

## **APPENDIX 2-D.4: AMENDMENT TO BIOLOGICAL RESOURCES SURVEY SUMMARY SITE 6 & 7**

## MEMORANDUM

**Date** December 6, 2019  
**To** John Cook, ICF  
**From** Ascent Environmental  
**Project** Electrical Interconnections and Network Upgrades: Sites 6 and 7  
**Subject** Amendment to Biological Resources Survey Summary of December 13, 2016

### OVERVIEW

This memorandum amends the previous memorandum of December 13, 2016 that summarized the results of biological surveys conducted within the study area for electric interconnection and network upgrade (EINU) components associated with Traction Power Substation (TPSS) Sites 6 and 7 of the High Speed Rail project required to support the Central Valley Wye (Wye) alternatives of the Merced to Fresno Project Section. This amendment summarizes the results of a biological survey conducted within the study area for the additional Site 6--EI Nido TPSS and 115kV Tie-Line and fiber optic cable.

### Components

This memorandum provides coverage for refinements to the electrical interconnection facilities identified after the Biological Resources Survey Summary prepared in December 2016. These include an alternate location for the Site 6—EI Nido TPSS and a 2.5-mile 115 kV Tie-Line with collocated fiber optical groundwire connecting the TPSS to the expanded EI Nido Substation. Fiber optic cable would also be installed below ground along the right-of-way for the Site 6—EI Nido 115 kV Tie-Line, as well as the Site 7—Wilson 230 kV Tie-Line. Because the footprint of the Site 7—Wilson 230 kV Tie-Line was previously evaluated for physical effects associated with temporary ground disturbance, the revisions to the Site 7 interconnections are not considered further. The revised Site 6--EI Nido components are described below.

#### *Interconnection*

- 115 kV Tie-Line/Fiber Optic Cable: Construct an approximately 2.5 mile-long, double-circuit 115 kV power line, with collocated fiber optical groundwire and fiber optic cable. The Site 6—EI Nido, fiber optic cable would be trenched underground directly beneath the Site 6—EI Nido 115 kV Tie-Line (along the west side of Lincoln Road between the EI Nido Substation and the TPSS).
- TPSS: Locate the TPSS on 1.4 acres in the northwest quadrant of the intersection of State Route 152 and Lincoln Road.

### Survey Methodology

#### Background Review

Prior to conducting field surveys, Ascent biologists reviewed the *Final Biological Resources and Wetland Technical Report, Merced to Fresno Section: Central Valley Wye (Biological Resources and Wetlands Technical Report)* (Authority and FRA 2016)] and *Central Valley Wye Biological Resources and Wetlands Survey Plan (Biological Resources and Wetlands Survey Plan)* (Authority and FRA [2009] 2011). To determine species with potential to occur within the special-status plant study area and core habitat study area, Ascent biologists also reviewed data from searches that had been previously conducted of the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB 2016) and the California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2016). Ascent biologists also reviewed the previous GIS-based analysis conducted using the U.S. Fish and Wildlife Service's Environmental Conservation Online System to determine whether critical habitat was present within the study area (USFWS 2016).

Habitat and land cover types used for field mapping are consistent with those described in Table 5-2 Wildlife Habitat Types, Land Uses and Typical Vegetation, as well as Section 5.1.2.1 (Agricultural Lands),

Section 5.1.2.2 (Developed Areas) and Section 5.1.2.3 (Natural and Seminal Areas) of the *Biological Resources and Wetlands Technical Report*. Descriptions of agricultural lands and developed areas are based on *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Descriptions of natural and seminal habitat types were developed from classification systems including the *Manual of California Vegetation* (Sawyer et. al 2009), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *Classifications of Wetlands and Deeper Habitats of the United States* (Cowardin et. al 1979). A summary of plant communities, aquatic habitats, and land cover types documented during field surveys are presented in Table 1, below.

