- Coliseum BART (WPRR): This potential station site would only serve the Mulford/Niles/WPRR alignment and I-880/WPRR alignment that have been eliminated from further investigation.

- South Alameda County Stations
  - Fremont–Warm Springs: This potential station would serve the I-880/Hayward Line. Major issues associated with the concept evaluated for the Warm Springs Station include the need to relocate the planned BART station to the east and construct the high-speed rail station and facilities between two active railroads, BART and UPRR. Relocating BART under operating conditions would have both technical and operational logistical constraints.
  - Mowry Avenue: This potential station site would only serve the I-880 (entire segment) alignment that has been eliminated from further investigation.

San Jose to Merced: The alignment and station options eliminated from further consideration in this segment are illustrated in Figure 2.6-18 and described below.

- Diablo Range Direct Options:
  - Merced Southern Alignment (Central Valley portion): This alignment would extend from the eastern base of the Diablo Range through the San Joaquin Valley to Merced (at a Merced Municipal Airport Station).

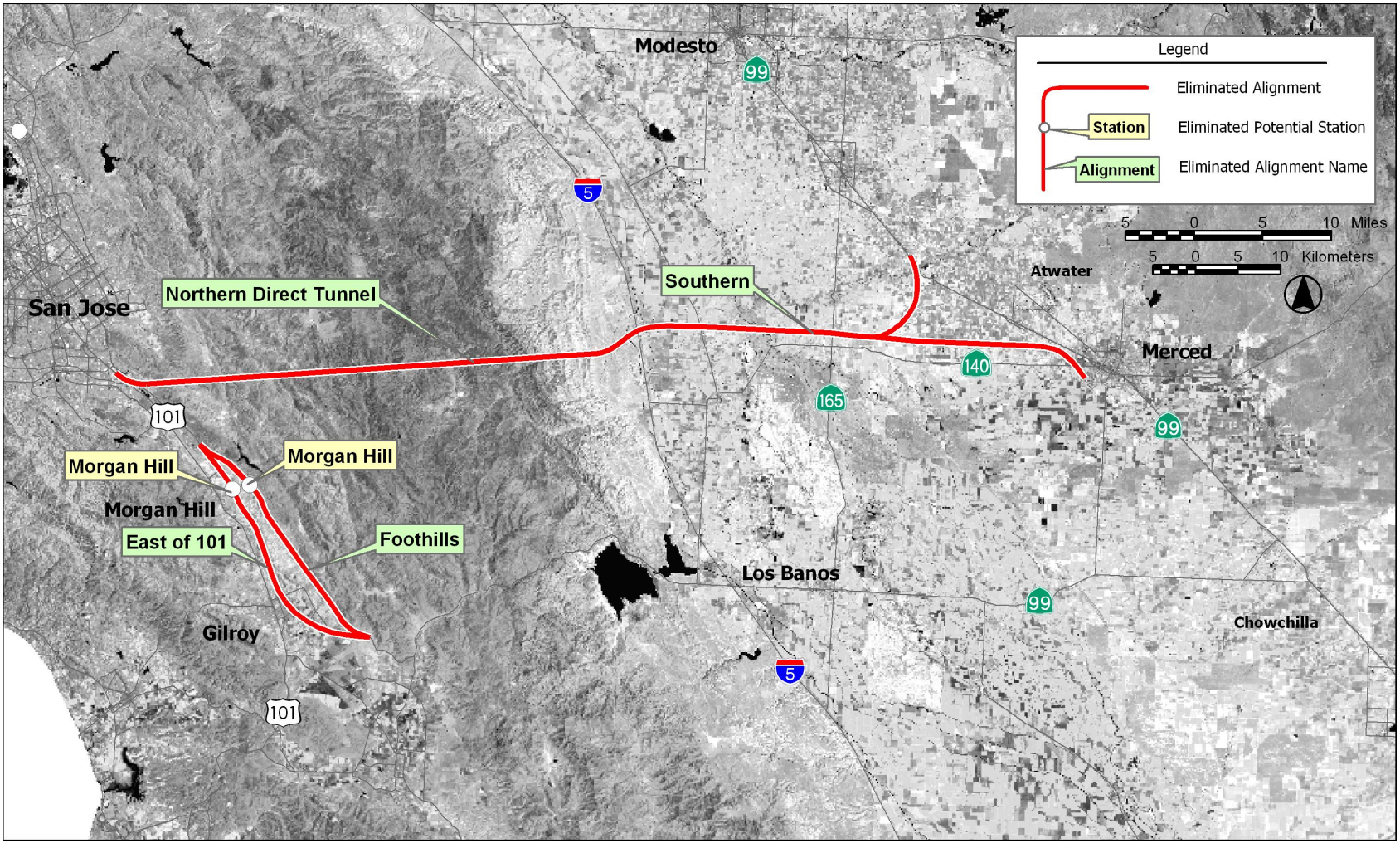
    The southern variation of the Diablo Range direct alignment has been eliminated from further investigation for Diablo Range Direct options because of potential environmental impacts. The southern alignment option would pass through approximately 4.4 mi (7 km) of sensitive wetlands, including the San Luis National Wildlife Refuge. It would also pass through floodplains, farmlands of statewide importance, and sensitive habitats. Diablo Range Direct options would use an alignment north of the San Luis National Wildlife Refuge that would minimize environmental impact.

  - Direct Tunnel Alignment (northern or southern connection to Merced): This alignment would have a station at the existing San Jose (Diridon) Station heading south on the Caltrain/UPRR just north of I-85, turning east into a long (31 mi [49.6 km]) tunnel to San Joaquin Valley to Merced (near Castle Air Force Base [AFB]).

    The direct tunnel alignment option would cross three active and potentially active fault areas in a tunnel including the Ortigalita fault, the southern extension of the Greenville fault trend, and the Calaveras fault zone. The direct tunnel alignment is likely to cost at least $3 billion more than the minimize tunnel option that would use a 3.5% gradient to minimize tunneling. This higher cost would be due largely to the long tunnel and the high unit cost per mile associated with tunnels that exceed 6 mi (9 km) in length. The direct tunnel concept would involve construction of a tunnel that would be among the longest in the world (31 mi [49.6 km]) through mixed soil and geology types. The results of the Authority's technical tunnel conference indicated that, while not impossible, a tunnel of this length in California would be extremely expensive to construct, operate, and maintain, and would therefore be impracticable.

- Pacheco Pass Options:
  - Caltrain/Morgan Hill/Foothill/Pacheco Pass Alignment: This alignment would extend south along the Caltrain/UPRR rail corridor, traveling south in the foothills east of US-101 through the Pacheco Pass and the San Joaquin Valley to Merced.

**Figure 2.6-18**
**Eliminated Alignments San Jose to Merced**



The Caltrain/Morgan Hill/Foothill/Pacheco Pass alignment is the least costly of all alignments in this section, primarily due to less tunneling and its shorter length compared to the other Pacheco Pass alignments. However, this alignment would have potentially substantial impacts on sensitive habitat (through the foothills) and would have high visual impacts. This new transportation corridor through the foothills would not be compatible with existing and planned development; would result in potentially severe impacts on the existing suburban, rural, and open space areas in the foothills; and would provide minimal connectivity and accessibility. It would not link to the Caltrain commuter rail service south of San Jose.

- Caltrain/Morgan Hill/East 101/Pacheco Pass Alignment: This alignment would extend south along the Caltrain/UPRR rail corridor, transitioning to south US-101 east through the Pacheco Pass and the San Joaquin Valley to Merced.

  The Caltrain/Morgan Hill/East 101/Pacheco Pass alignment option is similar to the Caltrain/Morgan Hill/Pacheco Pass option, with the exception that it would use the US-101 corridor to connect to the Caltrain corridor north of Morgan Hill as opposed to south of Morgan Hill. This option would not meet basic program objectives because it would have poor compatibility with development and insufficient connectivity and accessibility. This option would not provide a direct link to the Caltrain commuter rail service south of San Jose. This alignment would pass through the longest length of floodplain of all the Pacheco Pass options.

Station Locations: The following station locations were considered and eliminated in the San Jose to Merced section.

- Morgan Hill (Foothills): This potential station site would only serve the Pacheco Pass/Foothills/Morgan Hill/Caltrain alternative that has been eliminated from further investigation. This option would have poor connectivity and accessibility and not meet the basic program objectives.
- Morgan Hill (East of 101): This potential station would only serve the Pacheco Pass/East of 101/Caltrain alternative that has been eliminated from further investigation. This option would have poor connectivity and accessibility and not meet the basic program objectives.

Bay Area to Merced Options Carried Forward

The following alignments and stations are being analyzed in this Program EIR/EIS for this region (see Figure 2.6-19).

San Francisco to San Jose: The alignment and station options carried forward for further consideration in the Program EIS/EIR in this segment are illustrated in Figure 2.6-20 and discussed below.

- Caltrain Corridor (Shared-Use Four-Track Alignment): From San Francisco, this alignment would follow south along the Caltrain rail alignment to San Jose. This option assumes that the HST system would share tracks with Caltrain commuter trains. The entire alignment would be grade separated. Station options would include a station in the lower level of the proposed new Transbay Terminal in San Francisco, a station at 4th and King Streets, a station in Millbrae (near SFO), a station in either Redwood City or Palo Alto, and an optional station in Santa Clara.

