

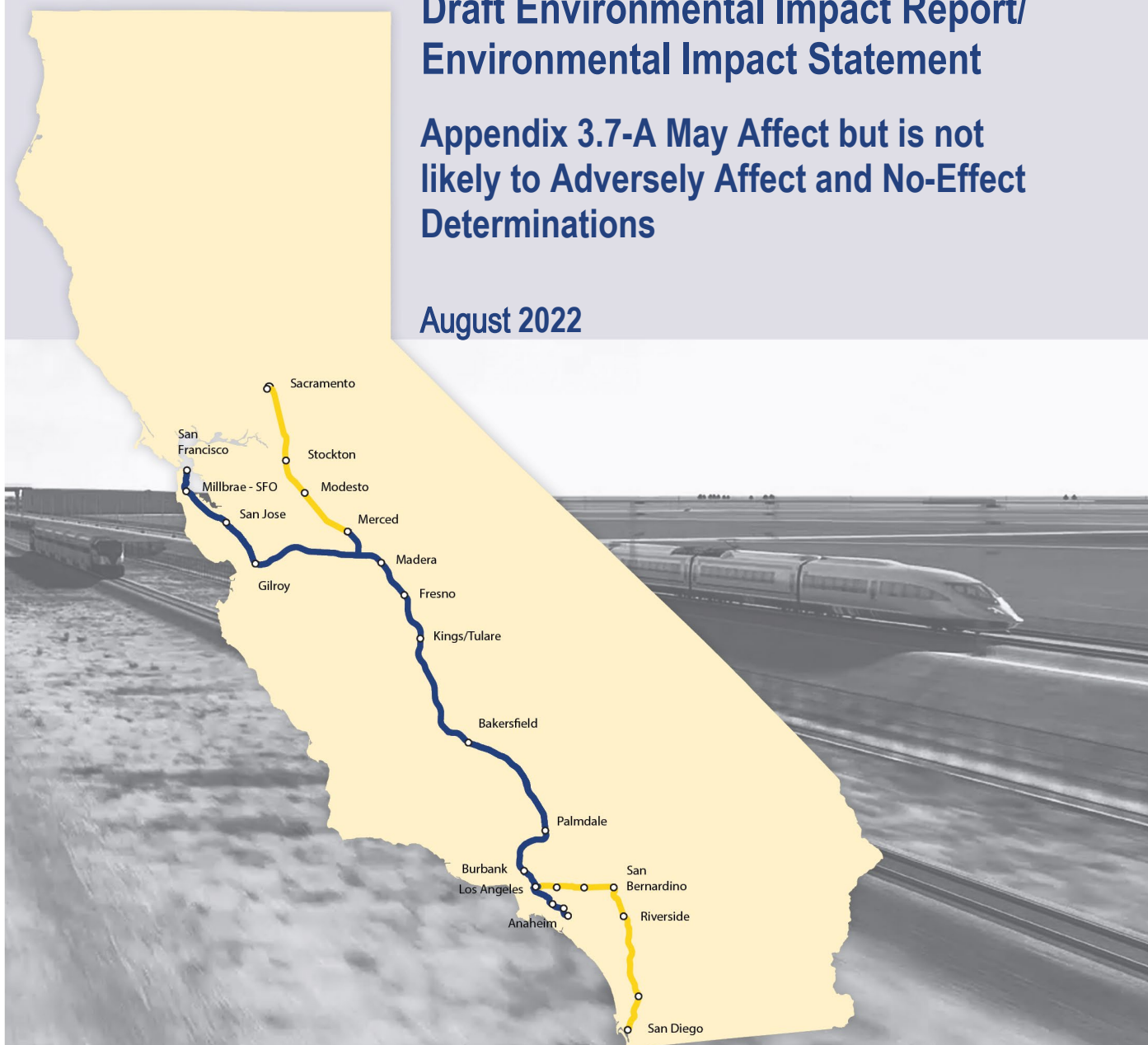
California High-Speed Rail Authority

# Palmdale to Burbank Project Section

Draft Environmental Impact Report/  
Environmental Impact Statement

Appendix 3.7-A May Affect but is not  
likely to Adversely Affect and No-Effect  
Determinations

August 2022



The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.

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This appendix includes additional information supporting the rationale for the “may affect but is not likely to adversely affect” and the no potential to occur/“no effect” determinations. The Authority requests concurrence with these determinations from USFWS.

## Braunton’s Milkvetch

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect Braunton’s milkvetch (*Astragalus brauntonii*), a federally endangered and a U.S. Forest Service (USFS) sensitive species.

### Rationale

The Authority reviewed species information for Braunton’s milkvetch from the USFWS five-year species review, CNDDDB, and other relevant data sources (see list of references). Botanical surveys were conducted in 2016 and 2017 (see Section 4.1.2 of this Biological Assessment). Data analyzed included known occurrence records (Figure 3.7-A-1 and Figure 3.7-A-2), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Braunton’s milk-vetch is endemic to the Santa Monica Mountains, Simi Hills, San Gabriel Mountains, and Santa Ana Mountains in coastal southern California. The CNDDDB reports 44 occurrences, of which 39 are presumed extant and five are extirpated or possibly extirpated. The nearest record documented by the CNDDDB is an extirpated occurrence located approximately 5.8 miles south of the action area and north of Beverly Hills. No extant occurrences of Braunton’s milk-vetch are documented within 10 miles of the action area (CDFW 2020). According to the USFS, populations of Braunton’s milk-vetch not documented in the CNDDDB occur near the proposed action in the Angeles National Forest (ANF). However, these populations do not occur in the action area. The species was not observed during the 2016 and 2017 botanical surveys conducted for the proposed action. The nearest critical habitat is 14 miles southwest of the action area in the Santa Monica Mountains (USFWS 2020; USFWS 2006).

### Conclusion

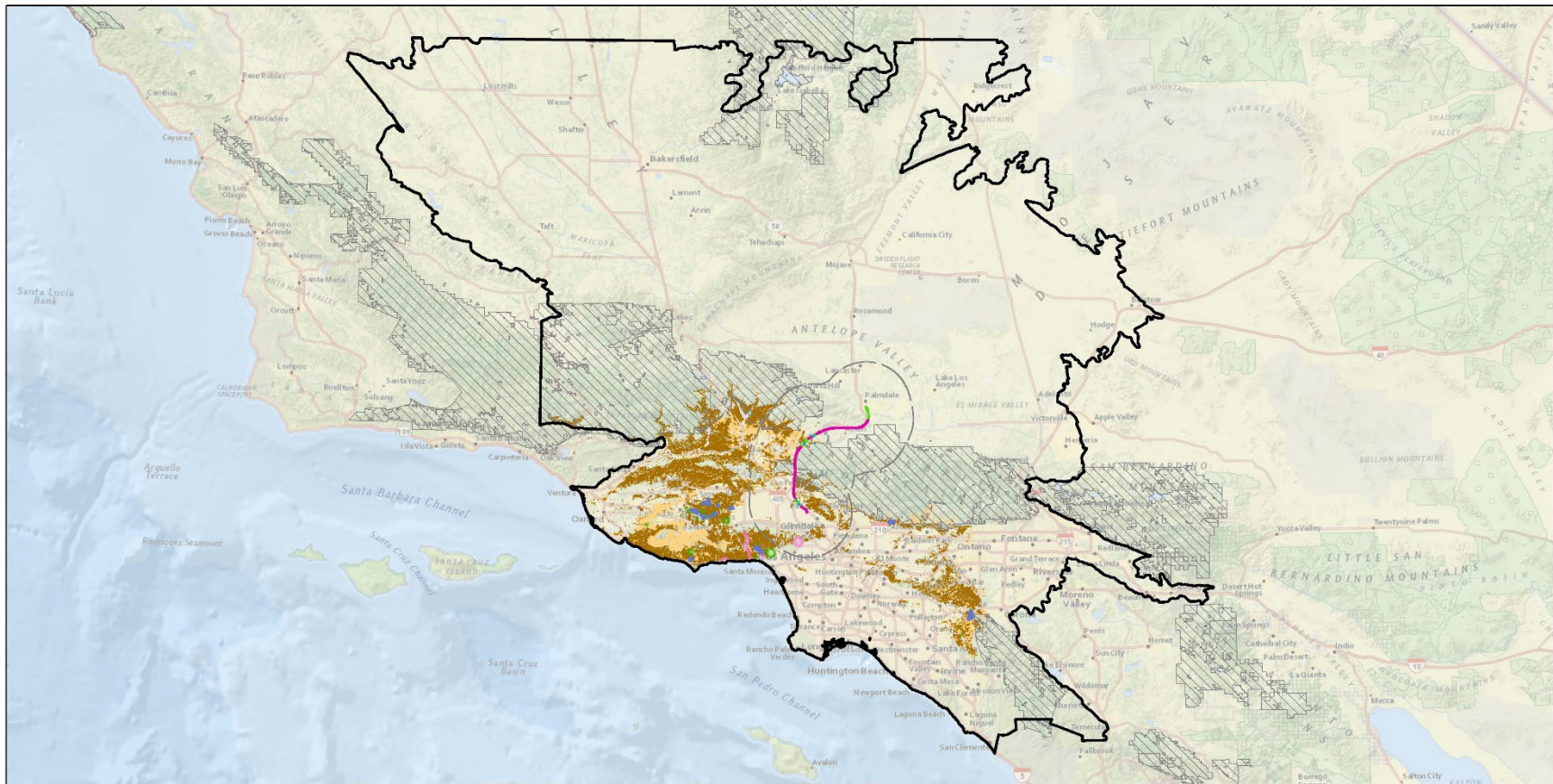
The Braunton’s milk-vetch reported by the USFS in the ANF will be avoided and will not be directly affected by the proposed action. Based on the lack of other documented occurrences of the species within 10 miles of the action area, the proposed action may affect but is not likely to adversely affect any Braunton’s milk-vetch. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species, Braunton’s milk-vetch are not expected to occur in the action area (USFWS 2019a).

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species during the species bloom period. If Braunton’s milk-vetch is observed, no project activities that could adversely affect the species will be conducted within 100 feet of individuals. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### References

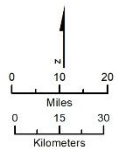
- Calflora. 2019. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2019. Berkeley, California: The Calflora Database [a non-profit organization]. <https://www.calflora.org/>. (Accessed 2019).
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- California Native Plant Society (CNPS), Rare Plant Program. 2019. *Inventory of Rare and Endangered Plants* (online edition, v8-03 0.39). <http://www.rareplants.cnps.org>. (Accessed 2019).
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- . 2019b. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2019).
- . 2020. *Critical Habitat Portal*. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2019).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDDB (08/2020), USFWS Critical Habitat (09/2020).

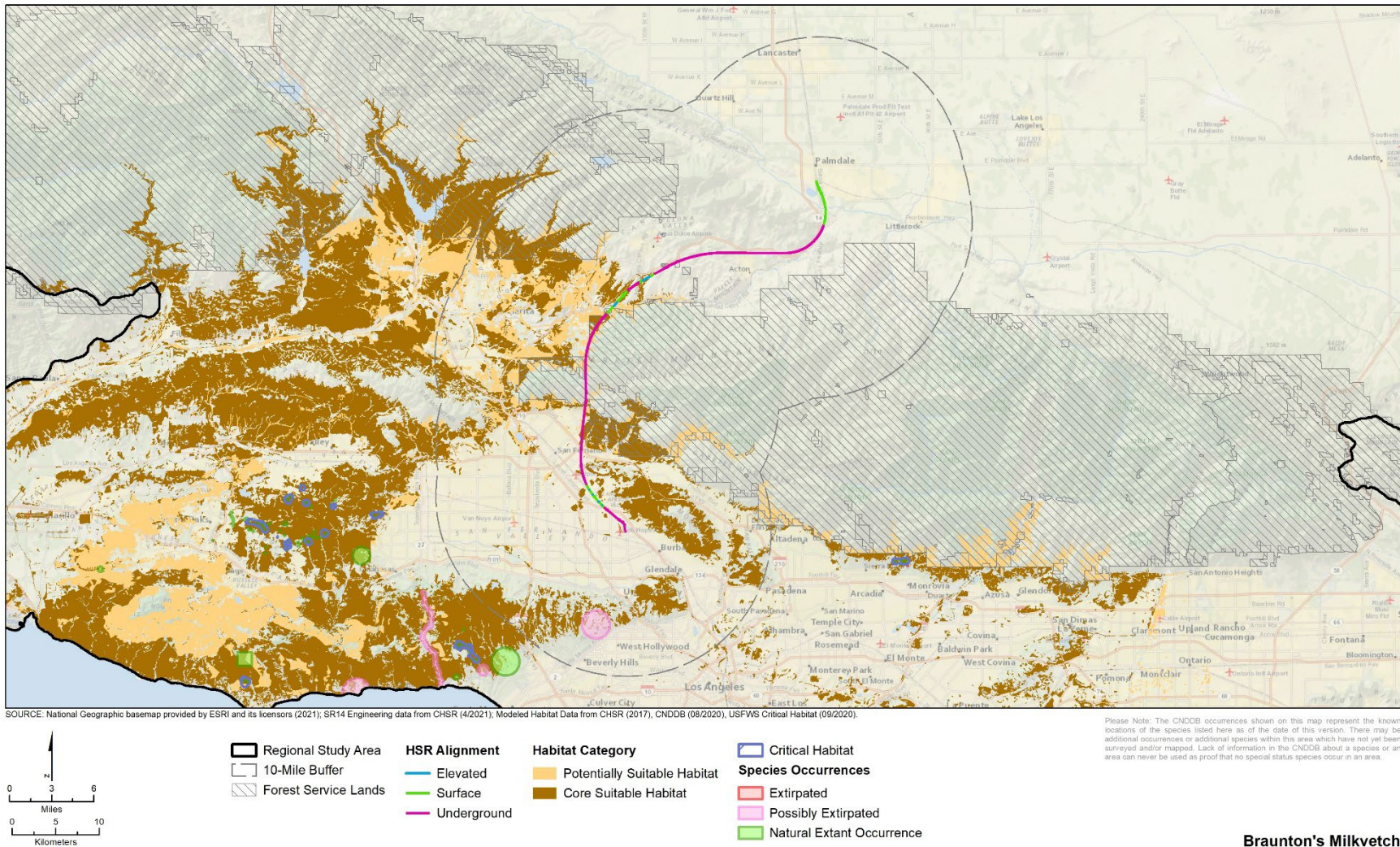
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                              |                           |
|----------------------|---------------|------------------------------|---------------------------|
| Regional Study       | HSR Alignment | Habitat Category             | Critical Habitat          |
| 10-Mile Buffer       | Elevated      | Potentially Suitable Habitat | Species Occurrences       |
| Forest Service Lands | Surface       | Core Suitable Habitat        | Extirpated                |
|                      | Underground   |                              | Possibly Extirpated       |
|                      |               |                              | Natural Extant Occurrence |

Braunton's Milkvetch

Figure 3.7-A-1 Braunton's Milkvetch Occurrences and Habitat in the Regional Study Area



**Figure 3.7-A-1 Braunton's Milkvetch Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

**Braunton's Milkvetch**



## Gambel's Watercress

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect Gambel's watercress (*Nasturtium gambelii*), a federally endangered and State threatened species.

### Rationale

The Authority reviewed species information for Gambel's watercress that was available on the USFWS' Environmental Conservation Online System and the Endangered Species Recovery Program websites for range information, and the CNDDDB for occurrence records relative to the proposed action (see list of references).

Historical records of Gambel's watercress indicate it inhabited low, marshy areas below approximately 1,480 feet in proximity to the coast from San Luis Obispo County south to Orange and San Bernardino Counties (USFWS 2011; CNPS 2019). All documented populations south of Santa Barbara County are now considered extirpated (CNDDDB 2019; Figure 3.7-A-3 and Figure 3.7-A-4). The proposed action is over 100 miles from the only extant documented populations, located in Santa Barbara County (at Vandenberg Air Force Base) and in San Luis Obispo County (USFWS 2011; Calflora 2019; CNPS 2019). The three populations in San Luis Obispo County appear to have suffered genetic introgression from common watercress (*Nasturtium officinale*; USFWS 2011).

The southern portion of the proposed action in the San Fernando and Burbank areas overlap the historical geographic and elevation range of Gambel's watercress. These areas are completely developed, with the exception of remaining 'natural' vegetation limited to small areas of upland vegetation on hills and scattered patches of common riparian and non-native species between the concrete-lined banks of Tujunga Wash and Pacoima Wash.

The last observation of Gambel's watercress in the Los Angeles area, which has been extensively surveyed in the past century, was in 1904 (CNDDDB Occurrence Number 7, at "Cienega." This occurrence is mapped to within approximately 11 miles southeast of the proposed action. Any suitable habitat that may have existed in this area has been removed by urbanization and by the channelization of Ballona Creek and the Los Angeles River, which began in 1938 and was completed by 1960 (County of Los Angeles, n.d.). Low-lying areas that remain consist of artificial basins and channels that are regularly maintained. The Los Angeles River's urban flood control channels are predominantly vegetated with common native riparian species and non-native, ruderal and invasive species.

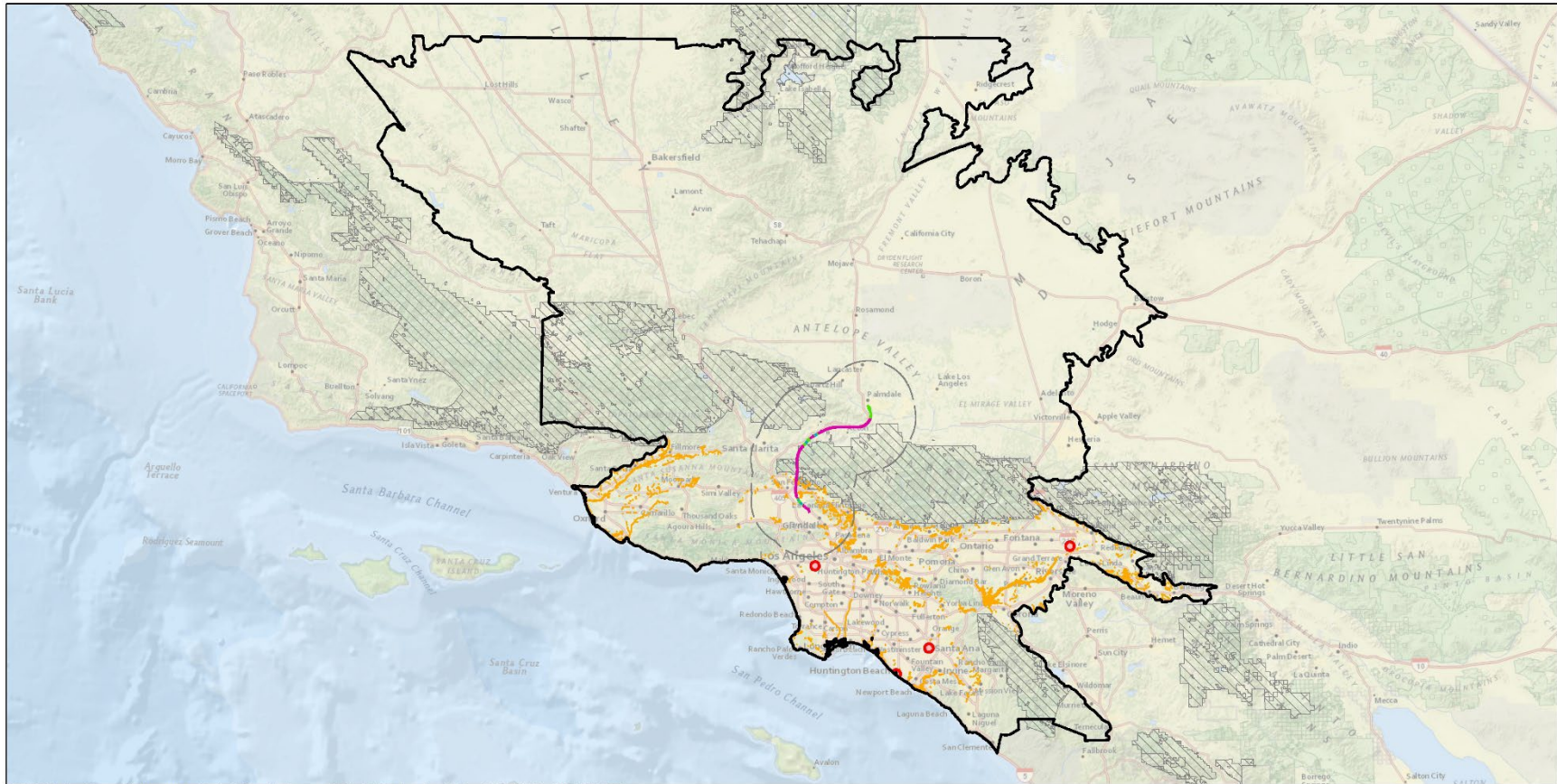
### Conclusion

Given the absence of suitable habitat and the distance to known populations, the proposed action may affect but is not likely to adversely affect Gambel's watercress.

To ensure that this species is not present at the time of construction, suitable marsh and wetland habitat within the historical geographic and elevation range of the species that are within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted during the peak flowering season of the species (May or June) by a Designated Biologist familiar with the distinguishing characteristics of the species. If Gambel's watercress is observed, no project activities that could adversely affect the species will be conducted within 100 feet of individuals. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria.

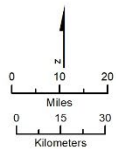
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- Calflora. 2019. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2019. Berkeley, California: The Calflora Database [a non-profit organization]. <https://www.calflora.org/>. (Accessed: December 11, 2019).
- California Native Plant Society (CNPS), Rare Plant Program. 2019. *Inventory of Rare and Endangered Plants* (online edition, v8-03 0.39). <http://www.rareplants.cnps.org>. (Accessed December 11, 2019).
- California Department of Fish and Wildlife (CDFW). *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- Consortium of California Herbaria. 2019. Records of special-status plant data provided by the participants of the Consortium of California Herbaria. <http://ucjeps.berkeley.edu/consortium/>. (Accessed December 11, 2019).
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- Los Angeles, County of. n.d. "History of the Los Angeles River." *Department of Public Works*. <http://ladpw.org/wmd/watershed/LA/history.cfm>. (Accessed July 7, 2016).
- Mazer, S., A. Parikh, and N. Gale. 2000. *Arenaria paludicola* (marsh sandwort: Caryophyllaceae) and *Rorippa gambelii* (Gambel's watercress: Brassicaceae) in Black Lake Canyon and the Oso Flaco Lake Region. Joint Report for FG 7590-R3 and FG8647-R3. California State Department of Fish and Game, Vol. 1. 145 pp.
- U.S. Fish and Wildlife Service (USFWS). 1998. Recovery Plan for Marsh Sandwort (*Arenaria paludicola*) and Gambel's Watercress (*Rorippa gambelii*). Portland, OR.
- . 2011. *Rorippa gambelii* [*Nasturtium gambelii*] (Gambel's watercress) 5-Year Review: Summary and Evaluation. Ventura, CA.
- . 2019. Recovery Plan Amendment for Marsh Sandwort and Gambel's Watercress. Ventura, CA.



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), CNDDB (08/2020).

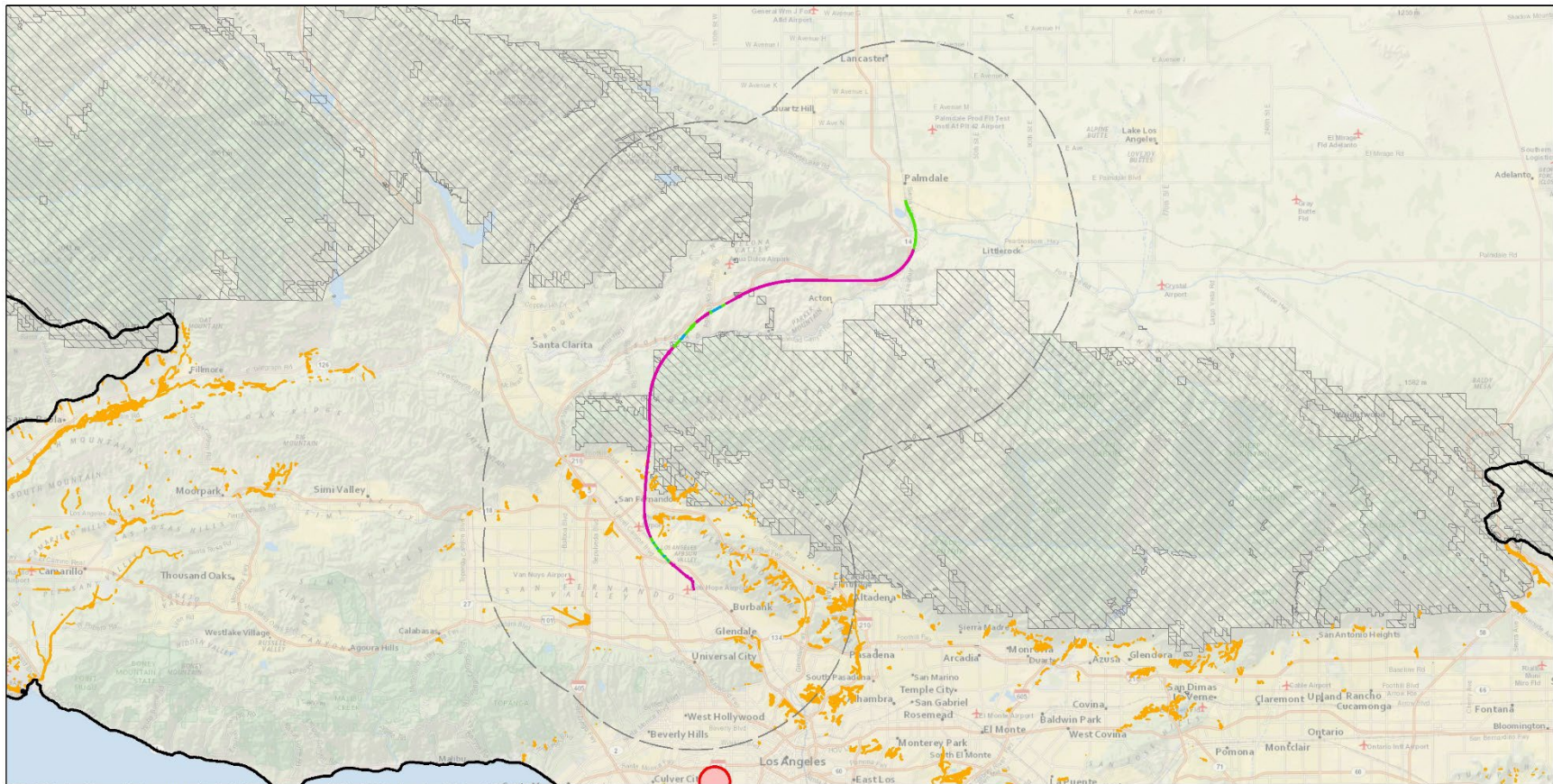
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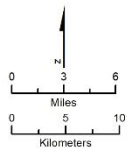
- |                      |               |                              |                     |
|----------------------|---------------|------------------------------|---------------------|
| Regional Study       | HSR Alignment | Habitat Category             | Species Occurrences |
| 10-Mile Buffer       | Elevated      | Potentially Suitable Habitat | Extirpated          |
| Forest Service Lands | Surface       |                              |                     |
|                      | Underground   |                              |                     |

Gambel's Water Cress

Figure 3.7-A-2 Gambel's Watercress Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020)



- |                      |               |                              |                     |
|----------------------|---------------|------------------------------|---------------------|
| Regional Study       | HSR Alignment | Habitat Category             | Species Occurrences |
| 10-Mile Buffer       | Elevated      | Potentially Suitable Habitat | Extirpated          |
| Forest Service Lands | Surface       |                              |                     |
|                      | Underground   |                              |                     |

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

**Gambel's Water Cress**

**Figure 3.7-A-3 Gambel's Watercress Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Marsh Sandwort

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect marsh sandwort (*Arenaria paludicola*), a federally endangered and State endangered species.

