

APPENDIX 3.12-F: SUMMARY OF ISSUES AFFECTING SCHOOLS

INTRODUCTION

The California High-Speed Rail Authority (Authority) proposes to construct, operate, and maintain an electric-powered high-speed rail (HSR) system in California. The Authority and the Federal Railroad Administration (FRA) are considering four Central Valley Wye alternatives including upgrades to the Pacific Gas & Electric's (PG&E) network needed to power the HSR system. Below is a summary of the potential construction- and operational-period impacts on schools and associated play areas located within the socioeconomic and communities resource study area (RSA) (0.5 mile) of the Central Valley Wye alternatives. These schools include four public schools, a private school, and a daycare facility. Information summarized in this appendix was obtained from a number of sections of the *Merced to Fresno Section: Central Valley Wye Supplemental Environmental Impact Report (EIR)/Supplemental Environmental Impact Statement (EIS)* (Draft Supplemental EIR/EIS), *Merced to Fresno Section: Central Valley Wye Community Impact Assessment Technical Report* (Authority and FRA 2016a), Appendix 3.12-C: Children's Health and Safety Risk Assessment, and Appendix 3.12-D: Economic Effects on School Districts. Unless otherwise specified, all references to text sections and tables are those in the Draft Supplemental EIR/EIS.

Fairmead Elementary School

Fairmead Elementary School is a public school located within the jurisdiction of the Chowchilla Elementary School District. It is located at the northeast corner of Maple Street and Avenue 22 3/4 in the community of Fairmead (Figure 1).

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 would be located within 1,000 feet of Fairmead Elementary School (Figure 1). Fairmead Elementary School is not within the RSA for the Avenue 21 to Road 13 Wye Alternative. Table 1 discloses the approximate distances of the project footprint and alignment centerline of each Central Valley Wye alternative to the Fairmead Elementary School property line.

Fairmead Elementary School is outside of the electromagnetic fields and electromagnetic interference (EMF/EMI) RSA; therefore, EMF/EMI is not discussed further for Fairmead Elementary School.

Table 1 Distance of the Central Valley Wye Alternatives from Fairmead Elementary School

Distance Type	SR 152 (North) to Road 13 Wye	SR 152 (North) to Road 19 Wye	Avenue 21 to Road 13 Wye	SR 152 (North) to Road 11 Wye
Project footprint to school property line	460	410	N/A	460
Centerline to school property line	850	780	N/A	850

Source: Authority and FRA, 2018

N/A indicates that the school is not within 1,000 feet of the alternative.

SR = State Route

Transportation

As disclosed in Section 3.2.6.3, Central Valley Wye Alternatives, Construction Impacts, Transit Conditions, construction of road overcrossings could affect school bus transportation routes for Fairmead Elementary School. Impact TR#15, Temporary Impacts on School Bus Routes states that the closest road crossings to the school where overcrossings are to be constructed are Road 20 and Fairmead Boulevard, approximately 0.7 mile to the northeast and 0.9 mile to the northwest, respectively. The final design includes identifying when and where temporary closures and detours would occur, with the goal of maintaining traffic flow, especially during peak travel periods and during school hours (TR-IAMF#2, Construction Transportation Plan). In addition, any damage to public roads would be repaired by the contractor, benefitting the school buses using them (TR-IAMF#1, Protection of Public Roadways during Construction).

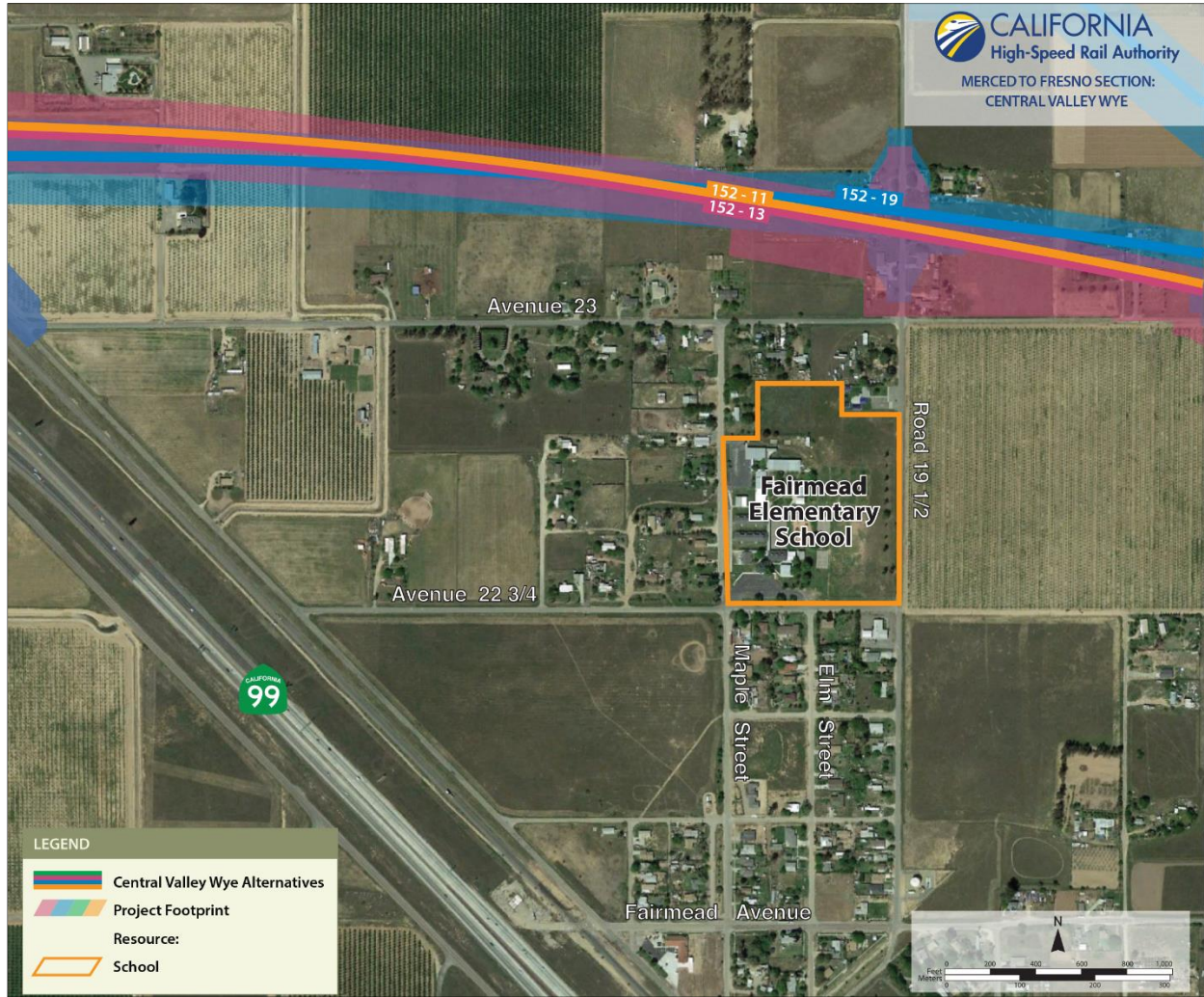
Any permanent route changes required by road closures associated with the Central Valley Wye alternatives would be identified as final design of the preferred alternative is completed. This should allow Fairmead Elementary School sufficient time to evaluate their existing routes and make any necessary adjustments. Because the Fairmead Elementary School would not be physically affected by the Central Valley Wye alternatives, buses can be rerouted to continue to provide service and no permanent impacts on the ability of route buses to pick up children would be expected (refer to Impact TR#16, Permanent Impacts on School Bus Routes).

