

## APPENDIX 3.12-C: CHILDREN'S HEALTH AND SAFETY RISK ASSESSMENT

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### 1.0 Introduction

This appendix describes potential children's environmental health and safety risks for the Central Valley Wye alternatives.

### 1.1 Regulatory Setting

U.S. Presidential Executive Order 13045, Protection of Children from Environmental Health and Safety Risks, was issued in 1997 to minimize environmental health and safety risks to children, and to prioritize the identification and assessment of environmental health and safety risks that may have a disproportionate impact on children. U.S. Presidential Executive Order 13045 also requires that federal agencies, in their policies, programs, activities, and standards, address environmental and safety risks to children. Environmental health risks and safety risks include risks to health or to safety that are attributable to products or substances that children are likely to come in contact with or ingest, such as air, food, drinking water, recreation waters, soil, or products they might use or be exposed. According to the U.S. Environmental Protection Agency, in proportion to their size, children breathe more air, drink more water, and eat more food than adults. This puts them at greater risk of exposure to pollutants than adults. Children's bodies are also less able than adults to metabolize, detoxify, and expunge these pollutants. There are no applicable state regulations to address children's health and safety.

### 1.2 Methodology and Definitions

This analysis was performed in accordance with U.S. Presidential Executive Order 13045 and consisted of conducting a demographic analysis and review of the four Central Valley Wye alternative alignments to qualitatively assess whether the Central Valley Wye alternatives would result in children's environmental health and safety risks. The analysis is based on the environmental documentation presented in various sections of the *Merced to Fresno Section: Central Valley Wye Final Supplemental Environmental Impact Report/Supplemental Environmental Impact Statement (Final Supplemental EIR/EIS)*. The following sections were reviewed because impacts on these resources would have the greatest potential to affect children's health and safety: Section 3.2, Transportation; Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; Section 3.5, Electromagnetic Fields and Electromagnetic Interference; Section 3.10, Hazardous Materials and Wastes; Section 3.11, Safety and Security; and Section 3.15 Parks, Recreation, and Open Space.

For this analysis, the children's health and safety resource study area (RSA) is defined as 0.5 mile from the four Central Valley Wye alternatives' centerlines. Impacts on children's health and safety are expected to occur within this RSA, since this area represents where key effects on property relocation; transportation; local air quality; noise and vibration; safety and security; hazardous materials and wastes; aesthetics and visual resources; and parks, recreation, and open space would occur. Some disciplines, such as air quality, analyze a broader area when potential impacts could reach beyond 0.5 mile, because these impacts could occur on a regional level. For the purposes of this analysis, children are defined as the population under the age of 21 residing within the RSA.

For this analysis, impacts on children's health and safety are defined as those impacts on the environment that result in negative impacts on children as a result of one or more the following (the associated environmental resources are provided in parentheses):

- Potential respiratory impacts, including asthma from air pollutant emissions and generation of fugitive dust (Air Quality and Global Climate Change).
- Potential noise impacts on health and learning, especially in areas where children congregate, such as schools, parks, and residential areas (Noise and Vibration).
- Potential impacts from the use of chemicals, such as dust suppression methods and hazardous materials (Hazardous Materials and Wastes).

- Potential safety risks to children, especially where the Central Valley Wye alternative alignments are located near areas where children congregate (Transportation; Electromagnetic Fields and Electromagnetic Interference; Safety and Security; and Parks, Recreation, and Open Space).

### 1.3 Existing Conditions

This section provides information on demographics, community setting, schools, parks, and other community facilities located within the RSA.

#### 1.3.1 Demographics

Table 1 provides information on the population under the age of 21 in the city and communities within the RSA, as well as within the two-county region of Merced and Madera Counties. The percentage of the population under the age of 21 in the region is approximately 33.1 percent. Within the city and communities affected by the RSA, the percentage of the population under the age of 21 ranges from 21.4 percent to 35.9 percent. The community of Fairmead has the highest percentage of population under 21 (30.6 percent), while the City of Chowchilla has the lowest (21.4 percent). (For additional information on demographics, refer to *Merced to Fresno: Central Valley Wye Community Impact Assessment Report* (Authority and FRA 2016).

**Table 1 Child Population of Communities within the Children’s Health and Safety Resource Study Area (2014)**

Location	Total Population	Age < 5		Age 5–20		Age 20 and Younger	
		Total	%	Total	%	Total	%
<b>County</b>							
Merced	261,609	21,710	8.3	68,118	26.1	89,828	34.4
Madera	152,452	11,788	7.7	35,508	23.3	47,296	31.0
<b>Region</b>	<b>414,061</b>	<b>33,498</b>	<b>8.1</b>	<b>103,632</b>	<b>25.0</b>	<b>137,130</b>	<b>33.1</b>
<b>City or Community in the Resource Study Area</b>							
Chowchilla	18,411	844	4.6	3,096	16.8	3,940	21.4
Fairmead	1,983	175	8.8	432	21.8	607	30.6

Source: U.S. Census Bureau ACS 2010–2014

#### 1.3.2 Community Setting

Most of the residences, businesses, and community resources in the vicinity of the Central Valley Wye alternatives are located in and around Chowchilla. With a population of almost 20,000, Chowchilla is the largest population center in the RSA and serves as a social and economic focal point for the region. The Central Valley Wye alternatives also pass through the smaller rural-residential community of Fairmead. The remainder of the RSA consists mostly of rural agricultural land with few concentrations of residences, businesses, or community facilities. The historical dominance of agriculture in the rural economy and the continued agricultural productivity of the region, however, yield a sense of a strong agricultural community throughout the region, even in the sparsely populated rural areas. For complete information on the community setting, refer to Community Impact Assessment Report (Authority and FRA 2016).

