

4.0 – REVISIONS TO THE DRAFT PEIR

4.1 INTRODUCTION

This section presents minor revisions to the Draft PEIR based upon: (1) additional or revised information required to prepare a response to a specific comment; and/or (2) typographical errors. The minor revisions to the text of the Draft PEIR detailed below reflect clarifications that do not constitute significant new information and do not change any of the impact conclusions of the Draft PEIR. These minor modifications do not constitute changes to the proposed Project or environmental setting nor would they result in any new significant environmental impacts. In addition, these minor revisions to the text, as described below, would not cause a substantial increase in the severity of any environmental impacts. Rather, these changes merely clarify portions of the text. Amended text is identified by page number. Clarifications to the Draft PEIR text are shown with underline, and text removed from the Draft PEIR is shown with ~~striketrough~~.

Given the minor changes associated with the document, the information added to the EIR does not meet the requirements for recirculation pursuant to Section 150885.5 of the State CEQA Guidelines.

4.2 CHANGES AND EDITS TO THE DRAFT PEIR

EXECUTIVE SUMMARY

The following changes were made to Section ES.1 Project Overview on page ES-1:

ES.1 PROJECT OVERVIEW

This Programmatic Environmental Impact Report (EIR) has been prepared in compliance with the California Environmental Quality Act (CEQA) Public Resources Code Section 21000 *et seq.*, the CEQA Guidelines (Section 15000 *et seq.*) as promulgated by the California Resources Agency, and the Governor's Office of Planning and Research. The purpose of this Programmatic EIR is to assess the potential environmental impacts associated with the 2015 *Renewable Energy and Transmission Element* update (proposed Project) and to propose mitigation measures, where required, to reduce significant impacts.

The proposed Project provides a comprehensive update of the existing 2006 Geothermal/Alternative Energy and Transmission Element and ~~would serve~~ as the primary policy statement by the County Board of Supervisors for implementing development policies for geothermal and other renewable energy land uses in Imperial County. The proposed Project consists of ~~two~~four key elements that have been developed to guide future development of future renewable energy facilities in Imperial County: (1) The *Renewable Energy and Transmission Element Overlay Zone*, ~~and~~ (2) The *Renewable Energy and Transmission Element's Goals and Objectives*, (3) The Renewable Energy and Transmission Element Implementation Ordinance, and (4) related minor consistency revisions to the other elements of the Imperial County General Plan. Each of these project components is described in greater detail in Chapter 2.0 – Project Description.

The following Changes were made to Section ES.2 Project Objectives on page ES-1:

ES.2 PROJECT OBJECTIVES

The proposed Project has been developed to identify new opportunities for renewable energy and assures that the Imperial County General Plan can meet the needs for future development while remaining consistent with identified land use and environmental goals. The proposed Project would support the development of expanded renewable energy power production in the County and exportation to accommodate future growth in California and improve overall system reliability. The purpose of proposed Project is to provide a comprehensive document that contains the latest knowledge about the resources, feasible development technology, legal requirements, policies (County, State, and Federal), and implementation measures. Additionally, the proposed Project provides a framework for the review and approval of renewable energy projects in the County. Development projections for the proposed Project are based on forecasts obtained from the renewable energy industry, regional utilities, and the 2014 Draft Desert Renewable Energy Conservation Plan (DRECP).

Changes to Table ES-1: Summary of Potential Impacts and Mitigation Measures are reflected in Table 2.4-1 of the Final PEIR.

1.0 INTRODUCTION

The following changes were made to Section 1.1 Background and Purpose on page 1-1:

1.1 BACKGROUND AND PURPOSE

The County of Imperial (County) has updated the existing 2006 Geothermal/Alternative Energy and Transmission Element and associated implementing ordinances. This seventh (7th) eElement update was initiated by a Grant, REN-12-005, the County received from the California Energy Commission's Renewable Energy and Conservation Planning Grant Program. While the existing eElement primarily focused on geothermal renewable energy resources, the eElement update presents a broader focus that takes into account additional forms of renewable energy, including wind, solar, deep solar ponds, biofuel, bio-mass, algae production, concentrated solar-thermal power, and concentrated photovoltaics. Consequently, the new element has been retitled as the *Renewable Energy and Transmission Element* update (proposed Project).

2.0 PROJECT DESCRIPTION

Changes to Chapter 2.0 Project Description are reflected in Chapter 2.0 Executive Summary of the Final PEIR.

3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

The following changes were made to Table 3.2 1: Cumulative Projects on pages 3-3:10:

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
	Existing Projects					
1	Niland Gas Turbine Project	Northeast of Niland; Imperial County	IID	93-MW simple-cycle power plant on a 22-acre site adjacent to the IID's existing Niland Substation.	Energy	Existing
2	KN/KS Transmission Line Tubular Pole Replacement Project ⁽¹⁾	West Chocolate Mountain Evaluation Area; Imperial County	IID	230-kV transmission line upgrade (Highline to Mirage). Interconnects to the SCE Mirage Substation.	Transmission	Existing
3a	F-Line	West Chocolate Mountain Evaluation Area; Imperial County	IID	161-kV transmission line (Midway to Blythe). Interconnects to the WAPA Balancing Authority.	Transmission	Existing
3b	N-Line	West Chocolate Mountain Evaluation Area; Imperial County	IID	92-kV transmission line (Midway to Coachella Valley). Connects to the SCE Mirage Substation.	Transmission	Existing
4	State Route 111 Upgrade	Imperial County	Imperial County	Upgrade to six-lane freeway with interchanges at Jasper Road, McCabe Road, Heber Road, and overcrossing at Chick Road from State Route 98 to Interstate 8 (post mile R1.2-R7.7)	Transportation	Existing
5	Ormat Continuing Operations CA-670-2006-12 Geothermal Leases: ⁽²⁾ CACA 000966 CACA 001903 CACA 006218 CACA 006217 CACA 017568 CACA 006219	State Route 115 and Interstate 8; Imperial County	ORRESOURCES Geothermal	Geothermal energy development leases.	Energy	Existing
6	EUIPH Wind Farm, San Geronio Westwinds II LLC, San Geronio Wind Plant WPP1993, Wintec Energy Ltd.	San Geronio Pass Area; Riverside County	Wintec, Ltd.	Multiple wind power plants, ranging from 7.5 MW to 43 MW in size.	Energy	Existing
7	ORNI 18 (North Brawley Geothermal Project) ⁽²⁴⁾	North Brawley; Imperial County	ORNI #18, LLC (Ormat)	49.9-MW geothermal power plant.	Energy	Existing
19a	Hudson Ranch I Geothermal Project CUP#007-0019 ⁽⁵⁾	Calipatria/Niland area; Imperial County	Hudson Ranch Power I, LLC.	49.9-MW geothermal power plant. Plant facility occupies 65 acres; 1,607 acres of private land leased by the geothermal mineral rights holders.	Energy	Existing-Commenced operations March 2012.
25	El Centro Unit 3 Repower Project ⁽⁷⁾	El Centro; Imperial County	IID	Replaces an existing steam-generating unit within the site of the existing ECGS. The repower project will increase the existing Unit 3 generating capacity by 84 MW, from 44 MW to 128 MW.	Energy	Existing-Under construction.
28	Centinela Solar Project CUP #10-0017 ⁽¹⁰⁾	Calexico; Imperial County	Centinela Solar Energy, LLC	275-MW PV solar project on 2,067 acres.	Energy	Active-Construction started early 2012-Existing

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
29	Imperial Solar Energy Center South ⁽¹¹⁾ CUP #10-0011	Western Imperial Valley; Imperial County	CSOLAR Development, LLC	200-MW solar project on approximately 946 acres. Also includes a 230-kV transmission line connecting to the Imperial Valley Substation.	Energy	Active. Under construction. Existing
31	Mt. Signal Solar Farm I CUP #10-0031 ⁽¹³⁾	2.5 to 7.5 miles west of Calexico; Imperial County.	82LV, 8ME, LLC	200-MW PV solar farm comprised of four agricultural parcels totaling 1,375 acres owned by Calexico West, Inc. Agricultural land uses surround the project, with the exception of the U.S.-Mexico border located directly south of Parcel II.	Energy	Active. CUP approved April 3, 2012. Under construction. Existing
<u>32b</u>	<u>Calexico Solar Farm 2B</u>	<u>West of Calexico</u>	<u>89MA-8ME-LLC</u>	<u>100 MW solar project CUP 11-0012 530 acres</u>	<u>Energy</u>	<u>Existing</u>
44	Sonora Solar ^(16,20) CUP #11-0026	Calipatria; Imperial County	Solar Gen II, LLC	50-MW solar energy project within 488 acres.	Energy	Active. Imperial County Planning Commission approved May 9, 2012. Existing
45	Arkansas Solar ^(16,20) CUP #11-0018	Calipatria; Imperial County	Solar Gen II, LLC	50-MW solar energy project within 481 acres.	Energy	Active. Imperial County Planning Commission approved May 9, 2012. Existing
49	Alhambra Solar ⁽¹⁶⁾ CUP #11-0020	Calipatria; Imperial County	Solar Gen II, LLC	50-MW solar energy project within 482 acres.	Energy	Active. Imperial County Planning Commission approved May 9, 2012. Existing
52	IV Solar ⁽¹⁶⁾ CUP #10-0014	Niland area, Imperial County	IV Solar Company	23-MW solar energy project within 123 acres.	Energy	Existing. Under construction.
53	Campo Verde Solar ⁽¹⁶⁾ CUP #11-0007	Mt. Signal area; Imperial County	Southern Power, LLC	140-MW solar energy project within 1,996 acres.	Energy	Active. Under environmental review (EIR). Existing
66	CE Turbo, J.J. Elmore, J.M. Leathers, Vulcan, Del Ranch, Salton Sea 1-5 Geothermal Projects ⁽²³⁾	West of Calipatria; Imperial County	CE Generation LLC	Projects were developed adjacent to one another between 1986 and 2000. Combined power output of 327 MW.	Energy	Existing
67	Heber 1 ⁽²³⁾	Heber; Imperial County	Ormat	Began operation in 1985. As a portion of the Heber Geothermal Complex, contributes to a combined power output of 92 MW.	Energy	Existing
68	Heber 2 ⁽²³⁾	Heber; Imperial County	Ormat	Began operation in 1993. As a portion of the Heber Geothermal Complex, contributes to a combined power output of 92 MW.	Energy	Existing
69	Heber South ⁽²³⁾	Heber; Imperial County	Ormat	Began operation in 2008. As a portion of the Heber Geothermal Complex, contributes to a combined power output of 92 MW.	Energy	Existing

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
70	Heber Solar Energy Facility CUP #11-0014	Heber	RET Holdings, LLC	14-MW Solar-PV project within 80 acres.	Energy	MND approved October 2011 Existing. Originally developed by Ormat, project was sold to RET Holdings, LLC in March 2014.
75	Oberon Fuels CUP #12-0014	Brawley	Henrietta Farms	Dimethyl Ether (DME) project within 4 acres.	Energy	MND approved Existing
	Foreseeable Projects					
8	Chocolate Mountain Aerial Gunnery Range Withdrawal Renewal ⁽³⁾	Chocolate Mountain Aerial Gunnery Range (CMAGR; Imperial County	Department of the Navy	The CMAGR consists of approximately 459,000 acres located in Riverside and Imperial counties. The Navy owns 50% of CMGAR land, and the balance is withdrawn public lands for military training purposes owned by the BLM. The current withdrawal expires in October 2014. The Navy has applied for new withdrawal for a 25-year period. Because the withdrawal will be larger than 5,000 acres, Congress will need to review the proposal under a Legislative EIS.	Military Operations	Active. Draft LEIS released for public review August 31, 2012. <u>On December 5, 2013, Congress signed "The Military Withdrawal Act of 2013," which authorized the "Transfer of Administrative Jurisdiction and Withdrawal of Mineral Estate", subject to all valid existing rights.</u>
9	Imperial Sand Dunes Recreation Area Management Plan ⁴	Imperial Sand Dunes; Imperial County	BLM	This Recreation Activity Plan addresses management of 215,000 acres of BLM managed lands within the Imperial Sand Dunes Recreation Area.	Recreation	Active. Final Recreation Area Plan / Draft EIS released September 7, 2012. Final EIS released September 2012. Record of Decision issued June 2013

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
10	Salton Sea Ecosystem Restoration Project	Salton Sea, Imperial County	California Natural Resources Agency	The restoration project consists of the following components: — Saline Habitat Complex in the northern and southern Sea Bed — A Marine Sea that extends from San Felipe Creek to Bombay Beach — Air Quality Management facilities to reduce particulate emissions from the exposed playa — Brine Sink for discharge of salts — Conveyance facilities — Sedimentation/Distribution facilities	Restoration	Active. Final Programmatic EIR complete.
11	Salton Sea Species Conservation Habitat Project	Riverside and Imperial counties	California Natural Resources Agency	Project would construct habitat configured in a series of interconnected shallow ponds within the current footprint of the Salton Sea. Project size at total build-out would be approximately 2,400 acres to be constructed over a period of several years, depending on land availability and cost.	Restoration	Active. Draft EIS/EIR published April 2011.
12	IID Managed Marsh Complex	Imperial County, Salton Sea	IID	A 959-acre managed marsh complex located at English and McDonald roads. The result of mitigation for a Quantification Settlement Agreement Water Transfer to provide habitat for IID's Drain Covered Species.	Restoration	Active. Phase I construction is complete.
13	Quantification Settlement Agreement	Imperial County, Salton Sea	IID	Colorado River water allocations.	Water allocation	Active
14	Black Mountain Wind Project ⁽²⁾ CACA 048272 CACA 052078	Black Mountain south of CMAGR; Imperial County	Imperial Wind LLC (Renewergy)	Wind energy testing and development for eight meteorological towers on 15,335 acres; approximately 40 acres total footprint for meteorological towers. BLM is currently awaiting a POD for a 48 to 65 MW wind energy facility. On August 16, 2010, five meteorological (met) towers were authorized and bonded under CACA-048272. Under this authorization, two met towers were installed on public land. An application for a wind development project was submitted under CACA-052078.	Energy	Active. BLM requested submission of the POD in March 2011. Testing ROW for CACA-048272 expired September 2, 2012. Wind testing ROW relinquished and application for development withdrawn.
15	Black Mountain Wind	Black Valley, near State	OroValley Power,	Wind energy testing and development for three meteorological	Energy	Active.

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
	Project No. 2 ⁽²⁾ CACA 047751 CACA-052435	Route 78 and Ogilby Road; Imperial County	LLC	towers on 11,227 acres; approximately 15 acres total footprint for meteorological towers. BLM is currently awaiting POD for a 129.6- to 180-MW wind energy facility.		Wind energy testing ROW expires August 28, 2013. Wind energy facility ROW authorization is pending authorized and renewal is in progress.
16	Gold Basin Wind Project ⁽²⁾ CACA-51947	East of the Imperial Sand Dunes in the Gold Basin area of Imperial County	LH Renewable, LLC	1-0 Wind energy testing using authorizing three meteorological towers. Total footprint for all three towers is approximately 15 acres. The total ROW is 8,446 acres.	Energy	Active. ROW authorized September 21, 2011; expires September 18, 2014; renewal is in progress.
17	Ogilby Solar Project ⁽²⁾ CACA 049615	West of Ogilby Road, east of railroad; Imperial County	Iberdrola (Pacific Solar Investments)	450-MW solar thermal (trough) project. 7,405-acre ROW.	Energy	Active. Currently pending authorization; preliminary POD to BLM. Closed. Application withdrawn.
18	Solar Reserve Project ⁽²⁾ CACA 049884	BLM lands lying east of Lake Cahuilla –ACEC south of I-8 and north of the All American Canal; Imperial County	Solar Reserve	100- to 250-MW concentrating solar thermal tower energy development project on 4,000 acres.	Energy	Active. Pending authorization; updated POD and hydrology report have been received by BLM. Closed. Application withdrawn.
19b	Midway-to-Bannister Transmission Line ⁽⁶⁾	Calipatria/Niland area; Imperial County	IID	230-kV transmission line, approximately 12.4 miles in length. This is a four-phase project. Phase I is 8.7 miles in length between IID's existing Midway Substation and proposed Bannister substation. Connects the Hudson Ranch I project to the existing Midway Substation.	Transmission	Active. Phase I construction completed March 2011; Phases II and III expected by 2013 and 2015, respectively, are pending.
20	West Chocolate Mountain	Between the eastern	BLM	Consists of an amendment(s) to the California Desert Area	Energy	Active.