Air Quality

Students attending Fairmead Elementary School are considered sensitive receptors as shown in Table 3.3-4. Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts, states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of particulate matter small than 10 microns in diameter (PM₁₀) and particulate matter smaller than 2.5 microns in diameter (PM_{2.5}) standards. In addition, the design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1, Fugitive Dust Emissions; see Volume 2, Appendix 2-B for a list of all potential IAMFs). The health risk assessment concludes that the incremental increase in cancer risk associated with diesel particulate matter (DPM) and other pollutants from construction equipment exhaust and concrete batching activities would not exceed the applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) California Environmental Quality Act (CEQA) threshold of 20 in 1 million. Moreover, the acute and chronic hazard indices during construction are anticipated to be 0.7 and 0.0, respectively, which are below the SJVAPCD unit-less CEQA threshold value of 1. Furthermore, construction activities associated with the guideway/alignments would only occur near the sensitive receptors for short periods of time. The *Merced to Fresno Section: Central Valley Wye Air Quality and Global Climate Change Technical Report* (Authority and FRA 2016b) provides detailed results of the air dispersion modeling analysis and health risk assessment.

Noise and Vibration

As disclosed in Section 3.4.5.1, Land Uses and Noise Levels, the Fairmead Elementary School is considered a noise-sensitive receptor that falls within the screening distance of 2,500 feet from the Central Valley Wye alternatives' centerlines for the SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives. Most construction is expected to occur 5 days a week between the hours of 7:00 a.m. and 7:00 p.m. The Central Valley Wye alternatives incorporate requirements documenting how the contractor would comply with Federal Transit Administration (FTA) and FRA guidelines (NV-IAMF#1, Noise and Vibration). By complying with these guidelines, noise impacts would be minimized for noise-sensitive receptor at the Fairmead Elementary School during construction. These guidelines include strategic siting of equipment, phasing of construction operations, and using alternative construction methods or equipment to minimize construction noise. Furthermore, Impact NV#1 Temporary Exposure of Sensitive Receptors to Construction Noise, states that construction and operational noise would not exceed FTA/FRA thresholds at the Fairmead Elementary School.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2015

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Figure 1 Fairmead Elementary School

Hazardous Materials and Wastes

As shown in Table 3.10-3, Fairmead Elementary School would be located within 0.25-mile of SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives. Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used in railway construction and stored within the Central Valley Wye alternatives' right-of-way. Additionally, hazardous wastes such as Asbestos Containing Materials (ACM) and lead-based paint could be generated. Any hazardous material usage near Fairmead Elementary School would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1, Transport of Materials). These regulations would apply equally near school sites to prevent accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4, Spill Prevention). This plan would prescribe Best Management Practices (BMPs) that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to Fairmead Elementary School and minimize the impacts should a release occur. As disclosed in Table 3.10-11, Mitigation Measure HMW-MM#1: Limit Use of Extremely Hazardous Materials near Schools during Construction, would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.

Safety and Security

Fairmead Elementary School is within the screening distance of 0.25-mile of SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives for Safety and Security. Impact SS#7, Temporary Exposure to Valley Fever, states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2, Safety and Security Management Plan). A Valley Fever Health and Safety (VFHS) designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.

Impact SS#13, Continuous Permanent Safety Hazard to Schools states that in the event of an HSR train accident, including derailment of a train during a seismic event or natural disaster, a potential safety hazard would occur if the train were to leave the HSR right-of-way and collide with other structures or people on adjacent properties. However, the design of the Central Valley Wye alternatives includes physical elements, such as containment parapets, check rails, guard rails, and derailment containment, which would be used in specific areas with a high risk of or high impact from derailment. These areas include elevated guideways and approaches to conventional rail and roadway crossings. Derailment containment in the form of raised cable trough walls is provided in tunnels, trenches, and aerial structures which would keep the train within the right-of-way and upright in the event of a derailment. In addition, during the final design of the Central

Valley Wye alternatives, the contractor would perform threat and vulnerability assessments that would be used to establish safety hazard minimization provisions involving HSR facilities and systems operations (SS-IAMF#3, Hazard Analyses). Specific provisions would include right-of-way fencing, intrusion detection, security lighting, security procedures and training, and closed-circuit televisions. Therefore, the design features of the Central Valley Wye alternatives and the threat and vulnerability assessments would minimize the potential for train accidents, including derailment, to result in a safety hazard to the Fairmead Elementary School or structures on adjacent properties.

Additional discussions relating to Fairmead Elementary School and risks associated with children’s health and safety are provided in Appendix 3.12-C, Children’s Health and Safety Risk Assessment.

Socioeconomics and Communities

Impact SO#10, Permanent Impacts on School District Funding from Student Relocations, states that high concentrations of residential displacements have the potential to relocate large numbers of school-age residents outside of their current school districts. School district funding is partially dependent on student attendance, and the relocation of large populations of students outside existing school districts could therefore reduce funding for the affected school districts. Under all displacement scenarios (shown in Table 2 below), sufficient residential relocation resources for displaced residents have been identified within the jurisdictions of the Chowchilla Elementary School District and Chowchilla Union High School District. The details of this analysis and complete results by school district can be found in the Community Impact Assessment Technical Report. Further discussion of impacts on public school district funding and cost of bus transportation routes can be found in Volume 2, Appendix 3.12-D, Economic Effects on School Districts.

Table 2 Displacement Scenarios by Alternative Affecting Fairmead Elementary School

Displacement Scenario	SR 152 (North) to Road 13 Wye	SR 152 (North) to Road 19 Wye	Avenue 21 to Road 13 Wye	SR 152 (North) to Road 11 Wye
Total Residential Displacements in Madera County	96	109	55	53
Displacements of Students in Chowchilla Elementary School District	35	50	7	34
Percent of Chowchilla Elementary School District Enrollment	1.6	2.3	0.3	1.6

Source: Authority and FRA 2016a

Impact SO#11, Permanent Impacts on School District Funding from Reduced Property Tax Revenues, states that construction of the Central Valley Wye alternatives could result in the acquisition and displacement of residences, which would remove some private property from the local property tax rolls. Because school districts are funded, in part, from property taxes, it is likely that the removal of some private properties would result in a net reduction in the local property tax revenues available to school districts. The potential reductions in property tax revenues designated for school districts as a result of the Central Valley Wye alternatives are estimated to be a \$930,000 reduction in revenues in Madera County. The combined estimated amount between Merced and Madera Counties represents 0.5 percent of the total FY 2013/2014 property tax revenue for school districts for Merced and Madera Counties. This impact is considered to be minor as a small portion of property tax revenue that is devoted to the school district would be affected.

Impact SO#12, Permanent Changes in School Bus Transportation, states that operating school buses to take children to and from school every day is a key expense for school districts. Fuel costs are directly related to the distance traveled by the buses on their routes. Roadway modifications related to the Central Valley Wye alternatives may change some access and routing of school buses because of road closures, but alternative routes would be provided to minimize any potential impacts.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses, states that no direct impacts, such as temporary or permanent acquisition of land would occur under any of the Central Valley Wye alternatives at Fairmead Elementary School. Although the Central Valley Wye alternatives would convert agricultural, residential, commercial, and industrial land uses (Table 3.13-7), they would not result in incompatible land use with regard to schools because Fairmead Elementary School is far enough away to avoid direct and indirect impacts.

Fairmead Head Start Childcare Center

Fairmead Head Start Childcare Center (Fairmead Head Start) is a daycare center located at 22850 Road 19 ½ in the community of Fairmead.

The SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives would be located within 1,000 feet (0.2-mile) of Fairmead Head Start (refer to Figure 2). Fairmead Head Start is not within the RSA for the Avenue 21 to Road 13 Wye Alternative. Table 3 discloses the approximate distances of the project footprint and alignment centerline of each Central Valley Wye alternative to the Fairmead Head Start property line. Fairmead Head Start is outside of the EMF/EMI RSA; therefore, EMF/EMI is not discussed further for Fairmead Head Start.

