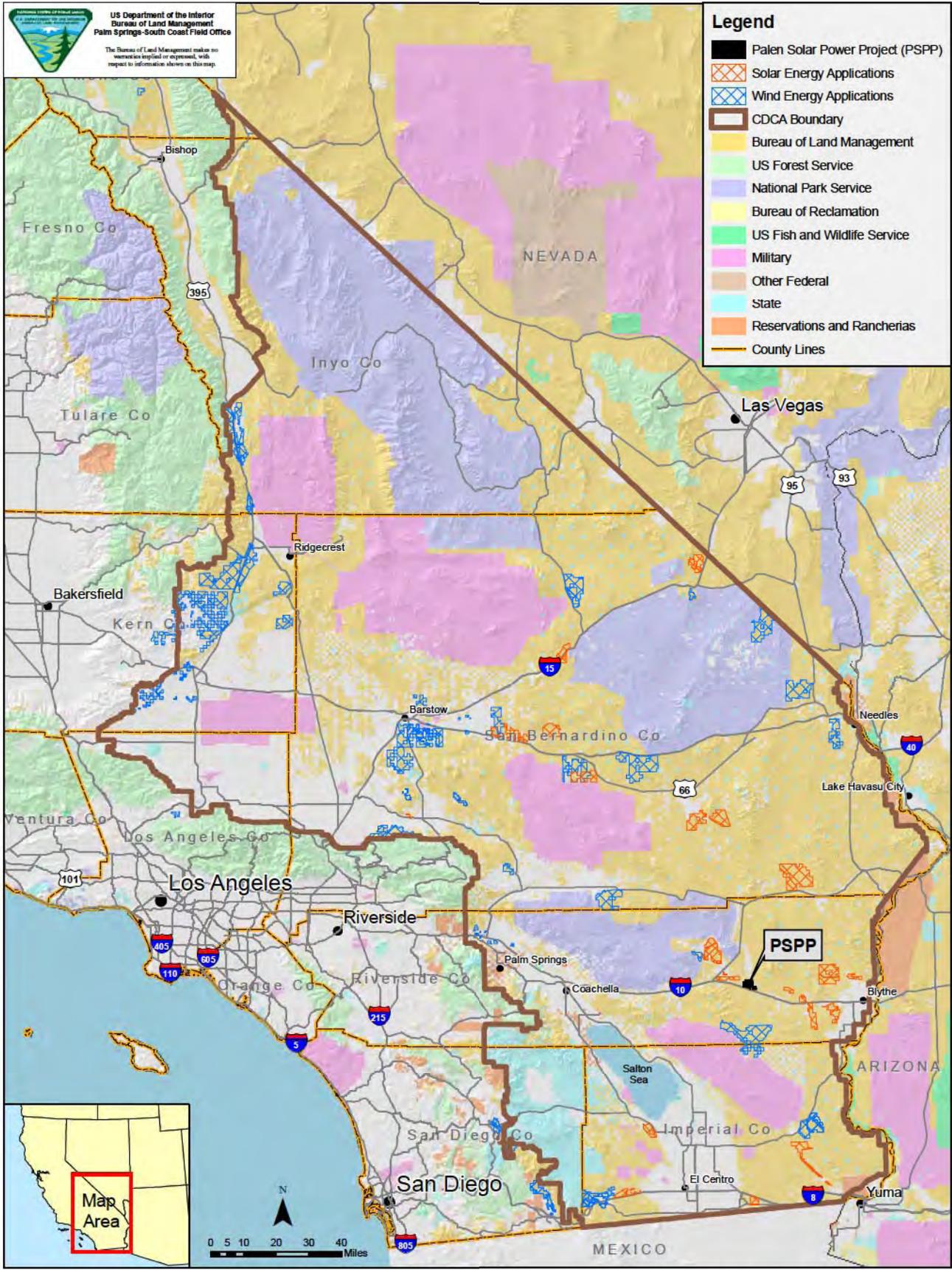


# **APPENDIX A**

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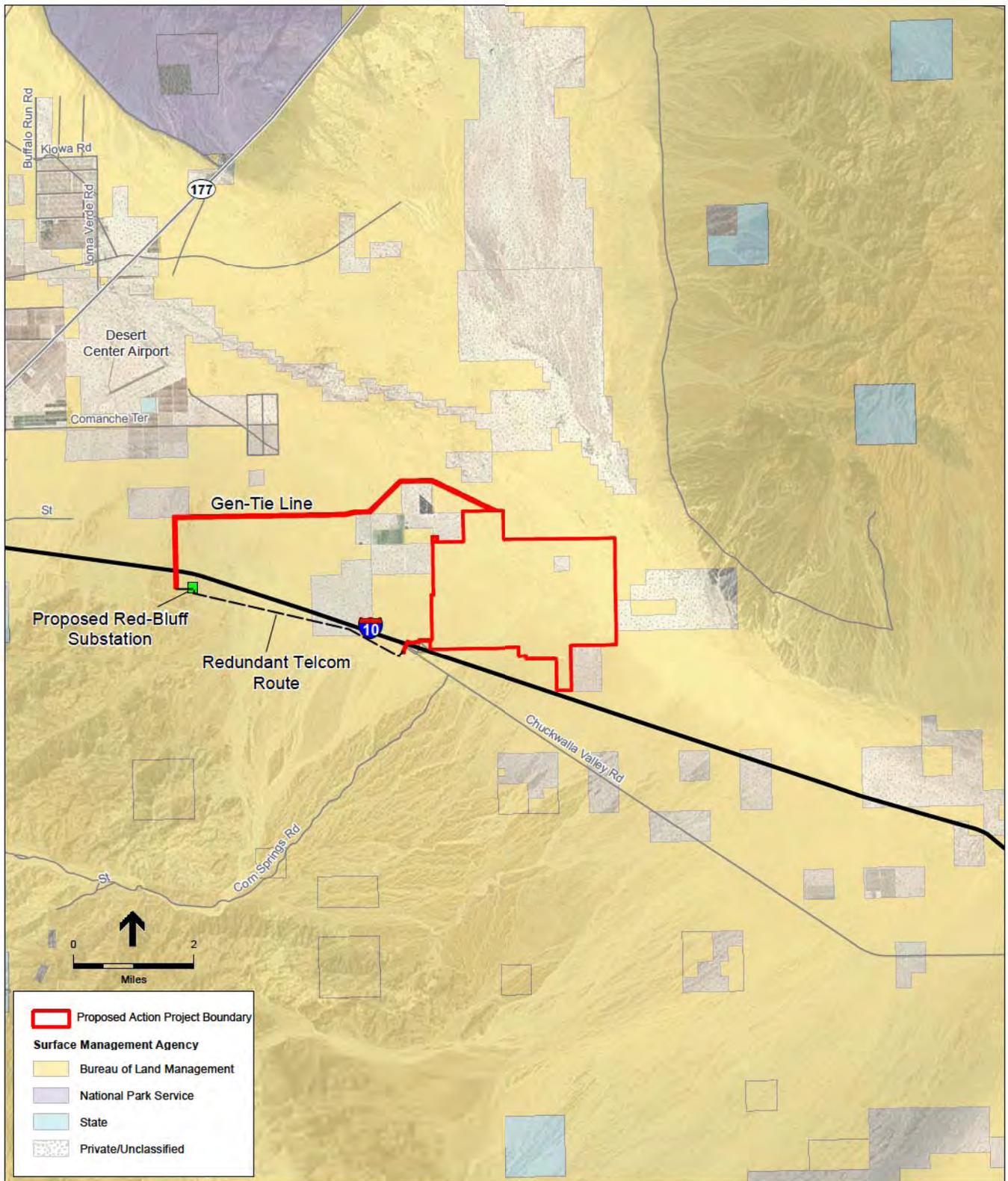
## **Maps and Figures**

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SOURCE: U.S. Department of the Interior

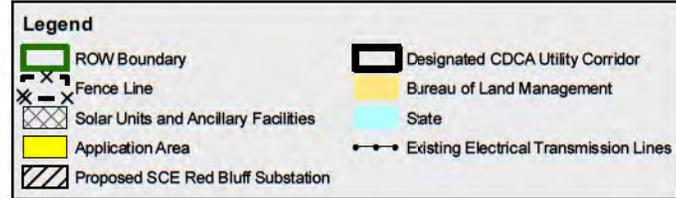
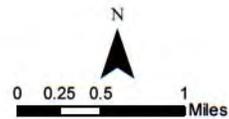
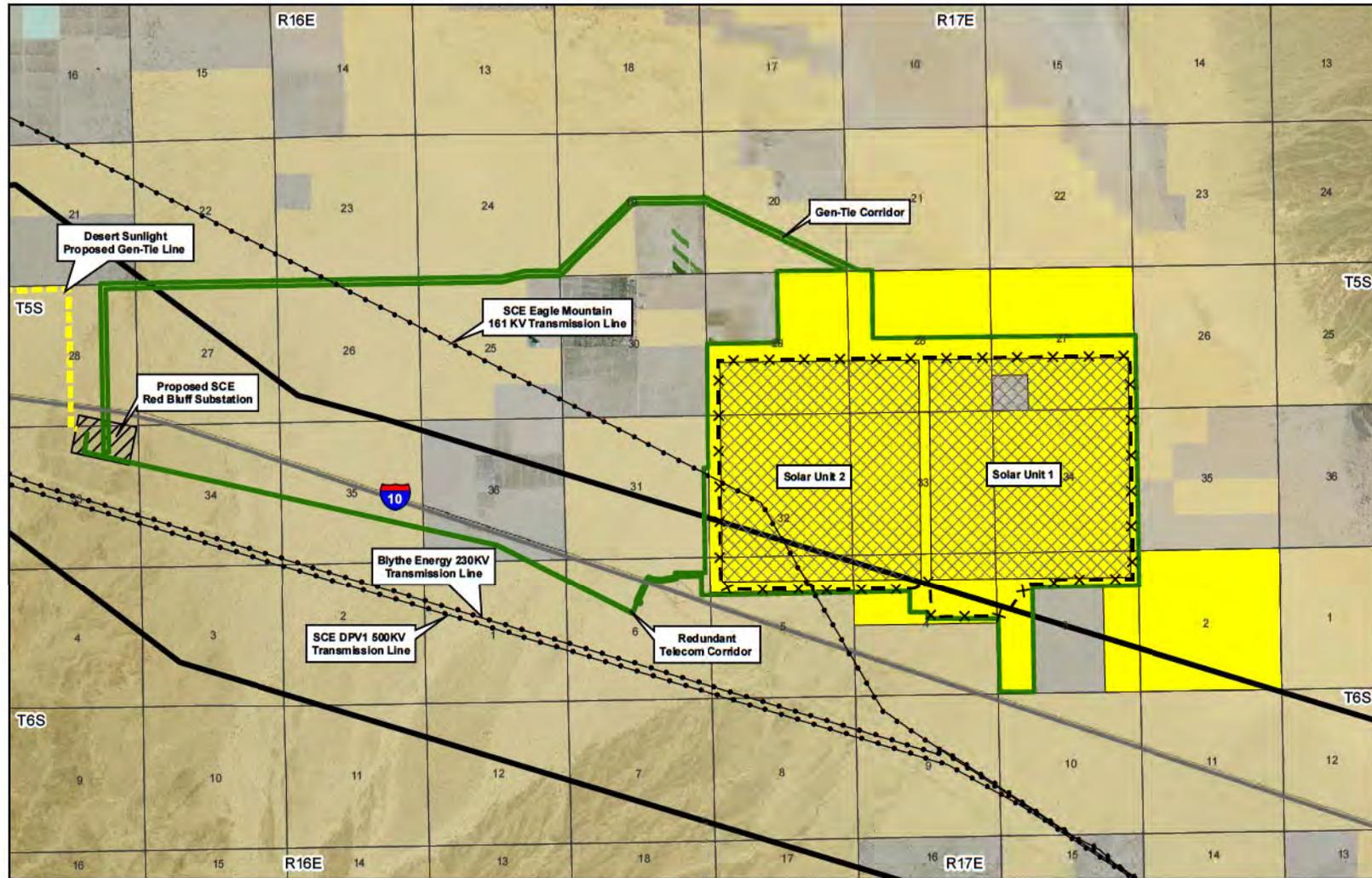
Palen Solar Power Project FEIS . 210291.01  
**Figure 1-1**  
Regional Context

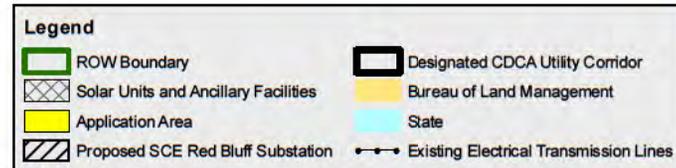
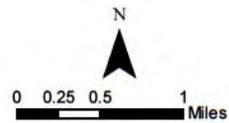
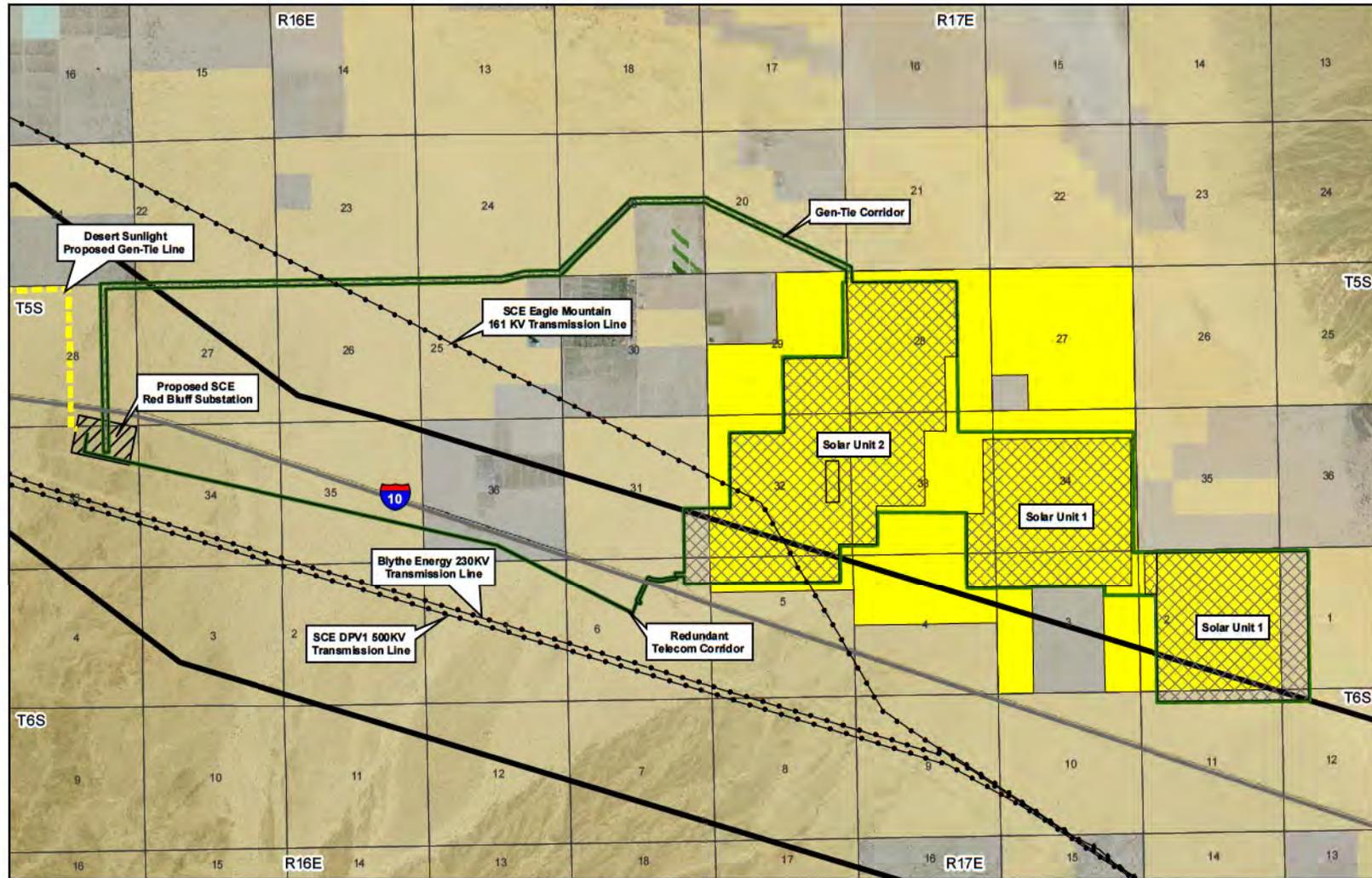


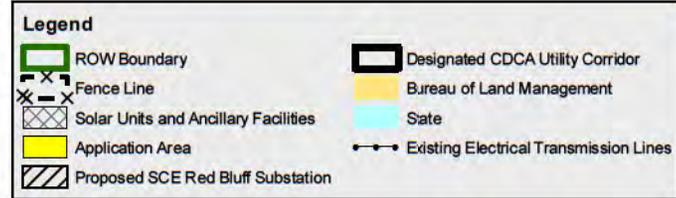
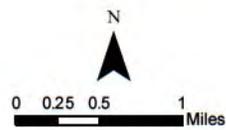
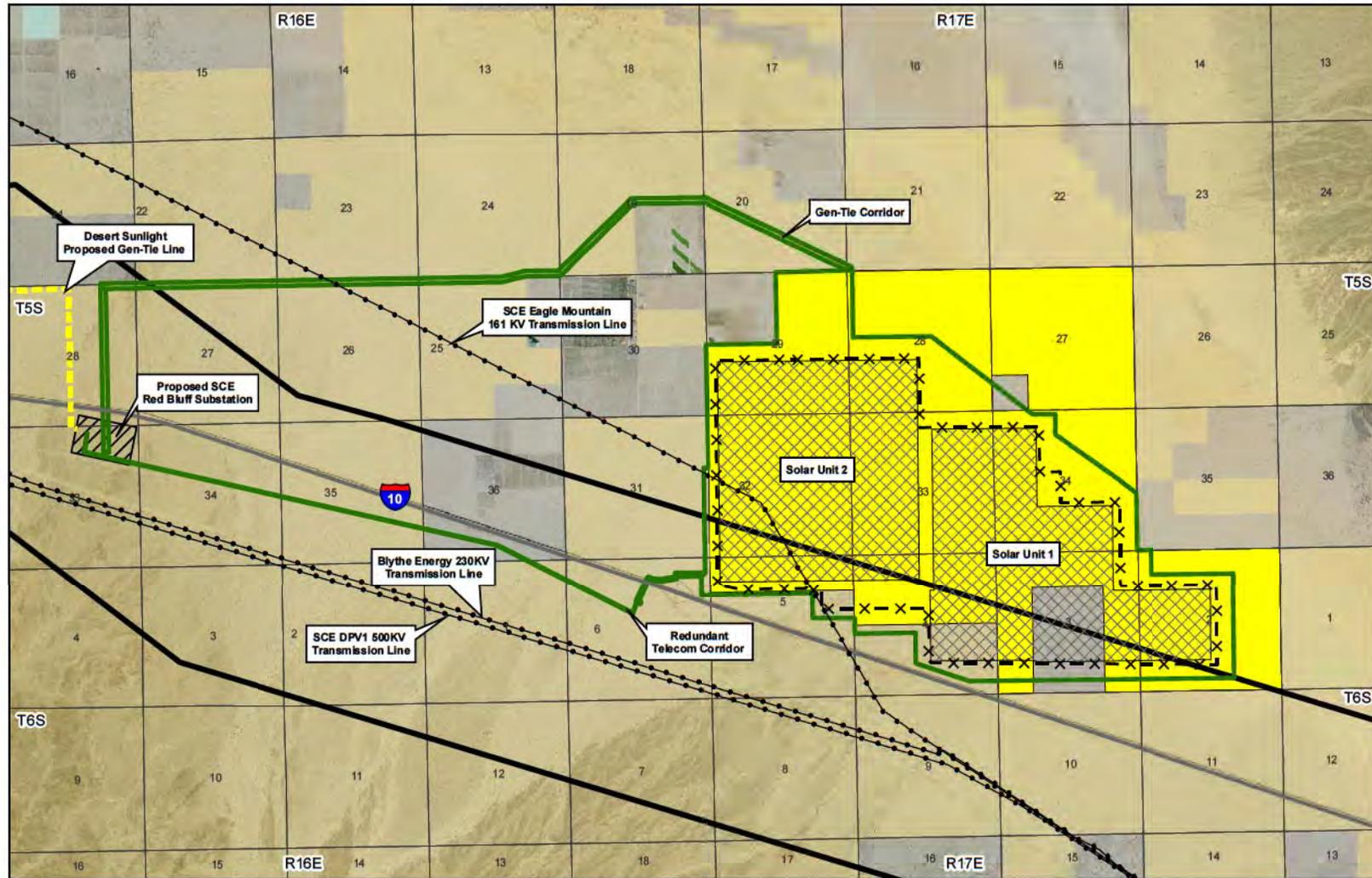
SOURCE: BLM, 2010; ESA, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 2-1**  
Project Location



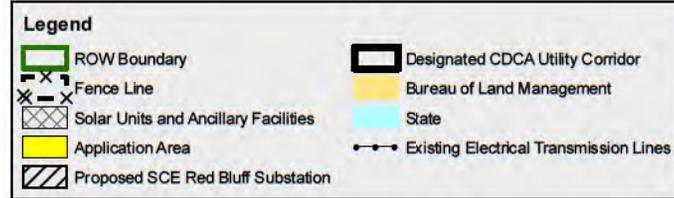
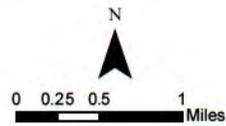
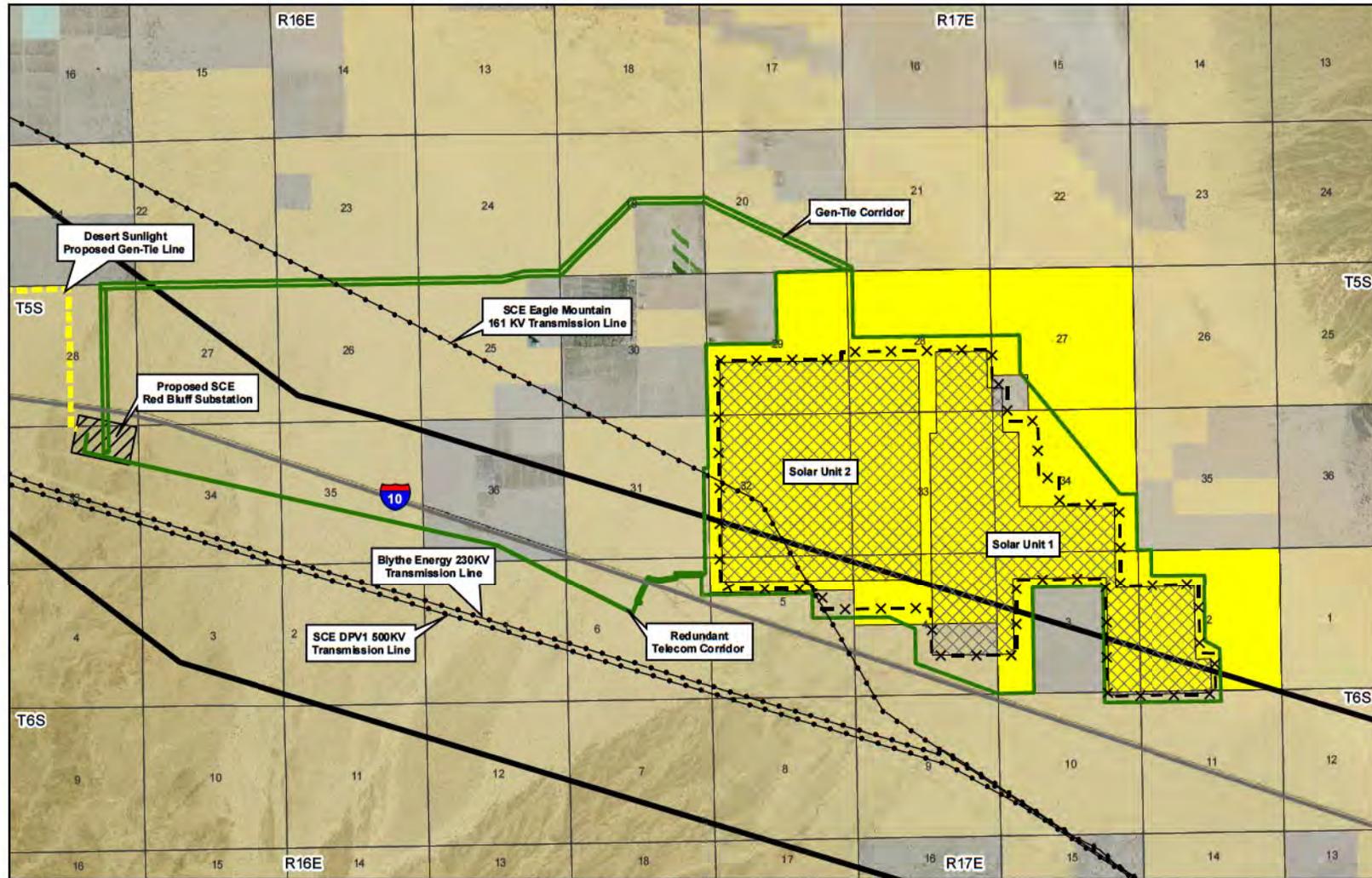




SOURCE: BLM, 2010

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**Figure 2-4**  
Reconfigured Alternative 2 Option 1

