farmland consolidation program into the project and will work to ensure that remnant parcels can remain in productive agricultural use.

The Authority recognizes the importance of these disruptions to agricultural property owners. The Authority will acquire land from property owners whose land is directly affected by the project in accordance with the Uniform Relocation Act (42 U.S.C. Ch. 61). The Uniform Relocation Act establishes minimum standards for the treatment and compensation of individuals whose real property is acquired for a federally funded project. The project must also adhere to California Relocation Assistance Act requirements (see Appendix 3.12B, Relocation Assistance Documents, for more information).

Additional information about acquisitions, compensation, and relocation assistance is also available at the Authority's website:

http://www.hsr.ca.gov/Programs/private_property.html.

Business Impacts

Project construction would require acquisition of a number properties where businesses are located. The Authority will acquire the land from property owners whose land is directly affected by the project, in accordance with the Uniform Relocation Act (42 U.S.C. Ch. 61). The Uniform Relocation Act establishes minimum standards for the treatment of and compensation to individuals whose real property is acquired for a federally funded project. The project must also adhere to California Relocation Assistance Act requirements (see Appendix 3.12B, Relocation Assistance Documents, for more information).

Additional information about acquisitions, compensation, and relocation assistance is also available at the Authority's website:

http://www.hsr.ca.gov/Programs/private_property.html.

Depending on the location of the construction activities and the nature of the activities, the impacts on businesses would vary. The greatest impacts on businesses would occur where businesses would have property acquired to accommodate construction of the HSR system, necessitating relocation of the businesses. Businesses that tend to rely on drive-by traffic to attract customers would also experience impacts where temporary construction activities would result in detours or localized congestion; however, some of these businesses may receive positive business impacts as construction workers buy goods and services, in addition to regular customers.

Communities

The three SR 152 Central Valley Wye Alternatives (in other words, excluding the Avenue 13 to Road 21 Wye Alternative) would result in both 1) construction-period effects on community cohesion and 2) permanent community impacts (community division) on the community of Fairmead. Each of these three SR 152 Central Valley Wye Alternatives would traverse the Fairmead community on a new HSR right-of-way, requiring the conversion of residential and agricultural properties to transportation use. The Draft Supplemental EIR/EIS identifies an extensive program of mitigation measures that were developed in consultation with the Fairmead community. These measures include roadway improvements, stormwater management improvements, creation of a multi-use trail, noise mitigation measures, and landscaping as well as funding for construction of a community center and improved water and sewer connections.

The Avenue 13 to Road 21 Wye Alternative would avoid construction-period and permanent community impacts. The Draft Supplemental EIR/EIS states that this alternative would affect Fairmead and Chowchilla differently compared with the three alternatives with east–west alignments adjacent to SR 152 by virtue of being farther south of both communities (see Figure 2-5 in the Draft Supplemental EIR/EIS). The comparative differences among the four alternatives with respect to community division and the displacement of residences and business are described in Section 3.12, Socioeconomics and Communities. The potential effect of the Central Valley Wye on Fairmead has been one of many important considerations in the development of the alternatives for study.

The Avenue 21 to Road 13 Wye Alternative would avoid Fairmead. However, as discussed in Chapter 8, Preferred Alternative, the Authority identified the SR 152 (North) to Road 11 Wye Alternative as the preferred alternative, after balancing the multiple factors described in Section 8.4, Factors Influencing the Identification of the Preferred Alternative, and Section 8.5, Preferred Alternative. These factors include the regional transportation benefits, as well as the safety benefits, derived from aligning the east–west HSR alignment with SR 152 and the impacts across the alternatives related to biological resources and wetlands, noise, displacements, the conversion of land uses in Fairmead, the conversion of Important Farmland, aesthetics and visual resources in Fairmead, the Robertson Boulevard Tree Row, and community cohesion in Fairmead. The Authority determined that SR 152 (North) to Road 11 Wye Alternative represents the best balance of adverse and beneficial impacts on the natural environment and community resources and maximizing the transportation and safety benefits of the HSR system.

Outside of Fairmead, the wye alternatives would generally avoid any need to bisect neighborhoods because they would generally be along or adjacent to existing transportation facilities and would maintain through access. Because the HSR system would be grade separated, it would allow safe and free-flowing connecting roads to cross the trackway.

Growth

Population growth is anticipated to increase in the Central Valley, even without the HSR system. For example, the 2016 *Fresno Draft Fulton Corridor Specific Plan*, which focused on the historic 655-acre heart of downtown Fresno, was published to guide future development and promote commercial and mixed-used development projects, including the provision of approximately 6,300 units for 12,000 residents as well as policies covering land use planning, transportation, community services, and infrastructure.

As shown in Draft Supplemental EIR/EIS Section 3.18.6.3, Central Valley Wye Alternatives, the Merced to Fresno Project Section, inclusive of the Central Valley Wye Alternatives, would induce about 3 percent more population growth and 4 percent more job growth in Madera, Merced, Fresno, and Stanislaus Counties, over and above regional projections for a no-project scenario. However, construction and operation of the project, including the Central Valley Wye Alternatives, would help provide employment opportunities in an area of high unemployment and encourage more compact growth around the proposed stations, at intensities greater than those that currently exist.

17.1.2 CVY-Response-GENERAL-2: Alternatives Analysis and Selection for CVY

Multiple commenters expressed a preference for one of the alternatives over the others, opposed a particular alternative because of its impacts, and suggested the Authority study other alternatives. The Authority acknowledges such views, but, as detailed below, the Authority considered numerous potential alternatives and identified four for detailed study. The Draft Supplemental EIR/EIS ultimately considered a reasonable range of alternatives.

Development of the Range of Alternatives Studied in the Supplemental EIR/EIS and Designation of the Preferred Alternative

The Central Valley Wye is within the Merced to Fresno Project Section of the statewide HSR project. The Authority’s Board of Directors certified the Final EIR/EIS for the Merced to Fresno Project Section in May 2012. In September 2012, FRA issued a Record of Decision for the project. Both of these decision documents approved a north–south HSR alignment outside the wye as well as ancillary facilities. Both decision documents indicated that the wye connection area would require further evaluation and input. Accordingly, the Supplemental EIR/EIS focuses on alternatives for the wye connection.

Following the 2012 decisions on the Merced to Fresno Project Section, the Authority and FRA evaluated the wye connection further. As part of the evaluation, the Authority and FRA engaged in additional outreach and discussions with stakeholders to identify refinements to the wye design options evaluated in the Merced to Fresno Final EIR/EIS, opportunities to minimize potential impacts, and other potential alternative alignments. These discussions generated multiple conceptual alignments in addition to the wye design options previously considered. The Authority worked closely with the California Department of Transportation (Caltrans), Merced and Madera Counties, the City of Chowchilla, the Merced and Madera County Farm Bureaus, the community of Fairmead, and other local stakeholders to develop and refine the Central Valley Wye alternatives even further.