  For HST service on the San Francisco Peninsula, sharing track with Caltrain is the only realistic alternative for a direct link to San Francisco because of the lack of sufficient available right-of-way along the Peninsula and the high cost of acquiring additional right-of-way.

**Figure 2.6-19**
**Bay Area to Merced Corridor Alignments and Stations Carried Forward**

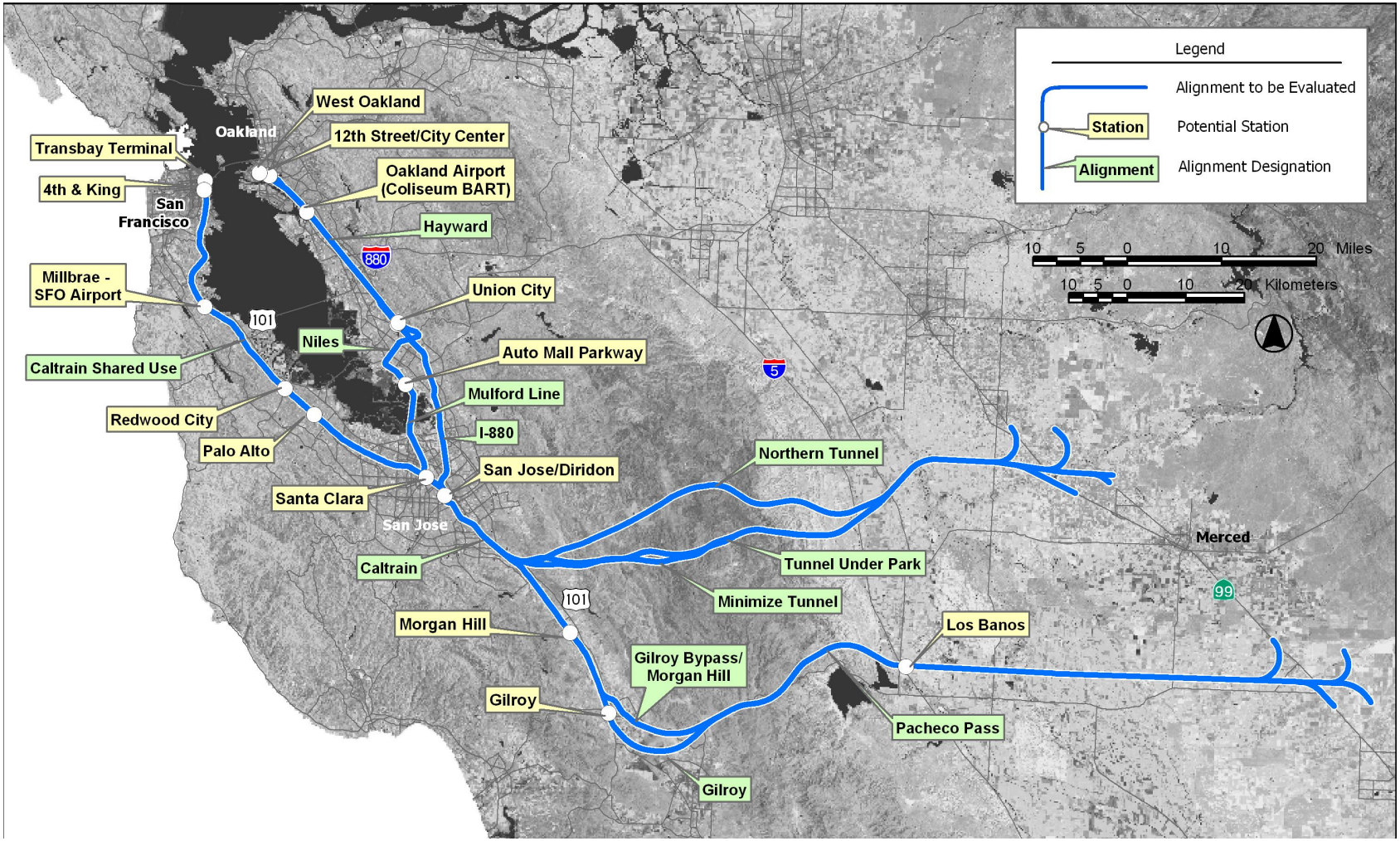
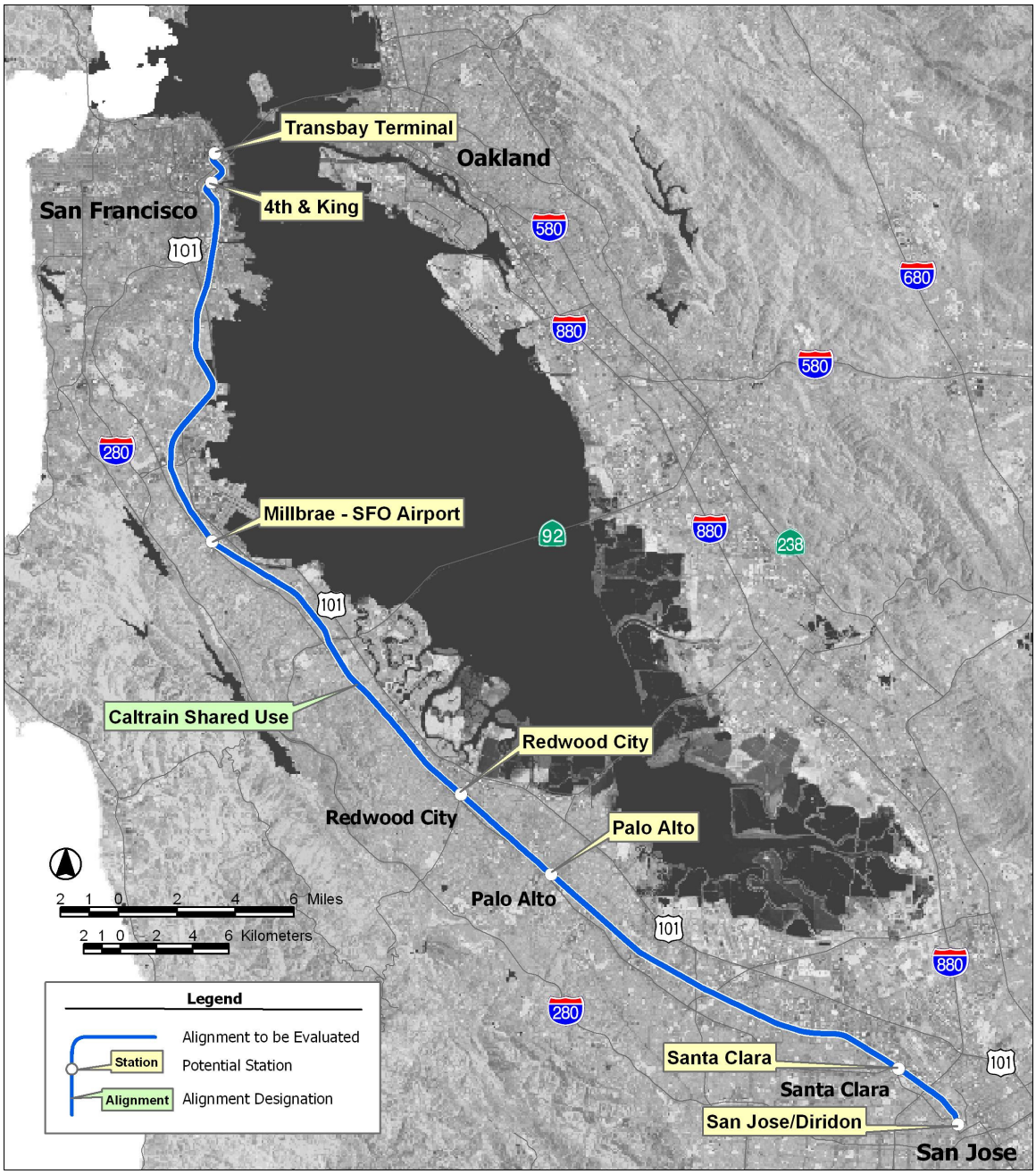


**Figure 2.6-20**
**San Francisco to San Jose Alignments Carried**



Sharing track with Caltrain would require that the steel-wheel-on-rail HST technology be selected if the HST system is to serve San Francisco without a transfer. Unlike the dedicated (exclusive guideway) options, which would require tall elevated structures along the Caltrain or US-101 rights-of-way and extensive purchases of additional right-of-way, the Caltrain corridor shared-use option would take advantage of the existing rail infrastructure and would provide service mostly at grade.

Travel times for the Caltrain shared-use four-track alignment option are estimated to be about 5 min longer than dedicated alternatives. For the shared-use options, there would be a potential for delays or reduced service frequency for HSTs because of the need to share the tracks. The four-track alignment option would considerably reduce this potential for delays or reduced service frequency by eliminating the possibility of local Caltrains service or freight service slowing or blocking HST service since the two middle tracks would be used for HST and express Caltrain services.

Station Locations Carried Forward: The following station options are carried forward for the San Francisco to San Jose segment for further consideration in this Program EIR/EIS.