Table 3 Distance of the Central Valley Wye Alternatives from Fairmead Head Start

Distance Type	SR 152 (North) to Road 13 Wye	SR 152 (North) to Road 19 Wye	Avenue 21 to Road 13 Wye	SR 152 (North) to Road 11 Wye
Project footprint to school property line	350	300	N/A	350
Centerline to school property line	740	680	N/A	740

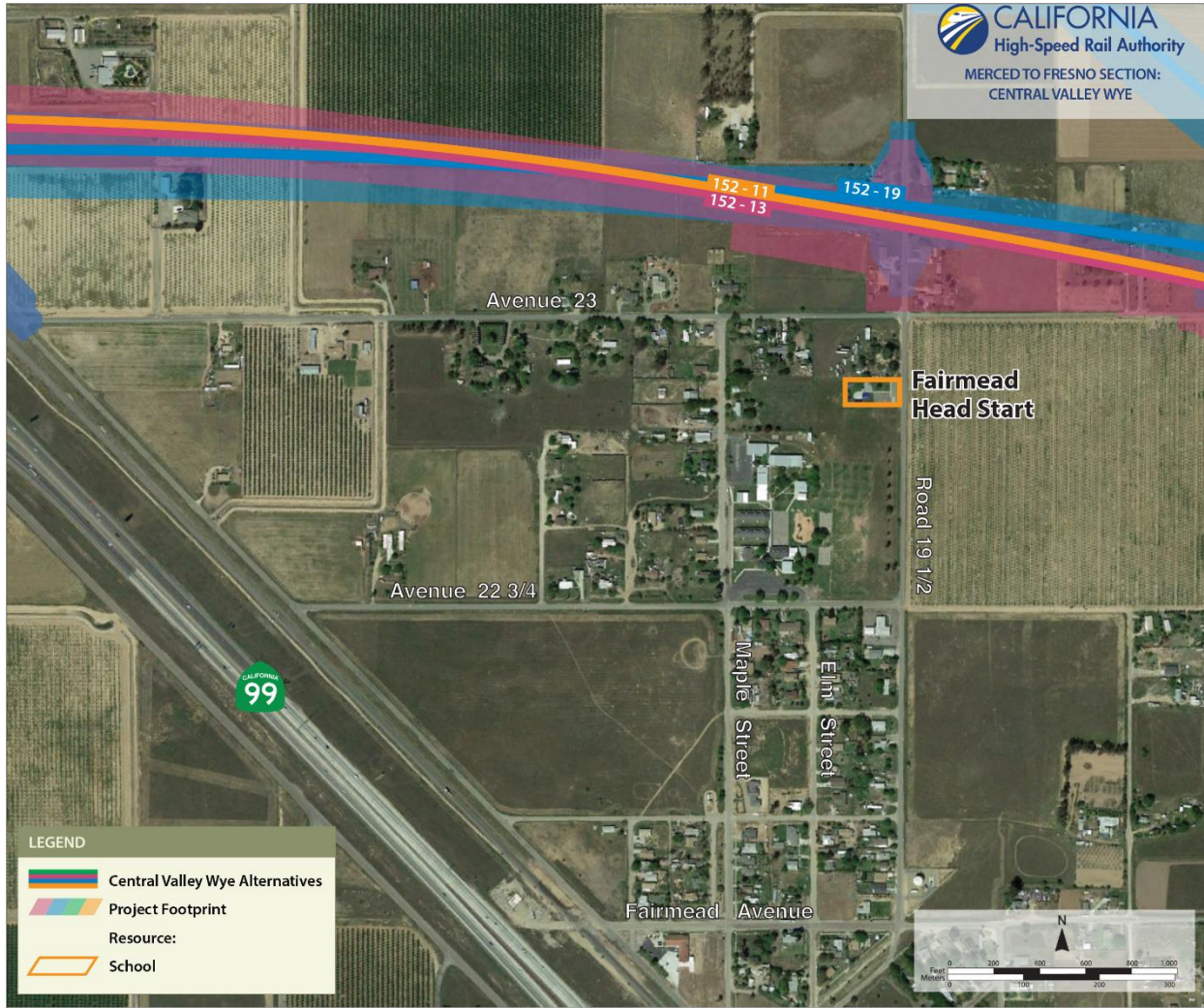
Source: Authority and FRA, 2018

N/A indicates that the sensitive receptor is not within 1,000 feet of the alternative. SR = State Route

Transportation

Given that Fairmead Head Start is a pre-school, there would be no impact on school bus routes; however, access to the pre-school could be affected. Construction of road overcrossings could affect transportation routes for Fairmead Head Start. The closest road crossings to the school where overcrossings are to be constructed are Road 20 and Fairmead Boulevard, approximately 0.6 mile to the northeast and 0.9 mile to the northwest, respectively. The final design includes identifying when and where temporary closures and detours would occur, with the goal of maintaining traffic flow, especially during peak travel periods and during school hours (TR-IAMF#2). In addition, any damage to public roads would be repaired by the contractor, benefitting the vehicles using them (TR-IAMF#1).

Any permanent route changes required by road closures associated with the Central Valley Wye alternatives would be identified as final design of the preferred alternative is completed, allowing Fairmead Head Start sufficient time to evaluate their existing routes and make any necessary adjustments. Because the Fairmead Head Start would not be physically affected by the Central Valley Wye alternatives, alternative routes would continue to provide service and no permanent impacts on access would be expected.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2015

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Figure 2 Fairmead Head Start

Air Quality

Students attending Fairmead Head Start are considered sensitive receptors as shown in Table 3.3-4. Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of PM₁₀ and PM_{2.5} standards. In addition, the design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1; see Volume 2, Appendix 2-B for a list of all potential IAMFs). The health risk assessment concludes that the incremental increase in cancer risk associated with DPM and other pollutants from construction equipment exhaust and concrete batching activities would not exceed the applicable SJVAPCD CEQA threshold of 20 in 1 million. Moreover, the acute and chronic hazard indices during construction are anticipated to be 0.7 and 0.0, respectively, which are below the SJVAPCD unit-less CEQA threshold value of 1. Furthermore, construction activities associated with the guideway/alignments would only occur near the sensitive receptors for short periods of time. The Air Quality and Global Climate Change Technical Report provides detailed results of the air dispersion modeling analysis and health risk assessment.

Noise and Vibration

As disclosed in Section 3.4.5.1, Land Uses and Noise Levels, Fairmead Head Start is considered a noise-sensitive receptor that falls within the screening distance of 2,500 feet from the Central Valley Wye alternatives' centerlines for the SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives. Most construction is expected to occur 5 days a week between the hours of 7:00 a.m. and 7:00 p.m. The Central Valley Wye alternatives incorporate requirements for documenting how the contractor would comply with FTA and FRA guidelines (NV-IAMF#1). By complying with these guidelines, noise impacts would be partially avoided for noise-sensitive receptors at Fairmead Head Start during construction. These guidelines include strategic siting of equipment, phasing of construction operations, and using alternative construction methods or equipment to minimize construction noise. Furthermore, Impact NV#1, Temporary Exposure of Sensitive Receivers to Construction Noise states that construction and operational noise would not exceed FTA/FRA thresholds at Fairmead Head Start.

Hazardous Materials and Wastes

Fairmead Head Start would be located within 0.25-mile of SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives (Table 3.10-3). Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used in railway construction and stored within the Central Valley Wye alternatives' rights-of-way. Additionally, hazardous wastes such as ACMs and lead-based paint could be generated. Any hazardous material usage near Fairmead Head Start would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1). These regulations would apply equally near school sites to prevent accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4). This plan would prescribe BMPs that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to Fairmead Head Start and minimize

the impacts should a release occur. As disclosed in Table 3.10-11, HMW-MM#1 would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.

Safety and Security

The Fairmead Head Start is within the screening distance of 0.25-mile of SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives for Safety and Security. Impact SS#7, Temporary Exposure to Valley Fever, states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2). A VFHS designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.