The Authority considered stakeholder and public input and used it to prepare the *Merced to Fresno Section: Central Valley Wye Alternatives Supplemental Alternatives Analysis Report* (Supplemental Alternatives Analysis Report) (Authority and FRA 2013a). The report summarized ongoing stakeholder engagement, public feedback, and input from regulatory agencies. The report evaluated 14 alternatives and selected four to carry forward for further evaluation in the Supplemental EIR/EIS (Figure 2-3 and Figure 2-4). These four potential Central Valley Wye Alternatives corresponded with four general corridor combinations: north of SR 152, south of SR 152, east of Chowchilla, and west of Chowchilla. Following completion of the 2013 Supplemental Alternatives Analysis Report, the Authority and FRA continued ongoing coordination with the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) pursuant to the *Memorandum of Understanding: National Environmental Policy Act/Clean Water Act Section 404/Rivers and Harbors Act Section 14 Integration Process for the California High-Speed Train Program* dated November 2010 (FRA et al. 2010). This coordination included preparation of a *Supplemental Checkpoint B Summary Report in Support of the Merced to Fresno Section: Wye Alternatives* (Checkpoint B Summary Report) (Authority and FRA 2013b), which was intended to assist USACE and EPA in selecting the Central Valley Wye Alternatives to be further evaluated pursuant to the Section 404(b)(1) Guidelines of the Clean Water Act, part of Section 404 permitting for the Central Valley Wye.

The 2013 Checkpoint B Summary Report included 17 alternatives, the 14 alternatives that were evaluated in the 2013 Merced to Fresno Supplemental Alternatives Analysis Report and three variations of other alternatives that had been previously considered but withdrawn from further consideration prior to the Merced to Fresno Final EIR/EIS. The western extent of the wye alternatives considered in the Checkpoint B Summary Report extended farther west relative to the wye design options evaluated in the Merced to Fresno Final EIR/EIS. The extension of the western terminus of the alternatives allowed for consistent consideration of the range of feasible alternatives that were available to connect the north–south HSR alignments with the east–west HSR alignments of the San José to Merced Project Section. Based on the analysis in the 2013 Checkpoint B Summary Report and its addenda (noted below), the Authority and FRA determined that 13 of the 17 Central Valley Wye Alternatives should be eliminated from further consideration. This decision was supported by evaluation of the alternatives in the context of the following factors: consistency with the HSR system and the purpose and need of the Merced to Fresno Project Section, impacts on aquatic resources, impacts on the environment, construction costs, logistics regarding implementation/construction, incompatibility with land use, and public/agency input. Additional information on the reasons for selecting or rejecting potential alternatives is provided in the Checkpoint B Summary Report.

Continued coordination between the Authority, FRA, USACE, and EPA resulted in further refinements to the Central Valley Wye Alternatives. In 2014, the Authority and FRA prepared two addenda to the Checkpoint B Summary Report: *Report Addendum for the September 10, 2013, Checkpoint B Summary Report* (May 2014) (Authority and FRA 2014a) and the *Second Report Addendum to the September 10, 2013, Checkpoint B Summary Report* (August 2014) (Authority and FRA 2014b). In 2016, the Authority and FRA prepared a third addendum to the Checkpoint B Summary Report: *Third Report Addendum to the September 10, 2013, Checkpoint B Summary Report* (November 2016) (Authority and FRA 2016a). During preparation of these reports, the Authority and FRA continued to engage with stakeholders, which helped inform the range of

alternatives being considered and led to the selection of the four Central Valley Wye Alternatives that were the subject of the analysis in the Draft Supplemental EIR/EIS.

The result of this planning and screening process was identification of the range of reasonable alternatives described in Chapter 2, Alternatives, of the Draft Supplemental EIR/EIS. Following further development of environmental information, the Authority Board of Directors designated the SR 152 (North) to Road 11 Wye Alternative as the Preferred Alternative (Authority 2017), as further described in Chapter 8. The four alternatives were evaluated in the Draft Supplemental EIR/EIS, and the potential impacts, both beneficial and adverse, were identified and discussed. Chapter 8 summarizes the comparative environmental impacts of each alternative and describes why the SR 152 (North) to Road 11 Wye Alternative strikes the best balance with respect to project objectives, impacts on natural environmental resources, community impacts, stakeholder input, and construction costs. This Final Supplemental EIR/EIS affirms the Authority's earlier designation of the SR 152 (North) to Road 11 Wye Alternative as the Preferred Alternative.

Alignments and Central Valley Wye Alternatives East of Chowchilla

Over the past several years, the Authority has considered numerous rail alignments between Merced and Fresno as well as several distinct alignments for a wye alignment, including some east of the SR 99 corridor. Such alignments were considered in the September 2013 Checkpoint B Summary Report as well as the three addenda published in May 2014, August 2014, and November 2016, respectively.

Potential wye alternatives considered in the East of Chowchilla Corridor include the SR 140 Wye, SR 152 (North) to Road 18 Refined Wye, SR 152 (North) to Road 19 Wye, SR 152 (South) to Road 18 Refined Wye, SR 152 (South) to Avenue 21 to SR 99 Wye, SR 152 (South) to Avenue 21 to Road 19 Wye, Avenue 22 Wye, Avenue 21 to SR 99 Wye, and Avenue 21 to Road 19 Wye. Although some commenters indicated a preference for a wye connection east of Chowchilla, there was mixed support for the Road 18 Wye Alternatives. Commenters noted that alternatives on the east side of Chowchilla would eliminate tracks through Chowchilla and no longer surround Chowchilla on all sides. Opposition to the Road 18 Wye Alternatives was in response to the potential for direct impacts on residential and business properties, potential impacts on the Greenhills Estates residents, and impacts related to traffic circulation. Ultimately, the Authority dropped the Road 18 Wye Alternative in favor of a Road 19 Wye Alternative farther east, which reduced noise and visual impacts on the portion of the city of Chowchilla that lies east of SR 99.

I-5 Alignment

Some comments continue to advocate for the Authority evaluating an Interstate 5 (I-5) alignment in the Central Valley. A potential I-5 alignment was considered and eliminated from further study in the 2005 Statewide Program EIR/EIS. In that document, the Authority and FRA determined that I-5 is not a reasonable alternative for detailed consideration in the Merced to Fresno Project Section of the HSR system, which includes the area of the Central Valley Wye Alternatives.

Although the I-5 corridor could provide better end-to-end travel times between San Francisco and Los Angeles compared with alignment alternatives that follow the SR 99 corridor, it would not meet basic project objectives. First, because it is not where the bulk of the Central Valley population resides, the I-5 corridor would result in lower ridership and would not meet the current and future intercity travel demand generated by the Central Valley communities as well as the SR 99 corridor.² Second, the I-5 corridor would not provide transit and airport connections in this area and thus would not meet the basic objectives of maximizing intermodal transportation opportunities and improving the intercity travel experience in the Central Valley area as well as along the SR 99 corridor. Also, use of the I-5 corridor would encourage sprawl development, the

² Kantor, Shawn. 2008. *The Economic Impact of the California High-Speed Rail in the Sacramento/Central Valley Area*. University of California, Merced. September.

opposite of what the HSR system is intended to achieve, and was opposed by numerous agencies, including EPA.

With respect to the first issue, the existing or projected population for the I-5 corridor between the San Francisco Bay Area and Los Angeles is very small. In contrast, almost 5 million residents are projected to live in the San Joaquin Valley by 2029, with most of that population concentrated along the SR 99 corridor (Authority 2018). Residents along the SR 99 corridor lack a competitive transportation alternative to the automobile. The detailed ridership analysis showed that they would be ideal candidates for an HSR system. In addition, the I-5 corridor would not be compatible with current land use planning in the Central Valley, which focuses on and accommodates growth in the communities along the SR 99 corridor. The concept of linking the I-5 corridor to Fresno and Bakersfield with spur lines was considered at the program level but dismissed because it would add considerably to I-5 corridor capital costs and still have the same low ridership figures compared to those of the SR 99 corridor. For these reasons, the I-5 corridor was dismissed from further consideration in the Statewide Program EIR/EIS. The reasons for rejecting an alignment alternative along the I-5 corridor were also explained in the Merced to Fresno Final EIR/EIS (please reference MF-Response-GENERAL-2: Alternatives).