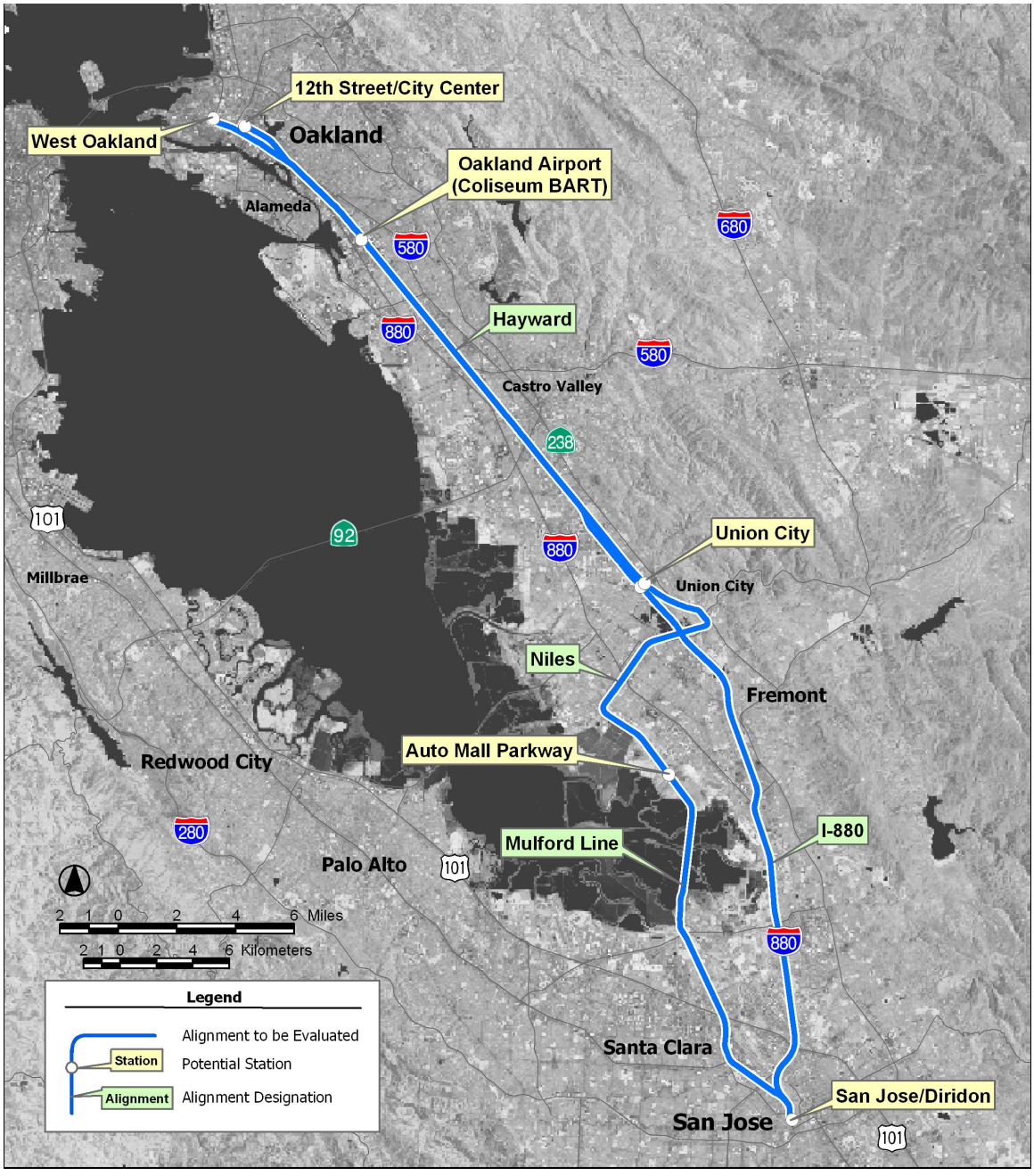
- Transbay Terminal: This potential station would serve the Caltrain shared-use option as a multimodal downtown terminal station.
- 4th and King: This potential station would serve the Caltrain shared-use four-track option as a multimodal downtown terminal station.
- Millbrae (San Francisco International Airport): This potential station would serve as a multimodal connection with San Francisco International Airport.
- Redwood City: This potential station would provide accessibility and serve the populations between San Jose and San Francisco.
- Palo Alto: This potential station would provide accessibility and serve the populations between San Jose and San Francisco.
- Santa Clara: This potential station would serve as a connection to San Jose International Airport

Oakland to San Jose: The alignment and station options carried forward for further consideration in the Program EIS/EIR in this segment are illustrated in Figure 2.6-21 and discussed below.

- Hayward Line to I-880 (Hayward Alignment/I-880): From Oakland, this alignment would travel south following the UPRR's Hayward Line and then transition to I-880. Station options include downtown Oakland, OAK/Coliseum, and Union City (BART Station).

  The Hayward Line to I-880 would provide the shortest alignment (42 mi [67.6 km]), the fastest travel time (25 min), and the highest ridership and revenue potential of the East Bay options. It would also potentially have the lowest capital costs. The alignment would be at grade along the Hayward Line and on an aerial structure in the median of I-880. (The I-880 HST option would mostly be on an aerial configuration from San Jose to Fremont.) This alternative is compatible with existing and planned development. However, the construction of columns and footings in the wide median of I-880 and of a tunnel under the lake in Fremont Central Park would result in potential impacts.
- Hayward Branch through Niles Junction to Mulford Line (Hayward/Niles/Mulford Alignment): From Oakland, this alignment would travel south along UPRR's Hayward Line to UPRR's Niles Line and then onto UPRR's Mulford Line. Station options include downtown Oakland, the OAK/Coliseum, Union City (BART Station), and Fremont (Auto Mall Parkway).

**Figure 2.6-21**
**Oakland to San Jose Alignments Carried Forward**



This option is the alignment currently used by the existing Amtrak Capitol Corridor intercity passenger rail service. This alignment would provide low capital costs, an opportunity for connectivity, and potential partnership/incremental improvements with the existing Capitol Corridor service.

This alignment would be longer (46 mi [74 km]) and slower than the other option carried forward. The longer travel times would occur on alignments using the existing Niles Junction tracks, which have some considerable right-angle turns that would require trains to slow and would result in travel times at least 6 min longer than the I-880 to the Hayward Line alternative. The Mulford Line portion of this alignment would result in impacts from traversing 4 mi (6 km) of the Don Edwards San Francisco Bay National Wildlife Refuge (within the existing tracks), a major wildlife and bird sanctuary.

Station Locations Carried Forward: The following station options are carried forward for the Oakland to San Jose segment for further consideration in this Program EIR/EIS.

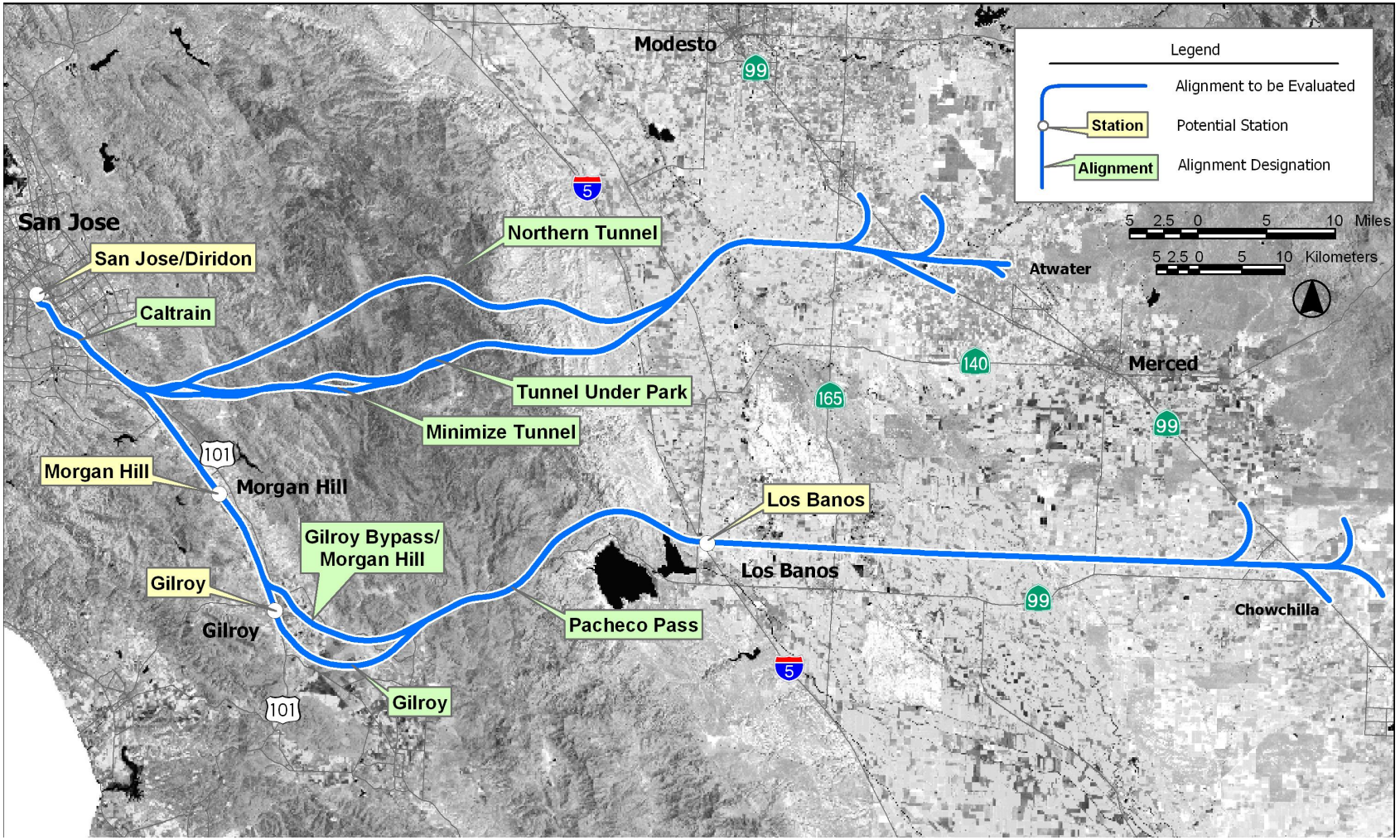
- West Oakland: This potential station would serve Oakland (the primary market on the East Bay) from both the Hayward/Niles/Mulford Line and the Hayward/I-880 Line.
- 12th Street/City Center: This potential station would serve both the Hayward/Niles/Mulford Line and the Hayward/I-880 Line.
- Coliseum BART Station (Hayward/Mulford): This potential station would serve the Oakland Airport from both the Hayward/Niles/Mulford Line and the Hayward/I-880 Line.
- Union City: This potential station would serve the population centers between Oakland and San Jose from both the Hayward/Niles/Mulford Line and the Hayward/I-880 Line.
- Fremont (Auto Mall Parkway): This potential station would serve the population centers between Oakland and San Jose from the Hayward/Niles/Mulford Line.