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
	Renewable Energy Evaluation Area (REEA) Plan	edge of the Salton Sea and the Chocolate Mountains; Imperial County		Conservation Plan to identify sites within the approximately 59,000-acre West Chocolate Mountain REEA as suitable for geothermal, and solar, and wind energy development, subject to certain resource opportunities and constraints.		Final EIS released for public review November 2012; Record of Decision pending USFWS Biological Opinion issued September 2013.
21	Milpitas Wind Testing Project ⁽²⁾ CACA 051062	Chuckwalla Bench; Northeastern Imperial County	Exelon Wind, LLC	5,763-acre ROW authorized for wind energy testing. Project consists of two meteorological towers and 1 SODAR unit. 10 acres total footprint for meteorological towers and SODAR unit.	Energy	Active. ROW grant expires September 20, 2013 renewed through September 2016.
22	Hudson Ranch II Geothermal/Simbol II Lithium Carbonate Production Plant Project	Niland area; Imperial County	Hudson Ranch II, LLC; Simbol II, LLC	A 49.9 net MW geothermal flash power plant and associated infrastructure located on 326 acres of private land and a co-located commercial lithium carbonate production plant adjacent to the geothermal plant, which will use the geothermal brine from the plant.	Energy	Active/inactive. Approved by County of Imperial October 2012.
24	Unnamed Solar Development on BLM-Managed Land	Shavers Valley/ Interstate 10 Corridor; Riverside County	Sierra Renewables	Solar energy development.	Energy	Active-Withdrawn
26	Niland 92/13.2-kV Substation Upgrade Project ⁽⁶⁾	Niland; Imperial County	IID	Installation of a new 92/13.2-kV 25-MVA substation next to existing switching station and communication site (north of Niland Substation). Removal of the existing Niland 92/13.2-kV 10-MVA transformer (156' x 100').	Transmission	Active. Negative Declaration Adopted.
30	Imperial Solar Energy Center West Project ⁽¹²⁾ CUP #10-0012	Western Imperial Valley; Imperial County	CSOLAR Development, LLC	250-MW solar project on approximately 1,130 acres. Also includes a 230-kV transmission line connecting to the Imperial Valley Substation.	Energy	Active. Final EIR/EA published July 2011. Under Construction.
32a	Calexico Solar Farm #1B CUP #11-0009 and #11-0010 ⁽¹³⁾ (Included in Mt. Signal Solar EIR)	Approximately 5 miles West of Calexico; Imperial County.	88FT-8ME, LLC; 8Minute Energy Renewables, LLC 89MA-8ME-LLC	200-MW AC solar farm comprised of two 100-MW phases (A and B) on 1,013 acres of agricultural parcels. Each phase is requesting approval of a separate CUP-100 MW solar project. CUP 11-0011. 940 acres.	Energy	Active. Final EIR and CUP approved April 3, 2012.
33a	Calexico Solar Farm 1A	West of Calexico	89MA-8ME-LLC	100 MW solar project. CUP 11-0009. 720 acres	Energy	Active
33b	Calexico Solar Farm # (CSF #) ⁽¹³⁾ CUP #11-0011 and #11-0012 (Included in Mt. Signal Solar EIR) 2A	Approximately 2 miles West of Calexico; Imperial County	89MA-8ME, -LLC; 8Minute Energy Renewables, LLC	200-MW solar project comprised of two 100-MW phases (A and B) on 1,477 acres of agricultural parcels owned by several land owners. Each phase is requesting approval of a separate CUP-100 MW solar project. CUP 11-0010. 610 acres.	Energy	Active. Final EIR and CUP approved April 3, 2012.

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
34	ORNI 19 (East Brawley Geothermal Project) ⁽¹⁶⁾ CUP #08-0023	Brawley area; Imperial County	Ormat	49.9-MW geothermal energy project consisting of the plant being developed on one 33.7-acre parcel and 39 leased parcels encompassing approximately 3,033.2 acres that will contain proposed wells and pipelines. The total area of disturbance would be approximately 190 acres, which includes both the plant site and the wells and pipelines.	Energy	Active <u>Inactive</u> . Final EIR published May 2012 <u>and approved</u> .
36	Black Rock Units # 1, 2, 3 ⁽²⁸⁾	Approximately 6 miles northwest of Calipatria; Imperial County	CE Butte Energy, LLC	159-MW geothermal energy project within 160 acres.	Energy	Extension approved. Anticipated Const. start Dec. 18, 2014. On Hold: pending a power purchase agreement <u>On hold: pending a power purchase agreement.</u>
37	Black Rock Units # 5 and 6 ⁽²⁸⁾	Approximately 6 miles northwest of Calipatria; Imperial County.	CE Butte Energy, LLC	255-MW geothermal energy project within 140 acres.	Energy	On hold.
38	Ocotillo Express Wind Energy Project ⁽¹⁷⁾ CUP #10-0007	Ocotillo area; Imperial County	Ocotillo Express, LLC	Up to a 465 <u>315</u> -MW wind energy project within 12,436 acres. Total project footprint is approximately 1,167 acres.	Energy	Active. Under construction <u>Existing.</u>
40	Energy Source Solar I & II ⁽¹⁶⁾ CUP #10-0032 and #10-0033	Niland; Imperial County	Energy Source, LLC	Two adjacent 80-MW solar energy projects within 960 acres.	Energy	Active. Under environmental review <u>Withdrawn.</u>
42	Calipatria Solar Farm I & II ⁽¹⁶⁾ CUP #10-0034	Calipatria; Imperial County	8Minute Energy Renewables, LLC	One 70-MW solar energy project within a total of 609 acres of private land.	Energy	Active <u>Inactive</u> . Conditional Use Permit approved August <u>July</u> 2012
43	Midway Solar Farm I & II ⁽¹⁶⁾ CUP #10-0036 and #10-0037	Calipatria; Imperial County	8Minute Energy Renewables, LLC	Midway Solar I is a 50-MW solar energy project within 326 acres. Midway Solar II is a 155-MW solar energy project within 803 acres.	Energy	Active <u>Inactive</u> . Conditional Use Permit approved August <u>July</u> 2012
46	Keystone Solar Power CUP #10-0024 ⁽¹⁶⁾	Mesquite SPA; Imperial County	Keystone Solar Power Generation Station 1, LLC	6.06 -MW solar energy project within 40 acres.	Energy	On hold. Under environmental review.
47	Frink Road Solar Power ⁽¹⁶⁾ CUP #10-0025	Niland area; Imperial County	Frink Rd Solar Power Generation Station 1, LLC	30.04 -MW high concentration PV solar energy project on 280 acres.	Energy	On hold.

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
50	Chocolate Mountain Solar ⁽¹⁶⁾ CUP #10-0005	Niland area; Imperial County	8Minute Energy Renewables, LLC	49.9-MW solar energy project within 320 acres.	Energy	Active. Imperial County Planning Commission approved Aug. 25, 2010.
51	Wister Solar ⁽¹⁶⁾ CUP #11-0017	Niland area; Imperial County	28SW 8ME, LLC	20-MW solar energy project within 148 acres.	Energy	Active. Under environmental review (EIR). <u>Approved December 2014.</u>
56	Simbol Calipatria Plant I (SmCP-1) CUP #12-0004	Calipatria/Niland area; Imperial County	Simbol Mining	Facility to extract lithium, manganese, and zinc from geothermal brine from the adjacent Hudson Ranch I geothermal plant.	Mineral Extraction	Active. County approved October 24, 2012.
57	Truckhaven Geothermal Unit – BLM Geothermal Leases: CACA 051002, 043003, 042750, 043002, 051003, 051004, 051005, 051006, 051007, 051008, 042751, 042752, 051009, 051010, 051011, 051012, 051013 ⁽²⁾ , 55559	Northern portion of Truckhaven Geothermal Leasing Area	Calnorth Petroleum, Inc.; NGP Truckhaven LLC; Geo Energy Partners 1983 LTD.; Ormat Nevada Inc.	Geothermal energy exploration land unit, approximately 40,000 acres in size; expected to include California State Lands Commission and fee lands. ¹⁹ Total acreage of all geothermal leases within the Truckhaven Geothermal Unit is approximately 16,000 acres.²	Energy	Active. All leases within unit expire September 30, 2019.
61	Wistaria Ranch Solar Energy Center Project CUP#12-0017(25 ¹)	West of Calexico; Imperial County	Wistaria Ranch Solar, LLC	250-MW PV solar energy project within 3,394 acres of private land.	Energy	In CEQA process. <u>Active. Approved December 2014.</u>
62	Sol Orchard Solar Project ⁽²⁶⁾	City of El Centro; Imperial County	Sol Orchard Imperial 1, LLC	20-MW PV solar energy project within 140 acres.	Energy	Active. Final MND issued December 13, 2012.
65	Iris Cluster ⁽²¹⁾	West of Calexico; Imperial County	85JP 8ME, LLC	360-MW PV solar energy project within 1,422 acres of private land.	Energy	In CEQA process. <u>Approved February 2015.</u>
67	Commercial Algae Fuels Facility ⁽¹⁸⁾	East of Niland; Imperial County	SunEco Energy	Commercial algae farm within 350 acres.	Energy	Active/inactive. On hold.
71	IV Solar 2 CUP #12-0009	Niland	IV Solar 2	20-MW Solar-PV project within 158.65 acres.	Energy	EIR approved July 2013 <u>Under construction.</u>
72	Seville Solar Farm CUP #13-0011	Borrego Springs	Imperial Solar Holdings, LLC	135-MW Solar-PV project within 1,238 acres.	Energy	EIR approved October 2014 <u>Portion of project is under construction.</u>

Table 3.2-1: Cumulative Projects

Map No**.	Project Name/ Application #	Project Location	Owner/ Applicant	Summary Project Description	Project Type	Status
73	California Ethanol & Power CUP #12-0015	Keystone	SKS Holding	50-MW ethanol project within 160 acres.	Energy	EIR approved. <u>Approved.</u> On hold for financing.
74	Canergy CUP #13-0030	Brawley	Canergy Rockwood, LLC	Ethanol project within 80 acres.	Energy	In CEQA process <u>On hold.</u>
76	ORNI 21 Wister (Binary) CUP #G10-0004	Niland	Ormat	30-MW geothermal project within 40 acres.	Energy	In CEQA process. <u>Withdrawn.</u>
77	Imperial Wells Power (Exploration) CUP #G13-0001	Niland	Imperial Wells	Geothermal project within 26 acres.	Energy	ND approved. <u>Active</u>
78	Exploratory Well CUP #G13-0002	Niland	State Lands Hudson Ranch	Geothermal project within 40 acres.	Energy	ND approved. <u>Active</u>

Key:

** Project Numbers are not sequential.
ACEC: Area of Critical Environmental Concern
BLM: Bureau of Land Management
CMAGR: Chocolate Mountain Aerial Gunnery Range
CPUC: California Public Utilities Commission
CUP: Conditional Use Permit
EA: Environmental Assessment
ECGS: El Centro Generating Station

EIR: Environmental Impact Report
EIS: Environmental Impact Statement
IID: Imperial Irrigation District
kV: kilovolt LEIS: Legislative Environmental Impact Statement.
MND: Mitigated Negative Declaration
MW: megawatt

Sources:

1. Imperial Irrigation District. 2010. IID Draft MND/IS/EA Imperial Valley to Dixieland.
2. BLM. 2011. LR2000 Land Records Search online database.
3. U.S. Marine Corps. 2011. CMAGR Draft LEIS Scoping Summary Report.
4. BLM 2012. Imperial Sand Dunes RA Final RMPEIS.
5. Imperial County. 2007. Hudson Ranch I Geothermal Project MND.
6. Imperial Irrigation District. 2011. Midway to Bannister Project Fact Sheet.
7. California Energy Commission. 2006. El Centro Unit 3 Repower Project Final Initial Study.
8. Imperial Irrigation District. 2011. Niland 92/13.2 kV Substation Upgrade Draft Neg. Dec.
10. Imperial County. 2010. Centinela Solar Project CUP Application.
11. Imperial County. 2011. Imperial Solar Energy Center South FEIR/EA.
12. Imperial County. 2010. Imperial Solar Energy Center West DEIR.
13. Imperial County 2012. Mount Signal Solar Project Final EIR, March 2012.
16. Imperial County. 2011. Alternative Power Projects table.
17. California Energy Commission. 2011. Energy Facility Status table, 9/1/2011.

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4.0 ENVIRONMENTAL ANALYSIS

All figures that were revised in Chapter 4.0 - Environmental Analysis have been presented at the end of this section for ease of review. All textual changes to Chapter 4.0 Environmental Analysis are presented below.

Textual Revisions to Chapter 4.0 - Environmental Analysis

The following changes were made to Chapter 4.0 Environmental Analysis on page 4-1:

The environmental analysis presented in Chapter 4.0 is based on the threshold of significance from Appendix G of the California Environmental Quality Act Guidelines. The “Regulatory Setting” and “Existing Environmental Setting” sections of each environmental category was based on the updated Baseline Environmental Inventory Report, which was updated based on comments submitted to the County and additional research conducted for the proposed Project (ICPDS 2015c). The environmental analysis presented in Chapter 4.0 is organized as follows:

- 4.1 Aesthetics
- 4.2 Agricultural Resources
- 4.3 Air Quality
- 4.4 Biological Resources
- 4.5 Cultural Resources
- 4.6 Geology and Soils
- 4.7 Greenhouse Gases
- 4.8 Hazards and Hazardous Materials
- 4.9 Hydrology and Water Quality
- 4.10 Land Use
- 4.11 Mineral Resources
- 4.12 Noise
- 4.13 Population and Housing
- 4.14 Public Services
- 4.15 Recreation
- 4.16 Transportation/Traffic

4.17 Utilities and Services System

4.1 AESTHETICS

The following changes were made to Section 4.1.1 Regulatory Setting on page 4.1-2:

Bureau of Land Management Visual Resource Inventory and Management Guidance

BLM, through FLPMA, is charged with protecting the scenic value of public lands. To accomplish this, BLM has developed and uses an analytical process, the VRM system, to identify, set, and maintain those scenic values. The VRM system has two key aspects: inventorying visual resources and managing those resources (~~DRECP 2014~~BLM 1984a).

Through the inventory process, BLM identifies the visual resources of a given area and, based upon specific standards, assigns each area to an inventory class. This process involves rating the resource's visual qualities, measuring public concern, and determining the extent to which an area is visible from travel routes and other observation points. This process is further described in detail in BLM Manual H-8410-1, Visual Resource Inventory (VRI) (~~DRECP 2014~~BLM 1984b).