There is no new information to indicate that this analysis should be revisited, nor that a different conclusion would be reached. Because it is isolated from existing cities and population centers, as well as airports, it does not meet the purpose and need of the project (i.e., using high-speed intercity travel capacity to supplement critically over-used interstate highways and commercial airports). Moreover, based on the Tier 1 decisions and subsequent Tier 2 decisions for the Merced to Fresno Project Section and the Fresno to Bakersfield Project Section, the Authority has commenced construction on approved portions of these sections that largely parallel the UPRR/SR 99 and BNSF rail corridors for much of the distance between Merced and Bakersfield. For this additional reason, the I-5 corridor is not a reasonable alternative in the Central Valley.

Existing Transportation Corridors

Some comments have suggested that the EIR/EIS should examine alternative routes that are completely within existing transportation corridors, primarily the BNSF and UPRR/SR 99 corridors. As a corollary, comments have suggested using existing tracks or upgrading Amtrak facilities to allow Amtrak to operate at higher speeds.

Because of the proposed operating speeds along the route for the Preferred Alternative as well as FRA's safety requirements, the Preferred Alternative would require fully grade-separated tracks that are dedicated to HSR use. Grade separation is necessary to avoid collisions where tracks cross roads or other rail lines. Crossing guards do not provide an adequate level of exclusion (at upper speeds, HSR travels the length of a football field in less than 1 second). Dedicated tracks (those used only by HSR) are necessary to avoid scheduling conflicts as well as potential conflicts with slower-moving trains. They are also necessary to ensure proper track maintenance for high-speed operations, with curves engineered for higher speeds.

Existing railroad tracks in the project area (as well as the UPRR coastal route to the west) are built to support freight and lower-speed passenger service. These services share the tracks in some locations, requiring passenger trains to wait for the passage of freight trains on a regular basis. The 2005 Program EIR/EIS (Authority and FRA 2005) concluded that use of such existing tracks would be unacceptable because it would prevent HSR from providing high-speed service and achieving the travel times required by Proposition 1A. The existing tracks are not grade separated from intersecting roads, with at-grade crossings being the normal configuration. Neither the existing tracks nor the roadbeds were built to accommodate or meet minimum standards for HSR operations. In addition to the safety and capacity constraints, portions of the existing rail rights-of-way are not straight enough to accommodate the design speed for HSR, which would necessitate divergence to maintain adequately high speeds. For example, an operating speed of 220 mph requires track curves have to a minimum radius of 5 miles. Use of existing track for the HSR in the Merced to Fresno Project Section was therefore not considered to be a reasonable alternative for

study in the Merced to Fresno EIR/EIS; therefore, no wye alternative using that or any other existing rail corridor was analyzed in the Draft Supplemental EIR/EIS.

Limitations of Existing Corridors and Amtrak Upgrade

Proposition 1A (2008) called for the HSR alignment to follow existing transportation or utility corridors to the extent feasible. However, because of the engineering and operational needs, HSR cannot be built solely within existing transportation corridors. Existing corridors are not straight enough and the curve radii are not long enough to support high-speed operations along their full length. Safety considerations also dictate the need to separate the HSR from roads and conventional rail operations. Furthermore, to make greater use of existing corridors, additional rights-of-way would be needed to provide adequate widths and curve radii for high-speed operations. This would necessitate the acquisition and removal of greater numbers of homes and businesses to expand and straighten these corridors, with greatly increased impacts on existing communities where the alignments pass through urban areas.

In compliance with the objective of using existing corridors where feasible, in making decisions regarding HSR alignments and station locations, the Authority has gone to great lengths to maximize the use of existing transportation corridors and minimize impacts on both agricultural lands and communities. In some parts of the state, a blended system, supporting both HSR service and existing lower-speed regional rail service, such as the Caltrain system in the San Francisco Bay Area or Metrolink in the Los Angeles area, would be most appropriate for minimizing impacts on communities. In areas with lower housing densities, such as the Central Valley, dedicated tracks are needed to meet non-stop travel times.

To achieve the non-stop travel times set by Assembly Bill 3034, sustained operations at more than 200 mph would be required throughout most of the Central Valley. At best, upgrades to the infrastructure used by Amtrak would allow speeds of approximately 120 mph. Therefore, this would not meet a basic objective of the project.

Focus on Merced to Bakersfield Only and Eliminate the Wye

Some comments suggest that the Authority should consider an alternative that would include only north–south track, with no wye connection to the west, based on several factors, including 2019 statements from Governor Newsom and the status of federal funding. An alternative that would include only north–south track and no wye would not meet the purpose and need for the statewide HSR system or the purpose and need for the Merced to Fresno Project Section, both of which involve connecting the major metropolitan areas of the state. The wye component of the Merced to Fresno Project Section is an essential element that allows the HSR in the Central Valley to connect to the San Francisco Bay Area. For this reason, an alternative with only north–south track would not be a reasonable alternative to study in the Supplemental EIR/EIS.

The Authority is planning to approve both the east-west alignment and north-south alignment of the Central Valley Wye alternative in Fall 2020. However, the Authority may procure separate construction packages for these alignments at different dates. According to the Draft 2020 Business Plan, as part of a phasing plan, the Authority committed first to funding and constructing high-speed rail from Merced to Bakersfield (which includes the north-south alignment of the Central Valley Wye), then continue construction to the west to connect to San Jose, so as to implement Valley to Valley service.

17.1.3 CVY-Response-GENERAL-3: Funding and Project Costs

Multiple comments expressed concern regarding the availability of funding for construction and operation of the Central Valley Wye Alternatives and the statewide HSR system.

Capital Costs

In 2017, the Authority Board of Directors called for a comprehensive review of the current Central Valley construction contracts and cost estimates for the Silicon Valley to Central Valley Line as well as the complete Phase 1 system. This work is reflected in the 2018 Business Plan:

https://www.hsr.ca.gov/docs/about/business_plans/2018_BusinessPlan.pdf.

Exhibit 1 from the 2018 Business Plan summarizes cost changes since publication of the 2016 Business Plan. More details can be found in the 2018 Business Plan and the 2018 Business Plan Capital Cost Basis of Estimate Report:

https://www.hsr.ca.gov/docs/about/business_plans/2018_Business_Plan_Basis_of_Estimate.pdf.