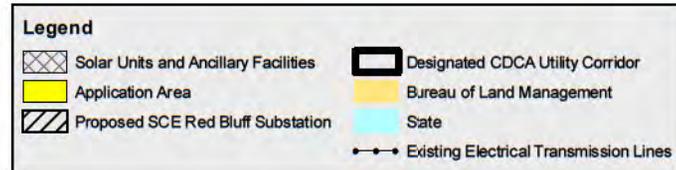
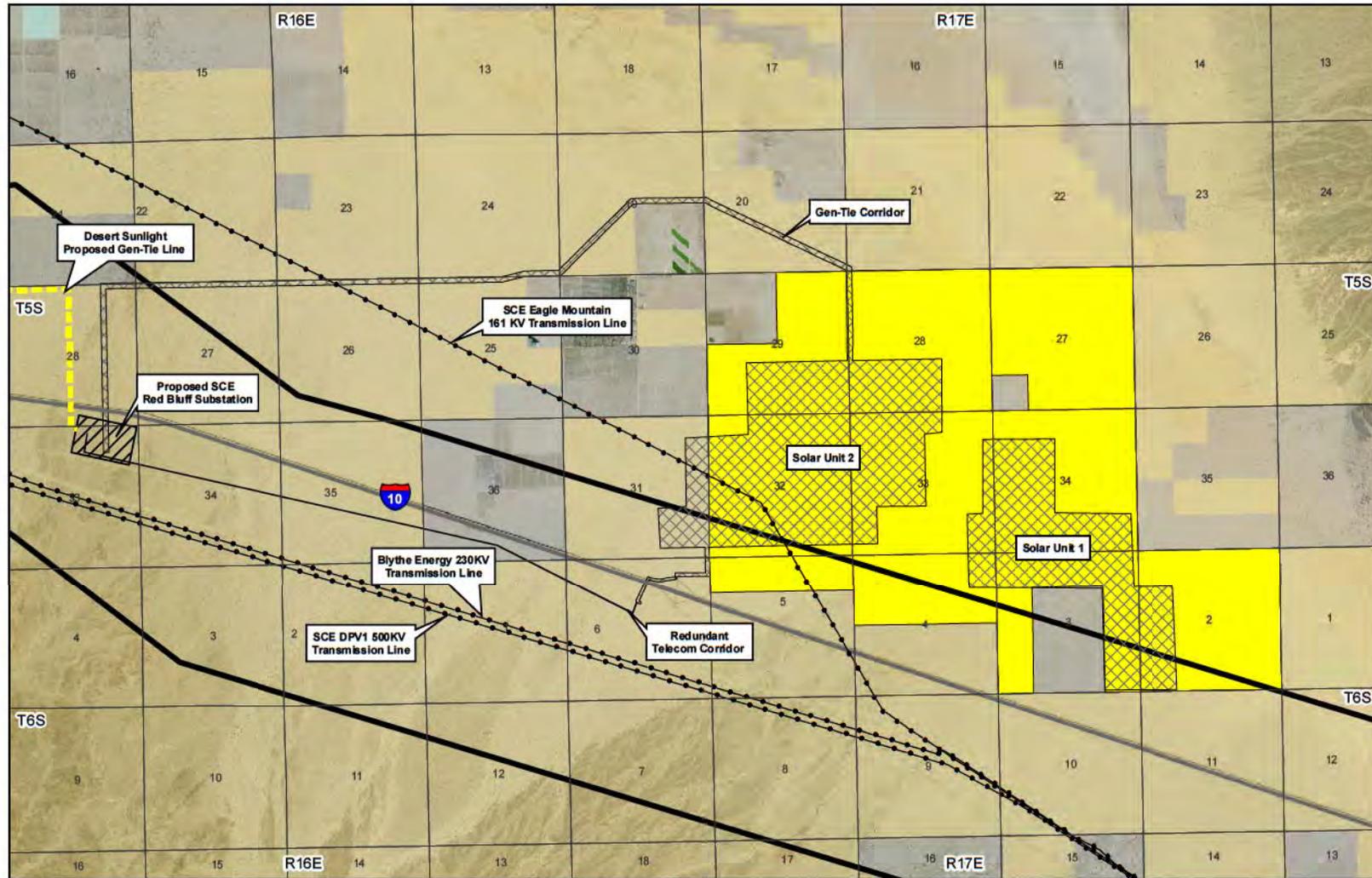


SOURCE: BLM, 2011

Palen Solar Power Project FEIS . 210291.01

**Figure 2-5**

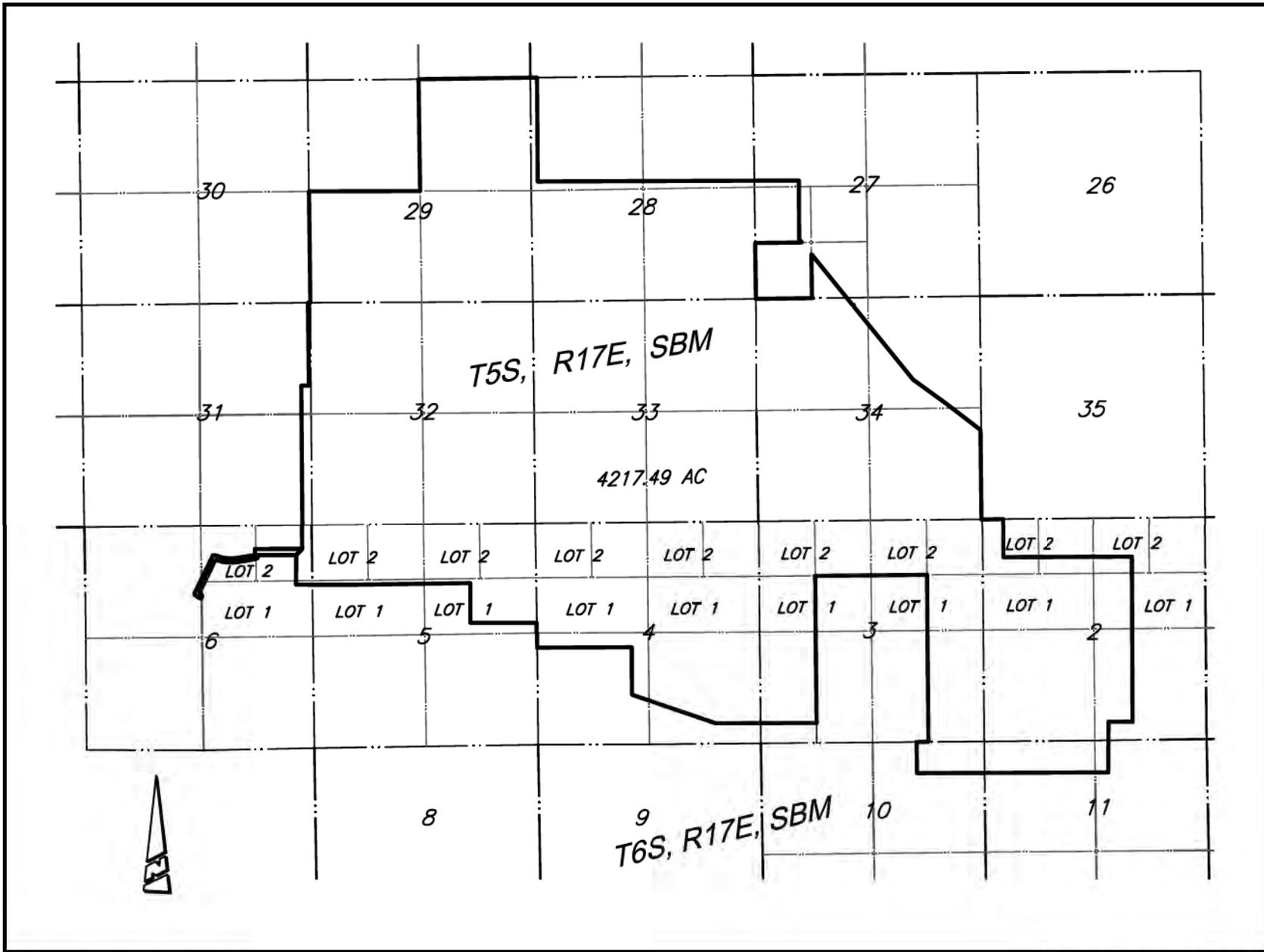
Reconfigured Alternative 2 Option 2

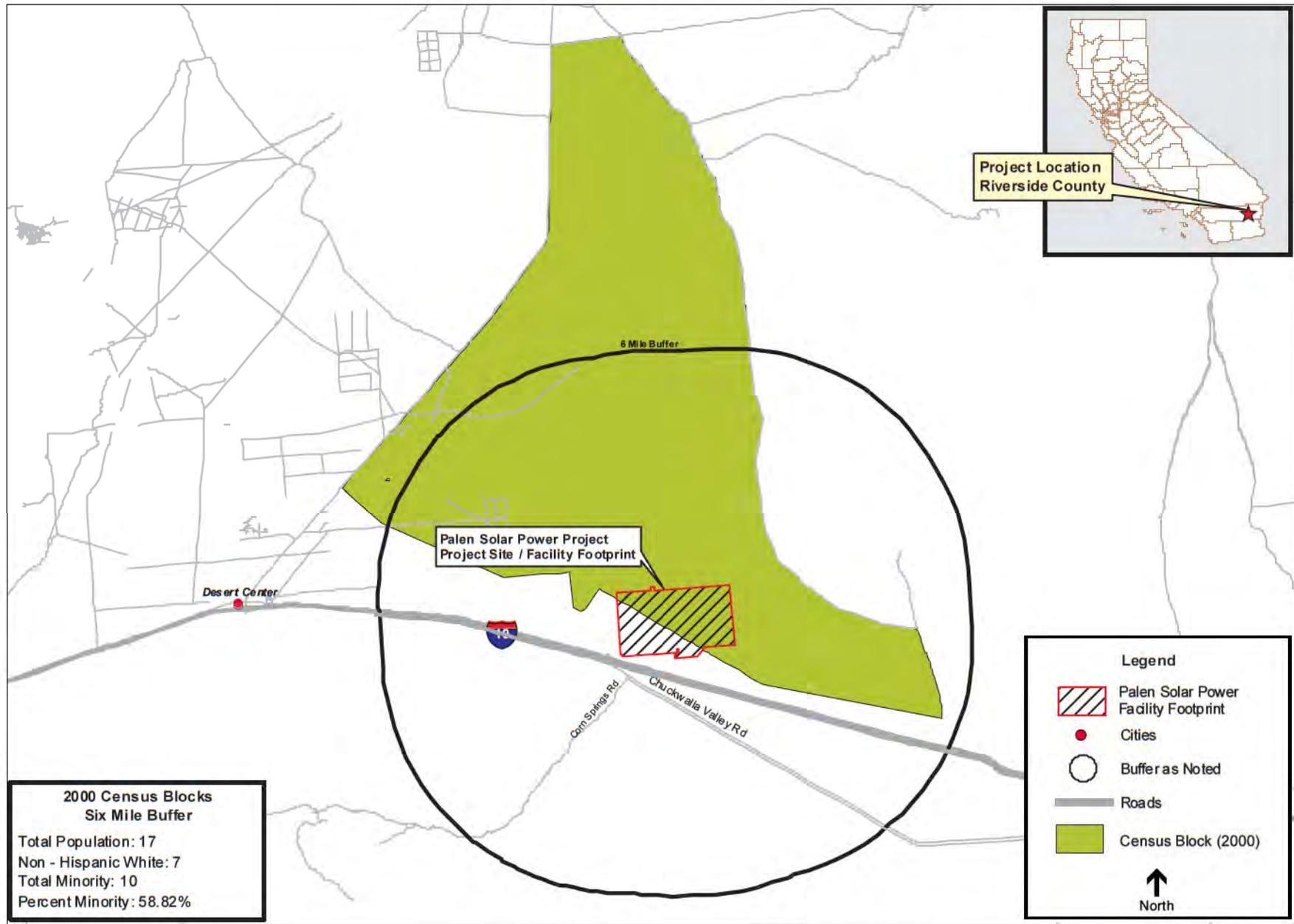


SOURCE: BLM, 2011

Palen Solar Power Project FEIS . 210291.01

**Figure 2-6**  
Reduced Acreage Alternative

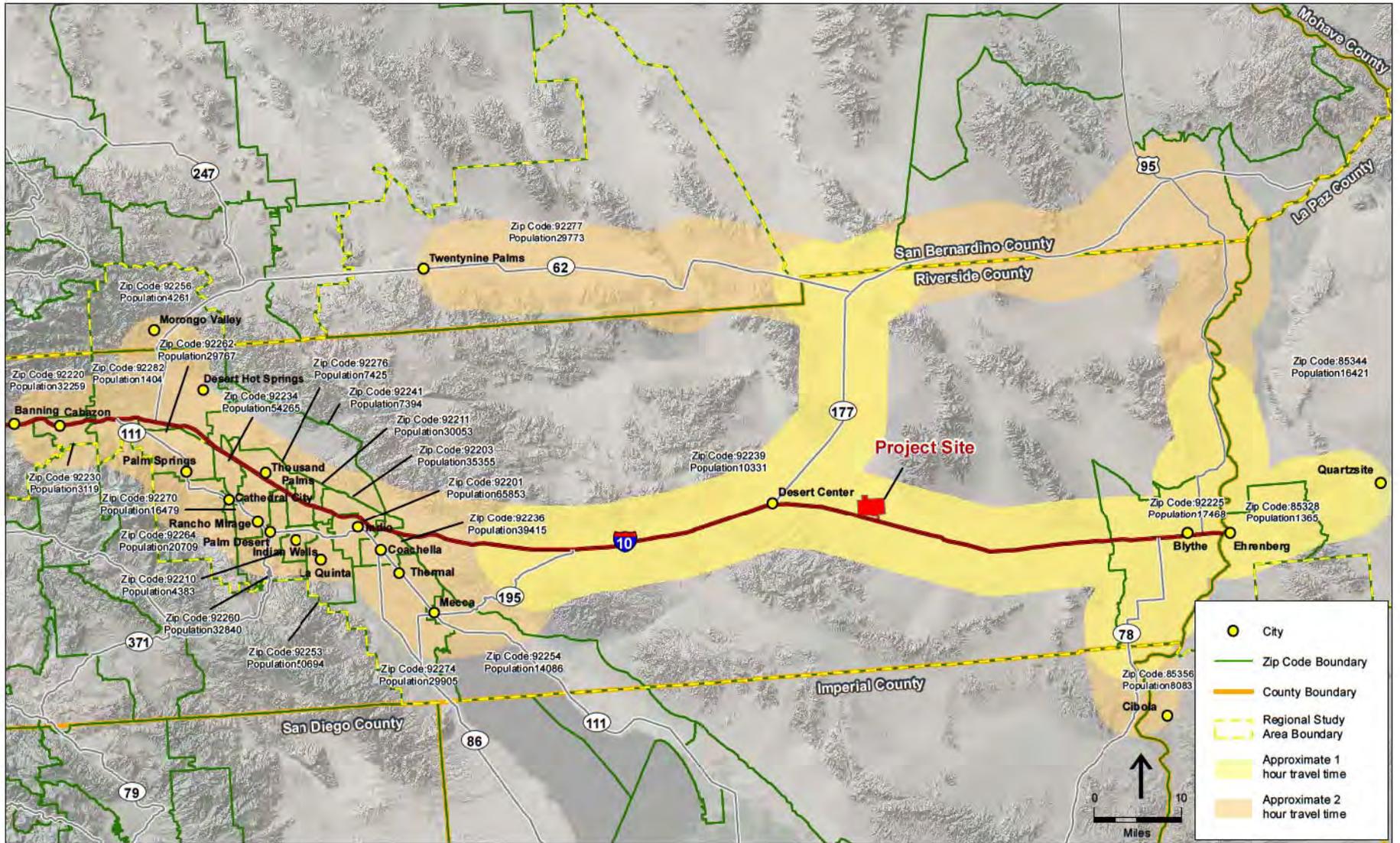




SOURCE: CEC RSA Part I, 2010

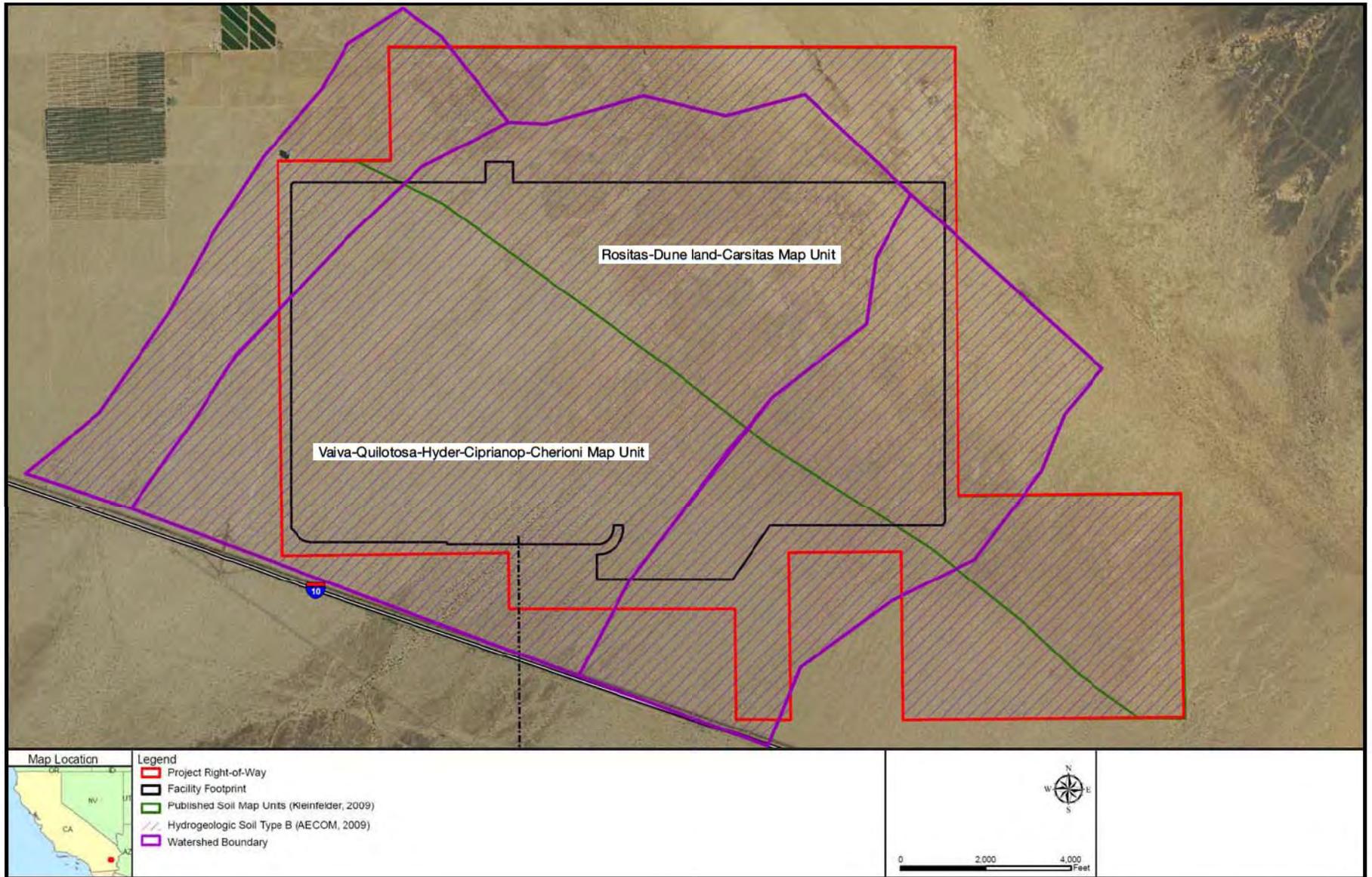
Palen Solar Power Project FEIS . 210291.01

**Figure 3.5-1**  
Census Block Groups within 6 Miles of Project Site



SOURCE: ESRI, 2010; Tele Atlas North America Inc., 2010; Census, 2000; Google Maps, 2010

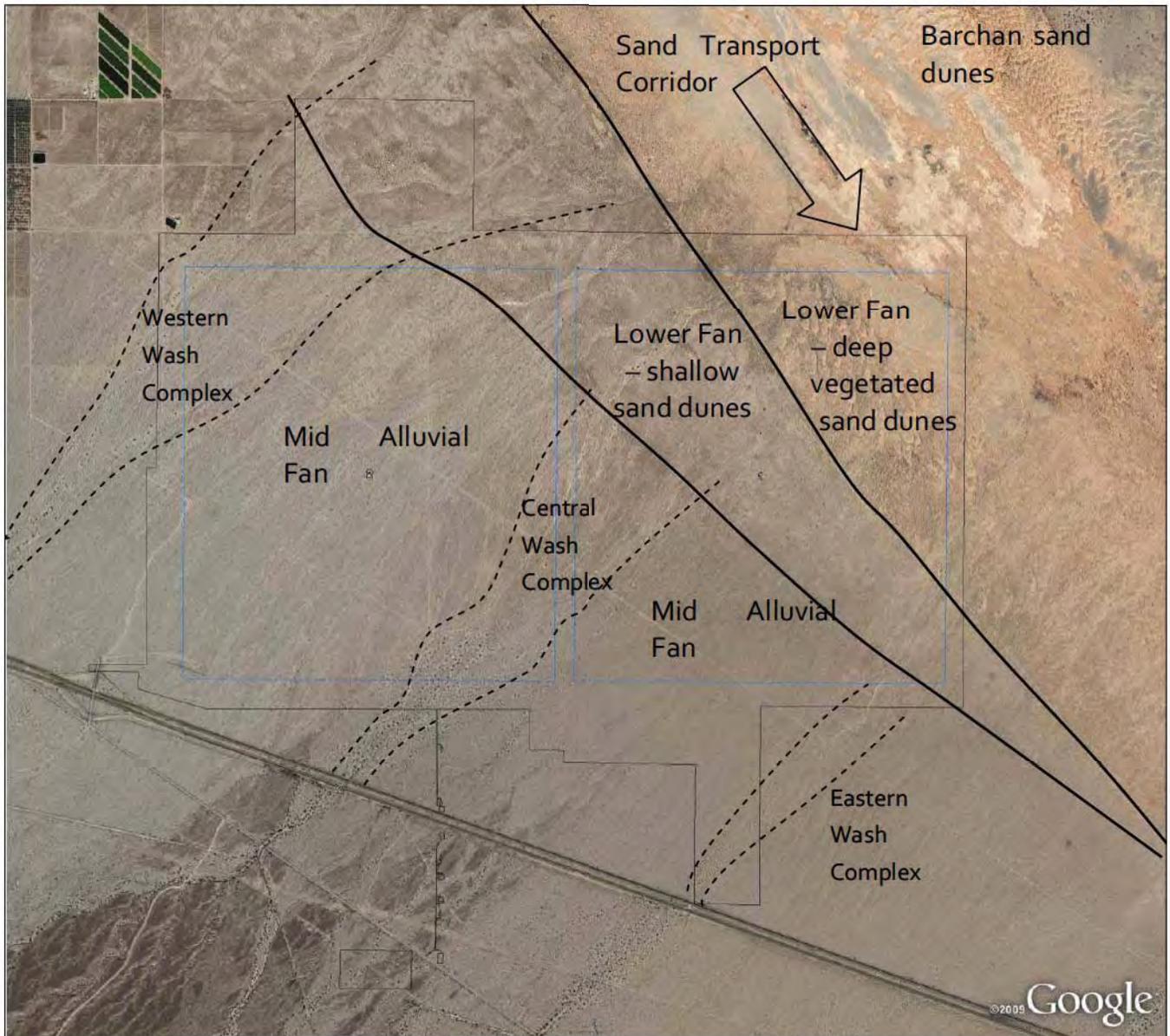
Palen Solar Energy Project FEIS . 210291.01  
**Figure 3.14-1**  
Regional Study Area  
by Zip Code and Travel Distance



SOURCE: CEC RSA Part II, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 3.15-1**  
Regional Soils Map



SOURCE: CEC RSA Part II, 2010

Palen Solar Power Project FEIS . 210291.01

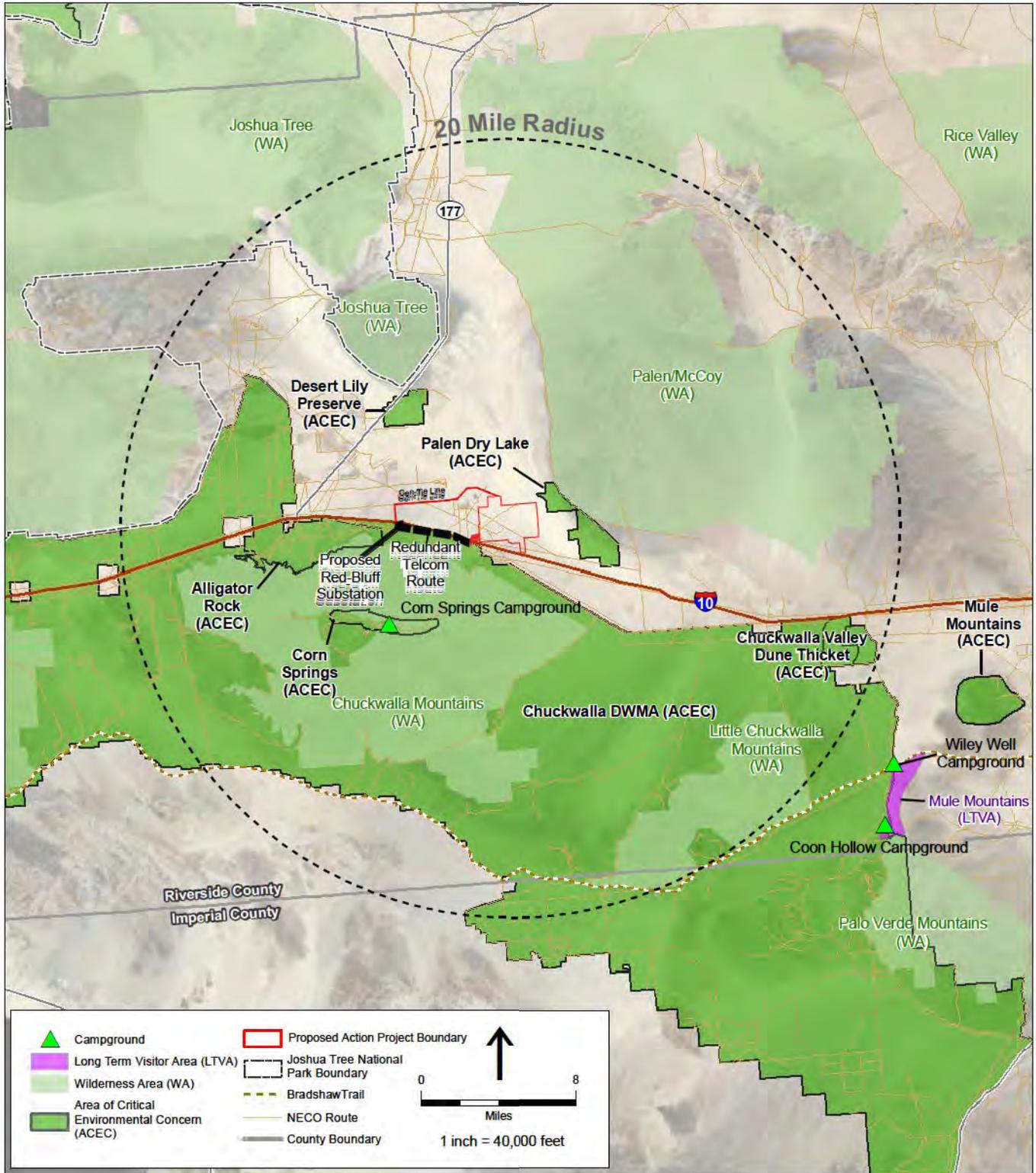
**Figure 3.15-2**  
Land Units



SOURCE: PWA, 2010

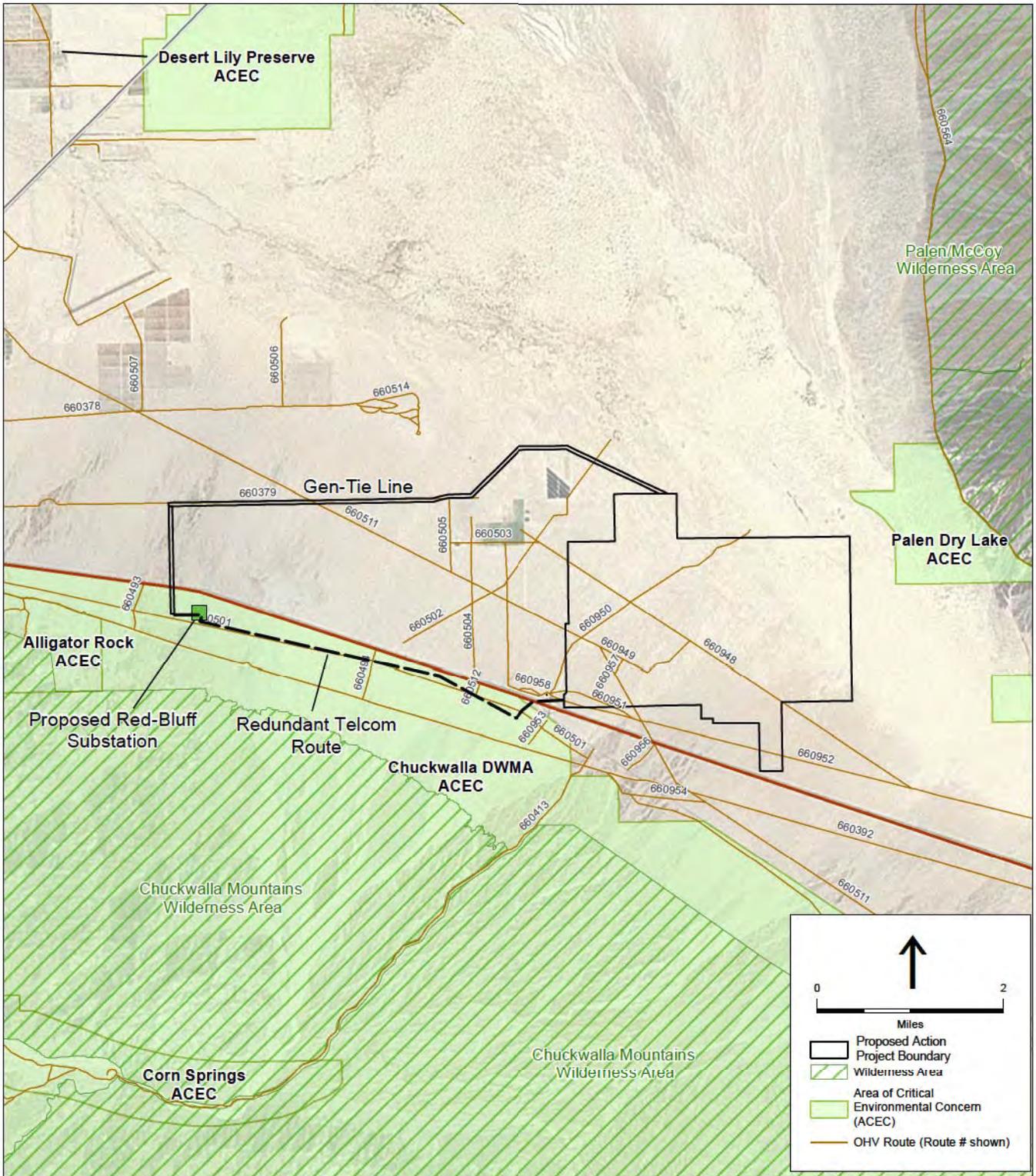
Palen Solar Power Project FEIS . 210291.01