Impact SS#13, Continuous Permanent Safety Hazard to Schools states that in the event of an HSR train accident, including derailment of a train during a seismic event or natural disaster, a potential safety hazard to Fairmead Head Start would occur if the train were to leave the HSR right-of-way and collide with other structures or people on adjacent properties. However, the design of the Central Valley Wye alternatives includes physical elements, such as containment parapets, check rails, guard rails, and derailment containment, which would be used in specific areas with a high risk of or high impact from derailment. These areas include elevated guideways and approaches to conventional rail and roadway crossings. Derailment containment in the form of raised cable trough walls is provided in tunnels, trenches, and aerial structures which would keep the train within the right-of-way and upright in the event of a derailment. In addition, during the final design of the Central Valley Wye alternatives, the contractor would perform threat and vulnerability assessments that would be used to establish safety hazard minimization provisions involving HSR facilities and systems operations (SS-IAMF#3). Specific provisions would include right-of-way fencing, intrusion detection, security lighting, security procedures and training, and closed-circuit televisions. Therefore, the design features of the Central Valley Wye alternatives and the threat and vulnerability assessments would minimize the potential for train accidents, including derailment, to result in a safety hazard to Fairmead Head Start or structures on adjacent properties.

Additional discussions relating to Fairmead Head Start and risks associated with children's health and safety are provided in Appendix 3.12-C, Children's Health and Safety Risk Assessment.

Socioeconomics and Communities

Fairmead Head Start is funded by the Office of the Administration for Children and Families Early Childhood Learning and Knowledge Center (ECLKC) and run by the Community Action Partnership of Madera County. Its funding is not dependent on student attendance and thus, would not be affected by potential residential displacements and student relocations.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses, states that no direct impacts, such as temporary or permanent acquisition of land would occur under any of the Central Valley Wye alternatives at Fairmead Head Start. Although the Central Valley Wye alternatives would convert agricultural, residential, commercial, and industrial land uses (Table 3.13-7), they would not result in incompatible land use with regard to schools

because Fairmead Head Start is far enough away from all Central Valley Wye alternatives to avoid direct and indirect impacts.

Alview Elementary School

Alview Elementary School is a public school located within the jurisdiction of the Alview-Dairyland Union School District. It is located at 20513 Lincoln Road in the City of Chowchilla. Alview Elementary School is located within the project footprint, specifically a utility easement, of the Avenue 21 to Road 13 Wye Alternative. This is an aerial easement for the relocating of existing wood poles and adjusting of the overhead electric lines. The school is located adjacent to the last pole of the proposed utility realignment and, at that location, the work may include an additional down guy or at most a new pole to adjust for the utility adjustments to the north. This work would happen outside of the school property (at the location of the existing pole) and would be minimal. Alview Elementary School is located over 2,000 feet south of the Avenue 21 to Road 13 Wye Alternative centerline (Figure 3). Alview Elementary School is not within the RSA for the SR 152 (North) to Road 13, SR 152 (North) to Road 19, and SR 152 (North) to Road 11 Wye Alternatives. Alview Elementary School is outside of the EMF/EMI RSA; therefore, EMF/EMI is not discussed further for Alview Elementary School.

Transportation

As disclosed in Section 3.2.6.3, Transit Conditions, Alview Elementary School is located within a utility easement of the Avenue 21 to Road 13 Wye Alternative. Given that the school is located within a utility easement rather than the actual train alignment, it would not be affected by roadway alterations associated with the alignment located over 2,000 feet to the north. No impacts related to access would be expected.

Air Quality

Students attending Alview Elementary School are considered sensitive receptors as shown in Table 3.3-4. Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of PM₁₀ and PM_{2.5} standards. In addition, the design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1; see Volume 2, Appendix 2-B for a list of all potential IAMFs). The health risk assessment concludes that the incremental increase in cancer risk associated with DPM and other pollutants from construction equipment exhaust and concrete batching activities would not exceed the applicable SJVAPCD CEQA threshold of 20 in 1 million.

Moreover, the acute and chronic hazard indices during construction are anticipated to be 0.7 and 0.0, respectively, which are below the SJVAPCD unit-less CEQA threshold value of 1. Furthermore, construction activities associated with the guideway/alignments would only occur near the sensitive receptors for short periods of time. The Air Quality and Global Climate Change Technical Report provides detailed results of the air dispersion modeling analysis and health risk assessment.

Noise and Vibration

Section 3.4.5.1, Land Uses and Noise Levels, states that the utility easement associated with the Avenue 21 to Road 13 Wye Alternative would not directly affect the school's facilities and would not generate noise or vibration to the Alview Elementary School. In addition, there is no potential for noise and vibration impacts from the Avenue 21 to Road 13 Wye Alternative alignment given that it's located over 2,000 feet from Alview Elementary School.

Impact SO#7, Temporary Impacts on Children's Health and Safety states that there is a potential for construction noise and vibration to impact children attending Alview Elementary School. Temporary construction would be required and would generate noise adjacent to the school property at the location

of the existing pole. The Authority would implement a construction management plan (CMP) prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1, Construction Management Plan). In addition, as disclosed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

Hazardous Materials and Wastes

Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used in railway construction and stored within the Central Valley Wye alternatives' rights-of-way. Given that Alview Elementary School is located over 0.25-mile from the Avenue 21 to Road 13 Wye Alternative alignment (hazardous materials RSA); no impacts related to hazardous materials and wastes are anticipated. Potentially hazardous substances could be used or disturbed during construction associated with the Avenue 21 to Road 13 Alternative permanent utility easement adjacent to Alview Elementary School. However, construction activities would be very short-term and it is unlikely that potentially hazardous materials would be accidentally uncovered or stored for longer periods of time near the school. If any hazardous material usage occurs near Alview Elementary School, it would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1). These regulations would apply equally near school sites to prevent accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4). This plan would prescribe BMPs that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to Alview Elementary School and minimize the impacts should a release occur. As disclosed in Table 3.10-11, HMW-MM#1 would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2015

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Figure 3 Alview Elementary School

Safety and Security

Impact SS#7, Temporary Exposure to Valley Fever states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. Given that Alview Elementary School is located over 0.25-mile from the Avenue 21 to Road 13 Wye Alternative alignment (safety and security RSA); no impacts related to safety and security are anticipated. Some very minor construction activity would occur within the utility easement of the Avenue 21 to Road 13 Wye Alternative to relocate existing wood poles and adjust the overhead electric line. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2). A VFHS designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.

Alview Elementary School is located over 2,000 feet from the Avenue 21 to Road 13 Wye Alternative alignment; therefore, there would be no safety hazards associated with train derailment. Additional discussions relating to Alview Elementary School and risks associated with children's health and safety are provided in Appendix 3.12-C, Children's Health and Safety Risk Assessment.

Socioeconomics and Communities

Impact SO#6, Displacements and Relocations of Community and Public Facilities states that a utility easement associated with the Avenue 21 to Road 13 Wye Alternative encroaches on the property of Alview Elementary School in unincorporated Madera County, resulting in a partial acquisition of the parcel. The utility easement would not directly affect the school's facilities and would not require the relocation or reconfiguration of the school. Therefore, there would be no displacement requiring relocation as Alview Elementary School.

Impact SO#7, Temporary Impacts on Children's Health and Safety states that there is a potential for construction noise and vibration to affect children attending Alview Elementary School. The Authority would implement a CMP prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1). In addition, as discussed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

Impact SO#10, Permanent Impacts on School District Funding from Student Relocations, states that high concentrations of residential displacements have the potential to relocate large numbers of school-age residents outside of their current school districts. School district funding is partially dependent on student attendance, and the relocation of large populations of students outside existing school districts could therefore reduce funding for the affected school districts. Displacement scenarios are shown in Table 4. At the time of the analysis, there were insufficient available residential units for rent or for sale to guarantee that all of the residents that would be displaced could relocate within the same school district. However, the Authority's relocation plan would also support housing of last resort, including rehabilitation of existing housing or relocations of the displaced residents to newly constructed housing elsewhere in the vicinity. The details of this analysis and complete results by school district can be found in the Community Impact Assessment Technical Report. Further discussion of impacts on public school district funding and cost of bus transportation routes can be found in Volume 2, Appendix 3.12-D.

