CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE CENTRAL REGION 1234 EAST SHAW AVENUE FRESNO, CÁLIFORNIA 93710

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PLANNING BRANCH AMENDMENT NO. 17 (A Major Amendment)

California Endangered Species Act Incidental Take Permit No. 2081-2015-024-04 California High-Speed Train Project Fresno to Bakersfield Section Permitting Phase 1

#### INTRODUCTION

On June 15, 2015, the California Department of Fish and Wildlife (CDFW) issued Incidental Take Permit No. 2081-2015-024-04 (ITP) to the California High-Speed Rail Authority (Permittee) authorizing take of California tiger salamander (*Ambystoma californiense*), Swainson's hawk (*Buteo swainsoni*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), and San Joaquin kit fox (*Vulpes macrotis mutica*) (collectively, the Covered Species) associated with and incidental to the Permitting Phase 1 of the Fresno to Bakersfield Section of the High-Speed Train (HST) Project (Project). The Project as described in the ITP originally issued by CDFW includes HST alignment beginning on the south side of the G Street and San Benito Street intersection, north of Highway 41, in the City of Fresno, Fresno County, California. From this intersection, the Fresno to Bakersfield HST alignment extends south either along or adjacent to the Burlington Northern Santa Fe Railway (BNSF) for approximately 99 miles before reaching the section endpoint, at the intersection of 7<sup>th</sup> Standard Road, and Santa Fe Way, within the city limits of Shafter, in Kern County, California.

The total length of the Project is 99 miles. The Project is the second of the nine California HST sections to be constructed; each section will function independently, but once joined together will create a statewide HST system. The HST will be an electrically powered with steel-wheel-on-steel-rail technology and state-of-the-art safety, signaling, and automated train-control systems. The trains will be capable of operating at speeds of up to 220 miles per hour (mph) over a fully graded, separated, dedicated track alignment. The Project will be built using a design/build (D/B) approach, a method of construction by which one D/B contractor works under a single contract with the Permittee to provide design and construction services. The Project as originally permitted in the ITP included construction and installation of all Project components, including disturbance of up to 5,868.00 acres (hereafter, Construction Footprint). Construction may occur at any point along the Construction Footprint, and construction may occur at multiple locations simultaneously. The Project also includes operations,

Rev. 2013.1.1

maintenance, inspection activities within the Construction Footprint (O&M), and Mitigation Activities.

In an email dated June 24, 2016, the Permittee requested a revision of the ITP Project Description to include an increase in the Construction Footprint by 102.58 acres to 5,970.58 acres to accommodate eight additional Roadway Modifications, and in a subsequent email dated July 25, 2016, the Permittee requested the addition of a third designation of approvable project biologists to carry out small mammal habitat assessment and trapping activities. On March 7, 2017, CDFW issued **Major Amendment No. 1** to the ITP incorporating these requested revisions along with corrections to the acreage for the impacts, changes to the required Habitat Management lands acreage, and clarifications to the reporting requirement language.

On July 5, 2018 and September 19, 2018, CDFW initiated, issued, and re-issued respectively, **Major Amendment No. 2** to the ITP incorporating a Baseline Map Book as Exhibit 6 and added references to the map book throughout the ITP; further revising the Tracking Suitable Habitat Feature Disturbances, Map Updating, and Reporting requirements; added a specific Covered Activity (pile driving) and a species-specific Take Avoidance Measure for that Covered Activity; adding the third category of Biological Monitor, Designated Small Mammal Trapper, to Condition of Approval 6.2; clarified the Construction Monitoring Notebook requirements in advance of initiating Covered Activities; revising Conditions of Approval 8.13.2, 8.14.1, 8.15.1, 8.16.1, 8.16.2, 8.16.3, 8.17.2; and adding Condition of Approval 8.15.6. There was no change to the Construction Footprint acreage.

In a letter dated June 25, 2018, the Permittee requested a revision of the ITP to change the Mitigation Site Construction Elements from the Fagundes Compensatory Mitigation Site to a new location, now recognized as Cottonwood Creek. Because the Permittee would no longer be conducting riparian and wetland restoration at the Fagundes Compensatory Mitigation Site, all references to riparian and wetland restoration at the Fagundes Compensatory Mitigation Site, all references to riparian and wetland restoration at the Fagundes site was removed and replaced with the Cottonwood Creek mitigation site. Due to the varying conditions at the Cottonwood Creek site, some Construction Elements also changed with the changes in mitigation site location. Further, on September 25, 2018, the Permittee requested a 7-day extension provision be added for San Joaquin antelope squirrel relocation. There was no change to the Construction Footprint acreage. On October 2, 2018, CDFW issued **Major Amendment No. 3** to the ITP incorporating these changes.

In an email dated October 4, 2018, the Permittee requested a revision of the ITP to extend the dry season work window beyond October 31<sup>st</sup> for ground-disturbing activities

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at the Mitigation Site. There was no change to the Construction Footprint acreage. On November 15, 2018, CDFW originally issued **Minor Amendment No. 4** to the ITP incorporating these changes.

In an email dated November 27, 2018, the Permittee requested a revision to the ITP to allow for San Joaquin antelope squirrel (SJAS) relocation to occur prior to April 1 and to allow SJAS relocation to occur after November 15 on a case-by-case basis. There was no change to the Construction Footprint acreage. On November 29, 2018, CDFW issued **Major Amendment No. 5** to the ITP incorporating these changes.

In a letter dated September 10, 2018, the Permittee requested to revise the Project Description to allow for an increase in the Construction Footprint of 6.92 acres for a total of 5,977.50 acres to accommodate new Work Areas for the water pipeline irrigation casing installation and level 3 fiber optic line relocation. Additionally, CDFW initiated amending the Project Description to include installation of water pipeline irrigation casings, dry jack and bore, and horizontal directional drilling as Covered Activities as well as adding Condition of Approval 7.12. On January 17, 2019, CDFW issued **Major Amendment No. 6** to the ITP incorporating these changes.

In a letter dated October 19, 2018, the Permittee requested to revise the Project Description to increase the Construction Footprint by 2.01 acres to a total of 5,979.51 acres for road improvements to Wasco Avenue to function as an access road for agricultural operations north of Kimberlina Road in Kern County. Additionally, the Permittee requested a design change to the HST/Kimberlina Road location that will be contained within the current ITP Construction Footprint at that location. On February 1, 2019, CDFW issued **Major Amendment No. 7** to the ITP incorporating these changes.

In a letter dated August 22, 2018, the Permittee requested to revise the Project Description to accommodate advanced design changes requiring roadway modifications, utility relocations, access road alterations, and canal realignments along and adjacent to the HST alignment at South Avenue; two new locations in Fresno County at Conejo Avenue, and Peach Avenue; as well as changes for existing locations at Flint Avenue and Kent Avenue in Kings County; and Avenue 88 in Tulare County resulting in a net decrease of 1.96 acres changing the Construction Footprint to 5,977.55 acres. In a subsequent email dated January 25, 2019, the Permittee requested an additional further revision of the ITP, as amended, to include the use of jack and bore and horizontal directional drilling as Covered Activities throughout the entire Construction Footprint. The Permittee also requested Condition of Approval 7.12, the notification and submission of a Horizontal Directional Drilling and Dry Jack and Bore Level 3 Fiber Optic Line Relocation Plan, be revised to serve as a notification and plan for

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all horizontal directional drilling and jack and bore activities occurring within the entire Construction Footprint. On February 13, 2019, CDFW issued **Major Amendment No. 8** to the ITP incorporating these changes.