**Figure 3.15-3**  
Sand Transport Zones Characterizing  
Varying Rates of Sand Transport



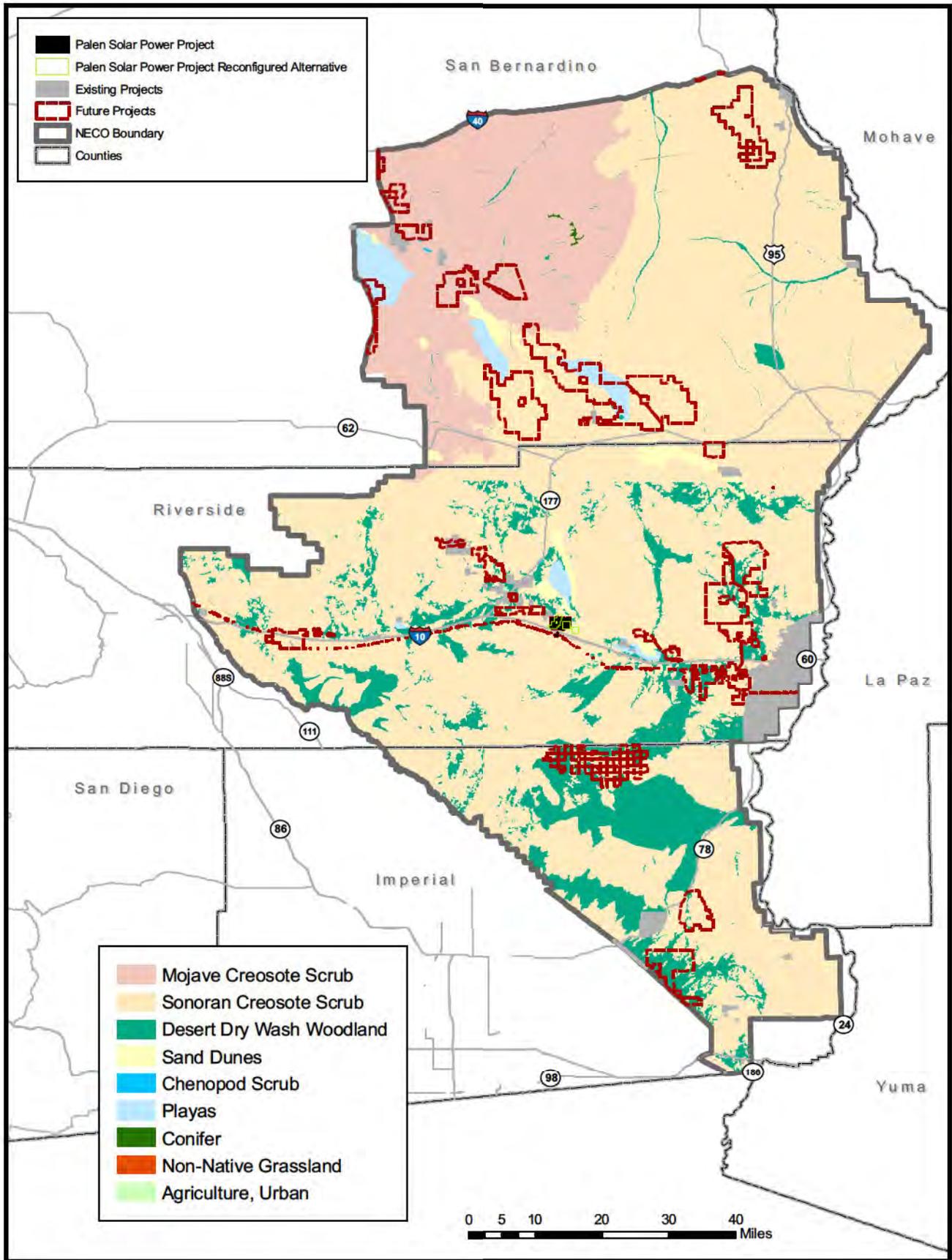
SOURCE: BLM, 2010; ESA, 2010

Palen Solar Energy Project FEIS . 210291.01  
**Figure 3.16-1**  
 Special Designations within 20 Miles  
 of Project Site



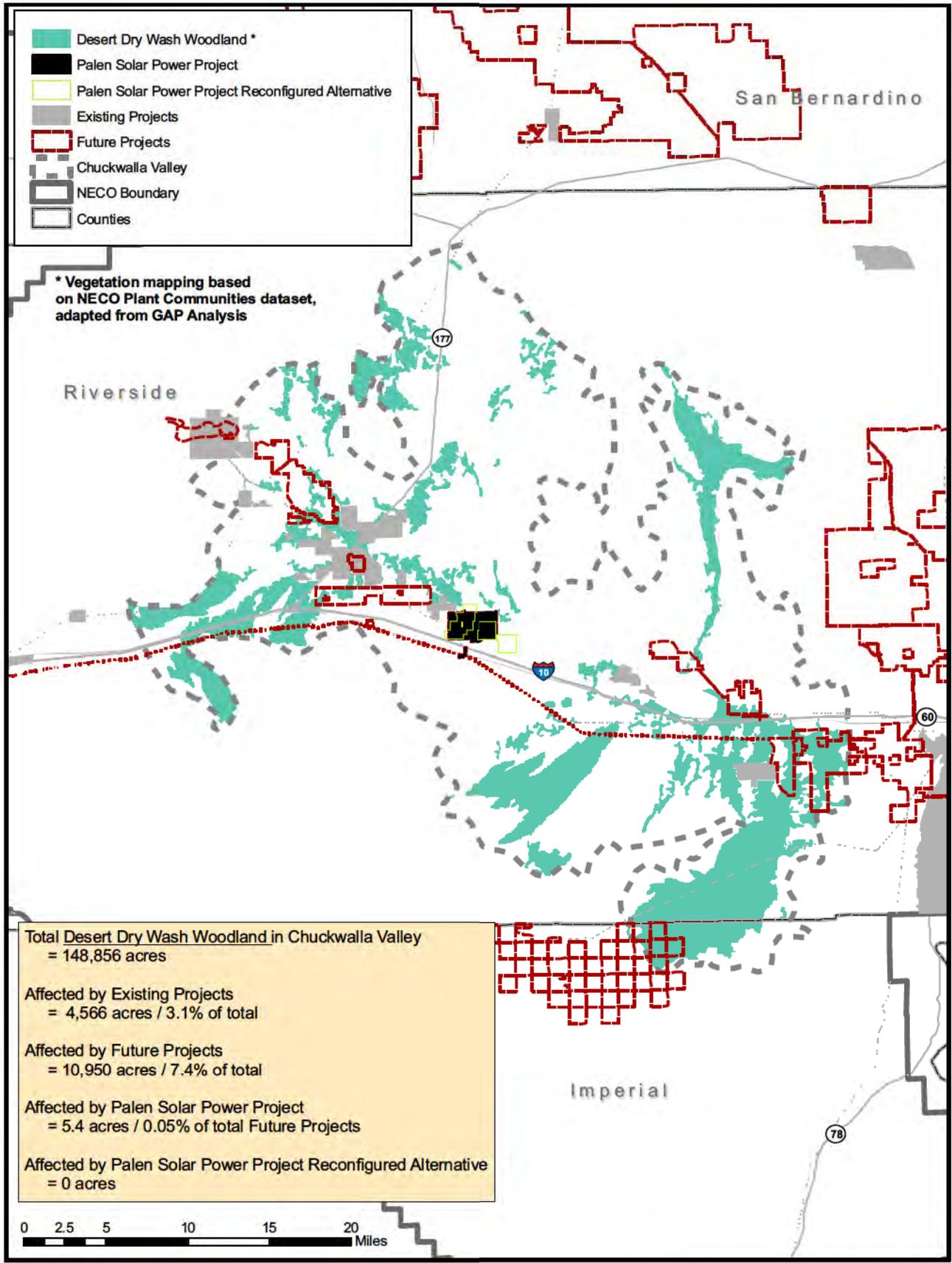
SOURCE:BLM, 2010; ESA, 2010

Palen Solar Energy Project FEIS . 210291.01  
**Figure 3.17-1**  
 OHV Routes in the Project Vicinity



SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.18-1**  
 Plant Communities

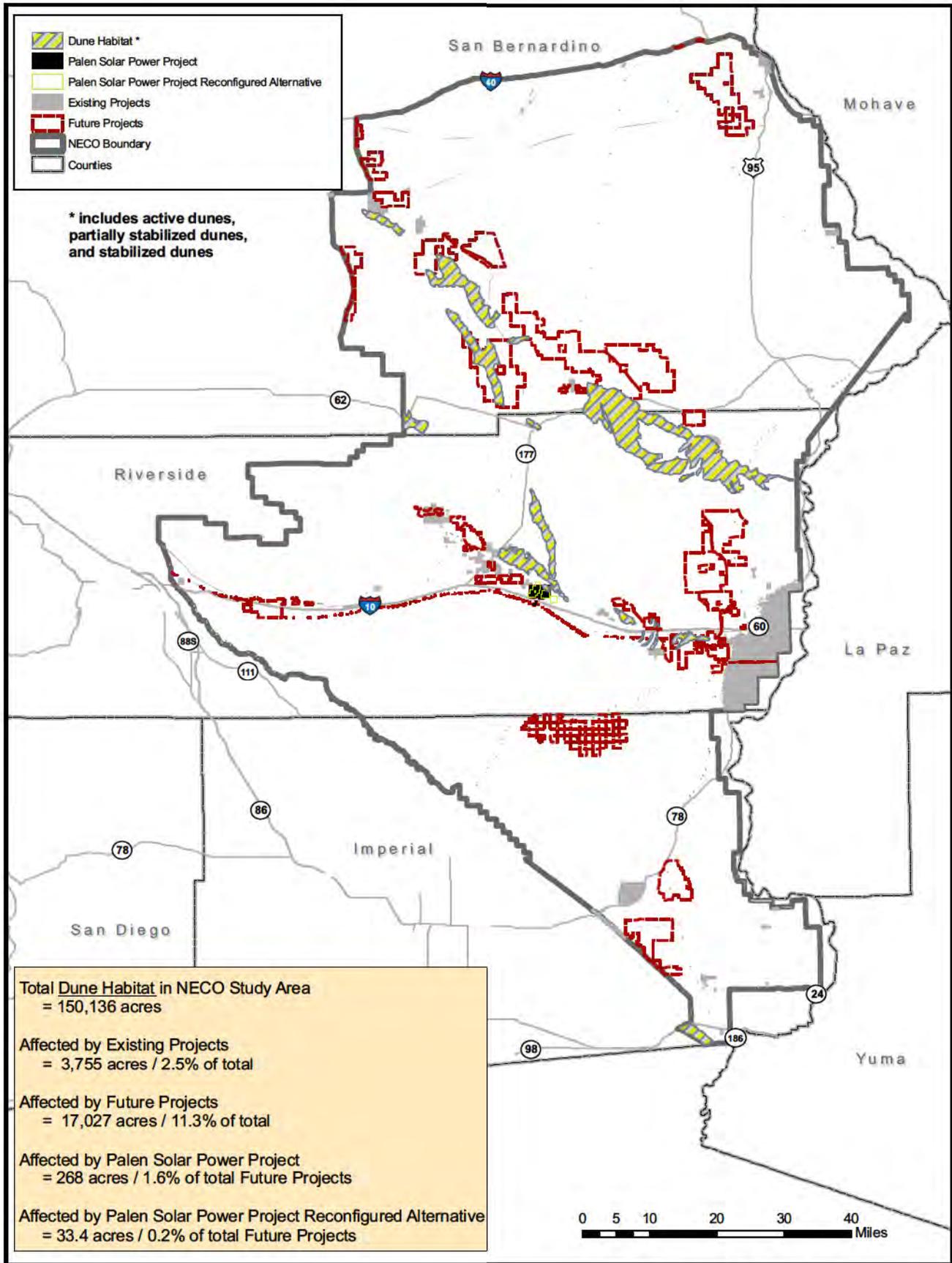


SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01

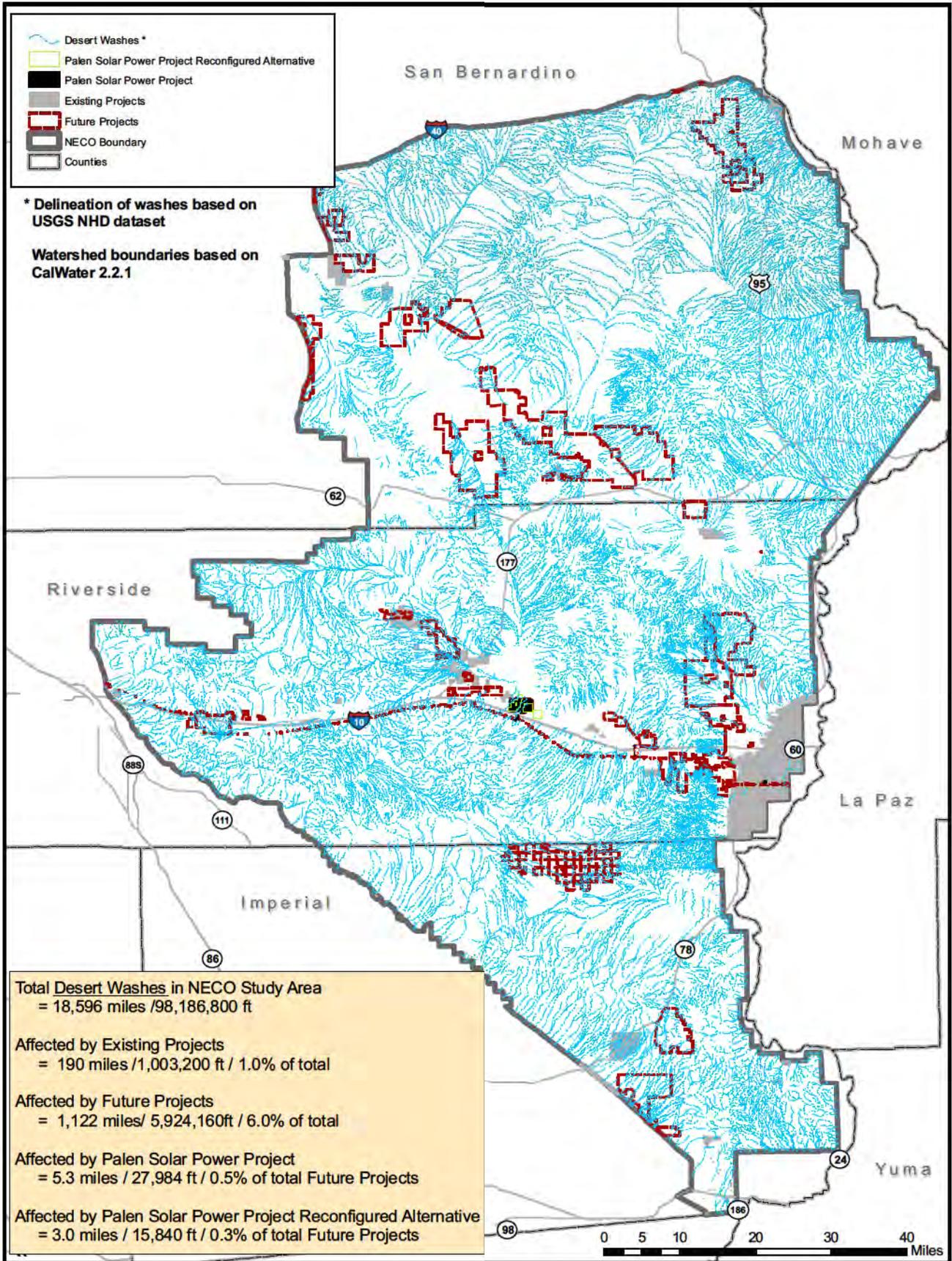
**Figure 3.18-2**

Desert Dry Wash Woodland-Chuckwalla Valley



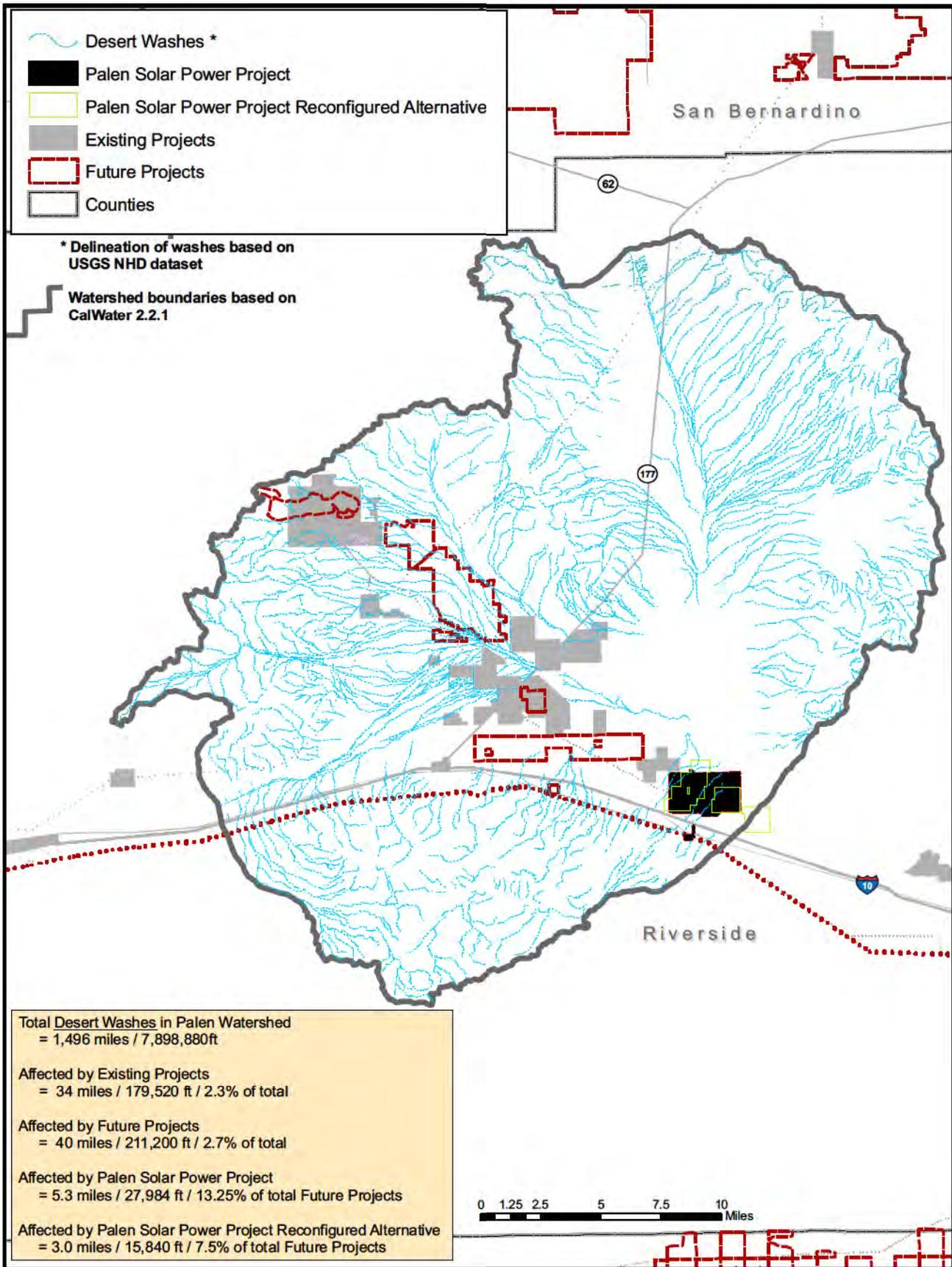
SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.18-3**  
 Dune Habitat



SOURCE: CEC RSA, 2010

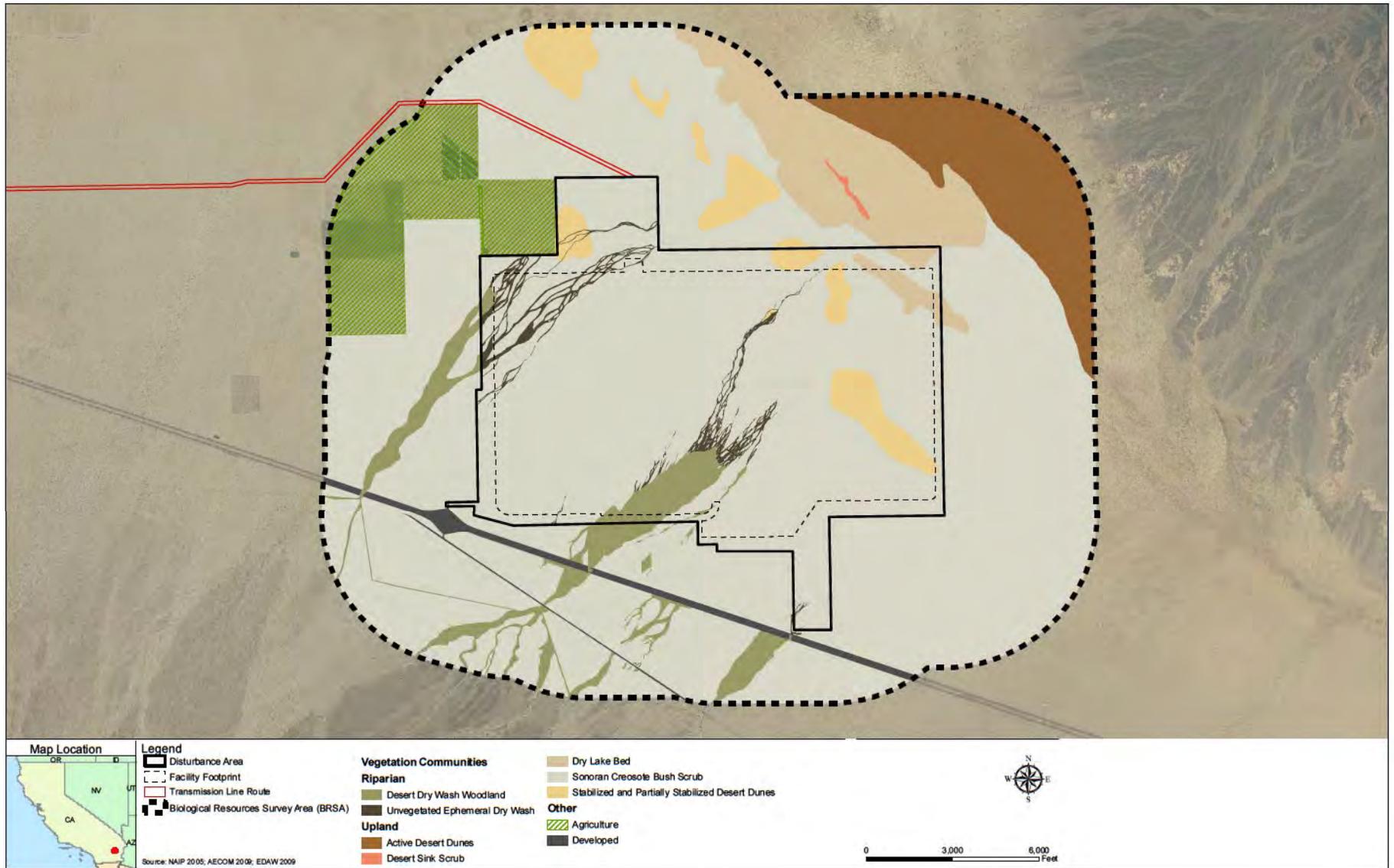
Palen Solar Power Project FEIS . 210291.01  
**Figure 3.18-4**  
 Desert Washes