#### 1.3.3 Schools

##### 1.3.3.1 School Locations

As shown in Table 2, there are four public or private schools within 0.5 mile of the project footprints. These schools can be seen in Figure 1. Alview Elementary School would be directly

affected by construction of the Avenue 21 to Road 13 Wye Alternative to accommodate a permanent utility easement (no changes to the existing buildings at the school would be required). The northwest corner of Chowchilla Seventh-Day Adventist School's property boundary is located within the project footprint of the Avenue 21 to Road 13 Wye Alternative, specifically it is located within the farmland mitigation buffer of the Avenue 21 to Road 13 Wye Alternative. The property boundaries of Fairmead Elementary School and Fairmead Head Start Childcare Center (Fairmead Head Start) are located approximately 0.1 mile south of the State Route (SR) 152 (North) to Road 13 Wye Alternative, SR 152 (North) to Road 19 Wye Alternative, and SR 152 (North) to Road 11 Wye Alternative.<sup>1</sup>

**Table 2 Schools within the Resource Study Area**

School	Location	School District	SR 152 (North) to Road 13 Wye Alternative	SR 152 (North) to Road 19 Wye Alternative	Avenue 21 to Road 13 Wye Alternative	SR 152 (North) to Road 11 Wye Alternative	Distance from Project Footprint(s) (miles)
Alview Elementary School	Unincorporated Merced County	Alview-Dairyland Union Elementary	-	-	X	--	0
Chowchilla Seventh-Day Adventist School	Unincorporated Merced County	Not applicable	X	X	X	X	0-0.2
Fairmead Elementary School	Fairmead	Chowchilla Elementary	X	X	-	X	0.1
Fairmead Head Start Childcare Center	Fairmead	Not applicable	X	X	-	X	<0.1

Source: Authority, 2018

Schools near proposed electrical infrastructure and network upgrade (EINU) sites are not included in the children's health and safety risk analysis.

Distances are measured from the project footprint to the school's property boundary.

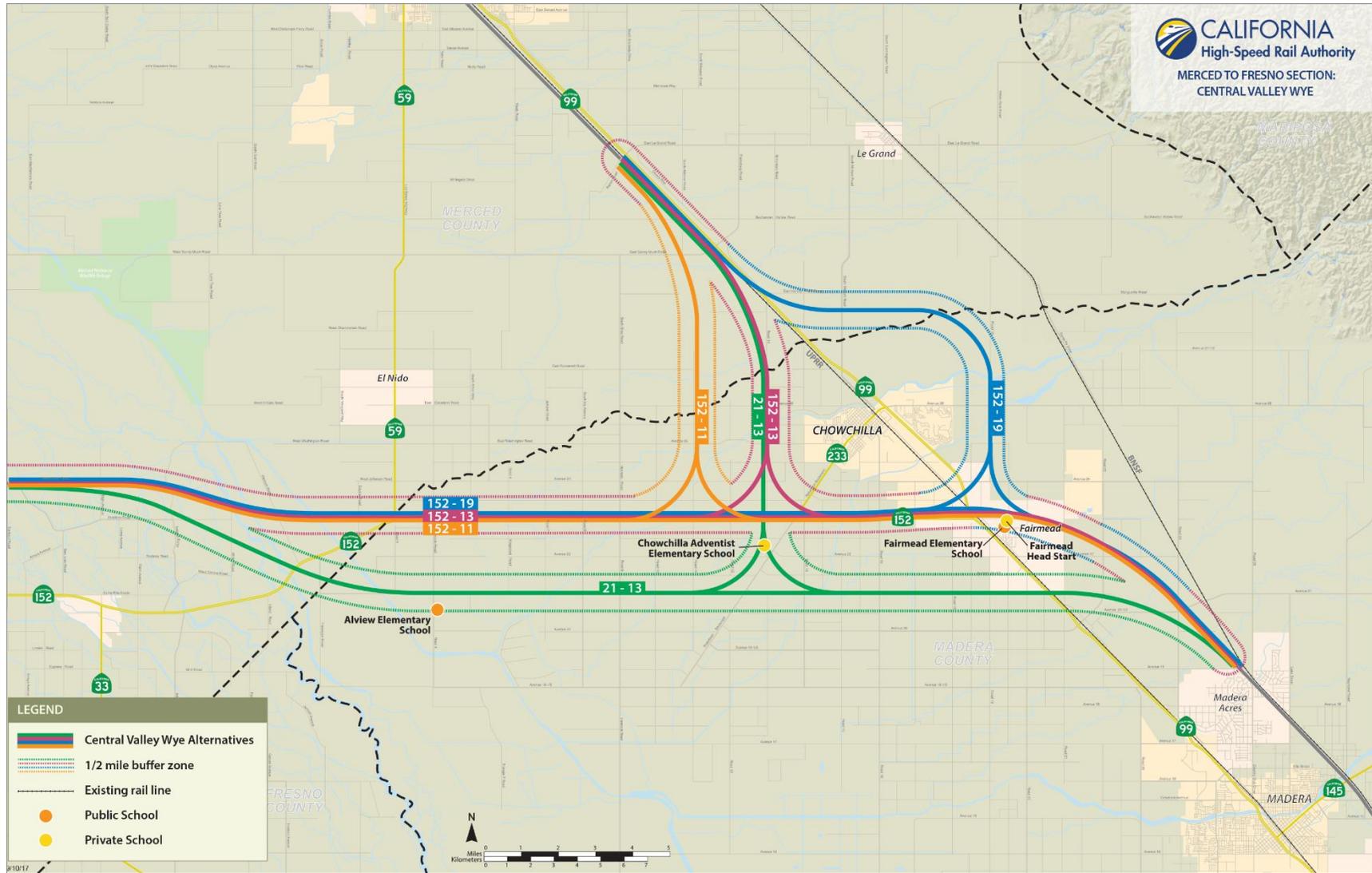
- = School is more than 0.5 mile from the Central Valley Wye alternative.