Exhibit 1: Capital Cost Crosswalk

	2016 CAPITAL COST	CARRYOVER INCREASE	ESCALATION IMPACT	CONTINGENCY INCREASE	NET DESIGN/ SCOPE INCREASE	CENTRAL VALLEY INCREASE	TOTAL	INCREASE SINCE 2016	EXTENSION TO SF, BAKERSFIELD	NEW TOTAL
CV	\$7.8B					\$2.8B	\$10.6B*	\$2.8B	N/A	\$10.6B
V2V	\$20.7B	\$2.8B	\$1.4B	\$1.6B	\$1.1B		\$27.7B	\$7.0B	\$1.9B**	\$29.5B
PH1	\$64.2B	\$7.0B	\$2.1B	\$3.0B	\$1.1B		\$77.3B	\$13.1B	N/A	\$77.3B
Cost Increase Drivers			\$3.5B	\$4.6B	\$2.2B	\$2.8B				

*Updated Central Valley estimate-at-complete
 **Represents minimal capital investment to extend Silicon Valley to Central Valley to San Francisco and Bakersfield; full build-out of these sections are captured in PH1 crosswalk numbers
 Notes: Totals may not sum due to rounding

Note:

CV – Central Valley Segment estimate at completion. This exercise built upon the scope and costs embodied in the Central Valley Segment Funding Plan that was approved by the Board of Directors in January 2017. Our review resulted in a higher estimate at-completion, now estimated at \$10.6 billion, which was reviewed with the Board of Directors in January 2018.

V2V - An updated Silicon Valley to Central Valley Line estimate includes the revised Central Valley Segment costs and reflects extensions from Poplar Avenue (in Shafter) to Bakersfield and from San José to San Francisco (Caltrain station at 4th and King). This estimate is higher than the one presented in the 2016 Business Plan, now estimated at \$29.5 billion, and reflects an extended schedule for completion (in 2029).

PH1 - A Phase 1 system estimate that includes the sections from Bakersfield to Anaheim and from Madera to Merced and completing final improvements between San José and San Francisco (Salesforce Transit Center). The overall estimates for these remaining sections have also increased, now estimated at \$77.3 billion. For purposes of preparing an updated estimate for the Phase 1 system, a completion date of 2033 was assumed.

The Authority subsequently issued the Draft 2020 Business Plan in February 2020, which incorporates the cost and risk reviews that were conducted after the 2018 Business Plan was published. The Draft 2020 Business Plan identifies an increase in the program baseline for the Central Valley Segment of \$1.8 billion, reflecting scope changes, higher cost estimates, and an added contingency. The remaining baseline costs for the Central Valley Segment in year-of-expenditure dollars (YOES) are estimated at \$10.6 billion³ (see Table 4.1, Cost Estimate Ranges for Silicon Valley to Central Valley with Merced Extension Balance [YOES in Millions], in the 2020 Business Plan) (Authority 2020). Furthermore, the 2020 Business Plan anticipates a baseline cost in YOES for the Silicon Valley to Central Valley Line of \$32.6 billion, and a total Phase 1 system

³ The remaining baseline cost for the Central Valley Segment identified in the Draft 2020 Business Plan, \$10.6 billion in YOES, is approximately the same as the cost identified in the 2018 Business Plan (see preceding Exhibit 1 from the 2018 Business Plan). Although the Draft 2020 Business Plan reflects an increase in the program baseline for the Central Valley Segment of \$1.8 billion, capital expenditures have occurred related to active construction on the Central Valley Segment since publication of the 2018 Business Plan.

cost of \$80.4 billion (see Table 4.3, Phase 1 System Cost Estimate by Project Section and Range [in Millions]) (Authority 2020).

Consistent with best practices, updates and refinements to cost estimates will continue.

Funding

To date, the Authority has secured funds from both state and federal sources. The current projected funding of \$20.6 billion to \$23.4 billion will be directed toward completing the Central Valley Segment, meeting the federal grant agreement, and completing extensions to Merced and Bakersfield. It will fund track and other systems and support operations at facilities that will provide services along more than 171 miles of track in the Central Valley. Furthermore, it will fund regional bookend projects and environmentally clear the Phase 1 system, making them ready for pre-construction activities. However, the challenges of funding a transportation system of this magnitude are significant. Actions still need to be taken to secure a long-term funding and financing strategy.

The state's contribution to funding of the HSR system should position California to be competitive in its pursuit of future federal funds, given the past and current federal emphasis on project sponsors bringing a significant funding match. However, until additional funding becomes available, the Authority must continue to deliver HSR on a pay-as-you-go funding approach, which means that contracts are issued as funding is available. Continuing this approach indefinitely will not support the delivery of HSR to California in a meaningful timeframe. Going forward, the Authority will work with the legislature, our federal partner, and the private sector to secure the additional funding and financing needed to deliver the full system and attract private investment.

17.1.4 CVY-Response-GENERAL-4: Heavy Maintenance Facility

Multiple commenters urged the Authority to locate the proposed heavy maintenance facility (HMF) in Madera County.

The statewide system will include four types of maintenance facilities: a single HMF, two light maintenance facilities (LMF), maintenance of infrastructure siding facilities and maintenance of way facilities.

In developing the HSR system, the Authority determined that the single HMF would be located in the Central Valley between Merced and Bakersfield. To date, ten HMF site alternatives have been evaluated: five in the Merced to Fresno Section Final EIR/EIS (2012), and five in the Fresno to Bakersfield Section Final EIR/EIS (2014).

None of those ten sites are precluded by the alignments (including the Preferred Alternative) evaluated in this Supplemental EIR/EIS. Likewise, the Central Valley Wye, and the Merced to Fresno Section it is part of, can function without an HMF located in the Wye or Merced to Fresno Section. Accordingly, this Supplemental EIR/EIS is not required to include any evaluation of HMF locations or issues.

The Authority has not yet selected an HMF site; any selection would occur as a separate action and process from this Supplemental EIR/EIS and associated Wye alignment decision. The Authority may undertake additional engineering and/or environmental analysis, if and as required, in conjunction with selection of the HMF site.

17.1.5 CVY-Response-GENERAL-5: Phased Implementation, Interim Operating Plans and Draft 2020 Business Plan

Multiple comments expressed concern or confusion regarding the Authority's plans for phased construction of the HSR system as a whole, and the potential for interim operating service plans.

Starting with the release of the Authority's Revised 2012 Business Plan through to the Draft 2020 Business Plan, the Authority has always considered the potential need for an interim passenger

service in the Central Valley while the remainder of the HSR statewide system is constructed, given that, without full funding to complete the statewide system, “there could be a period during which a Central Valley interim service is necessary to make use of the infrastructure that has been built, avoiding ‘stranded assets’ and, more importantly, to provide the most valuable early passenger train service benefits for the State of California” (2019 Project Update Report). The 2019 Project Update Report further notes that the Authority’s grant agreement with FRA has historically included similar language to this effect.

The nature of the potential interim service has shifted over time, based on actual construction, anticipated funding, as well as consideration of statewide funding priorities. The 2018 Business Plan introduced the concept of initiating early high-speed passenger service in the Central Valley—service that could be delivered with existing committed funding—as a first building block toward the Silicon Valley to Central Valley Line, linking San José (Silicon Valley) to Fresno or Bakersfield (San Joaquin Valley).

Based on analysis undertaken by Deutsche Bahn, the Authority’s designated early train operator, described in the 2019 Project Update Report and incorporated into the Draft 2020 Business Plan, an interim service linking Merced to Fresno and continuing to Bakersfield was identified as a potentially viable interim operating service. Both the 2018 Business Plan and Draft 2020 Business Plan acknowledge that there is not enough in-hand or potentially available funding to complete such service. This is further underscored by the May 9, 2019, Legislative Analyst’s Office response to the 2019 Project Update Report, which notes that “At this time, HSRA has not specifically identified how the over \$60 billion in estimated construction costs for the portions of Phase I beyond the Merced-to-Bakersfield segment would be funded” (Legislative Analyst’s Office 2019).