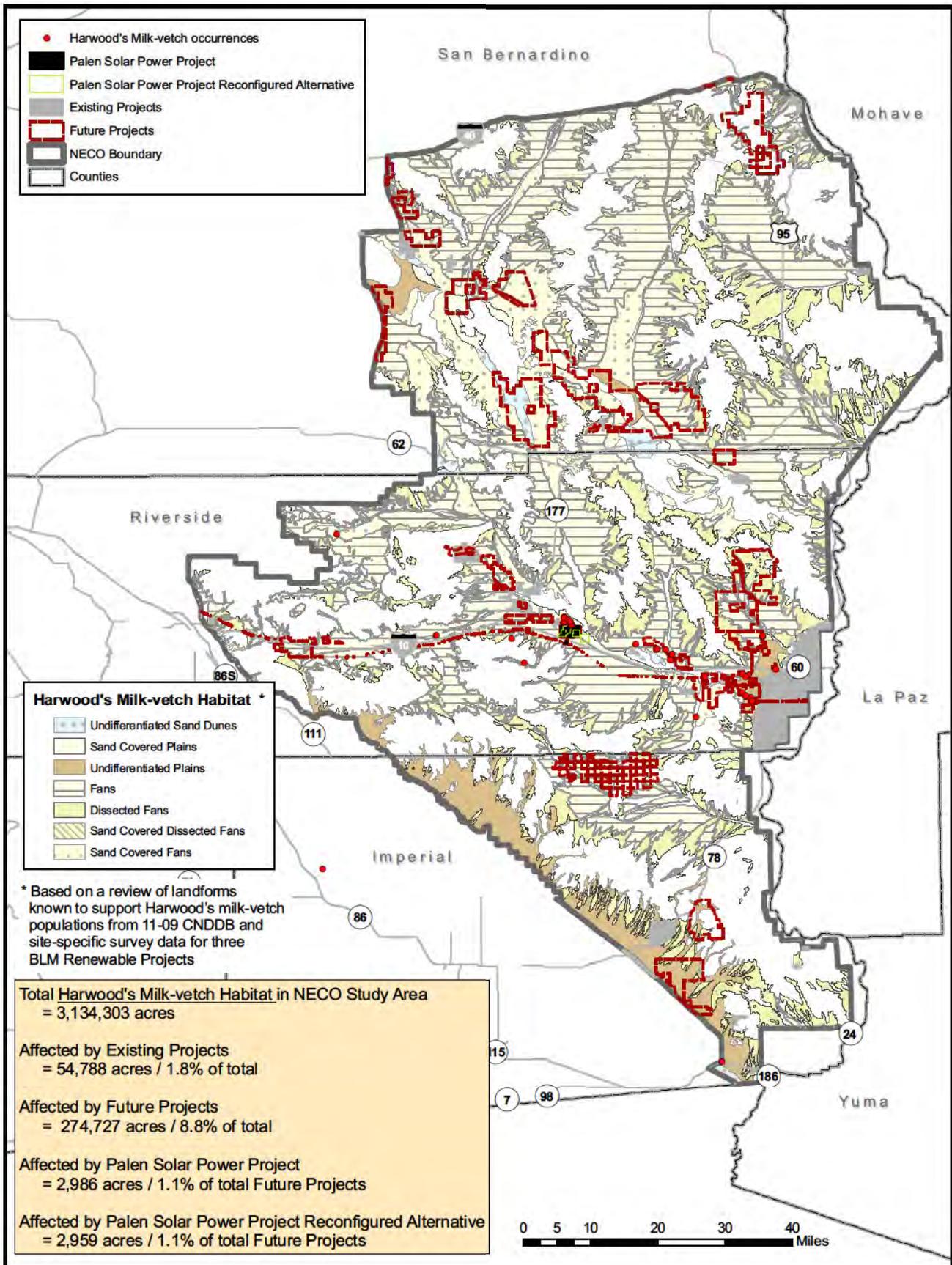


SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.18-5**  
 Desert Washes - Palen Watershed

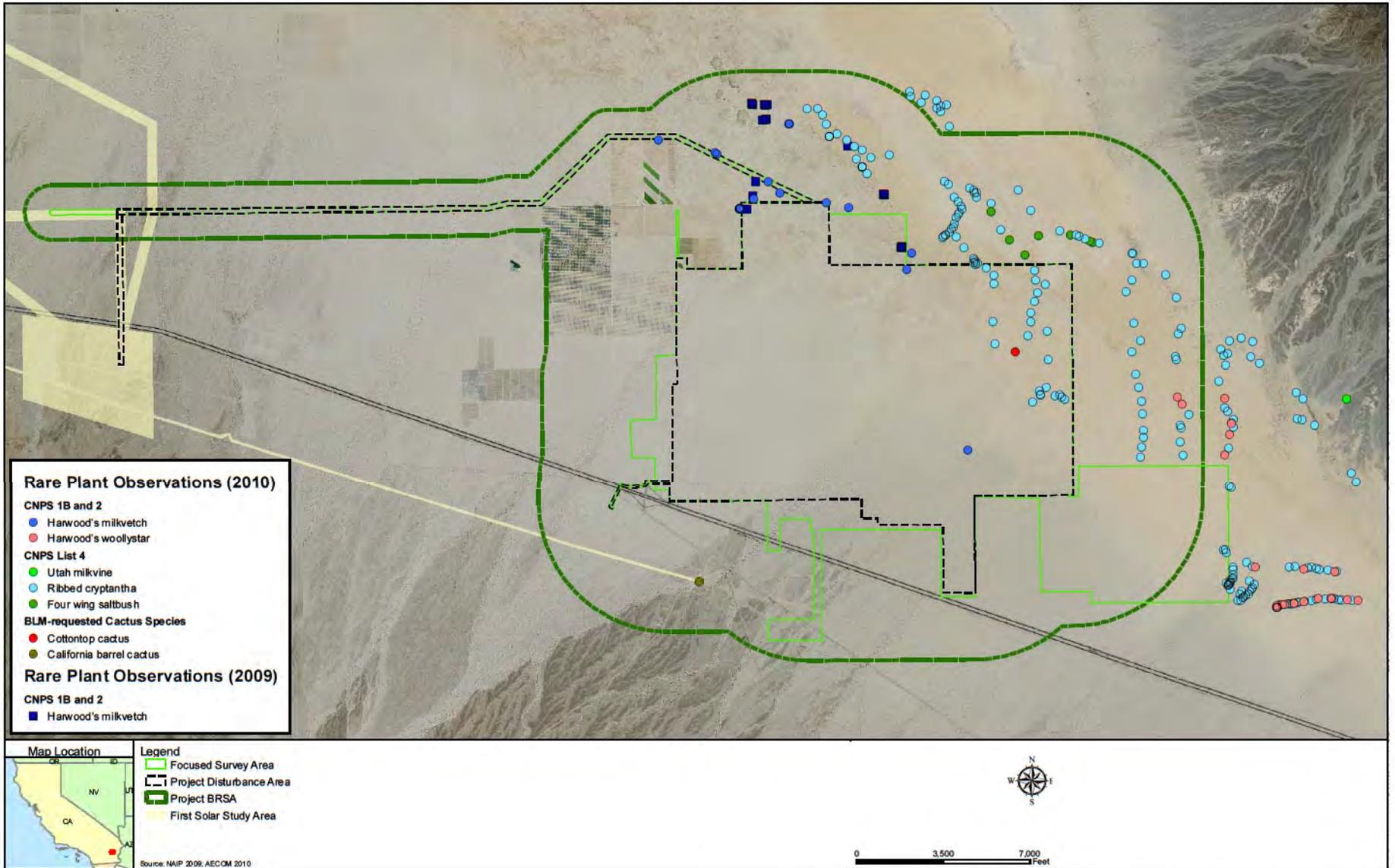






SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.18-8**  
 Harwood's Milk-Vetch Habitat





SOURCE: CEC RSA Part II, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 3.19-1**  
Characteristic Landscape of the Project Site



Dry Lake Bed



Ironwood Tree



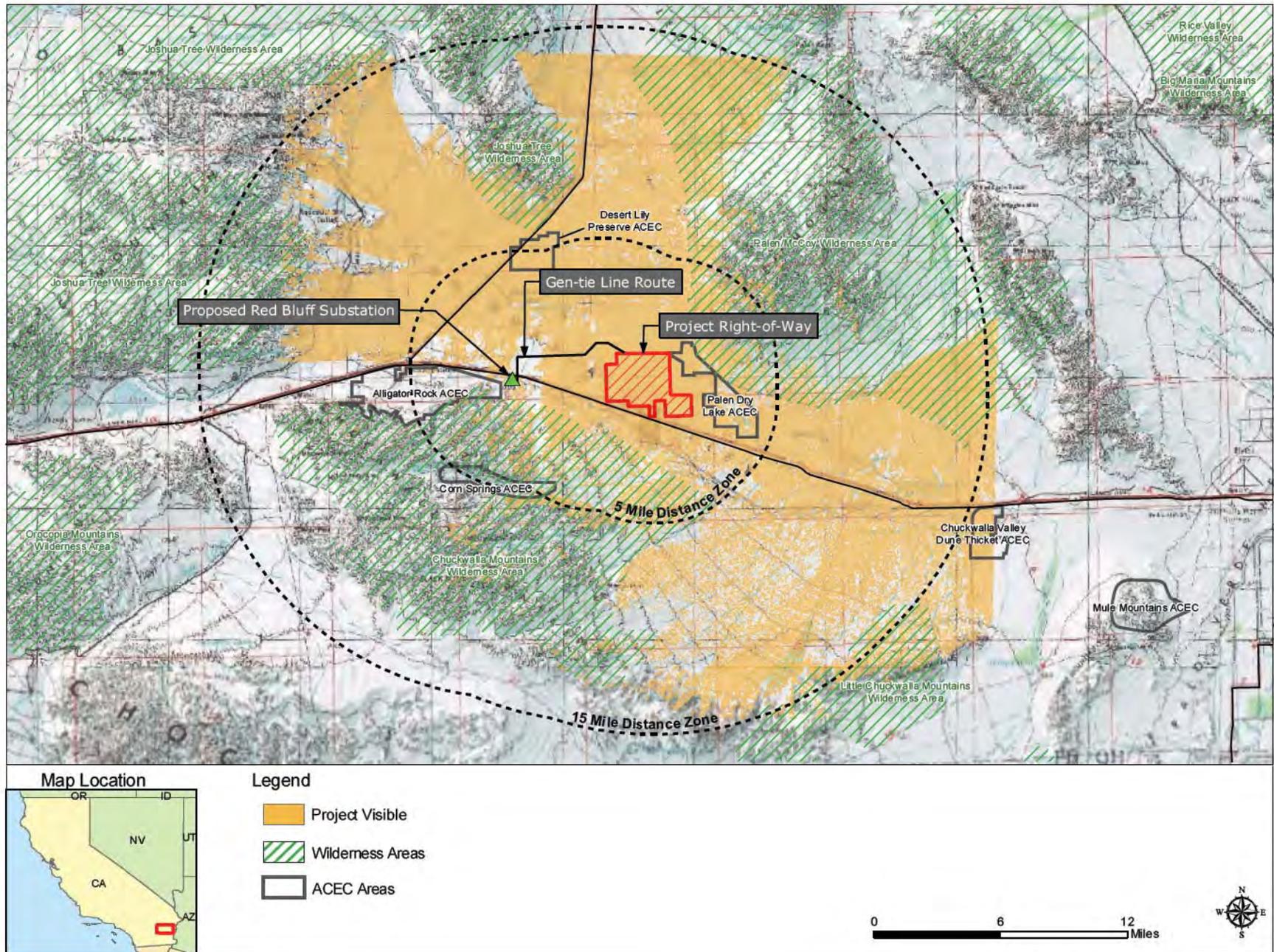
Creosote Scrub



Chuckwalla Valley Road, looking north

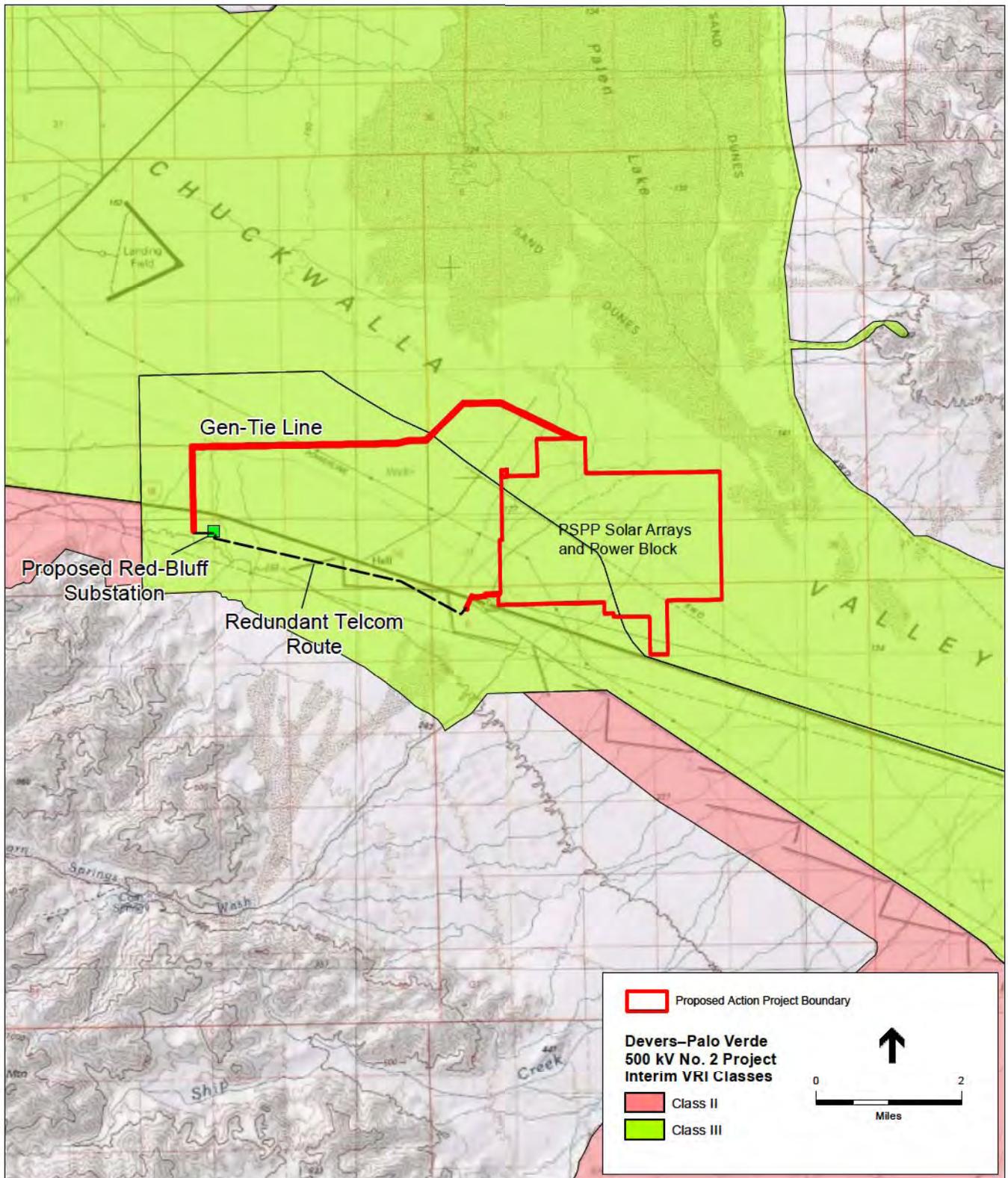


The Flats, Looking East



SOURCE: AFC 2010; ESA, 2010

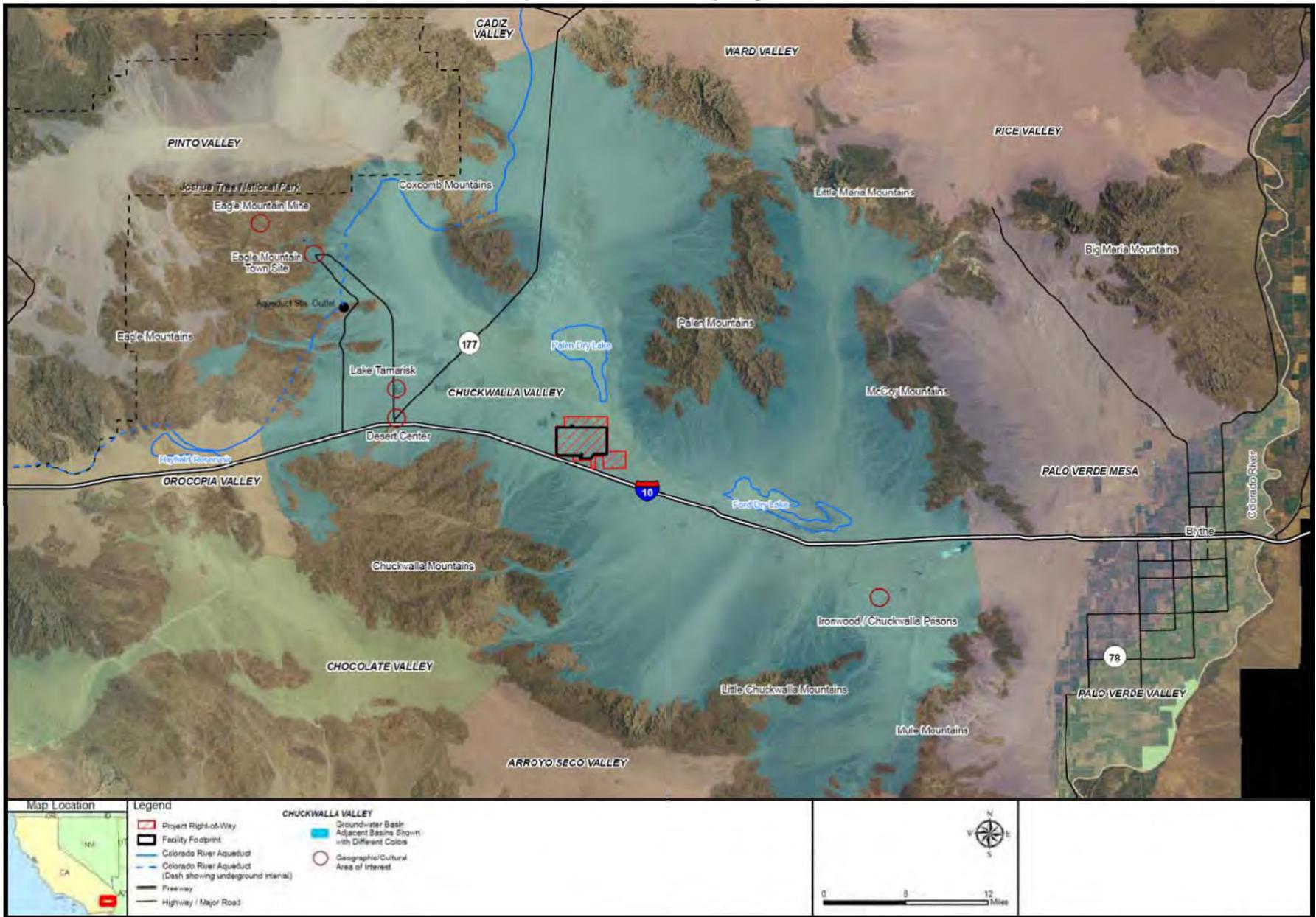
Palen Solar Power Project FEIS . 210291.01  
**Figure 3.19-3**  
 Project Study Area and Viewshed



SOURCE: CPUC, 2006

Palen Solar Power Project FEIS . 210291.01

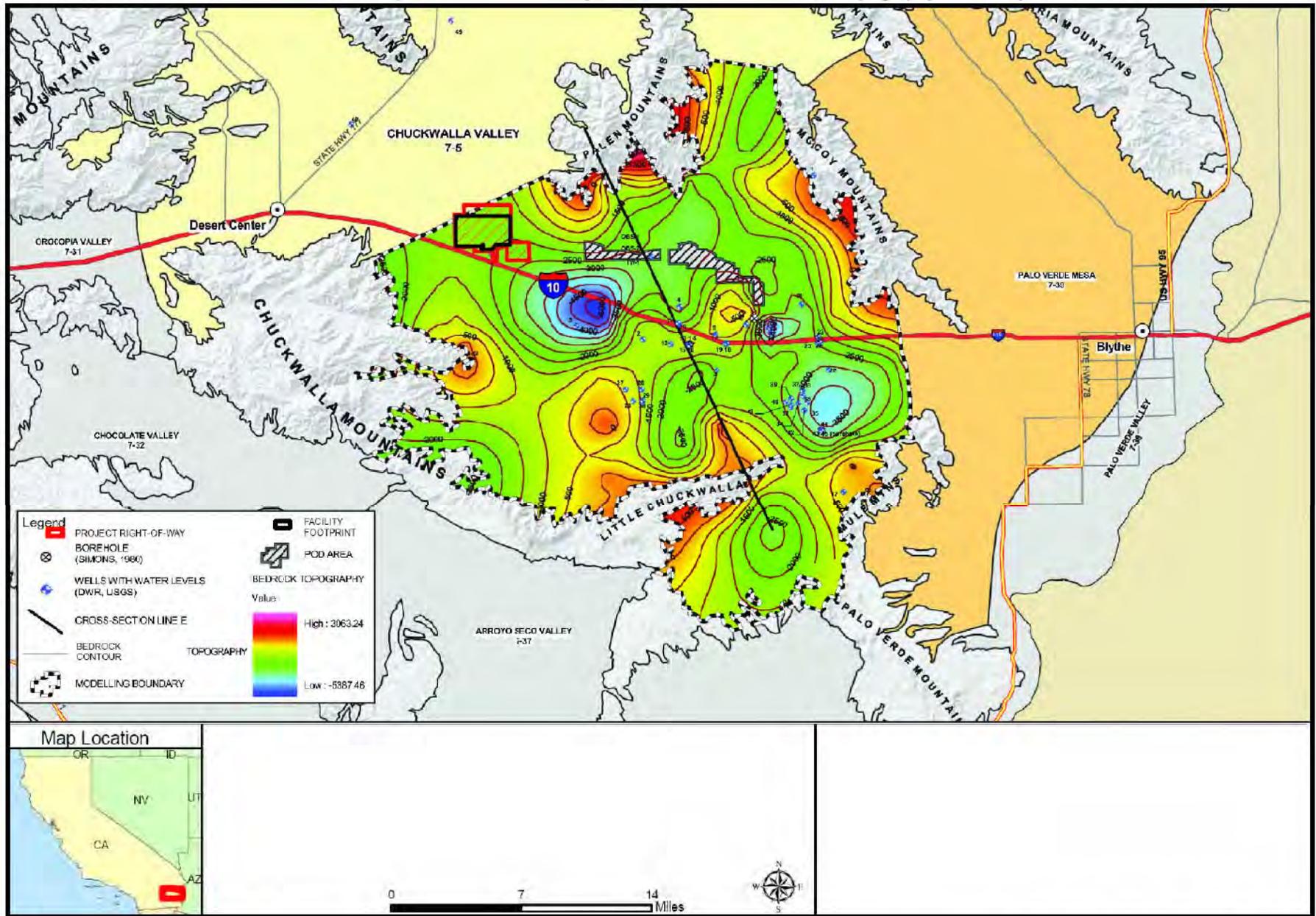
**Figure 3.19-4**  
Interim VRM Classes of the Project Area



SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 3.20-1**  
Chuckwalla Valley Regional Groundwater Basins

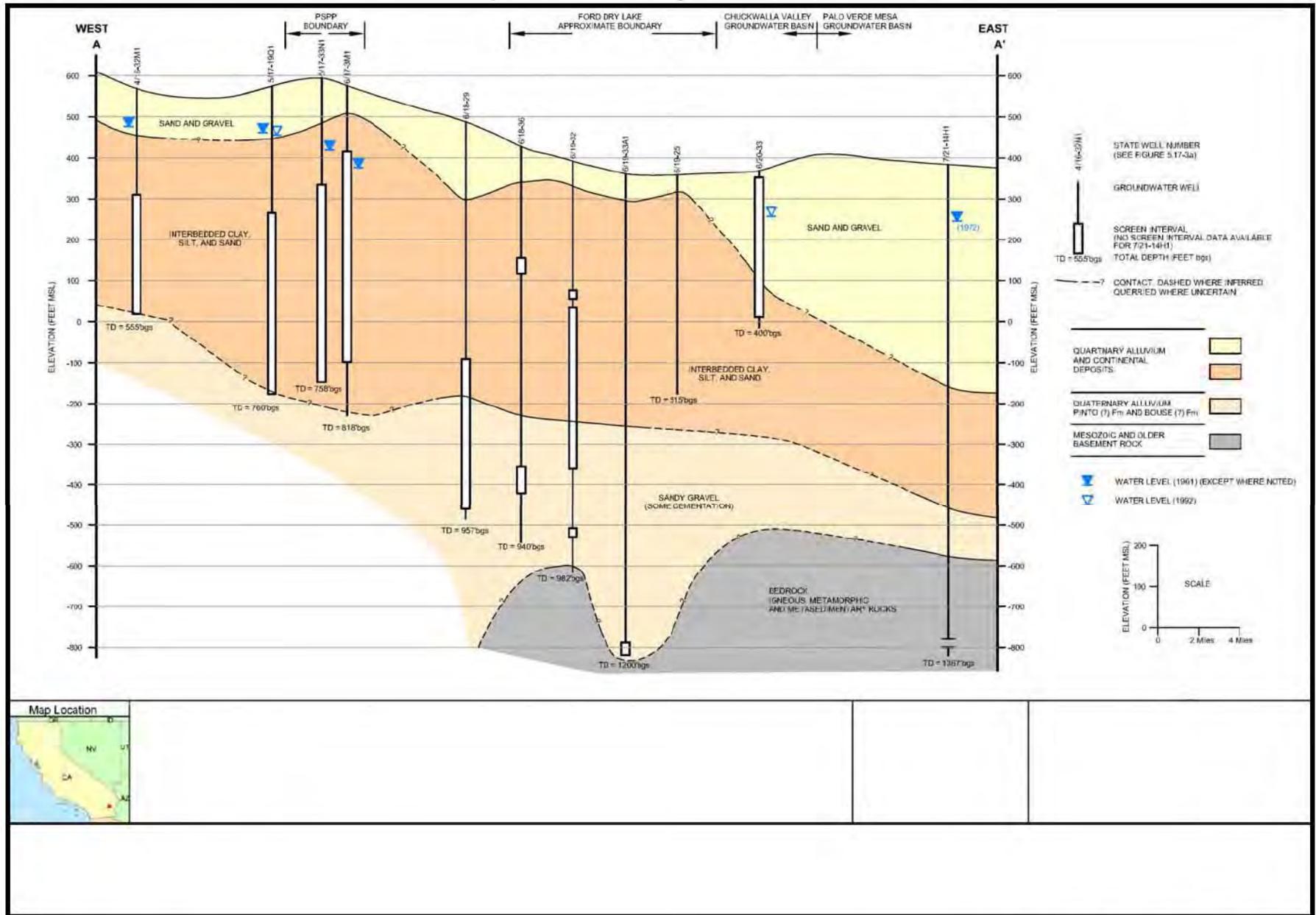


SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 3.20-2**

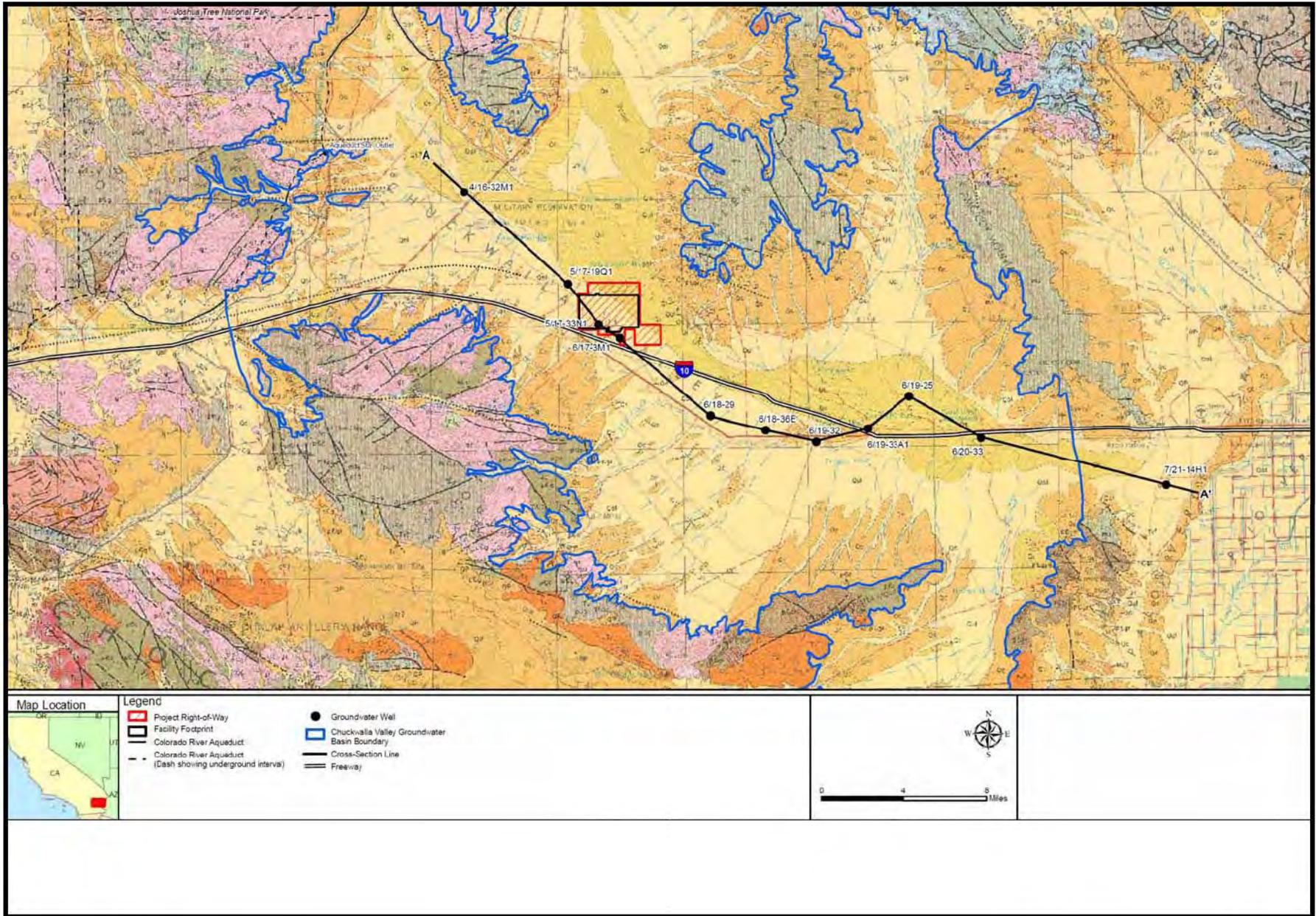
Chuckwalla Valley Groundwater Basin Bedrock Topography



SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

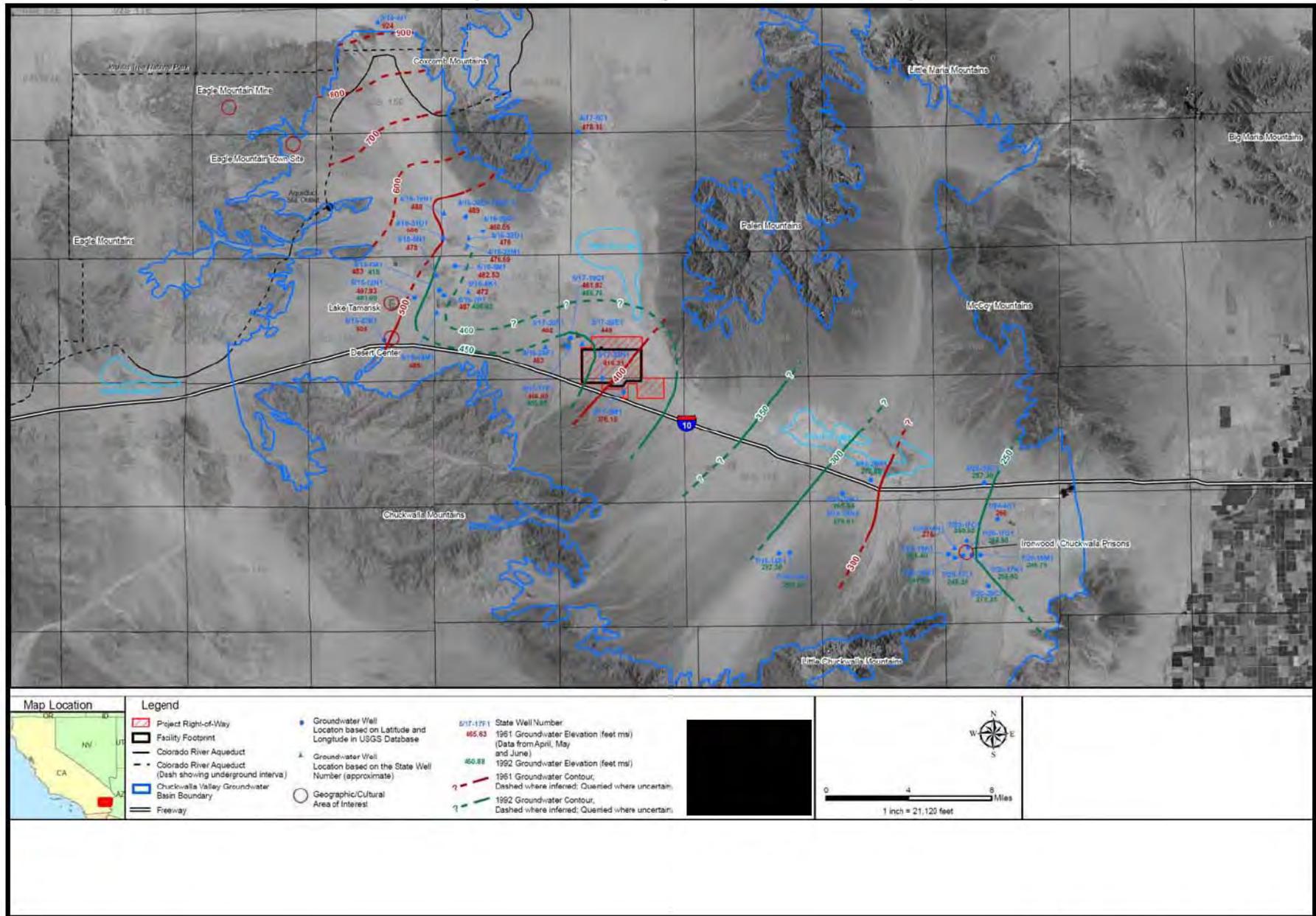
**Figure 3.20-3**  
Chuckwalla Valley Groundwater Basin Cross Section A-A'



SOURCE: CEC/BLM, 2010

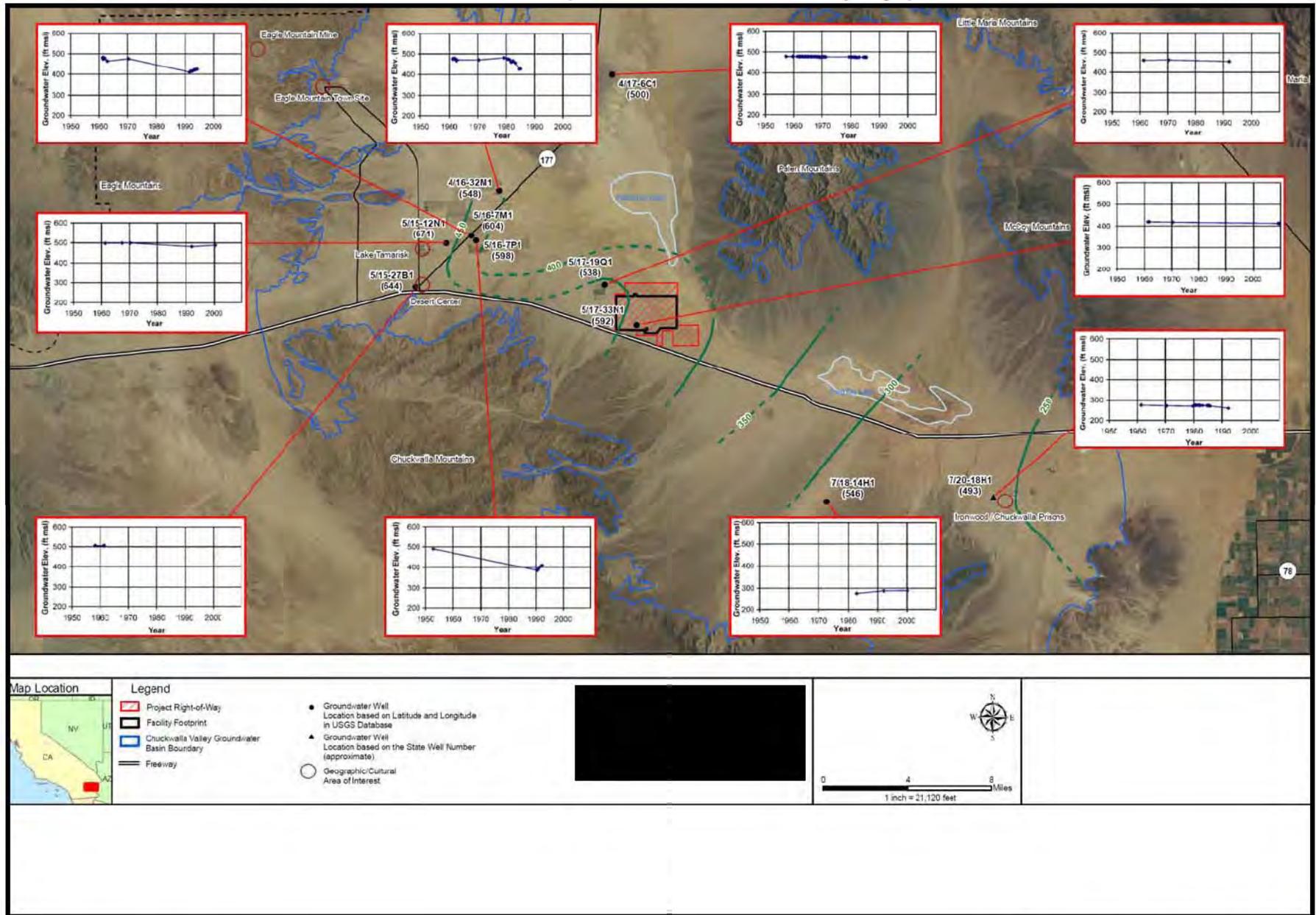
Palen Solar Power Project FEIS . 210291.01

**Figure 3.20-4**  
Regional Geology Map



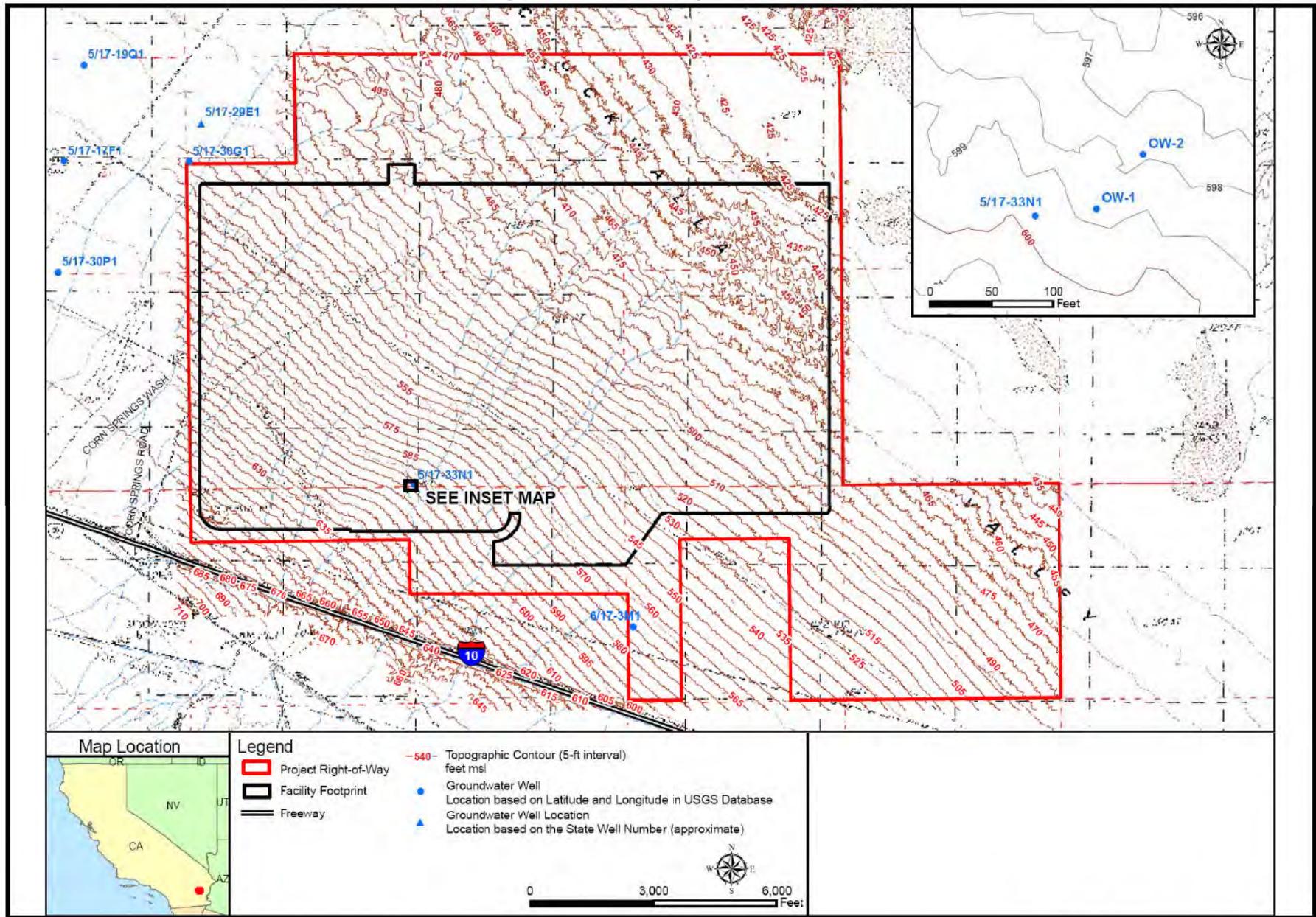
SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.20-5**  
 Chuckwalla Valley Groundwater Basin  
 Pre Project Conditions



SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.20-6**  
 Basin Wide Groundwater Hydrographs

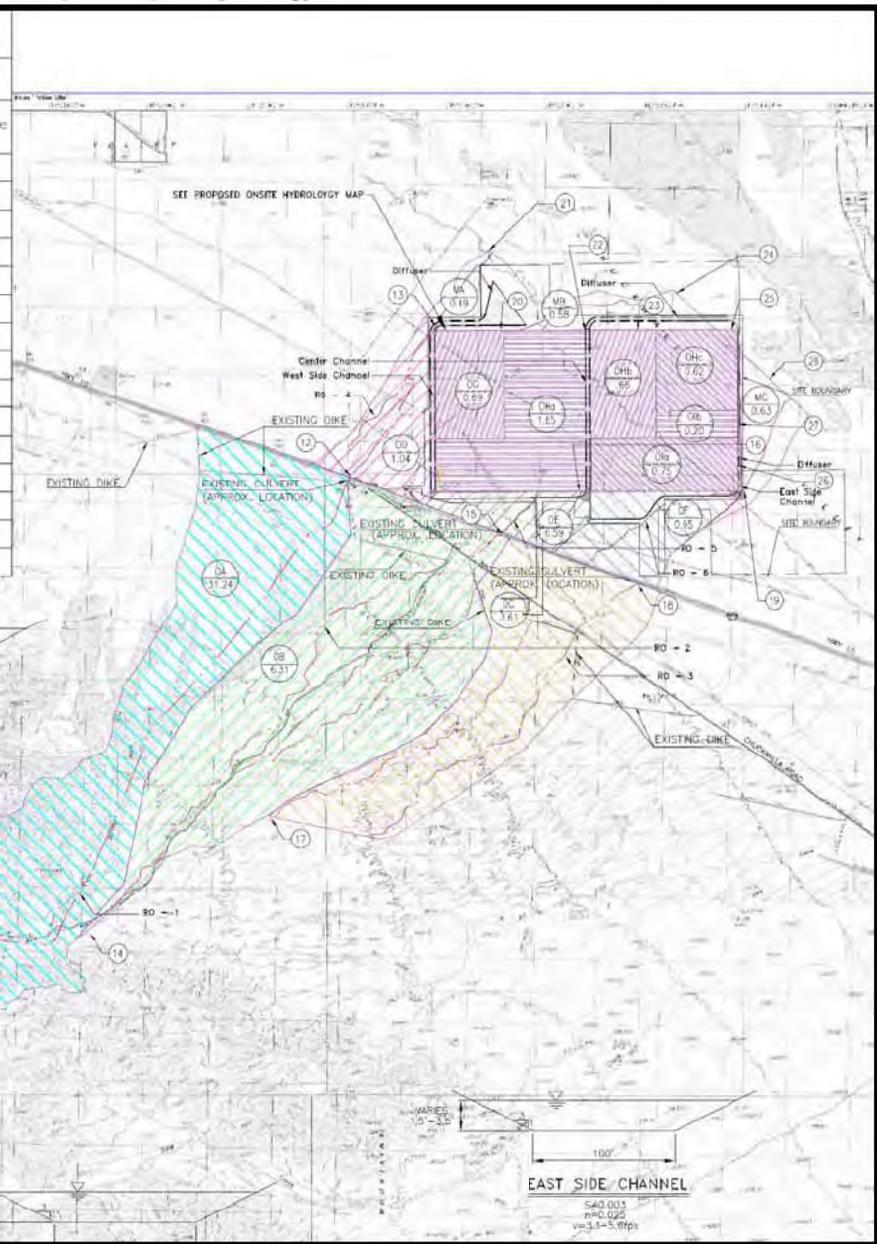


SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

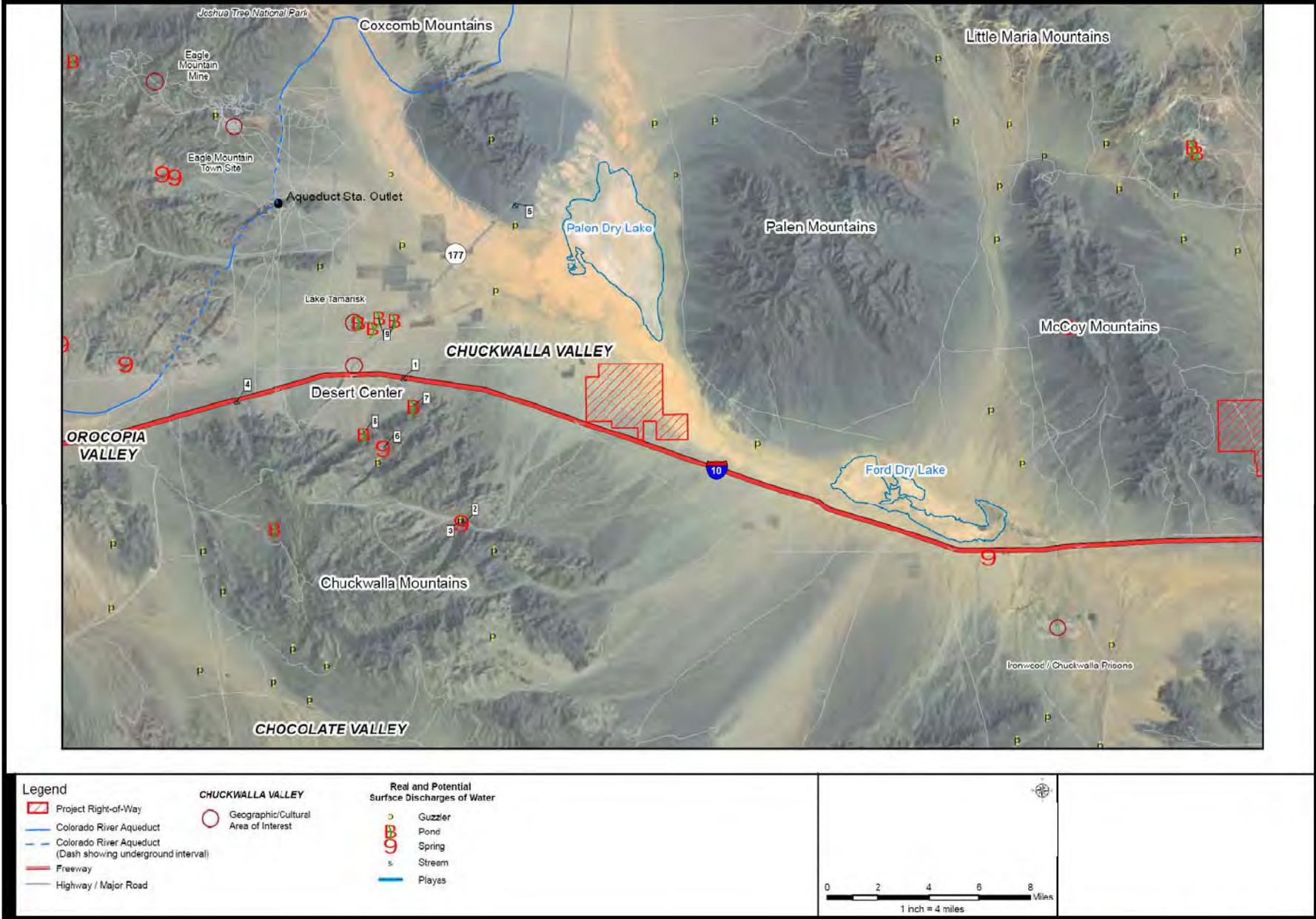
**Figure 3.20-7**  
Chuckwalla Valley Groundwater Basin Well Locations

Sub Basin	Area (mi <sup>2</sup> )	10 - yr		25 - yr		100 - yr				
		Peak Discharge (cfs)	Node Total		Peak Discharge (cfs)	Node Total		Peak Discharge (cfs)	Node Total	
			Node No.	Peak Discharge (cfs)		Node No.	Peak Discharge (cfs)		Node No.	Peak Discharge (cfs)
OA	31.24	8862	12	6862	9417	12	9417	13705	12	13705
OB	6.31	588	15	588	1097	15	1097	2108	15	2108
OC	3.61	414	18	414	778	18	778	1491	18	1491
OD	1.04	14	13	6875	79	13	9445	287	13	13570
OE	0.59	8	16	611	46	16	1135	173	16	2174
OF	0.95	11	19	515	50	19	971	172	19	1877
OG	0.69	7	20	6876	30	20	9452	122	20	13770
OHa	1.65	22	22	606	127	22	1142	524	22	2206
OHb	0.66	7.5	23	618	36	23	1169	147	23	2268
OHc	0.62	6	25	6	33.5	25	33.5	138	25	138
Ola	0.75	10	25	517	55	26	1009	239	26	1983
Olb	0.20	3	27	3	17	27	17	67	27	67
MA	0.49	110	21	6873	205	21	9453	387	21	13770
MB	0.58	104	24	618	196	24	1169	376	24	2268
MC	0.63	108	25	517	201	28	1009	384.5	28	1983



SOURCE: CEC/BLM, 2010

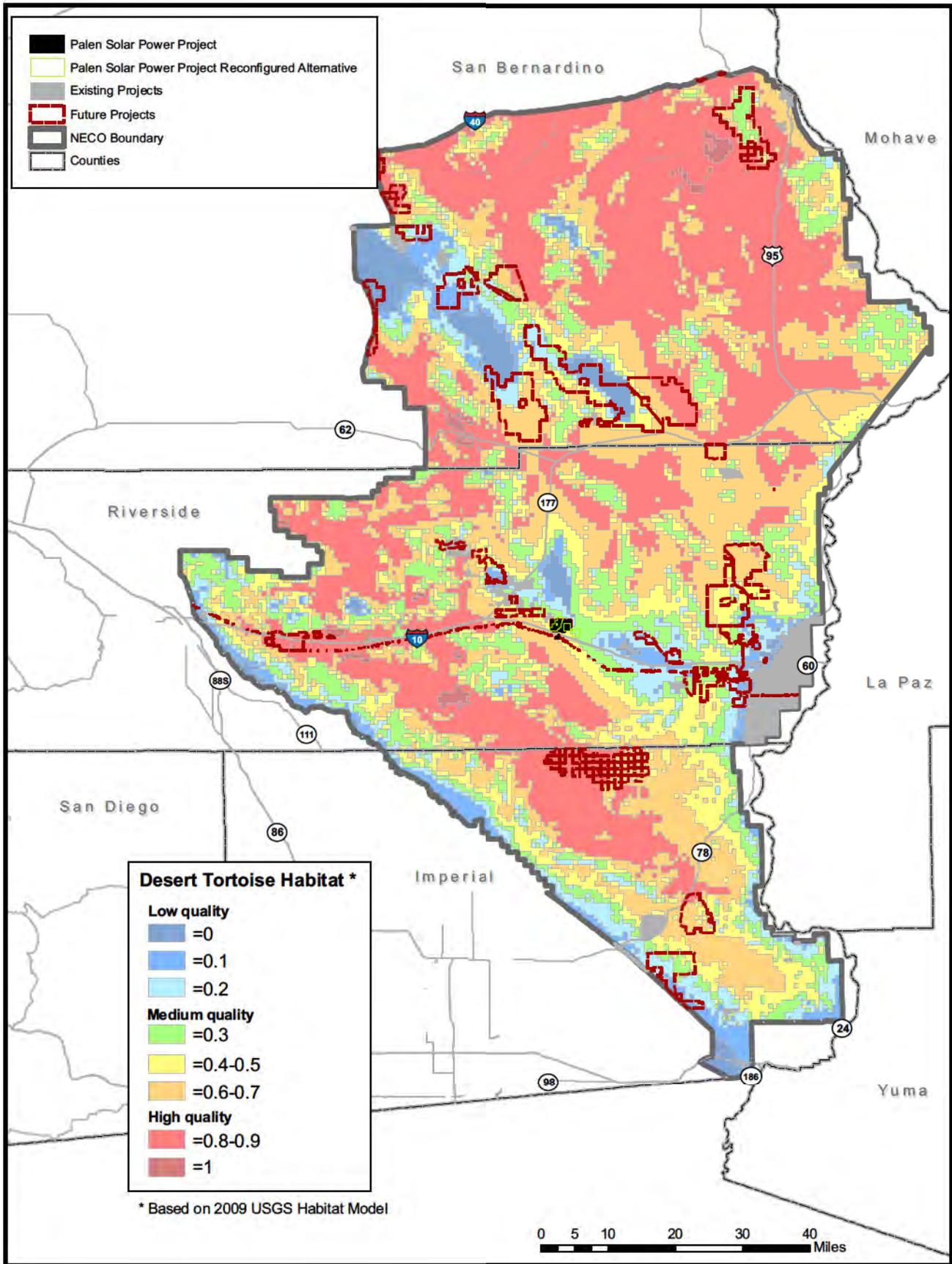
Palen Solar Power Project FEIS . 210291.01  
**Figure 3.20-8**  
 Developed Project Hydrology