In a letter dated December 6, 2018, the Permittee requested to revise the Project Description to add construction of an intrusion protection barrier (IPB) within specific limits of the HST alignment to mitigate the risk of potential derailed trains from the adjacent BNSF rail line entering the path of the HST and increase the Construction Footprint by 0.75 acre which brought the total acres to 5,978.30. The IPB construction specific limits occurred in various locations along the California HST route from the vicinity of State Route 43 and Whisler Road to the vicinity of Madera and Poplar Avenues near the City of Shafter in Kern County. IPB construction in this vicinity required re-siting of two wildlife crossing structures. In an email dated January 23, 2019, Permittee further requested modifying the approval process for siting and constructing wildlife crossings. On February 20, 2019, CDFW issued **Major Amendment No. 9** to the ITP incorporating these changes

In a letter dated January 2, 2019, and a subsequent letter dated February 4, 2019, Permittee requested further revision to the ITP, as amended, to cover a 31.79-acre increase to the approved Project Construction Footprint and associated impacts to Covered Species to accommodate the "alternative technical concepts" (ATC) 11 and 13b (design variations). The changes were to employ "reverse stacking" over Garces Highway, Pond Road, and Peterson Road in Kern County; which means to place the railway over the surface roads instead of vice-versa; and a slight alignment revision to avoid a major agricultural water pumping facility known as the Semitropic Pump Station. In a letter dated February 12, 2019, Permittee requested amending the ITP to cover an 86.14-acre increase to the Project Construction Footprint to accommodate design variations including utility relocations, roadway modifications, temporary construction easements, and access roads at 23 locations. Altogether, this brought the Construction Footprint acreage total to 6,096.24. On March 28, 2019, CDFW issued **Major Amendment No. 10** to the ITP incorporating these changes.

In a letter dated March 11, 2019, the Permittee requested further revision of the ITP as amended to cover a 141.60-acre increase to the approved Project Construction Footprint and associated impacts to Covered Species to accommodate four segments of IPB between State Route 41 and approximately 1,000 feet south of East American Avenue in Fresno County, and additional areas for construction access, fence and gate construction, utility relocations, and street and sidewalk modifications. In a letter dated March 12, 2019, the Permittee requested further revision of the ITP as amended to cover a 105.12-acre increase to the approved Project Construction Footprint and associated impacts to Covered Species to accommodate design variations at

20 locations, in Fresno County. The design variations include utility relocation and protection, roadway modifications, temporary construction easement for staging equipment and materials, building demolition, additional earthwork, access roads, and/or waterway crossing structures. Altogether, this brought the Construction Footprint acreage total to 6,342.96. On April 25, 2019, CDFW issued **Major Amendment No. 11** to the ITP incorporating these changes.

In a letter dated January 8, 2019, Permittee requested that CDFW further amend the ITP, as amended, to cover increases in the Project Construction Footprint by 98.06 acres, for a total of 6,441.027 acres, to accommodate additional temporary access routes, staging areas, and utility relocation at several locations in Kern County referred to as "Wasco Utilities" and "North-South Utilities." Permittee provided supplemental information related to the requested activities dated January 29 and April 30, 2019. In a letter dated March 6, 2019, Permittee requested that CDFW further amend the ITP, as amended, to remove the required CDFW written approval of pre-construction survey reports. On May 20, 2019, CDFW issued **Major Amendment No. 12** to the ITP incorporating these changes.

In a letter dated April 5, 2019, Permittee requested amending the ITP to increase the Construction Footprint by 19.36 acres to accommodate design changes and refinements in the vicinity of State Route (SR) 46, including utility relocations, removal and construction of a Caltrans retention pond, construction of a retention pond for the Authority, building demolition, and other Covered Activities related to relocation of utilities within Kern County. In a letter dated June 21, 2019, Permittee requested amending the ITP to increase in the Construction Footprint by 150.46 acres to accommodate design variations including utility relocations, roadway modifications, temporary construction easements, access roads, and other Covered Activities at 19 locations within Fresno, Kings and Tulare counties. Together these design variations required an increase in the Construction Footprint of 169.82 acres, for a total of 6,610.85 acres. On August 8, 2019, CDFW issued **Major Amendment No. 13** to the ITP incorporating these changes.

In a letter dated May 3, 2019 Permittee requested a 50.89-acre expansion of the approved ITP Construction Footprint to address 68 utility conflicts involving PG&E overhead powerlines, AT&T telecommunication lines, SoCal Edison optical fiber, Semitropic irrigation lines, and North Kern Water Storage District relocation of Canal 9-22 and Canal P1030. Work to resolve the utility conflicts included bypass, civil work, protect in place, removal, relocation, and other Covered Activities within Kern County. This request also included three roadway modifications in Kern County one of which was a new location which brought the Construction Footprint to 6,661.74 acres.

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On September 3, 2019, CDFW issued **Major Amendment No. 14** to the ITP incorporating these changes.

In a letter dated May 9, 2019, Permittee requested amending the ITP to increase the Construction Footprint by 146.77 acres to accommodate design variations to the Tule elevated structure as well as utility relocations, roadway modifications, access roads, and other covered activities at 11 locations. The request also proposed eliminating two Temporary Construction Easements (TCEs) and two overcrossings, resulting in a 368.58-acre reduction to the Construction Footprint, for a net decrease of 221.81 acres, which brought the total Construction Footprint to 6,439.93 acres. On September 19, 2019, CDFW issued **Major Amendment No. 15** to the ITP incorporating these changes.

In a letter dated August 27, 2019, Permittee requested increasing the Project Construction Footprint by 7.94 acres at Gromer Avenue in Wasco to cover utility relocation, TCEs, and permanent access road construction. In a letter dated September 5, 2019, Permittee requested increasing the Project Construction Footprint by 15.08 acres to accommodate design variations including utilities and an access road within Semitropic Water Storage District (Semitropic WSD) that would need to be relocated at two locations. In a letter dated September 20, 2019, Permittee requested the correction of Table 1 to include the reduction of 8.93 urban acres already accounted for in Amendment 15 as well as removal of the remaining 12.13 acres of orchard in Table 1 which eliminates both TCE impacts from Amendment 15. Together these brought the new construction footprint to 6,462.95 acres. In an e-mail sent on October 10, 2019, CDFW informed Permittee that there would be two additional changes: 1) Table 9 updated to show the current number of nests taken of the maximum five covered by the ITP and 2) Measures 7.1, 8.16.2 and 8.17.2 were further updated to include Designated Small Mammal Trapper(s), 8.16.2 and 8.17.2 were updated to clarify reporting, and 8.17.2 added conditional concurrence of daily trapping forms for the early resumption and/or extension relocation period for non-business days. On October 11, 2019, CDFW issued Major Amendment No. 16 to the ITP incorporating these changes.

In issuing the ITP, Major Amendment No. 1, Major Amendment No. 2, Major Amendment No. 3, Minor Amendment No. 4, Major Amendment No. 5, Major Amendment No. 6, Major Amendment No. 7, Major Amendment No. 8, Major Amendment No. 9, Major Amendment No. 10, Major Amendment No. 11, Major Amendment No. 12, Major Amendment No. 13, Major Amendment No. 14, Major Amendment No. 15, and Major Amendment No. 16 (collectively the ITP, as amended), CDFW found, among other things, that Permittee's compliance with the Conditions of

Approval would fully mitigate impacts to the Covered Species and would not jeopardize the continued existence of the Covered Species.

In a letter dated May 2, 2019, Permittee requested increasing the Project Construction Footprint by 57.32 acres to accommodate a variation in the profile design of the HST alignment construction from elevated viaduct to embankment at the sections of the HSR mainline that are outside of streams and other waterways; changes to the bridge structures at Cole Slough, Dutch John Cut, and the Kings River channel; and a change from a bridge to two box culverts at Riverside Ditch. Design changes are also included for utility relocations, roadway modifications, TCEs, staging areas, site preparation, demolition, earthwork, and access roads, and other Covered Activities at seven locations as well as shifting the location of a switching station and addition of 20 new wildlife crossings. The request also proposed the reduction of two TCEs resulting in a 33.87-acre reduction to the Construction Footprint, for a net increase of 23.45 acres, bringing the new total Construction Footprint to 6,486.40 acres.

This Amendment No. 17 (Amendment), a Major Amendment, makes the following changes to the ITP, as amended:

First, this Amendment increases the size of the entire Project Construction Footprint by 23.45 acres to a total of 6,486.40 acres of cumulative disturbance. The increase in the Construction Footprint acres is necessary to accommodate construction of an embankment in lieu of the viaduct outside of streams and other waterways; changes to the bridge structures at Cole Slough, Dutch John Cut, and the Kings River channel; and a change from a bridge to two box culverts at Riverside Ditch. Design changes are also included for site preparation, demolition, utility relocations, earthwork, and roadway modifications; shifting the location of a switching station; addition of 20 new wildlife crossings; eliminating two TCEs; and a slight increase in the width needed to construct the HSR guideway at-grade on embankment west of State Route 43 and north of Cole Slough. The widening will result in 2.30 acres of the 23.45-acre increase.