San Jose to Merced: The alignment and station options carried forward for further consideration in the Program EIS/EIR in this segment are illustrated in Figure 2.6-22 and discussed below.

- Diablo Range Direct Alignments (Northern Tunnel, Minimize Tunnel, and Tunnel Under Park Options): These alignment options would have a station at the existing San Jose (Diridon) Station heading south on the Caltrain/UPRR, just north of I-85 turning east through the Diablo Range to the San Joaquin Valley to reach Merced using the northern alignment (near Castle AFB). Three alignment options were developed to better define this general corridor: the northern tunnel, minimize tunnel, and tunnel under park options. The potential station option is the existing San Jose (Diridon) Station.

  The Diablo Range direct alignment options (about 91 mi [146 km] long) would be shorter than the Pacheco Pass alignment options by approximately 24 mi (38 km) and would offer faster travel times from Sacramento to the Bay Area. They would be approximately 22 min faster from Sacramento to San Jose than the Caltrain/Gilroy/Pacheco Pass alignment for express (nonstop) services. For local trains traveling from San Jose to Los Angeles, the Diablo Range direct alignment would save 11 min compared to the Gilroy/Pacheco Pass alignment that has local stops in Gilroy and Los Banos (express service travel times would be about the same). There would be operational cost savings for this service, given that the amount of alignment traveled for the Diablo Range direct alignment would be approximately 64 mi (103 km) shorter than the Gilroy/Pacheco Pass alignment for service between Sacramento and San Jose. In addition, the Diablo Range direct alignment option would place the Merced area on the Los Angeles to Bay Area line, with more frequent train services compared to the Sacramento to Bay Area line.

**Figure 2.6-22**
**San Jose to Merced Alignments Carried Forward**



The Diablo Range direct minimize tunnel alignment option would require about 16 total mi (26 km) of tunneling, with no continuous tunnel exceeding 5 mi (8 km). This alignment would bisect a portion of the Henry W. Coe State Park and Habitat Conservation Area and would be located several miles south of the nearest access road (SR-130). A variation of this alignment, the Diablo Range direct tunnel under park alignment option, would be in a deep twin-bore tunnel throughout the portion that bisects Henry W. Coe State Park. This option would have about 20 mi (32 km) of total tunneling (with no single tunnel exceeding 5.5 mi (8km) in length). The third Diablo Range direct option bypasses the Henry W. Coe State Park to the north and has access to SR-130 is also analyzed as part of this Program EIR/EIS. The northern tunnel variation would include about 19 mi (31 km) of total tunneling (with no single tunnel exceeding 5.5 mi [8 km] in length).

- Pacheco Pass Options:
  - Caltrain/Gilroy/Pacheco Pass Alignment: This alignment would extend south along the Caltrain/UPRR rail corridor through the Pacheco Pass and then the San Joaquin Valley to Merced. Station options include the existing San Jose (Diridon) Station, Gilroy (near the existing Caltrain Station), and Los Banos (near I-5) in the San Joaquin Valley.

    Both Pacheco Pass options would require less tunneling between San Jose and Merced than other options. Tunneling through this pass could be reduced to a total as little as about 5 mi (8 km). This Pacheco Pass alignment would provide potential HST service to the Morgan Hill or Gilroy and the Los Banos areas. In addition, this alignment would best serve the Salinas/Monterey Bay populations. This alignment would have impacts on natural resources and social and economic resources, but it would better avoid areas with erodible soils and steep slopes than other Pacheco Pass options.

  - Morgan Hill/Caltrain/Pacheco Pass Alignment: This alignment would extend south along the Caltrain/UPRR rail corridor through the Pacheco Pass and San Joaquin Valley to Merced. Station options include the existing San Jose (Diridon) Station, Morgan Hill (near the existing Caltrain Station), and Los Banos (near I-5) in the San Joaquin Valley.

    This alignment would be shorter than the Gilroy alignment by 3 to 4 mi (4 to 6 km) and would reduce impacts on water resources, farmlands, and floodplains compared to the Gilroy/Caltrain/Pacheco Pass option, but it would encounter erodible soils and steep slope constraints. Travel times and costs would be slightly improved with this option, but there would be a reduction in connectivity and accessibility to the region as a whole since Gilroy could not be served directly. Moreover, no existing transportation corridor links the Pacheco Pass to Morgan Hill via the Pacheco Pass.

Station Locations Carried Forward: The following station options are carried forward for the San Jose to Merced segment for further consideration in this Program EIR/EIS.

- San Jose (Diridon): This potential station would serve all alignment options (Caltrain/Monterey Highway rights-of-way) out of San Jose.
- Morgan Hill (Caltrain): This potential station would serve the Pacheco Pass/Gilroy/Caltrain and Pacheco Pass/Caltrain/Morgan Hill alignment options.
- Gilroy: This potential station would serve the Pacheco Pass/Gilroy/Caltrain option.
- Los Banos: This potential station would serve the Pacheco Pass/Gilroy/Caltrain and Pacheco Pass/Caltrain/Morgan Hill alignment options.

B. SACRAMENTO TO BAKERSFIELD

Some of the alignments investigated during the initial screening were existing rail corridors. These existing rail corridors included UPRR and Burlington Northern Santa Fe (BNSF) throughout the proposed HST alignment, and Central California Traction (CCT) from Sacramento to Stockton.

As a worst-case scenario for the existing rail corridor alignments, it was assumed that between Sacramento and Bakersfield the HST system would operate primarily on separate tracks adjacent to or very near the existing rail right-of-way and would share right-of-way with the existing freight railroads for relatively short distances in some urban areas.

Being adjacent to an existing rail corridor would facilitate serving Central Valley downtown station locations while limiting impacts on agricultural lands and potentially limiting the segmentation (splitting) of existing land parcels that could result from acquiring right-of-way for a proposed HST system. Impacts would be reduced to the extent that the proposed system used existing rail rights-of-way.

Although the proposed HST alignment generally follows existing rail corridors, in some instances the alignment diverges from the rail corridors. Such a divergence may be proposed for several reasons, including avoiding impacts to a community along the route, connecting to a proposed station site, straightening curves, or switching between the individual rail alignments to connect the sections of the system.

An express loop option was also considered as part of this Program EIR/EIS for some downtown station options in this region where there would be speed restrictions and/or considerable impacts on a community by running HSTs in an urban area. An express loop would allow for high-speed service on two express tracks routed on a new rail alignment around constrained urban areas. The urban station location would be served by two local tracks along the more constrained existing rail alignment.

Sacramento to Bakersfield Options Eliminated

This region of central California includes a large portion of the Central Valley (San Joaquin Valley) from Sacramento south to Bakersfield. To facilitate the analysis, this region was divided into seven segments.

- Sacramento to Stockton.
- Stockton to Modesto.
- Modesto to Merced.
- Merced to Fresno.
- Fresno to Tulare.
- Tulare to Bakersfield.
- Bakersfield to Los Angeles Connectors.

The alignment and station options considered in each segment of the Sacramento to Bakersfield region are discussed below and compared in detail in Appendix 2-H.