The following changes were made to Section 4.1.1 Regulatory Setting on page 4.1-5:

Salton Sea

The Salton Sea is located in the northwestern portion of the County and extends into Riverside County. The Salton Sea fluctuates in size and capacity, but is currently about 35 miles long, 15 miles wide, occupies 376 square miles, and contains about 7.5 million acre-feet of water (~~DRECP EIR/EIS 2014, III.5-23~~). The Salton Sea has been sustained by agricultural drainage from the Imperial, Coachella, and Mexicali valleys; rainfall; storm runoff from the surrounding mountains; and groundwater inflow. Because Salton Sea exists in a closed basin, the only outflow is evaporation, resulting in a rising level of salinity. Despite the salinity problems in the Salton Sea, the area represents an important wildlife habitat area and provides migrating and wintering habitat for thousands of waterfowl and other birds. Masses of these birds are visible from the shores of the Salton Sea. The Salton Sea represents a unique visual resource because of its massive size, its location in a desert area, and its value to wildlife.

The following changes were made to Section 4.1.4 Impacts and Mitigation under the discussion of AESTH-1 on pages 4.1-12:14:

Mitigation Measures

The DRECP EIR/EIS documented BLM design features that had been developed to minimize visual impacts related to solar renewable energy facilities. Although these were developed for solar facilities, the direction provided in these design features would adequately serve to minimize impacts for all renewable energy technologies. Mitigation Measures AESTH-1a through AESTH-1f are based on these design features presented in the DRECP EIR/EIS (~~DRECP EIR/EIS 2014, IV.20-20:22~~).

AESTH-1a: Future renewable energy facilities would be required to assess conformance to VRM Class designations and identifying visual resource conflicts. Among the actions to be taken are consulting with BLM; factoring VRI Class values into project planning and design; including a qualified professional with VRM experience on the development team; consulting the local public to identify important visual resources of record in the area; consulting on viewshed protection with managers responsible for areas with special designations; evaluating impacts on historic trails; considering landscape setting observed from National Parks, National Historic Sites, and similar areas; using topographical data of engineering-design quality and digital terrain mapping for project planning and design; preparing simulations depicting project facilities as seen from key observation points and visual resource-sensitive locations; conducting public outreach to disseminate visual resource information; and performing visual mitigation planning and design based on field assessments and other means.

AESTH-1d: ~~Future renewable energy facilities~~ Project developers would be required to hold preconstruction meetings, if applicable, with affected agencies and designated specialists to coordinate the mitigation strategy for all resources of record. This includes a review of final design and construction documents with regard to visual impacts and mitigation.

AESTH-1g: Each future renewable energy facility developed under the proposed Project would require preparation of a visual impact assessment that would evaluate potential impacts described in mitigation measures AESTH-1a through AESTH-1f. Based on the results of the analysis, the visual impact assessment would be required to develop mitigation measures to address potential impacts. Examples of mitigation measures for each renewable energy technology are presented below based on recommendations provided in the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.20-23):

- Examples of visual mitigation measures applicable to solar projects include development and implementation of a glint and glare mitigation and monitoring plan; screening of solar collectors from roads; ~~retaining vegetation beneath solar collector arrays~~; prohibiting commercial signs, logos, or messages on towers and arrays; and using visually compatible color treatments and nonreflective materials for support structures and other components. In addition to direct reduction in visual quality, visual quality degradation can compromise the integrity of historical resources or traditional cultural places. In cases where such visual impacts occur, compensatory mitigation can include requiring research, field inventories, worker training, and other efforts specific to the resource and groups affected.
- Examples of visual mitigation measures for wind energy projects include siting to reduce visibility, clustering turbines, creating visual order and unity among groups of turbines, using radar-activated visual warning systems to reduce night-sky impacts, prohibiting signs and messages on towers, keeping turbines clean and in good repair, and promptly removing disused or abandoned equipment and parts.

- ~~Examples of visual mitigation measures specific to geothermal energy projects include using air-cooled systems (to avoid plumes that water-cooled systems may generate under some conditions), minimizing drill rig and well test facility lighting, and screening of pipelines.~~

Significance After Mitigation

Although implementation of mitigation measures AESTH-1a through AESTH-1g would minimize affects on scenic vistas, some impacts would remain. Additional mitigation may be developed for specific projects, but it is anticipated that impacts could remain significant and unavoidable, consistent with the conclusions of the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.20-53).

The following changes were made to Section 4.1.4 Impacts and Mitigation under the discussion of AESTH-2 on page 4.1-15:

Operation

The development of future renewable energy facilities associated with the proposed Project could have the potential to affect existing visual character by introducing new structures onto sites that are currently undeveloped. Additionally, development of future renewable energy facilities within areas designated as having high visual quality based on BLM visual resource inventory classifications would have the potential to affect visual character. As shown in Table 4.1-3, approximately ~~5,472.53~~9,067.12 acres of the Geothermal Overlay zone are located in areas designated as having high value, ~~approximately 0.21 acre of the Renewable Energy Overlay Zone is located in areas designated as having high value,~~ and approximately ~~24,690.47~~1,002.88 acres of the Renewable Energy/Geothermal Overlay Zone are located in areas designated as having high value.

Table 4.1-3: Overlay Zone Areas Under BLM VRI Classifications

Overlay Zone	BLM VRI Classifications			Total
	High	Moderate	Low	
Geothermal	5,472.53 <u>9,067.12</u>	3,974.32 <u>4,559.13</u>	496.86 <u>2,404.91</u>	9,943.72 <u>16,031.16</u>
Renewable Energy	0.21 <u>0.00</u>	2,847.71 <u>0.00</u>	0.00 <u>0.00</u>	2,847.92 <u>0.00</u>
Renewable Energy/Geothermal	24,690.47 <u>1,002.88</u>	57,221.20 <u>3,259.95</u>	85,067.29 <u>52,521.64</u>	166,978.95 <u>56,784.47</u>
Total	30,163.21 <u>10,070.00</u>	64,043.23 <u>7,819.08</u>	85,564.15 <u>54,926.56</u>	179,770.59 <u>72,815.63</u>

The following changes were made to Section 4.1.4 Impacts and Mitigation under the discussion of AESTH-2 on pages 4.1-15:16:

Wind

Wind energy projects would be highly visible because of the large vertical towers and rotating turbines that would be erected in an area where few, if any, comparable tall structures are located in the generally flat region. Visibility and contrast would be greater at locations where these structures are sited along ridgelines, silhouetting them against the sky. Additionally, nighttime visual contrasts would occur from aviation warning lighting on the towers. Wind turbines may create visually contrasting “industrial” associations for sensitive receptors, particularly in a mostly natural landscape. The moving blades on the wind turbines can attract visual attention. Depending on the time of day, the shadows of tall turbine towers extend great distances across the landscape and can have a sundial effect with morning and evening producing the longest shadows. The rotating turbine blades also cause regular periodic interruption of sunlight and may cause a strobe-like effect, flickering alternating light and shadow over the area where the shadow is cast. During the life of a wind facility, towers, nacelles, and rotor blades may need to be upgraded or replaced, creating visual impacts similar to impacts occurring during initial construction and assembly. Altogether, multiple turbines would create a visual impact due to the numbers in close proximity to each other, their vertical and rotating elements, and the required night aviation safety lighting (DRECP EIR/EIS 2014, IV.20-7).

The following changes were made to Section 4.1.4 Impacts and Mitigation under the discussion of AESTH-2 on page 4.1-16:

Mitigation Measures

Mitigation measures AESTH-1a through AESTH-1g would also be implemented to reduce impacts associated with existing visual character.

Significance After Mitigation

Although implementation of mitigation measures AESTH-1a through AESTH-1g would minimize affects on visual character, some impacts would remain. Additional mitigation may be developed for specific projects, but it is anticipated that impacts could remain significant and unavoidable, consistent with the conclusions of the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.20-53).

The following changes were made to Section 4.1.4 Impacts and Mitigation under the discussion of AESTH-3 on page 4.1-18:

Significance After Mitigation

Although implementation of mitigation measure AESTH-3 would minimize affects of glint and glare, some impacts could remain. Additional mitigation may be developed for specific projects, but it is anticipated that impacts would remain significant and unavoidable consistent with the conclusions of the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.20-53).

The following changes were made to Section 4.1.5 Cumulative Impacts under the discussion of AESTH-3 on page 4.1-18:

4.1.5 Cumulative Impacts

Impacts associated with the loss or degradation of aesthetic resources or the creation of new sources of glare are largely site-specific and localized. As such, these impacts are typically addressed and mitigated to acceptable levels on a case-by-case basis.

Construction of renewable energy facilities associated with the proposed Project would change the aesthetics and visual quality of the area where future renewable energy facilities would be built. A similar circumstance would occur during decommissioning activities upon site restoration in the future. Construction activities could be visible to travelers along adjacent roadways or highways. While construction activities could visually disrupt the sites where renewable energy facilities would be constructed, these activities would be short-term and temporary during construction and decommissioning activities. It is unlikely, however, that the majority of the foreseeable projects within the County would be under construction at the same time as future renewable energy facilities developed under the proposed Project.

The operation and maintenance of renewable energy facilities could cause significant cumulative impacts in the County. Changes in line, form, and color introduced by large-scale development and the contrast of such development with surrounding conditions create unmitigable degradation of views. Due to the size and nature of future renewable energy projects, the impact could result in a cumulatively considerable contribution to the significant cumulative impacts, consistent with the conclusions of the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.25-114).

4.2 AGRICULTURAL RESOURCES

The following changes were made to Section 4.2.4 Impacts and Mitigation under the discussion of AG-1 on pages 4.2-5:7:

Construction and Operation

Construction of renewable energy facilities associated with the proposed Project would have the potential to convert Important Farmland to nonagricultural uses. As shown in Table 4.2-2, ~~92,113.80~~72,811.97 acres of Important Farmland are located within the proposed renewable energy overlay zones. This does not represent the total acreage of Important Farmland that would be converted to renewable energy uses, but merely represents the total acreage of Important Farmland within the boundaries of the Renewable Energy Overlay Zone Map. This includes ~~26,145.71~~21,434.34 acres of Prime Farmland; ~~46,006.41~~38,613.59 acres of Farmland of Statewide Importance; ~~acres of~~
~~379.75~~226.55 acres of Unique Farmland; and ~~19,581.93~~12,537.50 acres of Farmland of Local Importance. A breakdown of the acreage totals for each Important Farmland category within each of the three overlay zones is presented in Table 4.2-2.

Table 4.2-2: Important Farmland Within the Renewable Energy Overlay Zone

Farmland Classification	Geothermal Overlay Zone	Renewable Energy Overlay Zone	Renewable Energy/Geothermal Overlay Zone	Total Within Overlay Zone
Prime Farmland	20,525.19 <u>17,548.10</u>	0.00	5,620.52 <u>3,886.23</u>	26,145.71 <u>21,434.34</u>
Farmland of Statewide Importance	27,832.34 <u>24,012.47</u>	0.00	18,174.06 <u>14,601.12</u>	46,006.41 <u>38,613.59</u>
Unique Farmland	74.68 <u>28.99</u>	0.00	305.08 <u>197.56</u>	379.75 <u>226.55</u>
Farmland of Local Importance	1,898.61 <u>1,086.29</u>	0.00	17,683.32 <u>11,451.21</u>	19,581.93 <u>12,537.50</u>
Total Important Farmland	50,332.82 <u>42,675.85</u>	0.00	41,782.98 <u>30,136.12</u>	92,113.80 <u>72,811.97</u>

Source: California Department of Conservation, 2012

Future solar ~~and geothermal~~ renewable energy facilities would likely convert all Important Farmland within the project areas to nonagricultural uses, while impacts associated with future wind facilities would be limited to the footprints of turbines, poles, and associated infrastructure. Impacts associated with future geothermal renewable energy facilities would be limited to the power plant, production wells, injection wells, pipelines, and access roads. Although the conversion of Important Farmland associated with future renewable energy facilities would be long-term, these impacts may not be permanent. Renewable energy facilities are typically in operation for approximately 30 years, and the potential exists for impacted sites to be restored to agricultural production after the facility has been decommissioned.

Temporary conversion of Important farmland to nonagricultural uses could also result in socioeconomic impacts due to the loss of agricultural jobs. In an agricultural community such as Imperial County, job loss due to the conversion of Important Farmland could create a strain on the social safety-net (i.e., unemployment programs, job retraining).

Although it is anticipated that construction of renewable energy facilities would convert Important Farmland to nonagricultural uses, acreages of agricultural conversion cannot be calculated at this time. The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Because the proposed Project only identifies locations suitable for renewable energy facilities and does not contain specific development proposals, construction-related conversions that may occur at any one time are speculative and cannot be accurately determined at this stage of the planning process. Consequently, it is not possible to quantitatively analyze the level of agricultural impacts that would occur under the proposed Project. Nonetheless, future development of renewable energy facilities in the proposed overlay zones would convert Important Farmland to nonagricultural uses and result in a significant impact.

It should be noted that significant impacts to agricultural resources may not occur to all ~~92,113.80~~72,811.97 acres of Important Farmland located within the boundaries of the

Renewable Energy Overlay Zone Map. As described above, the boundaries of the Renewable Energy Overlay Zone Map merely represent the areas that may be developed with renewable energy facilities, and substantial portions of the Renewable Energy Overlay Zone Map would not be affected. Furthermore, the majority of the potentially affected Important Farmland is located within the Geothermal Overlay Zone, which is limited to development of geothermal energy facilities. This limitation within this zone would minimize impacts to Important Farmland because geothermal energy facilities typically have fewer impacts to agricultural resources than solar energy facilities. Solar energy facility project footprints are typically much larger than the geothermal facilities due to the wide open space of contiguous land needed to accommodate solar panels. Geothermal facility footprints on the other hand are limited to the power plant and production wells, injection wells, ~~which do not require as large an amount of land area~~ pipelines, and access roads. The use of multiple well drilling pads and directional drilling limits the number of well pads and associated pipelines and roads. The Geothermal Overlay Zone also contains the majority of Prime Farmland and Farmland of Statewide Importance. Consequently, the development limitations of the Geothermal Overlay Zone would serve to minimize conversion of the most valuable Important Farmland categories.

The following changes were made to Section 4.2.4 Impacts and Mitigation under the discussion of AG-1 on pages 4.2-7:10:

Mitigation Measures

The County of Imperial has developed mitigation strategies for impacts to agricultural resources based on guidance provided in a letter received from the Department of Conservation (DOC) Division of Land Resource Protection (Division) regarding the potential impacts of solar projects on agricultural land and resources. Although the letter was drafted based on potential impacts related to solar renewable energy facilities, the County has determined that the following mitigation strategies are also applicable and appropriate for other all types of renewable energy technology that may be developed under the proposed Project. The County developed mitigation measures AG-1a and AG-1b based on the following guidance from the letter:

“...Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The proposed conversion of agricultural land should be deemed an impact of at least regional significance. Hence the search for replacement lands can be conducted regionally or statewide, and need not be limited strictly to lands within the project’s surround area. Mitigation for the loss of Prime Farmland is suggested at a 2:1 ration due to its importance in the State of California. The use of conservation easements is only one form of mitigation and any other feasible mitigation measures should also be considered. Mitigations for temporary solar projects can also be flexible, especially in cases where

there is a reclamation plan in place that requires the land to be returned to an agricultural state...”