### Rationale

The Authority reviewed species information for marsh sandwort from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-5 and Figure 3.7-A-6), and habitat and range information relative to the proposed action.

Historical records for marsh sandwort indicate it occurred along the Pacific coast from central Washington to southern California, and was associated with wetlands and freshwater marsh habitats below 1,480 feet with or without standing water, and acidic, organic bog soils and sandy substrates with high organic content (USFWS 2008; CNPS 2019).

The occurrence records document ten historical sites within six general locations (USFWS 2008). The species is considered extirpated from all these locations with the exception of one in southern San Luis Obispo County. The San Luis Obispo location consists of two tenuous populations at two separate sites (CNDDDB Occurrence Numbers 3, 4, 9, 12, and 14) (USFWS 2008; CNDDDB 2019). The proposed action is located more than 70 miles from these populations. There have been attempts to reestablish the species in other locations, but none of these attempts have been reported successful (USFWS 2008).

There are two CNDDDB occurrence locations. In the Los Angeles basin, two historical collections of the species from "Cienega" in 1890 and in 1900 (CNDDDB Occurrence Number 15, roughly mapped to within approximately 11 miles southeast of the proposed action). A second occurrence record or location in southern California was a population along the Santa Ana River near San Bernardino collected in 1899 (CNDDDB Occurrence No. 8). Marsh sandwort is considered extirpated in both locations. Any suitable habitat near the proposed action in the Los Angeles area has been altered and removed by urbanization and by the channelization of Ballona Creek and the Los Angeles River, which began in 1938 and was completed by 1960 (County of Los Angeles, n.d.). Low-lying areas that remain consist of artificial basins and channels that are regularly maintained.

Only the southern portion of the proposed action in the San Fernando and Burbank areas overlap the historical geographic and elevation range of marsh sandwort. This area is nearly completely developed. Any remaining 'natural' vegetation in this area is limited to small areas of upland vegetation on hills and scattered patches of common riparian and non-native species between the concrete-lined banks of Tujunga Wash and Pacoima Wash.

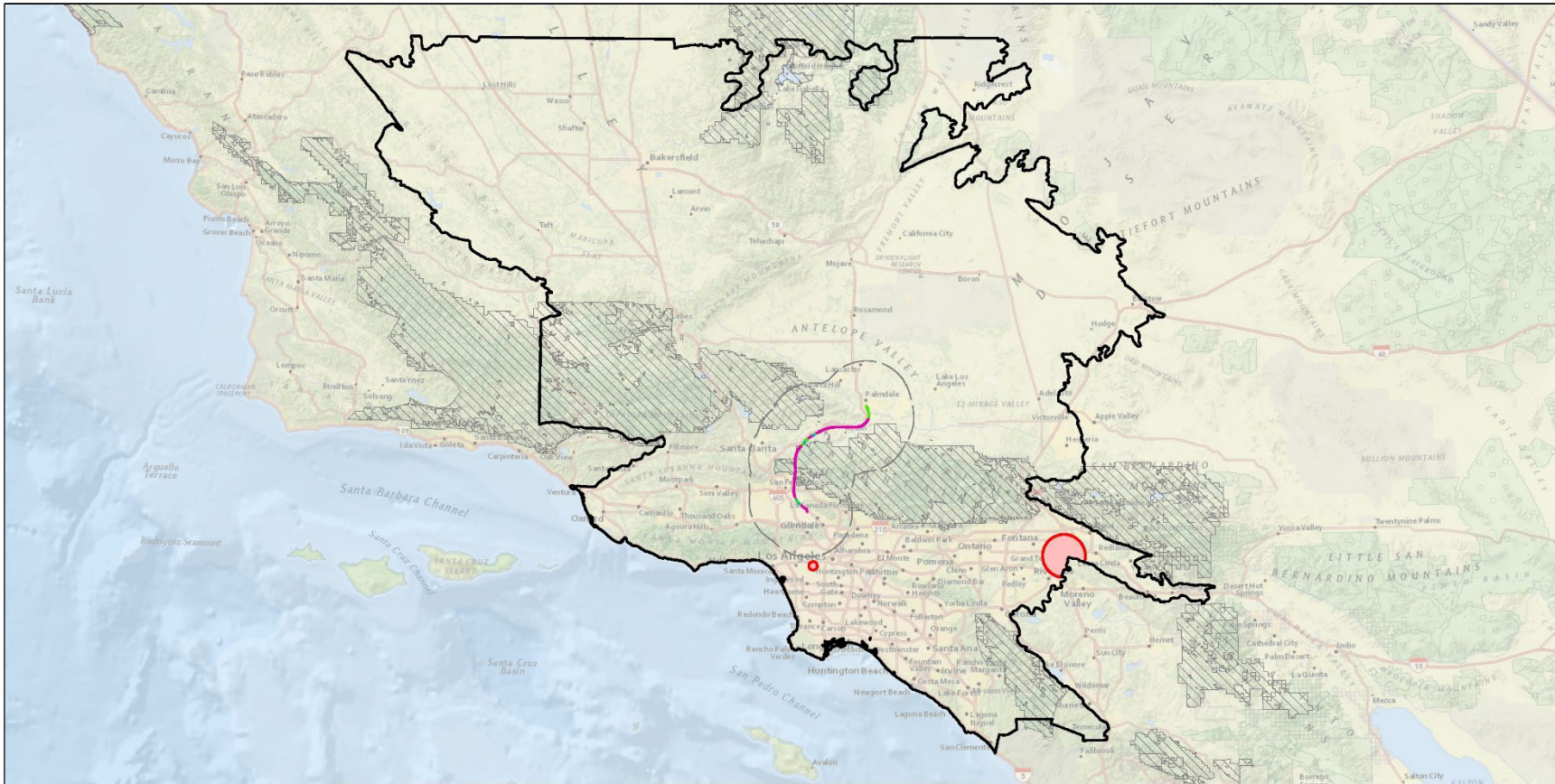
### Conclusion

Given the absence of suitable habitat and the distance to known populations, the proposed action may affect but is not likely to adversely affect marsh sandwort.

To ensure that this species is not present at the time of construction, suitable marsh and wetland habitat within the historical geographic and elevation range of the species that are within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted during the peak flowering season of the species (May or June) by a Designated Biologist familiar with identifying characteristics of the species. If marsh sandwort is observed no project activities that could adversely affect the species will be conducted within 100 feet of individuals. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

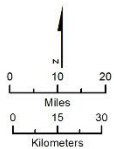
## References

- Calflora. 2019. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2019. Berkeley, California: The Calflora Database [a non-profit organization]. <https://www.calflora.org/>. (Accessed: December 11, 2019).
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- Mazer, S., A. Parikh, and N. Gale. 2000. *Arenaria paludicola* (marsh sandwort: Caryophyllaceae) and *Rorippa gambelii* (Gambel's watercress: Brassicaceae) in Black Lake Canyon and the Oso Flaco Lake Region. Joint Report for FG 7590-R3 and FG8647-R3. California State Department of Fish and Game, Vol. 1. 145 pp.
- U.S. Fish and Wildlife Service (USFWS). 1998. Recovery Plan for Marsh Sandwort (*Arenaria paludicola*) and Gambel's Watercress (*Rorippa gambelii*). Portland, OR.
- . 2008. *Arenaria paludicola* Marsh Sandwort; 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office, Ventura, California.
- . 2019. Recovery Plan Amendment for Marsh Sandwort and Gambel's Watercress. Ventura, CA.



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), CNDDDB (08/2020).

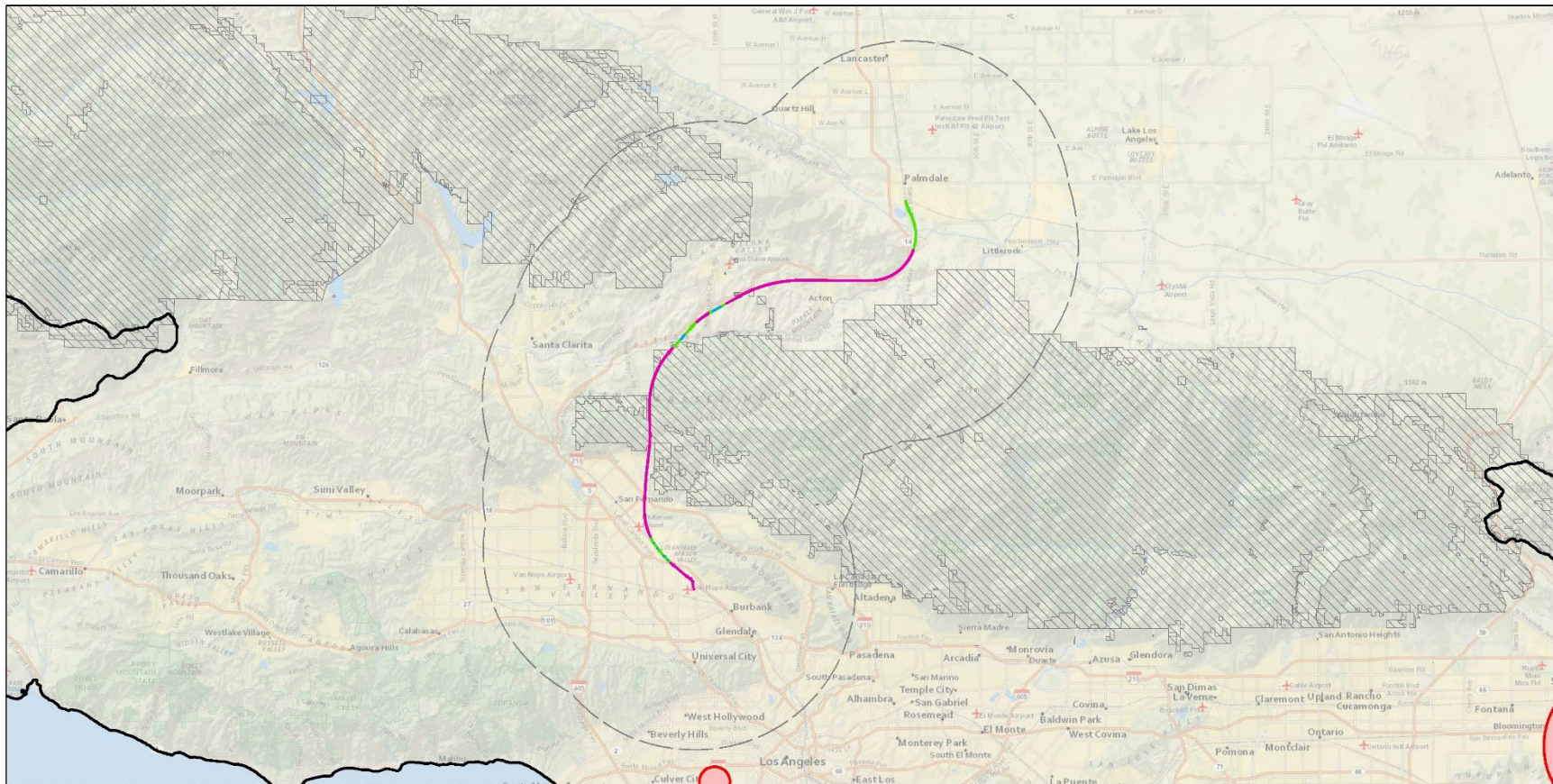
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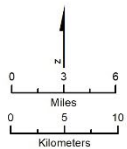
- |                      |               |                            |
|----------------------|---------------|----------------------------|
| Regional Study Area  | HSR Alignment | <b>Species Occurrences</b> |
| 10-Mile Buffer       | Elevated      | Extirpated                 |
| Forest Service Lands | Surface       |                            |
|                      | Underground   |                            |

Marsh Sandwort

Figure 3.7-A-4 Marsh Sandwort Occurrences in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020)



- |                      |               |                     |
|----------------------|---------------|---------------------|
| Regional Study Area  | HSR Alignment | Species Occurrences |
| 10-Mile Buffer       | Elevated      | Extirpated          |
| Forest Service Lands | Surface       |                     |
|                      | Underground   |                     |

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

**Marsh Sandwort**

**Figure 3.7-A-5 Marsh Sandwort Occurrences in the Vicinity of the Palmdale to Burbank Project Section**



## Nevin's Barberrry

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect Nevin's barberry (*Berberis nevinii*), a federally endangered and USFS sensitive species.

### Rationale

The Authority reviewed species information for Nevin's barberry from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). Botanical surveys were conducted in 2016 and 2017 and a focused Nevin's barberry survey was conducted near Lopez Canyon in the ANF in 2017 (see Section 4.1.2 of this Biological Assessment). Data analyzed included known occurrence records (Figure 3.7-A-7 and Figure 3.7-A-8), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Nevin's barberry is endemic to California and occurs in the South Coast region of the State, including the San Gabriel Mountains (USFWS 2009). The historical distribution of Nevin's barberry likely consisted of fewer than 30 scattered occurrences in Los Angeles, Riverside, San Bernardino, and San Diego counties (USFWS 2009). Five presumed extant occurrences of Nevin's barberry are documented from 2000 and later and occur within 10 miles of the action area (CDFW 2020). The closest occurrence, in year 2000, was located approximately 0.9 mile east of the action area near the eastern edge of the San Fernando Valley near Lopez Canyon Road. One individual was observed at this location during project surveys in 2019; the location of the observed individual is well outside the action area and the proposed action will avoid this individual. Three additional extant occurrences, located five to six miles south of the action area, include individuals transplanted in Griffith Park. One extirpated occurrence from 1941 was documented approximately 0.6 mile west of the action area, in a heavily developed area of the San Fernando Valley.

Designated critical habitat is approximately 90 miles southeast of the action area, 10 miles east of Temecula (USFWS 2020).

### Conclusion

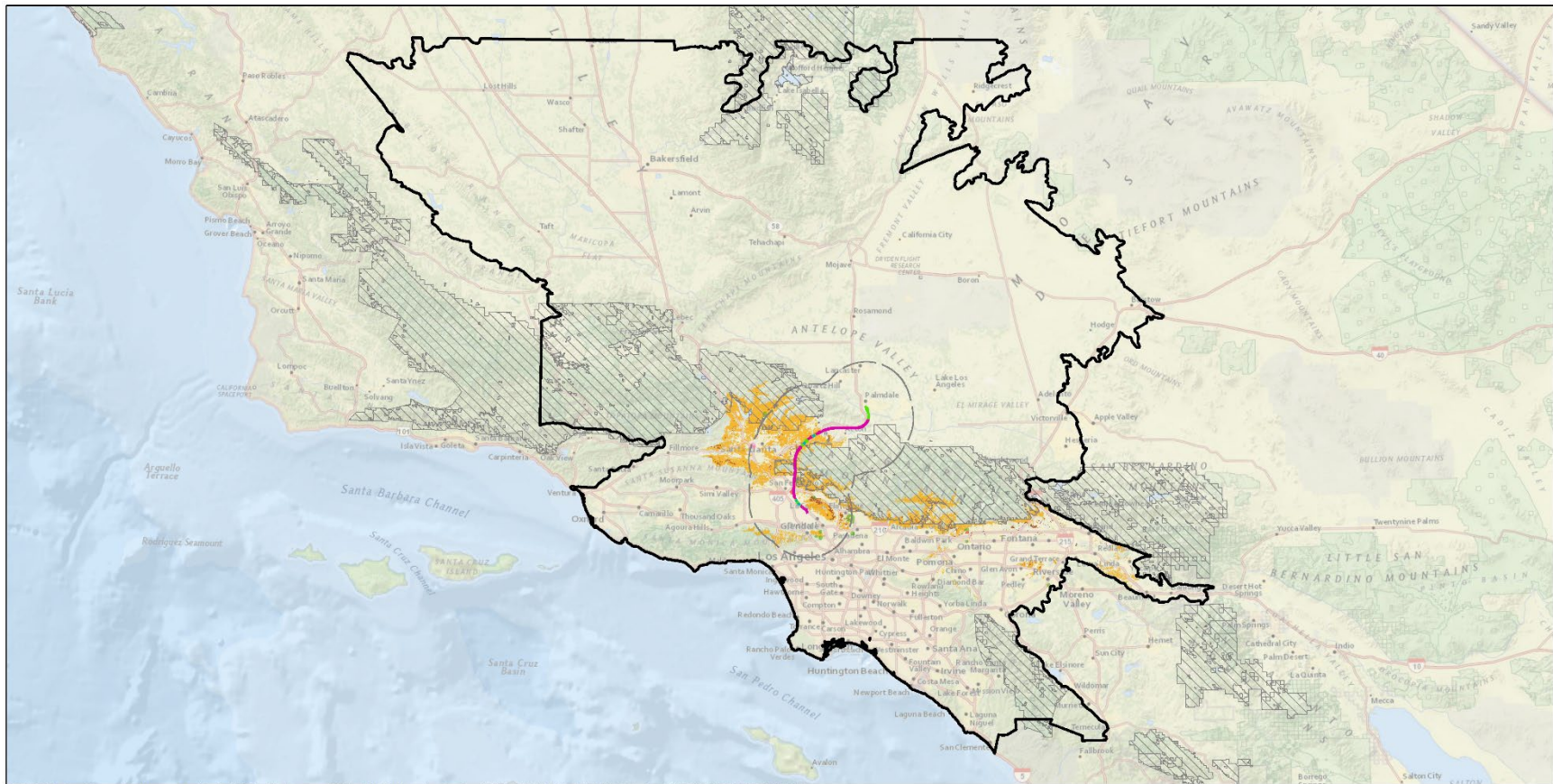
The Nevin's barberry individual in Lopez Canyon occurs well outside the action area and will be avoided and will not be directly affected by the proposed action. Based on the lack of other documented occurrences in the vicinity of the action area, the proposed action may affect but is not likely to adversely affect any Nevin's barberry. Furthermore, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species, Nevin's barberry are not expected to occur in the action area (USFWS 2019).

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species during the species bloom period. If Nevin's barberry is observed, no project activities that could adversely affect the species will be conducted within 100 feet of individuals. The Authority will reinstate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

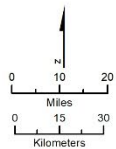
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- . 2019. Meetings with the California High-Speed Rail Authority regarding Nevin's barberry. October 24, 2019 and November 22, 2019.
- . 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Modeled Habitat Data from CHSR (2017); CNDDB (08/2020).

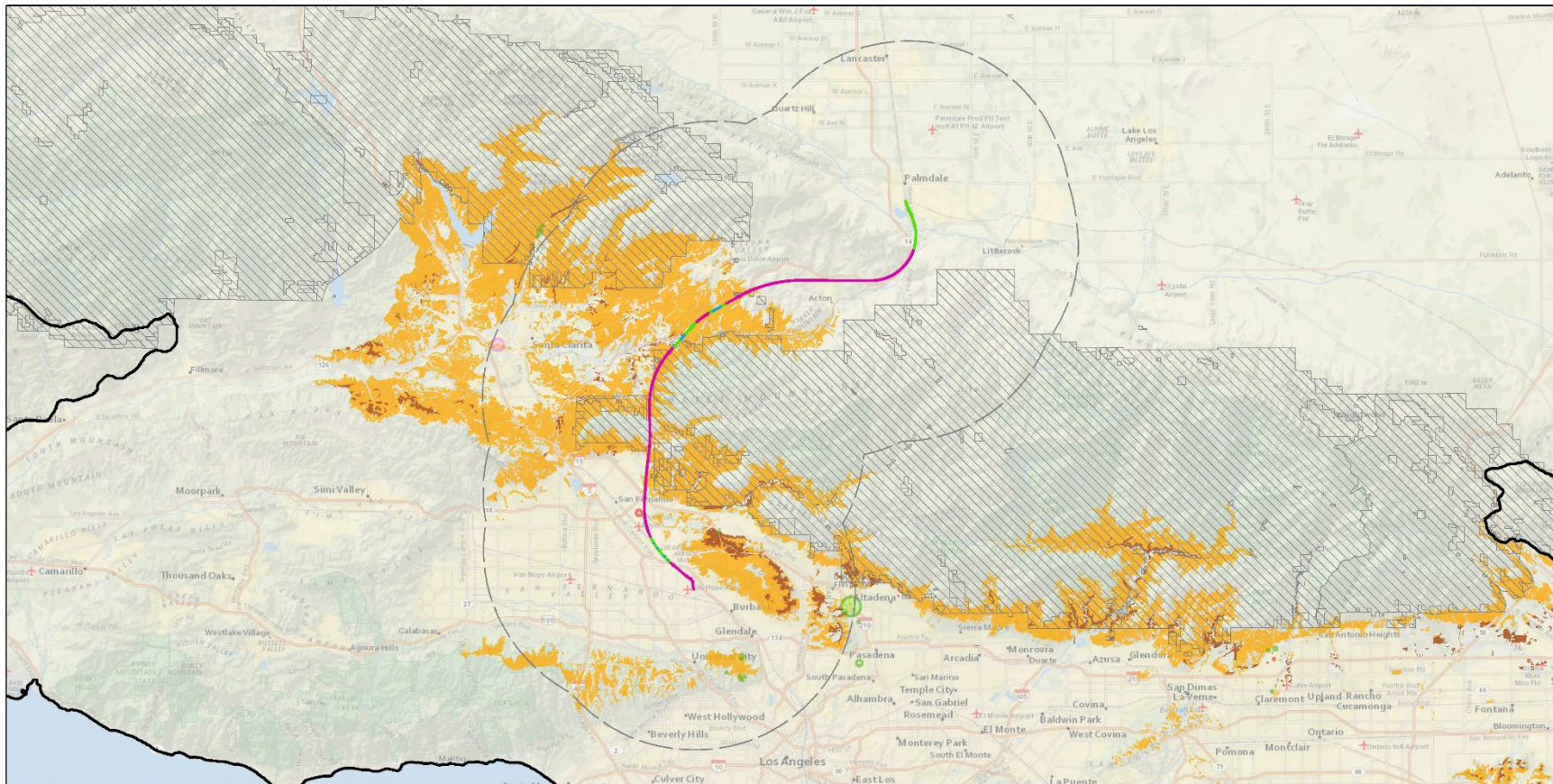
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



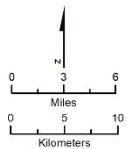
Regional Study Area	HSR Alignment	Species Occurrences	Habitat Category
10-Mile Buffer	Elevated	Natural Extant Occurrence	Core Suitable Habitat
Forest Service Lands	Surface	Possibly Extirpated	Potentially Suitable Habitat
	Underground	Extirpated	Core Suitable Habitat - Intermediate Zone
			Potentially Suitable Habitat - Intermediate Zone

Nevin's Barberry

Figure 3.7-A-6 Nevin's Barberry Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Modeled Habitat Data from CHSR (2017); CNDDB (08/2020).



Regional Study Area	HSR Alignment	Species Occurrences	Habitat Category
10-Mile Buffer	Elevated	Natural Extant Occurrence	Core Suitable Habitat
Forest Service Lands	Surface	Possibly Extirpated	Potentially Suitable Habitat
	Underground	Extirpated	Core Suitable Habitat - Intermediate Zone
			Potentially Suitable Habitat - Intermediate Zone

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Nevin's Barberry

Figure 3.7-A-7 Nevin's Barberry Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section

## Ventura Marsh Milk-Vetch

The Authority have determined that the HSR Palmdale to Burbank Project Section will have no effect on the Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), a federally and State as endangered species.

### Rationale

The Authority reviewed species information for Ventura marsh milk-vetch available from the USFWS Environmental Conservation Online System, CDFW for range information, and the CNDDDB for occurrence records relative to the proposed action (see list of references) (Figure 3.7-A-9 and Figure 3.7-A-10).

Ventura marsh milk-vetch is endemic to California's southern coast where it historically occurred, in discontinuous populations, from near the City of Ventura (San Buenaventura; Ventura County) at the northern end of its range to near Huntington Beach (Orange County) at the southern end of its range. It was considered extinct from the 1970s until 1997 when it was rediscovered near the City of Oxnard (Ventura County). Since then, it has been reestablished at several coastal sites in Ventura and Los Angeles counties. Ventura marsh milk-vetch occurs at low elevation (0 to 328 feet) in coastal dune-swales where its root system has access to freshwater, such as along coastal seeps near the edges of brackish and salt marshes. It is also associated with sandy ocean bluffs and springs along streams opening to the ocean.

Three areas have been designated as critical habitat for the species: Mandalay Bay in the City of Oxnard, Ventura County; McGrath Lake area at McGrath State Beach in Ventura County, managed by California Department of Parks and Recreation; and Carpinteria Salt Marsh Reserve in Santa Barbara County, managed by the University of California, Santa Barbara. Of these three designated critical habitat areas, only the Mandalay site supports an extant population of Ventura marsh milk-vetch.

As shown in Figure 3.7-A-10, the proposed action is located more than 50 miles from the only known native extant occurrence of Ventura marsh milk-vetch at Mandalay Bay (CNDDDB Occurrence Number 7). This is also the approximate distance to the nearest designated critical habitat areas at Mandalay Bay and McGrath State Beach. The proposed action is substantially inland of all known occurrences, both current and historical.

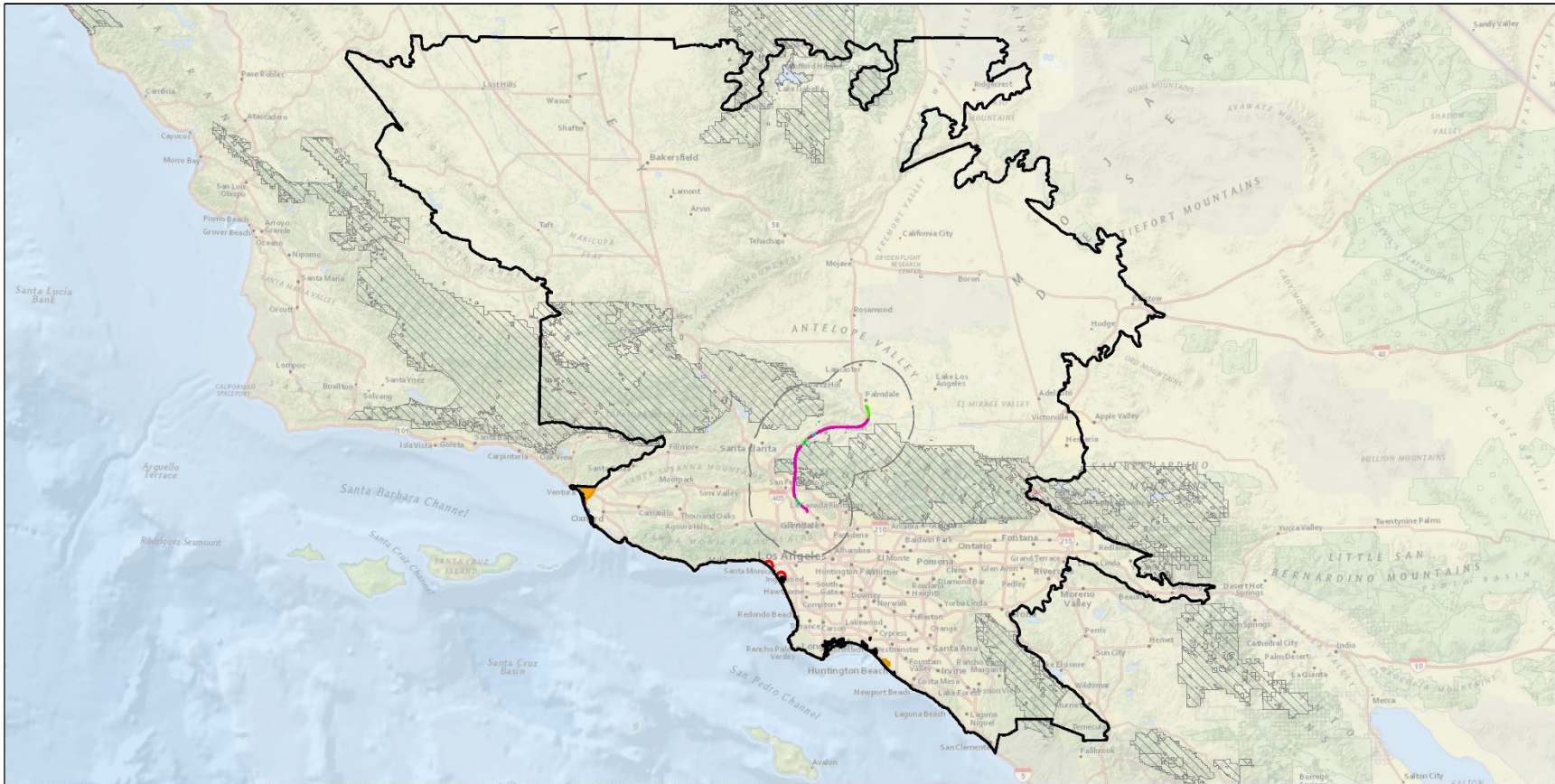
### Conclusion

Given the distance between the proposed action and the only known extant occurrence and designated critical habitat areas, there is no evidence that the species is present in or near the proposed action. Therefore, the proposed action will have no effect on Ventura marsh milk-vetch. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### References

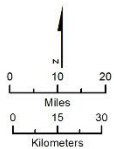
- California Department of Fish and Wildlife. 2016. BIOS 5 Map Viewer. California Natural Diversity Database. Available at: <https://map.dfg.ca.gov/bios/?bookmark=327>. Biogeographic Data Branch, Sacramento, CA. Updated February 2.
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- U.S. Fish and Wildlife Service. 2010. *Astragalus pycnostachyus* var. *lanosissimus* (Ventura marsh milk-vetch). 5-Year Review: Summary and Evaluation. Ventura Fish and Wildlife Office, Ventura California. June. 29 p.
- . 2004. Final designation of critical habitat for *Astragalus pycnostachyus* var. *lanosissimus* (Ventura Marsh milk-vetch); final rule 69 FR 29081 29100. May.