Table 4 Displacement Scenarios by Alternative Affecting Alview Elementary School

Displacement Scenario	SR 152 (North) to Road 13 Wye	SR 152 (North) to Road 19 Wye	Avenue 21 to Road 13 Wye	SR 152 (North) to Road 11 Wye
Total Residential Displacements in Madera County	96	109	55	53
Potential Displacements of Students in Alview-Dairyland Union Elementary School District	8	9	21	21
Percent of Alview-Dairyland Union Elementary School District Enrollment	2.3	2.5	6.1	6.1

Source: Authority and FRA, 2016a

Impact SO#11, Permanent Impacts on School District Funding from Reduced Property Tax Revenues states that construction of the Central Valley Wye alternatives could result in the acquisition and displacement of residences, which would remove some private property from the local property tax rolls. Because school districts are funded, in part, from property taxes, it is likely that the removal of some private properties would result in a net reduction in the local property tax revenues available to school districts. The potential reductions in property tax revenues designated for school districts as a result of the Central Valley Wye alternatives are estimated to be a \$930,000 reduction in revenues in Madera County. The combined estimated amount between Merced and Madera Counties represents 0.5 percent of the total FY 2013/2014 property tax revenue for school districts for Merced and Madera Counties. This impact is considered to be minor as a small portion of property tax revenue that is devoted to the school district would be affected.

Impact SO#12, Permanent Changes in School Bus Transportation states that operating school buses to take children to and from school every day is a key expense for school districts. Fuel costs are directly related to the distance traveled by the buses on their routes. Roadway modifications associated with the Central Valley Wye alternatives may change some access and routing of school buses because of road closures, but alternative routes would be provided to minimize any potential impacts.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses states that at Alview Elementary School, a permanent utility easement would be required from school property; however, relocation of the school or any buildings would not be required. However, Alview Elementary School could be subject to incompatible uses by intensifying the transportation use of the area and increasing noise levels.

Chowchilla Seventh-Day Adventist School

Chowchilla Seventh-Day Adventist School is a private school located at 22310 Road 13 in the city of Chowchilla (Figure 4). It 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. Chowchilla Seventh-Day Adventist School is located approximately 120 feet from Avenue 21 to Road 13 Wye Alternative centerline. Chowchilla Seventh-Day Adventist School is not within the RSA for SR 152 (North) to Road 13 Wye Alternative, SR 152 (North) to Road 19 Wye Alternative, or SR 152 (North) to Road 11 Wye Alternative.

Transportation

As disclosed in Section 3.2.6.3, Transit Conditions, construction of road overcrossings could affect school bus transportation route.3s for Chowchilla Seventh-Day Adventist School. Impact TR#15, Temporary Impacts on School Bus Routes states that the closest road crossing to the school where overcrossings are to be constructed is Avenue 22 ½, approximately 0.25 mile to the north. The final design includes identifying when and where temporary closures and detours would occur, with the goal of maintaining traffic flow, especially during peak travel periods and during school hours (TR-IAMF#2). In addition, any

damage to public roads would be repaired by the contractor, benefitting the school buses using them (TR-IAMF#1).

Any permanent route changes required by road closures associated with the Central Valley Wye alternatives would be identified as final design of the preferred alternative is completed, allowing Chowchilla Seventh-Day Adventist School sufficient time to evaluate their existing routes and make any necessary adjustments. Because the Chowchilla Seventh-Day Adventist School would not be physically affected by the Central Valley Wye alternatives, buses can be rerouted to continue to provide service and no permanent impacts on the ability of route buses to pick up children would be expected (refer to Impact TR#16, Permanent Impacts on School Bus Routes).

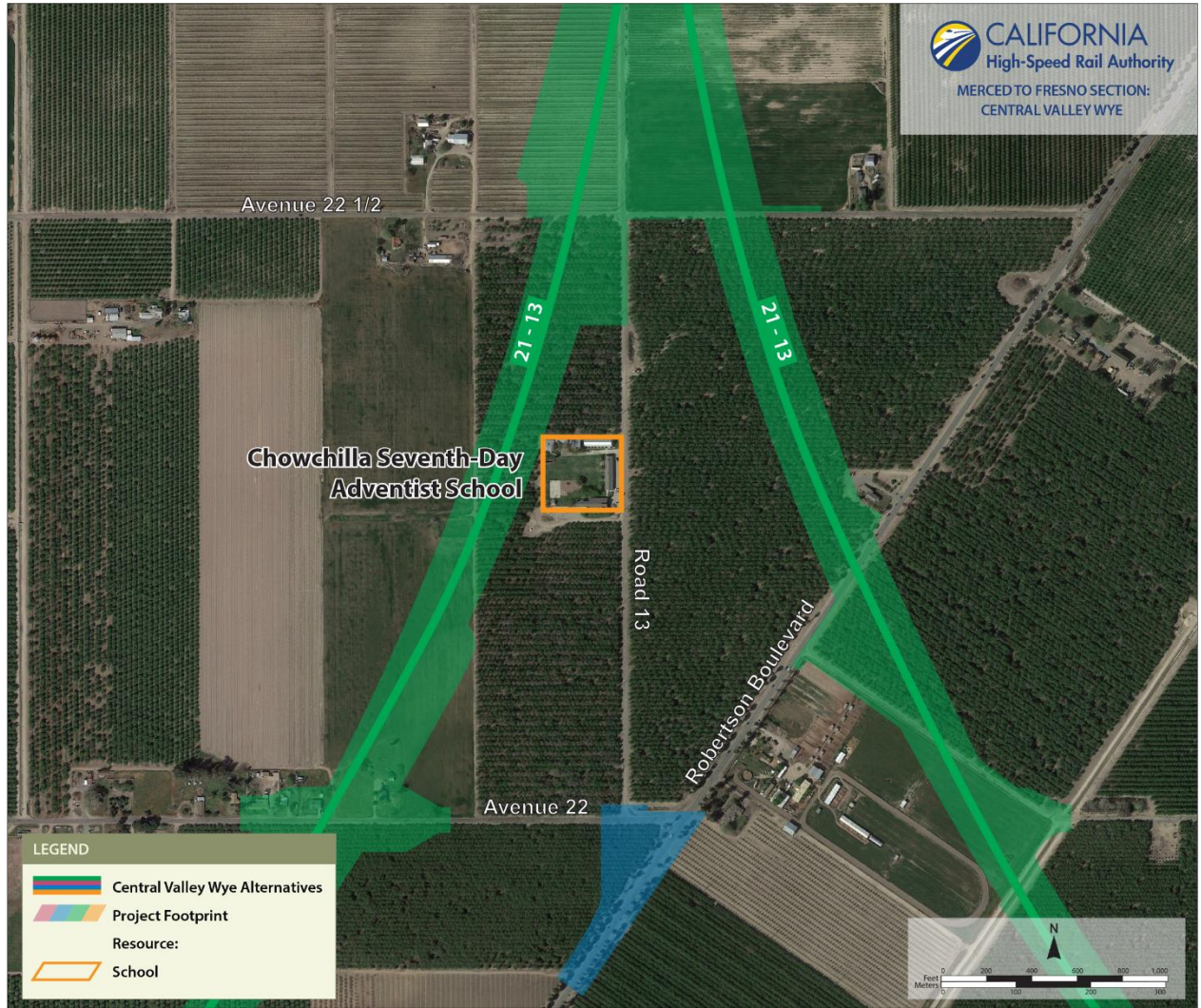
Air Quality

Students attending Chowchilla Seventh-Day Adventist School are considered sensitive receptors as shown in Table 3.3-4. Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of PM₁₀ and PM_{2.5} standards. In addition, the design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1; see Volume 2, Appendix 2-B for a list of all potential IAMFs). The health risk assessment concludes that the incremental increase in cancer risk associated with DPM and other pollutants from construction equipment exhaust and concrete batching activities would not exceed the applicable SJVAPCD CEQA threshold of 20 in 1 million. Moreover, the acute and chronic hazard indices during construction are anticipated to be 0.7 and 0.0, respectively, which are below the SJVAPCD unit-less CEQA threshold value of 1.