Two new potential high-speed rail alignments, one west of SR-99 (W99) and one east of SR-99 (E99), crossed all seven segments of the region. Creating a new transportation corridor for a proposed HST system, either the W99 or the E99, would require cutting through mostly agricultural lands roughly 2 to 5 mi (3 to 8 km) from SR-99. In most instances, these alignments

would not serve existing downtown areas and existing population centers, and would therefore result in the placement of stations in outlying suburban locations at a distance from population centers. Such stations would provide lower ridership and revenue potential and poorer connectivity and accessibility than potential stations in cities and on existing rail alignments. These alignments would result in increased potential for impacts on agricultural lands and natural resources and would have high severance impacts through the Central Valley. In addition, the proposed W99 and the E99 alignments would have the potential to contribute to development sprawl and to increase development pressure on agricultural lands. The proposed E99 alignment would result in a longer route than other alignment options and thus longer travel times.

The scoping and screening comments received from federal, state, regional, and local agencies, as well as the public, generally supported the concept of locating a proposed HST system along an existing rail corridor to the greatest extent possible. These same entities were generally opposed to the creation of a new transportation corridor and new station sites in relatively undeveloped areas in the Central Valley. Considering the benefits of being adjacent to an existing rail corridor, along with the scoping comments, the Authority and the FRA determined to analyze potential alignments adjacent to existing rail corridors in this Program EIR/EIS. The Authority and the FRA determined to eliminate E99 and W99, and the outlying stations associated with those alignments because they would not avoid or substantially reduce potential environmental impacts and because they would not meet basic project purpose and objectives.

The following alignment and station options were also considered and eliminated for this region (see Figures 2.6-23 and 2.6-24). The reasons for elimination of each option in this region are categorically summarized in Table 2.6-7 and further described below. If an alignment option was eliminated, the station options that were unique to that alignment option were also eliminated.

**Table 2.6-7**
**Sacramento to Bakersfield High-Speed Train Alternative Alignment and Station Options Considered and Eliminated**

| | Reason for Elimination | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Alignment or Station** | **Construction** | **Incompatibility** | **Right-of-Way** | **Connectivity / Accessibility** | **Revenue / Ridership** | **Alignment Eliminated** | **Environment** | **Environmental Concerns** |
| **Sacramento to Stockton** | | | | | | | | |
| Southern Pacific (SP) River Line/WPRR) | P | | S | | | | S | Parklands, farmlands |
| *Station Locations* | | | | | | | | |
| Curtis Park | | S | | | | P | P | Land use, cultural resources, visual, parks |
| Executive Airport | | | | | S | P | | |
| Freeport West | | S | | | S | P | | Land use |
| Cal Expo Fairgrounds | S | | P | P | | | | |
| **Stockton to Modesto** | | | | | | | | |
| W99 | | | | P | | | P | Farmlands, water resources, floodplains |
| *Station Locations* | | | | | | | | |
| Farmington Road | | | | P | | | S | Water resources, farmlands |

**Figure 2.6-23 Eliminated Alignments and Stations**
**Sacramento to Bakersfield (North)**

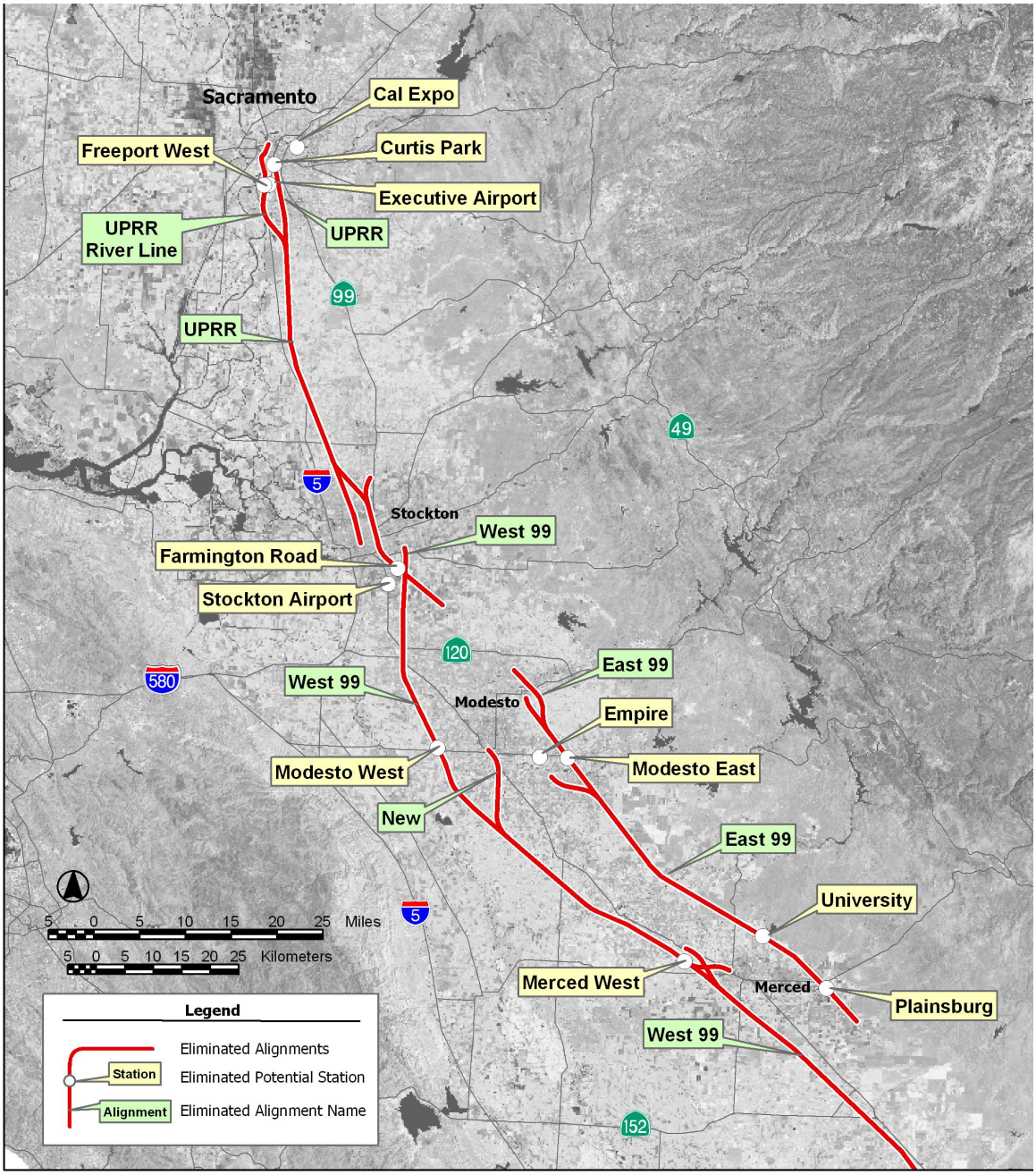
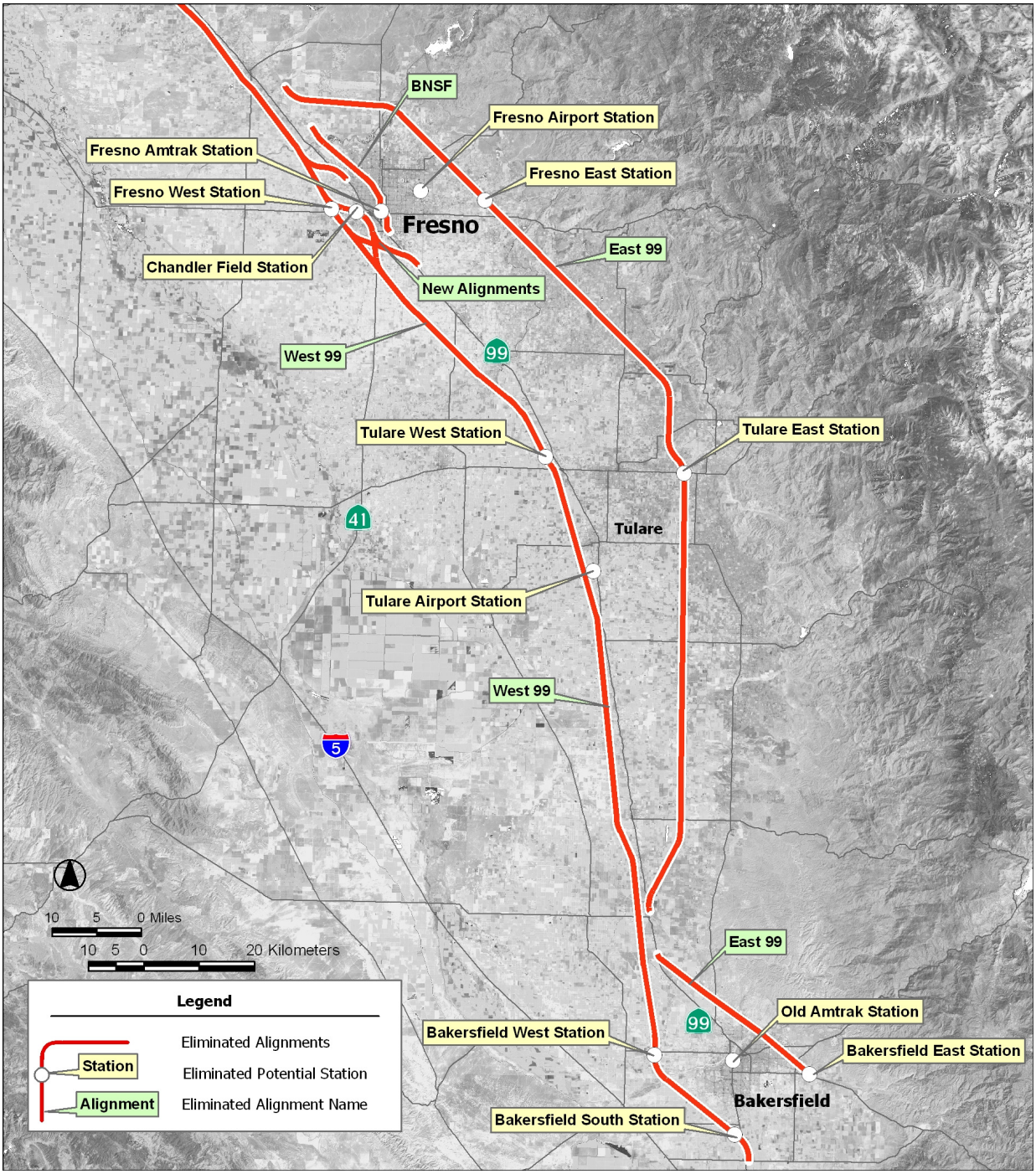