The mapping area is composed of the construction footprint for the new Site 6--El Nido TPSS and 115kV Tie-Line, as well as a 350-foot buffer of these components. To maintain consistency of methods with the previous surveys of the EINU, a 350-foot buffer, rather than the 1,000-foot buffer used for the Wye alignments was used. This mapped area includes the following biological resource study areas (RSAs) to evaluate direct and indirect impacts from implementation of EINU components: the special-status plant species study area (comprised of a 100-foot buffer around the construction footprint), and the core habitat study area and the wetland study area (both comprised of a 250-foot buffer around the construction footprint). The RSAs are described in greater detail in Section 4.2 of the *Biological Resources and Wetlands Technical Report*.

## Field Surveys

A field survey was conducted for the Site 6--El Nido TPSS and 115kV Tie-Line consistent with the methods described in the *Biological Resources and Wetlands Survey Plan* to identify and record habitats within the RSAs. The revised construction footprint and 350-foot buffer was surveyed on November 12, 2018. Portions of areas that were not entirely visible from public roadways, were confirmed via review of 2018 aerial imagery on Google Earth. Ascent biologists conducted a pedestrian survey at the single riparian crossing that was adjacent to a public roadway. The wildlife habitat assessment was general in nature; it was not intended to be a substitute for protocol-level surveys.

## Impact Analyses

The methods used for evaluating impacts to habitats, land cover types, special-status plants and wildlife, from implementation of EINU components are consistent with those outlined in Section 4, Methods for Evaluation Effects, of the *Biological Resources and Wetlands Technical Report* (Authority and FRA 2016) with the exception of indirect effects. Indirect impacts on the auxiliary habitat study area, supplemental habitat study area, and wildlife movement study area were analyzed qualitatively rather than by using a 1,000-foot, 10-mile, or 20-mile buffer because of the smaller permanent impact footprint of EINU components and the temporary nature of the majority of impacts (e.g., reconductoring of electrical lines and replacement of structures). Direct, indirect, and indirect bisected impacts were quantified as follows:

- *Direct impacts* were quantified by component based on the construction period (temporary) and project period (permanent) footprints used for the GIS analysis. Direct impacts, both temporary and permanent, were calculated by digitally overlaying the mapped land cover types/habitat types on the estimated construction footprint boundaries, using ArcGIS software. All impacts on vernal pools are considered permanent and were calculated using GIS resource layers.
- *Indirect impacts*, both temporary and permanent, were assessed by digitally overlaying RSA boundaries and estimated construction footprint boundaries between the footprint boundary and the RSA buffer.
- *Indirect bisected impacts* apply in circumstances where a vernal pool falls partially within the footprint and extends into adjacent areas, including areas beyond 250 feet, and includes impacts on jurisdictional waters, as well as special-status vernal pool plant and wildlife species.

Neither indirect impacts nor indirect bisected impacts were quantified for this analysis.

## Survey Results

### Habitat and Land Cover Types

Habitat and land cover types mapped within the vicinity of the Site 6--El Nido Substation and 115kV Tie-Line components are consistent with those described in the *Biological Resources and Wetlands*

*Technical Report* and include agricultural habitats, aquatic habitats, developed areas, and natural and seminatural areas. Habitats and land cover types mapped in the study area are described in Table 1, below. The associated figures are presented in Appendix A of this memorandum.

Agricultural lands in the study area consist of field crops, pasture, inactive agriculture, and orchards. Vegetation other than the managed crop generally includes weedy species adapted to high levels of disturbance and is often actively managed with herbicides, mowing, and/or tilling. Sparse annual grasses and weedy forbs may be present within pastures and along the crop edges (Authority and FRA 2016). Aquatic habitat in the study area consists of man-made constructed watercourses (e.g., agricultural ditches and canals), as well as constructed basins.