SOURCE: CEC/BLM, 2010

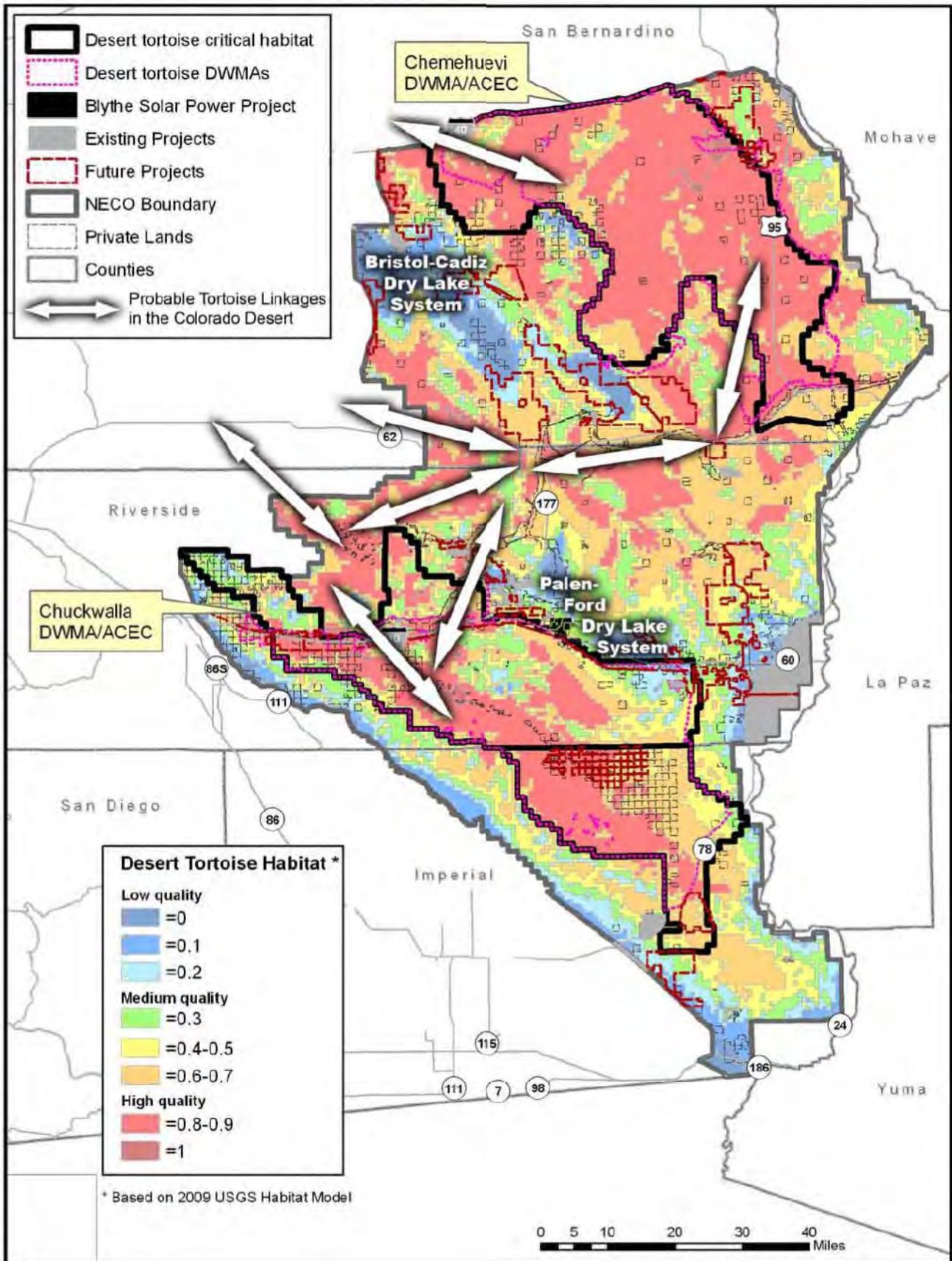
Palen Solar Power Project FEIS . 210291.01

**Figure 3.20-9**  
Chuckwalla Valley Springs and Seep



SOURCE: CEC RSA, 2010

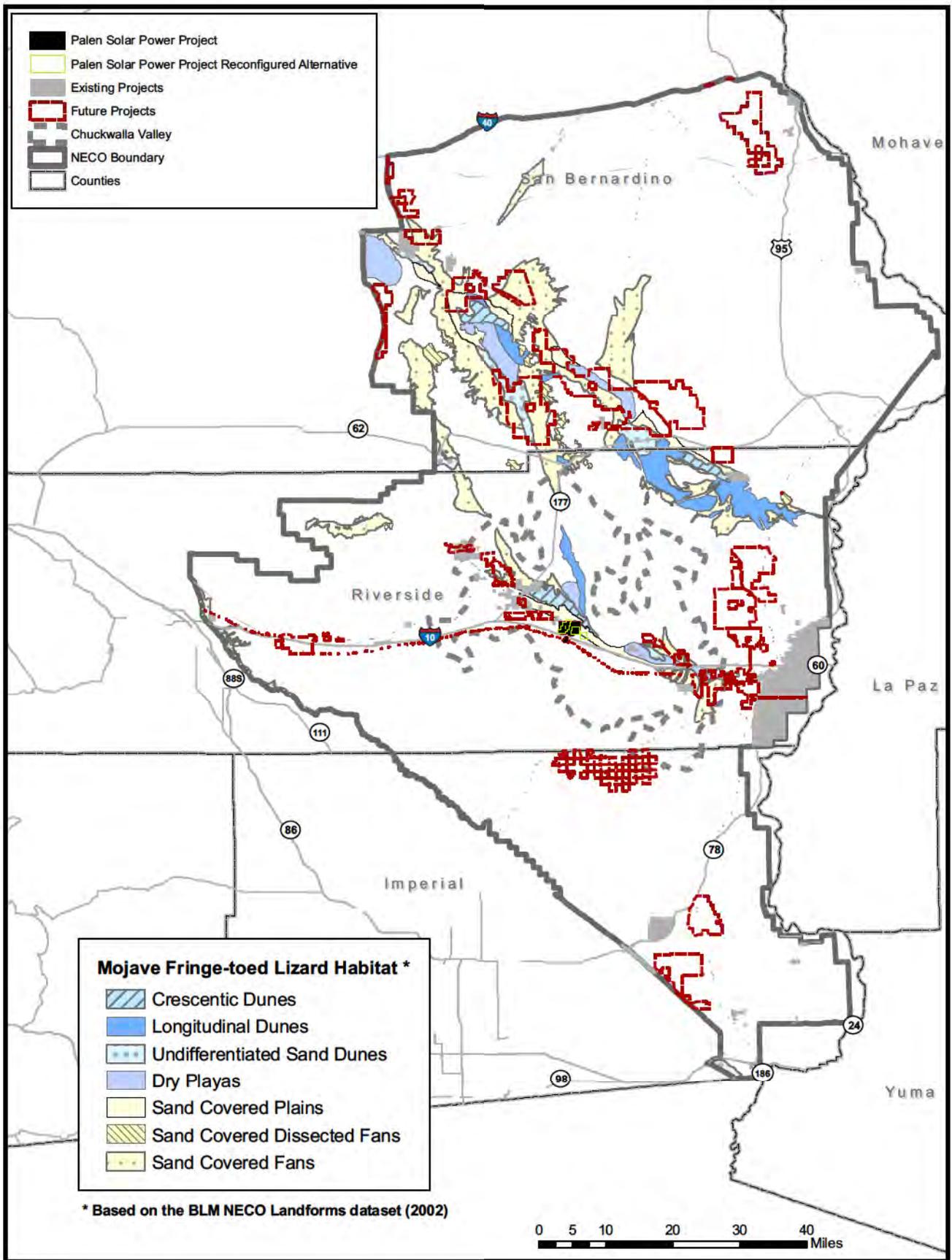
Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-1**  
 Desert Tortoise Habitat



SOURCE: CEC RSA, 2010

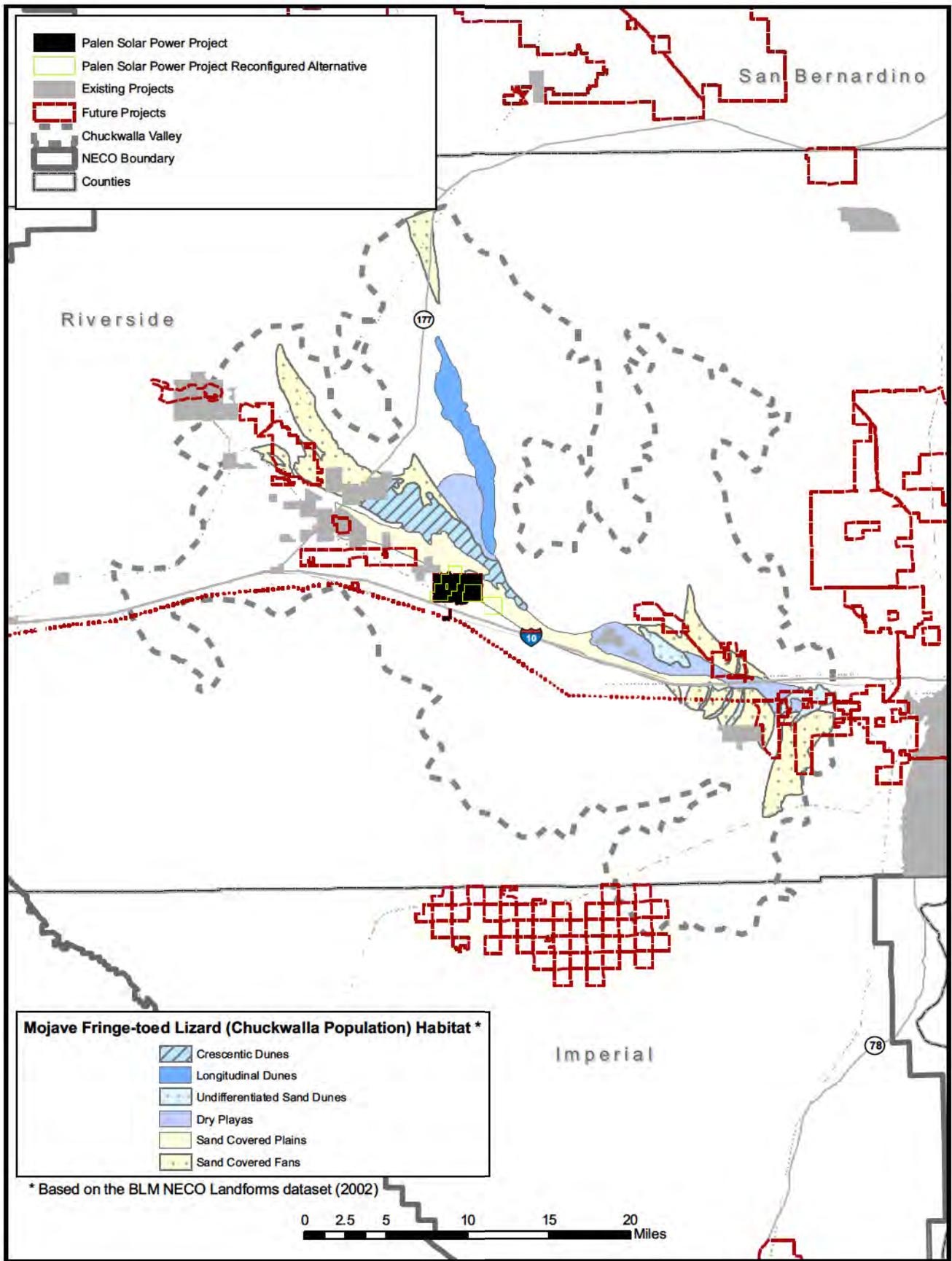
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**Figure 3.23-2**  
Desert Tortoise Chuckwalla to Chemehuevi  
DWMA/ACEC and Critical Habitat



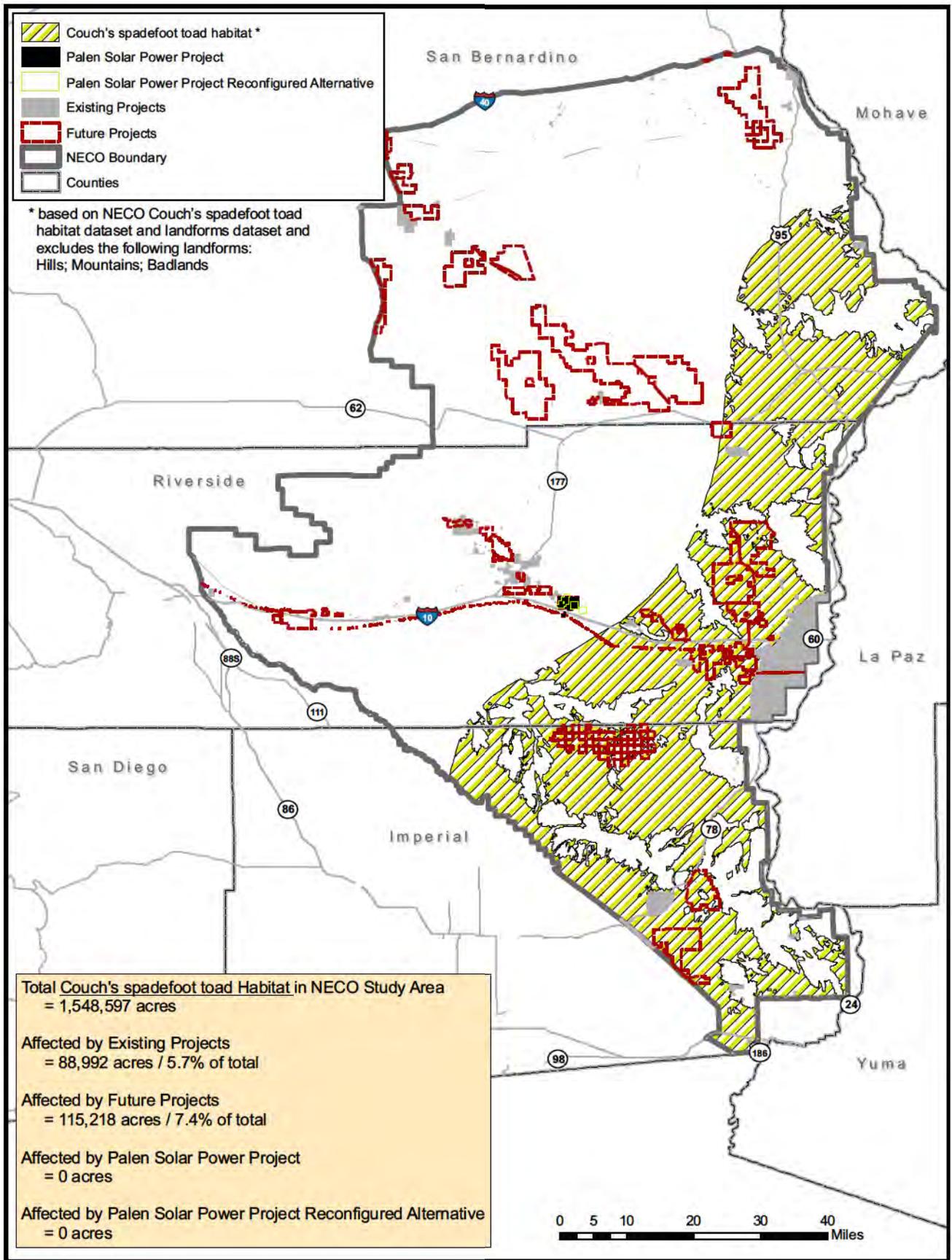
SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-3**  
 Mojave Fringe-Toed Lizard Habitat



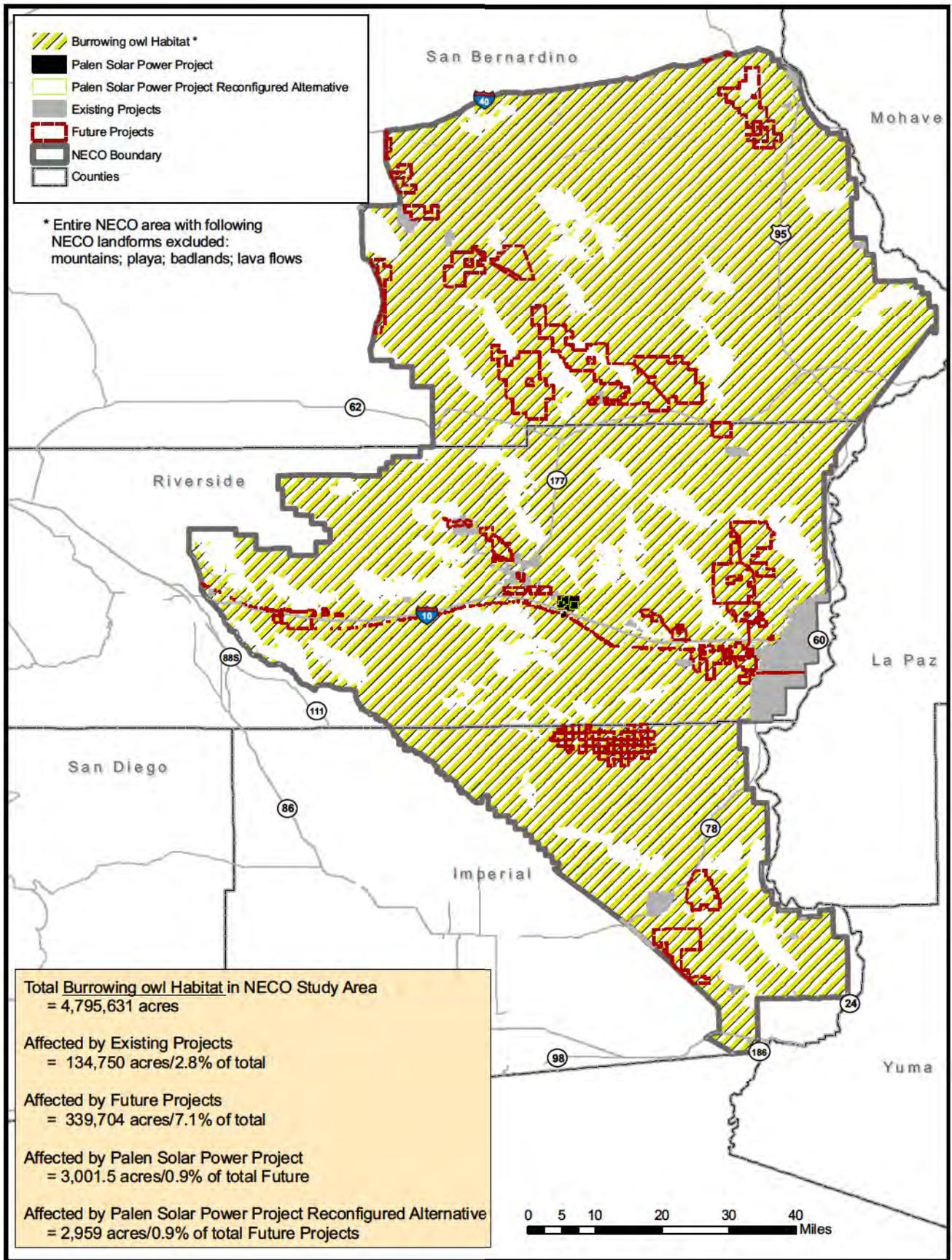
SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-4**  
 Mojave Fringe-Toed Lizard Habitat  
 Chuckwalla Population



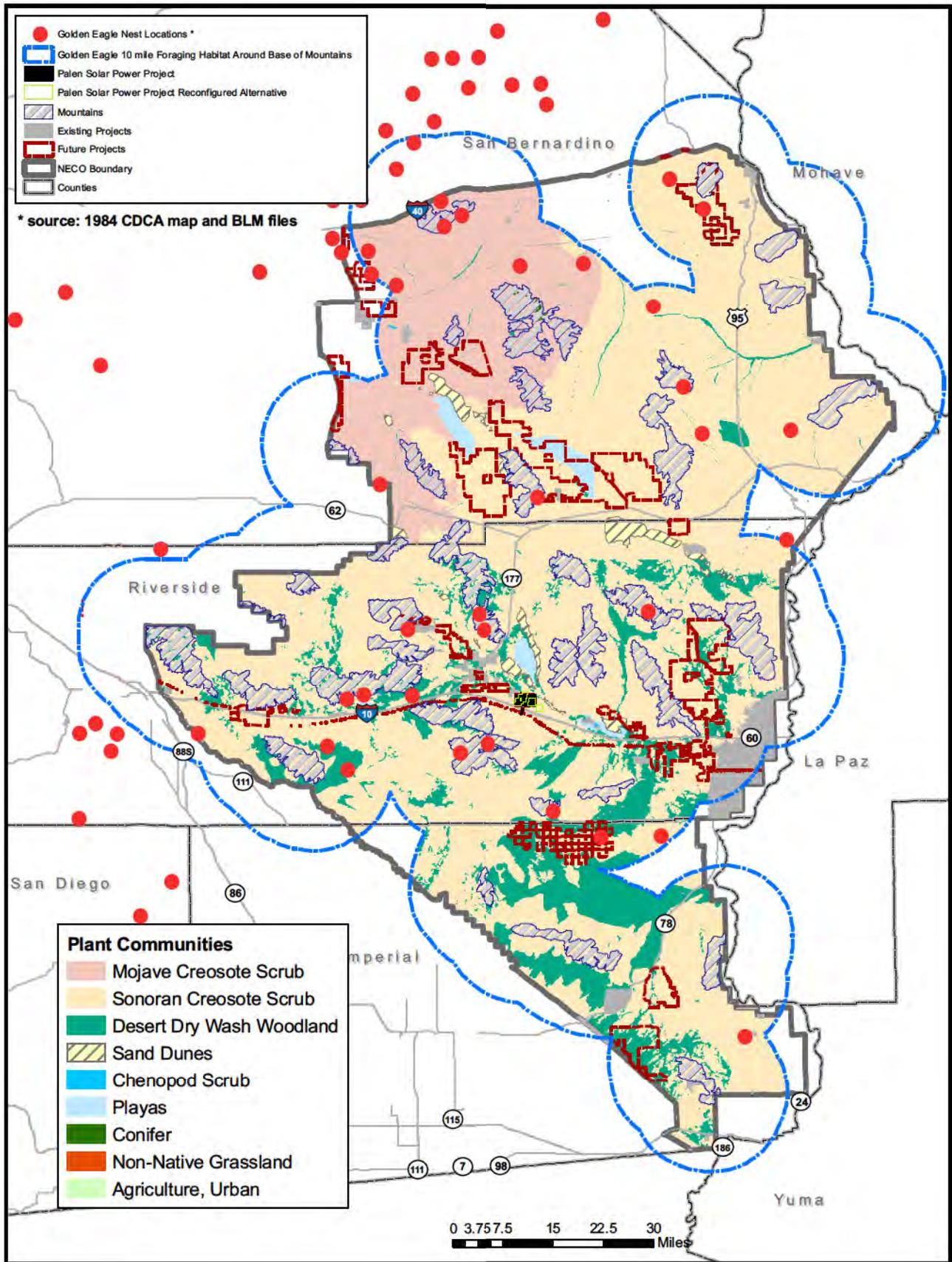
SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-5**  
 Couch's Spadefoot Toad Habitat



SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-6**  
 Burrowing Owl Habitat