Although the wye connection would form part of the interim operating service options identified in the Draft 2020 Business Plan and 2019 Project Update Report and could conceivably be staged to prioritize a north–south connection, neither the Merced to Fresno Final EIR/EIS nor the Central Valley Wye Draft Supplemental EIR/EIS specifically evaluated any early or interim operating scenario. The environmental review in these documents examined the 2040 horizon year in terms of both construction and operation for the specific section within the entirety of Phase 1 of the statewide program (as analyzed in the 2005 Program EIR/EIS and in past and forthcoming project section–specific EIR/EIS documents). This approach is consistent with CEQA and NEPA requirements that call for evaluating the whole of a given project.

Although the Authority has publicly contemplated several interim operating plans, to date, the Authority has not formally selected any specific interim scenario. If and when the Authority considers formally selecting an interim service plan, the Authority will examine whether further review under CEQA and/or NEPA may be required and will complete any necessary additional studies prior to making decisions.

17.1.6 CVY-Response-GENERAL-6: Small Business Employment Benefits

Multiple comments expressed concern regarding economic impacts in the Central Valley from construction and operation of the Central Valley Wye Alternatives and requested that more be done to engage small businesses in construction of the HSR system.

Construction of any of the four Central Valley Wye Alternatives would result in new near-term construction-related employment. The contractor would hire firms to provide construction services as well as hire workers directly, most of them from the Regional Study Area. Some workers with very specialized skills may be hired from outside the Regional Study Area and brought to the construction site for short periods. Purchases in local cities and communities by the contractor and expenditures by construction workers also would indirectly increase the demand for workers.

Since the start of construction on the first construction package in 2013, the Authority and others have been implementing a variety of programs to increase the ability of local workers and

construction firms to compete and obtain construction jobs associated with the HSR system. Through a cooperative partnership with skilled craft unions, the Authority is promoting and helping to implement education, pre-apprenticeship, and apprenticeship training programs. These activities focus on identifying economically disadvantaged communities along the HSR system corridor, including the alignments for the Central Valley Wye Alternatives, to help lower-income persons as well as persons receiving public assistance, single parents, persons with no high school or General Education Development diploma, and/or those who suffer from chronic unemployment compete for available jobs. Community organizations such as the Madera County Workforce Assistance Center and the Fresno Regional Workforce Investment Board also are working with individuals and community groups to get workers trained, re-trained, and certified for upcoming construction work. The Authority's web page and community outreach activities are providing early communication about hiring opportunities to bid on upcoming construction contracts. In January 2017, the Authority held a job fair in Chowchilla where prospective workers could learn about employment opportunities and the hiring process directly from contractors, unions, and local firms. Moreover, through the Community Benefits Agreement, the Authority requires each prime contractor of an awarded construction package to commit 30 percent of all construction dollars to hiring small businesses, including separate goals for the hiring of disadvantaged business enterprises and disabled veteran business enterprises. As such, the contractors have their own jobs coordinator, web page describing employment opportunities, and job workshops to help them meet these goals. Additional information about these programs is available at:

http://hsr.ca.gov/Programs/Small_Business/index.html and
<http://www.hsr.ca.gov/Programs/Construction/index.html>.

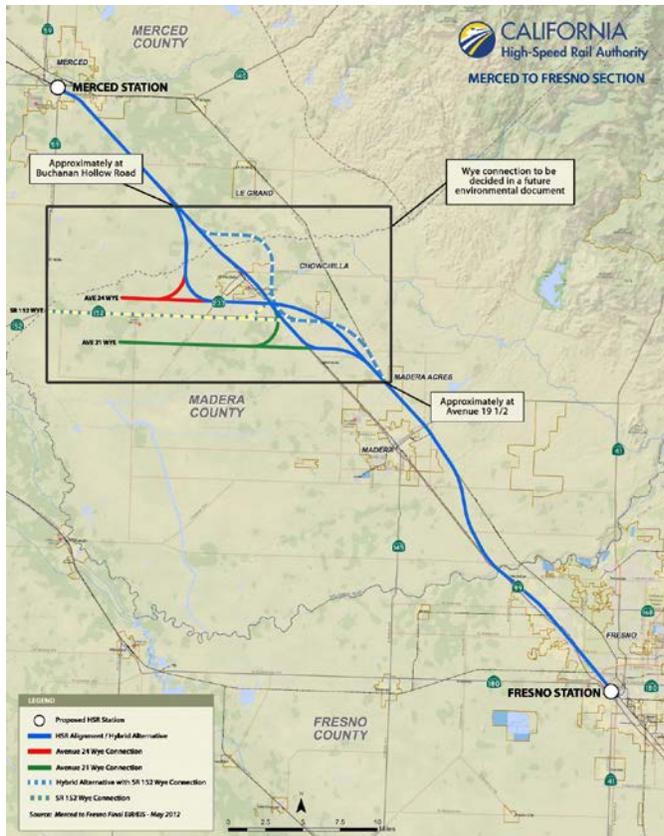
As of as of October 31, 2019, there were 539 certified small business actively working or committed to the HSR project, of which 164 were located in the Central Valley, including 176 certified disadvantaged business enterprises and 56 certified disabled veteran business enterprises.

17.1.7 CVY-Response-GENERAL-7: Relationship between the Merced to Fresno Final EIR/EIS and Central Valley Wye Final Supplemental EIR/EIS documents

A number of comments suggested that this Supplemental EIR/EIS incorrectly treated the Central Valley Wye as a stand-alone project. Other comments suggested the relationship between this Merced to Fresno: Central Valley Wye, Supplemental EIR/EIS and the Merced to Fresno Final EIR/EIS (2012) was unclear, including how the impacts and mitigation measures in the two documents relate to each other.

The Merced to Fresno Project Section Includes the East-West Alignment and Wye

The Supplemental EIR/EIS does not evaluate the Central Valley Wye as a stand-alone project or a stand-alone component of the HSR system, but provides further environmental evaluation as part of the Merced to Fresno Project Section. Chapter 1 explains that the Merced to Fresno Final EIR/EIS identified the Hybrid Alternative as the preferred alternative for the north/south alignment of the high-speed rail, and studied two design options for an east-west connection to the San Jose to Merced Section (Avenue 21 and Avenue 24) with correlating wyes. The Authority approved the Hybrid Alternative, but deferred a decision on the “wye connection” to allow for additional study of an SR 152 east-west alignment and wye, as shown in Figure 1-1.



The Supplemental EIR/EIS adds to the information in the Merced to Fresno Final EIR/EIS by examining four new Wye alternatives and analyzing the impacts of these alternatives within a geographic subarea of the Merced to Fresno Project Section. Section 2.2.1 explains how the termini of the Central Valley Wye alternatives differ from wye design options studied in the Merced to Fresno Final EIR/EIS, and Figure 2-6 shows the relationship between the four Wye alternative studied in the Supplemental EIR/EIS and the two prior design options studied in the Final EIR/EIS, as well as to the approved Hybrid Alternative north/south alignment. The Authority has prepared this document as a supplement to the Merced to Fresno Final EIR/EIS, consistent with the requirements in CEQA and NEPA, to assess proposed changes to the Merced to Fresno Project Section following the prior project approval in 2012.