AG-1a: Payment of Agricultural and Other Benefit Fees. Prior to the issuance of a grading permit or building permit (whichever is issued first) for a future renewable energy project, one of the following options included below must be implemented:

- For Non-Prime Farmland:
 - Option 1: The project proponent of a future renewable energy facility shall procure Agricultural Conservation Easements on a “one-to-one” basis on land of equal size, of equal quality of farmland, outside the development footprint. The Conservation Easement shall meet the State Department of Conservation’s regulations and shall be recorded prior to issuance of any grading or building permits; or
 - Option 2: The project proponent of a future renewable energy facility shall pay an “Agricultural In-Lieu Mitigation Fee” in the amount of 20 percent of the fair market value per acre for the total acres of proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee will be placed in a trust account administered by the Imperial County Agricultural Commissioner’s office and will be used for such purposes as the acquisition, stewardship, preservation, and enhancement of agricultural lands within Imperial County; or
 - Option 3: The project proponent of a future renewable energy facility and County voluntarily enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that is: (1) is consistent with Board Resolution 2012-005; and (2) ~~the Agricultural Benefit Fee~~ must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation, and enhancement of agricultural lands within Imperial County and to implement the goals and objectives of the Agricultural Benefit program, as specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy.
- For Prime Farmland:
 - Option 1: The project proponent of a future renewable energy facility shall procure Agricultural Conservation Easements on a “two-to-one” basis on land of equal size, of equal quality farmland, outside of the development footprint. The Conservation Easement shall meet the State Department of Conservation’s regulations and shall be recorded prior to issuance of any grading or building permits; or
 - Option 2: The project proponent of a future renewable energy facility shall pay an “Agricultural In-Lieu Mitigation Fee” in the amount of 30 percent of the fair

market value per acre for the total acres of the proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Imperial County Agricultural Commissioner's office and will be used for such purposes as the acquisition, stewardship, preservation, and enhancement of agricultural lands within Imperial County; or

- Option 3: The project proponent of a future renewable energy facility and County enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that ~~is~~ (1) is consistent with Board Resolution 2012-005; and (2) ~~the Agricultural Benefit Fee~~ must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation, and enhancement of agricultural lands within Imperial County, and to implement the goals and objectives of the Agricultural Benefit program, as specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy; the future renewable energy project and other recipients of the future renewable energy project's Agricultural Benefit Fee funds; or emphasis on creation of jobs in the agricultural sector of local economy for the purpose of off-setting jobs displaced by the future renewable energy project; or
- Option 4: The project proponent of a future renewable energy facility must revise their ~~Renewable Energy~~ Conditional Use Permit Application/Site Plan to avoid Prime Farmland.

Fee Amounts: The amounts of the fee that would be set out under any future Development Agreements or Public Benefit Agreement, for renewable energy facilities developed under the proposed Project would need to be consistent with the framework provided by Resolution 2012-005.

In 2012, the County Board of Supervisors adopted Resolution 2012-005 establishing "Guidelines for the Public Benefit Program for Use with Solar Power Plants in Imperial County." The resolution states that solar energy projects may not create the economic advantages or permanent employment opportunities that other development could offer, and that in meeting the State's renewable energy goals, it did not want to accomplish the goal at the expense of its residents. This is because solar power plants commit areas to energy production ~~that~~ and may preclude all other potential uses, including agricultural and open spaces uses. The resolution further states that the Board of Supervisors held public scoping meetings and public hearings and formed a committee that provided input on a Public Benefit Program that was designed to address concerns expressed by the local community and others related to negative effects of solar energy projects, particularly the loss of agricultural jobs. Finally, it found that utility-scale solar developers who voluntarily participated in the Public Benefit Program would "properly address the concerns of the community."

Though Resolution 2012-005 was adopted to address the concerns of solar development in the County, the County has determined that similar concerns extend to all renewable

energy development and that the framework provided by Resolution 2012-005 should be adopted for all such development, regardless of the type of technology employed. The Agricultural Benefit Fee, Community Benefit Fee, and Sales Tax Benefits would be confirmed and made enforceable pursuant to ~~Development Agreements~~ the above agreements between the County and the Applicant for future renewable energy facilities developed under the proposed Project.

Subject to the specific terms of ~~future Development Agreements~~ the approved agreement, and in accordance with Guidelines for the Public Benefit Program for Use with Solar Power Plants in Imperial County, project proponents of future renewable energy facilities shall pay on a per acre basis for each acre temporarily converted: (1) an agricultural benefit fee for prime farmland and as separate fee for ~~of~~ farmland of statewide importance; and (2) a project land community benefit fee. Such fees shall be no less than those set out in Resolution 2012-05, plus all applicable consumer price index and other increases. Any future Development Agreements shall also include a minimum sale tax guarantee as well. Additional fees to be provided in any future Development Agreements, ~~including~~ include but are not limited to; an emergency services benefit fee of: (a) a minimum of \$50 per acre per construction year and \$20 per acre per year for the 30-year operational life of the CUP; and (b) a minimum of \$20 per acre one-time fee for emergency services' capital expenses.

~~A future Development Agreements~~ may provide that the project proponent may earn credits against these benefit fees for replacement benefits to the community in the form of local hiring, veteran hiring, contracts with local vendors, payments to scholarship programs, ~~or~~ crop yield enhancement projects, and similar demonstrated community benefits.

Use of the Mitigation Fees: On February 11, 2014, the Board of Supervisors adopted the Agricultural Benefit Committee's Recommended Funding Allocation. The funding allocation was recommended by a committee of agricultural and economic development experts that included the County Agricultural Commissioner, County Executive Officer, County Farm Bureau, Imperial Valley Vegetable Growers, Imperial County cattle industry, and two general members. This allocation confirms ~~use of that~~ these fees are to be used for the stewardship, protection, and enhancement of agricultural lands within the County (Resolution 2012-005).

"...The Agricultural Business Development Category, such as funding for agricultural commodity processing plants and energy plants that use agricultural products, which was identified as the greatest job creator category would receive 50 percent of the funds;

The Research & Development Category, such as funding for development of new high-yield or water-efficient crops, new water conservation techniques, new technology to improve yields in existing crops, and partial funding for an endowment to support an agricultural research specialist, would receive 20% of the funds. Improved water conservation and efficient crop production keeps more farmland in production during drought cycles therefore supports job creation and maintenance;

The Agricultural Stewardship Category, such as programs that bring fields back into production, implement soil reclamation, and improve existing fields to improve crop yields, would receive 20%. Increase production of crops again leads to more agricultural jobs to prepare and harvest the fields; and

The Education/Scholarship Category, such as matching funds for scholarships awarded by agricultural organizations for agricultural studies, student loans, Future Farmers of America and 4-H loans, would receive 10%. Training the next generation of farmers to continue and expand farming operations will also support agricultural job creation...”

Future renewable energy projects would also need to provide other benefits as identified in Resolution 2012-05 and detailed in the Economic Impact Analysis (EIA), Fiscal Impact Analysis (FIA), Employment (Jobs) Impact Analysis (JIA) prepared pursuant to mitigation measure AG-1c. These benefits would also address possible or perceived socioeconomic impacts associated with future renewable energy projects, such as loss of agricultural jobs. Future Development Agreements may require the County to grant the funds only to applicants with programs that can demonstrate they are likely to generate an equal number of agricultural jobs when combined with job creation from the future renewable energy facility and other recipients of the future renewable energy project’s benefit fees.

AG-1b: Reclamation/Decommissioning Plan and Security. For solar energy facilities, the DOC and County have clarified the goal of a reclamation and decommissioning plan: the land must be restored to land which can be farmed. In addition to ~~AQAG~~AG-1a for Prime Farmland and Non-Prime Farmland, the project proponent of future renewable energy facilities shall submit to Imperial County a Reclamation Plan prior to issuance of a grading permit. The Reclamation Plan shall document the procedures by which each future ~~Renewable Energy~~ Conditional Use Permit will be returned to its current agricultural condition. The project proponent also shall provide financial assurance/bonding in an amount equal to a cost estimate prepared by a California-licensed general contractor or civil engineer for implementation of the Reclamation Plan in the event project proponent fails to perform the Reclamation Plan.

The following changes were made to Section 4.2.4 Impacts and Mitigation under the discussion of AG-3 on pages 4.2-12:13:

Mitigation Measures

Implementation of mitigation measures AG-1a through AG-1c would ensure that agricultural resources would be preserved and/or restored and therefore maintain the agricultural industry within Imperial County. Additionally, mitigation measures AG-3 would address impacts associated with pests that could impact adjacent farmland properties. Additional mitigation for indirect impacts to adjacent agricultural properties would include measures developed for other environmental categories analyzed in the proposed Project. Potential impacts associated with fugitive dust would be addressed through implementation of mitigation measure AQ-1a described in Section 4.3-4. Similarly, potential impacts associated with erosion would be addressed through

implementation of mitigation measures HYDRO-1a and HYDRO-21b described in Section 4.9-5.

AG-3: Pest Management Plan. A Pest Management Plan to monitor for and control insects, weeds, vertebrates, and pathogens that could be injurious to the surrounding farmland must be in place for the duration of the project (until reclamation is complete and approved by the Planning and Development Services Department and the Agricultural Commissioner). Should the population of unwanted species threaten to damage the area, the project operator shall implement controls that are consistent with applicable pest management requirements.

Significance After Mitigation

Implementation of the mitigation measures AG-1a through AG-1c, AG-3, AQ-1a, HYDRO-1a, and Hydro-21b would reduce impacts associated with indirect impacts on agricultural resources to a level less than significant.

4.3 AIR QUALITY

The following changes were made to Mitigation Measure AQ-1a in Section 4.3.4 Impacts and Mitigation under the discussion of AQ-1 on pages 4.3-10:11:

AQ-1a: Prior to commencing construction, each project proponent shall submit a Dust Control Plan to the ICAPCD for approval identifying all sources of PM₁₀ emissions and associated mitigation measures during the construction and operational phases of their future renewable energy project. The project proponent shall submit a "Construction Notification Form" to the ICAPCD 10 days prior to the commencement of any earthmoving activity. The Dust Control Plan submitted to the ICAPCD shall meet all applicable requirements for control of fugitive dust emissions, including the following measures designed to achieve the no greater than 20-percent opacity performance standard for dust control:

- All disturbed areas, including bulk material storage that is not being actively used, shall be effectively stabilized; and visible emissions shall be limited to no greater than 20-percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material, such as vegetative groundcover. Bulk material is defined as earth, rock, silt, sediment, and other organic and/or inorganic material consisting of or containing PM with 5 percent or greater silt content.
- All on-site and off-site unpaved roads segments with 50 or more average vehicle trips per day, shall be effectively stabilized; and so as to limit visible emissions shall be limited to no greater than 20-percent opacity for dust emissions by the use of restricting vehicle access, paving, chemical stabilizers, dust suppressants, and/or watering.
- All unpaved traffic areas 1.0 acre or more in size with 75 or more average vehicle trips per day shall be effectively stabilized; and visible emissions shall be limited to no greater than 20-percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.

- The transport of bulk materials on public roads shall be completely covered, unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks shall be cleaned and/or washed at the delivery site after removal of bulk material, prior to using the trucks to haul material on public roadways.
- All track-out or carry-out on paved public roads, which includes bulk materials that adhere to the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto the pavement, shall be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line except where such material or activity is exempted from stabilization by the rules of ICAPCD.
- The construction of new unpaved roads is prohibited within any area with a population of 500 or more, unless the road meets ICAPCD's definition of a "temporary unpaved road." Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

The following change was made in Section 4.3.4 Impacts and Mitigation under the discussion of AQ-2 on pages 4.3-13:14:

Significance After Mitigation

Implementation of mitigation measures AQ-1a through AQ-2b would reduce impacts associated with exposure of sensitive receptors to pollutant concentrations to a level less than significant. Implementation of mitigation measure AQ-1a described above would minimize dust generated during project construction and reduce impacts related to asthma and allergies to a level less than significant. The incidence rate of Valley Fever in Imperial County is low (4.8 cases per 100,000 population in 2012), and the County's average annual incidence rate is low as well (1.1 to 2.0 per 100,000 population). Furthermore, none of the documented cases of Valley Fever have been linked to construction of existing renewable energy facilities that were developed in Imperial County. Therefore, the potential for the proposed Project to result in new cases of Valley Fever is very low and would be reduced to a level less than significant through implementation of dust control measures described in mitigation measure AQ-1a. Implementation of mitigation measure AQ-1a combined with the 0.5-mile buffer around all urban areas for the overlay zones would also prevent disproportionate concentrations of low-income and/or minority populations from being exposed to pollutant concentrations or high levels of PM₁₀ and PM_{2.5} during construction and operation of the proposed Project.

4.4 BIOLOGICAL RESOURCES

The following changes were made to Section 4.4.2 Existing Environmental Setting on page 4.4-6:

Vegetation Communities

The County of Imperial is located within the Colorado Desert Subregion of the Sonoran Floristic Province. This region mixes an array of geographic substrates, topographic features, climatic regimes, soil types, and other physical factors which have combined to produce a mosaic of floristic components and associated natural habitats. Characteristic of this area is the presence of vast expanses of creosote bush (*Larrea tridentata*) and brittle bush (*Encelia farinosa*) on broad alluvial bajadas and adjacent mountain slopes interspersed with large washes containing several species of small microphyllous trees and shrubs. In addition to perennials, more than half of the desert's plant species are herbaceous annuals; and appropriately timed winter rains produce abundant early spring wildflowers. Over 365 plant species from 81 families are present within the Colorado Desert.

The vegetation communities within the County of Imperial are mapped and described using data and descriptions from the 2013 DRECP vegetation map (Menke et al. 2013) according to methodologies and nomenclature adopted by the U.S. National Vegetation Classification System (US-NVCS) and Federal Geographic Data Committee (FGDC). Data for unmapped areas in the western portion of the County were supplemented with LANDFIRE vegetation data (LANDFIRE 2013). In this effort, a total of 20 vegetation communities are recognized and mapped within the County of Imperial (Table 4.4-1). These 20 vegetation communities can be grouped into nine general land cover types. These include Chaparral and Coastal Scrub, Desert Scrub, Dune, Grassland, Riparian, Wetland, Desert Outcrop and Badlands, Agriculture, and Developed and Disturbed Areas. Land cover types and vegetation communities mapped within the County of Imperial are depicted in Figure 4.4-1 and briefly described below. For a detailed description of each of the vegetation communities, the reader is referred to the 2014 Draft DRECP and EIR/EIS (DRECP EIR/EIS 2014, III.7-65:72).

The following changes were made to Section 4.4.2 Existing Environmental Setting on pages 4.4-10:11:

Riparian Communities

Riparian communities constitute approximately 17.8 percent, or 510,982 acres, of the County and consist of four natural communities: Madrean Warm Semi-Desert Wash Woodland/Scrub, Mojavean Semi-Desert Wash Scrub, Sonoran–Coloradan Semi-Desert Wash Woodland/Scrub, and Southwestern North American Riparian/Wash Scrub (Table 4.4-1). About 84 percent of the riparian community is mapped only at the macrogroup level as Madrean Warm Semi-Desert Wash Woodland/Scrub.

Madrean Warm Semi-Desert Wash Woodland/Scrub is mapped in defined desert washes and is characterized by distinctly different plant composition and/or cover compared to adjacent upland communities in areas that did not receive alliance level mapping. This conglomerate group has been defined as a natural community in the

DRECP and occurs in most areas in the County but is most common in the Chocolate Mountains and Smoketree Valley areas and in the West Mesa area. (Figure 4.4-1). Microphyll woodlands may occur within this natural community (DRECP EIR/EIS 2014, III.7-69).

Mojavean Semi-Desert Wash Scrub is one of two groups or communities within the Madrean Warm Semi-Desert Wash Woodland/Scrub macrogroup. This community occurs in a number of scattered locations, including the southeastern corner of the County (Figure 4.4-1), and is differentiated from the Sonoran–Coloradan Semi-Desert Wash Woodland/Scrub by specific alliances.

Sonoran–Coloradan Semi-Desert Wash Woodland/Scrub is the second group or community within the Madrean Warm Semi-Desert Wash Woodland/Scrub macrogroup. This community occurs in several smaller areas in the Palo Verde Valley and in the Imperial Borrego Valley area (Figure 4.4-1). Microphyll woodlands, as defined in the DRECP, are comprised of four alliances within this natural community (DRECP EIR/EIS 2014, III.7-69).

Southwestern North American Riparian/Wash Scrub is characterized by native or non-native riparian shrubs and lacks a significant cover or presence of riparian trees. This natural community primarily occurs in Imperial Valley but occurs elsewhere throughout the County (Figure 4.4-1).