**Table 1 Terrestrial Habitats, Aquatic Habitats, and Land Uses in the Resource Study Area**

Land Cover/Habitat Type	Description
<b>Agricultural Habitat</b>	
Inactive Agriculture	Agricultural land not cropped the current or previous crop season, usually supports dense growth of non-native annual grasses
Pasture	Mix of annual and perennial grasses and forbs that provide forage for domestic livestock
Field Crop	Wheat, alfalfa
Orchard	Deciduous and evergreen trees: almond, walnut, pistachio, orange, lemon
<b>Aquatic Habitat</b>	
Constructed Basin	Stormwater and agricultural retention basins, tailwater ponds; mostly devoid of vegetation
Constructed Watercourse	Irrigation canals and ditches
<b>Developed Areas</b>	
Transportation Corridor	Roads, bridges, railways
Commercial/Industrial	Urban shops, businesses, warehouses, industrial plants, factories, junk yards, equipment storage yards, airports
<b>Natural and Seminatural Areas</b>	
Other Riparian*	Other riparian woodlands such as arroyo willow thickets, cottonwood-willow riparian, black walnut riparian. Also, riparian areas dominated by Himalayan blackberry brambles and giant reed
Ruderal	Vegetated areas, dominated by common weeds

\*Sensitive Biological Communities

Within the RSA, developed land cover types include transportation corridors and commercial and industrial parks. These land cover types do not support vegetation communities. Natural and seminatural areas within the study area consist of ruderal and other riparian. While the natural and seminatural vegetation types have been altered to some extent by past and present human activities, the composition and structure of these communities is generally not actively managed or controlled (Authority 2012). The other riparian is discussed in further detail under Sensitive Natural Communities below.

Typical native fauna occurring in natural and seminatural areas, as well as other land cover types in the RSA, include western toad (*Anaxyrus boreas*), Sierran treefrog (*Pseudacris sierra*), western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis catenifer*), common garter snake (*Thamnophis sirtalis*), great egret (*Ardea alba*), red-winged blackbird (*Agelaius phoeniceus*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), American robin (*Turdus migratorius*), western scrub jay (*Aphelocoma californica*), turkey vulture (*Cathartes aura*), Brewer's blackbird (*Euphagus cyanocephalus*), American coot (*Fulica americana*), California ground squirrel (*Otospermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*) (Authority 2016).

## Habitats of Concern

Habitats of concern are described in Section 4.1.2 of the *Biological Resources and Wetlands Technical Report* and are mostly consistent with those observed in the RSA. They are: special-status plant

communities, also referred to as sensitive natural communities; jurisdictional waters, including wetlands and riparian areas; wildlife movement corridors; and critical habitat. Other habitats of concern identified in the *Biological Resources and Wetlands Technical Report* are either not present in the study area, such as conservation easements and mitigation banks, or else will not be impacted as a result of construction, such as protected trees and essential fish habitat, and are not discussed further in this memorandum.

### ***Sensitive Natural Communities***

Of the natural habitats mapped in the special-status plant study area, one is a sensitive natural community that is described in *A Manual of California Vegetation* (Sawyer et al. 2009), other riparian. Other riparian within the study area occurs on the banks of an unlined canal that crosses South Orchard Way and is dominated by willows (*Salix* sp.) and California black walnut (*Juglans californica*).

### ***Jurisdictional Waters***

Jurisdictional waters in the study area are described in Section 4.1.2.2 of the *Biological Resources and Wetlands Technical Report* and include wetlands and other waters. Confirmation of these waters as jurisdictional by the U.S. Army Corps of Engineers, the State Water Resources Control Board, and the California Department of Fish and Wildlife will be obtained through the regulatory permitting process. As indicated above, the only potentially jurisdictional wetland land cover is other riparian. This feature would be spanned by the proposed Site 6--El Nido 115kV Tie-Line and fiber optic cable. Other waters within the study area are constructed basins and constructed watercourses.

### ***Designated Critical Habitat***

Based on the previous Biological Resources Survey Memo there is no designated critical habitat in the RSA for the Site 6—El Nido TPSS and 115kV Tie-Line.