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), CNDDDB (08/2020), USFW Critical Habitat (9/2020).

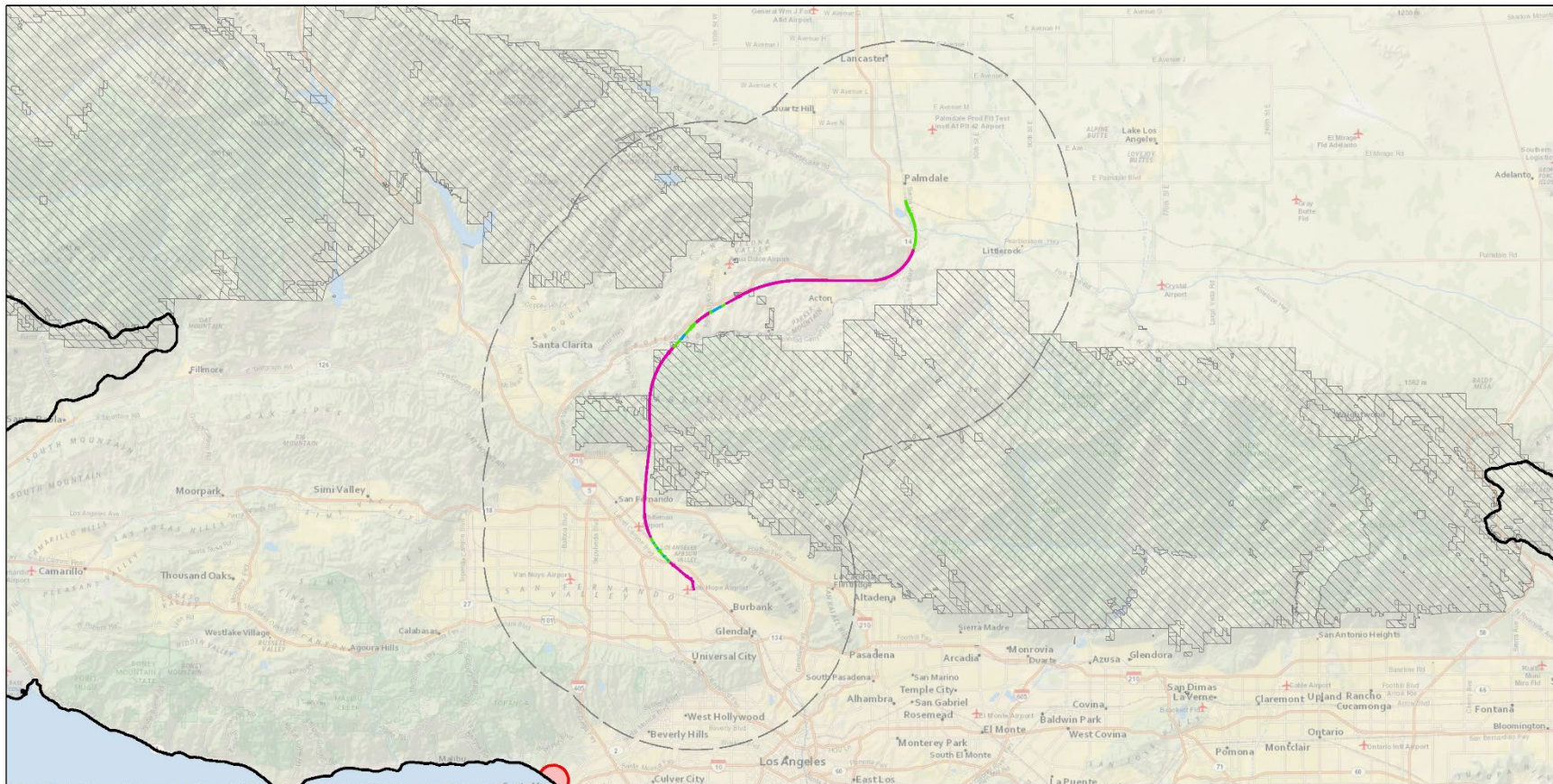
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



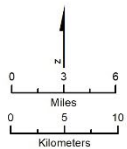
- |                      |               |                           |
|----------------------|---------------|---------------------------|
| Regional Study       | HSR Alignment | Extirpated                |
| 10-Mile Buffer       | Elevated      | Possibly Extirpated       |
| Forest Service Lands | Surface       | Natural Extant Occurrence |
| Critical Habitat     | Underground   |                           |

**Ventura Marsh Milk-Vetch**

**Figure 3.7-A-8 Ventura Marsh Milk-Vetch Occurrences in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020); USFW Critical Habitat (9/2020).



- |                      |               |                     |
|----------------------|---------------|---------------------|
| Regional Study Area  | HSR Alignment | Species Occurrences |
| 10-Mile Buffer       | Elevated      | Extirpated          |
| Forest Service Lands | Surface       |                     |
|                      | Underground   |                     |

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

**Ventura Marsh Milk-Vetch**

**Figure 3.7-A-9 Ventura Marsh Milk-Vetch Occurrences in the Vicinity of the Palmdale to Burbank Project Section**



## California Orcutt Grass

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect California Orcutt grass (*Orcuttia californica*), a federally and State endangered species, and a USFS sensitive species.

### Rationale

The Authority reviewed species information for California Orcutt grass including from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). In addition, a vernal pool assessment was conducted in the action area in the winter of 2017 and botanical surveys were conducted in 2016 and 2017 (see Section 4.1.2 of this Biological Assessment). Data analyzed included known occurrence records (Figure 3.7-A-11 and Figure 3.7-A-12) and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

California Orcutt grass is a vernal pool obligate species that occurs in Los Angeles County northwest of Santa Clarita, in Ventura County near State Route 23, and in southwestern Riverside County near Winchester, Murrieta, and Bachelor Mountain. Specimens have been recorded from Orange and San Bernardino counties, as well. The CNDDDB reports 32 presumed extant occurrences in five counties: San Diego (16 occurrences), Riverside (9 occurrences), Los Angeles (3 occurrences), Ventura (3 occurrences), and Orange (1 occurrence) (CDFW 2020). Five occurrences are listed as extirpated or possibly extirpated: three in Los Angeles County and two in Riverside County. Three presumed extant CNDDDB occurrences are within 10 miles of the action area east of Santa Clarita and north of State Route 14: one 2.6 miles west of the action area near Newhall; one 3.8 miles northwest of the action area on Cruzan Mesa, south of Vasquez Canyon Road between the Sierra Highway and Bouquet Canyon Road; and one 4.2 miles northwest of the action area on the north side of Plum Canyon Fire Road and 1.6 miles west of where Plum Canyon Fire Road intersects with Sierra Highway (CDFW 2020). The species was not observed during the 2016 and 2017 botanical surveys (see Appendix D of this Biological Assessment).

### Conclusion

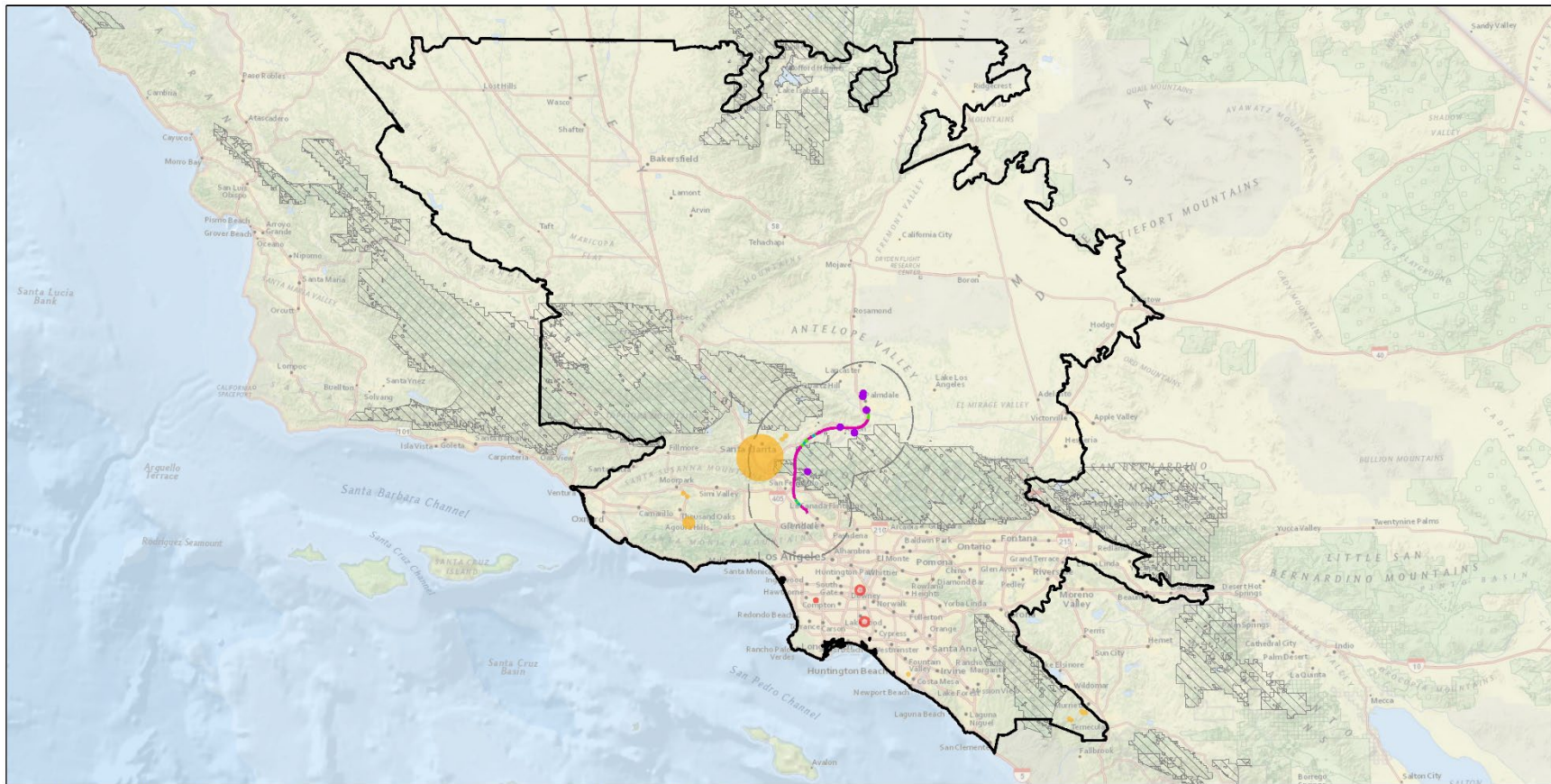
Due to the distance to known populations, lack of observations during the 2016 and 2017 botanical surveys, and limited potential vernal pool habitat in or near the action area, the species is unlikely to be present in the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species, California Orcutt grass is not expected to occur in the action area (USFWS 2019a). Given the presence of potential vernal pool habitat, the proposed action may affect but, is not likely to adversely affect California Orcutt grass.

To ensure that this species is not present at the time of construction, a Designated Biologist familiar with the distinguishing characteristics of the species will survey suitable vernal pool habitat within the project footprint prior to ground- or vegetation-disturbing activities. If California Orcutt grass is observed, no project activities that could adversely affect the species will be conducted within 100 feet of occupied vernal pools. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### References

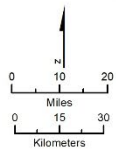
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- California Native Plant Society (CNPS). 2019a. *Inventory of Rare and Endangered Plants of California (online edition, Version 8-03 0.39)*. CNPS Rare Plant Program. <http://www.rareplants.cnps.org> (accessed 2019).

- . 2019b. A Manual of California Vegetation, Online Edition. California Native Plant Society, Sacramento, California. <http://www.cnps.org/cnps/vegetation/> (accessed 2019).
- Consortium of California Herbaria. 2019. Records of special-status plant data provided by the participants of the Consortium of California Herbaria. <http://ucjeps.berkeley.edu/consortium/> (accessed 2019).
- U.S. Fish and Wildlife Service (USFWS). 2005a. *Endangered and Threatened Wildlife and Plants; Critical Habitat Designation for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon: Proposed Rule*. Federal Register Vol. 67, No. 185, pages 59883-60039.
- . 2005b. *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. U.S. Fish and Wildlife Service, Region 1, Portland, OR. December 15, 2005.
- . 2011. *Orcuttia californica* (California Orcutt grass) 5-Year Review: Summary and Evaluation. Carlsbad, CA.
- . 2019a. Meetings with the California High-Speed Rail Authority regarding California Orcutt grass. October 24, 2019 and November 22, 2019.
- . 2019b. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2019).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Habitat Data from CHSR (2016), CNDDDB (08/2020).

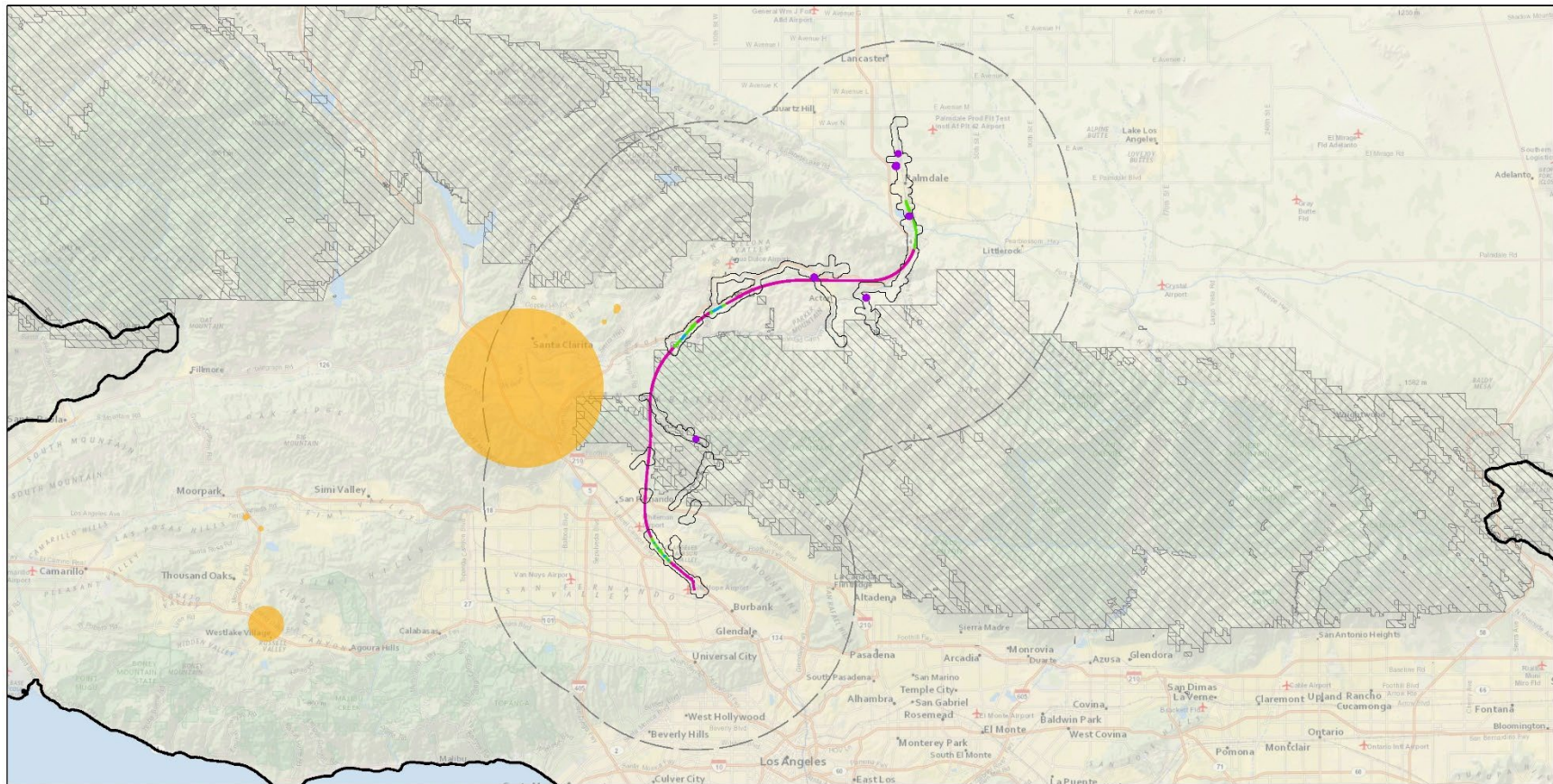
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- Regional Study Area
- 10-Mile Buffer
- Forest Service Lands
- Potential Habitat (Within Survey Area)
- Species Occurrences**
- Extirpated
- Possibly Extirpated
- Natural Extant Occurrence
- HSR Alignment**
- Elevated
- Surface
- Underground

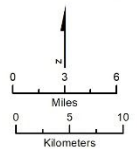
**California Orcutt Grass**

**Figure 3.7-A-10 California Orcutt Grass Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Habitat Data from CHSR (2016), CNDDb (08/2020).

Please Note: The CNDDb occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDb about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                                   |                            |                      |
|----------------------|-----------------------------------|----------------------------|----------------------|
| Regional Study       | Potential Habitat (Within Survey) | <b>Species Occurrences</b> | <b>HSR Alignment</b> |
| 10-Mile Buffer       | 1,000 Foot Vernal Pool Survey     | Extirpated                 | Elevated             |
| Forest Service Lands |                                   | Possibly Extirpated        | Surface              |
|                      |                                   | Natural Extant Occurrence  | Underground          |

**California Orcutt Grass**

**Figure 3.7-A-11 California Orcutt Grass Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Spreading Navarretia

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect spreading navarretia (*Navarretia fossalis*), a federally threatened and a USFS sensitive species.

### Rationale

The Authority reviewed species information for spreading navarretia including from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-13 and Figure 3.7-A-14), and habitat and range information relative to the proposed action. A vernal pool assessment was conducted in the action area in the winter of 2017 and botanical surveys were conducted in 2016 and 2017 (see Section 4.1.2 of this Biological Assessment). Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Spreading navarretia is a vernal pool obligate species found from California to Baja California, Mexico. Within California it occurs from the Outer South Coast Ranges south to the South Coast and Mojave Desert (USFWS 2009). The CNDDDB reports 68 presumed extant occurrences in four counties: San Diego (38 occurrences), Riverside (26 occurrences), Los Angeles (3 occurrences), and San Luis Obispo (1 occurrence) (CDFW 2020). Another 10 occurrences are listed as extirpated or possibly extirpated. According to the CNDDDB, there are two presumed extant occurrences of spreading navarretia within 10 miles of the action area (CDFW 2020). The closest is located approximately 3.7 miles northwest of the action area on Cruzan Mesa, approximately seven miles northeast of Santa Clarita. The species was not observed during the 2016 and 2017 botanical surveys (see Appendix D of this BA).

### Conclusion

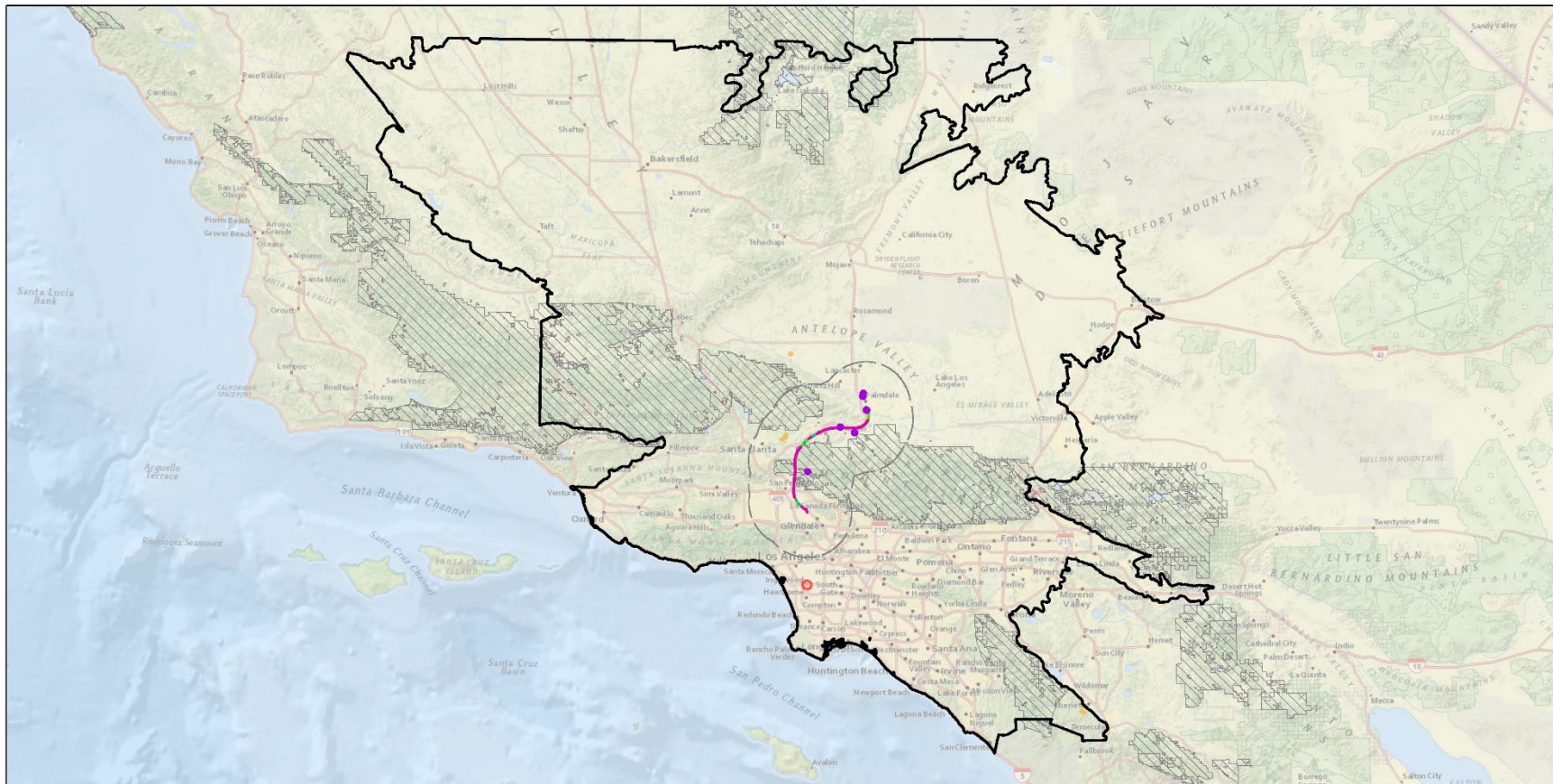
Due to the distance to known populations, lack of observations during the 2016 and 2017 botanical surveys, and limited potential vernal pool habitat in or near the action area, this species is unlikely to be present in the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species, spreading navarretia is not expected to occur in the action area (USFWS 2019a). Given the presence of potential vernal pool habitat, the proposed action may affect but, is not likely to adversely affect spreading navarretia.

To ensure that this species is present at the time of construction, a Designated Biologist familiar with the distinguishing characteristics of the species will survey suitable vernal pool habitat within the project footprint prior to ground- or vegetation-disturbing activities. If spreading navarretia is observed, no project activities that could adversely affect the species will be conducted within 100 feet of occupied vernal pools. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

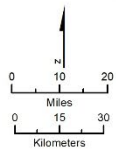
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- California Native Plant Society (CNPS). 2019a. *Inventory of Rare and Endangered Plants of California (online edition, Version 8-03 0.39)*. CNPS Rare Plant Program. <http://www.rareplants.cnps.org> (accessed 2019).
- . 2019b. *A Manual of California Vegetation, Online Edition*. California Native Plant Society, Sacramento, California. <http://www.cnps.org/cnps/vegetation/> (accessed 2019).
- Consortium of California Herbaria. 2019. Records of special-status plant data provided by the participants of the Consortium of California Herbaria. <http://ucjeps.berkeley.edu/consortium/> (accessed 2019).

- U.S. Fish and Wildlife Service (USFWS). 2005. *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. U.S. Fish and Wildlife Service, Region 1, Portland, OR. December 15, 2005.
- . 2009. *Navarretia fossalis* (Spreading Navarretia) 5-Year Review: Summary and Evaluation. Carlsbad, CA.
- . 2010. *Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for Navarretia fossalis* (Spreading Navarretia). Federal Register 75:62192–62255.
- . 2019a. Meetings with the California High-Speed Rail Authority regarding spreading navarretia. October 24, 2019 and November 22, 2019.
- . 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Habitat Data from CHSR (2016), CNDDDB (08/2020).