Second, this Amendment updates Table 1 to reflect the reduction of two TCEs.

Third, this Amendment updates Table 2 showing the change of 1.86 miles of railway from Elevated Profile (Viaduct) to Retained Fill (Embankment).

Fourth this Amendment updates Table 3 to increase the wildlife crossings in CP2-3 from 70 to 90.

Fifth, this Amendment changes the Project Description section Kings River Complex regarding changes at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch.

This Amendment also updates Table 4 showing the change in impacts at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch.

Sixth, this Amendment updates Table 5 to add 20 new dedicated wildlife crossing locations.

Seventh, this Amendment updates Table 6 to add 7.493 acres for the Switching Station at Latitude 36.42697594630° North, Longitude -119.60738110100° West due to a shift from the west to the east side of the HSR mainline, along with an access road.

Eighth, this Amendment updates the section entitled "Roadway Modifications" and Table 8 to include two new locations being added at 9<sup>th</sup> Avenue and Cairo Avenue in Kings County.

Ninth, this Amendment updates Table 9 and the text regarding increases in the Covered Species habitat impacts for San Joaquin kit fox, San Joaquin antelope squirrel, Tipton kangaroo rat, and Swainson's hawk as a result of the change to the Project Construction Footprint.

Tenth, this Amendment updates Table 11 and the required permanent protection of additional compensatory HM lands and increases the accompanying estimates of management costs required to mitigate for Covered Species impacts resulting from the increased Project Construction Footprint in covered species habitat.

Eleventh, this Amendment increases the Performance Security amount required for Permittee to proceed with Covered Activities.

Twelfth, his Amendment modifies Exhibit 6, the "Baseline Map Book," by replacing Map Book Pages 12 through 14 to reflect the increased Project Construction Footprint.

#### AMENDMENT

The ITP, as amended, is further amended as follows (amended language in **bold** *italics*; deleted language in strikethrough):

1. The section entitled "Project Description" on page 3 of the ITP, as amended, paragraph one shall be further amended to read as follows:

The Project is approximately 99 miles in length and includes construction and installation of all Project components (Exhibits 1 and 2). Construction and installation of all Project components will disturb up to 6,462.95 6,486.40 acres

(hereafter, Construction Footprint). Construction may occur at any point along the Construction Footprint, and construction may occur at multiple locations simultaneously.

#### 2. Table 1 on page 4 of the ITP is amended to read as follows:

County	Acres	Latitude	Longitude	Near Major Water Crossings
Fresno	7.94	36.70037906240	-119.75998694800	
Fresno	8.75	36.69906958170	-119.76065577400	
Fresno	13.54	36.69133990430	-119.75600865000	
Fresno	2.97	36.68913078040	-119.75404315700	395
Fresno	2.77	36.68770251460	-119.75392064000	
Fresno	86.21	36.68234823480	-119.75256845700	й <sub>1</sub> .
Fresno	12.30	36.51686843730	-119.72163955200	
Fresno	90.46	36.50045118080	-119.71275397700	
Fresno	57.33	36.49955210640	-119.71716405200	
Fresno	15.98	36.45913257490	-119.63774721700	
		4		Cole Slough (Kings River
Fresno	10.34	36.45312896600	-119.62924057900	Complex)
		5		Dutch Johns Cut (Kings
Kings	<del>33.03</del> 9.485	36.44806322280	-119.62542082700	River Complex)
а.				Kings River (Kings River
Kings	<del>14.18</del> 3.853	36.43089371170	-119.61001363900	Complex)
Kings	80.67	36.33415208650	-119.59442814700	
Fresno	7.94	36.70037906240	-119.75998694800	
Kings	85.78	36.33043621240	-119.59595880400	
Kings	124.27	36.28929048990	-119.59444526600	
Kings	5.05	36.23420077730	-119.60140336800	
Kings	16.19	36.17272010110	-119.60961967200	Cross Creek
Kings	24.89	36.17028845860	-119.60760820800	Cross Creek
Tulare	27.15	36.04851334150	-119.51876259300	Tule River
Kern	164.52	35.76473394330	-119.39667571800	
Kern	41,13	35.64859420840	-119.33219671200	
Kern	177.16	35.58336972300	-119.32657617600	
Kern	17.97	35.57102103140	-119.33302191600	
Kern	12.81	35.49469259000	-119.26155739600	5
Kern	16.36	35.49002581910	-119.25662171200	
Kern	272.32	35.46584809810	-119.22289895400	
Kern	66.84	35.45107069460	-119.21343780100	
Kern	2.95	35.363158	-119.20304	

#### Table 1. Locations of Construction Easements

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3. Table 2 starting on page 6 of the ITP and the text Project Descriptions following the Table are amended to read as follows:

Profile	CP 1C		CP 2-3	CP 4	Total Linear Miles
At-grade Profile		2.62	<del>55.96</del> 57.82	23.55	<del>82.13</del> <i>83.99</i>
Retained-cut (Below- grade) Profile	× .	1.28	0.00	0.00	1.28
Elevated Above- grade Profile		1.21	7.68	5.39	<del>16.1</del> 4 14.28
Retained-fill	0.00		4.34	4.33	8.67
Elevated Viaduct	1.21		<del>5.20</del> 3.34	1.06	<del>7.47</del> 5.61
Total		5.11	65.50	28.94	99.55

#### Table 2. Project Right-of-Way Vertical Profiles

#### At-grade Profile: There will be 83.99 linear miles of at-grade profile.

At-grade-Profile: The rail will be fixed by specially developed high-strength clips to pre-stressed concrete cross ties that will be embedded in either crushed rock ballast or a continuous concrete slab where the alignment will be at-grade (Figure 1). This profile will be common in areas where the ground is relatively flat and in rural areas where interference with local roadways is limited. The top of the rail will be constructed at a minimum of 4.5 feet above the 100-year floodplain or higher when transitioning to an elevated structure. The height of the at-grade profile will vary to accommodate slight changes in topography, provide clearance for storm-water culverts and structures to allow water flow, and enable potential wildlife movement. A drainage system may be designed to include a three-foot wide drainage swale on either side of the track that will be intercepted at regular intervals by culverts and open structures to carry runoff to existing natural drainages or appropriate municipal drainage systems. Drainages may also include paired 30-inch wide culverts under the embankment spaced as frequently as necessary to prevent ponding and allow drainage. Ducts will be laid alongside the HST tracks to carry low-voltage power cables to power the trackside signaling and communications apparatus and fiber optic cables that will enable continuous communications with the HST on-board computers and train controls. The duct covers will also serve as safety walkways for detraining passengers in

the event of an emergency train stop. There will be 82.13 linear miles of at-grade profile.



#### Figure 1. Typical Cross section of an At-grade Profile

<u>At-grade Profile-Construction</u>: Permittee will begin construction of at-grade sections by excavating or leveling the ground surface up to three feet before the rail bed is built up. Excavations up to six feet may be necessary where highly compressible soils, such as peat or soft clay, are present and not remedied by other means. Following initial grading, Permittee will move earth for use in the rail bed, construct the rail bed using scrapers to expand cuts, and then deposit material to build up the rail bed. Permittee may also use materials to build embankments for nearby overpasses. Borrow materials will be obtained from existing permitted borrow pits and quarries, and construction of the rail bed will be completed using ballast material from existing permitted quarries.

#### Below-grade Profile: There will be 1.28 linear miles of below-grade profile.

 <u>Retained-cut-profile</u>: Retained-cut profiles will be used when the rail crosses under existing rail tracks, roads, or highways that are at-grade (Figure 3). This profile type will be used only for short distances in highly urbanized and constrained situations. Retaining walls will be needed to protect the adjacent

properties from a cut slope extending beyond the rail guideway. Retained-cut profiles are also used for roads or highways when it is more desirable to depress the roadway underneath an at-grade HST alignment. There will be 1.28 miles of retained-cut profile.



