

Fresno to Bakersfield Section of the California High-Speed Rail System Highlights of the Final Supplemental Environmental Impact Report

COMPARISON OF ALTERNATIVES AND IDENTIFICATION OF THE PREFERRED ALTERNATIVE

Background

- Following publication of the Fresno to Bakersfield Section Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) in May 2014, the California High-Speed Rail Authority (Authority) Board of Directors (Board) certified the Final EIR/EIS and approved the Preferred Alternative from the southern limit of the Fresno Station to the north side of 7th Standard Road, the city limit of the City of Bakersfield.
- In June 2014, the Federal Railroad Administration (FRA) issued a Record of Decision (ROD), which considered the information and analysis contained in the 2011 Fresno to Bakersfield Section Draft EIS, the 2012 Supplemental Draft EIS, and the 2014 Final EIS, and substantive public and agency comments, including comments filed after the issuance of the Final EIS. Through the ROD, the FRA approved the Preferred Alternative in its entirety from the Fresno Station to the Bakersfield Station at Truxtun Avenue.
- On June 5, 2014, the City of Bakersfield filed a lawsuit challenging the Authority's EIR and approvals under the California Environmental Quality Act (CEQA). The City noted that the Preferred Alternative alignment identified in the 2014 Fresno to Bakersfield Section Final EIR/EIS would severely impact the City's facilities, freeway projects, and businesses, including its Municipal Services Corporation Yard, and Rabobank Arena parking, in addition to private residences, businesses, schools, churches, and medical facilities.
- In a Settlement Agreement signed December 19, 2014 between the City of Bakersfield and the Authority, the two agencies agreed to work together to develop and study an alternative that would be acceptable to the City of Bakersfield, and meet the Authority's design requirements. The Fresno to Bakersfield Locally Generated Alternative (F-B LGA) evolved from this mutual cooperation and subsequent public input and is the proposed project evaluated in the Fresno to Bakersfield Section Draft Supplemental EIR/EIS.
- The Draft Supplemental EIR/EIS to the Fresno to Bakersfield Section Final EIR/EIS evaluates the potential environmental impacts from a new project alternative (F-B LGA) and compares those alternative-specific environmental impacts with the environmental impacts from the portion of the Fresno to Bakersfield Section Final EIR/EIS Preferred Alternative south of Poplar Avenue.
- The 2014 Fresno to Bakersfield Section Preferred Alternative consisted of the BNSF Alternative in combination with the Corcoran and Allensworth Bypasses, and the Bakersfield Hybrid Alternative and Bakersfield Hybrid Station (Truxtun Avenue Station). The portion of the Preferred Alternative which is comparable to the F-B LGA is referred to as the "May 2014 Project" in the Draft Supplemental EIR/EIS. The May 2014 Project is a 24.16-mile portion of the Preferred Alternative, encompassing the BNSF Alternative from Poplar Avenue to Hageman Road and the Bakersfield Hybrid Alternative from Hageman Road to Oswell.
- Specific to the F-B LGA environmental review process, the Authority has held approximately 125 stakeholder meetings, approximately 5 open houses, 1 public hearing, and approximately 25 monthly agency coordination meetings.
- The scoping meetings and public outreach efforts that were held during the F-B LGA environmental review process revealed the following areas of controversy:
 - Impacts to homes, businesses and public facilities;
 - Noise and vibration impacts;

- Construction costs;
 - Job creation;
 - Station connectivity to other transportation modes;
 - Safety and security concerns;
 - Electromagnetic field and noise impacts;
 - Impacts to local churches, schools, and local landmarks/facilities; and
 - Concerns regarding the ability of low-income or unemployed community members to relocate if impacted.
- Issues raised during outreach activities for the Fresno to Bakersfield Section Final EIR/EIS (including the May 2014 Project) that were not raised during the outreach for the F-B LGA, include:
 - Concerns that the HSR would divide or further divide communities;
 - Lack of access to appropriate job training; and
 - Concerns that the HSR will not benefit the Central Valley traveler.
 - In May 2016, the Authority Board determined that the F-B LGA is the Preliminary Preferred Alternative between 7th Standard Road and Oswell Street.
 - The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA) concurred that the F-B LGA was the Least Environmentally Damaging Practicable Alternative (LEDPA). The USACE issued their LEDPA determination on May 5, 2017, and the USEPA issued their LEDPA determination on May 22, 2017.