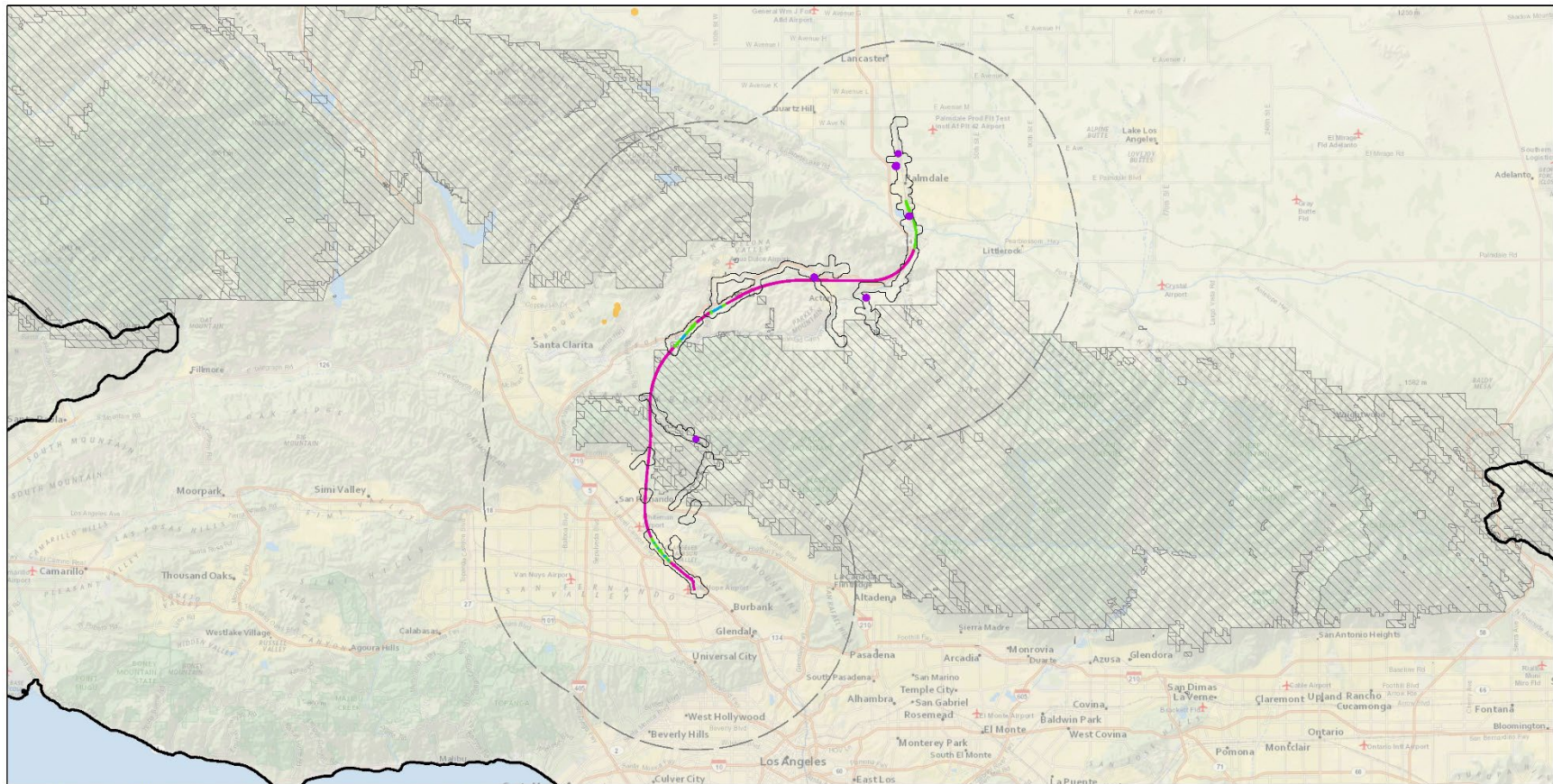
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- Regional Study Area
- 10-Mile Buffer
- Forest Service Lands
- Potential Habitat (Within Survey Area)
- Species Occurrences**
- Extirpated
- Possibly Extirpated
- Natural Extant Occurrence
- HSR Alignment**
- Elevated
- Surface
- Underground

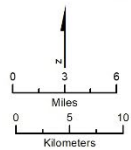
**Spreading Navarretia**

**Figure 3.7-A-12 Spreading Navarretia Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Habitat Data from CHSR (2016), CNDDb (08/2020).

Please Note: The CNDDb occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDb about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |  |                            |                      |
|----------------------|--|----------------------------|----------------------|
| Regional Study Area  | Potential Habitat (Within Survey Area) | <b>Species Occurrences</b> | <b>HSR Alignment</b> |
| 10-Mile Buffer       | 1,000 Foot Vernal Pool Survey Area     | Extirpated                 | Elevated             |
| Forest Service Lands |  | Possibly Extirpated        | Surface              |
|                      |  | Natural Extant Occurrence  | Underground          |

**Spreading Navarretia**

**Figure 3.7-A-13 Spreading Navarretia and Habitat in the Vicinity of the Palmdale to Burbank Project Section**



## Conservancy Fairy Shrimp

The Authority has determined that the HSR Palmdale to Burbank Project Section will have no effect on the conservancy fairy shrimp (*Branchinecta conservatio*), a federally endangered species.

### Rationale

The Authority reviewed species information for conservancy fairy shrimp available on the USFWS' Environmental Conservation Online System website, and the *Recovery Plan for Vernal Pool Systems of California and Southern Oregon* to gather range information (see list of references). The CNDDDB and *Fairy Shrimps of California's Puddles, Pools and Playas* (Eriksen and Belk 1999) was also reviewed for occurrence records relative to the proposed action.

The conservancy fairy shrimp is endemic to California's Central Valley where it occurs in large "playa" type vernal pools. Most populations are located in Solano, Merced and Tehama counties. There is a single record (CNDDDB Occurrence Number 46) for conservancy fairy shrimp from a location near Frasier Mountain, Ventura County (CDFW 2020). This record is based on eggs hatched in the laboratory by a Ph.D. student from soil received second hand in 1989. The exact location of the soil collection site is unknown but reported as north of Frazier Mountain Road near its intersection with Lockwood Valley Road in Ventura County (CDFW 2020). The record has never been confirmed and is considered questionable by some authorities (Eriksen and Belk 1999) but is presumed extant by agencies (CDFW 2020; USFWS 2005).

There are no known records within 10 miles of the project. As shown in Figure 3.7-A-15 and Figure 3.7-A-16, the proposed action is located more than 40 miles from the Ventura record and over 150 miles from the known populations in eastern Merced County.

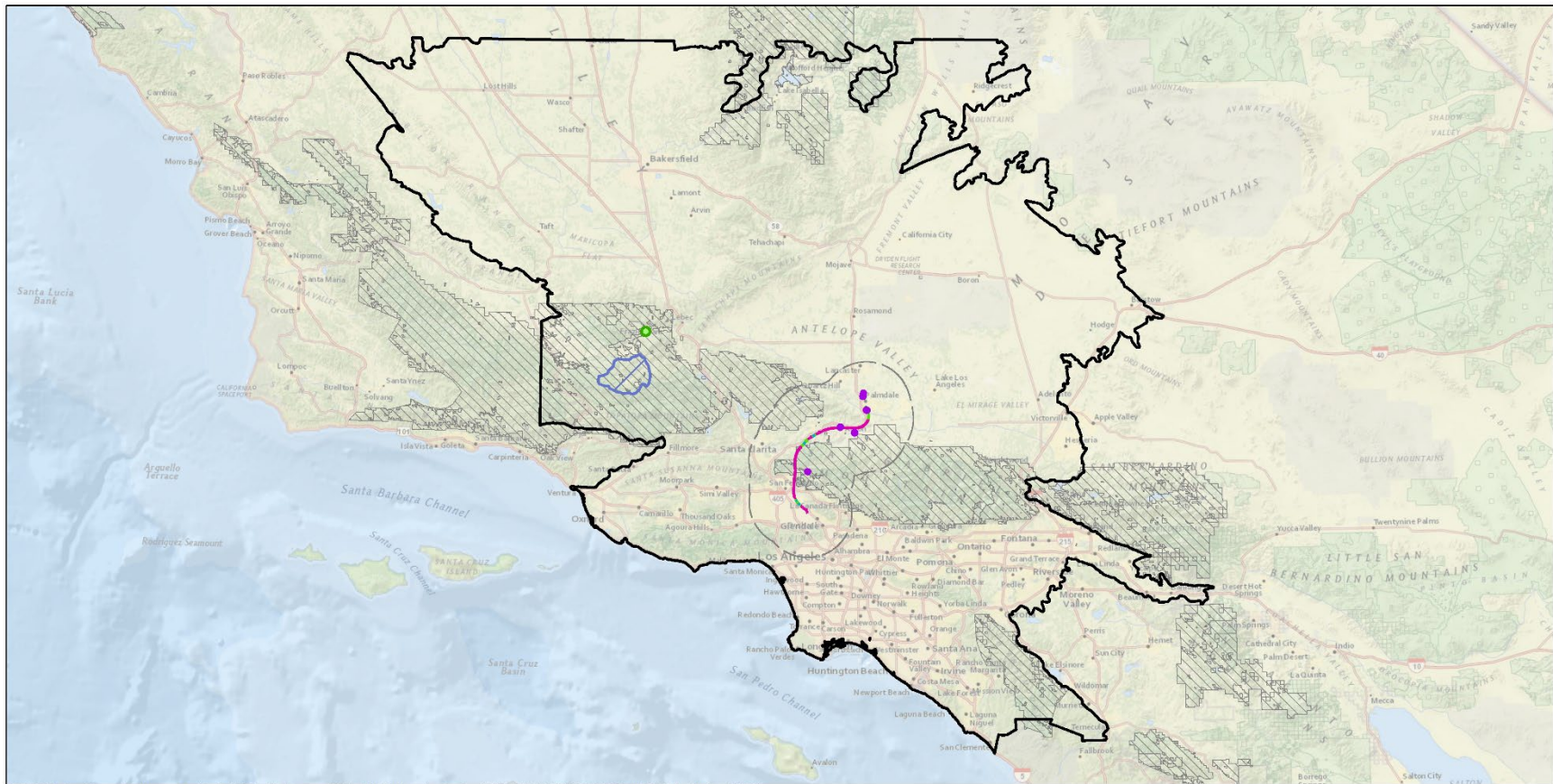
### Conclusion

Given the substantial distance between the proposed action, the species' range and known occurrences, this species is likely not present in the action area. Therefore, the proposed action will have no effect on conservancy fairy shrimp. The Authority will reinitiate Section 7 consultation if conservancy fairy shrimp are observed during pre-construction surveys, project construction or O&M activities.

### References

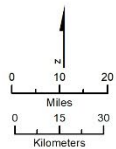
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- Eriksen, C. and D. Belk. 1999. *Fairy Shrimp of California's Puddles, Pools, and Playas*. Mad River Press, Inc., Eureka, CA. 196 pp.
- U.S. Fish and Wildlife Service (USFWS). 2005. *Recovery Plan for Vernal Pool Systems of California and Southern Oregon*. Region 1, Portland, OR. 319 pp.
- . 2015. *Species Profile for Conservancy fairy shrimp (Branchinecta conservatio)*. Environmental Conservation Online System. [http://ecos.fws.gov/tess\\_public/profile/speciesProfile?spcode=K03D](http://ecos.fws.gov/tess_public/profile/speciesProfile?spcode=K03D).

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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020); USFW Critical Habitat (9/2020).

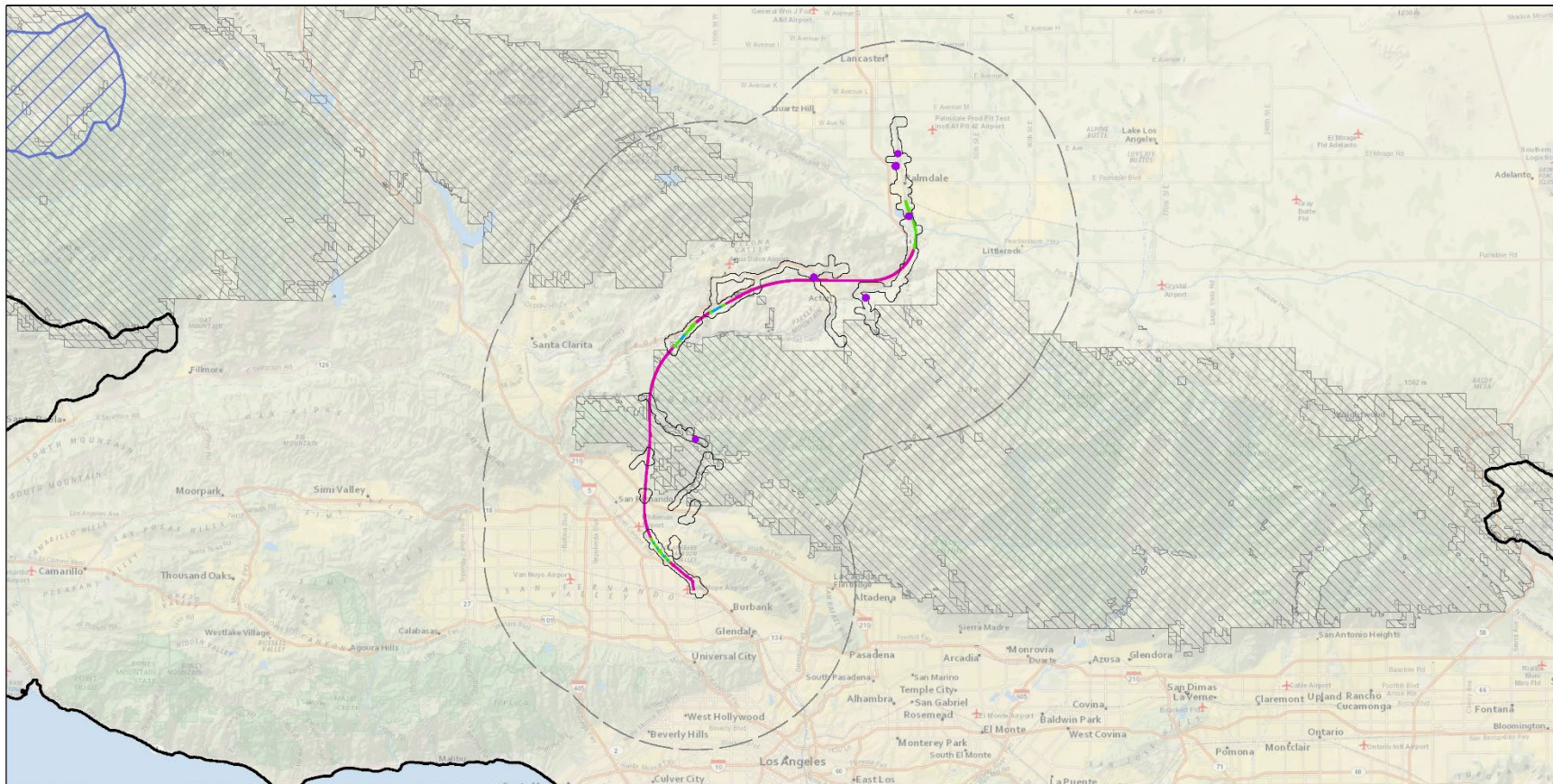
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- Regional Study Area
- 10-Mile Buffer
- Forest Service Lands
- Potential Habitat (Within Survey)
- Critical Habitat
- HSR Alignment
- Elevated
- Surface
- Underground
- Species Occurrences
- Natural Extant Occurrence

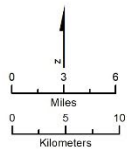
Conservancy Fairy Shrimp

**Figure 3.7-A-14 Conservancy Fairy Shrimp Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020); USFW Critical Habitat (9/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within the area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                                    |                      |
|----------------------|------------------------------------|----------------------|
| Regional Study Area  | Potential Habitat (Within Survey)  | <b>HSR Alignment</b> |
| 10-Mile Buffer       | 1,000 Foot Vernal Pool Survey Area | Elevated             |
| Forest Service Lands | Critical Habitat                   | Surface              |
|                      |                                    | Underground          |

**Conservancy Fairy Shrimp**

**Figure 3.7-A-15 Conservancy Fairy Shrimp Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Riverside Fairy Shrimp

The Authority has determined that the HSR Palmdale to Burbank Project Section will have no effect on the Riverside fairy shrimp (*Streptocephalus woottoni*), a federally endangered species.

### Rationale

The Authority reviewed species information for Riverside fairy shrimp available on the USFWS Environmental Conservation Online System website, and as the *Revised Critical Habitat for the Riverside Fairy Shrimp* to gather range information (see list of references). The CNDDDB and *Fairy Shrimps of California's Puddles, Pools and Playas* (Eriksen and Belk, 1999) was also reviewed to obtain occurrence records relative to the proposed action.

The species' range indicates it is endemic to the Los Angeles and San Diego Basins where it occurs in larger long lasting vernal pools from Ventura County to San Diego County (Eriksen and Belk 1999; CDFW 2020). While the historical range of the Riverside fairy shrimp is presumed to have included Los Angeles County, the species is considered extinct there (USFWS 2008). The single record from Ventura County is considered an isolated population, but designated critical habitat for this species includes lands to the east of this location (USFWS 2012). The species is considered distributed throughout its historical range; however, its vernal pool habitat has been reduced to 3-10 percent of its original extent. As a result, populations have become severely fragmented and isolated by agriculture and urbanization (USFWS 2012).

As shown in Figure 3.7-A-17 and Figure 3.7-A-18, the proposed action is over 20 miles east of the closest known occurrence of Riverside fairy shrimp in Moorpark, Ventura County (CNDDDB Occurrence Number 9). The alignment is 22.8 miles from designated critical habitat for the species.

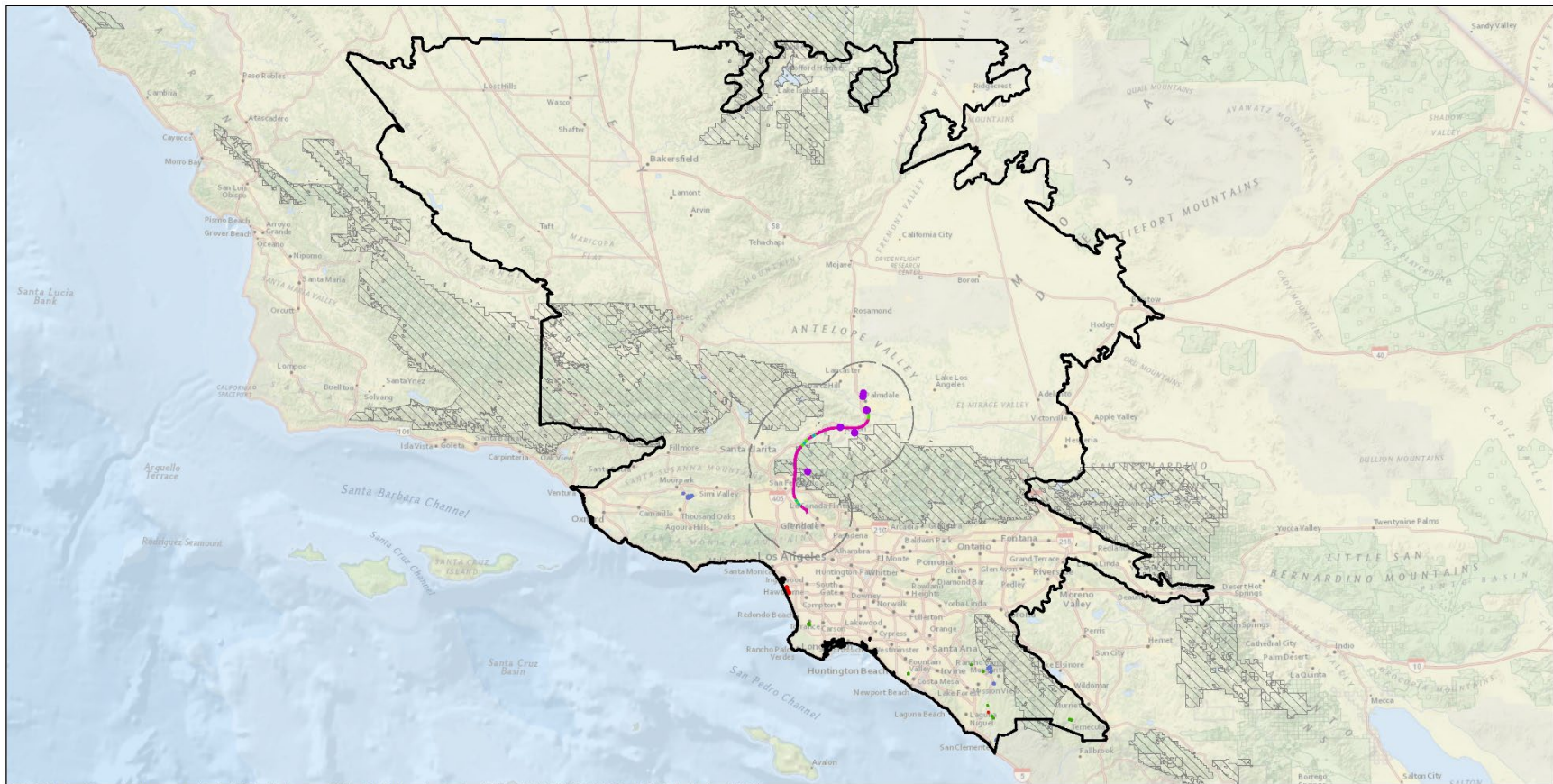
### Conclusion

Given the distance between the proposed action and the species' range and known occurrences, this species is likely not present in the action area. Therefore, the proposed action will have no effect on Riverside fairy shrimp. The Authority will reinitiate Section 7 consultation if Riverside fairy shrimp are observed during pre-construction surveys of suitable habitat or project construction or O&M activities.

### References

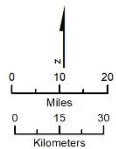
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- Eriksen, C. and D. Belk. 1999. *Fairy Shrimp of California's Puddles, Pools, and Playas*. Mad River Press, Inc., Eureka, CA. 196 pp.
- U.S. Fish and Wildlife Service (USFWS). 2008. *Riverside fairy shrimp (Streptocephalus woottoni)* 5-year Review Summary and Evaluation. Federal Register / Vol. 77, No. 233.
- . 2012. *Revised Critical Habitat for the Riverside Fairy Shrimp*. Federal Register / Vol. 77, No. 233.
- . 2015. *Species Profile for Riverside fairy shrimp (Streptocephalus woottoni)*. Environmental Conservation Online System. [http://ecos.fws.gov/tess\\_public/profile/speciesProfile?spcode=K03F](http://ecos.fws.gov/tess_public/profile/speciesProfile?spcode=K03F).

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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020); USFW Critical Habitat (9/2020).

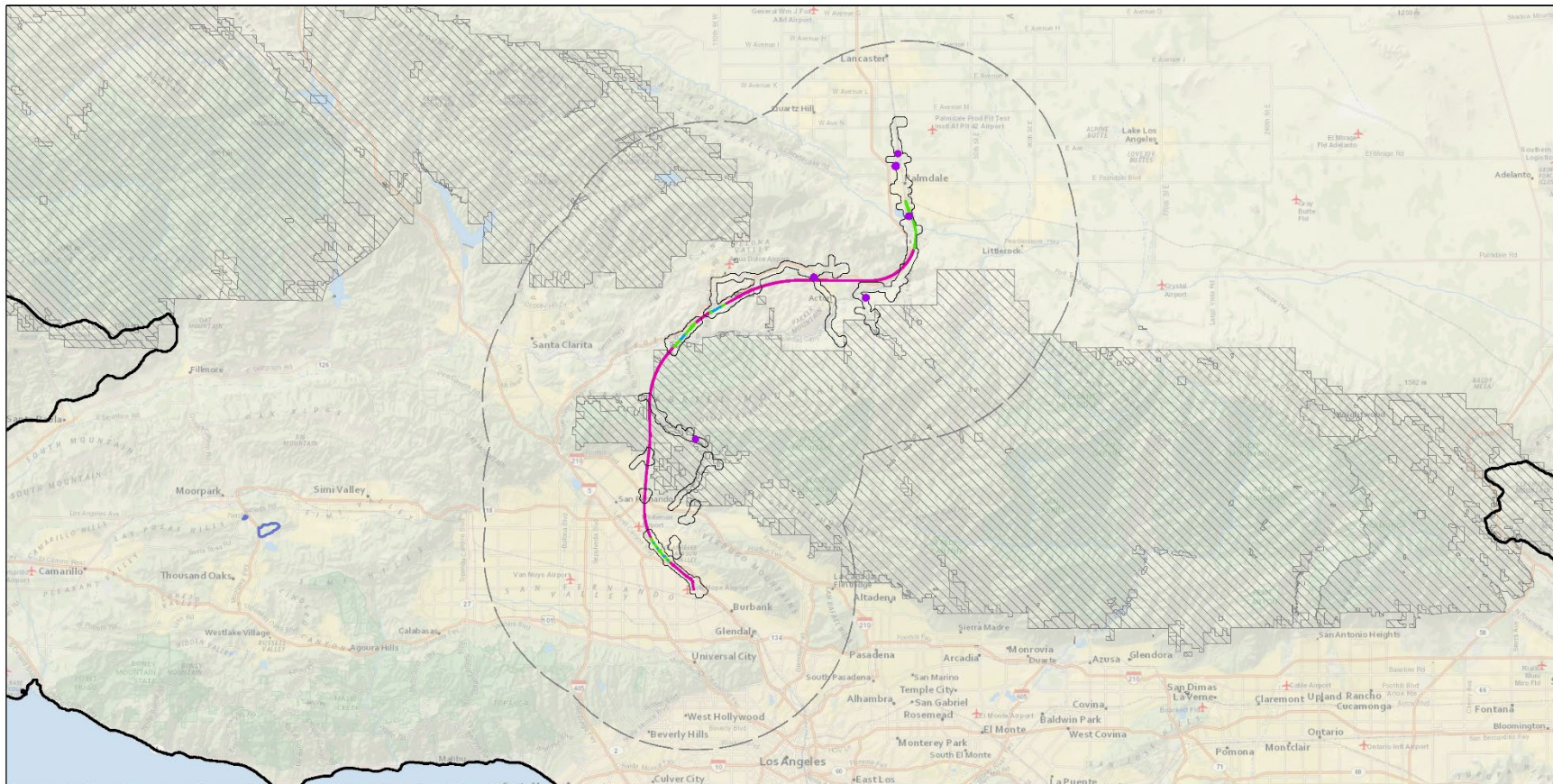
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within the area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                                   |               |                           |
|----------------------|-----------------------------------|---------------|---------------------------|
| Regional Study Area  | Potential Habitat (Within Survey) | HSR Alignment | Species Occurrences       |
| 10-Mile Buffer       | Critical Habitat                  | Elevated      | Extirpated                |
| Forest Service Lands |                                   | Surface       | Possibly Extirpated       |
|                      |                                   | Underground   | Natural Extant Occurrence |

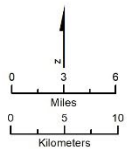
**Riverside Fairy Shrimp**

**Figure 3.7-A-16 Riverside Fairy Shrimp Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDB (08/2020); USFW Critical Habitat (9/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within the area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                                    |               |                           |
|----------------------|------------------------------------|---------------|---------------------------|
| Regional Study Area  | Potential Habitat (Within Survey)  | HSR Alignment | Species Occurrences       |
| 10-Mile Buffer       | 1,000 Foot Vernal Pool Survey Area | Elevated      | Natural Extant Occurrence |
| Forest Service Lands | Critical Habitat                   | Surface       |                           |
|                      |                                    | Underground   |                           |

**Riverside Fairy Shrimp**

**Figure 3.7-A-17 Riverside Fairy Shrimp Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**



## Vernal Pool Fairy Shrimp

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect vernal pool fairy shrimp (*Branchinecta lynchi*), a federally threatened species.

### Rationale

The Authority reviewed species information for vernal pool fairy shrimp including from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). A vernal pool assessment was conducted in the action area in the winter of 2017 (see Section 4.1.2 of this Biological Assessment). Data analyzed included known occurrence records (Figure 3.7-A-19 and Figure 3.7-A-20), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Vernal pool fairy shrimp is a vernal pool obligate species found at scattered locations throughout California's Central Valley, ranging from the Millville Plains and Stillwater Plains in Shasta County, south through most of the length of the Central Valley, and to the eastern margins of the Coast Ranges, from San Benito County south, to Ventura County (USFWS 2005). According to the CNDDDB, two presumed extant CNDDDB occurrences of vernal pool fairy shrimp are within 10 miles of the action area (CDFW 2020). The closest occurrence is approximately 3.5 miles northwest of the action area on Cruzan Mesa, and seven miles northeast of Santa Clarita. The second occurrence is located 4.8 miles west of the action area, on a hill above Golden Valley High School east of Santa Clarita. The closest designated critical habitat is approximately 40 miles northwest of the action area in Los Padres National Forest (USFWS 2020).