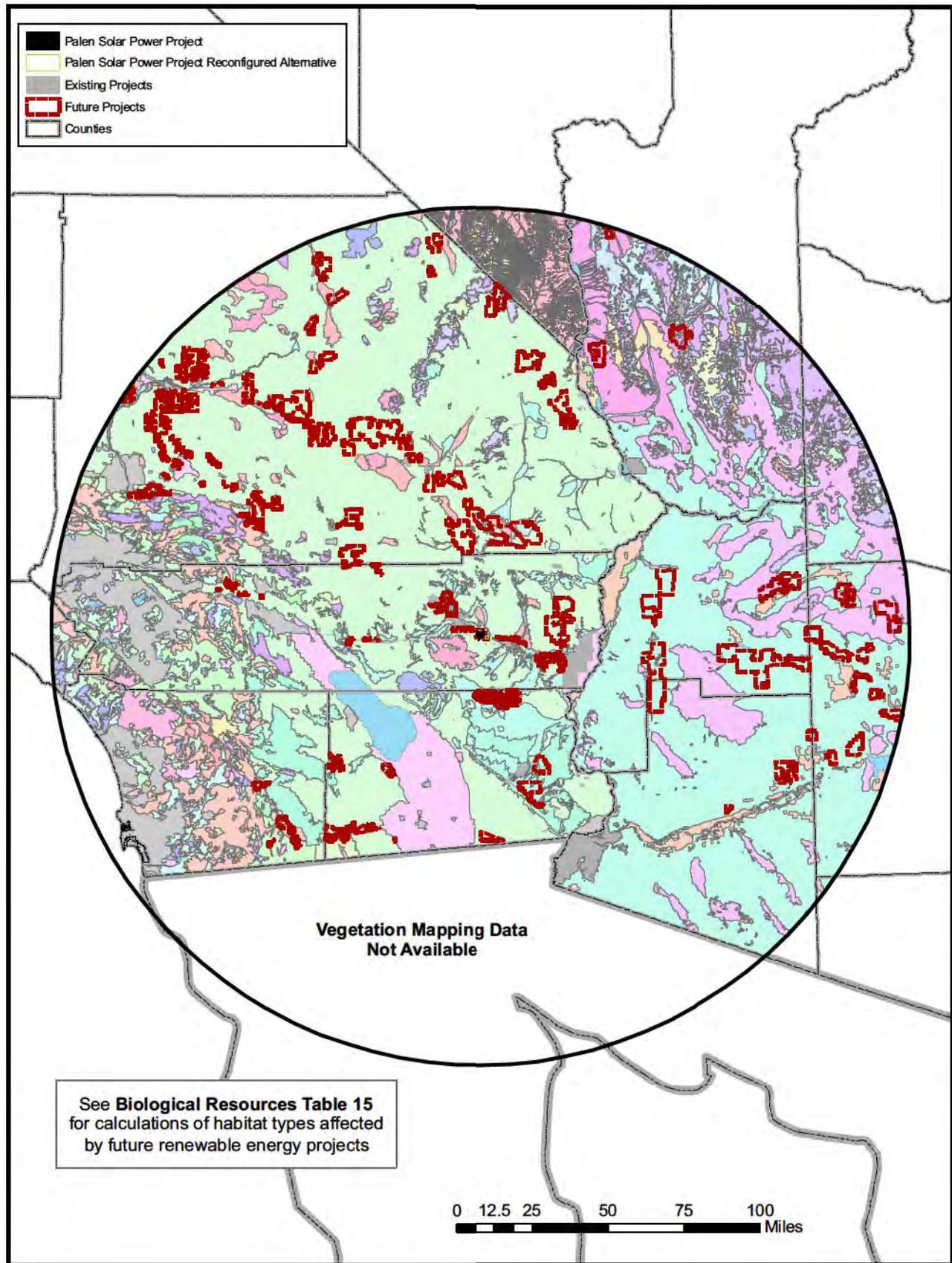


SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 3.23-7**

Golden Eagle Foraging Habitat within 10 Miles of Mountains

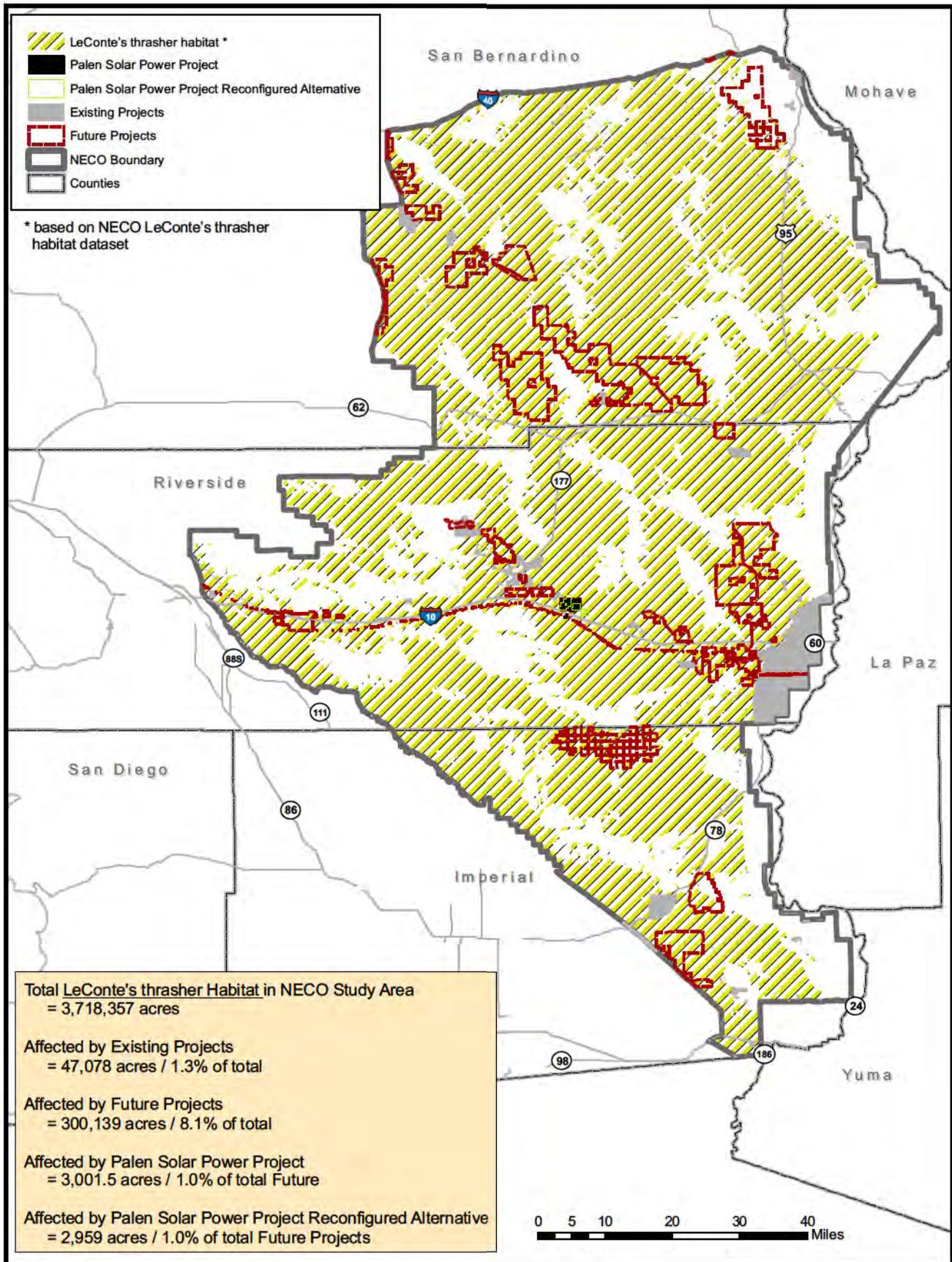


SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01

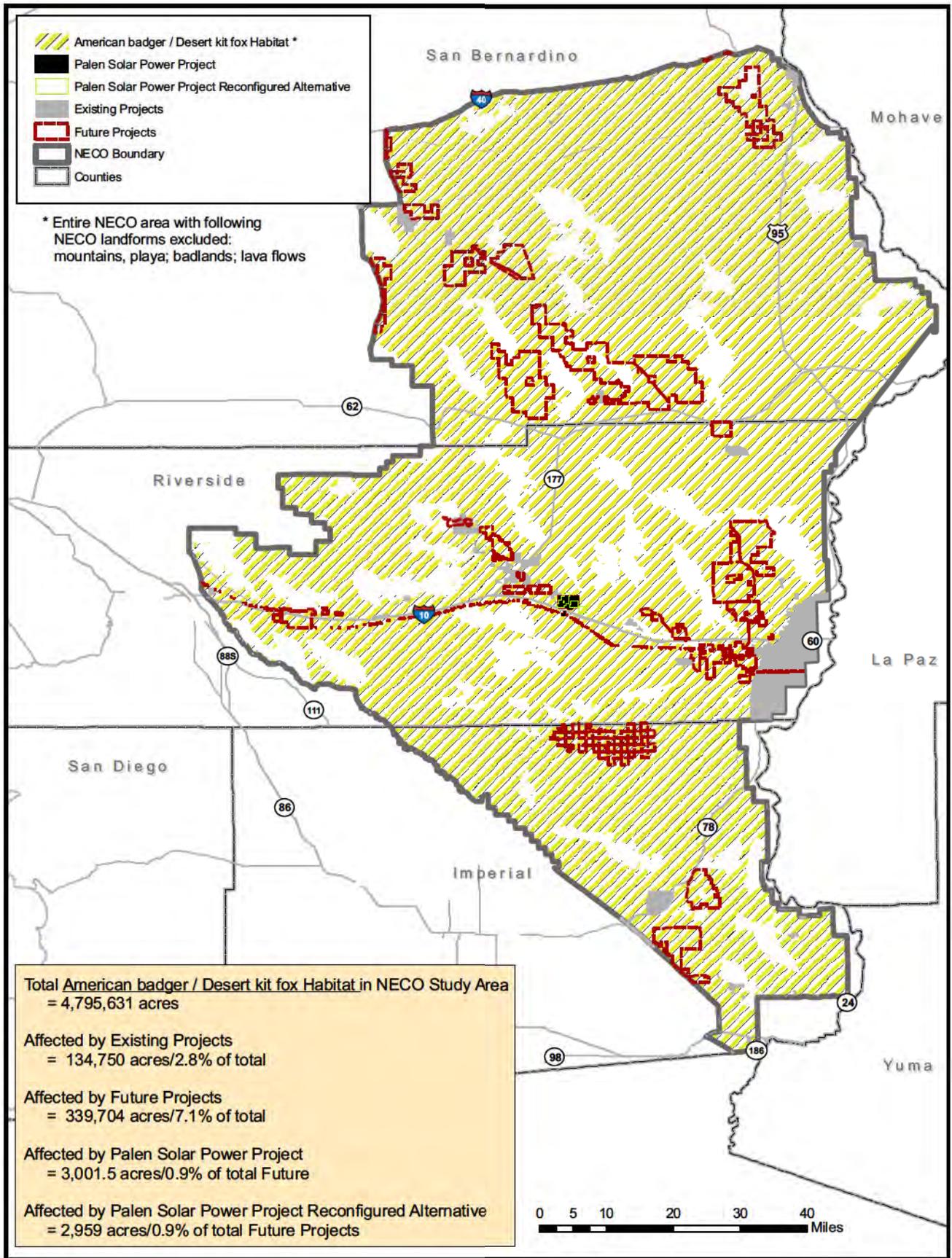
**Figure 3.23-8**

Golden Eagle Foraging Habitat within 140 Miles Radius of Project



SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-9**  
 LeConte's Thrasher Habitat

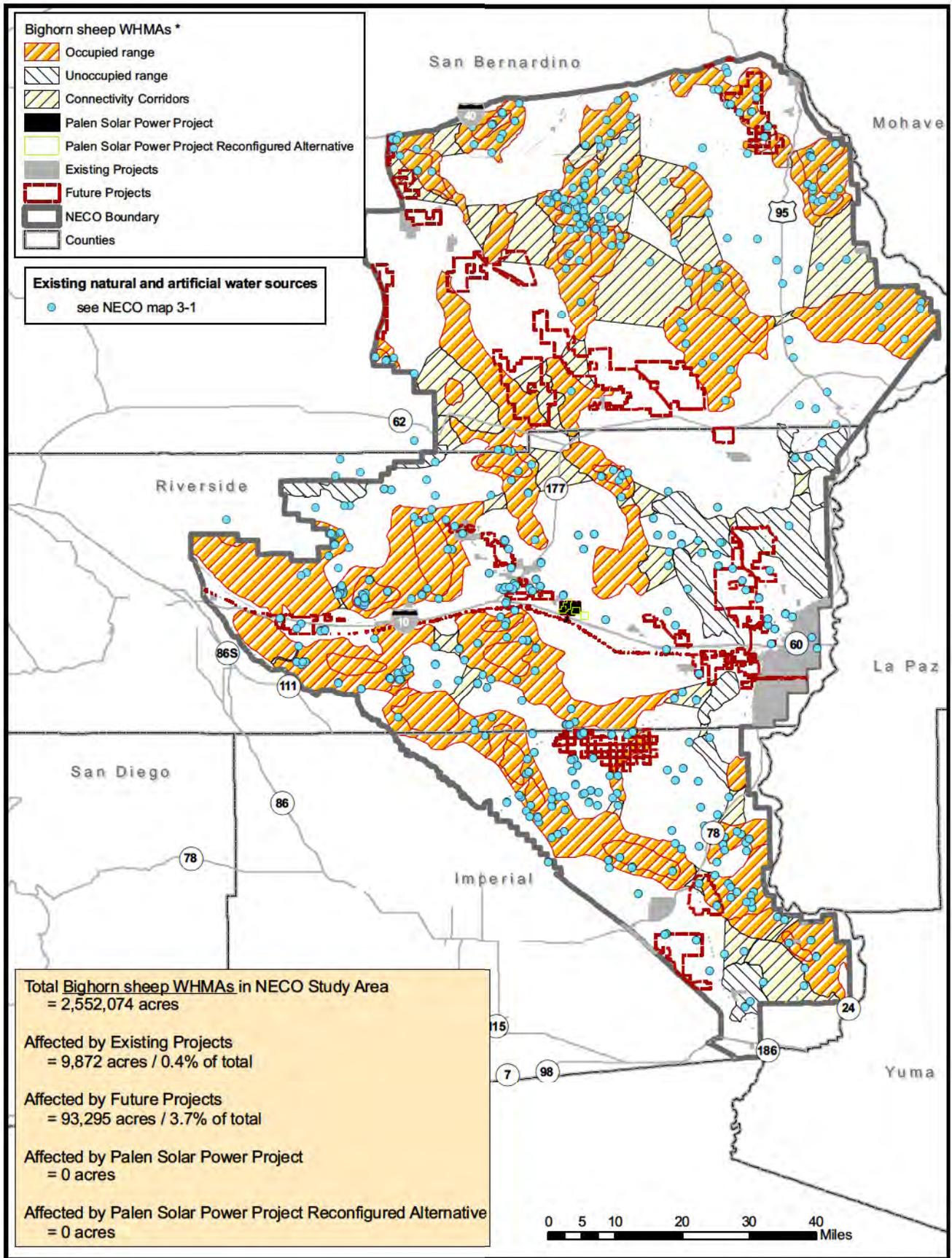


SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01

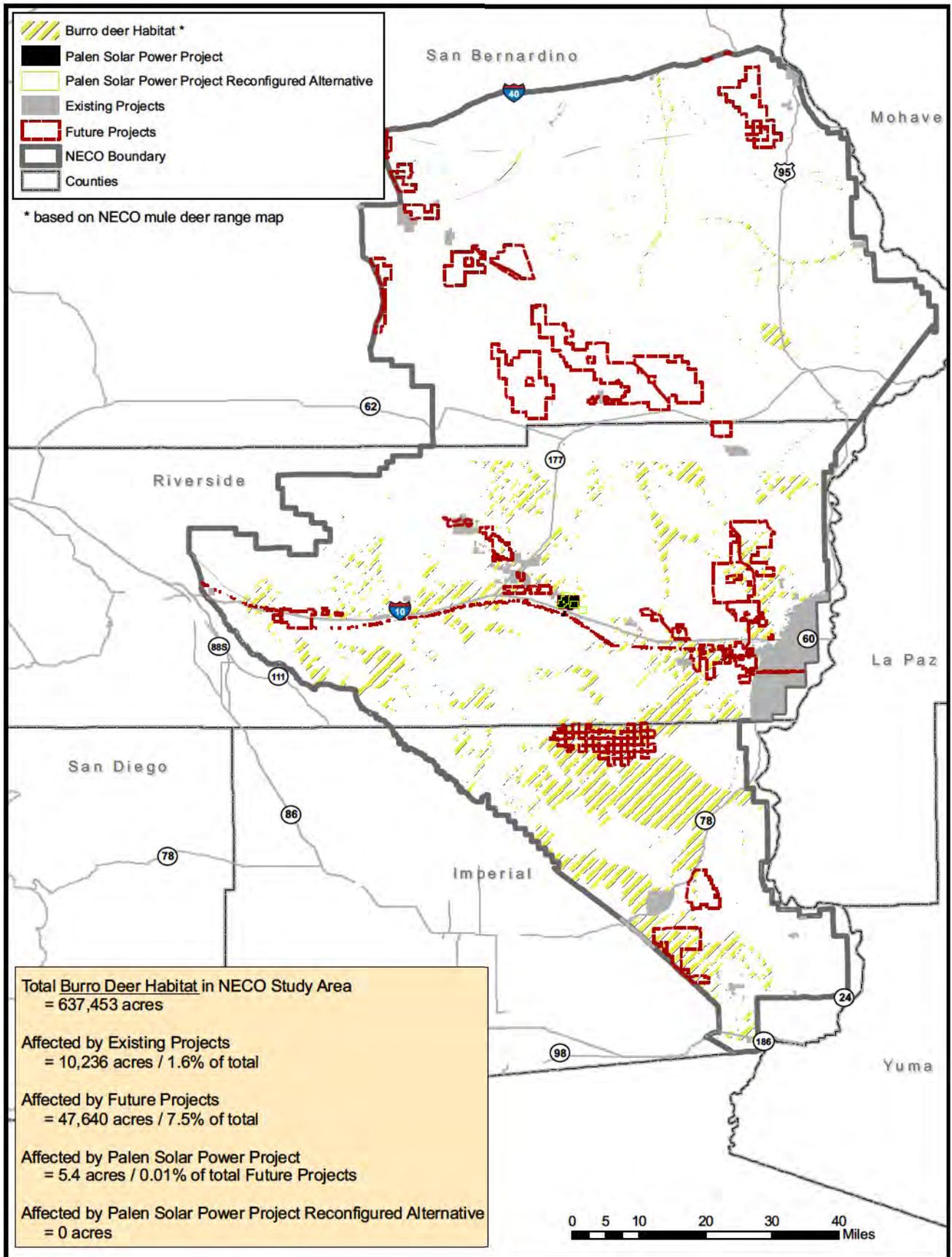
**Figure 3.23-10**

American Badger/Desert Kit Fox Habitat



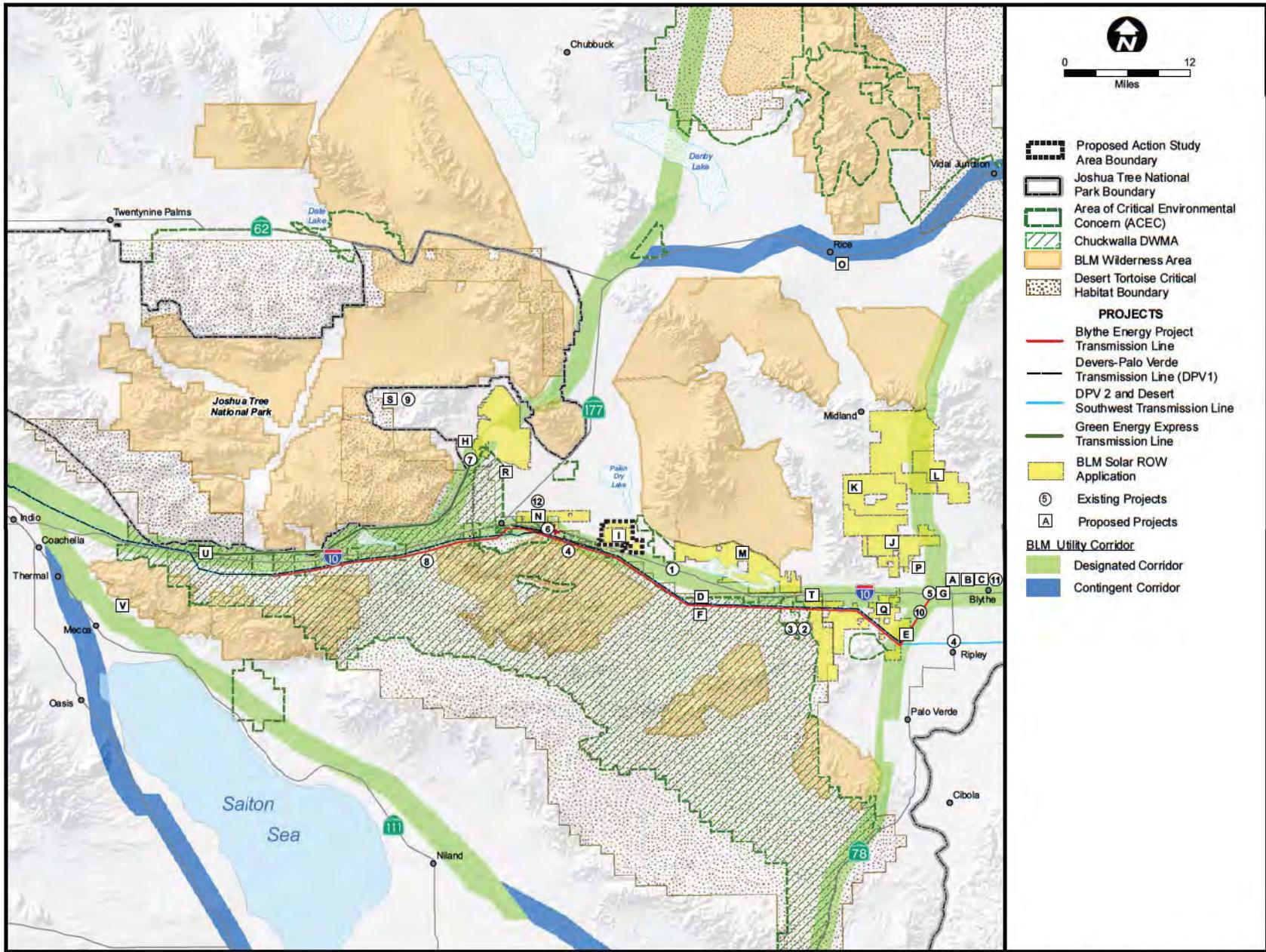
SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-11**  
 Bighorn Sheep WHMAs



SOURCE: CEC RSA, 2010

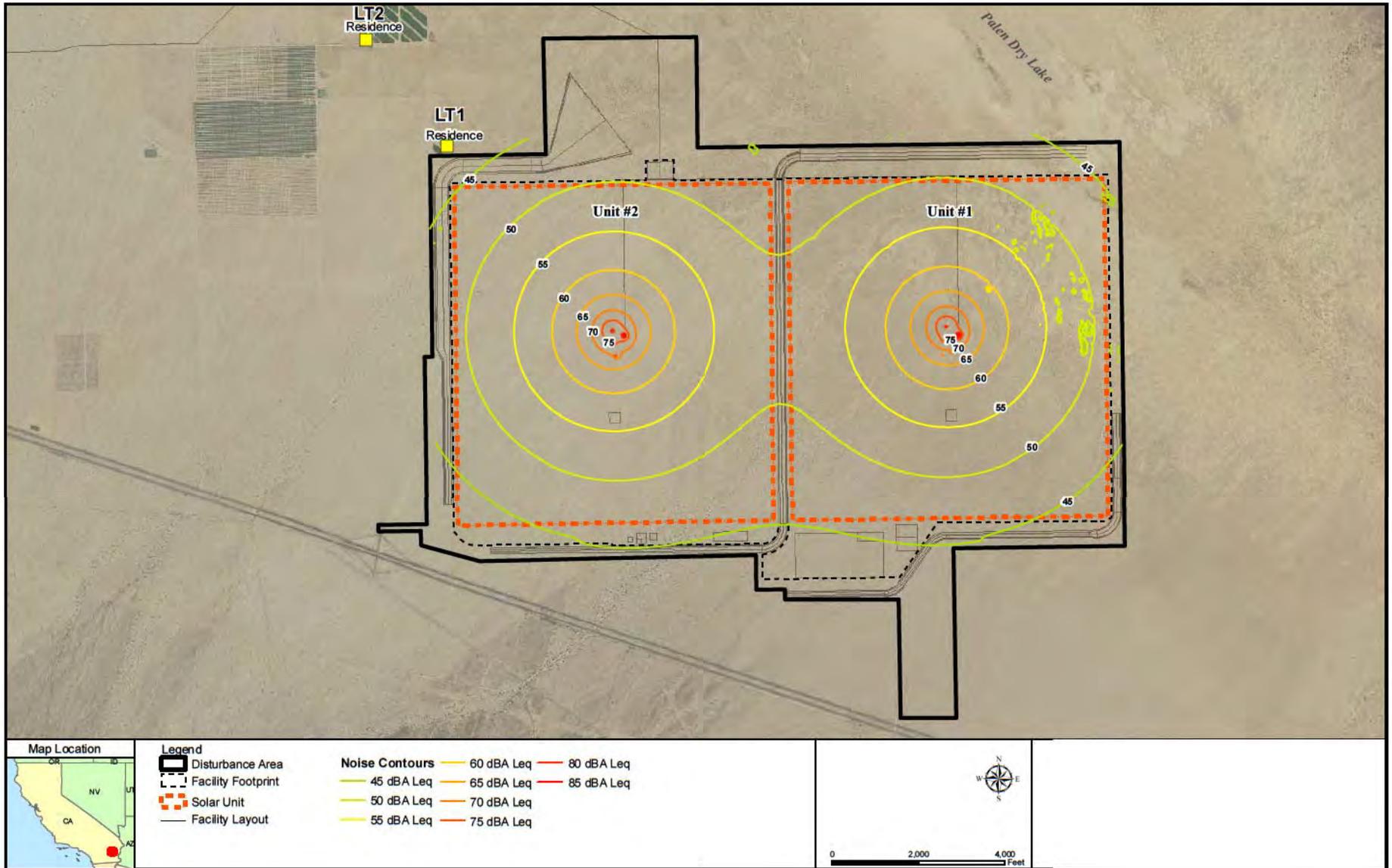
Palen Solar Power Project FEIS . 210291.01  
**Figure 3.23-12**  
 Burro Deer Range



SOURCE: California Energy Commission, 2010; BLM, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 4.1-1**  
BLM Rights of Way with Existing and Future/Foreseeable Projects



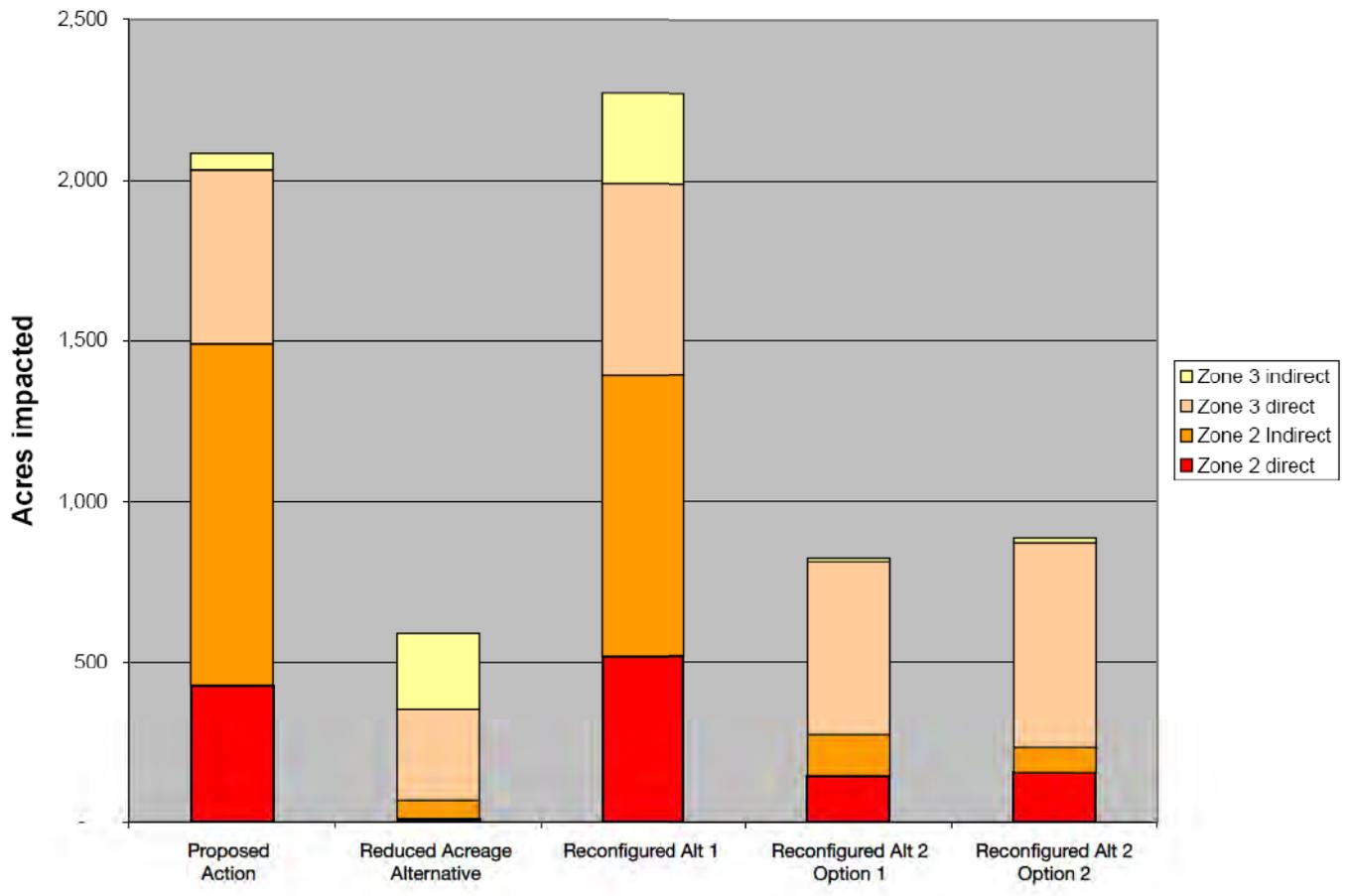
SOURCE: CEC RSA Part I, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 4.9-1**  
Noise Measurement Locations  
and Noise Contours

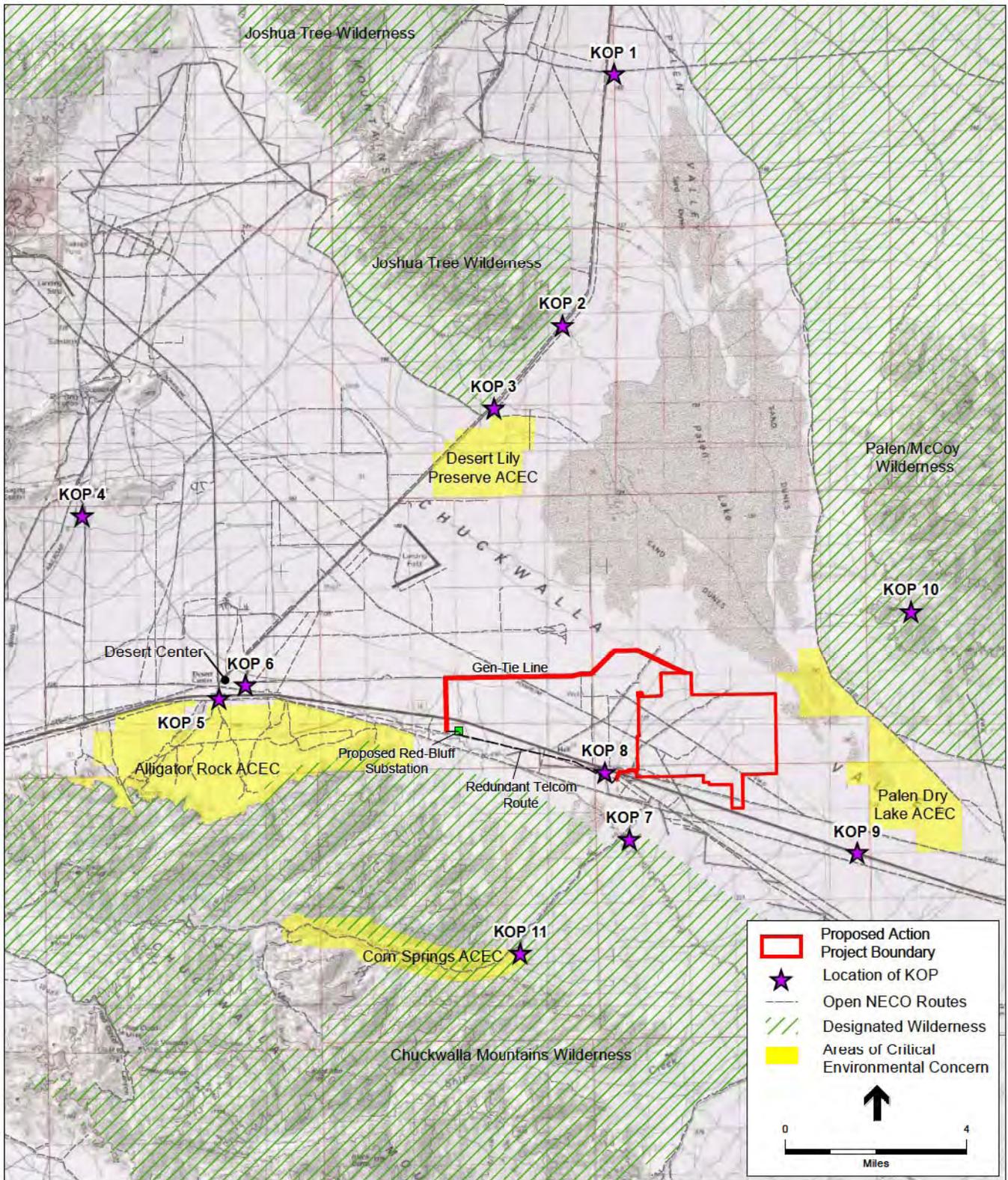


Note: The intrusion of the eastern array into the sand transport corridor (red dunes and surrounding grey dunes) can clearly be seen.