Impacts Described in the Supplemental EIR/EIS and in the Merced to Fresno Final EIR/EIS

The impacts analysis in the Supplemental EIR/EIS is similar to, but does not directly mirror, that in the Merced to Fresno Final EIR/EIS. Section 3.1.2 explains that the structure of this document differs in a number of respects to improve readability, including in terms of the order in which impacts are presented, along with changes to impact titles and numbering. For example, in the Merced to Fresno Final EIR/EIS, only significant impacts under CEQA were numbered, whereas in this Supplemental EIR/EIS, all impacts are numbered. Section 3.1.2 also explains that this document includes information on Electrical Interconnections and Network Upgrades (EINUs), relabels “design features” identified in the Merced to Fresno Final EIR/EIS as “impact avoidance and minimization features (“IAMFs”), and incorporates wording changes to mitigation measures.

Although the Supplemental EIR/EIS impacts discussion does not mirror the prior Final EIR/EIS discussion, the impacts discussed in the Supplemental EIR/EIS are essentially the same types of impacts, but presented more clearly and with respect to a geographic subset of the Merced to Fresno Project Section. Impacts from the Merced to Fresno Final EIR/EIS that were particular to Fresno project areas outside of the Wye area, such as impacts located exclusively in Merced or

Fresno, are unchanged. The new information in this document therefore supplements the Final EIR/EIS with respect to the limited geographic area of the Wye.

To clarify the relationship between the CEQA impact conclusions between the two documents, Appendix 3.1C has been augmented to provide tables comparing impact topics from the Final EIR/EIS to those in the Supplemental EIR/EIS.

Mitigation Measures Described in the Supplemental EIR/EIS and in the Merced to Fresno Final EIR/EIS

Appendix 3.1C, included with the Draft Supplemental EIR/EIS and referred to in chapter 3.1, provides a comparison of the mitigation measures contained in the Supplemental EIR/EIS with those of the Merced to Fresno Final EIR/EIS. As shown in Appendix 3.1C, many of the mitigation measures are the same. Other mitigation measures have been renamed, or renumbered. If the Authority elects to approve a Wye alternative, it will utilize the updated mitigation measures as described in this Supplemental EIR/EIS to incorporate into a Supplemental Mitigation Monitoring and Reporting Program for CEQA and a Supplemental Mitigation Monitoring and Enforcement Plan for NEPA.

17.2 Public Utilities and Energy Standard Response

17.2.1 CVY-Response-PUE-1: Electricity Supply Impacts during Operation

Operating the HSR system, including the Central Valley Wye Alternatives, would require additional electrical energy from the statewide electricity grid. To ensure that projected power demands are met, a transmission study was undertaken by the Pacific Gas and Electric Company (PG&E) and reviewed by the Authority in 2016.⁴ This study determined that, in order to meet this demand, network upgrades would be required, which would fall into two potential electrical infrastructure categories: 1) interconnection facilities proposed to be designed and constructed by the Authority that would connect the HSR to the statewide electrical grid and 2) network facilities owned by PG&E that would require upgrades to existing facilities to ensure the availability of reliable electric service to meet the HSR system electrical demand. This infrastructure will be specifically designed to accommodate the existing and planned electrical load growth produced by the HSR project.

To meet the projected power demands, in relation to the Central Valley Wye Alternatives, network upgrades would be made to existing PG&E infrastructure in Stanislaus, Merced, Madera, and Fresno Counties, which would include new interconnections, traction power substations (TPSS), and switching and paralleling stations that would be connected to the TPSS. All network upgrades would be implemented pursuant to California Public Utilities Commission General Order 131-D.

Figure 2-6, in Chapter 2, illustrates the four alignments as well as electrical interconnections and network upgrades that would be constructed as part of the Central Valley Wye Alternatives, extending from south of the city of Mendota in Fresno County north to the city of Oakdale in Stanislaus County, west to the city of Los Banos, and east to the city of Madera. Appendix 2-D, Electrical Interconnections and Network Upgrades, in Volume II of the Draft Supplemental EIR/EIS contains background information and a more detailed description of these components. For purposes of analysis, each TPSS proposed for the HSR system has been assigned a site number. For the Central Valley Wye Alternatives, two TPSS, designated Site 6 and Site 7, would require interconnection to PG&E's network.

Following the network upgrades, the projected electrical power demands of the HSR system, including the Central Valley Wye Alternatives, can be met from the statewide electricity grid. In addition to this, management of California's electricity infrastructure and power supply includes demand forecasting, including buffer, or reserve, electrical generating capacity, above the

⁴ Pacific Gas and Electric, 2016. *California High Speed Train Project – Technical Study Report, Evaluation of Proposed Traction Power Substation Interconnections for Sites 4–13*.

expected peak demand, that is available to call upon as needed. Therefore, no impacts on the supply of electrical power to existing or anticipated future users would be anticipated.

17.3 Socioeconomics Standard Response

17.3.1 CVY-Response-SO-01: HSR Project Effects on Property Values Due to Nearby Alignment

Multiple comments noted that construction and operation of the Central Valley Wye Alternatives could reduce property values due to increased noise and visual effects.

Studies indicate that residential and commercial property values near transit stations typically increase and are more highly valued compared with similar properties that are not in the vicinity of transit stations because of improved accessibility, both for residents, who have access to regional jobs, and for employers, who have access to a larger labor pool.^{5,6} However, this would not necessarily be true of properties adjoining the Central Valley Wye Alternatives because stations would not be located in the immediate area.

The value of properties immediately adjacent to the Central Valley Wye Alternatives could decrease if an alternative results in a substantial increase in visual or noise disturbances at the properties. However, the Central Valley Wye Alternatives are primarily adjacent to transportation corridors, and many of the impacts associated with these transportation corridors that affect property values, such as visual and noise impacts, already occur and will continue to occur. To the extent the Central Valley Wye Alternatives would result in new grade separations or elevated tracks, they could have greater visual impacts than those that currently exist along these transportation corridors.

Impacts that could affect property values would be reduced but not avoided by the proposed visual and noise mitigation measures (AVR-MM#3 through AVR-MM#6 and NV-MM#3, which are described in Section 3.16, Aesthetics and Visual Quality, and Section 3.4, Noise and Vibration). In addition, such impacts would be limited to a relatively small geographic area near the proposed HSR system. These resulting overall changes in property values cannot be quantified because the visual and noise impacts would be unique for each property and would be only part of the many factors influencing the ultimate market value of any particular property; therefore, it is not possible to completely isolate the impact of the Central Valley Wye Alternatives from all other current and future impacts on real estate supply and demand. The loss of property tax revenue from changes in adjacent property values is also expected to represent a small percentage of the total property tax revenues collected by the counties.

Owners who believe they have suffered a loss of property value as a result of the project may file a claim with the State of California's Government Claims Board. More information may be obtained online at:

<https://www.dgs.ca.gov/ORIM/Services/Page-Content/Office-of-Risk-and-Insurance-Management-Services-List-Folder/File-a-Government-Claim>.

17.4 Agricultural Standard Responses

17.4.1 CVY-Response-AGRICULTURE-1: Severance of Agricultural Infrastructure Serving Important Farmland

Multiple comments expressed concern regarding potential impacts on agricultural operations that could result from construction-related impacts on infrastructure.