### ***Wildlife Movement Corridors***

The revised Site 6--El Nido TPSS and 115kV Tie-Line would not occur within or cross any Essential Connectivity Area identified by Spencer et al. (2010).

### ***Special-Status Plant and Wildlife Species***

Searches of the California Natural Diversity Database (CDFW 2016), and California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2016) databases were reviewed as part of development of this amendment. The likelihood of special-status plant and special-status wildlife occurrence within their respective RSAs is based on these inquiries and the sensitive natural communities and agricultural land cover types present within those RSAs. No additional special-status plant or wildlife species beyond those originally identified for the EINU were identified for the Site 6--El Nido TPSS and 115kV Tie-Line.

## **Impact Summary**

Construction of Site 6--El Nido TPSS and 115kV Tie-Line are described in further detail in Section 2.4.3, Major Construction Activities, of Appendix 2-D.1: Electrical Interconnections and Network Upgrades, Detailed Project Description. A figure that depicts direct impacts within mapped habitat and land cover types, are presented in Appendix A of this memorandum. The methods used for calculating acreage amounts of impacts to habitats, land cover types, and special-status species within the appropriate RSAs from implementation of Site 6--El Nido TPSS and 115kV Tie-Line construction activities are described in the Methods section of this memorandum.

### **Direct Impacts to Habitat/Land Cover Types in the Core Habitat Study Area**

Table 2 presents additional acreage amounts for direct impacts within the Core Habitat Study Area, including temporary and permanent, to habitat and land cover types associated with the revised Site 6--El Nido TPSS and 115kV Tie-Line.

### **Impacts to Habitats of Concern**

There are no additional temporary or permanent direct impacts to special-status plant communities or potentially jurisdictional waters within the RSAs associated with the Site 6--El Nido TPSS and 115kV Tie-Line.

## Impacts to Special-Status Species

There are no additional temporary or permanent direct impacts to special-status plant species within the RSAs associated with the Site 6--El Nido TPSS and 115kV Tie-Line. Table 3 presents the additional temporary and permanent direct impacts associated with the Site 6--El Nido TPSS and 115kV Tie-Line to the special-status wildlife species identified in the previous Biological Resources Survey Memo. Some species shown within Table 3 are included because of the presence of potentially suitable land covers within the RSA, although they have no additional temporary or permanent impacts from the Site 6--El Nido TPSS and 115kV Tie-Line. No new species would be subject to temporary or permanent direct impacts.

**Table 2 Additional Estimated Acres of Impact from Site 6--El Nido TPSS and 115kV Tie-Line by Land Cover Type**

Land Cover Type	Estimated Acres of Impact	
	Construction Period (Temporary Impacts)	Project Period (Permanent Impacts)
<b>Agricultural Lands</b>		
Field Crops (FIC)	4.75	0.00
Inactive Agriculture (INA)	2.87	1.35
Orchard (ORC)	2.94	0.00
Pasture (PAS)	0.00	0.00
<i>Subtotal</i>	<i>10.56</i>	<i>1.35</i>
<b>Developed Areas</b>		
Commercial/Industrial (COI)	0.13	0.00
Transportation Corridor (TRC)	2.38	<0.01
<i>Subtotal</i>	<i>2.51</i>	<i>&lt;0.01</i>
<b>Natural and Semi Natural Areas</b>		
Other Riparian (OTR)	0.00	0.00
Ruderal (RUD)	0.03	0.00
<i>Subtotal</i>	<i>0.03</i>	<i>0.00</i>
<b>Other Waters</b>		
Constructed Basin (COB)	0.00	0.00
Constructed Watercourse (COW)	0.00	0.00
<i>Subtotal</i>	<i>0.00</i>	<i>0.00</i>
<b>Total</b>	<b>13.10</b>	<b>1.35</b>

**Table 3 Additional Estimated Acres of Direct Impact from Site 6--El Nido TPSS and 115kV Tie-Line to Special-Status Wildlife Species**