Furthermore, construction activities associated with the guideway/alignments would only occur near the sensitive receptors for short periods of time. The Air Quality and Global Climate Change Technical Report provides detailed results of the air dispersion modeling analysis and health risk assessment.

Noise and Vibration

As disclosed in Section 3.4.5.1, Land Uses and Noise Levels, the Chowchilla Seventh-Day Adventist School is considered a noise-sensitive receptor that falls within the screening distance of 2,500 feet from the Central Valley Wye alternatives' centerlines for the Avenue 21 to Road 13 Wye Alternative. Most construction is expected to occur 5 days a week between the hours of 7:00 a.m. and 7:00 p.m. The Central Valley Wye alternatives incorporate requirements for documenting how the contractor would comply with FTA and FRA guidelines (NV-IAMF#1). By complying with these guidelines, noise impacts would be partially avoided for noise-sensitive receptors at the Chowchilla Seventh-Day Adventist School during construction. These guidelines include strategic siting of equipment, phasing of construction operations, and using alternative construction methods or equipment to minimize construction noise. Furthermore, Impact NV#1, Temporary Exposure of Sensitive Receptors to Construction Noise states that construction and operational noise would not exceed FTA/FRA thresholds at the Chowchilla Seventh-Day Adventist School.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2015

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Figure 4 Chowchilla Seventh-Day Adventist School

Hazardous Materials and Wastes

As shown in Table 3.10-3, Chowchilla Seventh-Day Adventist School would be located within 0.25-mile of the Avenue 21 to Road 13 Wye Alternative. Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used in railway construction and stored within the Central Valley Wye alternatives' rights-of-way. Additionally, hazardous wastes such as ACMs and lead-based paint could be generated. Any hazardous material usage near Chowchilla Seventh-Day Adventist School would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1). These regulations would apply equally near school sites to prevent accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4). This plan would prescribe BMPs that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to Chowchilla Seventh-Day Adventist School and minimize the impacts should a release occur. As disclosed in Table 3.10-11, HMW-MM#1 would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.

Safety and Security

Chowchilla Seventh-Day Adventist School is within the screening distance of 0.25-mile of the Avenue 21 to Road 13 Wye Alternative for Safety and Security. Impact SS#7, Temporary Exposure to Valley Fever states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2). A VFHS designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.

Impact SS#13, Continuous Permanent Safety Hazard to Schools states that in the event of an HSR train accident, including derailment of a train during a seismic event or natural disaster, a potential safety hazard to Chowchilla Seventh-Day Adventist School would occur if the train were to leave the HSR right-of-way and collide with other structures or people on adjacent properties. However, the design of the Central Valley Wye alternatives includes physical elements, such as containment parapets, check rails, guard rails, and derailment containment, which would be used in specific areas with a high risk of or high impact from derailment. These areas include elevated guideways and approaches to conventional rail and roadway crossings. Derailment containment in the form of raised cable trough walls is provided in tunnels, trenches, and aerial structures which would keep the train within the right-of-way and upright in the event of a derailment. In addition, during the final design of the Central Valley Wye alternatives, the contractor would perform threat and vulnerability assessments that would be used to establish safety

hazard minimization provisions involving HSR facilities and systems operations (SS-IAMF#3). Specific provisions would include right-of-way fencing, intrusion detection, security lighting, security procedures and training, and closed-circuit televisions. Therefore, the design features of the Central Valley Wye alternatives and the threat and vulnerability assessments would minimize the potential for train accidents, including derailment, to result in a safety hazard to the Chowchilla Seventh-Day Adventist School or structures on adjacent properties.

Additional discussions relating to Chowchilla Seventh-Day Adventist School and risks associated with children's health and safety are provided in Appendix 3.12-C, Children's Health and Safety Risk Assessment.

Socioeconomics and Communities

Chowchilla Seventh-Day Adventist School is a private Christian school, its funding is not dependent on student attendance and thus, would not be affected by potential residential displacements and student relocations.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses states that the Chowchilla Seventh-Day Adventist School is within the footprint of the Avenue 21 to Road 13 Wye Alternative. However, it is within a farmland mitigation buffer, therefore, no temporary or permanent acquisition of land would result. In addition, although the Central Valley Wye alternatives would convert agricultural, residential, commercial, and industrial land uses (Table 3.13-7), they would not result in incompatible land use with regard to schools because Chowchilla Seventh-Day Adventist School is far enough away to avoid direct and indirect impacts.

Electromagnetic Fields and Electromagnetic Interference

Impact EMF/EMI#2, Permanent Human Exposure to Electromagnetic Fields (EMF) states that for the Chowchilla Seventh-Day Adventist school, human health would not be affected because the school is approximately 120 feet from the alignment centerline. At this distance, EMF exposure would be negligible.

Impact EMF/EMI#4, Permanent Interference with Sensitive Equipment states that the HSR system would use radio systems for enhanced automatic train control, data transfer, and communications, raising the concern that EMI from HSR operations could permanently affect the radio system in use at Chowchilla Seventh-Day Adventist School. The Authority would implement an Implementation Stage EMC Program Plan (ISEP) during project planning and implementation to establish electromagnetic compatibility (EMC) with radio systems operated by neighboring uses, including schools (EMI/EMF-IAMF#2, Controlling Electromagnetic Fields / Electromagnetic Interference). The ISEP would confirm compatibility of the HSR with the school's radio system, and thus avoid this potential impact. During the planning stage through system design, the Authority would identify existing nearby radio systems, design systems to prevent EMI with identified neighboring uses, and incorporate these design requirements into bid specifications used to procure radio systems.

Washington Elementary School

Washington Elementary School is a public elementary school located within the jurisdiction of the Merced River School District. It is located at 4402 W. Oakdale Road in a census-designated place, Winton, located in Merced County (Figure 5).

The SR 152 (North) to Road 19 Wye Alternative, specifically a structure work area associated with the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville—Wilson 230 kilovolt (kV) Transmission Line, would be located approximately 450 feet from the outdoor field areas of the Washington Elementary School. The distance between the property line and the closest portion of the existing transmission line is approximately 350 feet (0.07 mile). Washington Elementary School is not within the RSA for SR 152 (North) to Road 13 Wye Alternative, Avenue 21 to Road 13 Wye Alternative, or SR 152 (North) to Road 11 Wye Alternative.

Transportation

As disclosed in Section 3.2.6.3, Transit Conditions, the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville – Wilson 230 kV Transmission Line currently spans approximately 0.07 mile from the Washington Elementary School property line. Temporary lane or road closures and detours that are necessary during construction within or along the public right-of-way (ROW) would result in minor delays to the motoring public, including school buses. Although school bus routes could be temporarily obstructed during construction activities, alternative access routes would continue to be provided as a provision of the Construction Transportation Plan (TR-IAMF#2). Furthermore, during reconductoring activities, a road closure or a rolling stop would be arranged for any locations where lines cross over roads before conductor installation begins. Such road closures typically would not exceed a few minutes in duration and would be coordinated with the county or landowner. No permanent impacts on the ability of route buses to pick up children would be expected (refer to Impact TR#16, Permanent Impacts on School Bus Routes).

Air Quality

Students attending Washington Elementary School are considered sensitive receptors as shown in Table 3.3-4. During line work associated with the Site 7 – Le Grand Junction/Sandy Mush Road, Warnerville – Wilson 230 kV Transmission lines, crews typically would be working at adjacent structures with activities not anticipated to last longer than one week as each structure. Moreover, Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of PM₁₀ and PM_{2.5} standards. The design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1; see Volume 2, Appendix 2-B for a list of all potential IAMFs).