X = School is within 0.5 mile of Central Valley Wye alternative.

### 1.3.3.2 School District Boundaries

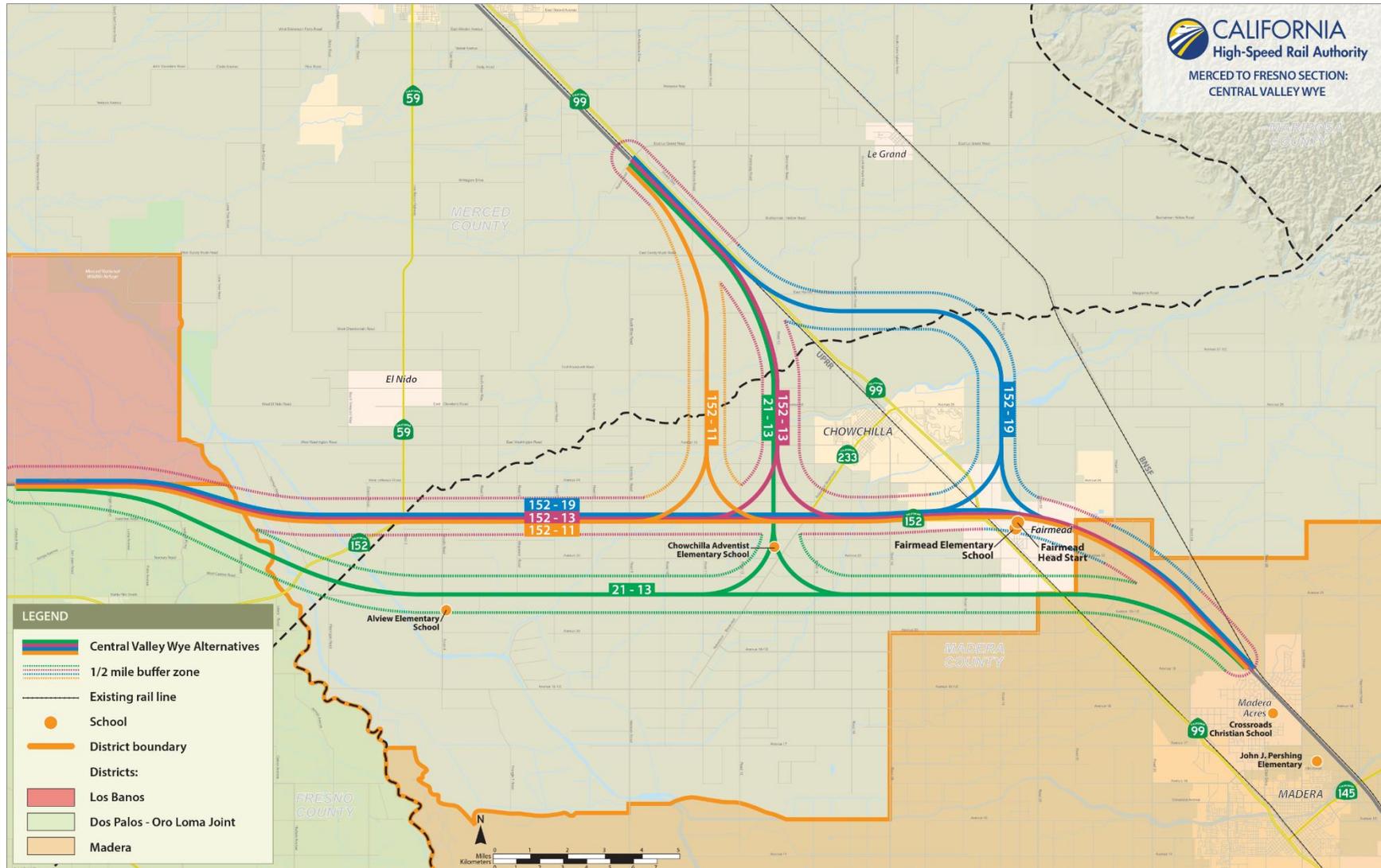
The school districts include unified, secondary, and elementary school districts and are shown in Figures 2, 3, and 4 (U.S. Census Bureau ACS 2013a, 2013b, 2013c). These school districts are large, reflecting the area's sparse population. Due to the rural character of the RSA, students must travel many miles to get to school. It is likely that many of the students in these areas use transportation provided by the school district, rely on family members, or drive themselves to school.