Figure 32. Typical Cross Section of a Retained-cut Profile

<u>Above-grade Profile</u>: There will be 14.28 miles of above-grade profile either on retained-fill or on a viaduct.

Retained-fill\_profile: There will be 8.67 linear miles of retained-fill profile. This method Retained-fill profiles will be used to narrow the ROW within a constrained corridor to minimize property acquisition or to transition between an at-grade profile and an elevated profile (Figure 2). The guideway will be raised off the existing ground on a retained-fill platform made of reinforced walls, much like a freeway ramp. Short retaining walls will have a similar effect and will protect the adjacent properties from a slope extending beyond the rail. Retained-fill profiles can be high enough to allow road undercrossings and wildlife crossings. There will be 8.67 linear miles of retained-fill profile.

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Figure 23. Typical Cross Section of a Retained-fill Profile

 <u>Retained-cut profile</u>: Retained-cut profiles will be used when the rail crosses under existing rail tracks, roads, or highways that are at-grade (Figure 3). This profile type will be used only for short distances in highly urbanized and constrained situations. Retaining walls will be needed to protect the adjacent properties from a cut slope extending beyond the rail guideway. Retained-cut profiles are also used for roads or highways when it is more desirable to depress the roadway underneath an at-grade HST alignment. There will be 1.28 miles of retained-cut profile.

#### Figure 3. Typical Cross Section of a Retained-cut Profile

• <u>Viaduct</u>: *There will be 5.61 linear miles of Viaduct consisting of two types.* <u>Elevated profile Viaduct on Piers</u>: Elevated profiles will be used in urban areas where extensive road networks must be maintained. An elevated profile will have a minimum clearance of approximately 16.5 feet over roadways and approximately 24 feet over railroads (Figure 4). Pier supports will be approximately ten feet in diameter at the ground. Elevated profile structures may also be used to cross water bodies. The trackway may be at-grade on either side, but the width of the water channel may require a bridge at the same level, which will be built in the same way as the elevated profile. There will be 16.14 miles of elevated profile.



Figure 4. Typical Cross sections of Elevated Profiles Piers

<u>Viaduct on Straddle bents:</u> When the HST elevated profile will cross over a roadway or railway on a very sharp skew (degree of difference from the perpendicular), a straddle bent will ensure that the piers are outside of the functional/operational limit of the roadway or railway (Figure 5). A straddle bent is a pier structure that spans (or "straddles") the functional/operational limit of a roadway, highway, or railway. Roadway and highway crossings that have a smaller skew angle (i.e., the crossing is nearly perpendicular) will use intermediate piers in medians to span the functional ROW. However, for larger skew angle crossing conditions, median piers will result in excessively long spans that are not feasible. Straddle bents that clear the functional ROW will be spaced as needed (typically 110 feet apart) to provide feasible span lengths for bridge crossings at larger skew angles.



#### Figure 5. Typical Cross Section of a Straddle Bent

4. Table 3 on page 10 of the ITP is amended to read as follows:

Table 3. Design Features for the Pr	oject
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Design Feature	CP1-C	CP 2-3	CP 4
Number of major water crossings	0	6	1
Number of roadway undercrossings & overcrossings	3	33	9
Number of dedicated wildlife crossings	0	<del>70</del> 90	33

5. The section entitled "Project Description" on page 13 of the ITP, Section Kings River Complex, is amended to read as follows:

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#### Kings River Complex:

The proposed crossing of the Kings River Complex on the Hanford East (H) alignment is located approximately eight miles north of the city of Hanford and four miles east of the town of Laton. The crossing of the Kings River Complex includes Cole Slough, Dutch John Cut, and the Kings River Old Channel, and Riverside Ditch. The Kings River Complex crossing will be accomplished by constructing an 11,6841,883-foot long elevated viaduct and a 2,70012,501-foot long embankment, with other hydraulic crossings within the remaining floodplain for wildlife and floodwater passage.

The viaduct foundation configuration consists of 408-foot diameter columns, within a 10-foot isolation caisson below current ground level, that are generally spaced 100 to 121.5 feet on center. The northern abutment of the viaduct would be located to the north of the Cole Slough levee, outside of the Kings River Complex floodplain. The southern abutment would be located to the south of the Kings River Old Channel, within the Kings River Complex floodplain. Four segments of the viaduct are truss bridges. One truss bridge would cross over Cole Slough with a three 357103-111.5-foot long single spans, for a total span of 317.5 feet. The second truss bridge would cross over Dutch John Cut with two-six, 35790.5-134.5-foot spans, for a total span of 669.9 feet, and a-two two-column pier bents located in the overbank area on the north side of the main channel. The third truss bridge would cross over the Kings River Old Channel immediately downstream of an existing earthen low-flow crossing, with two-four, 322110.75-112.0-foot spans, for a total span of 445.5 feet, and a three two-column pier bents located in the main channel. The fourth truss bridge will be a 318.5-foot single-span bridge that crossesing, over Riverside Ditch, will be two 6-foot by 5-foot side-by-side concrete box culverts.

With the proposed truss bridges **at Cole Slough**, **a minimum** clearances of around 20 **19.12** feet will be maintained between the 100-year Water Surface Elevations and the bridge soffit-at the three channels (Cole Slough, **for** Dutch John Cut **the minimum clearance will be 15.92 feet**, and **at** Kings River Old Channel **the minimum clearance will be 8.54 feet**) of the Kings River Complex. The cap of the column will be placed at least five feet below grade to accommodate contraction scour and potential long-term scour. The pile length will be determined to ensure that no significant damage will be suffered from the consequences of a 200-year flood flow. The bridge pier and abutment foundations will have 15 feet of horizontal setback from the toe of the levee, and the minimum vertical clearance from the top of the levee to the bridge soffit (18 feet). Application of rock riprap or other revetment armor will be considered at the South Abutment to protect the HST embankment and move local scour to the upstream end of the guide bank.

6. A portion of Table 4 (not including Unnamed Crossings) starting on page 15 of the ITP is amended to read as follows:

Watercourse (Feature ID Code)	Latitude	Longitude	Total Impact (acres)	Construction Package (CP)
Cole Slough	36.45360265390	-119.63083316000	<del>0.42</del> 0.706	2/3
Dutch John Cut	36.44646747690	-119.62229281700	<del>1.13</del> 2.044	2/3
Kings River Old Channel	36.43046	-119.608129	<del>0.71</del> <i>1.342</i>	2/3
Riverside Ditch	36.43309293250	-119.61009747000	<del>0.06</del>	2/3
Cross Creek	36.17329470290	-119.60725094600	0.28	2/3
Tule River	36.04268946320	-119.51644351300	0.95	2/3
Deer Creek	35.92017741060	-119.42824486900	0.22	2/3
Poso Creek	35.66468122760	-119.33358375900	0.53	4
North Central Canal (031FOW01)	36.686396	-119.753616	0.24	1C
Central Canal West and East (034EOW02)	36.677928	-119.750341	0.80	1c
Viau Canal (037EOW02)	36.666209	-119.749516	0.01	1C

#### **Table 4. Bridge Sections Locations**

7. Table 5 starting on page 23 of the ITP is amended to <u>add</u> the following locations:

Table 5. Location of Dedicated Wildlife C	Crossings
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Wildlife Crossing Name	County	Latitude	Longitude	Number of Culverts	Culvert Dimensions (feet)	Openness Factor
, 1a.r	Fresno	36.458066	-119.637172	3	7w x 6h x 100L	0.42
2a.	Fresno	36.456291	-119.634818	3	7w x 6h x 100L	0.42
2b.	Fresno	36.456016	-119.634434	3	7w x 6h x 100L	0.42
2c.	Fresno	36.455353	-119.633298	3	7w x 6h x 100L	0.42