Species Group and Species	Associated Land Cover Type	Effect Type	Acres
Valley elderberry longhorn beetle	MIR, OTR, PFW with elderberry shrubs	Direct Permanent	0.00
		Direct Temporary	0.00
		<b>Total</b>	<b>0.00</b>
Central Valley steelhead	NAW, OTR	Direct	0.00
		<b>Total</b>	<b>0.00</b>
Hardhead	NAW, OTR	Direct	0.00
		<b>Total</b>	<b>0.00</b>
California tiger salamander	Aquatic: FWM, OPW, SEW, VP	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Upland: BAR, AGS, MIR, OTR, PFW, PAS, RUD	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
<b>Total</b>	<b>0.0</b>		
Western spadefoot	Aquatic: FWM, OPW, SEW, VP	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Upland: BAR, AGS, RUD surrounding suitable aquatic habitat	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
<b>Total</b>	<b>0.00</b>		
Western pond turtle	Aquatic: FWM, NAW, OPW, PFW, SEW	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Upland: AGS, MIR, OTR, RUD within 1,300 feet of suitable aquatic habitat	Direct Permanent	0.00
		Direct Temporary	0.03
		<i>Subtotal</i>	<i>0.03</i>
<b>Total</b>	<b>0.03</b>		
Blunt-nosed leopard lizard	BAR, AGS, RUD within range	Direct Permanent	0.00
		Direct Temporary	0.03
		<b>Total</b>	<b>0.03</b>
Blainville's horned lizard	BAR, AGS, RUD within range	Direct Permanent	0.00
		Direct Temporary	0.03
		<b>Total</b>	<b>0.03</b>
Giant garter snake	Aquatic: FWM, NAW, OPW, RFW within range	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Upland: AGS, PAS within 200 feet of suitable aquatic habitat	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
<b>Total</b>	<b>0.00</b>		
American peregrine falcon	Foraging: BAR, AGS, COI, COB, COW, DAI, EUC, FAF, FIC, FWM, INA, MIR, NAW, OPW, ORC, OTR, PFW, PAS, RFW, ROC, RUD, SEW, SLO, TRC, URB, URW, VP, VIN	Direct Permanent	1.35
		Direct Temporary	12.97
		<b>Total</b>	<b>14.32</b>

Species Group and Species	Associated Land Cover Type	Effect Type	Acres
Bald eagle	Nesting: EUC, MIR, OTR, PFW	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Foraging: BAR, AGS, FAF, FIC, FWM, INA, NAW, OPW, PAS, RFW, ROC, RUD, SEW, SLO, VP	Direct Permanent	1.35
		Direct Temporary	7.65
		<i>Subtotal</i>	<i>0.00</i>
	<b>Total</b>		<b>9.00</b>
Golden eagle	Nesting: EUC, MIR, OTR, PFW	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Foraging: BAR, AGS, FAF, FIC, FWM, INA, PAS, RFW, ROC, RUD, SEW, SLO, VP	Direct Permanent	1.35
		Direct Temporary	7.65
		<i>Subtotal</i>	<i>0.00</i>
	<b>Total</b>		<b>9.00</b>
Swainson's hawk	Nesting: EUC, MIR, ORC, OTR, TRC,	Direct Permanent	0.00
		Direct Temporary	5.32
		<i>Subtotal</i>	<i>5.32</i>
	Foraging: BAR, AGS, FAF, FIC, INA, PAS, ROC, RUD, SEW, TRC	Direct Permanent	1.35
		Direct Temporary	10.03
		<i>Subtotal</i>	<i>10.38</i>
	Nesting and Foraging: TRC	Direct Permanent	0.00
		Direct Temporary	2.38
		<i>Subtotal</i>	<i>2.38</i>
	<b>Total</b>		<b>18.08</b>
Greater sandhill crane	Foraging: AGS, FAF, FIC, FWM, INA, PAS, RFW, ROC, RUD, SEW	Direct Permanent	1.35
		Direct Temporary	7.65
		<b>Total</b>	<b>9.00</b>
Western snowy plover (interior population)	Foraging: BAR, AGS, FAF, FIC, INA, PAS, RFW, ROC, RUD	Direct Permanent	1.35
		Direct Temporary	7.65
		<b>Total</b>	<b>9.00</b>
Least Bell's vireo	Nesting: MIR, OTR, PFW Foraging: FWM, MIR, NAW, OTR, PFW	Direct Permanent	0.00
		Direct Temporary	0.00
		<b>Total</b>	<b>0.00</b>
Tricolored blackbird	Nesting: COW, NAW, OPW,	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	<i>0.00</i>
	Foraging: AGS, DAI, INA, MIR, OTR, PAS, VP	Direct Permanent	1.35
		Direct Temporary	2.87
		<i>Subtotal</i>	<i>4.22</i>
	Nesting / Foraging: FIC, FRM, SEW	Direct Permanent	0.00
		Direct Temporary	4.75
		<i>Subtotal</i>	<i>4.75</i>
<b>Total</b>		<b>8.97</b>	
Western burrowing owl	Nesting/Foraging: BAR, AGS, COI, COW, INA, ORC, RUD, RUR, TRC, URB	Direct Permanent	1.35
		Direct Temporary	8.22
		<b>Total</b>	<b>9.57</b>
Special-status ground nesting bird species	Nesting/Foraging: BAR, AGS, FAF, FIC, FWM, INA, PAS, RUD, SEW, TRC	Direct Permanent	1.35
		Direct Temporary	10.03
		<b>Total</b>	<b>11.38</b>