Noise and Vibration

As disclosed in Table 3.4-11, all construction activities (except those associated with laying track) would only exceed FRA daytime construction noise criteria within 210 feet or less to nearby receptors. Given that the closest structure work area associated with the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line would be located approximately 450 feet from the outdoor field areas of the Washington Elementary School, no noise impacts are anticipated. The Authority would implement a CMP prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1). In addition, as discussed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

As noted in Table 3.4-13, the maximum distances at which short-term construction vibration impacts on nearby structures and buildings could occur is generally limited to less than 40 feet of the source, except where pile driving may be necessary. No pile driving would occur at the structure work area near Washington Elementary School and the school is located well over 40 feet from construction activities; therefore, no vibration impacts would occur.

Hazardous Materials and Wastes

As disclosed in Table 3.10-3, a structure work area associated with the SR 152 (North) to Road 19 Wye Alternative would be located within 0.25 mile of Washington Elementary School. Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used during construction. Any hazardous material usage near Washington Elementary School would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1). These regulations would apply equally near school sites to prevent

accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4). This plan would prescribe BMPs that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to Washington Elementary School and minimize the impacts should a release occur. As disclosed in Table 3.10-11, HMW-MM#1 would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.

Safety and Security

Impact SS#7, Temporary Exposure to Valley Fever, states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2). A VFHS designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2016

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Figure 5 Washington Elementary School

Socioeconomics and Communities

Impact SO#7, Temporary Impacts on Children's Health and Safety states that construction noise associated with the SR 152 (North) and Road 19 Wye Alternative, specifically the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line, could affect children attending Washington Elementary School; however, as discussed above, Noise and Vibration, construction activities would not exceed applicable thresholds. Moreover, the Authority would implement a CMP prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1). In addition, as discussed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses states that Washington Elementary School is far enough away from the alternatives to avoid direct land use impacts (over 350 feet from the existing Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line). In addition, no indirect impacts on land use at Washington Elementary School would occur as once the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line is reconductored, there would be no change from baseline conditions regarding land use. Therefore, no land use impacts would occur to Washington Elementary School.

Electromagnetic Fields and Electromagnetic Interference

Washington Elementary School is located in the RSA of the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line, of the SR 152 (North) to Road 19 Wye Alternative. The closest sensitive receptor is the Washington Elementary School classroom facilities, approximately 300 feet west of the existing transmission line. Power and transmission lines are known to produce “extremely low frequency” fields, the effects of which decrease rapidly with distance. Impact EMF/EMI#2, Permanent Human Exposure to EMF states that there would be no change in baseline EMF conditions for the transmission/power lines proposed to be reconductored because the voltages would remain the same as the existing voltage. Moreover, EMF levels produced by the transmission line would continue to be reduced by over 99 percent at a distance of 300 feet (i.e., the distance of the nearest school facility to the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line). Therefore, there would be no impacts on human health or to sensitive equipment as a result of EMF/EMI.

El Capitan High School

El Capitan High School is a public school located within the Merced Union High School District. It is located at 100 Farmland Avenue in the City of Merced (Figure 6).

The SR 152 (North) to Road 19 Wye Alternative, specifically a structure work area associated with the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line, would be located approximately 200 feet from a baseball field at the El Capitan High School, and is located over 1,200 feet from classroom facilities. El Capitan High School is not within the RSA for SR 152 (North) to Road 13 Wye, Avenue 21 to Road 13 Wye, or SR 152 (North) to Road 11 Wye alternatives.

Transportation

As disclosed in Section 3.2.6.3, Transit Conditions, the existing Site 7—Le Grand Junction/Sandy Mush Road, Warnerville—Wilson 230 kV Transmission Line is approximately 0.20 mile from the nearest El Capitan High School classroom facilities. Temporary lane or road closures and detours that are necessary during construction within or along the public ROW would result in minor delays to the motoring public, including school buses. Although school bus routes could be temporarily obstructed during construction activities, alternative access routes would continue to be provided as a provision of the Construction Transportation Plan (TR-IAMF#2). During reconductoring activities, a road closure or a rolling stop would be arranged for any locations where lines cross over roads before conductor installation begins. Such road closures typically would not exceed a few minutes in duration and would be

coordinated with the county or landowner. No permanent impacts on the ability of route buses to pick up children would be expected (refer to Impact TR#16, Permanent Impacts on School Bus Routes).