Draft Supplemental EIR/EIS

- The methods used to collect data and evaluate potential impacts in the Draft Supplemental EIR/EIS are similar and consistent to the data collection and impact evaluation methods used in the Fresno to Bakersfield Section Final EIR/EIS. The resource study areas presented in the Fresno to Bakersfield Section Final EIR/EIS are used to evaluate resources in the Draft Supplemental EIR/EIS, as appropriate. Where applicable, data collected for the Fresno to Bakersfield Section Final EIR/EIS (including data from 2010) has been used to evaluate impacts associated with development of the F-B LGA.
- The types of data sets that were used for the Fresno to Bakersfield Section Final EIR/EIS have been used for the evaluation of the F-B LGA so that a direct comparison between the May 2014 Project and the F-B LGA could be made. Any data sets updated for the analysis of the F-B LGA were also updated for the May 2014 Project to account for any changes that have occurred since circulation of the Fresno to Bakersfield Section Final EIR/EIS, to reflect the most current conditions in the project area, and to provide an accurate and equivalent comparison with the F-B LGA. For example, analysis of the F-B LGA station (proposed F Street Station) required current traffic counts, so updated traffic counts were taken for study area roadways and intersections in the vicinity of the F Street Station and the Truxtun Station to accurately reflect roadway modifications not yet developed nor planned when the Fresno to Bakersfield Section Final EIR/EIS was approved. Data sets for socioeconomic and communities and agricultural lands were also updated for the May 2014 Project analyses.
- The Draft Supplemental EIR/EIS for the Fresno to Bakersfield Section was circulated for public review and comment between November 9, 2017 and January 16, 2018. The Supplemental EIR/EIS evaluates the potential environmental impacts from the F-B LGA and compares those alternative-specific environmental impacts with the environmental impacts of the May 2014 Project.
- During the Draft Supplemental EIR/EIS environmental review process, approximately 1,060 individual comments (contained in approximately 290 submissions) from the public and government agencies were received in writing and in public testimony. The purpose of the public review process is for the public and interested agencies to review the analysis and provide comment and feedback about environmental impacts.

Final Supplemental EIR

- The Fresno to Bakersfield Section Draft Supplemental EIR/EIS was prepared as a joint document to meet all pertinent requirements of both CEQA and National Environmental Policy Act (NEPA). However, following publication of the Draft Supplemental EIR/EIS, the Authority and FRA have agreed to prepare the Final Supplemental EIR separate from the Final Supplemental EIS.
- The Authority is the lead agency under CEQA and preparer of the Final Supplemental EIR, and will collaborate with the FRA in the subsequent preparation of a Final Supplemental EIS and Supplemental Record of Decision for the Project in compliance with NEPA. The Final Supplemental EIS and Supplemental Record of Decision are expected to be published in late 2018.

Comparison of Alternatives

- **May 2014 Project.** The May 2014 Project, which consists of alternatives evaluated in the Fresno to Bakersfield Section Final EIR/EIS, includes a 12-mile portion of the BNSF Alternative from Poplar Avenue to Hageman Road and the Bakersfield Hybrid Alternative from Hageman Road to Oswell Street. The description of the May 2014 Project included below is based on detail included in the Fresno to Bakersfield Section Final EIR/EIS.

The May 2014 Project alignment runs primarily at-grade as it follows the BNSF corridor and State Route (SR) 43 through Shafter and SR 58 into Bakersfield. It parallels the F-B LGA until approximately Beech Avenue, where it diverges from the F-B LGA, parallels the BNSF right-of-way in a southeasterly direction, and then curves back to the northeast to parallel the BNSF tracks toward Kern Junction. After crossing Truxtun Avenue, the alignment curves to the southeast to rejoin the F-B LGA and parallel the Union Pacific Railroad tracks and Edison Highway to its terminus at Oswell Street.

The May 2014 Project Station would be built at the corner of Truxtun and Union Avenues/SR 204.

A maintenance of infrastructure facility (MOIF) would be located along the May 2014 Project Alternative just north of the city of Bakersfield and 7th Standard Road.

The May 2014 Project as proposed does not preclude the adjustment of column spacing during final design. If required, the proposed columns can be adjusted to ensure planned future road widenings, and grade separations from BNSF are not precluded.

- **F-B LGA.** The F-B LGA was identified in December 2014 and provides an alternative alignment within the same limits of the May 2014 Project. A summary description of the F-B LGA is provided below.