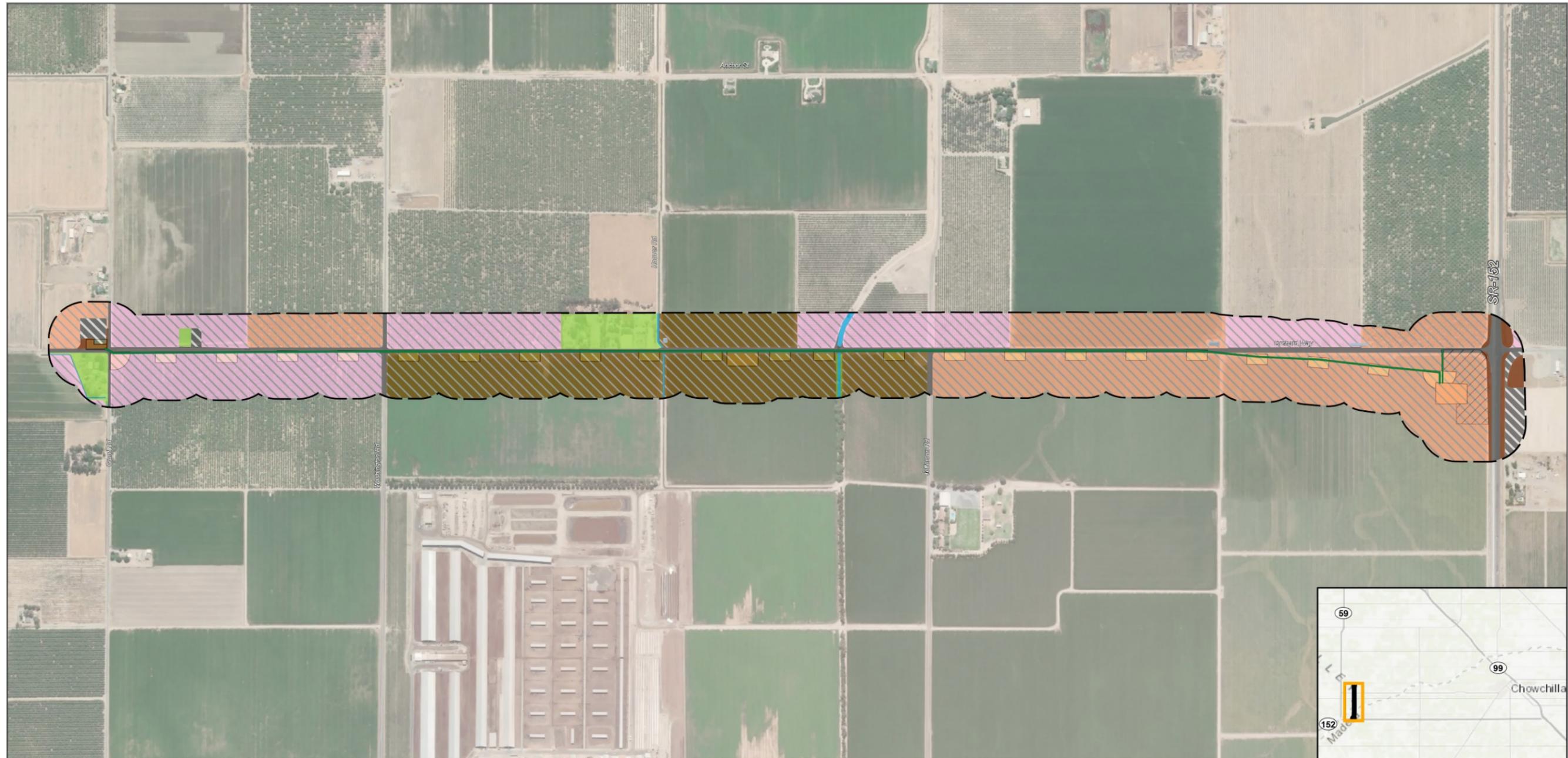
Species Group and Species	Associated Land Cover Type	Effect Type	Acres
Special-status wading bird/shorebird/ duck species	Nesting: COB, COW, FWM, MIR, NAW, OPW, OTR, PFW, PAS, SEW	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	0.00
	Foraging: BAR, AGS, COB, COW, FAF, FIC, FWM, INA, MIR, NAW, OPW, OTR, PFW, PAS, RFW, ROC, RUD, SEW, VP	Direct Permanent	1.35
		Direct Temporary	7.65
		<i>Subtotal</i>	9.00
	<b>Total</b>		<b>9.00</b>
Special-status tree-nesting bird species	Nesting: EUC, MIR, ORC, OTR, PFW, TRC	Direct Permanent	0.00
		Direct Temporary	<0.01
		<i>Subtotal</i>	<0.01
	Foraging: AGS, FAF, FIC, FWM, INA, MIR, ORC, OTR, PFW, PAS, ROC, RUD, SEW, TRC	Direct Permanent	1.35
		Direct Temporary	12.43
		<i>Subtotal</i>	13.78
	<b>Total</b>		<b>13.78</b>
Pallid bat	Roosting: MIR, OTR, PFW, Foraging: BAR, AGS, COI, COB, COW, DAI, EUC, FAF, FIC, FWM, INA, MIR, NAW, OPW, ORC, OTR, PFW, PAS, ROC, RUD, SEW, TRC, URB, VP, VIN	Direct Permanent	1.35
		Direct Temporary	13.10
		<b>Total</b>	<b>14.45</b>