### Conclusion

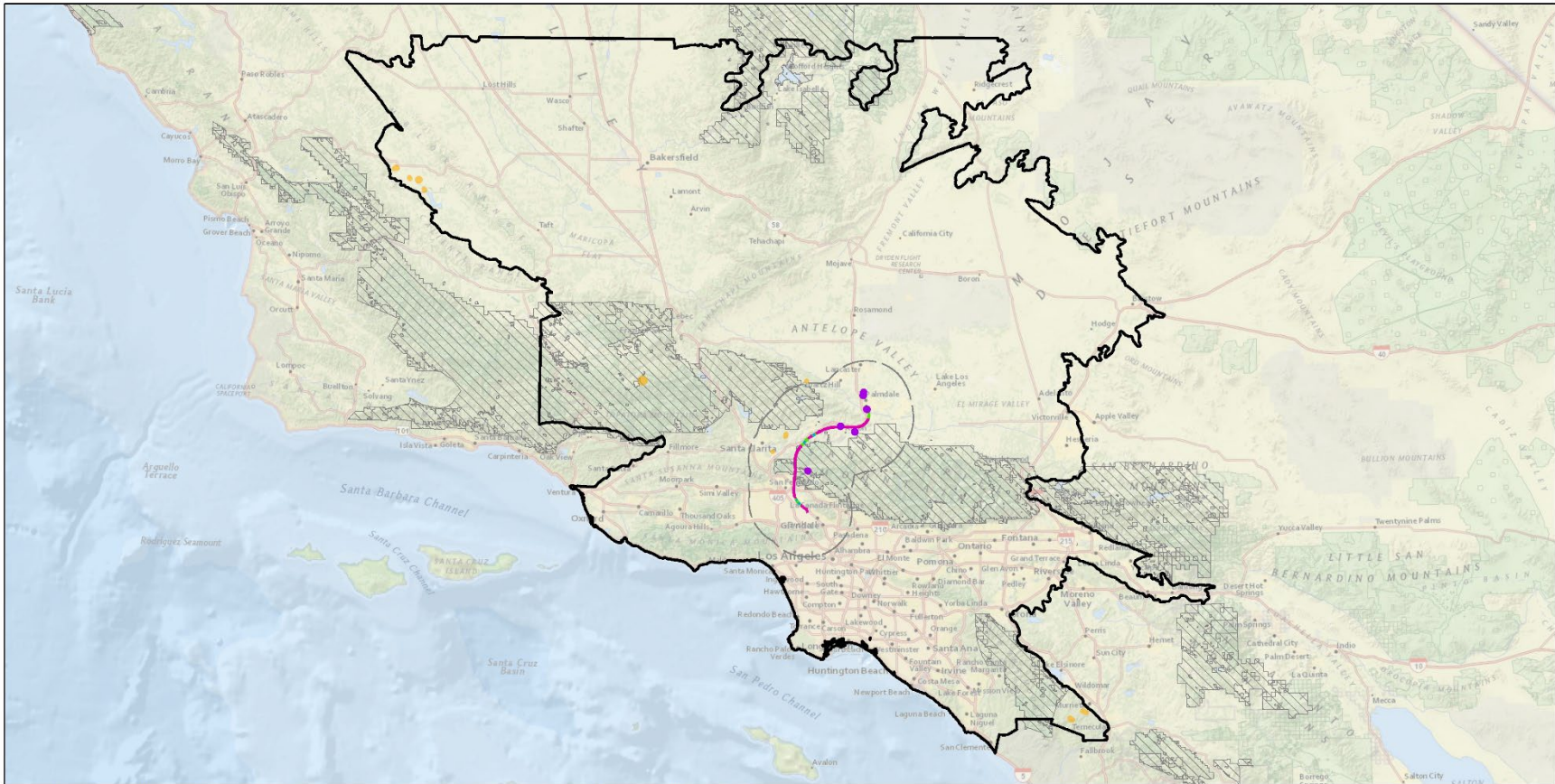
Due to the distance to known populations and limited potential vernal pool habitat in or near the action area, the species is unlikely to be present in the action area. Furthermore, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species, vernal pool fairy shrimp are not expected to occur in the action area (USFWS 2019). Due to the limited presence of potentially suitable vernal pool habitat, the proposed action may affect but is not likely to adversely affect vernal pool fairy shrimp.

To ensure that this species is present at the time of construction, a Designated Biologist familiar with the distinguishing characteristics of the species will survey suitable vernal pool habitat within the project footprint prior to ground- or vegetation-disturbing activities. If vernal pool fairy shrimp are observed, no project activities that could adversely affect the species will be conducted within 250 feet of occupied vernal pools. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

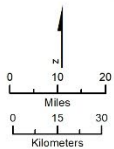
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- U.S. Fish and Wildlife Service (USFWS). 2005. *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. U.S. Fish and Wildlife Service, Region 1, Portland, OR. December 15, 2005.
- . 2007. Vernal Pool Fairy Shrimp (*Branchinecta lynchi*), 5-Year Review: Summary and Evaluation. September. Sacramento, CA.
- . 2019. Meetings with the California High-Speed Rail Authority regarding vernal pool fairy shrimp. October 24, 2019 and November 22, 2019.
- . 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).

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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Habitat Data from CHSR (2016), CNDDDB (08/2020).

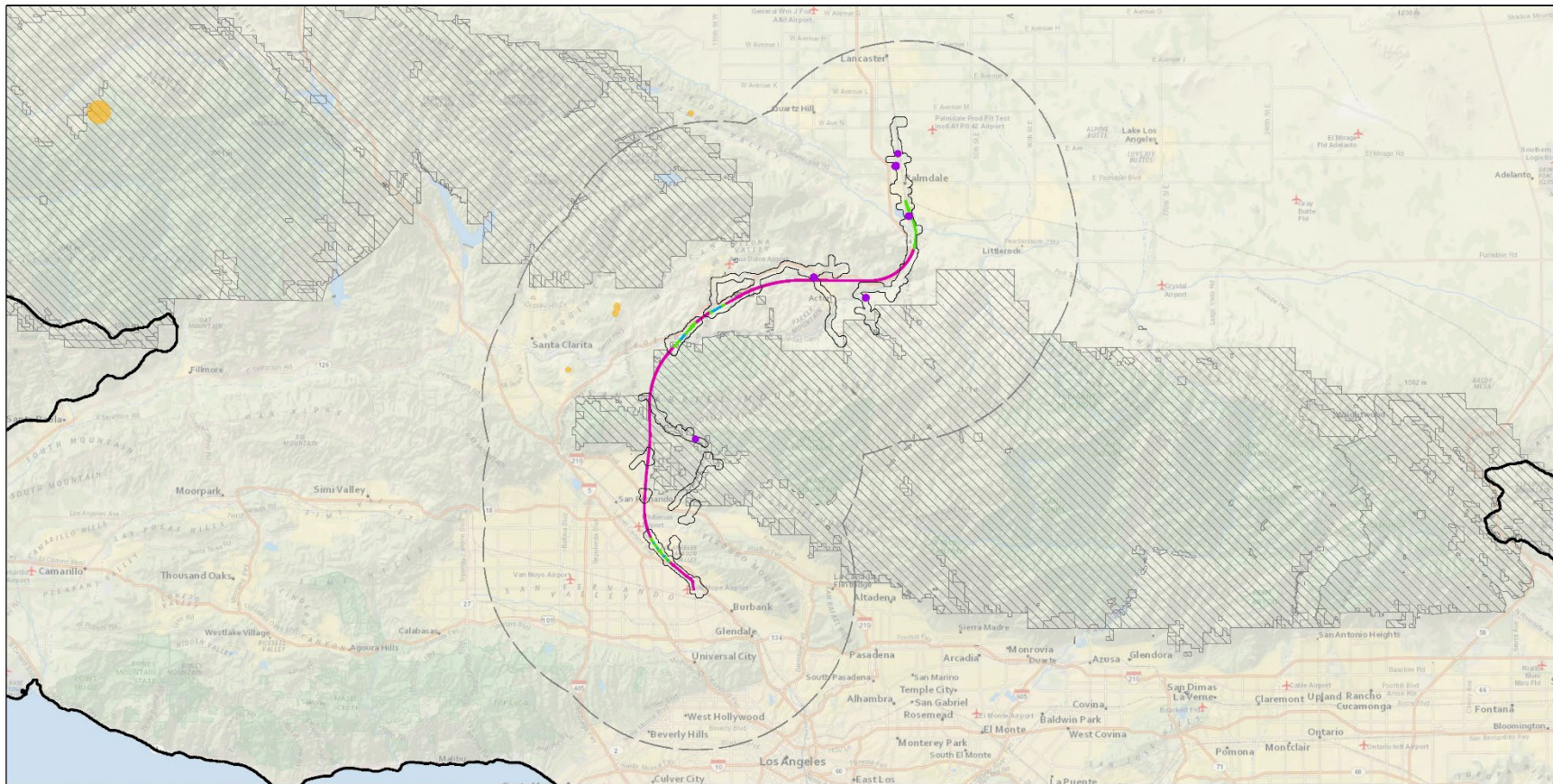
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- Regional Study Area
- 10-Mile Buffer
- Forest Service Lands
- Potential Habitat (Within Survey Area)
- Species Occurrences**
- Extirpated
- Possibly Extirpated
- Natural Extant Occurrence
- HSR Alignment**
- Elevated
- Surface
- Underground

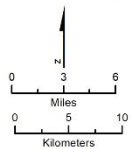
**Vernal Pool Fairy Shrimp**

**Figure 3.7-A-18 Vernal Pool Fairy Shrimp Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Habitat Data from CHSR (2016); CNDDB (08/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                                   |                            |                      |
|----------------------|-----------------------------------|----------------------------|----------------------|
| Regional Study       | Potential Habitat (Within Survey) | <b>Species Occurrences</b> | <b>HSR Alignment</b> |
| 10-Mile Buffer       | 1,000 Foot Vernal Pool Survey     | Extirpated                 | Elevated             |
| Forest Service Lands |                                   | Possibly Extirpated        | Surface              |
|                      |                                   | Natural Extant Occurrence  | Underground          |

**Vernal Pool Fairy Shrimp**

**Figure 3.7-A-19 Vernal Pool Fairy Shrimp Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Kern Primrose Sphinx Moth

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect Kern primrose sphinx moth (*Euproserpinus euterpe*), a federally threatened species.

### Rationale

The Authority reviewed species information for Kern primrose sphinx moth including from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-21 and Figure 3.7-A-22), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Kern primrose sphinx moth is typically found in sandy alluvial soils in and beside washes that support its larval host plants, evening primrose (*Camissonia contorta*) in the Walker Basin, and sun cup (*Camissonia campestris*) in the Carrizo Plain and Cuyama Valley. The CNDDDB reports 11 presumed extant occurrences of Kern primrose sphinx moth, distributed across four counties: Kern (1 occurrence), San Luis Obispo (5 occurrences), Santa Barbara (4 occurrences), and Ventura (1 occurrence) (CDFW 2020). The CNDDDB reports no extant, extirpated, or possibly extirpated occurrences within 10 miles of the action area. The geographic range of the Kern primrose sphinx moth does not overlap with the action area and it is not known to occur in the Mojave Desert surrounding Lancaster and Palmdale and it has not been observed on the southeast side of the Tehachapi Mountains. The action area is not included in the recovery plan for Kern primrose sphinx moth (USFWS 1984).

### Conclusion

Due to the proposed action being outside of the current geographic range of the species, the lack of CNDDDB records within 10 miles of the project, the nearest occurrence 60 miles north of the action area, and limited amount of suitable habitat the action area (Figure 3.7-A-22), the species likely not present in the action area. However, given the presence of modeled habitat, the proposed action may affect but is not likely to adversely affect Kern primrose sphinx moth. Additionally, the USFWS stated during informal consultation in 2019 that based on expert opinion (Josh Hull), Kern primrose sphinx moth are not expected to occur in the action area (USFWS 2019).

To ensure that this species is present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species. Surveys for Kern primrose sphinx moth generally will be based on methods in Jump et al. (2006) and information in the USFWS's 5-year status review of this species (USFWS 2007). If Kern primrose sphinx moths are observed, no project activities that could adversely affect the species will be conducted within 1,000 feet of individuals. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### References

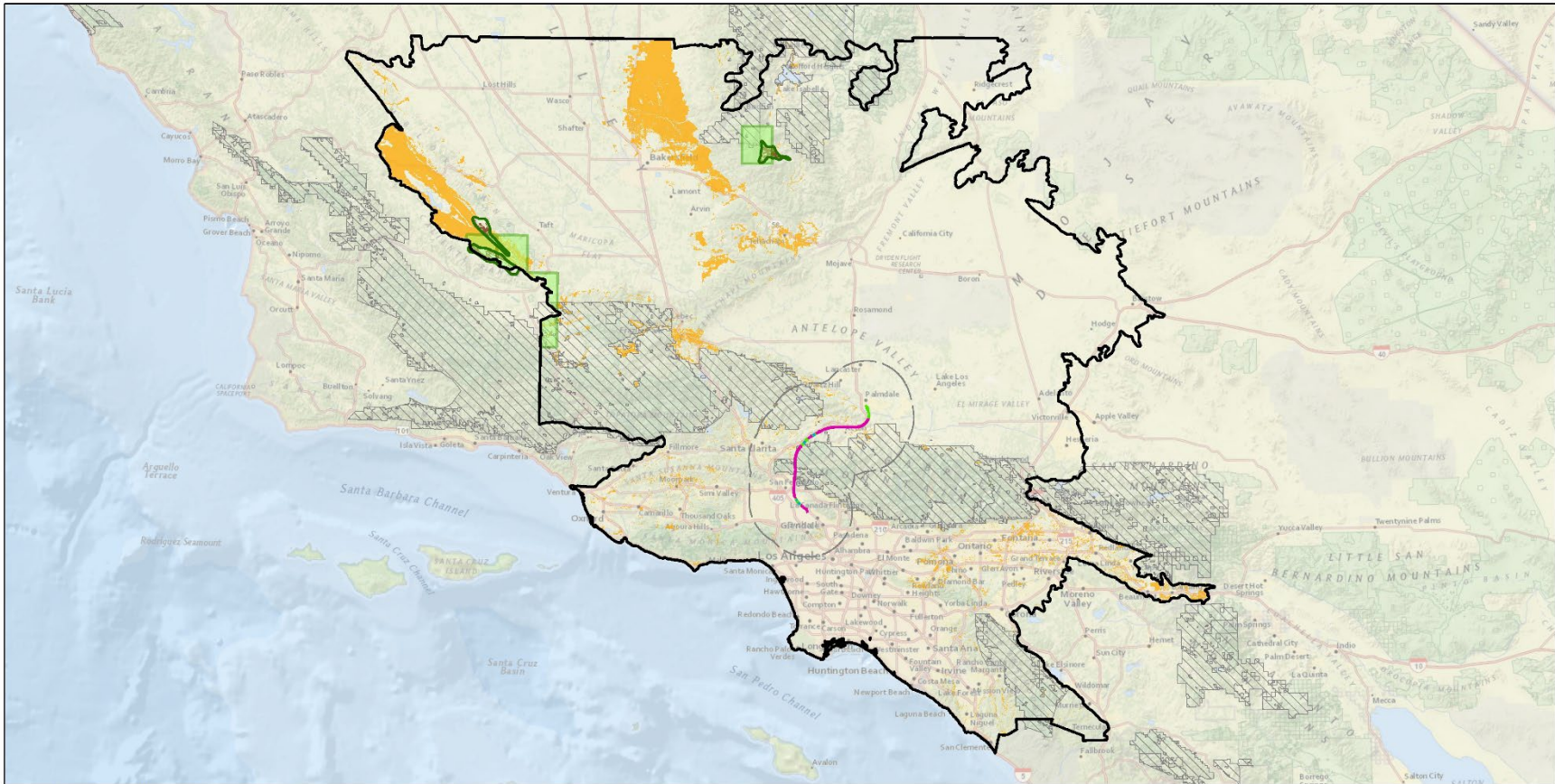
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (Accessed 2020).
- Jump, P.M., T. Longcore, and C. Rich. 2006. *Ecology and distribution of a newly discovered population of the federally threatened Euproserpinus euterpe (Sphingidae)*. *Journal of the Lepidopterists' Society* 60(1): 41-50.
- Niessen, K. 2009. *Euproserpinus euterpe* (Kern Primrose Sphinx Moth) Potential Habitat Mapping on the Los Padres National Forest. Assessment prepared for the US Forest Service, Los Padres National Forest.

U.S. Fish and Wildlife Service (USFWS). 1984. Kern Primrose Sphinx Moth Recovery Plan. Portland, OR.

———. 2007. Kern Primrose Sphinx Moth (*Euproserpinus euterpe*) 5-Year Review: Summary and Evaluation. Sacramento, CA.

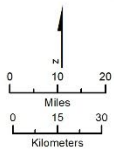
———. 2019. Meetings with the California High-Speed Rail Authority regarding Kern primrose sphinx moth. October 24, 2019 and November 22, 2019.

———. 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020).

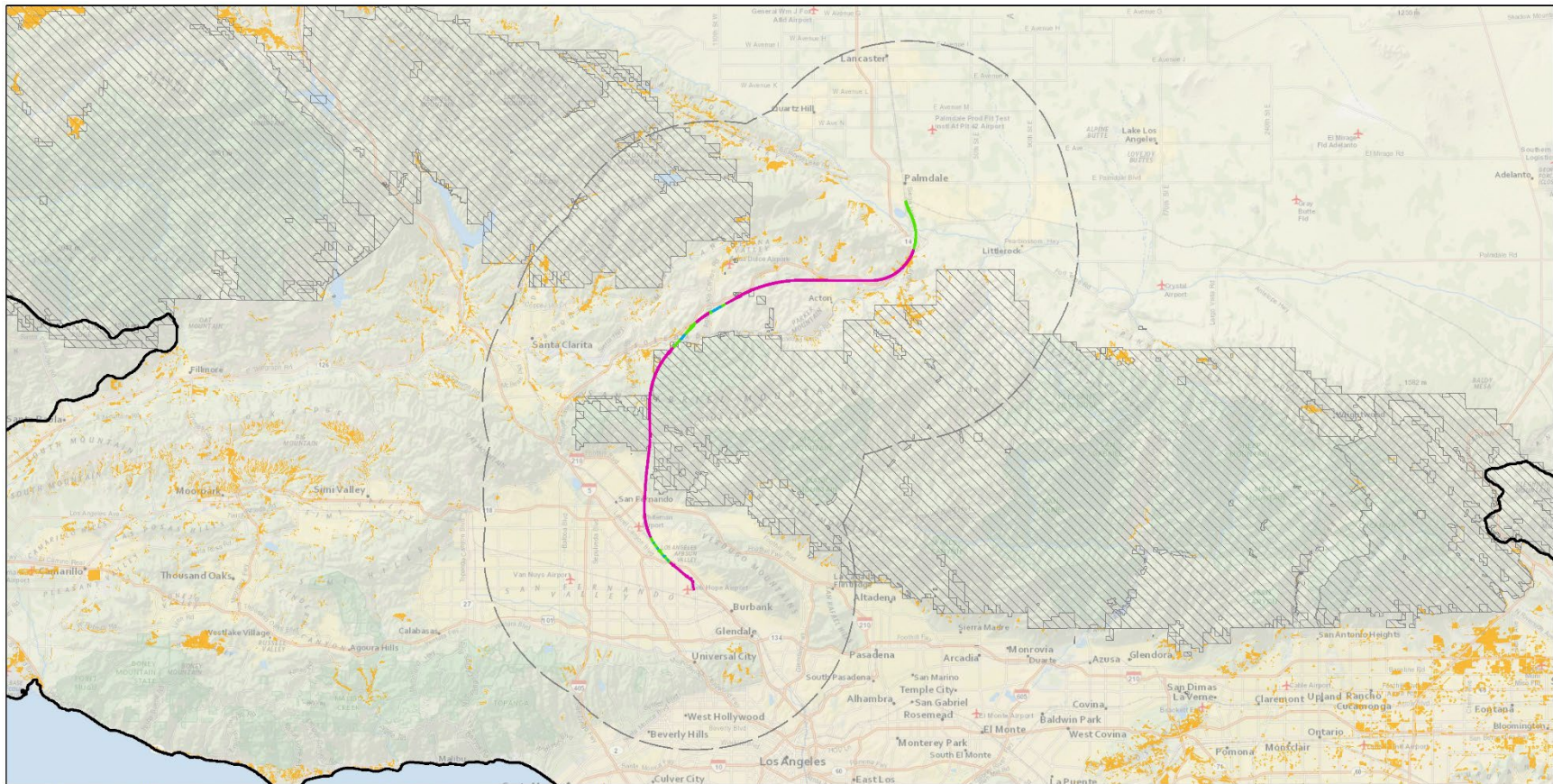
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |             |                        |                              |
|----------------------|-------------|------------------------|------------------------------|
| Regional Study       | Elevated    | Presumed Extant        | Core Suitable Habitat        |
| 10-Mile Buffer       | Surface     | Possibly Extirpated    | Potentially Suitable Habitat |
| Forest Service Lands | Underground | Extirpated             |                              |
|                      |             | Known Occurrence Areas |                              |

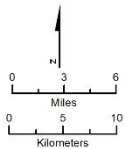
**Kern Primrose Sphinx Moth**

**Figure 3.7-A-20 Kern Primrose Sphinx Moth Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Modeled Habitat Data from CHSR (2017); CNDDDB (08/2020).

Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                        |                              |
|----------------------|---------------|------------------------|------------------------------|
| Regional Study Area  | HSR Alignment | Species Occurrences    | Habitat Category             |
| 10-Mile Buffer       | Elevated      | Presumed Extant        | Potentially Suitable Habitat |
| Forest Service Lands | Surface       | Possibly Extirpated    |                              |
|                      | Underground   | Extirpated             |                              |
|                      |               | Known Occurrence Areas |                              |

**Kern Primrose Sphinx Moth**

**Figure 3.7-A-21 Kern Primrose Sphinx Moth Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**



## Quino Checkerspot Butterfly

The Authority has determined that the HSR Palmdale to Burbank Project Section will have no effect on Quino checkerspot butterfly (*Euphydryas editha quino*), a federally endangered species.

### Rationale

The Authority reviewed species information for Quino checkerspot butterfly from the USFWS five-year species review, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-23 and Figure 3.7-A-24), and habitat and range information relative to the proposed HSR project alignment. Additionally, the Authority conducted informal consultation with the USFWS, including biweekly meetings initiated in July 2019.

The geographic range of Quino checkerspot butterfly historically extended from Point Dume in Los Angeles County to northern Baja California, Mexico. At the time of listing in 1997, only seven or eight known extant populations occurred in the United States, all in southwestern Riverside County and San Diego County (USFWS 2009a). The species current geographic range does not overlap the action area and there are no occurrences located within 10 miles of the action area (CNDDDB 2020). The nearest designated critical habitat is approximately 85 miles southeast of the action area at Skinner Reservoir (USFWS 2020; USFWS 2009b). The action area is not included in the recovery plan for Quino checkerspot butterfly (USFWS 2003).

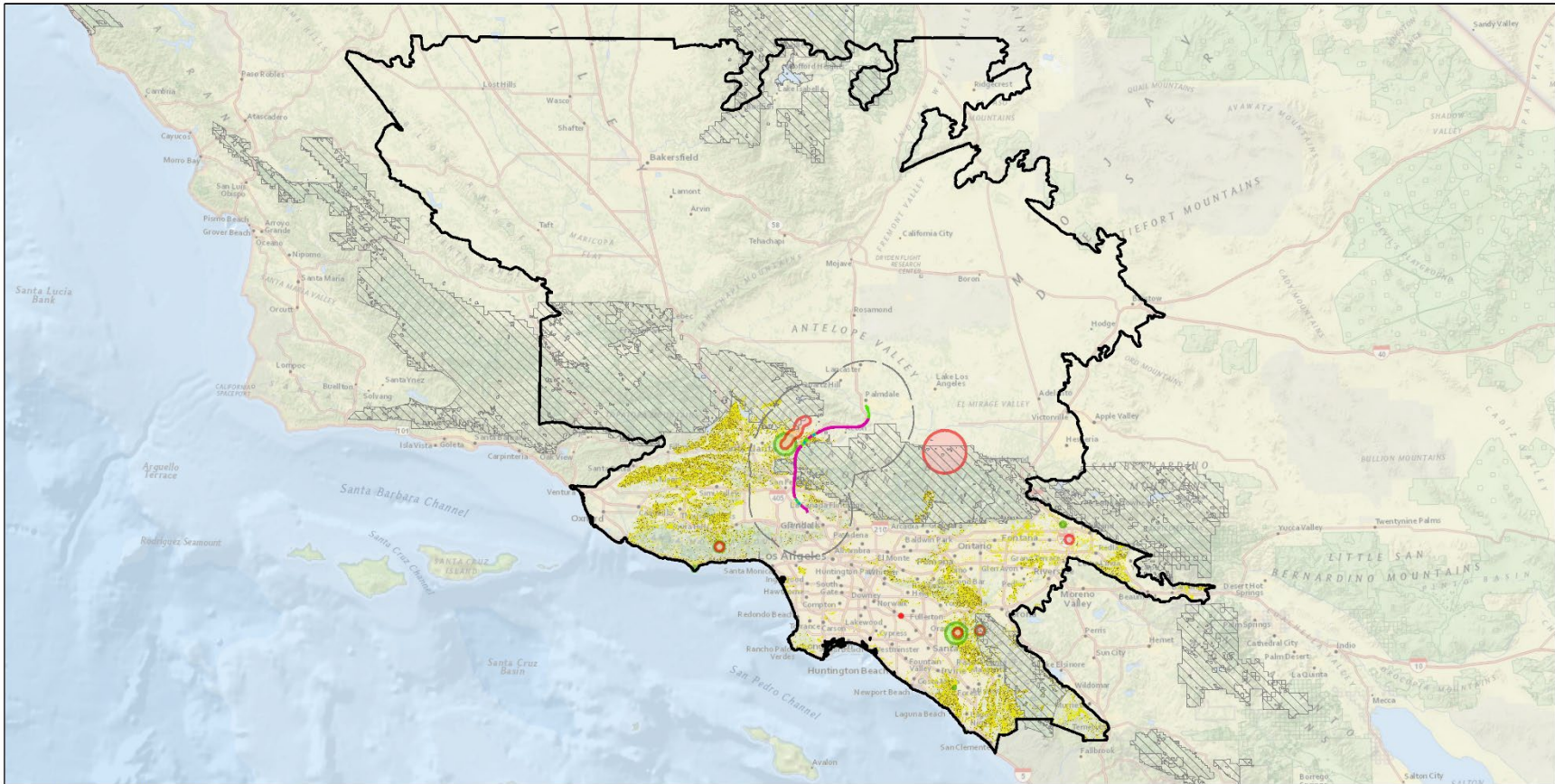
### Conclusion

Due to the proposed action being outside of the current geographic range of the species, the lack of CNDDDB records within 10 miles of the project, and limited amount of suitable habitat the action area (Figure 3.7-A-24), this species likely is absent from the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that based on expert opinion (Ken Osborne per. comm.), Quino checkerspot butterfly are not expected to occur in the action area (USFWS 2019). Therefore, the proposed action will have no effect on Quino checkerspot butterfly. The Authority will reinitiate Section 7 consultation if Quino checkerspot butterfly are observed during pre-construction surveys or project construction or O&M activities.