<sup>1</sup> Schools near proposed electrical infrastructure and network upgrade (EINU) sites in Fresno County are not included in this analysis because the analysis in Chapter 3 of the Draft Supplemental EIR/EIS concludes that they are distant and would not be affected by the EINU components.



SEPTEMBER 10, 2017

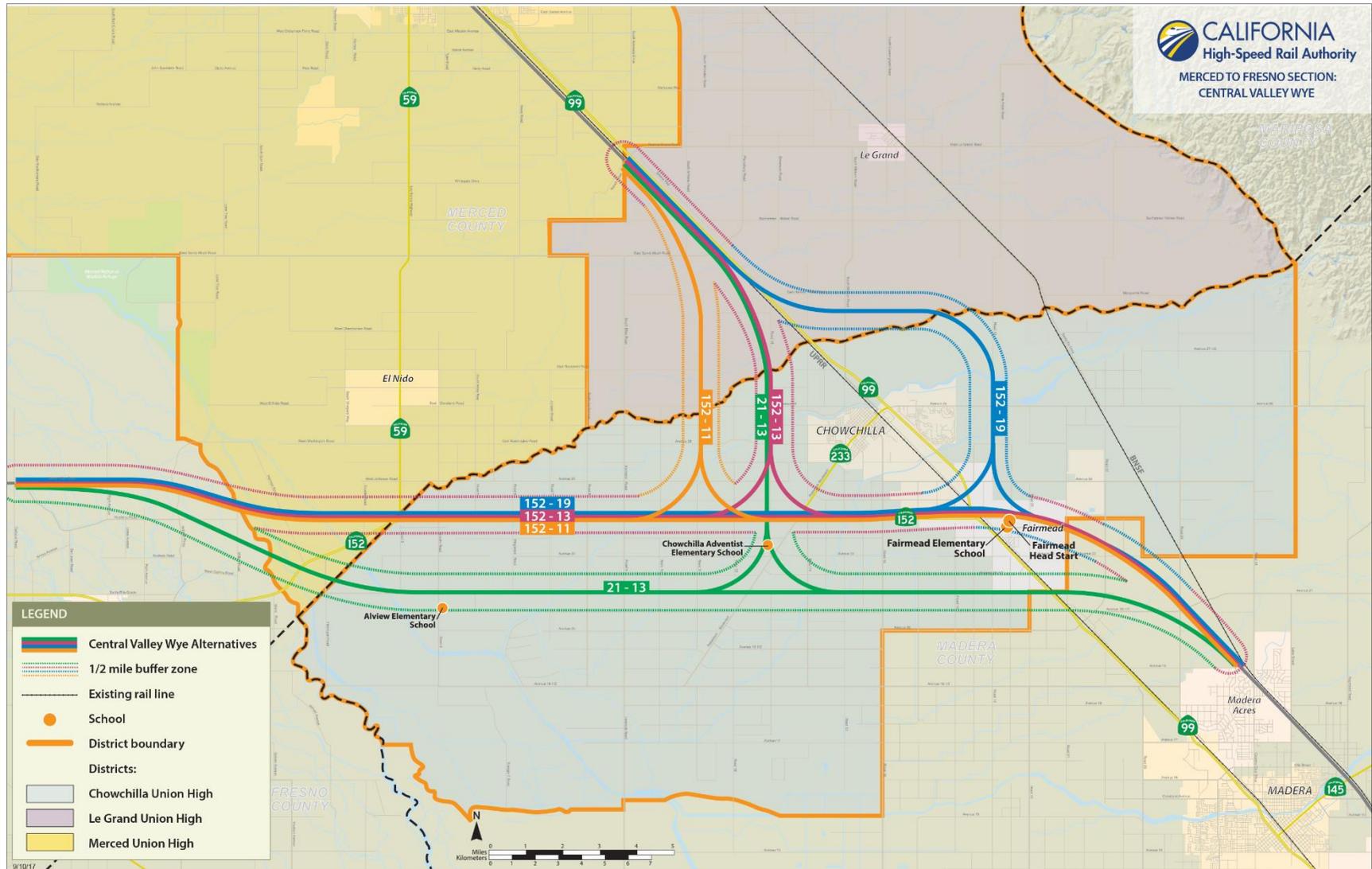
**Figure 1 Schools within the Resource Study Area**



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; U.S. Census Bureau ACS, 2013a, b, and c

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Figure 2 Unified School Districts



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; U.S. Census Bureau ACS, 2013a, b, and c

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**Figure 3 Secondary School Districts**