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Wildlife Crossing Name	County	Latitude	Longitude	Number of Culverts	Culvert Dimensions (feet)	Openness Factor
3a.	Fresno	36.454368,	-119.632092	3	7w x 6h x 100L	0.42
4	Fresno	36.452917	-119.629946	3	7w x 6h x 100L	0.42
5.r	Fresno	36.450892	-119.627381	3	7w x 6h x 100L	0.42
6.r	Kings	36.448123	-119.624115	3	7w x 6h x 100L	0.42
7a.r	Kings	36.445620	-119.621459	3	7w x 6h x 100L	0.42
8	Kings	36.441479	-119.617548	3	7w x 6h x 100L	0.42
9.r	Kings	36.437499	-119.613706	3	7w x 6h x 100L	0.42
9b.	Kings	36.435158	119.611732	3	7w x 6h x 100L	0.42
10.r	Kings	36.434414	-119.611086	3	7w x 6h x 95L	0.44
13.r	Kings	36.432065	-119.609323	3	7w x 6h x 90L	0.47
13b.	Kinas	36.431526	-119.608970	3	7w x 6h x 89L	0.47
14.r	Kinas	36.431010	-119.608641	3.	7w x 6h x 88L	0.48
15.r	Kings	36.429748	-119.607706	3	7w x 6h x 86L	0.49
16	Kings	36.426296	-119.605419	2	7w x 6h x 83L	0.51
17	Kings	36.424769	-119.604751	2	10w x 5h x 80L	0.63
18	Kings	36.422991	-119.603570	2	10w x 4h x 90L	0.51

8. A portion of Table 6 (not including the Paralleling Stations) on page 32 of the ITP is amended to read as follows:

Table 0. Electrical Systems Facilities	Т	able	6.	Elec	trical	Sys	tems	Facilities	
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Station type	County	Latitude	Longitude	Acres
Switching Station	Kings	36.43559629260	-119.61004985400	4.77
Switching Station	Kings	36.42697594630	-119.60738110100	4.339 <b>11.832</b>
Switching Station	Kings	36.09213791920	-119.53633297900	4.33
Switching Station	Kings	36.08861621060	-119.53708094500	0.15
Switching Station	Kings	36.08626572910	-119.53699183400	6.52
Switching Station	Kings	36.08537482910	-119.53480892500	0.15
Switching Station	Kern	35.78288372300	-119.40225701400	2.58
Switching Station	Kern	35.78277288560	-119.40298872800	0.25
Switching Station	Kern	35.44396457270	-119.20323186400	2.42

Station type	County	Latitude	Longitude	Acres
Traction Power Sub-	Fresno	36.59541992210	-119.75040655500	10.25
station			-	

- 9. The section entitled "Roadway Modifications" beginning on page 36 of the ITP is amended to read as follows:
  - <u>Roadway Modifications</u>: Changes to existing roads along or crossing the HST ROW will be needed because the HST requires a fully dedicated grade-separated track alignment for public safety and to achieve the desired speeds. The Project will require 130 132 roadway modifications; 45 in Fresno County, 37 39 in Kings County, 32 in Tulare County, and 16 in Kern County. Roadway modifications will occupy 2,092.16 2,109.83 total acres of the Construction Footprint (Table 8). At some locations, there will be an option to perform the modification as either an undercrossing or an overcrossing of the HST ROW. In these instances, the more conservative impact in terms of acreage (e.g., higher acreage) has been included and evaluated in this ITP. Handrails, fences, and walkways will be provided for the safety of pedestrians and bicyclists during roadway modification.
- 10. A portion of Table 8 (not including Fresno, Tulare, or Kern Counties) starting on page 37 of the ITP is amended to read as follows:

Street Modification	County	Activity	Latitude	Longitude	Acres
9th Ave	Kings	Site preparation and demolition, utility relocation, earthwork, and roadway modifications.	36.44321201	-119.618501	7.02
Cairo Ave	Kings	Site preparation and demolition, utility relocation, earthwork, and roadway modifications.	36.43797365	-119.6136684	10.65
8th Ave	Kings	Demolition, utility relocation, earthwork, and roadway modifications.	36.41632782	-119.6001412	27.24
Dover Ave	Kings	Dover Ave will pass over HST, a shift in the 8th Avenue roadway, utility relocation and access roads.	36.41581186	-119.5995681	32.13
Excelsior Ave	Kings	Excelsior Ave will pass over HST. Canal will be box culverted. Utility relocations, road improvements, and waterway crossing structures.	36.40168244	-119.5943778	37.64

#### Table 8. Location and Size of Project Roadway Modifications

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Street Modification	County	Activity	Latitude	Longitude	Acres
Elder Ave Kings		Elder Ave will pass over HST. Access roads provided to residential properties on both sides of the road. Utility relocations.	36.38698126	-119.5918069	34.69
Flint Ave	Kings	Flint Ave will pass over HST. An access road will be provided for the dairy. The ditch canal will be relocated from the north to the south side of Flint Ave and converted to a box culverted. Utility relocation.	36.37212065	-119.5915795	30.09
Fargo Ave	Kings	Fargo Ave will pass over HST. The bridge will also pass over 7th Ave and HST. A new frontage road at the existing Fargo Ave will provide access to residential. Utility relocations and access roads.	36.35741807	-119.5914857	35.35
Grangeville Blvd	Kings	Utility relocations and roadway modification.	36.342398	-119.591324	21.39
Segment 2 Field Office/ Staging Area	Kings	Utility relocations and establishment of a field office and staging area.	36.332178	-119.590558	6.74
South of Highway 198	Kings	Utility relocations, watercourse modification earthwork, and access roads.	36.327629	-119.591544	12.07
Hanford- Armona Ave	Kings	Hanford-Armona will be on a bridge over HST. The canal will be box culverted. Utility relocations and access roads.	36.31345633	-119.5916197	40.68
Houston Ave	Kings	Houston Ave will pass over HST. Access to industrial properties to the east will require minor adjustments. A small watercourse crossing will be box culverted. Utility relocations and roadway modification.	36.29846806	-119.5909752	39.87
Iona Ave	Kings	Iona Ave will pass over HST. The canal will be box culverted.	36.28395235	-119.5915783	23.96

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Street Modification	County	Activity	Latitude	Longitude	Acres
Idaho Ave Kings		Idaho Ave will pass over HST. The canal running adjacent to Idaho Ave will be diverted at the south end. There will be an access road for the traction power facility. Utility relocations.	36.26940802	-119.5913466	41.06
Jackson Ave	Kings	Jackson Ave will pass over HST. The canal running parallel to the road will be diverted at the south end. Utility relocations.	36.25489529	-119.5929132	41.32
South of Jackson Ave	Kings	Utility relocations and a waterway crossing structure.	36.247825, 36.250423	-119.59501, -119.59452	1.47
Jersey Ave	Kings	Jersey Ave closed at HST ROW east of SR 43. Utility relocations and roadway modification.	36.24044551	-119.5986178	10.40
SR 43 near Jersey Ave	Kings	HST would be elevated and SR 43 would pass under HST.	36.23748308	-119.6008666	53.61
Kent Ave	Kings	Kent Ave will pass over HST south of existing road with minor road improvements to the Kent Ave and SR 43 intersection. The watercourse would be converted to a box culvert and run underneath the crossing.	36.22534175	-119.6073277	27.63
South of Kent Ave	Kings	Utility relocations.	36.222732	-119.607658	0.77
Kansas Ave	Kings	Kansas Ave will pass over HST south of existing road. The watercourse will run underneath the crossing.; Utility relocations and watercourse modification.	36.21060385	-119.6105646	61.75
North of Lansing Ave	Kings	Watercourse modification earthwork, and Temporary Construction Easement (TCE).	36.19645	-119.612016	0.90
Lansing Ave	Kings	Closed road.	36.19660698	-119.6122288	2.53
South of Lansing Avenue	Kings	Activities associated with utility relocation, roadway modification a new undercrossing and a waterway crossing structure.	36.195186	-119.611023	2.53
Nevada Ave	Kings	Nevada Ave pass over HST, BNSF, and SR 43 & connect with Nevada Ave east of SR 43. Road improvements, utility relocations, and waterway crossing structures.	36.13734216	-119.5833542	42.01