### References

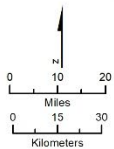
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5* (version 5.2.14, dated December 1, 2019). Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (accessed 2019).
- Pratt, G.F and E.W. Hein. 2001. *Newly discovered populations and food plants extend the range of the endangered quino checkerspot butterfly, Euphydryas editha quino [Nymphalidae] in Southern California*. Journal of the Lepidopterists' Society 55[4]:169-171.
- U.S. Fish and Wildlife Service (USFWS). 2003. *Recovery Plan for the Quino Checkerspot Butterfly (Euphydryas editha quino)*. Portland, OR.
- . 2009a. *Quino Checkerspot Butterfly (Euphydryas editha quino), 5-Year Review: Summary and Evaluation*. Sacramento, CA.
- . 2009b. *Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Quino Checkerspot butterfly (Euphydryas editha quino)*. Federal Register 74(115): 28776-28862.
- . 2019. Meetings with the California High-Speed Rail Authority regarding Quino checkerspot butterfly. October 24, 2019 and November 22, 2019.
- . 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).

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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDDB (08/2020).

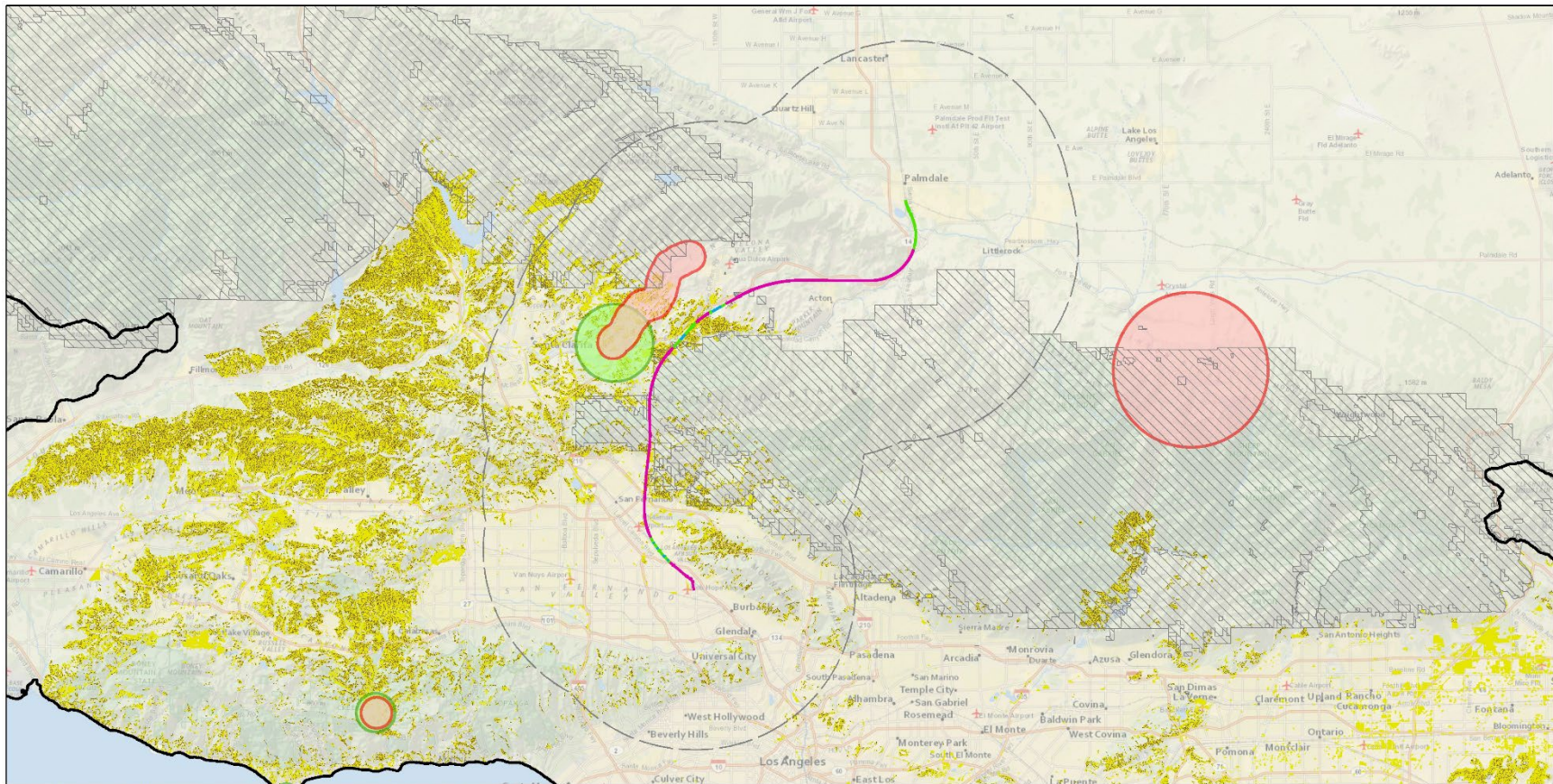
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                              |                           |
|----------------------|---------------|------------------------------|---------------------------|
| Regional Study Area  | HSR Alignment | Habitat Category             | Species Occurrences       |
| 10-Mile Buffer       | Elevated      | Hill/Ridge Breeding Habitat  | Extirpated                |
| Forest Service Lands | Surface       | Potentially Suitable Habitat | Natural Extant Occurrence |
|                      | Underground   |                              |                           |

**Quino Checkerspot Butterfly**

**Figure 3.7-A-22 Quino Checkerspot Butterfly Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDDB (08/2020).

Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



**Quino Checkerspot Butterfly**

**Figure 3.7-A-23 Quino Checkerspot Butterfly Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Southern California Steelhead

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect the Southern California distinct population segment (DPS) of steelhead (*Oncorhynchus mykiss*), a federally endangered species.

### Rationale

The Authority reviewed species information for Southern California steelhead including the National Marine Fisheries Service (NMFS) recovery plan, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-24 and Figure 3.7-A-25), and habitat and range information relative to the proposed action. Southern California steelhead is an anadromous salmonid fish that historically occurred in streams and rivers draining the Coast Ranges between Point Sal in the north and the U.S.-Mexico border in the south (NMFS 2012). The current range of steelhead is constrained by dams, diversions, and other man-made obstacles that restrict adult migration upstream from the ocean as well as ever-changing regional climatic conditions such as prolonged periods of reduced precipitation. Non-migratory rainbow trout (also *Oncorhynchus mykiss*) is present in some of the watersheds not accessible to adult steelhead. These populations may produce smolts that migrate to the ocean, which at that point are considered part of the Southern California DPS of steelhead.

The action area crosses the Santa Clara River in its upper reaches at Soledad Canyon where steelhead may have historically occurred prior to anthropogenic influences. This eastern portion of the Santa Clara basin is located within the boundary of the DPS (National Oceanic and Atmospheric Administration [NOAA] 2021) and the Recovery Planning Area identified for the species by NMFS (NMFS 2012). However, it is likely that steelhead was historically limited to the western part of the Santa Clara basin (NOAA 2006) due to a naturally occurring dry gap in the Santa Clara River above the confluence with Piru Creek, approximately 26 miles downstream from the action area. This gap is large, stable, and only covered by surface flows during exceptional storm events (Richmond et al. 2017), effectively blocking the migration of adults and smolts during normal rain years. Although rainbow trout have been observed and/or stocked in Soledad Canyon, CDFW is not aware of historical steelhead runs in the area (Titus et al. 2021). According to the CNDDDB, there are presumed extant occurrences of steelhead in the lower Santa Clara River and its tributaries, Santa Paula Creek and Sespe Creek (CDFW 2021). The occurrence closest to the action area is approximately 36 miles downstream at the confluence of Sespe Creek and the Santa Clara River. No extirpated or possibly extirpated occurrences are documented by CNDDDB in the Santa Clara River upstream of Sespe Creek. Critical habitat for the species is designated in the Santa Clara River up to the confluence with Piru Creek (USFWS 2005). In the Final Rule on federally designated critical habitat for the Southern California DPS of steelhead, it is stated that the portion of the Santa Clara River upstream of Piru Creek was not included in the designation because it was not occupied by steelhead.

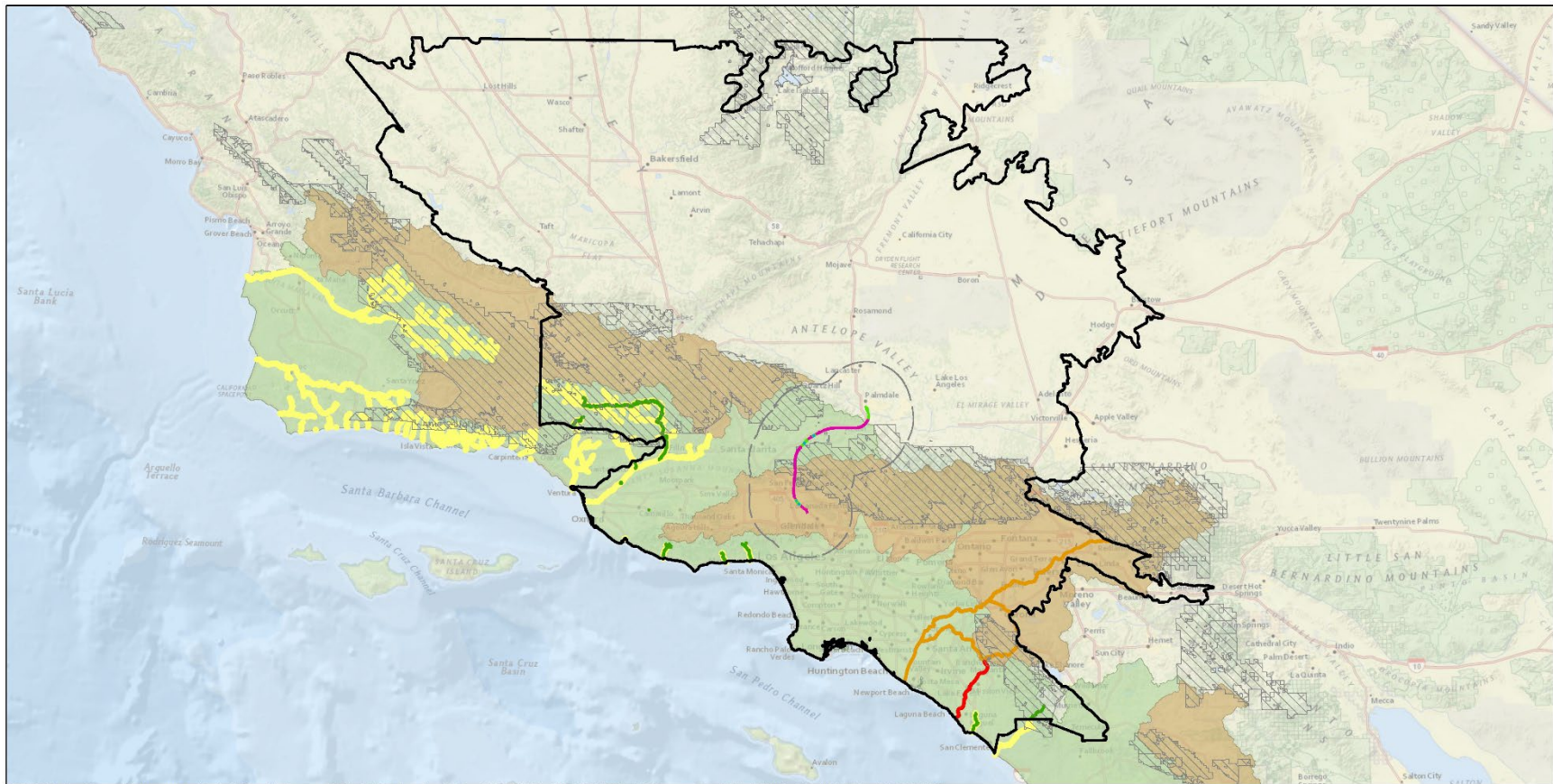
### Conclusion

Due to the distance of the action area from known extant occurrences of steelhead, presence of naturally occurring barriers to fish passage several miles downstream and outside of the action area, historically occupied habitat occurring several miles downstream and outside of the action area, and designated critical habitat also located several miles downstream and outside of the action area, the species is not likely to be present in the action area. However, because rainbow trout are known to exist in the vicinity of the action area, and because smolts produced by these trout may migrate to the ocean under rare storm conditions, the possible presence of individuals belonging to the Southern California DPS of steelhead cannot be ruled out. Potential impacts to steelhead would be avoided and minimized through implementation of the project's conservation measures designed for unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). These include requirements that all work will occur outside the wetted channel of the river, proposed permanent pile installation locations will be located outside of the 25-year flood zone, and permanent structure construction will be completed during the dry season (June 1 through November 1). Therefore, the proposed action may affect but is not likely to adversely affect the

Southern California DPS of steelhead. Furthermore, the proposed action will not adversely modify or destroy federally designated critical habitat for the Southern California DPS of steelhead. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

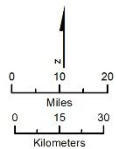
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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), CNDDDB (08/2020), DPS Segments from NOAA (01/2012), Critical Habitat from NOAA (9/2021).

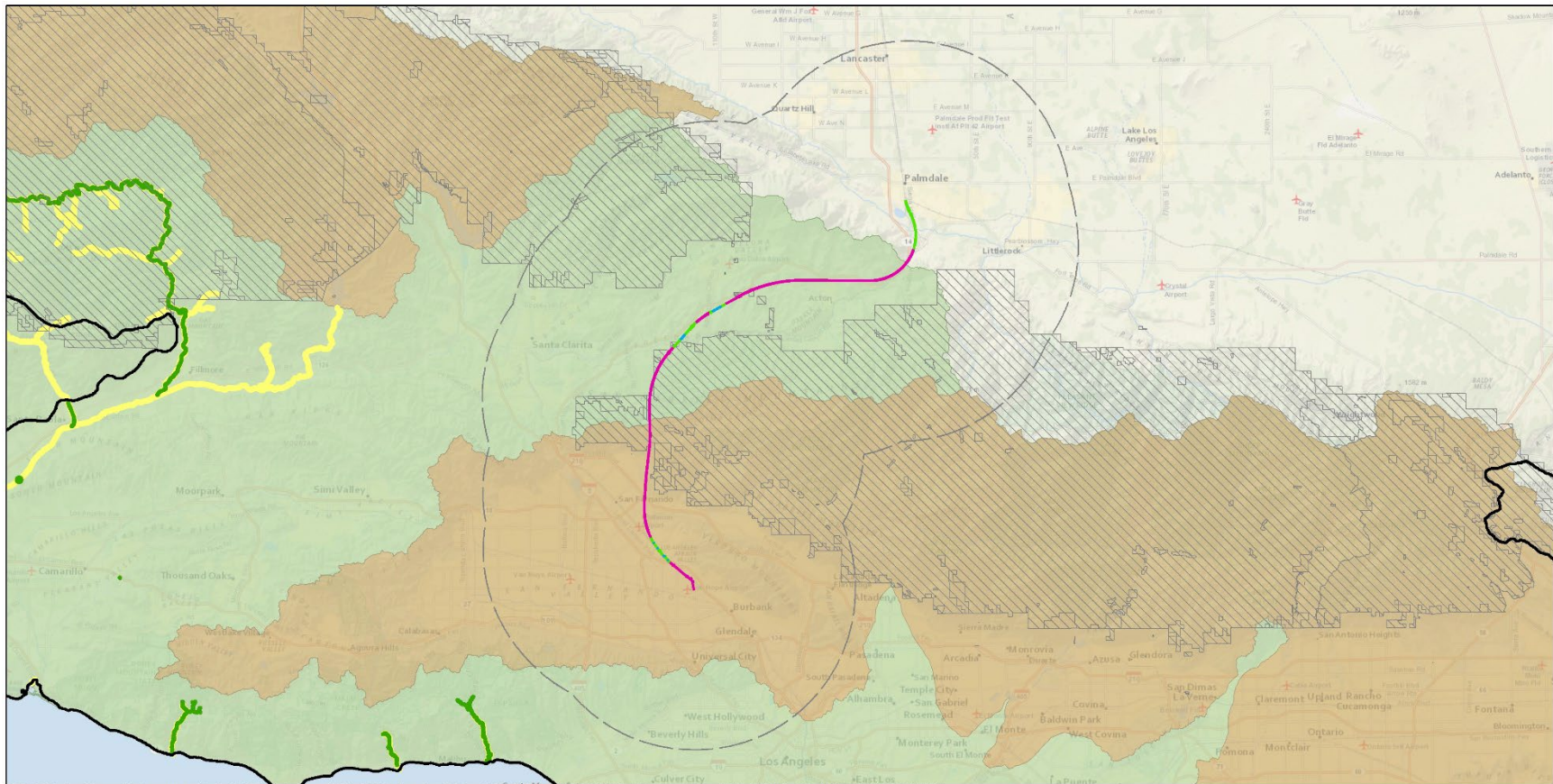
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- Regional Study Area
- 10-Mile Buffer
- Forest Service Lands
- DPS Boundary
- Historical Watershed: Anthropogenically Restricted
- HSR Alignment: Elevated
- HSR Alignment: Surface
- HSR Alignment: Underground
- Critical Habitat
- Species Occurrences: Extirpated
- Species Occurrences: Possibly Extirpated
- Species Occurrences: Natural Extant Occurrence

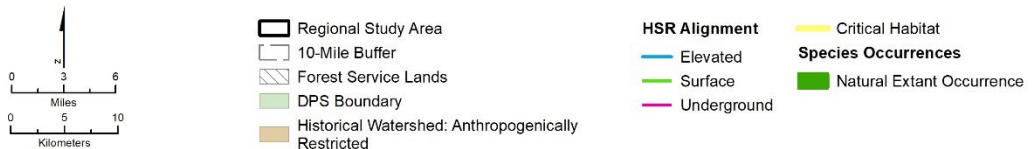
Steelhead

Figure 3.7-A-26 Southern California Steelhead Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); CNDDDB (08/2020); DPS Segments from NOAA (01/2012); Critical Habitat from NOAA (9/2021).

Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



Steelhead

**Figure 3.7-A-27 Southern California Steelhead Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**



## California Red-legged Frog

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect California red-legged frog (*Rana [aurora] draytonii*), a federally threatened species and a CDFW Species of Special Concern.

### Rationale

The Authority reviewed species information for California red-legged frog including from the USFWS draft recovery plan, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-27 and Figure 3.7-A-28), and habitat and range information relative to the proposed action. Species specific protocol-level surveys were conducted in 2017. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

California red-legged frog historically occurred in the foothills of the Sierra Nevada and throughout the Coastal and Transverse mountain ranges. The species is currently found in the Central Coast Range with occasional localized populations remaining in the Sierra Nevada foothills. California red-legged frogs are considered extirpated from the Central Valley, the Southern Sierras, and the San Gabriel Mountains (USFWS 2002). According to the CNDDDB, there are three presumed extant occurrences of California red-legged frog within 10 miles of the action area (CDFW 2020). Two of these occurrences are located 2.8 miles and 3.2 miles east of the action area in Aliso Canyon in the ANF from 2015 and 2011, respectively. One record from 1995 is located 7.0 miles west of the action area, in the Leona Valley 9 miles west of Palmdale.

Suitable habitat near or within the action area occurs primarily around Lake Palmdale and Una Lake, and between Escondido Canyon and Pacoima Wash. However, the species (adults, metamorphs, tadpoles, or egg masses) was not detected during protocol-level surveys conducted for the proposed action in 2017 (see Appendix F of this Biological Assessment).

The nearest designated critical habitat is located in the ANF in San Francisquito Canyon north of Santa Clarita, approximately 9.7 miles west of the action area (USFWS 2001; USFWS 2020).

### Conclusion

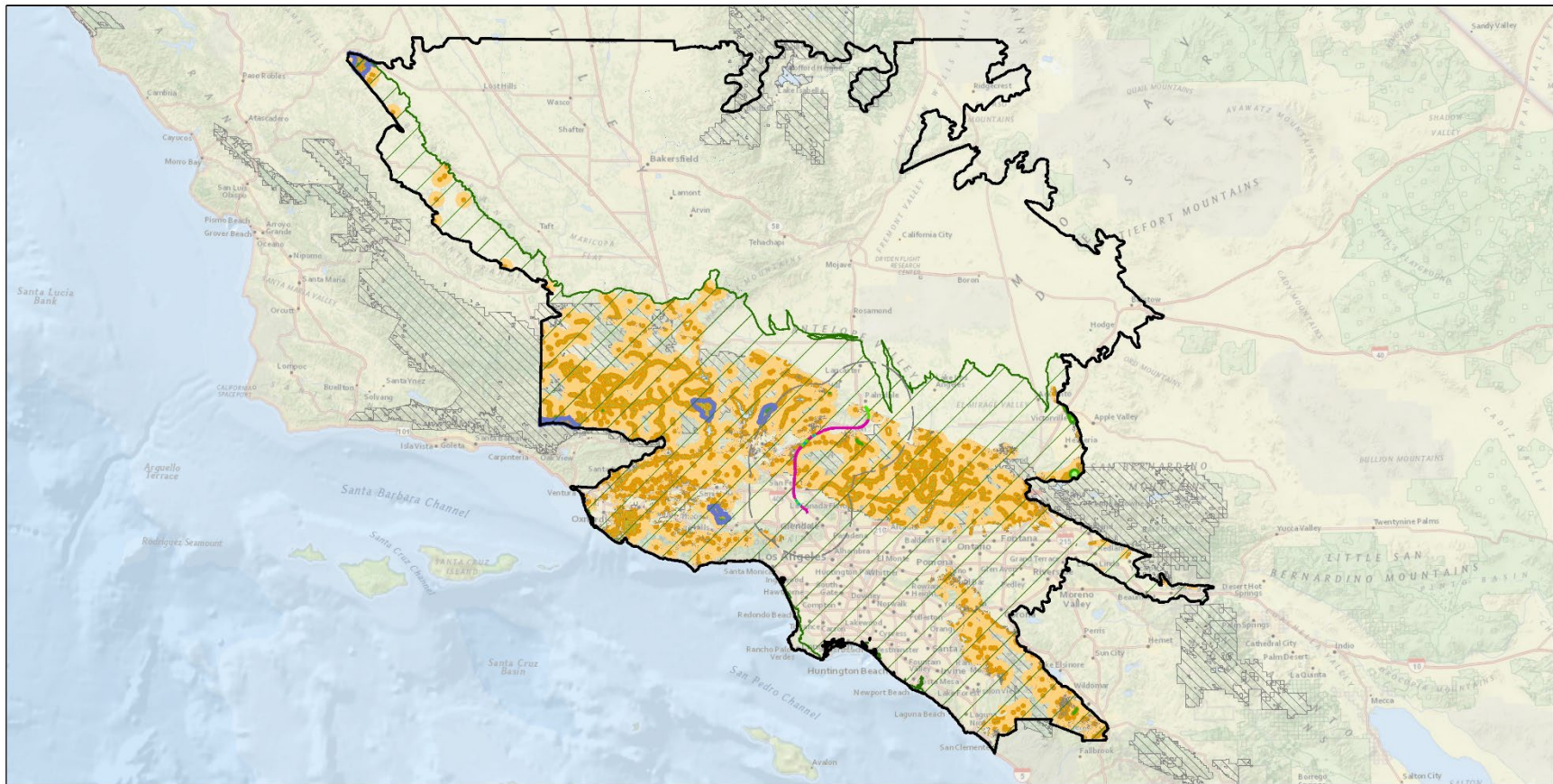
Due to the limited suitable habitat in the action area, distance to known populations, presence of predatory trout and negative results of the 2017 protocol-level surveys, the species is not likely to be present in the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species in southern California, California red-legged frogs are not expected to occur in the action area (USFWS 2019). However, due the presence of suitable habitat, the proposed action may affect but is not likely to adversely affect California red-legged frog.

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species and adhering to guidance in *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USWS 2005). If California red-legged frogs are observed, no project activities that could adversely affect the species will be conducted within 1,000 feet of individuals. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

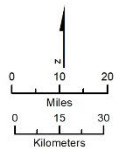
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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDDB (08/2020), USFWS Critical Habitat (09/2020).

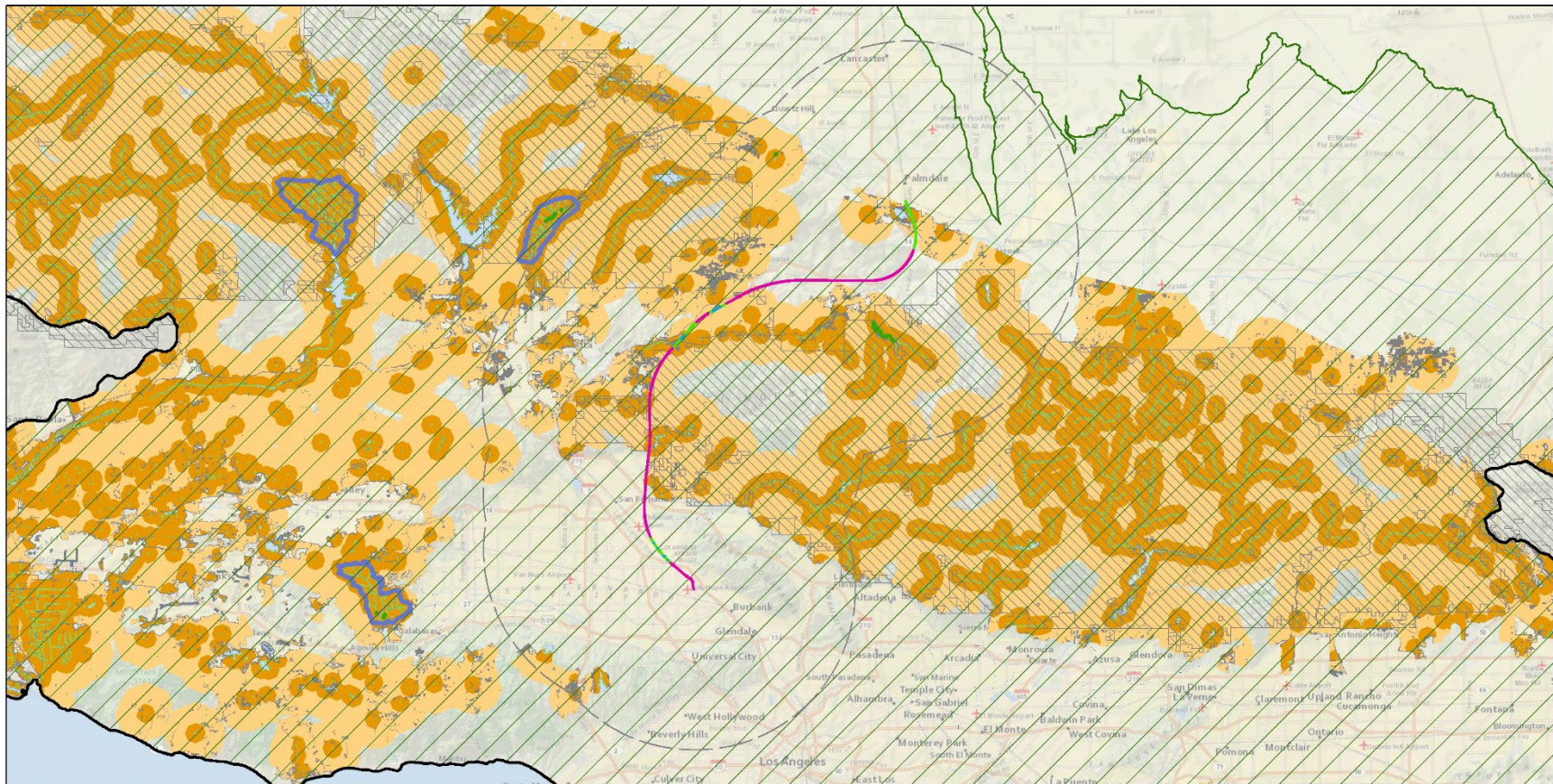
Please Note: The CNDDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                             |  |
|----------------------|---------------|-----------------------------|--|
| Regional Study       | HSR Alignment | Habitat Category            | Dispersal/Seasonal Movement Habitat          |
| 10-Mile Buffer       | Elevated      | Breeding Season Aquatic     | Other Potential Movement Habitat             |
| Forest Service Lands | Surface       | Refugia/Foraging Habitat    | Permeable Movement Area (Dev, Ag, Disturbed) |
| Species Range        | Underground   | Non-Breeding Season Aquatic | <b>Occurrence</b>                            |
| Critical Habitat     |               |                             | Natural Extant Occurrence                    |

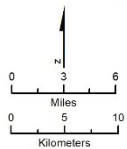
California Red-legged Frog

Figure 3.7-A-28 California Red-legged Frog Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDb (08/2020), USFWS Critical Habitat (09/2020).