The following changes were made to Section 4.4.2 Existing Environmental Setting on pages 4.4-17:18:

Special Management Areas and Designated Critical Habitat

Approximately 1.1 million acres within the County of Imperial, including federally designated critical habitat, designated wilderness areas, desert wildlife management areas (DWMAs), areas of critical environmental concern (ACECs), national wildlife refuges, State parks and State wildlife management areas (WMAs), and other special areas are managed in whole or in part for the conservation and management of biological resources. BLM is the County of Imperial's largest land manager, with about 559,187 acres, or 19.5 percent of lands in the County designated as wilderness areas, DWMAs, and ACECs. Federally designated critical habitat and National Wildlife Refuge lands account for about 416,125 acres or 14.5 percent and ~~47,096~~64,579 acres or ~~1.6~~2.3 percent of lands in the County, respectively. State parks account for 71,645 acres or 2.5 percent of lands, while State WMAs account for 7,808 acres or less than 1 percent of lands within the County of Imperial. A list of the special management areas and designated critical habitats along with their respective acreages in the County are presented in Table 4.4-3. The location of these special management areas and designated critical habitat areas within the County are shown in Figure 4.4-4.

Table 4.4-3: Special Management Areas Including Designated Critical Habitat

Land Designation	Total Acreage
Federally Designated Critical Habitat	
desert pupfish	770
razorback sucker	2,458
desert tortoise	340,645
Peninsular bighorn sheep	50,268
Peirson's milk-vetch	21,984
Total	416,125
National Wildlife Refuge Lands	
Cibola National Wildlife Refuge	4,977
Imperial National Wildlife Refuge	10,332
Sonny Bono Salton Sea National Wildlife Refuge	31,787 49,270
Total	47,096 64,579
ACECs and DWMAs	
Chuckwalla DWMA	169,164
Coyote Mountains Fossil Site	5,875
East Mesa	42,140
Indian Pass	1,886
Lake Cahuilla - A	1,231
Lake Cahuilla - B	2,528
Lake Cahuilla - C	5,592
Lake Cahuilla - D	4,722
Pilot Knob	869
Plank Road	297
San Sebastian Marsh/San Felipe Creek	6,568
Singer Geoglyphs	1,884
West Mesa	20,304
Yuha Basin	71,847
Total	334,907
Designated Wilderness Areas	
Coyote Mountains Wilderness	18,197
Fish Creek Mountains Wilderness	22,457
Imperial Refuge Wilderness	7,903
Indian Pass Wilderness	33,909
Jacumba Wilderness	33,454
Little Chuckwalla Mountains Wilderness	2,624
Little Picacho Wilderness	39,584

Table 4.4-3: Special Management Areas Including Designated Critical Habitat

Land Designation	Total Acreage
North Algodones Dunes Wilderness	26,144
Palo Verde Mountains Wilderness	31,026
Picacho Peak Wilderness	8,982
Total	224,280
State Parks and WMAs	
Anza-Borrego Desert State Park	1,966
Anza-Borrego Desert State Park - Carrizo Impact Area	28,633
Heber Dunes State Vehicular Recreation Area	325
Ocotillo Wells State Vehicular Recreation Area	40,160
Picacho State Recreation Area	561
Imperial Wildlife Area	7,808
Total	71,645

The following row was added to Table 4.4-5: Special Status Animal Species with CNDDB Occurrences within Imperial County, on page 4.4-29 (For ease of review, we have only reproduced the portion of the table that occurs on page 4.4-29 rather than the entire table):

Table 4.4 5: Special Status Animal Species with CNDDDB Occurrences within Imperial County

Species Common Name (Scientific Name)	Species Status*	Species Habitat Requirements
burrowing owl (<i>Athene cunicularia</i>)	BCC, SSC, BLM-S, DRECP	Inhabits open, dry annual or perennial grasslands, deserts, and scrublands with low-growing vegetation. Depends on burrowing mammals, mainly California ground squirrel, for nest sites.
ferruginous hawk (<i>Buteo regalis</i>)	BCC, WL	Inhabits open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of open pinyon-juniper habitats with Lagomorphs, squirrels, and mice for a food source.
Swainson's hawk (<i>Buteo swainsoni</i>)	BCC, ST, BLM-S, DRECP	Inhabits open grasslands and agricultural areas. Often nests peripheral to riparian systems. They will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat.
western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT, BCC, SSC	Inhabits sandy beaches, salt pond levees, and shores of large alkali lakes with sandy, gravelly, or friable soils for nesting.
mountain plover (<i>Charadrius montanus</i>)	BCC, SSC, BLM-S, DRECP	Inhabits areas with short vegetation, bare ground, and flat topography including: short grasslands, freshly plowed fields, newly sprouting grain fields, and sod farms with burrowing rodents.
western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT, BCC, SE, BLM-S, DRECP	Nests in riparian forests along the broad, lower flood-bottoms of larger river systems with willow and cottonwoods.
gilded flicker (<i>Colaptes chrysoides</i>)	BCC, SE, BLM-S, DRECP	Inhabits Sonoran desert habitat and riparian woodlands along the Colorado River. Nests in willows, cottonwood, tree yucca, and saguaro cactus.
yellow warbler (<i>Dendroica petechia brewsteri</i>)	BCC, SSC	Inhabits riparian areas with willows, cottonwoods, aspens, sycamores, and alders for nesting. Also nests in montane shrubbery in open coniferous forests.
Sonoran yellow warbler (<i>Dendroica petechia sonorana</i>)	BCC, SSC	Inhabits desert areas, especially scrub habitats with friable soils for digging. Feeds almost exclusively on arthropods, especially scorpions and Orthopteran insects.
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE, SE, DRECP	Inhabits riparian woodlands within southern California.
merlin (<i>Falco columbarius</i>)	WL	Inhabits seacoast, tidal estuaries, woodlands, savannahs, edges of grasslands and deserts, farms and ranches with clumps of trees or wind breaks required for roosting.
prairie falcon (<i>Falco mexicanus</i>)	BCC, WL	Inhabits dry, open terrain, either level or hilly. Nests on cliffs and forages far afield.
gull-billed tern (<i>Gelochelidon nilotica</i>)	BCC, SSC	Occurs in Riverside and Imperial counties, nests on sandy islets and known to feed on fish at the mouth of the Colorado River and on grasshoppers in alfalfa fields.
bald eagle (<i>Haliaeetus leucocephalus</i>)	FD, BCC, SE, FP, DRECP	Nests mostly within 1 mile of water in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Roosts communally along ocean shores, lake margins, and rivers for both nesting and wintering.
Caspian tern (<i>Hydroprogne caspia</i>)	BCC	Inhabits freshwater lakes and marshes and brackish or salt waters of estuaries and bays. Nests on sandy or gravelly beaches and shell banks in small colonies inland and along the coast.

The following changes were made to Section 4.4.4 Impacts and Mitigation under the discussion of BIO-1 on pages 4.4-37:38:

Mitigation Measures

Consistent with the requirements of the Federal and State ESAs and other applicable laws, regulations, policies, program guidance, and management plans (e.g., FLPMA), the siting and design of future renewable energy facilities developed under the proposed Project would be conducted in a manner to avoid or minimize impacts on special status plant and animal species to the maximum extent possible. The mitigation measures below present standard biological mitigation typically required to reduce impacts to a level less than significant; however, additional mitigation requirements may be developed for future renewable energy facilities developed under the proposed Project based on existing biological conditions at future project sites.

BIO-1a: Conduct Surveys for Special Status Plant Species. As a requirement of an application for a renewable energy facility, surveys for special status plant species shall be conducted by qualified and agency-approved botanists to determine the presence or absence of sensitive plant species within the project footprint. Surveys shall be conducted following CDFW or BLM survey guidelines and be appropriately timed to coincide with the blooming periods for these species. Special status plants identified within the construction disturbance area shall be avoided to the extent feasible. A qualified botanist shall supervise the installation of orange construction fencing or other visible material to establish buffer zones between special status plants and construction disturbance.

BIO-1b: Conduct Surveys for Special Status Animal Species. As a requirement of an application for a future renewable energy facility, surveys for special status animal species shall be conducted by qualified and agency-approved biologists to determine the presence or absence of sensitive animal species within the footprint of a future renewable energy project. Required surveys for special status animal species may include, but are not limited to, American badgers, burrowing owl, flat-tailed horned lizard, golden eagle, mountain plover, prairie falcons, Swainson's hawk, and Yuma Ridgway's rail, among others. Any special status mammal, reptile, and amphibian species detected during surveys shall be passively relocated to areas outside the construction zone and prevented from reentering the future project area with the installation of silt fencing or other exclusion fencing. All fencing shall be periodically monitored and maintained for the duration of construction. Passive relocation shall only be done in the nonbreeding season in accordance with guidelines and consultations with resource agencies. This~~This~~Depending on which special status species are present within the project boundaries, passive relocation measures may include covering or excavating all burrows or dens and installing one-way doors into occupied burrows. This would allow any animals inside to leave the burrow but would exclude any animals from reentering the burrow. The burrows shall then be excavated and filled in to prevent their reuse. Other types of relocation measures may be required, depending on which special status species are present within the project boundaries.

If direct impacts to special status species cannot be avoided, an agency-approved biologist shall prepare a species-specific Mitigation and Monitoring Plan that would detail the approved, site-specific methodology proposed to minimize and mitigate impacts to each species. Passive relocation, destruction of burrows, construction of artificial burrows, etc. shall be completed only upon prior approval by and in cooperation with CDFW and/or USFWS.

BIO-1c: Mark Areas of Construction Boundaries. All areas to be disturbed during construction of future renewable energy facilities developed under the proposed Project would be required to flag disturbance boundaries prior to construction. All disturbances would be confined to these flagged areas, and all employees would be instructed that their activities must be confined to locations within the flagged areas. Project proponents of future renewable energy facilities developed under the proposed Project would be required to have environmental monitors on-site during construction activities.

BIO-1d: Power Wash Equipment Prior to Arrival On-Site. All construction equipment used during construction of future renewable energy facilities developed under the proposed Project would be required to be power washed prior to arrival at the future project site to prevent the transportation and establishment of noxious weeds in the project area.

BIO-1e: Implement a Worker Environmental Awareness Program. A brief Worker Environmental Awareness Program (WEAP) would be implemented for construction crews prior to the commencement of project activities for future renewable energy facilities developed under the proposed Project. Training materials and briefings would include, but would not be limited to, discussion of the Federal and State ESAs, the consequences of noncompliance with these acts, identification and values of wildlife and natural plant communities, hazardous substance spill prevention and containment measures, and review of all required and recommended mitigation measures.

BIO-1f: Additional Project Mitigation: Additional biological mitigation may be required based on the renewable energy technology to be developed at specific project locations. Project proponents for future renewable energy facilities would be required to evaluate how specific renewable energy facilities may impact sensitive species and how to mitigate impacts through site design and/or mitigation and monitoring activities. Such mitigation may include, but is not limited to, developing strategies to reduce impacts to avian species related to a possible “lake-effect” associated with solar energy facilities and strategies to reduce the possibility for bird-strikes associated with wind energy facilities, if warranted. Project-specific mitigation and monitoring for future renewable energy facilities may include, but would not be limited to, a Bird and Bat Conservation Strategy based on the type of renewable energy technology to be utilized for a future renewable project.

The following changes were made in Section 4.4.4 Impacts and Mitigation under the discussion of BIO-3 on page 4.4-40:

The modification of streams, washes, and drainages would alter surface runoff timing and drainage patterns and could increase peak flows and water flow velocities of downgradient streams. All these processes could lead to increased erosion, sediment transport, and sediment deposition impacts. The discharge of wastewater and stormwater could also increase the flow rates of the receiving surface waters. Land disturbance impacts are expected to be greater in areas occupied by an alluvial fan or other landscape features with topography more than in a flat areas. Many of the proposed overlay zones are located in areas of the County that are drained primarily by sheet flow and desert washes. These areas contain alluvial fans with braided channels that drain the surrounding mountains; and the active washes crossing many of these areas are generally unstable and subject to erosion, incision, and ~~avulsion~~ migration of the braided channel network. Low-frequency, high-intensity monsoonal storms in the region can result in high volumes of stormwater flow, which can cause high volumes of surface runoff to occur in the vicinity of these areas. Any temporary disturbance to or permanent loss of wetlands and other jurisdictional water bodies or loss of function of these features through direct fill or increased erosion and water quality degradation could be considered a significant impact.

4.5 CULTURAL RESOURCES

The following changes were made to Section 4.5-2 Existing Environmental Setting on pages 4.5-15:16:

Table 4.5-3: Cultural Resource By Site Type and NRHP Status

	Prehistoric	Historic	Multi- Component	Unknown Type	Isolate	Total	Acres Surveyed	Percent Surveyed
Unknown Status	474	128	64	5,254	0	5,920		
Not Evaluated	2	2	0	0	0	4		
Ineligible	0	0	0	0	13	13		
Eligible	243	30	23	13	0	309		
Listed	0	0	0	0	0	0		
Subtotal	719	159	87	5,199	13	6,246	446,272	18.5%

Source: DRECP EIR/EIS 2014, Appendix R1.8-3

Table 4.5-4: NRHP, California Landmarks, CRHR, and Points of Interest

Name	National Register	California Historical Landmark	California Register	POHI
Calexico Carnegie Library	1		1	
Camp Pilot Knob (Desert Training Center)		1	1	
Camp Salvation		1	1	
Crucifixion Thorn				1
Fort Yuma		1	1	
Hernando de Alarcón expedition		1		
Hotel Barbara Worth Site				1
Mission La Purísima Concepción Site		1		
Picacho Mines		1		1
Plank Road		1	1	
Site of Fort Romualdo Pacheco		1	1	
Site of Mission San Pedro y San Pablo de Bicuñer		1	1	
Southwest Lake Cahuilla Recessional Shoreline Archaeological District	1		1	
Spoke Wheel Rock Alignment	1		1	
Stonehead (L-7)	1		1	
Tecolote Rancho Site		1	1	
Townsite of Silsbee and Indian Well				1
Tumco Mines		1		
20th Century Folk Art Environments - Charley's World of Lost Art			1	
U.S. Inspection Station - Calexico				1
U.S. Post Office - El Centro Main				1
Winterhaven Anthropomorph (L-8)	1		1	
Winterhaven Anthropomorph and Bowknow (L-9)	1		1	
Yuha Basin Discontiguous District	1		1	
Yuha Well		1	1	
Imperial County Totals	7	12	16	6

Source: DRECP EIR/EIS 2014, Appendix R1.8-8

The following changes were made to Section 4.5-2 Existing Environmental Setting on pages 4.5-17:18:

Additionally, BLM has developed the Potential Fossil Yield Classification (PFYC) system based on the potential for the occurrence of significant paleontological resources in a geologic unit and the associated risk for impacts to the resource based on federal management actions. The PFYC system classifies geologic units by five classes ranging between Class 1 (very low) to Class 5 (very high) based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. A higher class number indicates a higher potential for occurrence of paleontological resources. BLM also uses the PFYC system to set management policies and does not intend it to be applied to specific paleontological localities or small areas within geologic units (DRECP EIR/EIS 2014, III.10-8:9). The BLM PFYC classifications and recommended management actions are presented below in Table 4.5.-6.