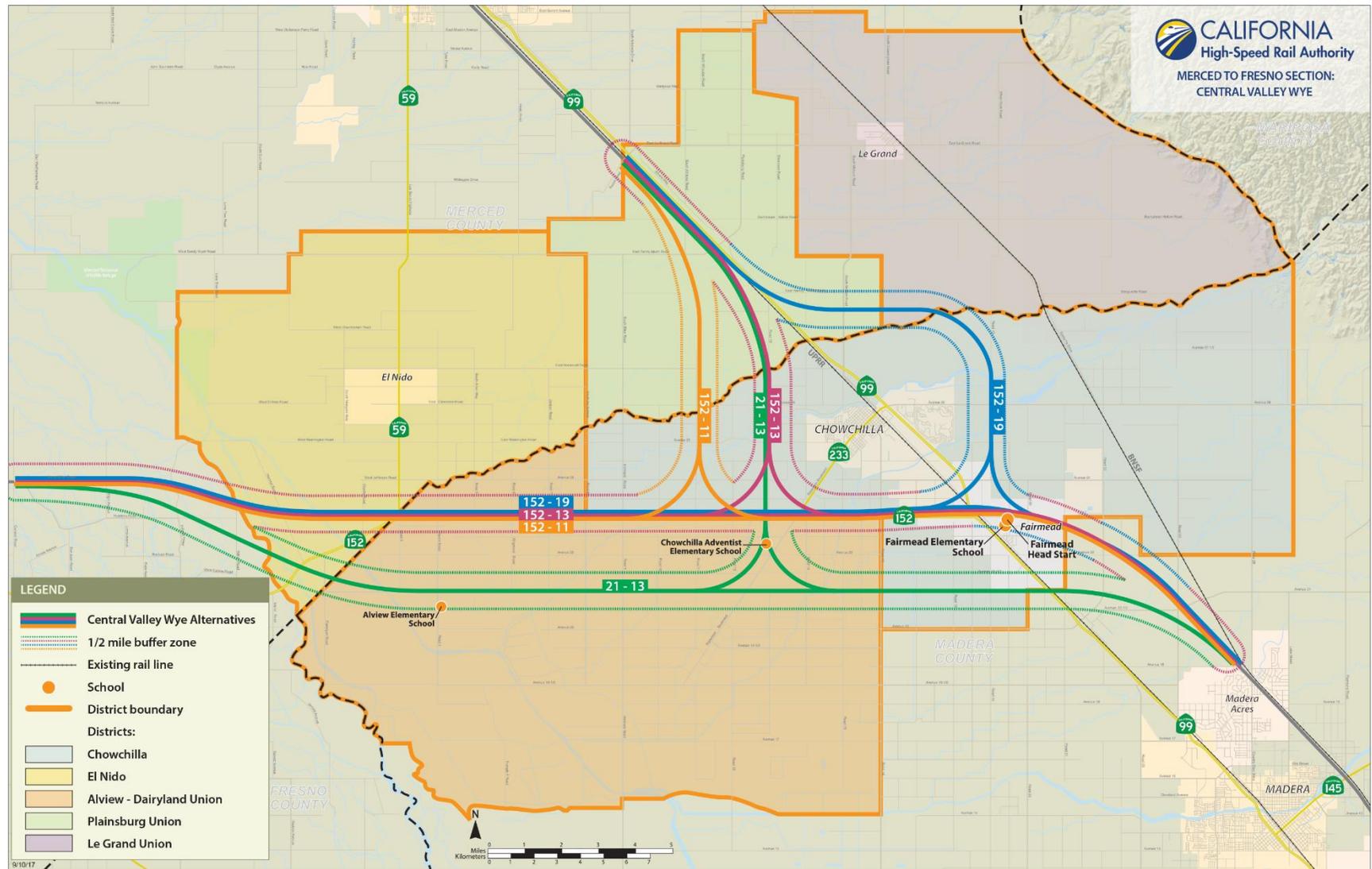


Figure 4 Elementary School Districts

### 1.3.4 Parks and Recreation

Due to the agricultural nature of the children's health and safety RSA, there are few parks, recreation, and open space resources within 0.5 mile of the project footprints. Table 3 provides a list of the parks, recreation, and open-space resources in the RSA potentially affected by the Central Valley Wye alternatives.

**Table 3 Parks, Recreation, and Open Space Resources within the Resource Study Area**

Resource Name	Location	SR 152 (North) to Road 13 Wye Alternative	SR 152 (North) to Road 19 Wye Alternative	Avenue 21 to Road 13 Wye Alternative	SR 152 (North) to Road 11 Wye Alternative	Distance from Project Footprint(s) (miles)
Berenda Slough	Unincorporated Madera County	X	X	–	X	0
Ash Slough	Unincorporated Madera County	X	X	X	X	0
Fairmead Elementary School Play Area	Fairmead	X	X	--	X	0.1

Source: Authority, 2018

Distance measured is from project footprint.

– = Park, Recreation, or Open Space is located more than 0.5 mile from the Central Valley Wye alternative.

X = Park, Recreation, or Open space is within 0.5 mile of Central Valley Wye alternative.

### 1.3.5 Community Facilities

For this analysis of children's health and safety, community facilities include those places where children congregate, including religious institutions, schools and daycare facilities, museums, libraries, and community centers. Within the RSA, in addition to the schools and parks and recreational facilities discussed above, community facilities include several churches and the Fossil Discovery Center of Madera County. Additional information on these community facilities and their locations is presented in the Community Impact Assessment Report (Authority and FRA 2016).<sup>2</sup>

## 1.4 Environmental Consequences

This section describes the potential effects on children's health and safety as a result of construction and operation of the Central Valley Wye alternatives.