Similar to the May 2014 Project, the alignment would begin north of Shafter and run east of the BNSF corridor, continuing southeasterly until just north of Burbank Street where it would turn east until reaching the Union Pacific Railroad corridor. At this point, the alignment would turn and continue southeasterly, adjacent to and west of, the Union Pacific Railroad corridor. The alignment would continue southeasterly into Bakersfield and would deviate from the Union Pacific Railroad corridor. Southwest of the community of Oildale, the alignment would cross SR 99 and continue southeast. South of Airport Drive, the alignment would cross and run parallel to the east side of SR 204. This route would continue until the SR 178 crossing, where the alignment would turn east and return parallel to the Union Pacific Railroad corridor. The F-B LGA would continue generally east within the Sumner Street and Edison Highway corridors and would terminate near Oswell Street. The F-B LGA station would be located at the intersection of SR 204 and F Street. A MOIF would be located along the F-B LGA in the City of Shafter near Fresno Avenue.

In the City of Shafter, both the HSR and BNSF would be built on retained fill. Grade separations from the BNSF would be provided at Poplar Avenue, Fresno Avenue, Shafter Avenue, Central Avenue, E Lerdo Highway, and Riverside Street.

- The May 2014 Project and the F-B LGA would result in similar construction and operation period impacts for the following resources evaluated in the Draft Supplemental EIR/EIS:
 - Air Quality and Global Climate Change
 - Hydrology and Water Resources
 - Geology, Soils, Seismicity, and Paleontological Resources
 - Safety and Security
 - Parks, Recreation, and Open Space
 - Aesthetics and Visual Resources
 - Regional Growth
 - Cumulative
- The May 2014 Project and the F-B LGA would result in similar construction period impacts for the following resources evaluated in the Draft Supplemental EIR/EIS:
 - Transportation
 - Noise and Vibration
 - Electromagnetic Fields/Electromagnetic Interference
 - Station Planning, Land Use, and Development
 - Agricultural Land
- The May 2014 Project and the F-B LGA would result in similar operation period impacts for the following resources evaluated in the Draft Supplemental EIR/EIS:
 - Public Utilities and Energy
 - Hazardous Materials and Wastes
 - Cultural Resources
- The following resources would result in differentiating impacts between the May 2014 Project and the F-B LGA:
 - **Transportation (operation period):** The May 2014 Project would result in 14 permanent road closures compared to the F-B LGA's 10 permanent road closures. Under the May 2014 Project (Existing Plus Project condition), there would be no significant impacts to any roadway segments, while two roadway segments within the F-B LGA study area would experience significant impacts (prior to mitigation implementation). Comparatively, under the May 2014 Project (Future with Project condition), 11 study intersections would experience a significant impact, whereas 13 F-B LGA study area intersections would experience a significant impact (prior to mitigation implementation).
 - **Noise and Vibration (operation period):** After mitigation, severe noise effects would remain for 152 receivers under the F-B LGA compared with 305 receivers under the May 2014 Project. Overall, the May 2014 Project would have greater noise impacts than the F-B LGA, as the May 2014 Project alignment traverses more densely populated residential communities, while the F-B LGA traverses more commercial/industrial uses. Under the F-B LGA, 18 receivers, including 14 residences, would be affected by vibration, whereas no receivers would be affected by vibration under the May 2014 Project. Several sensitive receivers would be displaced by the May 2014 Project, and, therefore, none of the remaining May 2014 Project sensitive receivers (i.e., that will not be displaced by the May 2014 Project) will be impacted by HSR operational vibration. Therefore, vibration effects would be noticeable to 18 receivers under the F-B LGA and to no receivers under the May 2014 Project.
 - **Electromagnetic Fields/Electromagnetic Interference (operation period):** Two sensitive receptors (hospitals) are located within 200 feet of the May 2014 Project, and

there are none located within 200 feet of the F-B LGA. Impacts would be less with F-B LGA implementation compared to implementation of the May 2014 Project.