Western red bat	Roosting: MIR, OTR, PFW Foraging: BAR, AGS, COI, COB, COW, DAI, EUC, FAF, FIC, FWM, INA, MIR, NAW, OPW, ORC, OTR, PFW, PAS, ROC, RUD, SEW, TRC, URB, VP, VIN	Direct Permanent	1.35
		Direct Temporary	13.10
		<b>Total</b>	<b>14.45</b>
Western mastiff bat	Foraging: BAR, AGS, COI, COB, COW, DAI, EUC, FAF, FIC, FWM, INA, MIR, NAW, OPW, ORC, OTR, PFW, PAS, ROC, RUD, RUR, SEW, TRC, URB, VP, VIN	Direct Permanent	1.35
		Direct Temporary	13.10
		<b>Total</b>	<b>14.45</b>
Townsend's big-eared bat	Roosting/Foraging: MIR, OTR	Direct Permanent	0.00
		Direct Temporary	0.00
		<b>Total</b>	<b>0.00</b>
Ringtail	MIR, OTR, PFW	Direct Permanent	0.00
		Direct Temporary	0.00
		<b>Total</b>	<b>0.00</b>
American badger	BAR, AGS, INA, MIR, OTR, PAS, RUD	Direct Permanent	1.35
		Direct Temporary	2.90
		<b>Total</b>	<b>4.25</b>
San Joaquin kit fox	Denning: COW	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	0.00
	Denning and Movement: AGS, COW, PAS, RUD	Direct Permanent	0.00
		Direct Temporary	0.00
		<i>Subtotal</i>	0.00
	Movement: BAR, INA, ORC, ROC, RUD	Direct Permanent	0.00
		Direct Temporary	1.28
		<i>Subtotal</i>	1.28
	<b>Total</b>		<b>1.28</b>