Street Modification	County	Activity	Latitude	Longitude	Acres
South of Nevada Ave	Kings	Utility relocations.	36.130668	-119.578892	1.16
Newark Ave	Kings	Niles Ave will extend east of 5th Ave to the north and connect to Newark Ave.	36.1189926	-119.5674953	6.03
Newark Ave to Niles Ave	Kings	Utility relocations, roadway modifications, and waterway crossing structures.	36.117625	-119.563267	9.55
5th Ave & Niles Ave	Kings	5th Ave will realign and connect to Niles Ave east of HST.	36.11725489	-119.5622233	7.02
Niles Ave	Kings	Closed road.	36.11619454	-119.5619041	1.50
Niles Ave/ Waukena Ave/ Orange Ave	Kings	Utility relocations, TCEs, site preparation and demolition, earthwork, and access roads.	36.111744	-119.556361	20.11
5th Ave & Orange Ave	Kings	Closed road. 5th Ave will realign and connected to Orange Ave east of HST.	36.11119297	-119.5541671	2.44
Waukena Ave	Kings	Waukena Ave will shift north slightly and pass over HST and a new connector road will be constructed to connect with Orange Ave east of HST.	36.11069748	-119.5514155	20.42
Orange Ave	Kings	Closed road. Orange Ave will connect with 5th Ave and Waukena Ave via new connector.	36.10899252	-119.5540486	14.37
Whitley Ave/ State Rte 137	Kings	Whitley Ave will pass under HST.	36.09796946	-119.5417626	13.70
Whitley Avenue	Kings	Utility relocations and access roads.	36.097772	-119.543966	1.53
South of Road 19/ North of Avenue 156	Kings	Utility relocation and waterway crossing structures.	36.079981	-119.577325	0.28
Avenue 156, west of 6th Ave	Kings	Activities associated with utility relocation, roadway modification and new undercrossing.	36.072451	-119.577325	2.78

11. The section entitled "Impacts of the Taking on Covered Species" on page 59, of the ITP, as amended, shall be further amended to read as follows:

This ITP covers all Project related activities that cumulatively disturb no more than 6,462.95 6,486.40 acres within the Construction Footprint (as depicted in the Baseline Map Book, Exhibit 6, Baseline Maps 1 through 53 and generated from the

metadata provided by the Permittee) and no more than 17.32 acres at the Mitigation Site (collectively, the Project Area). Project activities are more fully described in the Project Description of this ITP and include subsurface geotechnical drilling and boring; habitat grubbing, vegetation removal, clearing, demolition, construction of a geotechnical test embankment and associated borrow site excavation and mass grading followed by the mobilization of equipment and materials; earthwork including construction of temporary and permanent excavation support structures; pile driving, excavation of open cut slope and fill, at grade profile excavation and leveling, and retained fill cut, rail bed foundation soil compaction, and elevated profiles and elevated profile structure components including construction and installation of straddle bents, foundations, pile caps, substructures, and superstructures; trench digging and other subsurface utility installation, relocation, and protection; pad preparation and construction of a batch plant, materials storage, fabrication, casting areas, access roads, and staging areas; rotary drilled reinforced concrete cast in place pile and drive pile installation; excavation of drainage swales and fabrication and installation of underground drainage culverts and pipes; 130 132 roadway modifications including realignment and resurfacing, construction of new access roads, overcrossing, and undercrossing; construction of waterway crossing structures over the Kings River Complex, Cross Creek, Tule River, Deer Creek, Poso Creek, and other watercourse crossings, partial dewatering and diversion of water; construction and assembly of tie and ballast and slab track railway systems, and shoofly track; erecting mast poles; construction of electrical systems facilities including the OCS, nine TPSS, up to nine switching stations, and up to 27 paralleling stations; construction of signal huts and bungalows including installation of cabling to the field hardware and track stations; traction electrification; excavation and construction of wildlife crossings, construction of the Kings/Tulare Regional Station; construction of a maintenance-of-infrastructure facility; installation of AD and AR fence; construction of temporary job site trailers and field offices including the development of building pads and preparation of parking areas; application of dust suppressants; operation and maintenance activities such as track, power, structure, signaling, train control, communications, intruder, and right-of way inspection and repair; equipment staging, mowing, inoculum collection, land grading, and excavation of wetlands at the Mitigation Site; and hand tool or auger planting of trees and shrubs, and other activities within the Construction Footprint and Mitigation Site described in the Project Description section of this ITP. All these Project activities are collectively referred to as the Covered Activities.

12. Table 9 on page 61 of the ITP, as amended, shall be further amended to read as follows:

Covered Species	Habitat Type	Impact Type	Impact Acres
	Upland refugia (annual grassland, pasture, barren,	Permanent	9.06
	fallow field, inactive agriculture, and ruderal)	Permanent	9.64
California tiger	Aquatic breeding (vernal pool, open water, seasonal wetland)	Total	18.70
salamander	Upland refugia (annual grassland at Mitigation Site)	Temporary	16.56
	Aquatic breeding habitat (vernal	Temporary	0.76
	pools at Mitigation Site)	Total	17.32
Tipton kangaroo rat	Annual grassland, Alkali desert scrub, barren, pasture, fallow field, inactive agriculture, and ruderal	Permanent	<del>617.0</del> 4 <b>622.06</b>
San Joaquin antelope squirrel	Annual grassland, Alkali desert scrub, barren, pasture, fallow field, inactive agriculture, and ruderal	Permanent	<del>617.0</del> 4 <b>622.06</b>
Surgingon's houds	Foraging (California annual grassland, pasture, barren, fallow field, inactive agriculture, ruderal, field crops, row crops, and irrigated hay crops)	Permanent	<del>2,344.39</del> <b>2,367.26</b>
Swamson's nawk	Foraging (annual grassland at Mitigation Site)	Temporary	17.32
	Nesting (riparian and eucalyptus woodland and individual trees)	Permanent	3 of the maximum 5 nest trees
San Joaquin kit fox	Alkali desert scrub, annual grassland, barren, pasture, fallow field, inactive agriculture, ruderal, field crops, row crops, and irrigated hay crops	Permanent	<del>3,783.99</del> <b>3,804.05</b>

Covered Species	Habitat Type	Impact Type	Impact Acres	
	Foraging and denning (annual grassland at Mitigation Site)	Temporary	17.32	

13. The first paragraph of the section titled "Tipton Kangaroo Rat," on page 62 of the ITP, as amended, shall be further amended to read as follows:

The extent of the impacts of the taking of Tipton kangaroo rat (TKR) is based on the amount of vegetation cover types that could function as TKR foraging, burrowing, and breeding habitat within the Construction Footprint, the assumption that all potentially suitable habitat in the Construction Footprint would be permanently destroyed, and an evaluation of Project indirect impacts. The Covered Activities are expected to result in the permanent loss of up to 617.04 622.06 acres of potential habitat (Table 9).

14. The first paragraph of the section titled "San Joaquin Antelope Squirrel," on page 62 of the ITP, as amended, shall be further amended to read as follows:

The extent of the impacts of the taking of San Joaquin antelope squirrel (SJAS) is based on the amount of vegetation cover types that could function as SJAS foraging, burrowing, and breeding habitat within the Construction Footprint, the assumption that all potentially suitable habitat in the Construction Footprint would be permanently destroyed, and an evaluation of Project indirect impacts. The Covered Activities are expected to result in the permanent loss of up to <del>617.04</del> **622.06** acres of potential habitat (Table 9).

15. The first paragraph of the section titled "Swainson's Hawk," on page 63 of the ITP, as amended, shall be further amended to read as follows:

Up to 2,344.39 2,367.26 acres of foraging habitat, including areas within active agricultural production, and five nest trees for Swainson's hawk (SWHA) could be permanently impacted as a result of Covered Activities. In addition, grading and excavation at the Mitigation Site would also result in up to 17.32 acres of temporary impacts to SWHA foraging habitat (Table 9). It is expected that all potentially suitable habitat (2,344.39 2,367.26 acres) within the Construction Footprint would be permanently destroyed. Based on the results of baseline surveys conducted within the Construction Footprint in spring 2013, there are five known SWHA nest trees within 0.5-miles of the Construction Footprint (Table 10). The foraging habitat impact acres were determined based on these five nest trees

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along with the guidelines set forth in the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California* (CDFW, 1994).