### 1.4.1 Overview

Analysis in the Draft Supplemental EIR/EIS demonstrates that the Central Valley Wye alternatives would not affect products or substances (i.e., water, soil, and food) that a child is likely to ingest, use, be exposed to, or come into contact with. No impacts on children's health and safety are expected from construction or from operations of the Central Valley Wye alternatives.

<sup>2</sup> Recreation and community facilities near proposed electrical infrastructure and network upgrade (EINU) sites in Fresno County are not included in this analysis because the analysis in Chapter 3 of the Draft Supplemental EIR/EIS concludes that they are distant and would not be affected by the EINU components.

## 1.4.2 Central Valley Wye Alternatives

### 1.4.2.1 Construction Impacts

The effects on children’s health and safety from construction of Central Valley Wye alternatives were determined by reviewing the construction impacts associated with the environmental elements addressed in the Draft Supplemental EIR/EIS. Table 4 provides a summary of information from several sections within Chapter 3, Affected Environmental, Environmental Consequences, and Mitigation Measures, of the Draft Supplemental EIR/EIS of potential impacts on the human environment and makes a determination whether these effects may result in disproportionate health or safety impacts on children. The analysis takes into consideration impact avoidance and minimization features (IAMF) and mitigation measures, where applicable, that would be implemented with the Central Valley Wye alternatives. Specifically, the analysis looks at potential impacts described in: Section 3.2, Transportation; Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; Section 3.5, Electromagnetic Fields and Electromagnetic Interference; Section 3.10, Hazardous Materials and Wastes; Section 3.11, Safety and Security; and Section 3.15, Parks, Recreation, and Open Space.

**Table 4 Construction Impacts on Children’s Health and Safety**

Environmental Resource	Construction Impacts Summary	Relevance to Children’s Health and Safety
Transportation	<p>Temporary and permanent road closures may result in adverse impacts, disrupting circulation patterns in some communities and requiring detours. Although access to some neighborhoods, businesses, or community facilities would be disrupted and detoured for short periods during construction, access would continue to be available. Construction would also increase in truck trips, which would increase vehicle congestion. In addition, these detours would affect pedestrians, bicyclists, and transit directly through the detours, and indirectly through traffic delays.</p> <p>The Central Valley Wye alternatives would be grade-separated from the existing transportation corridors, so there would be no conflict between school buses and the trains. All of the Central Valley Wye alternatives provide new crossings over existing transportation corridors. These overcrossings would remove conflicts with railroads and improve safety and access for buses.</p>	<p>Prior to construction, a Construction Management Plan would be implemented and include information to address communications, safety controls, and traffic controls to minimize impacts and maintain access. Additionally, a Construction Transportation Plan would be prepared to provide information that outlines transportation detours and plans to accommodate school bus routes, bicycles and pedestrians. These measures would assure the health and safety of children by creating safe travel conditions for them. Therefore, there are no disproportionate transportation impacts on children’s health and safety.</p>

Environmental Resource	Construction Impacts Summary	Relevance to Children’s Health and Safety
Air Quality	<p>Construction of the Central Valley Wye alternatives would result in air emissions that exceed the San Joaquin Valley Air Basin’s standards for criteria pollutants, including diesel particulates and fugitive dust. The project would incorporate IAMFs and Mitigation Measures to reduce and offset these emissions. In addition, IAMFs incorporated into the Central Valley Wye alternatives and San Joaquin Valley Air Pollution Control District rules would include effective measures to minimize fugitive dust emissions.</p> <p>Localized air emissions associated with diesel particulate matter and other pollutants from Central Valley Wye alternatives construction would not exceed the San Joaquin Valley Air Pollution Control District’s cancer risk threshold of 20 in 1 million, the hazard index threshold of 1, or the National Ambient Air Quality Standards and California Ambient Air Quality Standards for PM<sub>10</sub>.</p>	<p>With incorporation of mitigation measures and effective IAMFs, regional air pollutant emissions associated with construction of the Central Valley Wye alternatives would not exceed Air District standards. These limits take into account sensitive members of the population, such as children. Therefore, the impacts on children’s health and safety would not be disproportionate.</p> <p>Sustained construction activity is not expected to take place immediately adjacent to locations where children congregate, such as parks or school yards and, with implementation of Mitigation Measures and effective IAMFs, fugitive dust impacts are not anticipated to disproportionately affect children’s health or safety.</p> <p>Construction emissions would also not exceed chronic exposure limits set by the Air District basin and would not increase the cancer risk to sensitive receptors. These limits take into account sensitive members of the population, such as children. Therefore, the impacts on children’s health and safety would not be disproportionate.</p>
Noise and Vibration	<p>Construction of the Central Valley Wye alternatives would temporarily affect sensitive receptors along the selected Central Valley Wye alternative where construction-related noise levels would reach FRA limits for daytime and nighttime “human noise annoyance” levels.</p> <p>Construction-related vibration could result in human annoyance. Construction of the Central Valley Wye alternatives would generate vibration increases that could temporarily annoy people at or near construction sites, even with the IAMFs as part of the design.</p> <p>The project includes IAMFs and mitigation measures to minimize noise impacts by following FTA and FRA guidelines for daytime and nighttime noise level limits for construction activity and would apply FTA and FRA construction mitigation procedures.</p>	<p>Sustained construction activity associated with construction of the three SR 152 alternatives is not expected to take place immediately adjacent to locations where children congregate, such as parks or school yards and, with implementation of Mitigation Measures and effective IAMFs, noise and vibration levels are not anticipated to exceed applicable thresholds at any of the schools near the Central Valley Wye alternatives. These thresholds are provided by the FRA and FTA and account for sensitive members of the populations, such as children. Therefore, construction-period noise and vibration impacts are not anticipated to disproportionately affect children’s health or safety. The Avenue 21 to Road 13 Wye Alternative is anticipated to result in daytime noise impacts during construction at the Chowchilla Seventh-day Adventist School.</p> <p>All three SR 152 alternatives would result in the exposure of two sensitive receptors to increased traffic noise from realigned State and local roads; children living at these residences could be affected by increased traffic noise levels.</p>