⁵ Debrezion, Ghebreegziabihier, Eric Pels, and Piet Rietveld. 2007. *The Impact of Railway Stations on Residential and Commercial Property Value: A Meta-Analysis*. Published online: 19 June. Springer Science and Business Media.

⁶ Givoni, Moshe. 2006. Development and Impact of the Modern High-speed Train: A Review. *Transport Review*, Vol. 26, No. 5: 593-611.

Construction of the HSR project could result in the disruption of existing infrastructure on agricultural lands. This could include utility services (including power supplies), irrigation systems (including distribution lines, canals, and gravity-flow systems), and road access.

Impact avoidance and minimization features (IAMF) incorporated into the design of the Central Valley Wye Alternatives would largely avoid temporary and permanent disruptions to agricultural infrastructure, including utilities and irrigation infrastructure and access (road) infrastructure. For disruptions to utilities and energy infrastructure, including that serving agricultural land, PUE-IAMF#4 (Utilities and Energy) would require the contractor to coordinate with service providers. Through this coordination, the contractor would be able to minimize or avoid interruptions to utility and energy services. PUE-IAMF#3 (Public Notifications) would require the contractor to notify the public of unavoidable interruptions to utility service through communications media. This notification would provide agricultural operators with adequate notice to plan in advance for outages. For potential disruptions to irrigation facilities, PUE-IAMF#2 (Irrigation Facility Relocation) would require the contractor to verify that a new irrigation facility is operational prior to disconnecting the original facility, when feasible, where relocation of a facility is necessary. This requirement would result in minimal interruptions with respect to irrigation infrastructure.

For disruptions to access (road) infrastructure, TR-IAMF#2 (Construction Transportation Plan) would require detours, temporary signage, advanced notification of temporary road closures, and other measures to maintain traffic flow and avoid delays during construction. These measures would provide for continued access to irrigation infrastructure, enabling ongoing access to irrigation canals. With ongoing access during construction, maintenance activities for irrigation canals would not be interrupted. Road closures in agricultural areas would be coordinated with local and state agriculture and trucking agencies to minimize or avoid disruptions to agricultural activities, particularly during June through September (i.e., peak harvest season in the Regional Study Area). The contractor would provide advanced notification, allowing agricultural operators time to plan for closures and avoid potential for crop damage.

These IAMFs would minimize interruptions to utilities and irrigation infrastructure and access (road) infrastructure, thereby minimizing any effect on agricultural productivity.

The acreage of impacts on Important Farmland as a result of parcel severance is accounted for separately in CVY-Response-AGRICULTURE-3 (below). Important Farmland is unlikely to be converted to nonagricultural use as a result of disruptions to agricultural infrastructure.

17.4.2 CVY-Response-AGRICULTURE-2: Farmland Impacts – Remnant Parcels

Multiple comments expressed concern regarding the loss of agricultural farmland, or loss of access to such farmland, that could occur from the creation of remnant parcels as a result of construction of the Central Valley Wye Alternatives.

The Central Valley Wye Alternatives could result in the creation of remnant parcels of Important Farmland due to severance. Some parcels could be severed from a larger parcel because the right-of-way boundary of the Central Valley Wye Alternatives would bisect the parcel; some parcels could be severed because roadway access would be restricted or eliminated.

Two types of remnant parcels would be created by construction of the Central Valley Wye Alternatives, those that are viable to remain in agricultural production and those that are considered nonviable for continued agricultural production because of a lack of access, size, shape, location, or other hardship. Such nonviable remnant parcels would be acquired by the Authority. The estimated acreage of nonviable Important Farmland remnant parcels ranges from 192 acres (SR 152 [North] to Road 11 Wye) to 232 acres (SR 152 [North] to Road 19 Wye).

Analysts conducted a parcel-by-parcel review, first identifying severed parcels, based on whether the HSR project right-of-way or associated road closures would divide a parcel into multiple remnant parcels. After identifying severed parcels and resulting remnant parcels, real estate specialists reviewed each remnant parcel to determine whether it lacked the size, shape, or location that would make it amenable to consolidation with adjacent farmland or had some other

hardship. The primary criteria were related to remnant parcel size⁷ and whether the remnant parcel had an apparent connection to other farmland with which it could be consolidated.

Two types of remnant parcels were identified that would be viable for continuing under agricultural production. Larger irregularly shaped remnant parcels greater than 20 acres with access were assumed to still be viable for agricultural activities. Some smaller remnant parcels that were directly adjacent to other Important Farmland parcels were assumed to remain in agricultural production. An impact avoidance and mitigation feature included as part of the project (AG-IAMF#3, Farmland Consolidation Program [see Section 3.14.4.2, Impact Avoidance and Minimization Features]) includes a farmland consolidation program. The program will provide for continued agricultural use on the maximum feasible amount of the remnant parcel resulting from implementation of the HSR project by facilitating the sale of remnant parcels to neighboring landowners for consolidation with adjacent farmland properties. The consolidation program is a realistic commitment for ensuring continuing agricultural use on remnant parcels and is consistent with programs used for other linear transportation facilities (e.g., projects sponsored by Caltrans). Such viable remnant parcels were not included in the acreage of remnant parcel calculations and accordingly were not added to HSR's acquisition area because analysts determined that continued agricultural use would very likely be possible. However, based on the criteria (i.e., lack of access, size, shape, location, or other hardship), analysts determined that some remnant parcels were not viable for continued agricultural production. Examples of remnant parcels determined to be nonviable include, for example, sliver-shaped or corner remnant parcels smaller than 20 acres that cannot be consolidated with adjacent parcels because of intervening rail alignments or roads.

Mitigation Measure AG-MM#1 requires that the Authority (in partnership with the California Department of Conservation) acquire conservation easements to protect an equivalent amount of Important Farmland from future conversion. This measure requires a replacement ratio of not less than 0.5:1 for Important Farmland that is indirectly converted through parcel severance and other indirect impacts. The Authority will work with local, regional, and state organizations and agencies to identify suitable land in the region, as well as willing landowners, and establish agricultural conservation easements on the basis established in Mitigation Measure AG-MM#1 to provide for permanent protection and long-term stewardship of working agricultural lands. Even with this commitment, the Authority recognizes that the impacts cannot be fully mitigated.

The analysis of parcel severance (including nonviable remnant parcels) was conducted for the purpose of satisfying CEQA and NEPA by describing the nature and extent of the impact, focusing on the topics of Important Farmland conversion (Section 3.14 of the Draft Supplemental EIR/EIS, Agricultural Farmland), and social/economic effects (Section 3.12). Such analysis is not, however, assumed to be adequate for the real estate transactions that would occur during the right-of-way acquisition process. Parcel-specific analysis will take place during the appraisal process before property acquisition, consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, which establishes minimum standards for the treatment and compensation of individuals whose real property is acquired for a federally funded project (see Appendix 3.12B, Relocation Assistance Documents, for more information). Additional information about acquisition, compensation, and relocation assistance is also available at the Authority's website:

http://www.hsr.ca.gov/Programs/private_property.html.

17.4.3 CVY-Response-AGRICULTURE-3: Dairies

Multiple comments noted that dairies require a significant investment in infrastructure and expressed concern that this infrastructure could be affected by construction of the Central Valley Wye Alternatives.