16. The first paragraph of the section titled "San Joaquin Kit Fox," on page 64 of the ITP, as amended, shall be further amended to read as follows:

The extent of the impacts of the taking of San Joaquin kit fox (SJKF) is based on the amount of vegetation cover types that could function as SJKF foraging, denning, and breeding habitat within the Construction Footprint, the assumption that all potentially suitable habitat in the Construction Footprint would be permanently destroyed, and an evaluation of Project indirect impacts. The Covered Activities are expected to result in the permanent loss of up to 3,783.99 **3,804.06** acres of potential habitat (Table 9). Grading and excavation at the Mitigation Site would also result in up to 17.32 acres of temporary impacts to SJKF habitat.

17. Table 11 on page 105 of the ITP, as amended, shall be further amended to read as follows:

Covered Species Name (Common Name/ Scientific Name)	Habitat Type	Project Impacts	Required Mitigation Acreage
California tiger salamander	Upland	9.06	• 27.18
(Ambystoma californiense)	Aquatic	9.64	0.96
Swainson's hawk	Foraging habitat 0-1 miles	<del>515.88</del> <b>533.26</b>	<del>515.</del> 88 <b>533.26</b>
( <i>Buteo swainsoni</i> ) (active trees within 0.5 mile of	Foraging habitat 1-5 miles	<del>1,171.06</del> <b>1,176.55</b>	<del>878.29</del> <b>882.41</b>
the project footprint)	Foraging habitat 5-10 miles	657.45	328.72
San Joaquin antelope squirrel ( <i>Ammospermophilus nelsoni</i> )	Natural	<del>617.04</del> <b>622.06</b>	<del>1,851.12</del> <b>1,866.19</b>
Tipton kangaroo rat ( <i>Dipodomys nitratoides</i> <i>nitratoides</i> )	Natural	<del>617.04</del> <b>622.06</b>	<del>1,851.12</del> <b>1,866.19</b>
San Joaquin kit fox ( <i>Vulpes macrotis mutica</i> )	Natural and agriculture	<del>3,783.99</del> <b>3,804.06</b>	<del>2,258.85</del> <b>2,272.21</b>

#### Table 11. Required Mitigation for Project-Related Impacts to Covered Species

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Co	Covered Species Name (Common Name/ Scientific Name)			Habitat Type	Project Impacts	Required Mitigation Acreage	
				Total Compensatory Mitigation		<del>7,712.1</del> 4 7,777.1	
3.	Cond amen	ition of A ded, sha	pproval 9. Ill be furth	1 (Cost Estimates er amended to rea	s) on pages 106 and 1 ad as follows:	07 of the ITP, as	
	9.1.	<u>Cost Es</u> and per	<u>stimates.</u> ( rpetual ma	CDFW has estimation of the	ited the cost of acquis HM lands as follows:	ition, protection,	
	ž	9.1.1.	Land acc Approval up to <del>7,7</del> Land acc value for	quisition costs for 9.2 below, estim <del>12.14<b>7,777.13</b> ac quisition costs are lands with habita</del>	HM lands identified in ated at an average of cres: <del>\$88,025,594.75</del> estimated using local t values meeting mitig	Condition of \$11,413.90/acre fo <b>88,767,384.11</b> . I fair market curren gation requirements	
		9.1.2.	Start-up enhance below, e	costs for HM land ment costs as de stimated at <del>\$4,10</del>	ls, including initial site scribed in Condition o <del>0,093.17</del> <b>\$4,134,644.5</b>	protection and f Approval 9.2.5 i <b>5</b> ;	
		9.1.3.	Interim n Approva	nanagement perio 9.2.6 below, esti	od funding as describe mated at <del>\$1,811,724.2</del>	ed in Condition of 28 <b>\$1,826,991.64</b> ;	
		9.1.4.	Long-ter Approva <b>7,777.13</b> manager providing manager	m management fu 9.3 below, estim acres: <del>\$27,534,3</del> ment funding is es security to ensu ment.	unding as described in ated at \$3,570.26/acre 44.96 <b>\$27,766,376.15</b> stimated initially for the re implementation of I	n Condition of e for up to <del>7,712.1</del> 4 . Long-term e purpose of HM lands	
	a.	9.1.5	Related fees, adr related ti agency r CDFW a \$12,000.	transaction fees in ninistrative fees, t tle transactions, e eviews, and overl s described in Co	ncluding but not limited title and documentatio expenses incurred fror head related to transfe andition of Approval 9.	d to account set-up on review and m other state er of HM lands to 4, estimated at	
						×	

- 19. Condition of Approval 10.1 (Performance Security) on page 112 of the ITP, is amended to read as follows:
  - 10.1. <u>Security Amount</u>. The Security shall be in the amount of <del>\$121,483,757.16</del> **\$122,507,396.45**. This amount is based on the cost estimates identified in Condition of Approval 9.1 above.
- 20. Exhibit 6 ("Baseline Map Book") in the list of attachments on page 115 of the ITP, as amended, is amended to include the replacement of Map Book Pages 12 through 14 with the corresponding page included in Attachment 1 of this Amendment, to reflect the increased Project Footprint.

The corresponding measures in the Mitigation Monitoring and Reporting Program (MMRP) (Attachment 1 of the ITP, as amended) shall be further amended to read the same as above. All terms and conditions of the ITP, as amended, and the MMRP that are not expressly amended herein remain in effect and must be implemented and adhered to by the Permittee.

#### FINDINGS

Issuance of this Amendment will increase the amount of take for some of the Covered Species compared to the Project as originally approved; however, because the HM lands protection and management funding requirements will be commensurately increased, it is not expected that this Amendment will increase Project impacts on these species (i.e., "impacts of taking" as used in Fish and Game Code Section 2081, subd. (b)(2)).

<u>Discussion</u>: This Amendment makes twelve specific changes to the ITP, as amended. First, this Amendment increases the size of the entire Project Construction Footprint by 23.45 acres to a total of 6,486.40 acres of cumulative disturbance. The increase in the Construction Footprint acres is necessary to accommodate a variation in the profile design of the alignment construction from elevated viaduct to embankment at the sections of the HSR mainline that are outside of streams and other waterways; changes to the bridge structures at Cole Slough, Dutch John Cut, and the Kings River channel; and a change from a bridge to two box culverts at Riverside Ditch. Design changes are also included for site preparation, demolition, utility relocations, earthwork, and roadway modifications; shifting the location of a switching station; addition of 20 new wildlife crossings; eliminating two TCEs; and a slight increase in the width needed to construct the HSR guideway at-grade on embankment west of State Route 43 and north of Cole Slough. The widening will result in 2.30 acres of the 23.45-acre increase.

Second, this Amendment updates Table 1 to reflect the reduction of two TCEs.

Third, this Amendment updates Table 2 showing the change of 1.86 miles of railway from Elevated Profile (Viaduct) to Retained Fill (Embankment).

Fourth this Amendment updates Table 3 to increase the wildlife crossings in CP2-3 from 70 to 90 to allow for additional wildlife permeability needed to mitigate for design changes at the Kings River Complex.

Fifth, this Amendment changes the Project Description section Kings River Complex regarding changes at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch. This Amendment also updates Table 4 showing the change in impacts at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch.

Sixth, this Amendment updates Table 5 to add 20 new dedicated wildlife crossing locations.

Seventh, this Amendment updates Table 6 to add 7.493 acres for the Switching Station at Latitude 36.42697594630° North, Longitude -119.60738110100° West due to a shift from the west to the east side of the HSR mainline, along with an access road.

Eighth, this Amendment updates the section entitled "Roadway Modifications" and Table 8 to include two new locations being added at 9<sup>th</sup> Avenue and Cairo Avenue in Kings County.

Ninth, this Amendment updates Table 9 and the text regarding increases in the Covered Species habitat impacts for San Joaquin kit fox, San Joaquin antelope squirrel, Tipton kangaroo rat, and Swainson's hawk as a result of the change to the Project Construction Footprint.

Tenth, this Amendment updates Table 11 and the required permanent protection of additional compensatory HM lands and increases the accompanying estimates of management costs required to mitigate for Covered Species impacts resulting from the increased Project Construction Footprint in covered species habitat.

Eleventh, this Amendment increases the Performance Security amount required for Permittee to proceed with Covered Activities.

Twelfth, this Amendment modifies Exhibit 6, the "Baseline Map Book," by replacing Map Book Pages 12 through 14 to reflect the increased Project Construction Footprint.