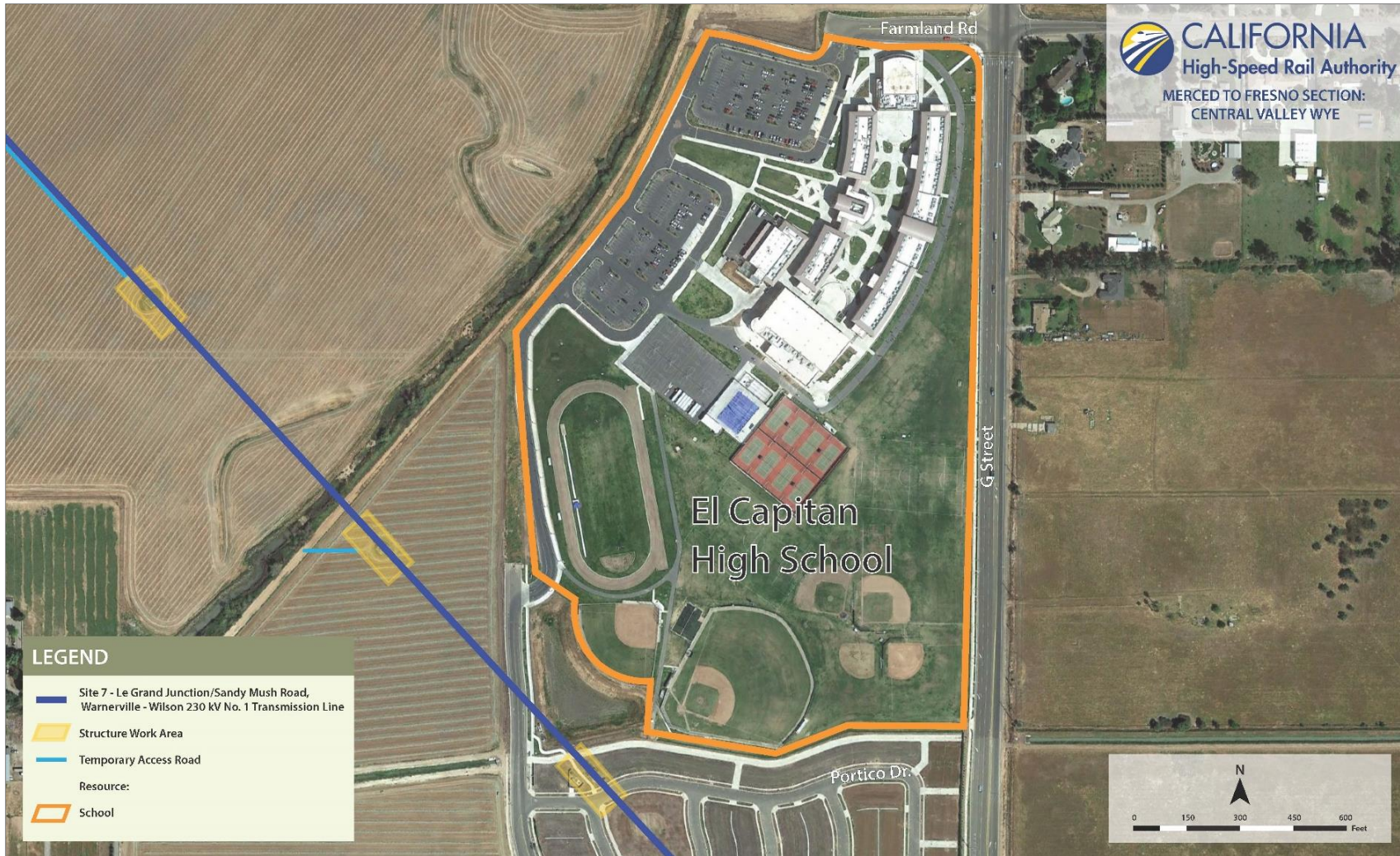
Air Quality

Students attending El Capitan High School are considered sensitive receptors as shown in Table 3.3-4. During line work associated with the Site 7 – Le Grand Junction/Sandy Mush Road, Warnerville – Wilson 230 kV Transmission lines, crews typically would be working at adjacent structures with activities not anticipated to last longer than one week as each structure. Moreover, Impact AQ#6, Temporary Direct Impacts on Air Quality—Localized Health Impacts states that neither combined nor individual emissions from all construction activities along the guideway/alignments would result in pollutant concentrations exceeding the applicable NAAQS and CAAQS for any pollutant, nor substantially contribute to further exacerbation of exceedances of PM₁₀ and PM_{2.5} standards. In addition, the design of the Central Valley Wye alternatives would minimize fugitive dust emissions during construction through dust-reduction measures. The Authority would require construction contractors to prepare a fugitive dust control plan and would employ measures to minimize fugitive dust emissions by limiting visible dust emissions, watering unpaved roads, limiting vehicle travel speed, and suspending dust-generating activities when wind speed is in exceedance of 25 mph (AQ-IAMF#1; see Volume 2, Appendix 2-B for a list of all potential IAMFs).

Noise and Vibration

As shown in Table 3.4-11, all construction activities (except those associated with laying track) would only exceed FRA daytime construction noise criteria within 210 feet or less to nearby receptors. Given that the closest structure work area associated with the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line would be located approximately 200 feet from the outside perimeter of one baseball field associated with El Capitan High School, and line work at the structure work area would only last up to one week, no noise impacts are anticipated. The Authority would implement a CMP prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1). In addition, as discussed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

As noted in Table 3.4-13, the maximum distances at which short-term construction vibration impacts on nearby structures and buildings could occur is generally limited to within 40 feet of the source, except where pile driving may be necessary. No pile driving would occur at the structure work area near El Capitan High School and the school is located well over 40 feet from construction activities; therefore, no vibration impacts would occur.



Source: ESRI, 2013; CAL FIRE, 2004; ESRI/National Geographic, 2015; Google Earth, 2016

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Figure 6 El Capitan High School

Hazardous Materials and Wastes

As shown in Table 3.10-3, a structure work area associated with the SR 152 (North) to Road 19 Wye Alternative would be located within 0.25-mile of El Capitan High School. Impact HMW#5, Temporary Direct Impacts from Hazardous Materials and Wastes Activities in Proximity to Schools and Recreational Areas, states that potentially hazardous materials and items containing potentially hazardous materials would be temporarily used during construction. Any hazardous material usage near El Capitan High School would be subject to state and federal regulations, such as the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act (HMW-IAMF#1). These regulations would apply equally near school sites to prevent accidental release of hazardous materials or wastes during transport, use, or disposal. In addition, prior to construction, the Authority would require construction contractors to prepare a plan addressing spill prevention (HMW-IAMF#4). This plan would prescribe BMPs that must be followed to prevent spills and address spills if they were to occur. The BMPs would include measures such as making sure containers used to store hazardous materials would be in good condition and not leaking, keeping containers closed except when adding or removing hazardous materials, locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors, and following policies for cleaning up accidental spills. These measures would avoid the potential for an inadvertent release of hazardous materials and wastes in proximity to El Capitan High School and minimize the impacts should a release occur. As disclosed in Table 3.10-11, HMW-MM#1 would also be implemented to limit the use of extremely hazardous substances within 0.25 mile of a school.

Safety and Security

Impact SS#7, Temporary Exposure to Valley Fever, states that construction activities associated with the Central Valley Wye alternatives would require temporary disruption of soil that could contain the fungus that causes Valley fever. The design of the Central Valley Wye alternatives contains measures to prevent the spread of Valley fever during construction by controlling fugitive dust emissions by covering construction vehicles on public roads, washing trucks and equipment, watering exposed surfaces and unpaved roads, limiting vehicle travel speed, suspending dust-generating activities, stabilizing disturbed areas and on-site and off-site unpaved roads, watering or presoaking disturbed lands, washing exterior surfaces of buildings during demolition, and removing the accumulation of mud or dirt from public streets. These measures would be included in a fugitive dust control plan prepared and implemented by the construction contractor. The design of the Central Valley Wye alternatives also includes preparation and application of an action plan, which includes information on causes, preventive measures, symptoms and treatments for Valley fever, outreach and coordination with California Department of Public Health, coordination with county departments to make readily available information on Valley fever to residents, schools and businesses about Valley fever, and dedication of a qualified person who would oversee implementation of the Valley fever prevention measures (SS-IAMF#2). A VFHS designee would coordinate with the county Public Health Officer to determine what measures would be required as part of the Safety and Security Management Plan (SS-IAMF#2) to avoid exposure to the fungus causing Valley fever.

Socioeconomics and Communities

Impact SO#7, Temporary Impacts on Children's Health and Safety states that construction noise associated with the SR 152 (North) and Road 19 Wye Alternative, specifically the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville—Wilson 230 kV Transmission Line, could affect children attending El Capitan High School however, as discussed above, Noise and Vibration, construction activities would not exceed applicable thresholds. Moreover, the Authority would implement a CMP prior to construction that includes actions pertaining to noise controls to minimize impacts on communities, including community facilities (SO-IAMF#1). In addition, as discussed in Section 3.4, Noise and Vibration, the contractor would implement NV-IAMF#1, so that FTA and FRA guidelines for minimizing noise and vibration impacts at sensitive receptors would be followed during construction.

Land Use

Impact LU#5, Permanent Conversion of Existing Land Uses to Transportation or Electrical Utility Resulting in Adjacent Incompatible Uses states that El Capitan High School is far enough away from the alternatives to avoid direct land use impacts (over 200 feet from the existing Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line). In addition, no indirect impacts on land use at El Capitan High School would occur as once the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line is reconductored, there would be no change from baseline conditions regarding land use. Therefore, no land use impacts would occur to El Capitan High School.

Electromagnetic Fields and Electromagnetic Interference

El Capitan High School is located in the RSA of the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line, of the SR 152 (North) to Road 19 Wye Alternative. Power and transmission lines are known to produce “extremely low frequency” fields, the effects of which decrease rapidly with distance. As disclosed in Section 3.5.6.3, Central Valley Wye Alternatives, Impact EMF/EMI#2, Permanent Human Exposure to EMF, there would be no change in baseline EMF conditions for the transmission/power lines proposed to be reconductored because the voltages would remain the same as the existing voltage. Moreover, EMF levels produced by the transmission line would continue to be reduced by over 99 percent at a distance of 300 feet (i.e., the distance of the nearest school facility to the Site 7—Le Grand Junction/Sandy Mush Road, Warnerville–Wilson 230 kV Transmission Line). Therefore, no impacts on human health or to sensitive equipment would occur as a result of EMF/EMI.

REFERENCES

- California Department of Forestry and Fire Protection (CAL FIRE). 2004. California Counties. (GIS shapefile: CA_County24_poly) (accessed September 2015).
- California High-Speed Rail Authority and Federal Railroad Administration (Authority and FRA). 2016a. Merced to Fresno: Central Valley Wye Community Impact Assessment.
- . 2016b. Merced to Fresno: Central Valley Wye Air Quality and Global Climate Change Technical Report.
- Environmental Systems Research Institute (ESRI). 2013. Streetmap USA 10.2. (GIS shapefiles: railroads.sdc, highway.sdc) (accessed May 29, 2013).
- ESRI/National Geographic. 2015. National Geographic World Map (Streaming). http://goto.arcgisonline.com/maps/NatGeo_World_Map (accessed September 2015).