Environmental Resource	Construction Impacts Summary	Relevance to Children's Health and Safety
Electromagnetic Fields and Electromagnetic Interference	Construction equipment generates low levels of EMFs and the only EMI that might be generated during construction would be occasional licensed radio transmissions between construction vehicles. This would only affect construction workers working within the construction site.	There would be no disproportionate impacts related to children's health and safety because children would not present within the construction site and levels of EMF/EMI outside the construction site are below levels considered harmful to humans.
Hazardous Materials and Wastes	Construction of any of the Central Valley Wye alternatives would involve transporting, using, and disposing of construction-related hazardous materials and wastes. Potentially, such construction could result in accidental spills or releases of hazardous materials and wastes and result in temporary hazards to schools. Mitigation measures would be implemented to make sure the use of extremely hazardous substances or mixtures thereof in a quantity equal to or greater than the state threshold quantity would not occur within 0.25 mile of a school.	<p>The effect of HSR construction related to routine transport and handling of hazardous or acutely hazardous materials within 0.25 mile of an existing or proposed school would be reduced with implementation of mitigation measures.</p> <p>In the unlikely event of a leak or spill as the result of an accident or collision during construction, the effect of hazardous materials released to the environment would largely be negligible because of the generally small quantities of materials transported or used at any given time and because of the stringent precautions required by regulations.</p> <p>Implementation of regulatory requirements would minimize the potential for a severe spill, and therefore there would be no disproportionate impacts on children's health and safety.</p>
Safety and Security	<p>The general public, including children, would not have access to construction areas for the Central Valley Wye alternatives.</p> <p>The roads crossing the HSR alignment would be grade-separated, typically with a road overcrossing, which improves the safety of crossing the HSR alignment. During construction, some roads would be temporarily closed, and traffic would be detoured onto other roads. At these sites, lane closures and detours could potentially create a distraction to automobile drivers, pedestrians, and cyclists. Distraction and unfamiliarity with detours could lead to accidents. In addition, the road closures, detours, and localized automobile congestion could increase the response time for law enforcement, fire, and emergency services personnel. Emergency evacuation times could also increase.</p> <p>California Code of Regulations title 5, section 14010c, calls for a separation between schools and power transmission lines of 100 feet for 50 to 133 kilovolts (kV) lines. The Central Valley Wye alternatives would be</p>	<p>IAMFs incorporated into the Central Valley Wye alternatives include development of a detailed Construction Transportation Plan that would require coordination with local jurisdictions on emergency vehicle access. The plan would also include a traffic control plan that establishes procedures for temporary road closures, including access to residences and businesses during construction, lane closure, signage and flag persons, temporary detour provisions, alternative bus and delivery routes, emergency vehicle access, pedestrian access, and alternative access locations. Construction of road crossings would be staggered so that the road adjacent to a road temporarily closed for construction would remain open to accommodate detoured traffic.</p> <p>Because the Central Valley Wye alternatives incorporate requirements to implement a construction transportation plan and associated traffic control plan, and restrict access to construction areas, there would not be disproportionate effects to children's health and safety.</p>

Environmental Resource	Construction Impacts Summary	Relevance to Children's Health and Safety
	<p>powered by a 25 kV system; therefore, the electrification of the trains itself would not be a safety hazard to schools. The Central Valley Wye alternatives would not require the construction of new power transmission lines in the vicinity of existing schools. For these reasons, the electrification of the Central Valley Wye alternatives would have no safety effect on school employees and students.</p>	
<p>Parks, Recreation, and Open Space</p>	<p>Construction impacts on parks, recreation, and open space would include increased noise levels, changes in access, degradation of the visual setting, and changes in the surrounding land uses. Standard safety measures would be implemented so that no danger would occur in parks during construction to members of the public, including children. Any noise, dust, or visual effects would be minimized to the extent feasible after mitigation.</p>	<p>No disproportionate impacts on children's health and safety would occur. The safety measures discussed in Safety and Security, above, would be implemented to restrict access of members of the public, including children, to construction areas. Additionally, mitigation measures are proposed for transportation and noise and vibration to address impacts related to all members of the population, including children. Construction would not require closure of any parks. Although there would be impacts related to park acquisition, mitigation would require the development of replacement park property. No disproportionate impacts related to children's health and safety are expected.</p>

Source: Authority, 2018

EMF/EMI = electromagnetic fields and electromagnetic interference

FRA = Federal Railroad Administration

FTA = Federal Transit Administration

HSR = high-speed rail

IAMF = impact avoidance and minimization feature

kV = kilovolt

### Operations Impacts

The impacts on children's health and safety from operations of the Central Valley Wye alternatives were determined by reviewing the operations impacts of the Central Valley Wye alternatives associated with the environmental resources addressed in the Draft Supplemental EIR/EIS. Table 5 provides information on the potential impacts and significance of the impacts after the implementation of mitigation measures.