CDFW has determined that although this Amendment may result in an increase in take of the Covered Species, and increased Covered Species Habitat impacts, the additional impacts of the taking will be minimized and fully mitigated through implementation of the Conditions of Approval. Because the impacts will be minimized and fully mitigated, there will be no increase in Project impacts to the Covered Species with this Amendment.

# Issuance of this Amendment does not affect CDFW's previous determination that issuance of the ITP, as amended meets and is otherwise consistent with the permitting criteria set forth in Fish and Game Code section 2081, subdivisions (b) and (c).

Discussion: CDFW determined in June 2015 that the Project as approved, met the standards for issuance of an ITP under CESA. CDFW determined in March 2017, in September 2018, in October 2018, again in October 2018, in November 2018, in January 2019, three times in February 2019, in March 2019, in April 2019, in May 2019, in August 2019, twice in September 2019, and in October 2019 that Amendments No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, and No. 16, respectively, to the ITP met the standards for issuance of an ITP under CESA. This determination included findings that, among other things, the impacts of the taking would be minimized and fully mitigated and that the Project would not jeopardize the continued existence of the Covered Species. Those findings are unchanged with respect to this Amendment because the Project and ITP, as amended: (1) will increase the habitat compensation in proportion to the increase in impacts so that the fully mitigate standard is still met; (2) installation of an additional 20 dedicated wildlife crossings, the locations of which were determined by taking into consideration surrounding land cover types and pinpointing the most relevant geographic location on the landscape; and (3) does not alter the Permittee's continued adherence to and implementation of the avoidance and minimization measures set forth in the Conditions of Approval in the ITP, as amended, and MMRP which will minimize and fully mitigate impacts of the taking on the Covered Species.

None of the factors that would trigger the need for subsequent or supplemental environmental analysis of the Project under Public Resources Code section 21166 or California Code of Regulations, title 14, sections 15162 and 15163, exist as a result of this Amendment.

<u>Discussion</u>: CDFW issued the original ITP in June 2015, Major Amendment No. 1 to the ITP in March 2017, Major Amendment No. 2 in September 2018, Major Amendment No. 3 in October 2018, Minor Amendment No. 4 in October 2018, Major Amendment No. 5 in November 2018, Major Amendment No. 6 in January 2019, Major Amendments 7, 8, and 9 in February 2019, Major Amendment No. 10 in March 2019, Major Amendment No. 11 in April 2019, Major Amendment No. 12 in May 2019, Major

Amendment No. 13 in August 2019, Major Amendments 14 and 15 in September 2019, and Major Amendment No.16 in October 2019 as a responsible agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) after, among other things, considering the California High-Speed Train: Fresno to Bakersfield Section Final Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (SCH No. 2009091126) certified by the lead agency, California High-Speed Rail Authority, on May 7, 2014. As explained in the findings below, CDFW finds for purposes of CESA that this Amendment represents a major change to the ITP. as amended. However, for the reasons explained above, CDFW concludes that approval of this Amendment will not result in and does not have the potential to create any new significant or substantially more severe environmental effects than previously analyzed and disclosed by California High Speed Rail Authority during its lead agency review of the Project, particularly with respect to the impacts authorized by CDFW pursuant to the ITP, as amended. As a result, CDFW finds that no subsequent or supplemental environmental review is required by CEQA as part of CDFW's approval of this Amendment.

# CDFW finds that this Amendment is a Major Amendment, as defined in California Code of Regulations, title 14, section 783.6, subdivision (c)(5).

Discussion: This Amendment increases the size of the entire Project Construction Footprint by 23.45 acres to a total of 6,486.40 acres of cumulative disturbance. The increase in the Construction Footprint is necessary to accommodate a variation in the profile design of the alignment construction from elevated viaduct to embankment at the sections of the HSR mainline that are outside of streams and other waterways; changes to the bridge structures at Cole Slough, Dutch John Cut, and the Kings River channel; and a change from a bridge to two box culverts at Riverside Ditch. Design changes are also included for site preparation, demolition, utility relocations, earthwork, and roadway modifications; shifting the location of a switching station; addition of 20 new wildlife crossings; eliminating two TCEs; and a slight increase in the width needed to construct the HSR guideway at-grade on embankment west of State Route 43 and north of Cole Slough. The widening will result in 2.30 acres of the 23.45-acre increase; updates Table 1 to reflect the reduction of two TCEs; updates Table 2 showing the change of 1.86 miles of railway from Elevated Profile (Viaduct) to Retained Fill (Embankment); updates Table 3 to increase the wildlife crossings in CP2-3 from 70 to 90; changes the Project Description section Kings River Complex regarding changes at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch. This Amendment also updates Table 4 showing the change in impacts at Cole Slough, Dutch John Cut, Kings River and Riverside Ditch; updates Table 5 to add 20 new dedicated wildlife crossing locations; updates Table 6 to add 7.493 acres for the Switching Station at Latitude 36.42697594630° North, Longitude -119.60738110100° West due to a shift from the

Major Amendment No. 17 Incidental Take Permit 2081-2015-024-04 CALIFORNIA HIGH –SPEED RAIL AUTHORITY CALIFORNIA HIGH-SPEED TRAIN PROJECT Fresno to Bakersfield Section Permitting Phase 1

west to the east side of the HSR mainline, along with an access road; updates the section entitled "Roadway Modifications" and Table 8 to include two new locations being added at 9<sup>th</sup> Avenue and Cairo Avenue in Kings County; updates Table 9 and the text regarding increases in the Covered Species habitat impacts for San Joaquin kit fox, San Joaquin antelope squirrel, Tipton kangaroo rat, and Swainson's hawk as a result of the change to the Project Construction Footprint; updates Table 11 and the required permanent protection of additional compensatory HM lands and increases the accompanying estimates of management costs required to mitigate for Covered Species impacts resulting from the increased Project Construction Footprint in covered species habitat; increases the Performance Security amount required for Permittee to proceed with Covered Activities; and modifies Exhibit 6, the "Baseline Map Book," by replacing Map Book Pages 12 through 14 to reflect the increased Project Construction Footprint.

As described above, these changes to the ITP, as amended, will increase the Project Construction Footprint, add locations of Covered Activities, and modify the Permittee's mitigation obligations. Therefore, this Amendment will substantially increase the scope or nature of the permitted Project or activity, or significantly modify the minimization, mitigation, or monitoring measures in the ITP, as amended. CDFW has determined that the changes to the ITP, as amended, constitutes a Major Amendment as defined in California Code of Regulations, title 14, section 783.6, subdivision (c)(5).

The authorization provided by this Amendment is not valid until Permittee signs and dates the acknowledgement below, and returns one of the duplicate originals of this Amendment by registered first class mail to CDFW at:

California Department of Fish and Wildlife Habitat Conservation Planning Branch Attention: CESA Permitting Program Post Office Box 944209 Sacramento, California 94244-2090

#### Attachment:

ATTACHMENT 1 EXHIBIT 6 Baseline Map Book Pages 12 through 14

APPROVED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFF	
on $\frac{10/31/19}{2000000000000000000000000000000000000$	
Julie A. Vance, Regional Manager Central Region	
ACKNOWLEDGMENT	
The undersigned: (1) warrants that he or she is acting as a duly authorized representative of the Permittee, (2) acknowledges receipt of the original ITP and this Amendment, and (3) agrees on behalf of the Permittee to comply with all terms and conditions of the ITP, as amended. By:	
Printed Name: Mark A. McLovg 11:n Title: Quetor of Environmental Se	vvices

#### ATTACHMENT 1

Exhibit 6. Baseline Map Book pages 12 through 14

## High-Speed Train Fresno to Bakersfield Construction Footprint CP 2-3



ITP Footprint
Permanent Impacts
Amendment 17 Expansion
Amendment 17 Reduction
Wildlife Crossings





High-Speed Train Fresno to Bakersfield Construction Footprint CP 2-3



ITP Footprint
Permanent Impacts
Amendment 17 Expansion
Amendment 17 Reduction
Wildlife Crossings





High-Speed Train Fresno to Bakersfield Construction Footprint CP 2-3



ITP Footprint
Permanent Impacts
Amendment 17 Expansion
Amendment 17 Reduction
Wildlife Crossings