Table 4.5-6: BLM Potential Fossil Yield Classification System Class Definitions

Class	Definition
Class 1 (very low)	Geologic units not likely to contain recognizable fossil remains. Management concern is negligible or not applicable; and assessment or mitigation requirements are usually not necessary, with the exception of isolated circumstances.
Class 2 (low)	Sedimentary geologic units not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is generally low; and assessment of mitigation is usually not necessary, with the exception of isolated circumstances.
Class 3 (moderate or unknown)	Fossil-bearing sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or units of unknown fossil potential. Management concern is moderate or cannot be determined from existing data. Ground-disturbing activities may require field assessment to determine the appropriate course of action.
Class 3a (moderate potential)	Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for hobby collecting. The potential for a project to be sited on or impact a significant fossil locality is low but somewhat higher for common fossils.
Class 3b (unknown potential)	Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. The units in this class may eventually be placed in another class when sufficient surveys and research are performed. The unknown potential of the units in this class should be carefully considered when developing any mitigation or management actions.
Class 4 (high)	Geologic units containing a high occurrence of significant fossils. The probability for impacting significant paleontological resources is moderate to high and depends on the proposed action. Anticipated impacts to significant fossils would usually require a field survey, followed by onsite paleontological monitoring or spot-checking.
Class 5 (very high)	Fossil-rich geologic units that regularly produce vertebrate fossils or significant nonvertebrate fossils at risk of natural degradation or human-caused adverse impacts. The probability of impacting significant fossils is high, and fossils are known or can reasonably be expected to occur in the impacted area. Anticipated impacts to significant fossils would usually require a field survey, followed by onsite paleontological monitoring or spot-checking.

Source: DRECP EIR/EIS 2014, III.10-8:9

The following changes were made to Mitigation Measure CUL-1a through CUL-1d in Section 4.5.4 Impacts and Mitigation under the discussion of CUL-1 on pages 4.5-20:21:

CUL-1a: Agency Coordination. Project proponents of future renewable energy facilities developed under the proposed Project would be required to coordinate with appropriate agencies early in the planning process. Depending on the nature and intended location of a future renewable energy facility, coordination may be required with Federal, tribal, State, and local agencies. Consultation efforts should be made with the Native American Heritage Commission (NAHC), the State Historic Preservation Office (SHPO), and stakeholders identified that may potentially be impacted by development of the future renewable energy facilities. Such coordination would elicit input and help define the parameters of future renewable energy facilities to better reduce or avoid impacts to cultural resources, including historic properties, archaeological resources, sacred sites, and cultural landscapes.

CUL-1b: Cultural Resources Records Searches. Project proponents of future renewable energy facilities developed under the proposed Project would be required to conduct cultural resources records searches for future project sites. This should include a Sacred Lands File records search with the NAHC and a cultural resources records search with the CHRIS location that covers the project footprint. For Imperial County, the CHRIS records search will be conducted at the South Coastal Information Center (SCIC) located on the campus of San Diego State University.

CUL-1c: Cultural Resources ~~Record Searches~~ Pedestrian Surveys. Project proponents of future renewable energy facilities developed under the proposed Project would be required to conduct cultural resource pedestrian surveys for future project sites. The cultural resource pedestrian survey would be conducted to identify resources that have not been previously discovered through past survey efforts and, therefore, would not be noted in the records search results. The survey should be conducted in accordance with Secretary of the Interior's Standards and Guidelines for Archaeological and Historic Preservation (48 FR 44716, Sept. 29, 1983), which serve as the industry standard guidance for pedestrian surveys for all cultural resource management projects. All cultural resources encountered during pedestrian surveys for future renewable energy facilities developed under the proposed Project would be mapped and recorded in detail in order to document cultural resources and potential impacts. Efforts should be made to relocate previously recorded resources and update information for the sites surveyed for future renewable energy facilities.

CUL-1d: Site Characterization, Siting and Design, and Construction. The results of the coordination efforts, records searches, and pedestrian surveys conducted under mitigation measures CUL-1a through CUL-1c should be utilized to minimize or avoid impacts to cultural resources through project design of future renewable energy facilities. Preconstruction activities for the minimization or avoidance of impacts on cultural resources based on the results of mitigation measures CUL-1a through CUL-1c may include, but are not limited to, the following:

- Avoid impacts to cultural resources by prohibiting subsurface activities in certain areas.

- Areas of higher sensitivity should be tested for cultural content. The extent of the testing should be determined in concert with the design of the future renewable energy facility.
- If testing is deemed necessary, all testing should be conducted by a qualified archaeological consultant and should include involvement by one or more of the local Native American representatives.
- Areas of lower sensitivity should be targeted for improvements and areas of higher sensitivity (i.e., more dense cultural materials) should be protected, as deemed feasible.
- Consultation should be maintained between the lead agency and the local Native American representatives and their respective concerns should be considered when formulating decisions.
- Whenever possible, future renewable energy facilities should be developed on fill soil or in areas of previous ground disturbance.
- Archaeological Monitoring: Prior to any ground-disturbing activities for future renewable energy facilities, project proponents should retain a qualified archaeologist to be present at all preconstruction meetings to advise construction contractors about the sensitive nature of cultural resources located on and/or in the vicinity of the future project site, as well as monitoring requirements. A qualified monitor should observe all on-site and off-site future construction activities that would result in ground disturbance (including project-related off-site utility and roadway improvements).
- Native American Monitor: During construction of future renewable energy facilities, a Native American monitor should observe all ground-disturbing activities (including project-related offsite utility and roadway improvements). The Native American monitor should consult with the archaeological monitor regarding objects and remains encountered during grading or excavation that may be considered sacred or important.

The following changes were made to Mitigation Measure CUL-2 in Section 4.5.4 Impacts and Mitigation under the discussion of CUL-2 on page 4.5-22:23:

CUL-2: Paleontological Resource Assessment Report. Project proponents of future renewable energy facilities developed under the proposed Project shall document whether paleontological resources exist in a future project area in a paleontological resources assessment report based on the following: the geologic context of the region and future project site and its potential to contain paleontological resources (including the PFYCs on-site), a records search of institutions holding paleontological collections from California desert regions, a review of published and unpublished literature for past paleontological finds in the area, and coordination with paleontological researchers working locally in potentially affected geographic areas (or studying similar geologic strata).

If the PFYC (or PFYCs) of the geologic units to be encountered during construction of the future renewable energy facility has not been determined, the project proponent shall use the best available data and field surveys, as applicable, to develop a site-specific map of the PFYC ratings. The PFYC map shall be at a scale equal to or more detailed than 1:100,000. Depending on the extent of existing information available and the sensitivity of the site, development of the resource assessment and PFYC map could require the completion of a paleontological survey.

If paleontological resources are present at the future project site or if the geologic units to be encountered by the future renewable energy project (at the surface or the subsurface) have a PFYC Class of 3, 4, or 5, a Paleontological Resources Management Plan shall be developed. The elements of the plan shall be consistent with BLM IM 2009-11 and shall be prepared and implemented by a professional paleontologist as defined under Secretary of the Department of the Interior Standards. The plan shall include the following:

- The qualifications of the principal investigator and monitoring personnel
- Construction crew awareness training content, procedures, and requirements
- Any measures to prevent potential looting, vandalism, or erosion impacts
- The location, frequency, and schedule for onsite monitoring activities
- Criteria for identifying and evaluating potential fossil specimens or localities
- A plan for the use of protective barriers and signs or implementation of other physical or administrative protection measures
- Collection and salvage procedures
- Identification of an institution or museum willing and able to accept any fossils discovered
- Compliance monitoring and reporting procedures
- If the Paleontological Resources Management Plan determines that all geologic units that would be affected by the future renewable energy project are within an area with a PFYC Class of 1 or 2, the lead agency shall include paleontological resources as an element in construction worker awareness training and shall include measures to be followed in the event of unanticipated discoveries, including suspension of construction activities in the vicinity. The measure shall stipulate that the future project site must be protected from further earth-moving or damage until a qualified paleontologist can assess the significance and importance of the find and until the fossil specimen or locality can be recorded and salvaged, if necessary.

- The Paleontological Resources Management Plan shall evaluate all of the construction methodologies proposed on the future site, including destructive excavation techniques. Where applicable, the principal investigator shall include in the plan an evaluation of the potential for such techniques to disturb or destroy paleontological resources, an evaluation of whether loss of such fossils would represent a significant impact, and discussion of mitigation or compensatory measures (such as recordation/recovery of similar resources elsewhere on the site) that are necessary to avoid or substantially reduce the impact.

The following changes were made to Mitigation Measure CUL-3 in Section 4.5.4 Impacts and Mitigation under the discussion of CUL-3 on page 4.5-24:

CUL-3: Human Remains. Prior to project implementation, local governments should consider working with tribes to develop an appropriate plan to address the identification and treatment of California Native American human remains should they be encountered (SB18 Public Resources Code §5097.98). If, at any time, evidence of human remains are-is identified during construction of future renewable energy facilities associated with the proposed Project, the County Coroner must be notified immediately and permitted to examine the remains. The discovery of human remains is always a possibility during ground disturbances. Human remains and associated cultural items refer to objects that fit into one of four types of items expressly protected under Native American Graves Protection and Repatriation Act (NAGPRA) (43 CFR 10), to include: (a) human remains, (b) funerary objects; (c) sacred objects; and (d) objects of cultural patrimony. Any significant confirmed find should be evaluated to determine if an adverse effect to the resource has occurred. Such a discovery, or probable likelihood of such a discovery as identified during an initial study, would require a recommencement of consultation between the lead agency, the Imperial County Coroner's office, the NAHC, and the Most-Likely Descendant (MLD) identified by the NAHC, in order to address adverse effects [AB 52.2(c)]. Any potential human remains identified by a cultural resources monitor during construction of future renewable energy facilities should initially be treated according to California Health and Safety Code, Section 7050.5(b) and Public Resource Code, Section 5097.98(a-h); however, the archaeological monitor should be responsible for determining whether cultural items are associated. In addition, future renewable energy facilities developed under the proposed Project would be required to implement the provisions of AB 52 (Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to, the Public Resources Code).

4.6 GEOLOGY AND SOILS

The following changes were made to Section 4.6-2 Existing Environmental Setting on page 4.6-5:

Seismicity

Similar to most areas of southern California, Imperial County is seismically active. Numerous-active faults traverse the Salton Trough and the County. In this region, plate motion is transferred northward from the transform fault spreading center system of

the Gulf of California to the San Jacinto and San Andreas fault zones along the Imperial fault and Brawley seismic zone (Johnson 1979). Figure 4.6-3 shows the known active and potentially active faults and epicenters of earthquakes that occurred within the last 100 years in the County. The most notable fault in the County is the San Andreas, extending northward from Mexico through the Imperial Valley and on into northern California. Other major, active faults are in the San Jacinto and Elsinore fault zones in the southwest and northwest portions of the County. These northwest-trending fault zones are extensive and are a major factor in determining the configurations of the land. In addition to these major active fault zones, a number of minor inactive faults are located within the County. These include (but are not limited to) the Brawley, Wient, Imperial, Laguna Salada, and Superstition Hills faults. Under the Alquist-Priolo Act, the State California Geological Survey (CGS) has defined an "active" fault as one that has had surface displacement during the past 11,000 years (Holocene time). Active faults, while present in Imperial County, are limited in extent and include mainly the Imperial Fault, the Elsinore Fault, the San Jacinto Fault (west side), and several unnamed faults along the Elmore Ranch Fault Zone (found after the 1987 Superstition Mountain sequence). The most seismically active areas in the region is the Brawley seismic zone (Johnson 1979). The Brawley seismic zone links the Imperial fault with the southern end of the San Andreas fault and possible represents a spreading zone between these two strike-slip faults (Weaver and Hill 1979). Seismicity along the Superstition Hills and Superstition Mountain, which may be a southern extension of the San Jacinto fault system, is diffuse. Diffuse seismicity also characterizes the Elsinore fault system (Sharp 1972).

Surface Rupture Faulting

Surface rupture faulting occurs when movement along a fault results in an actual cracking or breaking of the ground along a fault during an earthquake rupture and offset of the land surface, local warping and tilting of the ground near the fault trace, and less commonly, uplift or subsidence of adjoining areas; however, it is important to note that not all earthquakes result in surface rupture faulting. Surface rupture faulting almost always frequently follows preexisting fault traces, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Fault creep is the slow rupture of the earth's crust. Sudden displacements are more damaging to structures because they are accompanied by shaking. Whether a slip along a fault during an earthquake reaches the ground surface depends on the size, depth, and orientation of the earthquake rupture surface. Large shallow earthquakes in California are often accompanied by surface faulting or deformation. Generally surface faulting is associated with earthquakes having epicenters shallower than 15 km and magnitudes of 5.5 or greater.

The following changes were made to Section 4.6-2 Existing Environmental Setting on page 4.6-8:

Subsidence

Subsidence is the gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Subsidence is usually the result of gas, oil, or water extraction, hydro compaction, or peat oxidation and not the result of a landslide or

~~slope failure~~ lowering or settlement of the ground surface through collapse of subsurface void space. This condition can occur in areas where oil or groundwater has moved out of an area and has created a void space unable to sustain the materials above it or in areas where subsurface materials are dissolved, leaving little or no support for surface soils or features. Subsidence can be a dangerous condition for structures and facilities if not accounted for in project planning and design. Most subsidence in Imperial County is largely tectonic in nature due to the broadly and naturally subsiding basin. Subsidence due to well pumping and other sources of groundwater withdrawal can occur in unconsolidated to semiconsolidated sediments containing confined or semiconfined sand and gravel aquifers inter-bedded with clay sediments. The potential for subsidence is dependent on the depths of and amount of water likely to be extracted from the aquifer. On the valley floor where these conditions exist, the potential for subsidence is considered to be ~~moderate to low~~, based on the current hydrological conditions.

The following changes were made to Mitigation Measure GEO-5 in Section 4.6.4 Impacts and Mitigation under the discussion of GEO-5 on page 4.6-16:

Mitigation Measures

GEO-5: Demonstrate Compliance with On-Site Wastewater Treatment and Disposal Requirements. Wastewater treatment and disposal system(s) associated with future renewable energy facilities shall demonstrate compliance with the Imperial County performance standards as outlined in Title 9, Division 10, Chapters 4 and 12 of the Imperial County *Land Use Ordinance*. Prior to construction, and again prior to operation, each future project proponent would be required to obtain all necessary permits and/or approvals from Imperial County. Each future project proponent would be required to demonstrate that the system adequately meets County requirements, which have been designed to protect beneficial uses and ensure that applicable water quality standards are not violated. This shall include documentation that the system would not conflict with the Regional Water Quality Control Board's (RWQCB) Anti-Degradation Policy.

4.7 GREENHOUSE GASES

The following changes were made in Section 4.7.4 Impacts and Mitigation under the discussion of GHG-1 on page 4.7-10:

Introduction of renewable energy facilities under the proposed Project would displace power currently produced by carbon-based fuels that would otherwise be used to meet regional demand for electricity. As documented in the Draft EIR/EIS prepared for the DRECP, estimates prepared by the California Public Utilities Commission (CPUC) project that by 2020, the marginal power plant would consist of a new combined-cycle combustion turbine 95 percent of the time or a new combustion turbine 5 percent of the time. Based on this ratio, GHG emissions associated with marginal power production are 830 pounds CO₂e per megawatt hour (MWh). Additionally, USEPA estimates presented in the DRECP EIR/EIS project that baseline GHG emissions for marginal power in California would be more than 990 pounds CO₂e per MWh. (DRECP EIR/EIS 2014, IV.3-9).