## REFERENCES

- California Department of Fish and Wildlife. (CDFW). 2016. California Natural Diversity Database (CNDDDB). Commercial version dated February 28, 2016. Biogeographic Data Branch, Sacramento, CA. (Accessed on August 8, 2016).
- California High-Speed Rail Authority and Federal Railroad Administration (Authority and FRA). [2009]. 2011. *Central Valley Biological Resources and Wetlands Survey Plan*. San Jose to Merced Section. Merced to Fresno Section. Fresno to Bakersfield Section. Prepared by: URS/HMM/Arup Joint Venture, CH2M Hill, and ICF Jones and Stokes.
- . 2016. *Merced to Fresno: Central Valley Wye Biological Resources and Wetlands Technical Report*. Sacramento, CA and Washington, D.C. Prepared by ICF International.
- CNPS, Rare Plant Program. 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> (Accessed 04 August 2016).
- Cowardin, L.M., V. Carter, F. Golet, and E. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Northern Prairie Wildlife Research Center Online. Washington, D.C., Jamestown, ND. <http://pubs.er.usgs.gov/publication/2000106>. Version 04DEC1998.
- Holland, Robert F. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game, Sacramento, CA.
- Mayer, Kenneth E and William F. Laudenslayer, Jr. 1988. *A Guide to Wildlife Habitats of California*. State
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, 2<sup>nd</sup> Edition. California Native Plant Society, Sacramento, CA.
- United States Fish and Wildlife Service. 2016. U.S. Critical Habitat Data. <http://ecos.fws.gov/crithab/> (Accessed July 14, 2016).

**Appendix A**  
**Habitat and Land Cover Types in the Site 6--El Nido TPSS and 115kV**  
**Tie-Line Study Area**

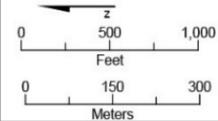




PRELIMINARY DRAFT/SUBJECT TO CHANGE  
 Source: Ascent Environmental 2018; ENGEO 2017, 2018; Kleinfelder 2018  
 Imagery Source: 2017 NAIP Imagery

December 3, 2018  
 G15010064 01 256

- |                               |                             |              |                         |                                     |
|-------------------------------|-----------------------------|--------------|-------------------------|-------------------------------------|
| ----- Ascent Environmental    | Fiber Optic Cable Man-Hole  | TPSS 6       | Land Cover              | Pasture (Includes Rural Residences) |
| ----- El Nido 115 kV Tie-Line | Fiber Optic Cable Work Area | Access Road  | Agriculture (Inactive)  | Field Crops                         |
| — El Nido Fiber Optic Cable   | Pole Work Area              | Staging Area | Constructed Basin       | Ruderal                             |
|                               | Pull Tension Site           |              | Constructed Watercourse | Commercial/Industrial               |
|                               |                             |              | Other Riparian          | Transportation Corridor             |
|                               |                             |              | Orchard                 |                                     |



**Habitat and Land Cover Types in the Site 6--El Nido TPSS and 115kV Tie-Line Study Area**