Please Note: The CNDDb occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within the area which have not yet been surveyed and/or mapped. Lack of information in the CNDDb about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                             |  |
|----------------------|---------------|-----------------------------|--|
| Regional Study       | HSR Alignment | Habitat Category            | Dispersal/Seasonal Movement Habitat          |
| 10-Mile Buffer       | Elevated      | Breeding Season Aquatic     | Other Potential Movement Habitat             |
| Forest Service Lands | Surface       | Refugia/Foraging Habitat    | Permeable Movement Area (Dev, Ag, Disturbed) |
| Species Range        | Underground   | Non-Breeding Season Aquatic | <b>Occurrence</b>                            |
| Critical Habitat     |               |                             | Natural Extant Occurrence                    |

**California Red-legged Frog**

**Figure 3.7-A-29 California Red-legged Frog Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## Mountain Yellow-legged Frog

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect the southern California distinct population segment (DPS) of mountain yellow-legged frog (*Rana muscosa*), a federally endangered species and a USFS sensitive species.

### Rationale

The Authority reviewed species information for mountain yellow-legged frog including from the USFWS five-year species review, the CNDDDB, results from surveys conducted for the proposed action, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-29 and Figure 3.7-A-30), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

Mountain yellow-legged frog occurs in the southern Sierra Nevada and Transverse ranges, including San Gabriel, San Bernardino, and San Jacinto mountains, in Los Angeles, Riverside, and San Bernardino counties at elevations between 1,200 and 7,500 feet (USFWS 2012). There are no CNDDDB occurrences more recent than 1970 within 10 miles of the action area (CDFW 2020). The CNDDDB documents three extirpated and five possibly extirpated occurrences of mountain yellow-legged frog within 10 miles of the action area, all located in the ANF. One extirpated occurrence from 1918 (CNDDDB Occurrence Number 39) overlaps the action area at Pacoima Canyon but habitat was lost or significantly altered following the creation of the Pacoima Reservoir. The closest possibly extirpated (due to presence of predatory trout) occurrence is 6.1 miles east of the action area in the ANF from 1969. This species was not detected during the 2017 protocol-level surveys for California red-legged frogs conducted in drainages in the action area. The nearest critical habitat is in ANF approximately 14.3 miles east of the action area (USFWS 2020).

### Conclusion

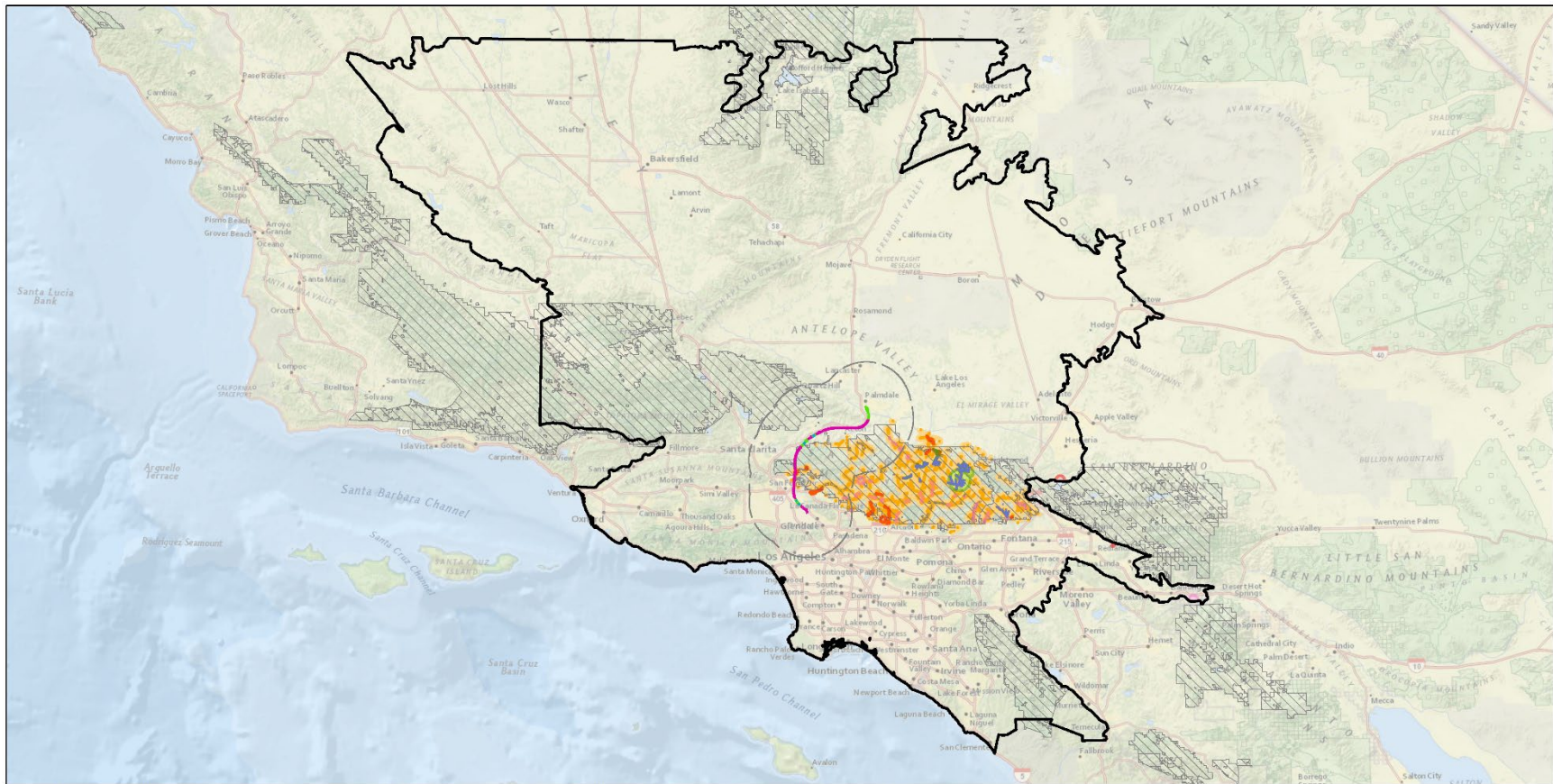
Due to the lack of extant records within 10 miles of the project and limited amount of suitable habitat in the action area (Figure 3.7-A-30), this species likely is not present in the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species in southern California and the presence of predatory trout in many streams, mountain yellow-legged frogs are not expected to occur in the action area (USFWS 2019). Due to the presence of suitable habitat, presence cannot be discounted entirely. Therefore, the proposed action may affect but is not likely to adversely affect mountain yellow-legged frogs.

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species and adhering to the current accepted survey protocol guidance for mountain yellow-legged frog. If mountain yellow-legged frogs are observed, no project activities that could adversely affect the species will be conducted within 1,000 feet of individuals. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### References

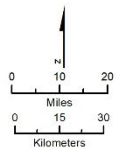
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (accessed 2020).
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- . 2020. Environmental Conservation Online System (ECOS). Washington, DC. <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed 2020).



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020), USFWS Critical Habitat (09/2020).

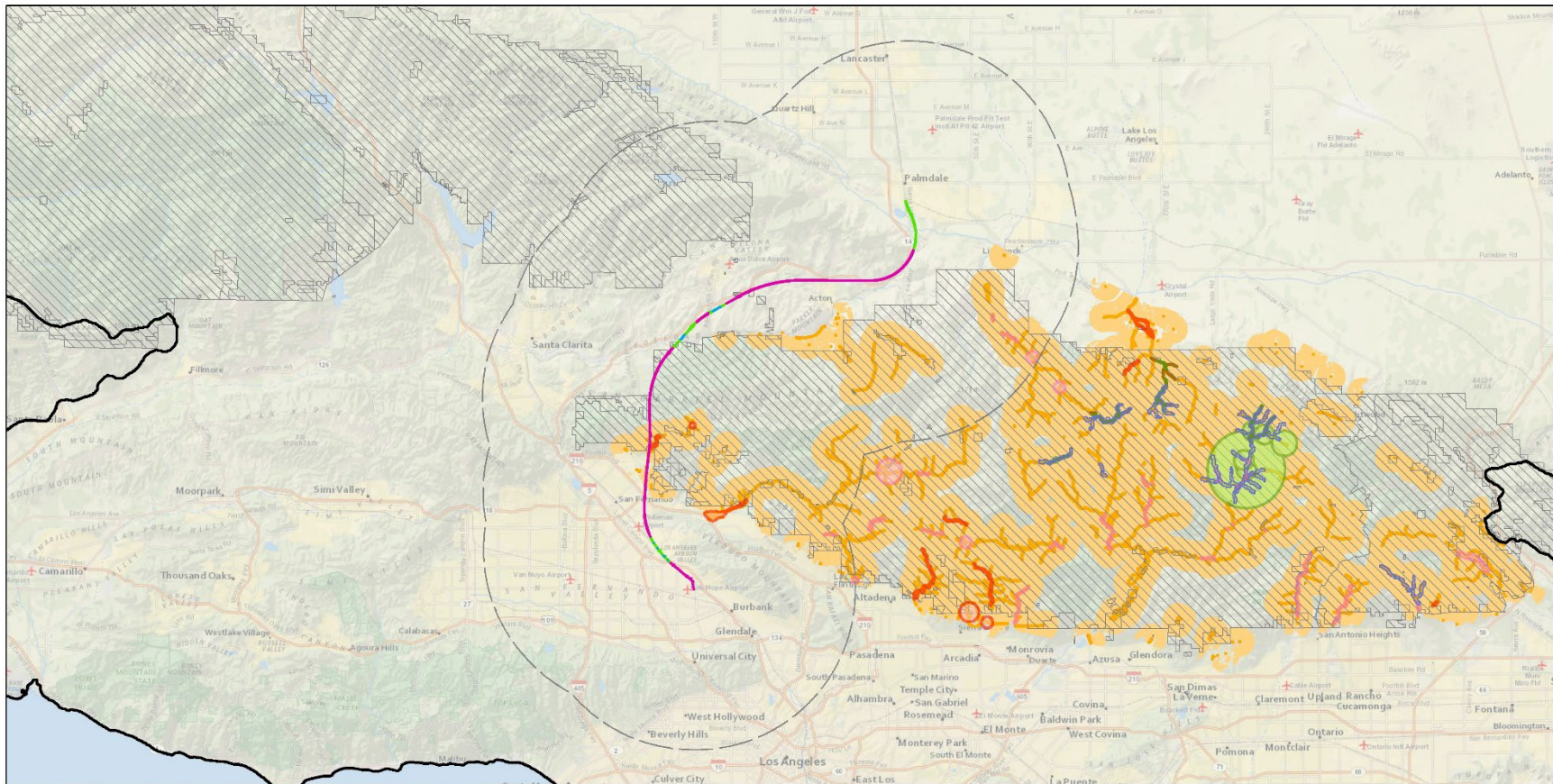
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                                    |                           |
|----------------------|---------------|------------------------------------|---------------------------|
| Regional Study       | HSR Alignment | Habitat Category                   | Species Occurrences       |
| 10-Mile Buffer       | Elevated      | Occupied Aquatic                   | Documented Extirpated     |
| Forest Service Lands | Surface       | Potentially Suitable Aquatic       | Possibly Extirpated       |
| Critical Habitat     | Underground   | Refugia/Foraging/Dispersal Habitat | Natural Extant Occurrence |

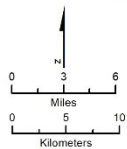
**Mountain Yellow-legged Frog**

**Figure 3.7-A-30 California Mountain Yellow-legged Frog Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDb (08/2020), USFWS Critical Habitat (09/2020).

Please Note: The CNDDb occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDb about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |                                    |                           |
|----------------------|---------------|------------------------------------|---------------------------|
| Regional Study       | HSR Alignment | Habitat Category                   | Species Occurrences       |
| 10-Mile Buffer       | Elevated      | Occupied Aquatic                   | Documented Extirpated     |
| Forest Service Lands | Surface       | Potentially Suitable Aquatic       | Possibly Extirpated       |
| Critical Habitat     | Underground   | Refugia/Foraging/Dispersal Habitat | Natural Extant Occurrence |

**Mountain Yellow-legged Frog**

**Figure 3.7-A-31 Mountain Yellow-legged Frog Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**



## Desert Tortoise

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect the desert tortoise (*Gopherus agassizii*), a federally- and State-threatened species.

### Rationale

The Authority reviewed species information for desert tortoise including from USFWS federal listing documents, the CNDDDB, and other relevant data sources. Data analyzed included known occurrence records, and habitat and range information relative to the proposed action (Figure 3.7-A-31 and Figure 3.7-A-32). Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

In California, the historic range of desert tortoise extended from the Searles Valley in the Mojave Desert to the Mexican border and from the western edge of the Antelope Valley to the Colorado River (Nussear et al. 2009). The species is now extirpated from much of the northern portion of that range, including Antelope Valley, Searles Valley, and Indian Wells (USFWS 2010). However, numerous CNDDDB occurrences support the observation by USFWS that desert tortoise continues to occupy scattered locations in these areas where the habitat has not been altered to agricultural and other development (USFWS 2010). No desert tortoises have been reported within 10 miles of the action area (CDFW 2021) but the northern portion of the action area is within the historic range of the species.

The northern end of the action area lies in the Western Mojave Recovery Unit (USFWS 2011). The nearest designated critical habitat (Fremont-Kramer Unit) is located approximately 19.1 miles northeast of the action area (USFWS 2021).

### Conclusion

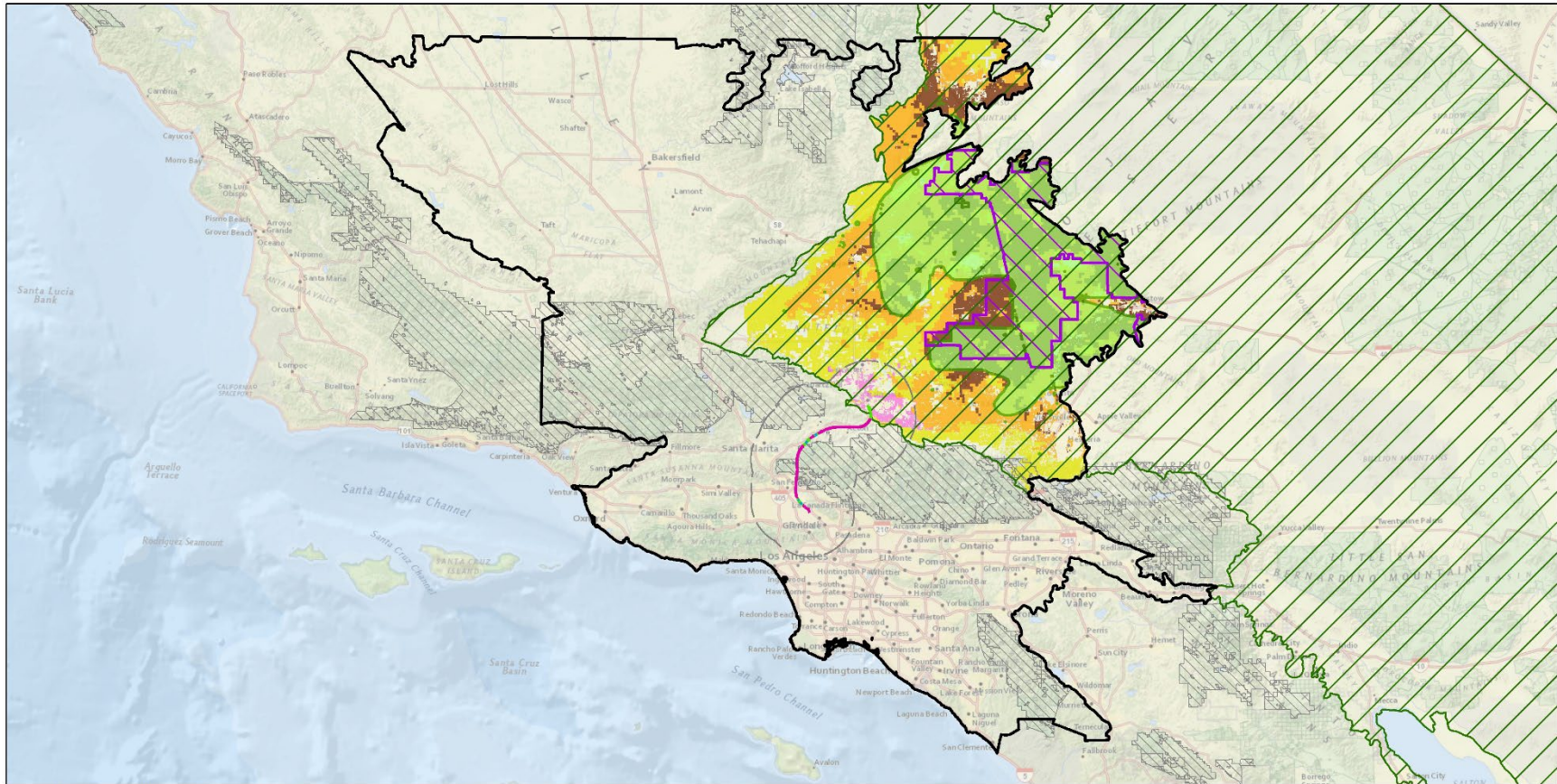
Because the northern portion of the action area is within the historic range of the species, and because scattered remnants of suitable habitat exists there, desert tortoise may be present in the action area. However, due to the limited amount of suitable habitat and its location in a predominantly urban setting in the city of Palmdale, and because no desert tortoises have been reported within 10 miles of the action area, the species is not likely to be present in the action area. Therefore, the proposed action may affect but is not likely to adversely affect desert tortoise.

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species and adhering to guidance in the *Desert Tortoise (Mojave Population) Field Manual* (USFWS 2009). If desert tortoise are observed, no project activities that could adversely affect the species will be conducted within 1,000 feet of individuals. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

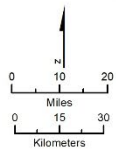
- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (accessed April 2021).
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- . 2011. *Revised Recovery Plan for the Mojave Population of the Desert Tortoise (Gopherus agassizii)*. Sacramento, CA. May 2011.
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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020), USFWS Critical Habitat (09/2020).

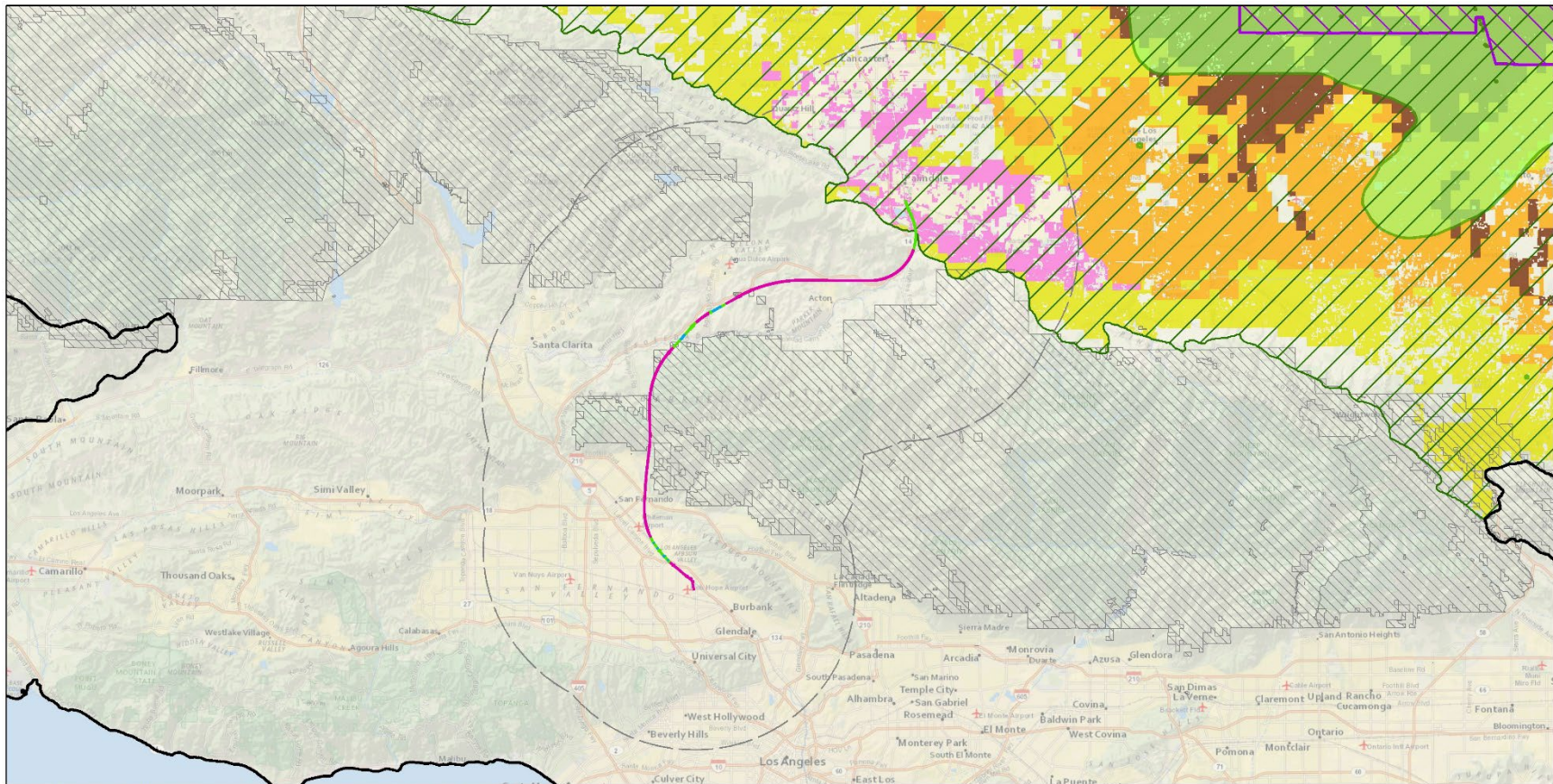
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- |                      |               |   |                           |
|----------------------|---------------|---|---------------------------|
| Regional Study       | HSR Alignment | Habitat Category                              | Species Occurrences       |
| 10-Mile Buffer       | Elevated      | High Value Suitable Habitat                   | Natural Extant Occurrence |
| Forest Service Lands | Surface       | Moderate Value Suitable Habitat               |                           |
| Species Range        | Underground   | Low Value Suitable Habitat                    |                           |
| Critical Habitat     |               | Potentially Suitable Habitat in Urban Setting |                           |

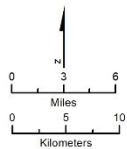
Desert Tortoise

Figure 3.7-A-32 Desert Tortoise Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020), USFWS Critical Habitat (09/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |               |   |                           |
|----------------------|---------------|---|---------------------------|
| Regional Study Area  | HSR Alignment | Habitat Category                              | Species Occurrences       |
| 10-Mile Buffer       | Elevated      | High Value Suitable Habitat                   | Natural Extant Occurrence |
| Forest Service Lands | Surface       | Moderate Value Suitable Habitat               |                           |
| Species Range        | Underground   | Low Value Suitable Habitat                    |                           |
| Critical Habitat     |               | Potentially Suitable Habitat in Urban Setting |                           |

**Desert Tortoise**

**Figure 3.7-A-33 Desert Tortoise Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**

## California Condor

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect the California condor (*Gymnogyps californianus*), a federally-endangered species that is also listed as endangered and designated as fully protected by the State of California.

### Rationale

The Authority reviewed species information for California condor including from USFWS federal listing documents, the CNDDDB (CDFW 2021), and other relevant data sources. Data analyzed included known occurrence records, and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

California condor populations exist in central and southern California, northern Arizona, and southern Utah, as well as northern Baja California. There are three active release sites in California, one in Arizona, and one in Baja California, Mexico (USFWS 2013). The reintroduced population has resumed use of its historic range, which includes coastal and mountainous areas north to southern British Columbia. In California, populations occur near the release sites in the Ventana Wilderness of Los Padres National Forest, Pinnacles National Park, and Bitter Creek National Wildlife Refuge. In 2017, the condor population reached 170 condors in California, with 80 condors in southern California (USFWS 2017a). Current breeding range in California includes mountain ranges from Santa Clara County south to the Transverse Ranges. A separate breeding population was introduced in Arizona at the Grand Canyon.

The California condor historically occurred along the northern extent of the RSA, throughout the Greenhorn Mountains east of Bakersfield and in the San Gabriel Mountains (Figure 3.7-A-33 and Figure 3.7-A-34). The nearest release site, the Bitter Creek National Wildlife Refuge, is approximately 70 miles northwest of the action area. In the RSA, critical habitat is designated for California condor west and northwest of the action area in the San Emigdio Mountains, Topatopa Mountains, northern Santa Ynez Mountains, and Tehachapi Mountains. The nearest designated critical habitat is approximately 22 miles west-northwest of the action area in the Sespe Wilderness.

In 2016, condors from the southern California population ranged from the Southern Sierra Nevada range in Fresno County to north of the Santa Monica Mountains, west into the Sierra Madre Mountains of San Luis Obispo County and east into the San Gabriel Mountains north of Ontario in eastern Los Angeles County (USFWS 2017b). The largest concentration of condor activity in 2016 was reported in the Tehachapi Mountains in Kern County.

Six nest attempts occurred in the Topatopa Mountains in 2016, in and around the Hopper Mountain National Wildlife Refuge (USFWS 2017a), approximately 25 miles west of the action area. Nesting activity between 2017 and 2019 was limited to the Tehachapi Mountains; the southern Sierra Nevada mountains east of Bakersfield in Sequoia National Forest; Bitter Creek National Wildlife Refuge in southern Kern County (Kirkland 2019a); and the Kern River Canyon area northeast of Bakersfield (Sloan 2019).

The USFWS reports periodic flights/roosting throughout the ANF (Kirkland 2019b). more activity generally occurs near I-5 and west of SR 14, but flights further south and east have been documented. Condors are known to periodically roost on communication towers at Kagel Mountain (located approximately 1.2 miles southwest of the SR14A Build Alternative adit option) and on neighboring peaks. There is no known breeding activity in the ANF.

The action area is in both the historic and current range of California condor (USFWS 2017b). Designated critical habitat and recent nest sites are located within 22 miles west-northwest of the action area (USFWS 2017b). Since 2000, regular California condor activity has been reported close to the action area, near Contract Point, the Loop Canyon ITT facilities, and nearby areas along FS Road 3N17.8 between the FS Bear Divide Station and County Camp 9 (eBird 2021, Authority and FRA 2019a). In 2016, a biologist monitoring geotechnical boring associated with the

SR14A Build Alternative, observed a California condor at Contract Point, which is approximately 1.6 miles southwest of the adit option.