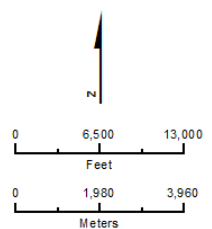
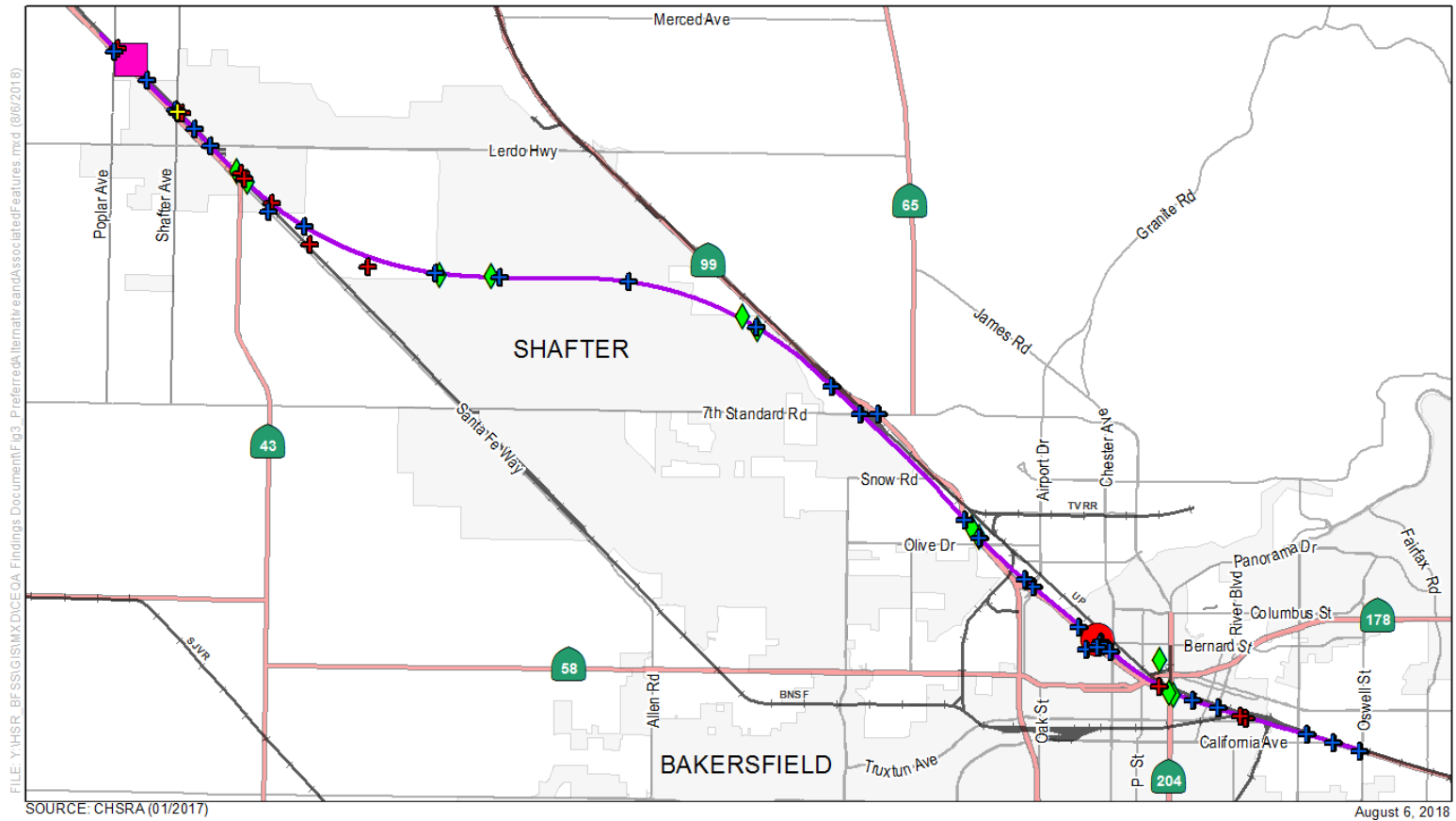
- **Public Utilities and Energy (construction period):** Water demand, waste generation, and energy consumption between the May 2014 Project and the F-B LGA would be generally comparable; however, the calculated values for water demand, waste generation, and energy consumption were based on alignment length. Therefore, the values for the F-B LGA would be slightly less than the May 2014 Project values (23.13 miles for the F-B LGA versus 24.16 miles for the May 2014 Project).
- **Biological Resources and Wetlands (construction and operation period):** The May 2014 Project and the F-B LGA would result in impacts to the same special-status plant and wildlife species; however, the acreages of impact to potential habitat would vary for the two alternatives. Generally, the F-B LGA would result in fewer acres of impact, with the exception of the impact to special-status plant communities (black willow thicket). The May 2014 Project would result in 0.70 acre of permanent impact and 0.30 acre of temporary impact to black willow thicket, whereas the F-B LGA would result in 1.13 acres of permanent impact and 0.41 acre of temporary impact to black willow thicket. The F-B LGA would result in fewer impacts to jurisdictional waters than the May 2014 Project (17.14 acres versus 20.14 acres).
- **Hazardous Materials and Wastes (construction period):** There are 149 Potential Environmental Concern (PEC) sites within 150 feet of the F-B LGA footprint, while there are 2 PEC sites within 150 feet of the May 2014 Project footprint. Additionally, there are 16 schools within 0.25 mile of the F-B LGA construction footprint and 22 schools within the same distance from the May 2014 Project construction footprint. There are also no active oil wells within the F-B LGA footprint or the 150-foot buffer area, while there is one active well within the May 2014 Project footprint and five active oil wells within the 150-foot buffer area.
- **Socioeconomics and Communities (construction and operation period):** The F-B LGA would displace an estimated 86 housing units compared to 384 housing units under the May 2014 Project. The F-B LGA would also displace an estimated 377 businesses, whereas the May 2014 Project would displace an estimated 392 businesses. The F-B LGA would affect fewer key community facilities (15 versus 20) when compared to the May 2014 Project. Additionally, the May 2014 Project would traverse residential areas in the Northwest District of Bakersfield and divide the community of Crome. The F-B LGA would not divide Crome (as it is located outside of the project alignment); however, the F-B LGA would traverse the southern boundary of the community of Oildale. Because the F-B LGA parallels existing transportation corridors through Oildale, no community division would occur.
- **Station Planning, Land Use, and Development (operation period):** The May 2014 Project would result in the permanent conversion of more acres of residential, agricultural, commercial, and other uses when compared to the F-B LGA, while the F-B LGA would result in the permanent conversion of more acres of industrial and community facility uses.
- **Agricultural Land (operation period):** The May 2014 Project would permanently convert more acres of Important Farmland to non-agricultural use (485 acres versus 372 acres). However, the May 2014 Project would result in lesser effects on land under Williamson Act contracts.
- **Cultural Resources (construction period):** While one archaeological resource was identified in the May 2014 Project Area of Potential Effects, the F-B LGA would have no impacts to any known archaeological sites. The F-B LGA would result in indirect visual effects on four historic architectural resources, while the May 2014 Project would potentially have a direct adverse effect to archaeological site CA-KER-2507. Overall, impacts to cultural resources associated with the May 2014 Project and the F-B LGA