**Figure 2.6-24 Eliminated Alignments and Stations**
**Sacramento to Bakersfield (South)**



| Alignment or Station | Reason for Elimination | | | | | | | Environmental Concerns |
|---|---|---|---|---|---|---|---|---|
| | Construction | Incompatibility | Right-of-Way | Connectivity / Accessibility | Revenue / Ridership | Alignment Eliminated | Environment | |
| Stockton Metropolitan Airport | | | | P | | | S | Floodplains, farmlands |
| **Modesto to Merced** | | | | | | | | |
| E99 | | | | P | | | P | Farmlands |
| W99 | | | | S | P | | P | Farmlands |
| *Station Locations* | | | | | | | | |
| Modesto West | | | | P | S | | P | Farmlands |
| Modesto Empire | | P | | P | | | | |
| Modesto East | | | | P | S | | | |
| **Merced to Fresno** | | | | | | | | |
| W99 | | | | P | | | P | Farmlands |
| E99/BNSF | | | | P | S | | P | Farmlands, parks |
| *Station Locations* | | | | | | | | |
| University of California at Merced | | | | | | P | S | Farmlands, wetlands |
| Plainsburg | | | | P | | P | S | Farmlands |
| **Fresno to Tulare** | | | | | | | | |
| W99 | | | | P | | | P | Farmlands |
| E99 | | | | P | | | P | Farmlands |
| *Station Locations* | | | | | | | | |
| Fresno West | | | | P | S | | P | Farmlands |
| Chandler Field | | P | | P | | | | |
| Fresno Amtrak Station | P | S | P | S | | | | |
| Fresno Yosemite International Airport | | P | P | P | | | | |
| Fresno East | | | | P | S | P | S | Farmlands, water resources |
| **Tulare to Bakersfield** | | | | | | | | |
| W99 (extension of Fresno to Tulare W99 option) | | | | | | P | | |
| E99 (extension of Fresno to Tulare E99 option) | | | | | | P | | |
| *Station Locations* | | | | | | | | |
| Tulare West | | | | S | | P | | |
| Tulare Airport | | | | P | P | | | |
| Tulare East County | | | | S | S | P | S | Water resources, parks |
| **Bakersfield to Los Angeles Connectors** | | | | | | | | |
| Bakersfield Station to I-5 via Comanche Point Connector | | | | | | P | | |
| Bakersfield Station to I-5 via Comanche Point Connector via Union Ave | | | | | | P | | |

| Alignment or Station | Reason for Elimination: Construction | Incompatibility | Right-of-Way | Connectivity / Accessibility | Revenue / Ridership | Alignment Eliminated | Environment | Environmental Concerns |
|---|---|---|---|---|---|---|---|---|
| *Station Locations* | | | | | | | | |
| Bakersfield West | | P | | | | P | P | Farmlands |
| Bakersfield East | | | | | P | P | P | Farmlands |
| Bakersfield South | | | | | S | P | | |
| Old Amtrak Station | | P | | | | | | |
| Definitions: | | | | | | | | |
| Reason: Primary (P) and secondary (S) reasons for elimination. | | | | | | | | |
| Construction: Engineering and construction complexity, initial and/or recurring costs, that would render the project impracticable and logistical constraints. | | | | | | | | |
| Environment: High potential for considerable impacts to natural resources, including streams, floodplains, wetlands, and habitat of threatened or endangered species that would fail to meet project objectives. | | | | | | | | |
| Incompatibility: Incompatibility with current or planned local land use as defined in local plans that would fail to meet project objectives. | | | | | | | | |
| Right-of-Way: Lack of available rights-of-way or extensive right-of-way needs would result in high acquisition costs and/or delays that would render the project impracticable. | | | | | | | | |
| Connectivity/Accessibility: Limited connectivity with other transportation modes (aviation, highway and/or transit systems) would impair the service quality, could reduce ridership of the HST system, and would fail to meet the project purpose. | | | | | | | | |
| Ridership/Revenue: The alignment or station would result in longer trip times and/or have suboptimal operating characteristics and would have low ridership and revenue and would fail to meet the project purpose. | | | | | | | | |
| Alignment Eliminated: Station or connection eliminated because the connecting alignment option was eliminated. | | | | | | | | |

Sacramento to Stockton: The alignment and station options eliminated from further consideration in this segment are illustrated in Figures 2.6-25 and 2.6-26.

- Southern Pacific (SP) River Line/WPRR: This alignment extends south from the Sacramento downtown station location on the SP-River Line to the WPRR alignment to Stockton.

  The SP River Line/WPRR alignment potentially has competitive travel times, but it has logistical constraints because it would require an elevated crossing over I-5 and tunneling under Third Street for a subterranean downtown station site, all within a very short distance of a densely developed urban area. Additionally, this alignment would have impacts on parklands and traverse environmentally sensitive areas south of Sacramento, and would require the development of a new rail corridor through developing areas. This option would be impracticable because of major construction issues.

Station Locations: The following station locations were considered and eliminated in the Sacramento to Stockton section.

- Curtis Park: This potential station site would only serve the SP-River Line alignment alternative that has been eliminated from further investigation. In addition, this site does not meet project objectives because it is south of downtown in a dense residential area, making