**Table 5 Operations Impacts on Children's Health and Safety**

Environmental Resources	Operations Impacts Summary	Relevance to Children's Health and Safety
<p>Transportation</p>	<p>Operations of any of the Central Valley Wye alternatives would not result in impacts related to transportation or children's health and safety.</p>	<p>There would be no impacts on children's health and safety related to school district bus transportation changes and HSR crossings because traffic would continue to operate at acceptable levels.</p>

Environmental Resources	Operations Impacts Summary	Relevance to Children's Health and Safety
Air Quality and Global Climate Change	All Central Valley Wye alternatives would result in a net benefit on regional and statewide air quality from Central Valley Wye alternatives operations because of a decrease in emissions.	All residents, including children, in the San Joaquin Valley would benefit from the decrease in air pollutants associated with the projected shift in transportation modes—automobiles to trains.
Noise and Vibration	Central Valley Wye alternatives operation would result in permanent impacts from increased noise and vibration levels. All of the Central Valley Wye alternatives would generate noise levels above existing ambient levels, causing severe noise impacts at sensitive receptors. However, the sensitive receptors are all residences, and none of the affected sensitive receptors are schools or parks.	With mitigation, the noise and vibration effects on children's health and safety would not be disproportionate because operational noises would not affect locations where children congregate, such as school yards. Children living at single-family sensitive receptors would be exposed to moderate and severe noise impacts.
Electromagnetic Fields and Electromagnetic Interference	The various Central Valley Wye alternatives pass within 1,000 feet of three schools, where radio communications systems (e.g., wireless local area networks and internet connections) are expected to be in use. FCC spectrum frequency allocations allow wireless fidelity (Wi-Fi) systems to operate in their frequency blocks at 2.4, 3.6, and 4.9/5.0 GHz, each divided into channels to allow multiple systems to operate without interfering with one another. Wireless networks used by schools operate at relatively low power levels and have a limited range of 100 to 300 feet.	There would be no impact on children's health and safety because radio communications systems are not harmful to children's health and safety.
Hazardous Materials and Wastes	During operations of the Central Valley Wye alternatives, only minor amounts of hazardous materials would be used, and all laws, regulations, and ordinances would be followed with respect to the transport, use, storage, and disposal of hazardous materials.	In general, implementation of regulatory requirements and IAMFs would minimize the potential for a severe spill and corresponding impacts on children's health and safety.

Environmental Resources	Operations Impacts Summary	Relevance to Children's Health and Safety
Safety and Security	<p>Derailment of a train during a seismic event or other natural disaster could be a substantial safety hazard to schools if the train left the HSR right-of-way and collided with structures or people on adjacent properties. This hazard is associated with the physical mass and speed of the train.</p> <p>A physical impact of an HSR leaving the right-of-way could only occur within roughly 100 feet of the right-of-way. A basic design feature of an HSR system is to contain trainsets within the operational corridor. Thus, if a derailment were to occur next to a school, the train would remain within the HSR right-of-way.</p>	<p>Because the train would be contained in the HSR right-of-way in the event of derailment and would not contain cargo or fuel that would result in a fire or explosion, the Central Valley Wye alternatives would not substantially increase hazards to nearby schools, and would not result in disproportionate risks to children's health and safety.</p>
Parks, Recreation, and Open Space	<p>Impacts on parks, recreation, and open space resources would include increased noise levels and visual degradation from passing trains.</p>	<p>Due to the limited number of parks, recreation, and open space resources where children would gather and the relative distance of the Central Valley Wye alternatives from these resources, there would be no disproportionate impacts on children's health and safety.</p>

Source: Authority, 2018

HSR = high-speed rail

FCC = Federal Communications Commission

GHz = gigahertz

EMF/EMI = electromagnetic fields and electromagnetic interference

### 1.4.2.2 Central Valley Wye Alternatives Impact Summary

All of the Central Valley Wye alternatives could expose individual children to some noise impacts at single-family residential sensitive receptors; however, these impacts would not occur at places where children congregate and would not be disproportionately borne by children. Overall, construction and operations of the Central Valley Wye alternatives would not result in impacts on children's health and safety under NEPA. The Authority has incorporated IAMFs into the Central Valley Wye alternatives consistent with the *Final Program Environmental Impact Report/Environmental Impact Statement for the Proposed California High-Speed Train System* (Statewide Program EIR/EIS) (Authority and FRA 2005). Statewide Program EIR/EIS mitigation strategies have been refined and adapted for the project-level Draft Supplemental EIR/EIS. Mitigation measures that would minimize or avoid any potential children's health and safety impacts are identified in this analysis.

## 1.5 References

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