Electricity generated by future renewable energy facilities developed under the proposed Project would displace GHG emissions currently produced by carbon-based fuels. Using the conservative estimate of GHG emissions for marginal power plants developed by the CPUC, future solar and wind facilities would eliminate a minimum of 830 pounds CO₂e per MWh. Similarly, future geothermal energy facilities developed under the proposed Project would displace approximately 520 pounds CO₂e per MWh. The displacement of CO₂e for geothermal production would be reduced by 310 pounds CO₂e per MWh due to the CO₂ that occurs naturally in geothermal steam released by operations at a geothermal plant (DRECP EIR/EIS 2014, IV.3-9). Consequently, displacement of power currently produced by carbon-based fuels by development of future renewable energy facilities would offset GHG emissions generated during construction, operation, and decommissioning of future renewable energy facilities and reduce impacts to a level less than significant. No mitigation measures would be required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following changes were made in Section 4.8.1 Regulatory Setting on page 4.8-1:

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, defines which hazardous substances or materials are designated for special consideration by the federal Environmental Protection Agency (USEPA). The substances are designated by USEPA for special consideration under the Clean Air Act, Clean Water Act, Toxic Substances Control Act, or the Resource Conservation and Recovery Act. USEPA may also designate other substances as hazardous based on at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity) that can pose a hazard to human health (DRECP EIR/EIS 2014, III.22-1).

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act established the Emergency Planning and Community Right-to-Know Act as the national legislation on community safety. This law helps local communities protect public health, safety, and the environment from releases of hazardous substances. In implementing provisions of the Emergency Planning and Community Right-to-Know Act, Congress requires each state to appoint a State Emergency Response Commission. Each state commission then must divide its state into Emergency Planning Districts and appoint a Local Emergency Planning Committee for each of those districts (DRECP EIR/EIS 2014, III.22-1:2).

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act of 1985 require local agencies to develop area plans in order to respond to releases of hazardous wastes and materials. An area plan includes pre-emergency planning procedures for emergency response, coordination of affected government agencies and responsible parties, follow-

up, and training. The California Hazardous Materials Incident Reporting System collects data involving the accidental release of hazardous materials. This information is reported to and maintained by the California Office of Emergency Services and California Emergency Management Agency (OES/Cal EMA) (DRECP EIR/EIS 2014, III.22-3).

The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce federal and State regulations and respond to hazardous materials transportation emergencies. The California Highway Patrol enforces labeling and packing regulations to prevent leaks and spills of material in transit. It also provides information to cleanup crews in the event of an incident. Caltrans has emergency teams throughout California (DRECP 2014 Cal EMA 2009).

The following changes were made in Section 4.8.4 Impacts and Mitigation under the discussion of HAZ-1 on page 4.8-8:

Operation

Hazardous Materials

The operation of renewable energy projects would also involve the use, storage, and disposal of hazardous materials, similar to those required for the construction and decommissioning of facilities. Waste from solar facilities that could be potentially hazardous include herbicides and HTFs in pipes used in solar facilities using parabolic troughs, as well as hazardous chemicals used to treat water used in the steam cycle at parabolic trough and power facilities. Some wastes that could be generated in large volumes during operation include lubricating oils, compressor oils, and hydraulic fluids. Nitrate salts used as TES for solar facilities are used at extremely high temperatures and can cause or accelerate fires. In addition, the nitrate salts can also cause irritation if inhaled or ingested, or if they come into contact with skin. Photovoltaic panels contain potentially hazardous materials in solid form which could be released to the environment if panels are broken or burned during a fire.

Renewable energy projects developed under the proposed Project may generate waste during operation. As noted above, solid waste would likely be disposed of using a locally licensed waste hauling service, and solid waste would be transported to a permitted facility. The County has five County-owned Class III disposal sites throughout the County that do not accept hazardous waste. In addition, three private waste disposal facilities are located within the County. One of these, the Clean Harbors Westmorland Facility, is a Class I facility that is fully permitted to accept and manage a variety of hazardous wastes including RCRA hazardous waste.

Since solar panels contain materials such as cadmium, lead, or selenium, solar panels are considered a RCRA regulated waste. The Clean Harbors Westmorland Facility is one of the facilities that is permitted to handle RCRA hazardous waste. In addition, RCRA hazardous wastes such as solar panels would only be disposed of at facilities permitted to accept such material.

As described above in the analysis for construction impacts, the proposed Project would be implemented on a “project-by-project” basis; and operational impacts regarding the release of hazardous materials into the environment cannot be estimated at this time. Nevertheless, future operation of renewable energy projects in the proposed overlay zones would have the potential to result in the release of hazardous materials into the environment and may result in a significant impact.

Electromagnetic Fields

Both electric and magnetic fields occur together whenever electricity flows. Consequently, future renewable energy facilities developed under the proposed Project would have the potential to result in electromagnetic field (EMF) exposure. However, the available evidence as evaluated by the California Public Utilities Commission (CPUC) and other regulatory agencies has not established that such fields pose a significant health hazard to exposed humans. To date, there are no health-based federal regulations or industry codes specifying environmental limits on the strengths of fields from power lines. Likewise, the State has not adopted any specific limits or regulation on EMF levels related to electric power facilities. In addition, the CPUC issued Decision D.06-01-042 in 2006, which states: “at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences...however, this decision directs the Commission’s Energy Division to pursue and review all available studies regarding EMF, and to review scientific information and report on new findings. Should such studies indicate negative EMF health impacts, we will reconsider our EMF policies, and open a new rulemaking if necessary” (CPUC 2006). No new rulemaking has been opened.

The EPA acknowledges public concern regarding potential adverse health effects associated with EMF from power lines; however, the EPA also states that: “Much of the research about power lines and potential health effects is inconclusive...The general scientific consensus is that, thus far, the evidence available is weak and is ‘not sufficient to establish a definitive cause-effect relationship.’” (EPA 2006). In addition, the “Preliminary Opinion on Potential Health Effects of Exposure to Electromagnetic Fields (EMF)” prepared by the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) stated that “The few available studies on combined exposure to EMF of different frequency ranges do not provide sufficient information to challenge existing risk assessment; in addition in most experiments an absence of effects has been reported.” Further, with regard to health effects from co-exposure of EMF and other stressors, SCENIHR concluded that “[t]he available literature suggests that EMF exposure may modify the effects of chemicals or other physical agents. However, the reports on combined effects lack consistency and are not linked to specific experimental conditions. Therefore, further research is needed in order to clarify any relevance of combined exposures to human cancer risk under real life exposure conditions, and to explore the potentially beneficial (protective) effects of such exposures” (SCENIHR 2013). Therefore, because the probability of EMF occurrence is low, and the evidence to support that EMFs are hazards that would be caused by future renewable energy facilities developed under the proposed Project is insufficient, the potential for EMF levels to cause a hazardous health condition would not occur.

The following changes were made to Mitigation Measure HAZ-1b in Section 4.8.4 Impacts and Mitigation under the discussion of HAZ-1 on page 4.8-9:

HAZ-1b: Proponents of future renewable energy facilities developed under the proposed Project that would handle hazardous materials that exceed regulatory thresholds would need to prepare and submit a Business Emergency Response Plan for approval to the State Department of Toxic Substance Control and County of Imperial Local Enforcement Agency.

The following changes were made in Section 4.8.4 Impacts and Mitigation under the discussion of HAZ-3 on page 4.8-9:

Table 4.8-1: Documented Hazardous Materials Within the Proposed Overlay Zones

Hazardous Materials Category	Geothermal Overlay Zone	Renewable Energy Overlay Zone	Renewable Energy/Geothermal Overlay Zone
Hazardous Cleanup Sites	83	0	1410
Cleanup Sites	208	0	6
EPA Regulated Facilities	124	0	74
Hazardous Materials Sites	0	0	0
Hazardous Waste Sites	0	0	0

4.9 HYDROLOGY AND WATER QUALITY

The following discussion was added to Section 4.9.1 Regulatory Setting on page 4.9-5:

Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling

SWRCB Resolution 75-58 Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling establishes a statewide policy regarding the use of water for cooling. The policy recommends that cooling water be drawn from the following sources in order of priority: (1) wastewater being discharged to the ocean, (2) ocean, (3) brackish water from natural sources or irrigation return flow, (4) inland wastewaters of low TDS, and (5) other inland waters. The policy also encourages water supply agencies and power generating utilities and agencies to study the feasibility of using alternative methods of disposal. Where the SWRCB has jurisdiction, use of fresh inland waters for powerplant cooling will be approved by SWRCB only when it is demonstrated that the use of other water supply sources or other methods of cooling would be environmentally undesirable or economically unsound.

The following discussion was added to Section 4.9.1 Regulatory Setting on pages 4.9-6:7:

Regional and Local Requirements

Water Element of Imperial County General Plan

The Water Element of Imperial County's General Plan provides goals, objectives, and policies to guide the development, utilization, and preservation of water resources in the County. The Water Element assures that water resources are conserved and utilized to enhance long-term availability, while providing for current supplies and demands. In addition, the Water Element has been prepared to improve the use and distribution of water in Imperial County, including the extension of current water conservation programs.

Five Primary Objectives are contained in the Water Element. These are followed by policies which specifically address the Objective of the Water Element. These include the following policies:

- **Adequate Domestic Water Supply** - The efficient regulation of land uses that economizes on water consumption, enhances equivalent dwelling unit demand for domestic water resources, and that makes available affordable resources for continued urban growth and development.
- **Protection of Surface Waters** - Preservation of riparian and ruderal habitats as important biological filters, and as breeding and foraging habitats for native and migratory birds and animals.
- **Adequate Agricultural Irrigation Water Supply** - The efficient and cost-effective utilization of local and imported water resources through the development and implementation of appropriate and separate agricultural and urban use areas.
- **Protection of Water Resources from Hazardous Materials** - Adoption and implementation of ordinances, policies, and guidelines which assure the safety of County ground and surface waters from toxic or hazardous materials and/or wastes.
- **Coordinated Water Management** - Encourage and provide inter-agency and inter-jurisdictional coordination and cooperation for the management and wise use of water resources for contact and noncontact recreation, groundwater recharge, hydroelectric energy production, and wildlife habitat as well as for domestic and irrigation use.

The following changes were made to Section 4.9-2 Existing Environmental Setting on page 4.9-12:

Salton Sea Planning Area

The Salton Sea Planning Area consists entirely of the Salton Sea. The Salton Sea is a saline body of water in a natural sink that is being replenished predominantly by farm drainage and seepage, with occasional inputs from stormwater runoff. The Salton Sea

fluctuates in size and capacity but is currently about 35 miles long and 15 miles wide, occupies 376 square miles, and contains about 7.5 million acre-feet of water (DRECP EIR/EIS 2014, III.5-23). The surface elevation is 235 feet below mean sea level. The climate is arid, and the average annual precipitation is 2.6 inches. During larger storm events, runoff from adjacent planning areas, Coachella Valley, Anza-Borrego, and Imperial Valley drain into the Salton Sea (SWQCB 2014).

The following changes were made to Mitigation Measure HYDRO-1a in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-1 on page 4.9-20:

HYDRO-1a: Acquire Appropriate CWA Regulatory Permits, Prepare SWPPP, and Implement BMPs Prior to Construction and Site Restoration. Project proponents or project construction contractors for future renewable energy facilities would be required to prepare a project-specific SWPPP and be responsible for securing coverage under SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by each project applicant prior to commencement of work and shall be made conditions of the contract with each contractor selected to build and decommission future renewable energy facilities developed under the proposed Project. The SWPPP(s) shall, at a minimum, incorporate control measures in the following categories:

- Soil stabilization and erosion control practices (e.g., hydroseeding, erosion control blankets, mulching)
- Dewatering and/or flow diversion practices, if required (see Mitigation Measure HYDRO-1b)
- Sediment control practices (temporary sediment basins, fiber rolls)
- Temporary and postconstruction on-site and off-site runoff controls
- Special considerations and BMPs for water crossings, wetlands, and drainages
- Monitoring protocols for discharge(s) and receiving waters, with emphasis placed on the following water quality objectives: dissolved oxygen, floating material, oil and grease, pH, and turbidity
- Waste management, handling, and disposal control practices
- Corrective action and spill contingency measures
- Agency and responsible party contact information

- Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP

The following changes were made to Mitigation Measure HYDRO-2a in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-2 on page 4.9-22:

HYDRO-2a: Groundwater Monitoring and Mitigation Plan. A Groundwater Monitoring and Mitigation Plan (Plan) shall be prepared, reviewed, and approved by the County of Imperial prior to project approval and implementation. The County must approve the Plan prior to issuance of any groundwater well permits. The Plan shall be prepared by a qualified professional geologist, hydrogeologist, or civil engineer registered in the State of California and submitted by the applicant to the County for approval.

The Plan shall provide detailed methodology for monitoring and reporting procedures; locate monitoring, extraction, and survey points; ~~define significance criteria;~~ and identify mitigation measures in the event that adverse impacts occur that can be attributed to the proposed Project. The Plan shall include summarization of all monitoring data and would require submission of annual reports to the County. A comprehensive summary and analysis of data shall be included in a five-year report. Monitoring shall be performed during preconstruction, construction, and operation, with the intent to establish preconstruction and specific project-related groundwater level trends that can be quantitatively compared against observed and simulated trends near the pumping wells and near potentially affected existing private wells and sensitive water resources. Additionally, at each stage of reporting, the applicant would be required to reevaluate of the adequacy of the monitoring network and Plan.

The following changes were made in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-3 on page 4.9-23:

The modification of streams, washes, and drainages would alter surface runoff timing and drainage patterns and could increase peak flows and water flow velocities of downgradient streams. All these processes could lead to increased erosion, sediment transport, and sediment deposition impacts. The discharge of wastewater and stormwater could also increase the flow rates of the receiving surface waters. Land disturbance impacts are expected to be greater in areas occupied by an alluvial fan or other landscape features with topography more so than in flat areas. Some of the proposed Renewable Energy Overlay Zones are located in areas of the County that are drained primarily by sheet flow and desert washes. These areas contain alluvial fans with braided channels that drain the surrounding mountains; and the active washes crossing many of these areas are generally unstable and subject to erosion, incision, and ~~avulsion~~/migration of the braided channel network. Low-frequency, high-intensity monsoonal storms in the region can result in high volumes of stormwater flow, which can cause high volumes of surface runoff to occur in the vicinity of these areas. These alterations of exiting drainage patterns could also result in flooding on or off site. These factors related to the alteration of existing drainage patterns may result in significant impacts.

The following changes were made to Mitigation Measure HYDRO-3 in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-3 on pages 4.9-23:24:

HYDRO-3: Comprehensive Drainage and Sedimentation Control Plan. Project proponents for future renewable energy facilities would be required to prepare a Comprehensive Drainage and Sedimentation Plan (Plan) prior to the initiation of construction (or decommissioning as relevant). Detailed hydrologic analysis shall be performed prior to final design of the specific future renewable energy project. Results of these analyses will be submitted to the County for review. All proposed grading and impervious surfaces on-site shall be reviewed and approved by the County with respect to its potential to cause or result in additional erosion and sedimentation, increased stormwater flows, or altered drainage patterns that could lead to unintentional ponding or flooding on-site or downstream, and/or additional erosion and sedimentation. The Plan shall include, but not be limited to, the following measures:

- Construction of access corridors and temporary and permanent access roads shall not block existing drainage channels and shall not significantly alter the existing topography.
- The project proponent shall delineate the active drainage channels within each drainage avoidance area and avoid placement of proposed flood protection berms within active drainage channels. The drainage avoidance areas shall protect no less than 90 percent of the area of the active drainage channels from construction impacts.
- The project proponent shall prepare hydraulic analyses that estimate the pre- and post-development peak discharges, water depths, and velocities for both smaller, more frequent events (2-, 5-, and 10-year events), as well as larger design storm events (100-year event) that would flow through each future project site, drainage avoidance area, and/or on either side of each proposed flood protection berm.
- The project proponent shall provide the County design details for the flood protection berms including subgrade preparation, construction methods, and armoring or scour protection.