**Figure 2.6-25**
**Eliminated Alignments Sacramento to Stockton**

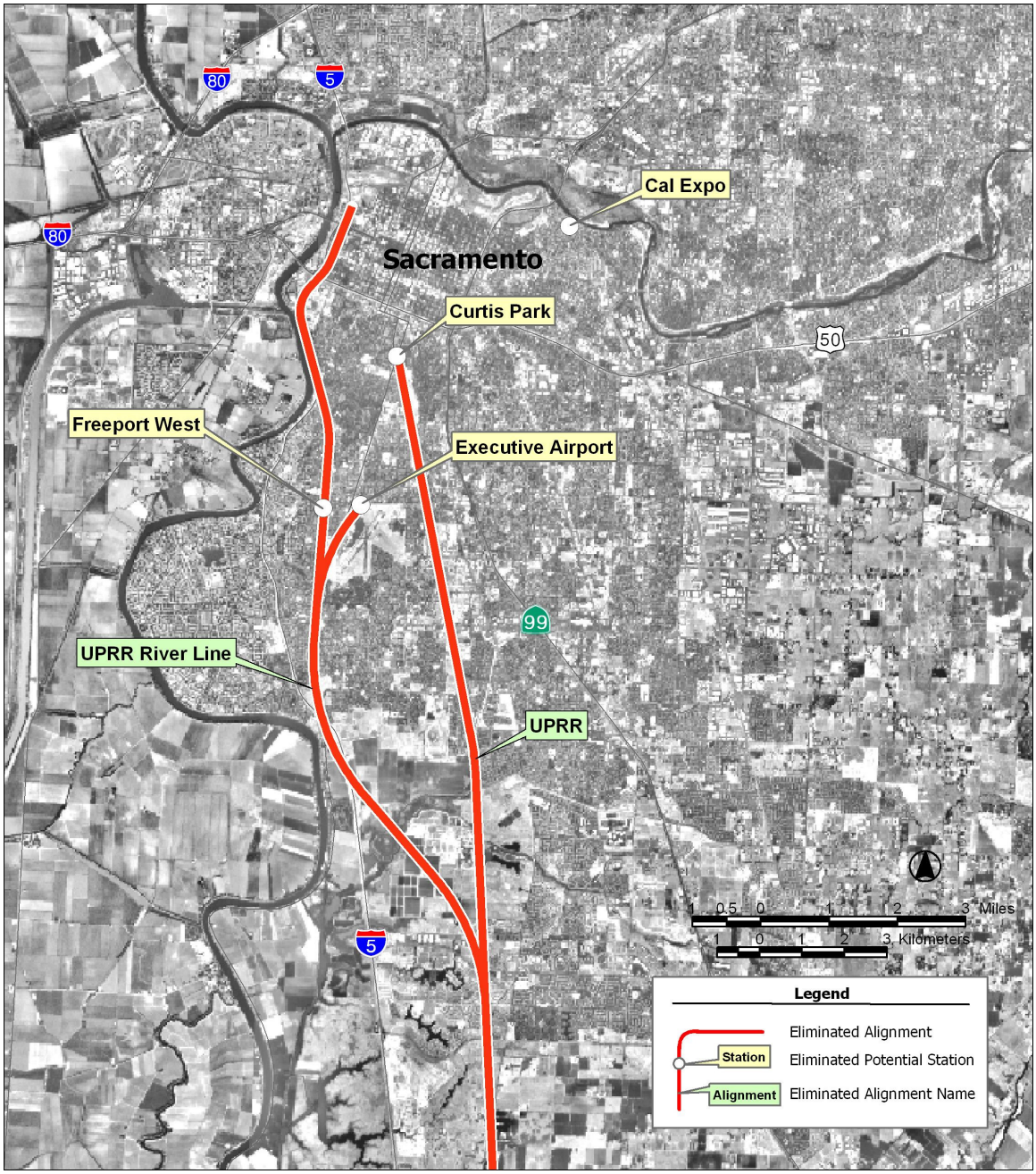
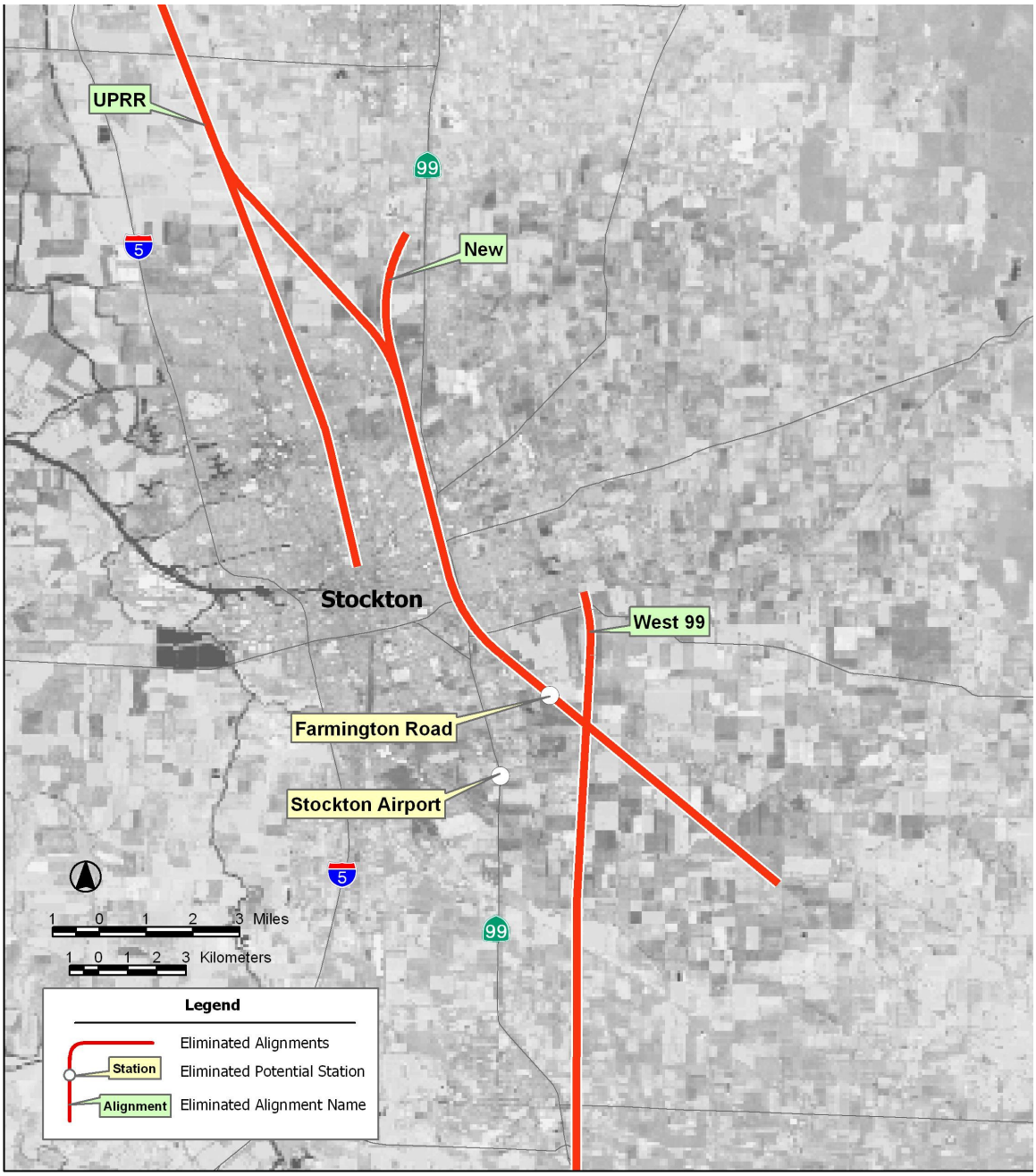


**Figure 2.6-26**
**Eliminated Alignments Stockton to Modesto**



it incompatible with existing and planned development. Further, it would have visual impacts because of its proximity to residential areas, and it would result in impacts on parkland and on cultural resources.

- Executive Airport: This potential station site would only serve the SP-River Line alignment option that has been eliminated from further investigation. In addition, this site does not meet project objectives because it is in a suburban location considerably south of downtown and would result in reduced ridership and revenue potential.
- Freeport West: This potential station site would only serve the SP-River Line alignment that has been eliminated from further investigation. In addition, this site does not meet project objectives because it is in a suburban location considerably south of downtown and would result in reduced ridership and revenue potential, and it is incompatible with existing and planned development.
- Cal Expo Fairgrounds: This potential site was put forward during the public comment phase of the program. The lack of easy access to the site by existing rail (Amtrak or Sacramento light rail) would result in poor connectivity and accessibility. This site is impracticable because of severe right-of-way constraints and construction issues.

Stockton to Modesto: The alignment and station options eliminated from further consideration in this segment are illustrated in Figure 2.6-26. The W99 is the only alignment option eliminated from consideration in this segment, and that option is discussed previously in this section before the segment-by-segment discussions. The station options eliminated that are not on the E99 and W99 alignment options are discussed below.

Station Locations: The following station locations were considered and eliminated in the Stockton to Modesto section.

- Farmington Road: This potential station location would be between the BNSF railroad right-of-way and SR-4, Farmington Road, just east of SR-99. This station site would be approximately 8 mi from downtown and from the growing areas of Stockton. It would have impacts on water resources and farmlands, and does not meet the project objectives because it has insufficient connectivity and accessibility.
- Stockton Metropolitan Airport[15]: This potential station site is on the UPRR alignment from Sacramento to Stockton. This station site would be more than 8 mi from downtown and from the growing areas of Stockton. It would not meet the project objectives because it provides poor connectivity and accessibility and would result in substantial impacts on farmlands and floodplains.