would be comparable with regards to the impact determinations on unidentified archaeological resources. Additionally, one tribal cultural resource was identified in the footprint of each alternative: the Sociedad Juarez Mutualista Mexicana (May 2014 Project) and the Noriega Hotel (F-B LGA). The May 2014 Project would result in no direct adverse effects or indirect adverse visual effect with the implementation of conditions described in the Fresno to Bakersfield Section Memorandum of Agreement. The F-B LGA would result in indirect adverse visual effects on the Noriega Hotel from the introduction of visual features that would diminish the integrity of the historic property (Section 106).

- **Section 4(f)-6(f) Evaluation:** Impacts associated with the May 2014 Project exceed those for F-B LGA for Section 4(f) resources. There are no 6(f) resources in either project area. There are no feasible and prudent alternatives to the use of Section 4(f) properties for the May 2014 Project. Both the May 2014 Project and F-B LGA incorporate measures to minimize harm. However, because the May 2014 Project would result in two permanent Section 4(f) uses (Kern River Parkway and Mill Creek Linear Park), while the F-B LGA would result in *de minimis* Section 4(f) findings (Kern River Parkway and Weill Park), the F-B LGA is determined to be the least environmentally damaging alternative.
- **Environmental Justice (operation period):** Lesser impacts would occur under the F-B LGA as it would not pass through established neighborhoods, while the May 2014 Project would traverse residential areas in the Northwest District of Bakersfield and divide the community of Crome. While both alternatives would result in disproportionately high and adverse effects related to noise and vibration, socioeconomics and communities, and aesthetics and visual resources, the May 2014 Project would also result in disproportionately high and adverse effects related to land use and parks, recreation, and open space, whereas the F-B LGA would not.

Preferred Alternative

- The Preferred Alternative for high-speed rail through the Fresno to Bakersfield project section identified by the Authority from Poplar Avenue in the City of Shafter to Oswell Street in the City of Bakersfield is the F-B LGA. The Preferred Alternative includes the Bakersfield F Street Station. The Preferred Alternative is shown on Figure 1.
- The Preferred Alternative was selected based on a balanced consideration of the environmental information presented in the Draft Supplemental EIR/EIS in the context of CEQA.
- As discussed above, the USACE and the USEPA concurred that the F-B LGA was the LEDPA.
- The F-B LGA is the Preferred Alternative because it would impact fewer acres of waters of the U.S. when compared with the May 2014 Project and because it would result in fewer community impacts, including fewer overall displacements and fewer impacts to religious facilities, when compared to the May 2014 Project.
- The Preferred Alternative is estimated to cost approximately \$2,687.5 million (in 2010 dollars). The Preferred Alternative would have lower capital costs than the May 2014 Project, which is estimated at \$2,893.7 million.



- New road undercrossing
- Road modification
- Road closure
- Traction power facility
- MOIF Location
- F Street Station Location
- Preferred Alternative
- Existing rail line

Figure 1 Preferred Alternative