The Draft Supplemental EIR/EIS recognizes that the loss of confined animal facilities is a concern in this region, which produces a substantial part of the nation's food and depends upon agriculture for its economic well being. Chapter 3.12 and Appendix 3.12-E consider the

⁷ Remnant parcels 20 acres or less were assumed to have the potential to become unfarmable.

conversion of confined animal facilities to HSR use, including specifically how HSR would impact dairy wastewater disposal and cause a need to modify waste disposal permits. The Authority will compensate farmers for the loss of their confined animal facilities. It would be left to the individual farmer to decide how he or she will invest that compensation. Where the project would result in the closure of a facility, there is no way to know with certainty that the affected facility would re-open.

Dairies are the most common type of confined animal facility in the project area. Fresno, Madera, and Merced Counties support a large number of dairies. According to the California Department of Food and Agriculture, in 2010, there were 106 dairies in Fresno County (with 1,118 cows per dairy), 56 dairies in Madera County (with 1,329 cows per dairy), and 258 dairies in Merced County (with 1,040 cows per dairy). The number of dairies operating in these counties varies from year to year. Between 2009 and 2010, Fresno County gained four dairies, Madera County gained one dairy, and Merced County lost 10 dairies.

The dairy industry has been consolidating in recent years. According to the California Department of Food and Agriculture, in 2005, Fresno County had 118 dairies, Madera County had 57 dairies, and Merced County had 327 dairies. The project may affect a limited number of dairies by displacing essential facilities, the land necessary for wastewater disposal, or both. Dairy permitting (i.e., obtaining a conditional use permit pursuant to local zoning and a wastewater disposal permit from the Regional Water Quality Control Board) is a time-consuming and uncertain process. Despite compensation for losses, there is no guarantee that the affected dairy would be able to re-open. Although there has been a decline in the number of dairies in Fresno and Merced Counties since 2005, the total number of cows in the dairies in each county has actually increased. The total production of Grade A milk overall in the three counties has increased during that period as well (increases in Fresno and Madera Counties made up for a similar reduction in Merced County). Although the potential loss of a few dairies is regrettable on an individual level, that loss is not substantial from the point of view of total dairy production in this portion of the San Joaquin Valley. The Authority has committed to maintaining a permit bureau to help businesses (including confined animal operations) overcome the regulatory disruptions caused by the project.

With regard to farm animal noise impacts, the FRA guidance manual, *High-Speed Ground Transportation Noise and Vibration Impact Assessment* (see Chapter 3, Table 3-3), has established a threshold for high-speed train noise effects on livestock (i.e., 100 A-weighted decibels [dBA], sound exposure level (SEL), the total A-weighted sound experienced by a receiver during a noise event, normalized to a 1-second interval). An animal would need to be within 100 feet of an at-grade guideway to experience an SEL of 100 dBA. At locations adjoining an elevated guideway, an SEL of 100 dBA would not occur beyond the edge of the elevated structure. The Draft EIR/EIS analysis concluded that remaining livestock holding areas (after acquisition of some existing holding areas) would not be within 100 feet of either side of the track centerline (50 feet from the edge of the right-of-way); therefore, no HSR noise effects on confined animals would occur (refer to Section 3.14.5.3 and Appendix 3.14-B, Impacts on Confined Animal Agriculture).

The Spanish and Belgian systems, with decades of service, have reported no problems or complaints from agriculture interests concerning noise or vibration. In their experience, sound peaks produced by passing high-speed trains are less than those produced by highway vehicles and conventional diesel trains.

Some comments indicated concern about the effects of stray currents on livestock (e.g., dairy cows). A study by Amstutz and Miller (1980) appears to be the most appropriate reference for the effects of stray currents and electromagnetic fields on livestock. That study of 11 livestock farms concluded that livestock health, behavior, and performance were not affected by electrical and magnetic fields created by a very large (765-kilovolt) overhead transmission line. The HSR system would operate on a much smaller 2x25-kilovolt overhead contact system. Therefore, the Authority and FRA have determined that this is a negligible impact under NEPA and a less-than-significant impact under CEQA.

17.5 Transportation Standard Response

17.5.1 CVY-Response-TRAN-1: Congestion Impacts and VMT

Numerous comments suggested that a high speed rail alignment along SR 152 will cause localized traffic congestion because of road closures, requiring mitigation in the form of road improvements and expansions.

Each of the Central Valley Wye Alternatives would involve changes to local roadway networks. Draft Supplemental EIR/EIS Chapter 2, Alternatives, Section 2.2.3, identified in text and a series of figures the number and location of roadway closures, roadway modifications, and new roadway overcrossings or undercrossings. Figure 2-14 shows the changes to the roadway network for the Preferred Alternative. The design of the alternatives reflects the Authority's policy to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HSR tracks. However, in rural areas, the distance between overcrossings or undercrossings would vary from less than 2 miles to approximately 5 miles where other roads are perpendicular to the proposed HSR alignment.

The analysis of how the Central Valley Wye Alternatives would impact transportation was initially conducted using a traditional "level of service" approach, as explained in Section 3.2.4.3. The analysis concluded that both major highways and rural roads would continue to operate at acceptable levels with implementation of the Central Valley Wye Alternatives. Accordingly, the Draft Supplemental EIR/EIS did not propose mitigation measures.

As summarized in Section 3.2.9, because the analysis demonstrated traffic flow conditions that did not exceed the CEQA threshold of significance, the impact was considered less than significant and no mitigation was proposed.

An additional basis for the Draft Supplemental EIR/EIS to have not identified road improvements and expansions as mitigation measures under CEQA is Senate Bill 743, codified in Public Resources Code Section 21099. Senate Bill 743 created a shift in transportation impact analysis under CEQA from a focus on automobile delay, as measured by level of service and similar metrics, toward a focus on reducing VMT and greenhouse gas emissions. The California Legislature required the Governor's Office of Planning and Research to propose new criteria for determining the significance of transportation impacts. The statute states that upon certification of the new criteria, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA, except in locations specifically identified in the new criteria.

The new criteria, contained in CEQA Guidelines Section 15064.3 were certified and adopted on December 28, 2018. Section 15064.3 indicates that VMT is the most appropriate metric to assess transportation impacts; with limited exceptions (applicable to roadway capacity projects, which this project is not), a project's effect on automobile delay does not constitute a significant environmental impact that requires mitigation. Other relevant considerations may include the project's effects on transit and nonmotorized travel. Section 15064.3 further provides that transportation projects that reduce VMT should be presumed to cause a less-than-significant impact. A lead agency can elect to be governed by Section 15064.3 immediately and not shift to a VMT metric by July 1, 2020.

In the EIR Clarifications and Errata to the Draft Supplemental EIR/EIS (also included as part of this Final Supplemental EIR/EIS), the Authority explained that the Merced to Fresno Final EIR/EIS had analyzed the extent to which operation of the Merced to Fresno Project Section, as part of the HSR system, would reduce VMT. The prior analysis forecast substantial VMT reductions in Merced, Madera, and Fresno counties, a project benefit. Final Supplemental EIR/EIS Section 3.2, Transportation, has been revised and expanded to include additional consideration of VMT as a metric in determining impact. As shown in Section 3.2 of the Final Supplemental EIR/EIS, all of the Central Valley Wye Alternatives would reduce regional VMT relative to no-project conditions, and therefore, none would result in any significant impact related to VMT.

Based on Guidelines Section 15064.3, congestion impacts, even if a project causes them, are not considered significant environmental impacts that require mitigation.