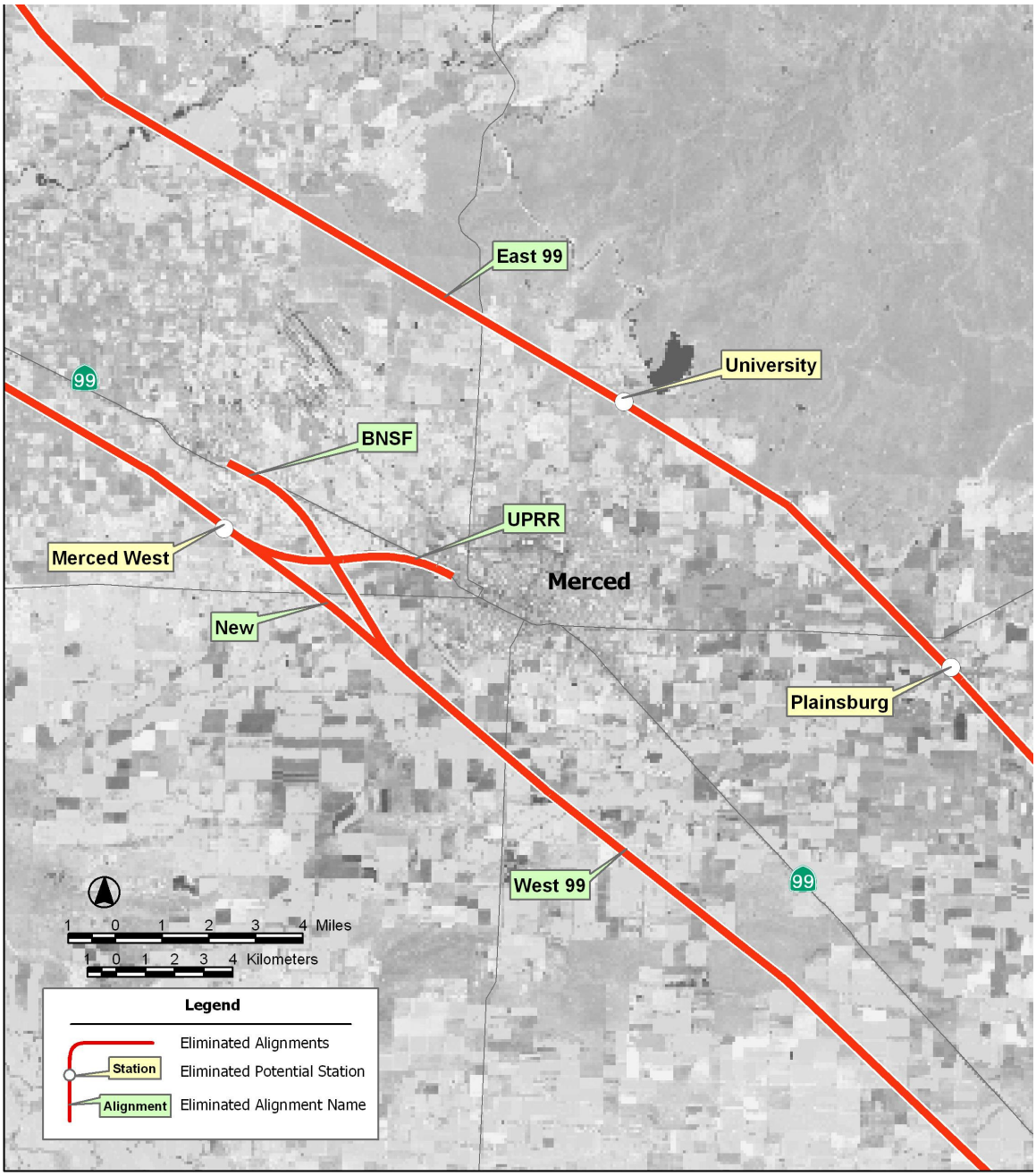
Modesto to Merced: The alignment and station options eliminated from further consideration in this segment are illustrated in Figure 2.6-27. The proposed E99 and the W99 alignments are the only alignment options eliminated from further consideration in this segment, and those options are discussed previously in this section before the segment-by-segment discussions. The station options associated with them were also eliminated from further consideration as discussed previously. One additional station option is discussed below.

Additional Station Location:

- Modesto Empire: This potential station site would occupy portions of a BNSF rail yard in the Empire section of Modesto. This station site is on the BNSF alignment south of the Amtrak Briggsmore option. This proposed station site would not meet the project objectives because

[15] America West stopped commercial services in September 2003. San Joaquin County is actively seeking new commercial carriers.

**Figure 2.6-27**
**Eliminated Alignments Merced to Fresno**



it is not compatible with existing or planned development. In addition, it would have insufficient connectivity and accessibility and would be subject to freight rail interaction and potential conflicts.

Merced to Fresno: The alignment and station options eliminated from further consideration in this segment are illustrated in Figures 2.6-27 and 2.6-28. The proposed E99 and W99 alignments are the only alignment options eliminated from further consideration in this segment, and those options are discussed previously in this section before the segment-by-segment discussions. The station options associated with them were also eliminated from further consideration as discussed above. One additional station option is discussed below.

Additional Station Location:

- Merced University: This potential station site is located within an area now being redesigned for university and new community uses on the E99 alignment option, which has been eliminated from further investigation. In addition, the station would impact proposed development areas; threatened and endangered species; and a considerable amount of farmlands, wetlands, and flood-prone areas.

Fresno to Tulare: The alignment and station options eliminated from further consideration in this segment are illustrated in Figures 2.6-28 and 2.6-29. The proposed E99 and W99 alignments are the only alignment options eliminated from further consideration in this segment, and those options are discussed previously in this section before the segment-by-segment discussions. The station options associated with them were also eliminated from further consideration as discussed above. Three additional station options are discussed below.

Additional Station Locations:

- Chandler Field: This potential station site is not currently served by any rail line. Thus, it would require the construction of a new connector from the UPRR alignment, which would result in disruption to land uses along the new line and would be incompatible with planned and existing development. It would also have insufficient connectivity and accessibility and thus would not meet the project objectives.
- Fresno Amtrak Station: This potential station site is the current Amtrak site along the BNSF mainline. It is impracticable because the BNSF alignment is a single track with no excess right-of-way available for expansion. In addition, it would result in high construction impacts because it is a constrained urban site, and it would have operational issues because there are low-speed curves in the alignment near the station. It would also not meet the project objectives because it would have insufficient connectivity and accessibility and is not compatible with existing and planned development. Further, the costs would be high because of right-of-way issues and because it is a constrained urban site.
- Fresno Yosemite International Airport: This potential station site would make use of a portion of Fresno Yosemite International Airport, a large transportation site in the region. However, a suitable high-speed alignment to the site could not be found, which makes this option impracticable. An earlier E99 HST alignment to connect this site would have run on a former rail alignment through the center of the City of Clovis and on a new alignment thorough parts of eastern Fresno. These routes were considered too disruptive. A new E99 HST alignment has since moved farther east of this site to make use of a conceptual, joint freeway alignment, but that alignment has also been eliminated. Further, this site is not compatible with existing and planned development.

**Figure 2.6-27**
**Eliminated Alignments Merced to Fresno**

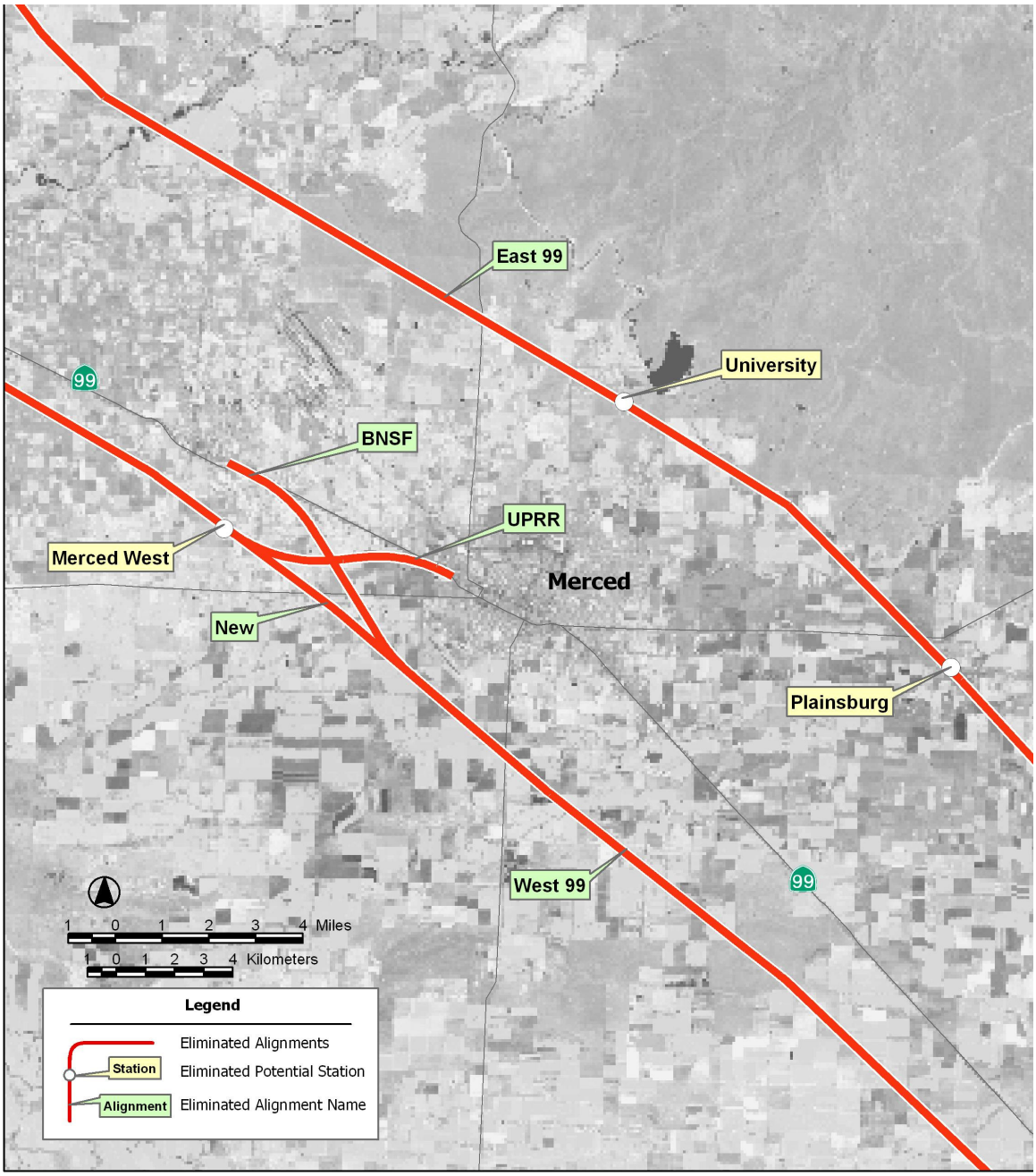


**Figure 2.6-28**
**Eliminated Alignments Fresno**