### **Conclusion**

Because the action area passes through both the historic and current ranges of California condor (USFWS 2017b), and because a condor was observed in the vicinity of the action area as recently as 2016, the species is presumed to be present in the action area. However, no designated or proposed critical habitat for California condor is located in the action area. The action area does not contain condor nesting habitat and no known nesting sites exist within 20 miles of the action area; therefore, impacts to condor nests and nesting habitat would not occur. The project could result in impacts to approximately 811 acres of potential condor foraging habitat within the species historic range, but large contiguous swaths of suitable habitat would remain intact adjacent to the project.

Potential impacts to individuals would be avoided and mitigated through implementation of the project's conservation measures specific to California condor (CM-CACO-01 through CM-CACO-07, provided below). Additionally, CM-GEN-29 requires that project structures including the catenary system, masts, fencing, electric lines, communication towers, and facilities be designed to be bird and raptor-safe (i.e., avoid electrocution and strike) in accordance with applicable Avian Power Line Interaction Committee (APLIC) recommendations in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and *Reducing Avian Collisions with Power Lines: State of the Art in 2012* (APLIC 2012). The catenary system would avoid electrocution with a design that ensures a minimum safe distance between the conductors of 83 inches horizontal and 52 inches vertical (Authority 2020). The risk of injury or mortality of condors as a result of collision with trains during operation would be reduced by fencing that prevents most wildlife from entering the railway and becoming a source of carrion.

For these reasons the proposed action may affect, but is not likely to adversely affect California condor. The Authority will reinstate Section 7 consultation if circumstances meeting the reinstatement criteria occur.

### **Conservation Measures Specific to California Condor**

#### **CM-CACO-01: Coordinate with USFWS on California Condor Locations**

The Project Biologist will coordinate with USFWS at least seven days prior to initiation of construction activities (including vegetation removal) to review California condor tracking locations so that appropriate monitoring and avoidance measures can be determined. The Designated Biologist or Biological Monitor will continue to review California condor tracking locations daily, using available data or website managed by the USFWS for the purpose of implementing monitoring and avoidance measures.

#### **CM-CACO-02: Monitor for California Condor**

A Biological Monitor with California condor experience will be present during construction activities occurring within two miles of where California condor have been observed, based on the most recent tracking and location information obtained from the USFWS prior to construction activities. The Biological Monitor shall have the ability to halt construction activities if a California condor enters the work area and may be affected by project activities (CM-CACO-05). Monitoring of the condor will continue until the condor has left the two-mile buffer area.

#### **CM-CACO-03: Work Timing Restrictions Near California Condor Roosting Locations**

If California condor are observed roosting within 0.5 mile of the construction area, no construction activity will occur between one hour before sunset and one hour after sunrise or until the Designated Biologist or Biological Monitor has determined that the bird(s) has left the area. The Designated Biologist will review construction activities seven days prior to initiation of construction activities.

#### **CM-CACO-04: Implement Avoidance Measures for California Condor**

During any ground-disturbing activities in the range of California condor, the Project Biologist will implement the following avoidance measures:

- Construction materials located in work areas, including items that could pose a risk of entanglement, such as ropes and cables, will be properly stored and secured when not in use.
- Litter, small artificial items (screws, washers, nuts, bolts, etc.), and all food waste will be stored in self-closing, sealable containers with lids that latch to prevent entry by wind, common ravens, and mammals. All trash receptacles will be regularly inspected and collected regularly; the contents disposed of from work areas on a daily basis to prevent spillage and maintain sanitary conditions. The receptacles will be removed from the project area when construction or O&M activities are complete.
- All fuels, fluids, and components with hazardous materials or wastes will be handled in accordance with applicable regulations. These materials will be kept in segregated, secured, and/or secondary containment facilities, as necessary. Any spills of liquid substances that could harm wildlife will be immediately addressed.
- The project will avoid the use of ethylene glycol-based anti-freeze or other ethylene glycol-based liquid substances. All parked vehicles/equipment will be kept free of leaks, particularly anti-freeze.
- Polychemical lines will not be used or stored on site to preclude wildlife, especially California condor, from obtaining and ingesting pieces of polychemical lines.

**CM-CACO-05: Implement Helicopter Avoidance Measures for California Condor**

The Project Biologist will coordinate with the USFWS, as appropriate, prior to helicopter use that could affect condor, to establish that no known individuals are in the project region. If condors are present, helicopter use shall be avoided until the birds have left the area. If condors are observed in helicopter construction areas, further helicopter use shall be avoided until the Designated Biologist or Biological Monitor has determined that the condors have left the area. The Designated Biologist and Biological Monitors will have radio contact with the project foreman, who will be in radio contact with the helicopter pilot. The biologist will real-time information updates to avoid conflicts with condors.

**CM-CACO-06: Stop Work and Implement Hazing Methods for California Condor**

If a California condor(s) lands or is observed in or near a work area, the Designated Biologist or Biological Monitor will assess the construction activities occurring and determine whether there is a potential hazard to the condor. Activities determined to be a potential hazard will be stopped until the condor has abandoned the area. After five minutes, if a condor has not left of its own volition, the Designated Biologist or Biological Monitor, or other USFWS-approved personnel, will implement USFWS-approved hazing methods in accordance with the USFWS Recovery Program's *Guidance on Hazing California Condors* (USFWS 2014c).

If the California condor does not leave the area within 30 minutes of the initiation of hazing, the Designated Biologist or Biological Monitor will notify the Project Biologist. The Project Biologist will coordinate with the Authority and USFWS to determine the appropriate actions.

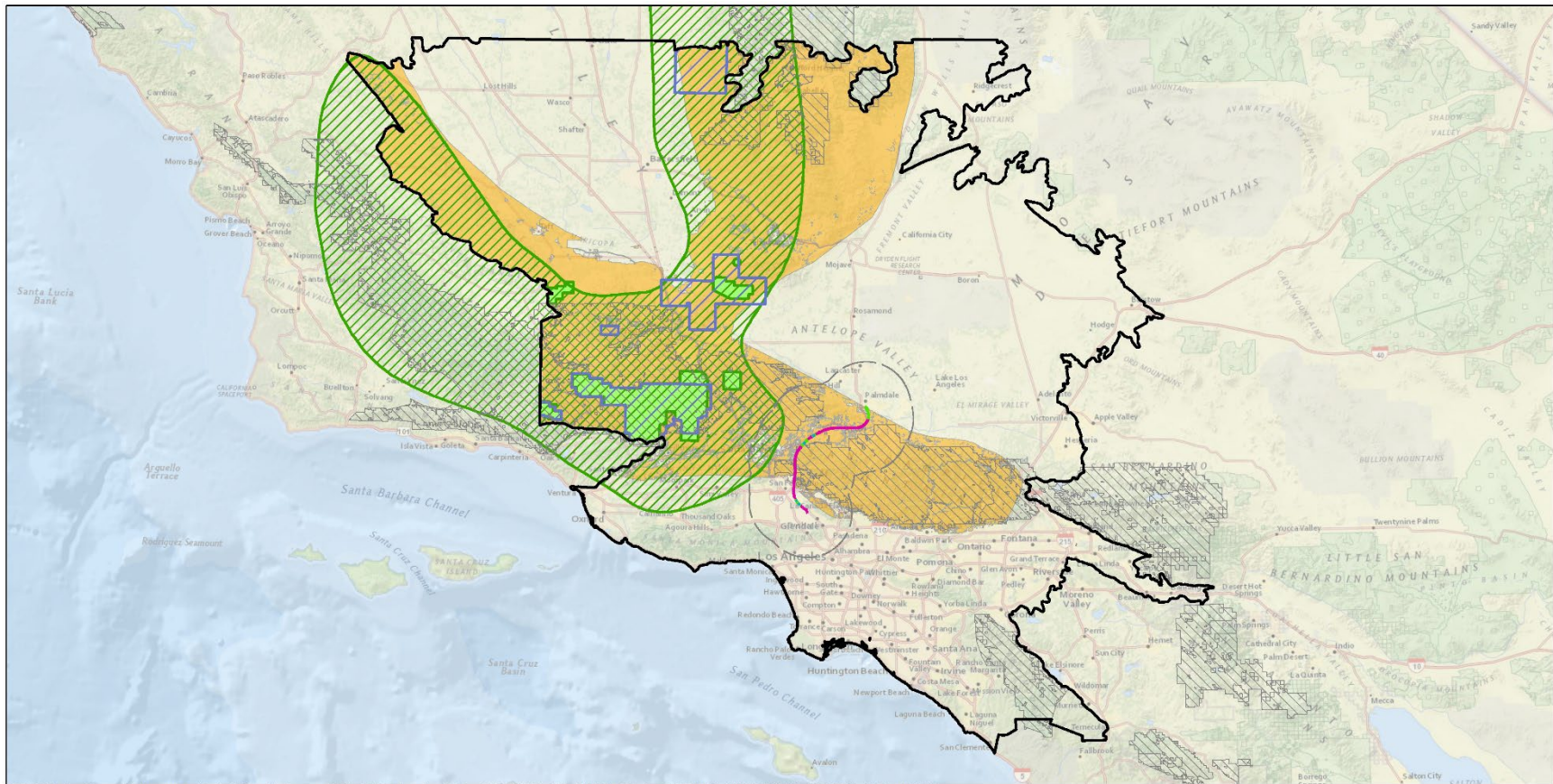
**CM-CACO-07: Implement Removal of Carrion that may Attract California Condor**

Dead and injured wildlife found in the right-of-way and tracks will be removed during construction and O&M when the train is not in operation. During O&M within California condor range, automated security monitoring and track inspections will be used to detect fence failures and/or the presence of carrion in the right-of-way.

## References

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- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5*. Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (accessed April 2021).
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- eBird. 2021. *eBird: An Online Database of Bird Distribution and Abundance [web application]*. eBird, Cornell Lab of Ornithology, Ithaca, New York. <http://www.ebird.org>. (accessed April 2021)
- U.S. Fish and Wildlife Service (USFWS). 2013. *California Condor (Gymnogyps californianus). 5-Year Review: Summary and Evaluation*. Sacramento, CA. June 2013.
- . 2017a. California Condor Recovery Program 2016 Annual Report. Hopper Mountain National Wildlife Refuge Complex.
- . 2017b. *California Condor Recovery Program, 2017 Annual Population Status*. Hopper Mountain National Wildlife Refuge Complex.
- Sloan, Justin. 2019. Senior Biologist, U.S. Fish and Wildlife Service, email correspondence with California High-Speed Rail Authority, regarding California condor, March 8, 2019.





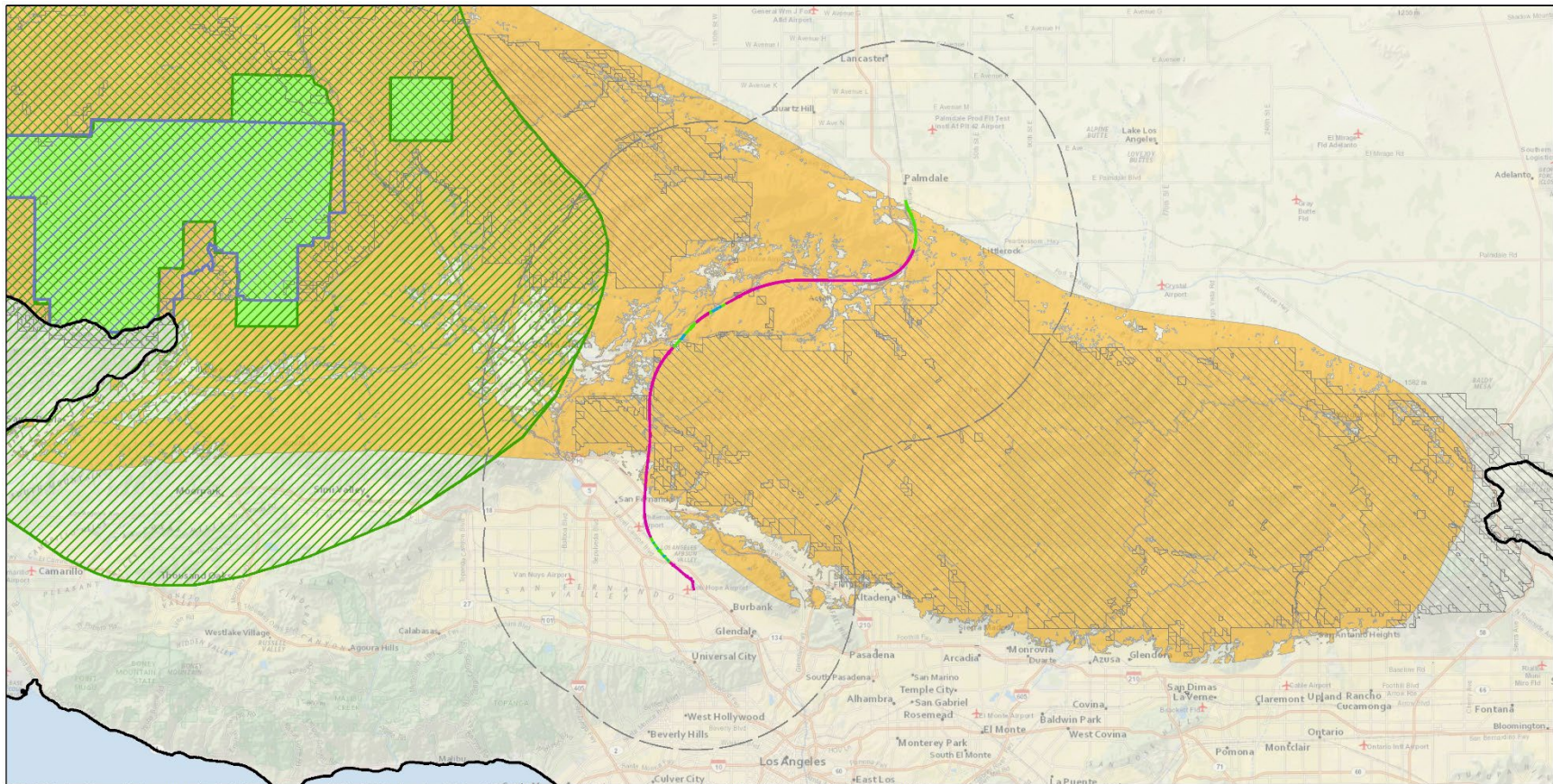
SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020), USFW Critical Habitat (9/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

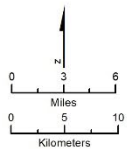
	Regional Study	HSR Alignment Elevated	Species Occurrences Presumed Extant
	10-Mile Buffer	Surface	Historic Range
	Forest Service Lands	Underground	Critical Habitat
	Species Range		Habitat Category

California Condor

Figure 3.7-A-34 California Condor Occurrences and Habitat in the Regional Study Area



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Modeled Habitat Data from CHSR (2017); CNDDB (08/2020); USFW Critical Habitat (9/2020).



- |                      |               |                     |
|----------------------|---------------|---------------------|
| Regional Study       | HSR Alignment | Species Occurrences |
| 10-Mile Buffer       | Elevated      | Presumed Extant     |
| Forest Service Lands | Surface       | Habitat Category    |
| Critical Habitat     | Underground   | Historic Range      |
| Species Range        |               |                     |

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

California Condor

Figure 3.7-A-35 California Condor Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section

## Yellow-billed Cuckoo

The Authority has determined that the HSR Palmdale to Burbank Project Section may affect but is not likely to adversely affect the western DPS of the yellow-billed cuckoo (*Coccyzus americanus*), a federally threatened and State endangered species, species federally classified as a Bird of Conservation Concern, and a USFS sensitive species.

### Rationale

The Authority reviewed species information for yellow-billed cuckoo including from USFWS federal listing documents, the CNDDDB, and other relevant data sources (see list of references). Data analyzed included known occurrence records (Figure 3.7-A-35 and Figure 3.7-A-36), and habitat and range information relative to the proposed action. Additionally, the Authority conducted informal consultation with the USFWS for the proposed action, including biweekly meetings initiated in July 2019.

The range of the western DPS of the yellow-billed cuckoo includes western North America (generally west of the Continental Divide) from southern British Columbia through the western U.S. to Baja California and Zacatecas, Mexico (USFWS 2014a). In California, breeding populations occur in the Sacramento Valley along the Sacramento River and some tributaries, the South Fork Kern River, and restoration sites near Blythe on the lower Colorado River (Halterman et al. 2015).

The CNDDDB documents one extirpated occurrence from 1894 within 10 miles of the action area, associated with a heavily developed location in San Fernando (CDFW 2020). A 2018 observation of yellow-billed cuckoo was reported by eBird from the Santa Clara River in Santa Clarita approximately eight miles west of the action area (eBird 2019). The nearest known occupied location is the South Fork Kern River Valley, approximately 30 miles northeast of the action area (CDFW 2020). Proposed critical habitat is present in the Prado Basin, approximately 44 miles southeast of the action area (USFWS 2014b). The yellow-billed cuckoo's current geographic range does not overlap with the action area and suitable breeding habitat is limited to small, isolated patches in Escondido Canyon and Pacoima Wash.

### Conclusion

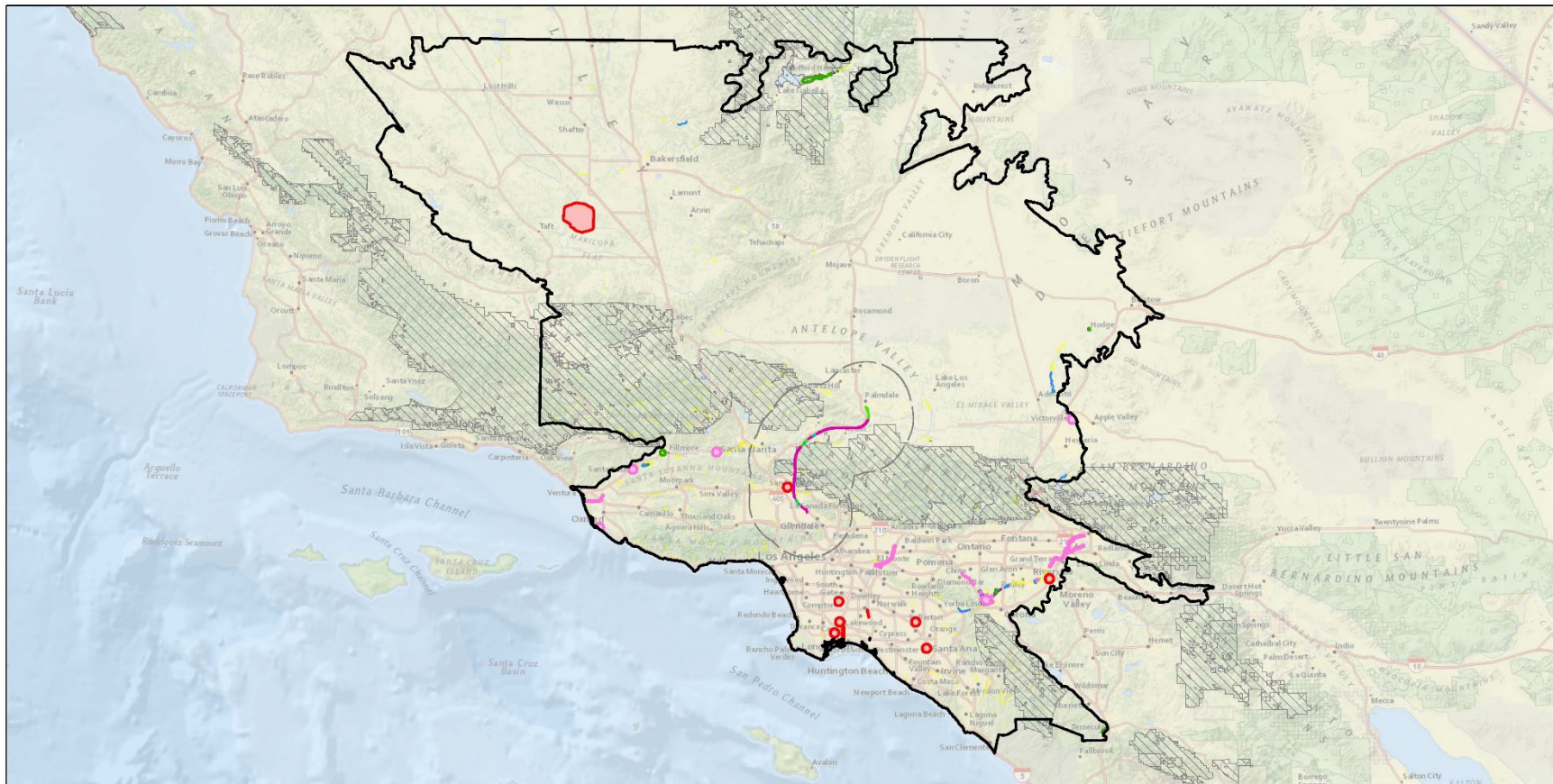
Due to the proposed action being outside of the current geographic range of the species, the lack of extant CNDDDB records within 10 miles of the project, and limited amount of suitable habitat in the action area, the species likely is not present in the action area. Additionally, the USFWS stated during informal consultation conducted in 2019 that due to rarity of the species in southern California, yellow-billed cuckoos are not expected to occur in the action area (USFWS 2019a). However, presence cannot be discounted due to the reported eBird observation and the presence of modeled habitat. Therefore, the proposed action may affect but is not likely to adversely affect yellow-billed cuckoo.

To ensure that this species is not present at the time of construction, suitable habitat within the project footprint will be surveyed prior to ground- or vegetation-disturbing activities. The survey(s) will be conducted by a Designated Biologist familiar with the distinguishing characteristics of the species and adhering to guidance in *A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of Yellow-billed Cuckoo* (Halterman et al. 2015). If yellow-billed cuckoos are observed, no project activities that could adversely affect the species will be conducted within 1,000 feet of individuals. The Authority will reinitiate Section 7 consultation if circumstances meeting the reinitiation criteria occur.

### References

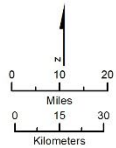
California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database RareFind 5* (version 5.2.14, dated December 1, 2019). Maintained by the Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> (accessed 2020).

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- U.S. Fish and Wildlife Service (USFWS). 2014a. *Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (Coccyzus americanus)*. Federal Register 79(192): 59991-60038.
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SOURCE: National Geographic basemap provided by ESRI and its licensors (2021), SR14 Engineering data from CHSR (4/2021), Modeled Habitat Data from CHSR (2017), CNDDB (08/2020).

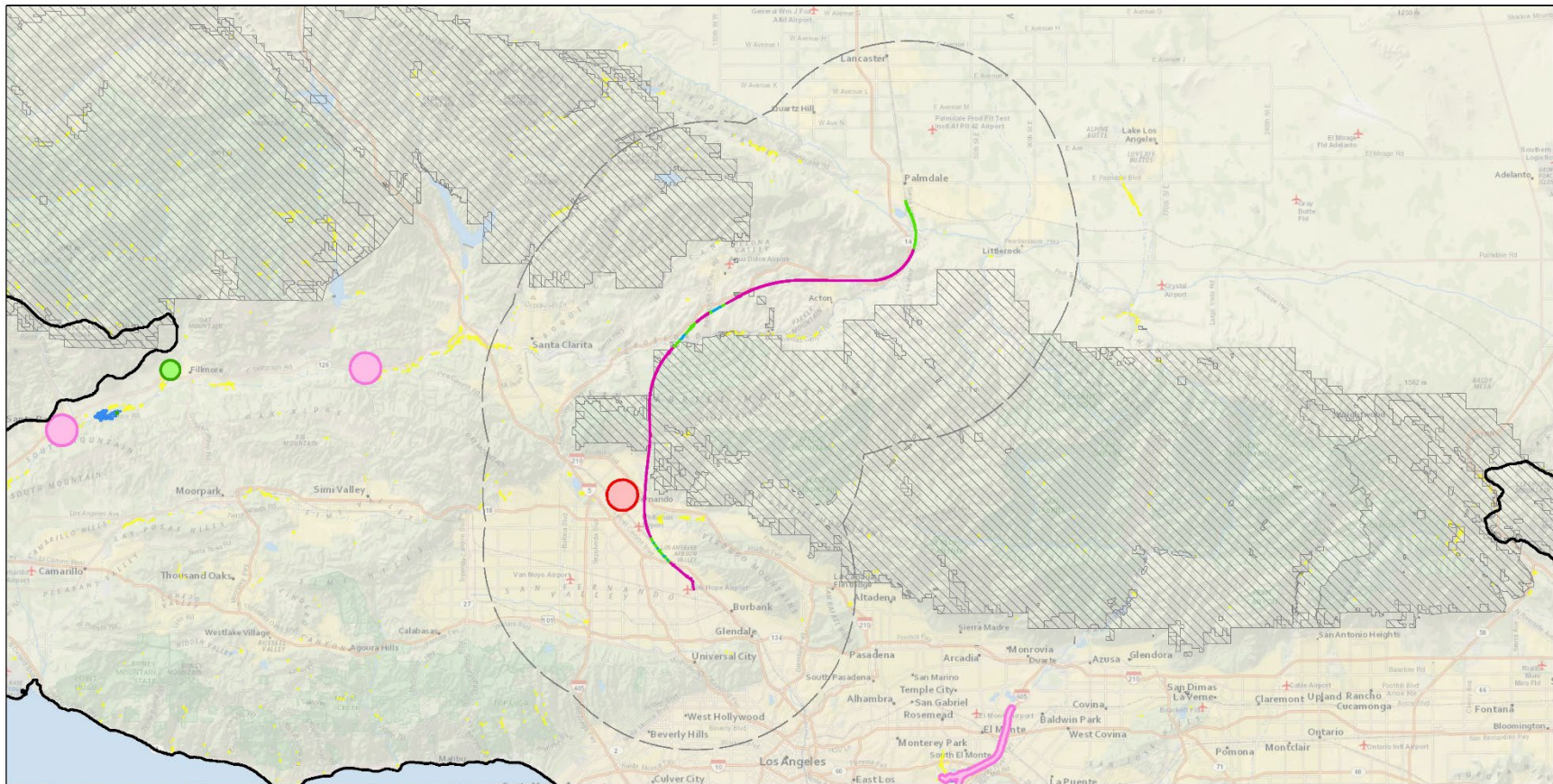
Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                      |   |                            |
|----------------------|----------------------|---|----------------------------|
| Regional Study Area  | <b>HSR Alignment</b> | <b>Habitat Category</b>                     | <b>Species Occurrences</b> |
| 10-Mile Buffer       | Elevated             | Core Breeding Habitat                       | Natural Extant Occurrence  |
| Forest Service Lands | Surface              | High Value Breeding Habitat                 | Possibly Extirpated        |
|                      | Underground          | Other Potentially Suitable Breeding Habitat | Determined Extirpated      |
|                      |                      |   | Documented Extirpated      |

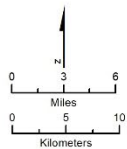
**Western Yellow-billed Cuckoo**

**Figure 3.7-A-36 Yellow-billed Cuckoo Occurrences and Habitat in the Regional Study Area**



SOURCE: National Geographic basemap provided by ESRI and its licensors (2021); SR14 Engineering data from CHSR (4/2021); Modeled Habitat Data from CHSR (2017); CNDDB (08/2020).

Please Note: The CNDDB occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.



- |                      |                      |   |                            |
|----------------------|----------------------|---|----------------------------|
| Regional Study Area  | <b>HSR Alignment</b> | <b>Habitat Category</b>                     | <b>Species Occurrences</b> |
| 10-Mile Buffer       | Elevated             | Core Breeding Habitat                       | Natural Extant Occurrence  |
| Forest Service Lands | Surface              | High Value Breeding Habitat                 | Possibly Extirpated        |
|                      | Underground          | Other Potentially Suitable Breeding Habitat | Determined Extirpated      |
|                      |                      |   | Documented Extirpated      |

**Western Yellow-billed Cuckoo**

**Figure 3.7-A-37 Yellow-billed Cuckoo Occurrences and Habitat in the Vicinity of the Palmdale to Burbank Project Section**