SOURCE: CEC RSA Part II, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 4.14-2**  
 Summary of Alternatives' Impacts on  
 the Sand Transport Corridor



SOURCE: AFC, 2009

Palen Solar Power Project FEIS . 210291.01

**Figure 4.18-1**  
Location of Key Observation Points (KOPs)



**Figure 4.18-2**  
Foreground View of an Existing Solar Energy Facility  
(Kramer Junction SEGS Project)



Unidentified trough project under different lighting conditions



Acciona Nevada Solar One



Acciona Nevada Solar One



Kramer Junction



Nevada Solar One



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition

SOURCE: AFC, 2009

Palen Solar Power Project FEIS . 210291.01

**Figure 4.18-8**  
View from KOP-4, Eagle Mountain Road,  
Looking East toward the PSPP Site



Existing Condition



Simulated Condition

SOURCE: AFC, 2009

Palen Solar Power Project FEIS . 210291.01

**Figure 4.18-9**  
View from KOP-5, I-10 Interchange at Desert Center,  
Looking East toward the PSPP Site



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition



Existing Condition



Simulated Condition



Existing Condition



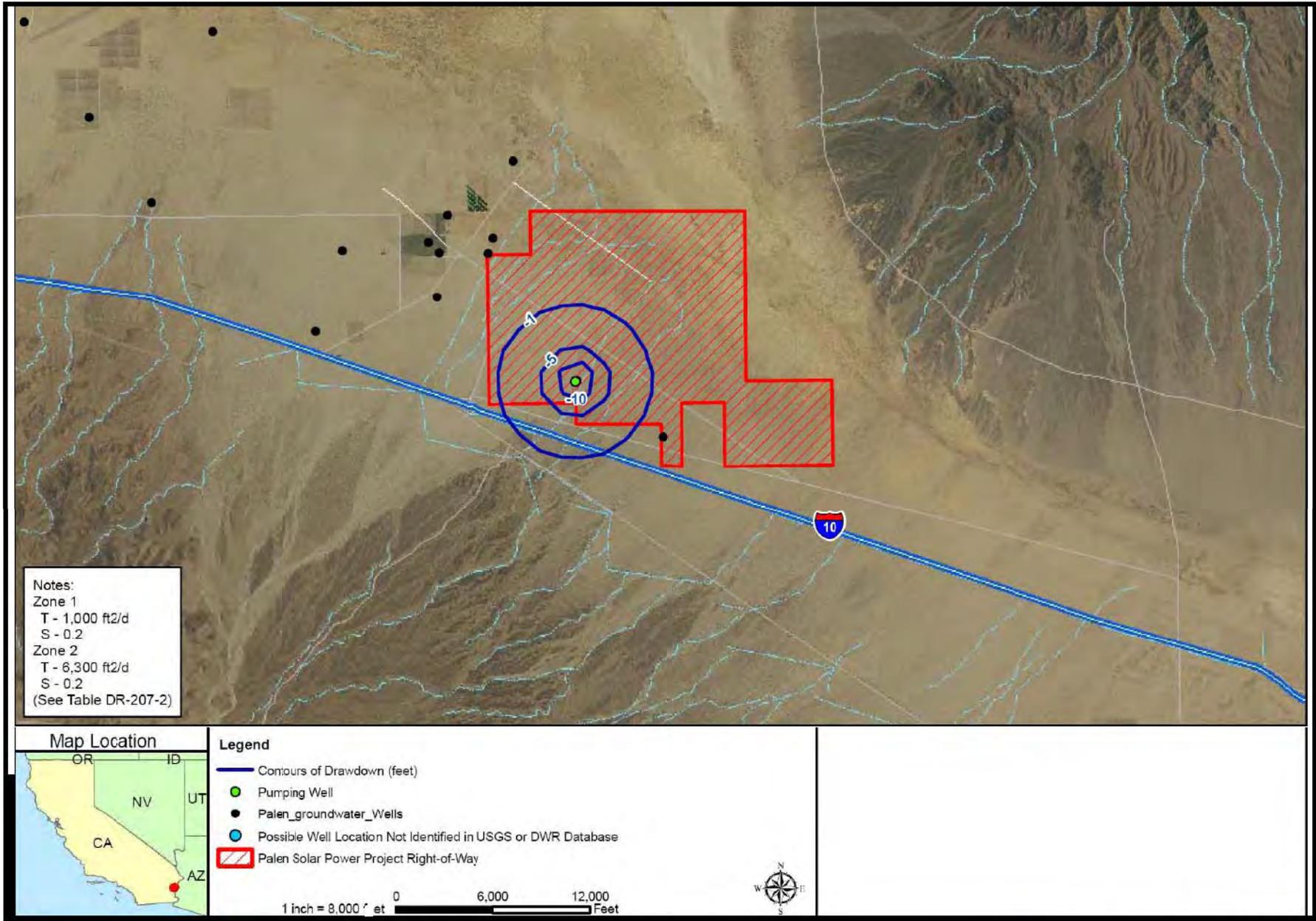
Simulated Condition



Existing Condition

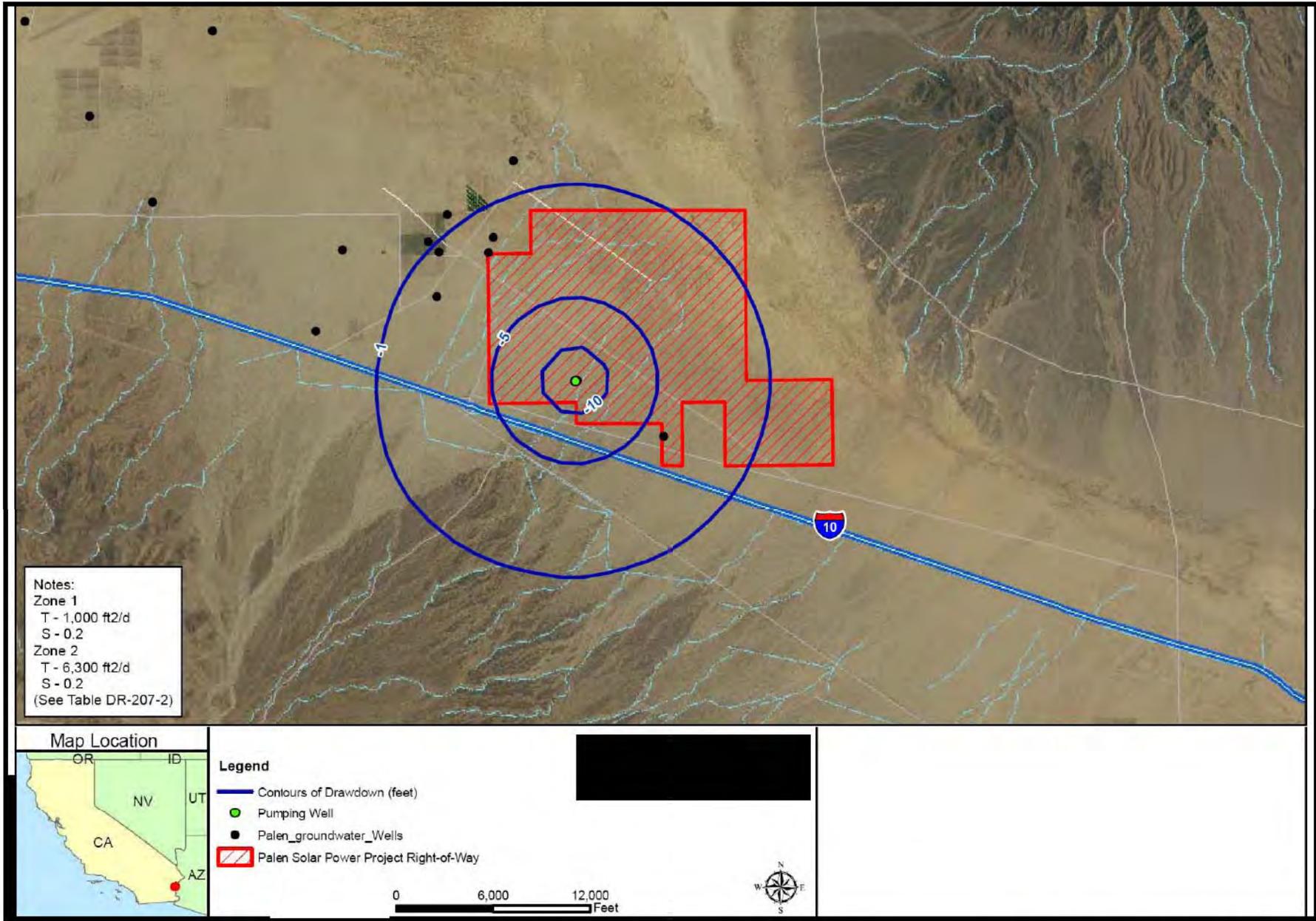


Simulated Condition



SOURCE: CEC/BLM, 2010

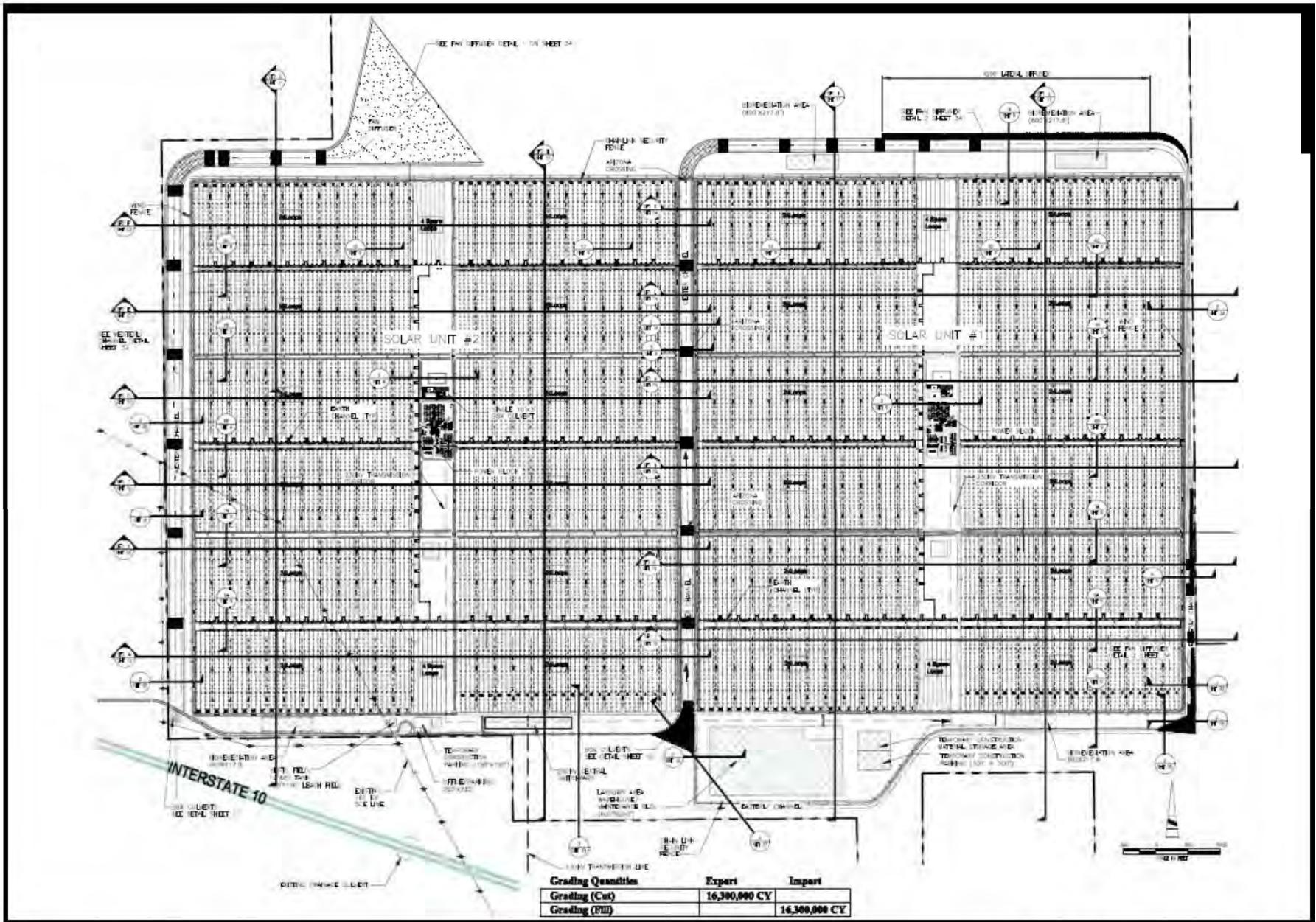
Palen Solar Power Project FEIS . 210291.01  
**Figure 4.19-1**  
Chuckwalla Valley Groundwater Basin Levels,  
End of Construction



SOURCE: CEC/BLM, 2010

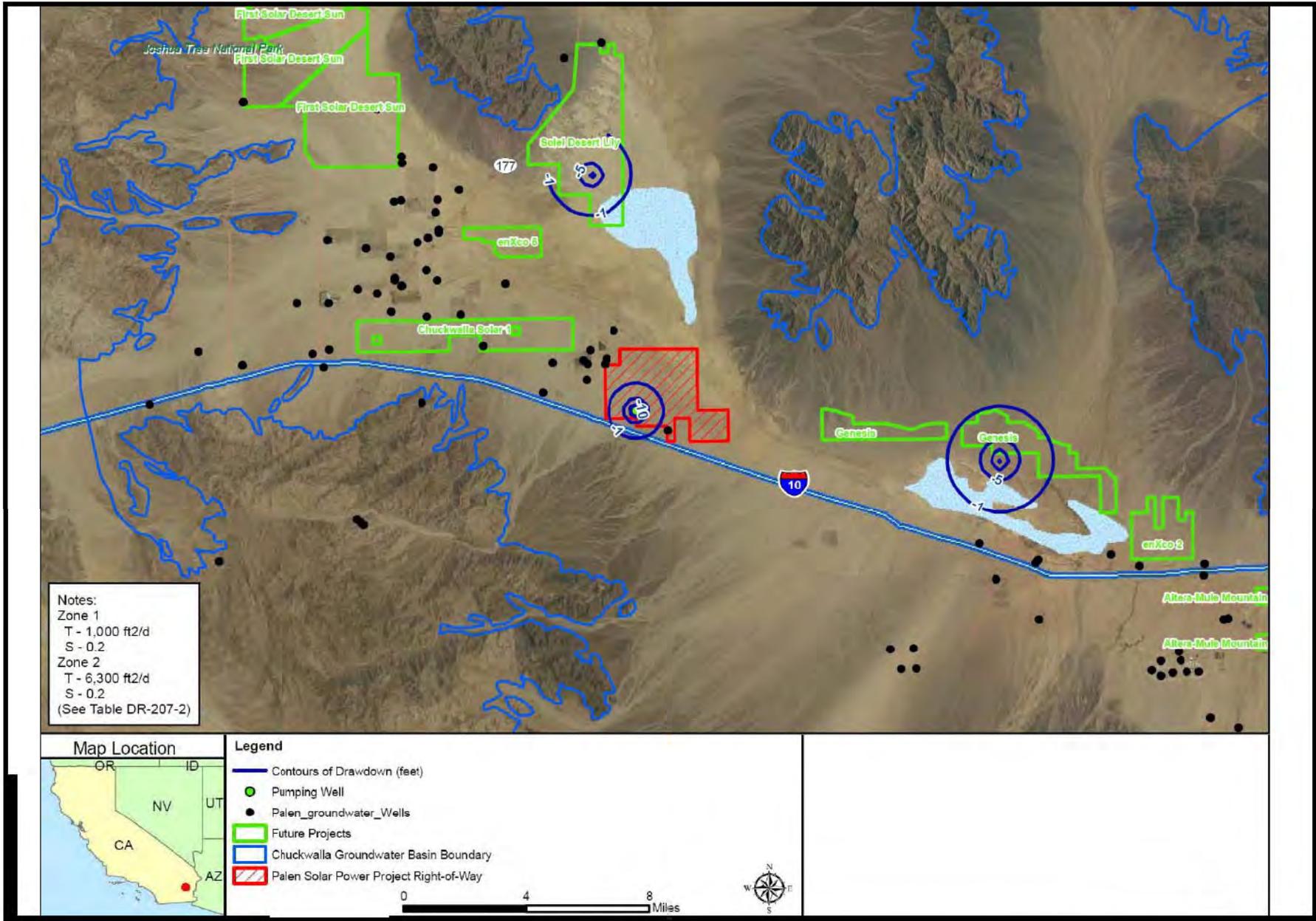
Palen Solar Power Project FEIS . 210291.01

**Figure 4.19-2**  
Chuckwalla Valley Groundwater Basin Levels,  
End of Operation



SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01  
**Figure 4.19-3**  
 Preliminary Conceptual Drainage Plan

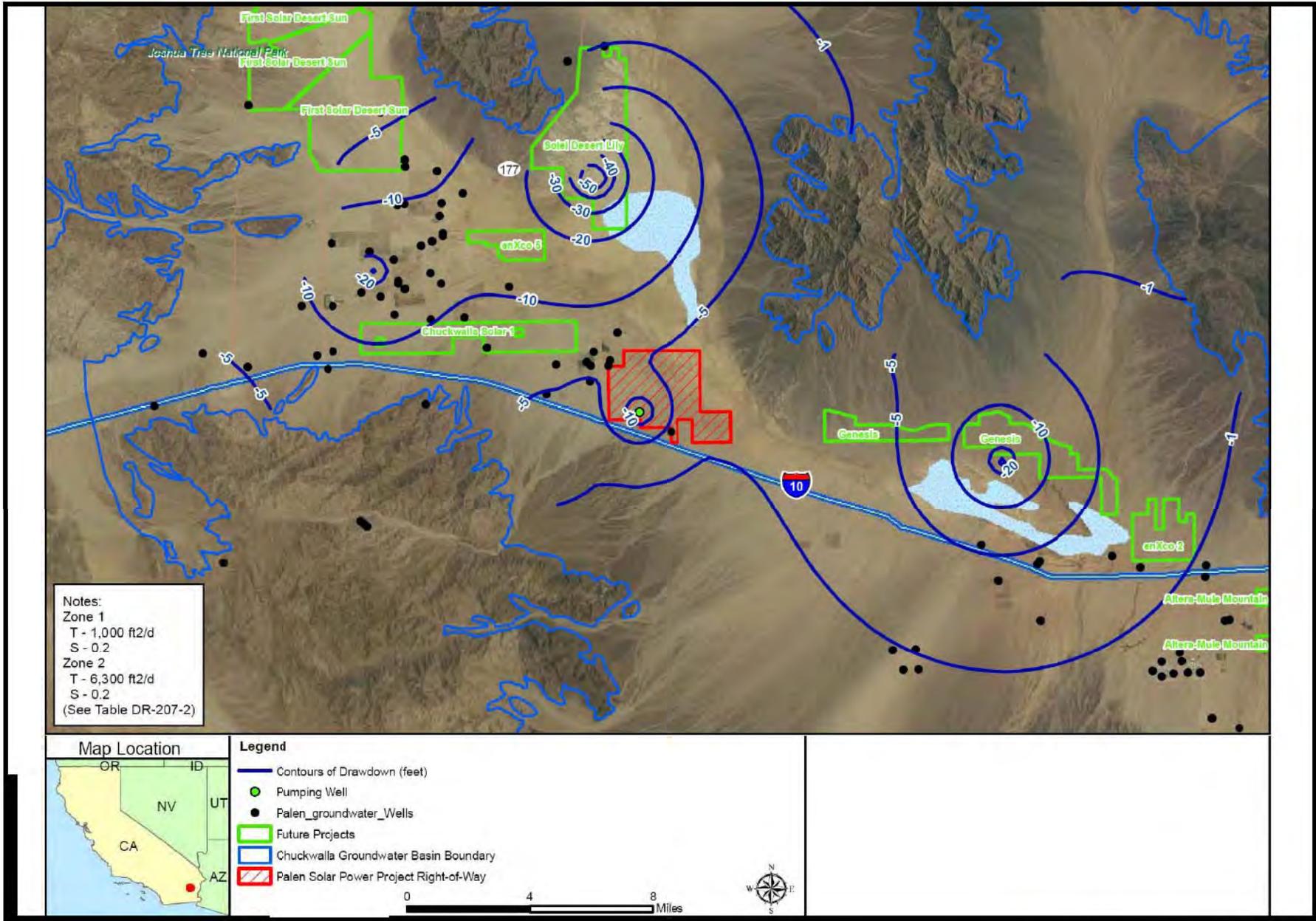


SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 4.19-4**

Chuckwalla Valley Groundwater Basin Cumulative Groundwater Levels, End of Construction

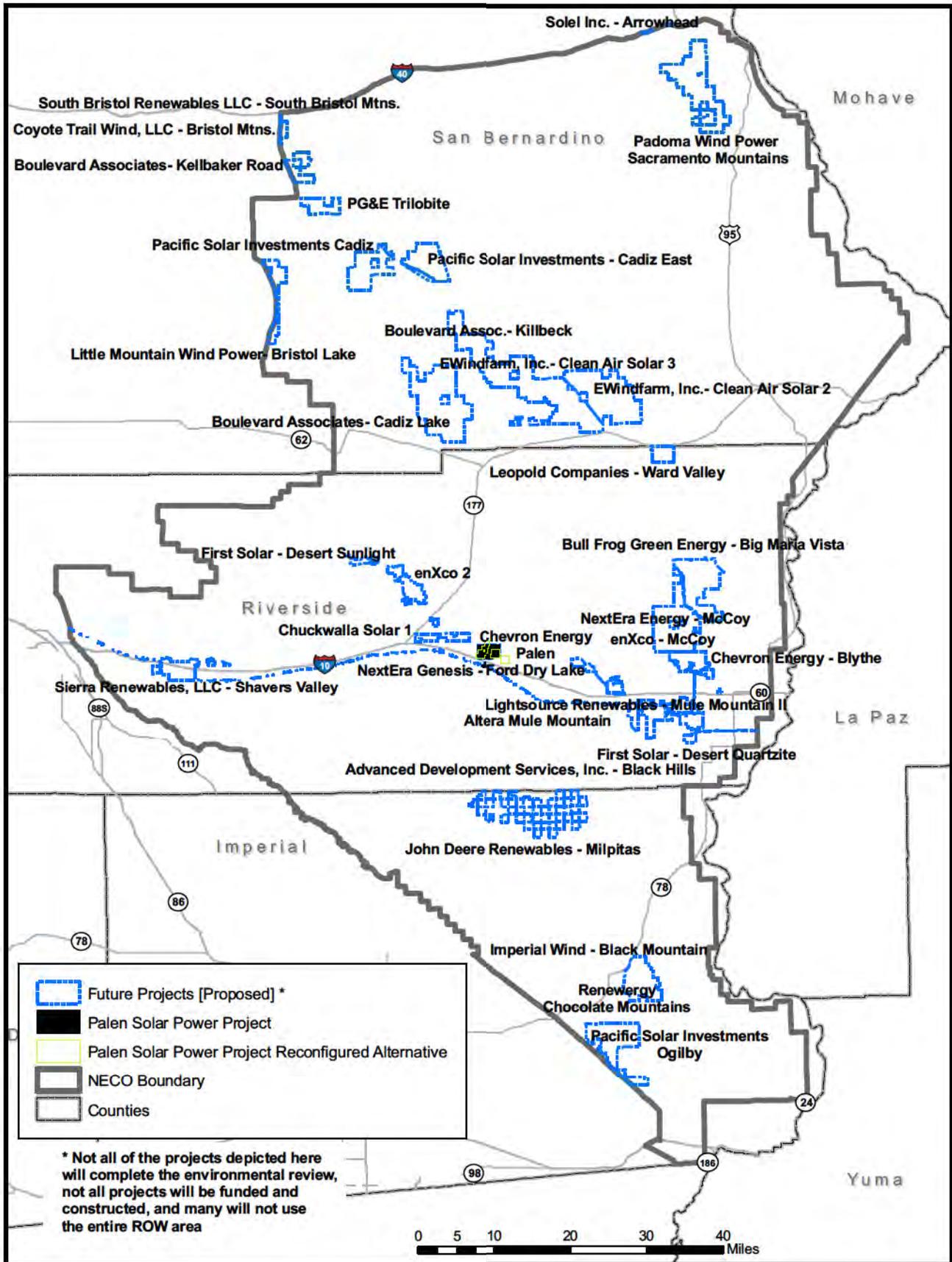


SOURCE: CEC/BLM, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 4.19-5**

Chuckwalla Valley Groundwater Basin Cumulative Groundwater Levels, End of Operation



SOURCE: CEC RSA, 2010

Palen Solar Power Project FEIS . 210291.01

**Figure 4.21-1**

Foreseeable Projects within the Neco Boundary