The following changes were made in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-4 on page 4.9-24:

The majority of the proposed Renewable Energy Overlay Zones are located in rural areas that are not served by municipal stormwater drainage systems. As previously discussed, some of the proposed Renewable Energy Overlay Zones are located in areas of the County that are drained primarily by sheet flow and desert washes. These areas contain alluvial fans with braided channels that drain the surrounding mountains; and the active washes crossing many of these areas are generally unstable and subject to erosion, incision, and ~~avulsion~~ avulsion/migration of the braided channel network. Low-frequency, high-intensity monsoonal storms in the region can result in high volumes of stormwater flow, which can cause high volumes of surface runoff to occur in the vicinity of these areas. Surface water quality could be affected during construction of future renewable energy

facilities, which in turn could result in polluted runoff. Construction activities including land disturbance-related soil erosion and sedimentation; fuel and chemical spills; storage and potential treatment of wastewater; and the potential application of pesticides, herbicides, and dust suppressant chemicals could result in polluted runoff, resulting in a significant impact.

The following changes were made in Section 4.9.4 Impacts and Mitigation under the discussion of HYDRO-6 on page 4.9-26:

The proposed Project does not include the construction of housing and/or other habitable structures and, therefore, would not place housing within a 100-year flood hazard area. Portions of the proposed overlay zones are located within areas delineated as 100-year flood zones, and development of future renewable energy facilities within these locations could impede or redirect the flood flows. This would be a significant impact.

4.11 MINERAL RESOURCES

The following change was made to the header for MR-1 in Section 4.11.4 Impacts and Mitigation under on page 4.11-7:

MR-1:R—result in the loss of availability of a known mineral resource or locally important mineral resource recovery site that would be of value to the region and the residents of the State

The following changes were made to Section 4.11.4 Impacts and Mitigation under the discussion of MR-1 on page 4.11-7:

Mitigation Measures

The following mitigation measures were developed based on review of the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.15-8:9).

MR-1a: Project proponents of future renewable energy facilities shall identify potential impacts on mineral development activities and ways to minimize any potentially significant impacts during early phases of project planning. Impact assessments on mineral resources shall include, but are not limited to, the following actions:

- Identify active mining claims or mineral development activities and potential for mineral development in proximity to a proposed renewable energy facility. In coordination with County staff, developers shall consult existing land use plans and updated inventories.
- Evaluate impacts on mineral development as part of the environmental impact analysis for the proposed renewable energy facility and consider options to avoid, minimize, and mitigate significant impacts.

MR-1b: Where valid mining claims or leases already exist, proponents of future renewable energy facilities shall engage in early coordination with claim or lease holders

to determine the possibility of locating new facilities in or near these areas to avoid adverse effects on mineral development.

4.12 NOISE

The following changes were made to Section 4.12.4 Impacts and Mitigation under the discussion of NOI-1 on pages 4.12-7:12:

Construction

Construction of future renewable energy facilities associated with the proposed Project would have the potential to generate noise levels in excess of the standards established in the *Noise Element* of the Imperial County General Plan. Some construction activities would be similar for all types of renewable energy and would occur intermittently and vary in magnitude based on the type of construction activity in progress. Typical maximum sound pressures for common construction equipment as defined in the EIR/EIS prepared for the DRECP are presented in Table 4.12-2 below (DRECP EIR/EIS 2014, IV.21-4:5).

In addition to the common sources of construction noise described above, the following construction and decommissioning activities identified in the EIR/EIS prepared for the DRECP could be specific to each type of future renewable energy technology in Imperial County (DRECP EIR/EIS 2014, IV.21-11:13).

Solar Energy

Based on information presented in the DRECP EIR/EIS, future solar facilities may require relatively flat sites, which may require substantial grading, depending on the technology. Thus, grubbing, clearing, and site grading is assumed across the entirety of an area required for future solar generation. Equipment used to construct foundations would include bulldozers, excavators, loaders, and concrete trucks. This type of equipment and activity would typically generate noise levels between 74 dB to 88 dB Lmax at 50 feet or approximately 83 dBA Leq at 50 feet from the center of the equipment activity. If pile drivers are used for foundations, construction-generated noise levels are calculated to be approximately 88 dBA Leq at 50 feet from the pile impact point. Future solar power projects may require the construction of cooling evaporation ponds. Construction of the evaporation ponds would typically be done with bulldozers, loaders, and graders and is anticipated to generate noise levels of approximately 83 dBA Leq from the center of the active equipment (DRECP EIR/EIS 2014, IV.21-11:12).

Table 4.12-2: Noise Levels for Common Construction Equipment

Equipment	Typical Maximum Sound Pressure Level at 50 Feet from Source (dBA)
ATV	79
Backhoe/Trencher	85
Dump Truck	88
Front End Loader	85
Generators/Compressors	81
Grader	85
Personal Cars	74
Rollers/Compactor	74
Scraper/Dozer	85
Semi	86
Water Truck	88
Crew Delivery Bus	80
Flat-Bed Truck	88
Vibratory Post Driver	85
Concrete Truck	88
Forklift	83
Cranes/Lifts	83

Source: Federal Transit Administration (FTA) 2006, cited in DRECP EIR/EIS 2014, IV.21-4:5

Wind

Meteorological Stations: Based on information presented in the DRECP EIR/EIS, temporary meteorological stations may be required for future wind energy facilities. As a worst case, it is assumed that meteorological stations would be 328-foot-tall, self-supporting monopole structures with an assumed long-term disturbance footprint of 900 square feet (0.02 acre). Permanent meteorological stations are anticipated to be collocated with the wind turbines. Construction equipment used to erect the temporary towers could include cranes, pile drivers, bulldozers, loaders, and concrete trucks. If pile driving is not required, construction-generated noise levels would average approximately 80 dBA Leq 50 feet from the center of equipment activity. If pile driving is required, average hourly noise levels would be approximately 88 dBA Leq at 50 feet from the impact point of the hammer and pile.

Blasting: Depending on local geological conditions, explosive blasting for future wind turbine foundations might be needed. Blasting would create a compressional wave in the air (air blast overpressure), and the audible portion would be noise. Blasting would generate the maximum noise levels of approximately 95 dBA Lmax or 74 dBA Leq.

Staging/Laydown Area: At each turbine site, vegetation clearance and grading would be required to prepare the ground for heavy lifting cranes and transport vehicles. Typically, an area of about 3 acres would be cleared, within which the ground is compacted and stabilized to enable the use of heavy lifting cranes. Construction equipment would typically include bulldozers, loaders, graders, and ground compactors and would generate noise levels of approximately 83 dBA Leq (DRECP EIR/EIS 2014, IV.21-12).

Geothermal

Well Field Facilities: Well fields consist of multiple injection and production wells situated on concrete pads that hold all the equipment necessary to operate a well. Geothermal production fluid pipelines and injection fluid pipelines run throughout the well field to circulate steam and fluids between the well field and the generation site. Drilling associated with well fields would generate noise levels of approximately 85 dBA Leq at 50 feet from the center of equipment. Well head and pipeline construction would involve a welder truck and cranes. These activities would generate noise levels of approximately 80 dBA Leq at 50 feet (DRECP EIR/EIS 2014, IV.21-11:13).

Operation

Operation and maintenance of future renewable energy developed under the proposed Project would have the potential to generate noise levels in excess of the standards established in the *Noise Element* of the Imperial County General Plan. Future renewable energy facilities would include parking areas, mechanical ventilation for offices, and maintenance facilities that could generate noise and may require maintenance activities at night, which would contribute to noise impacts for nearby sensitive receptors. In addition to these common sources of operational noise described above, the following operational sources of noise identified in the EIR/EIS prepared for the DRECP could be specific to each type of future renewable energy technology (DRECP EIR/EIS 2014, IV.21-13:17).

Solar

Typical noise sources associated with solar facilities operations and maintenance include employee vehicles accessing the site, power inverters, tracking motors on individual panels, and maintenance of the panels such as cleaning and repair. Based on a review of noise assessments prepared for solar development projects in southern California, the DRECP EIR/EIS determined that a typical power inverter generates 66 dBA Leq measured at a distance of 50 feet without an enclosure. The tracking motors that tilt an array of panels typically generate 38 dBA Leq at 50 feet. Maintenance, panel washing, and cleaning of the facility generate approximately 76 dBA Leq at 50 feet. Because solar facilities operations and maintenance require a low number of employees, increased traffic noise associated with employees would be negligible.

Concentrated solar power technologies (parabolic trough and power tower) generally require additional equipment, such as small-scale boilers and cooling towers, which would create additional noise sources. Other sources may include space-heating boilers and diesel-fueled emergency power generators or emergency fire water-pump engines (typically operating only a few minutes per month for preventive maintenance purposes). Noise levels from these sources would be similar to light industrial noise levels (80 to 85 dBA Leq at 50 feet); however, these sources are well documented, and the industry has developed effective methods for reducing noise levels at the source to comply with local noise standards. These sources are typically placed within structures or enclosures (DRECP EIR/EIS 2014, IV.21-13:14).

Wind

Turbines: Wind turbines generate two types of noise: aerodynamic and mechanical. The significance of a turbine's noise impact is a combination of both. The blades passing through the air generate aerodynamic noise, and the turbine's internal gears and components generate mechanical noise. Large-scale turbines used by utilities are insulated to prevent mechanical noise from proliferating outside the nacelle (cover housing) or tower. Smaller residential turbines are more likely to produce noticeable mechanical noise due to inadequate insulation. The magnitude of aerodynamic noise is related to the ratio of the blade tip speed to wind speed and corresponds to the generation of power.

Recent improvements in mechanical design of large wind turbines have resulted in significantly reduced mechanical noise from both broadband and pure tones. Thus, the noise emission from modern wind turbines is dominated by broadband aerodynamic noise, and the wind turbine sound level is primarily a function of wind speed.

Depending on the turbine model and the wind speed, aerodynamic noise can generate a whooshing or pulsing effect. Most noise radiates perpendicular to the blades' rotation; however, since turbines rotate to face the wind, they may radiate noise in different directions each day. Wind turbines generate broadband noise with frequency components from 20 hertz to 3.6 kilohertz. The frequency components vary with pitch of the blade and wind and blade speed. The "swish-swish" sound is the high-frequency noise of blade tip turbulence; it does not contain low frequencies. Large variable-speed wind turbines often rotate at slower speeds in low winds and increase in higher winds until the limiting rotor speed is reached. This results in much quieter operation in low winds than comparable constant-speed wind turbines.

As the turbines typically operate both during the daytime and at night, the impacts of turbine noise are typically based on the change in the lowest nighttime ambient noise levels. Wind generates noise due to interactions between wind and vegetation, which dominates and determines the existing ambient noise levels. While several factors influence the sound level generated by wind flowing over vegetation, the total magnitude of wind-generated noise depends more on the size of the windward surface of the vegetation than the foliage density. Thus, whether a wind turbine exceeds the background sound level will depend on how much the ambient noise level varies with wind speed.

Favorable conditions for sound propagation can typically occur on a clear night when the temperature increases and a temperature inversion is created, which forces sound to refract or bend downward (i.e., the sound of the turbine will carry farther). This condition would typically occur only at lower wind speeds; that is, less than 9 feet per second, as stronger winds reduce the effect of an inversion. Modern wind turbines have a required operational minimum wind speed requirement of about 8 to 13 feet per second; thus, increased noise propagation associated with temperature inversion is anticipated to be minimal in most operations. The exception would be in sheltered valleys with relatively low ambient noise levels; however, the effects of wind speed on noise propagation would generally dominate over those of temperature gradient.

Whether the turbine noise is intrusive depends not only on its distribution of amplitude and frequency, but also on the background noise, which varies with the level of human and animal activities and meteorological conditions (primarily wind speed). While there is no uniform standard for regulating noise from wind turbines and no common noise level for wind turbines, setbacks of 1,800 feet or greater from local residences and habitat containing threatened or endangered noise-sensitive species may avoid the need for detailed studies. This distance would be refined based on make, model, and acoustic package of specific wind turbines and the applicable regulation and detailed noise-propagation modeling (DRECP EIR/EIS 2014, IV.21-14:16).

Geothermal

Typical noise sources associated with geothermal facilities operations and maintenance include the turbine/generators and the cooling towers and various secondary noise sources including pumps and equipment associated with the crystallizer and separator. Operational noise levels of an existing geothermal facility in Imperial County were recorded at 70 dBA Leq at approximately 100 feet.

In addition to operation noise associated with the main facilities, noise is also generated during ongoing drilling operations and would be similar to noise generated under construction and exploration, although longer durations of the noise related to the well drilling would be expected. In addition, construction of injection wells and sump pits would increase local noise in the short-term impacts (DRECP EIR/EIS 2014, IV.21-16).

Biomass and biofuel projects have been environmentally reviewed and are available for review at the planning and development services department.

The proposed Project has taken steps to minimize potential impacts related to operational noise by developing a 0.5-mile buffer around all urban areas for the overlay zones. Consequently, all future renewable energy facilities developed under the proposed Project would be located at least 0.5 mile from any urban area within Imperial County, thereby ensuring that all potential sensitive receptors within these areas would be protected by adequate setbacks that would allow noise to attenuate over this distance. Nonetheless, the potential does exist for sensitive receptors within rural areas to be exposed to operational noise levels that temporarily increase ambient noise levels in excess of the standards established in the County *Noise Element* and result in a significant impact.

Mitigation Measures

Mitigation Measures NOI-1a through NOI-1c are based on measures presented in the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.21-28:29). Furthermore, additional mitigation may be developed during environmental evaluation of specific future renewable energy projects developed in the future.

NOI-1a: Protect sensitive receptors from noise. Project proponents developing future renewable energy facilities shall demonstrate that the following requirements are implemented:

- Future renewable energy facilities developed under the proposed Project should be located more than 0.5 mile from noise-sensitive receptors, including residences, churches, medical care facilities, schools, child care facilities, public parks, public recreation areas, quiet recreation areas, and wildlife or wilderness areas.

~~1.~~• Project proponents should take measurements to assess the existing background noise levels at sites and compare them with the anticipated noise levels associated with the project.

~~1.~~• Project proponents should prepare a noise monitoring and mitigation plan including designs to (a) minimize noise impacts to noise-sensitive receptors, limit increases to less than a 5 to 10 dBA increase above ambient levels, and not exceed local noise standards; (b) address project-generated noise impacts; and (c) acquire lands to serve as buffers around the proposed facilities.

NOI-1b: Implement noise reduction techniques. Project proponents developing future renewable energy facilities shall implement the following requirements:

~~2.~~• Limit noisy construction activities (including truck and rail deliveries, pile driving, and blasting) to the least noise-sensitive times of day consistent with the requirements of the County of Imperial Noise Ordinance.

~~3.~~• Consider use of noise barriers such as berms and vegetation to limit ambient noise at plant property lines, especially where noise-sensitive receptors may be present.

~~4.~~• Ensure all project equipment has the appropriate sound-control devices and shield-impact tools. Use battery-powered forklifts and other facility vehicles and flashing lights instead of audible backup alarms on mobile equipment.

~~5.~~• Locate stationary construction equipment (such as compressors and generators) as far as practical from nearby residences.

~~6.~~• If blasting or other noisy activities are required during the construction period, notify nearby residents and the permitting agencies 24 hours in advance.

~~7.~~• Properly maintain mufflers, brakes, and all loose items on construction and operation-related vehicles to minimize noise and ensure safe operations. Operate trucks as quietly as possible, while considering local conditions. Advise about downshifting and vehicle operations in residential communities to keep truck noise to a minimum.

~~8.~~• Install mufflers on diesel and gas-driven engine air coolers and exhaust stacks. Equip emergency pressure relief valves and steam blow-down lines with silencers to limit noise levels.

~~9.~~• Contain project facilities within buildings or other types of effective noise enclosures, when necessary and feasible.

- Employ engineering controls, including sound-insulated equipment and control rooms, to reduce the average noise level to appropriate levels in normal work areas.

The following changes were made to Section 4.12.4 Impacts and Mitigation under the discussion of NOI-2 on page 4.12-13:

Construction and Operation

Operation of wind, ~~and~~ geothermal, ~~and~~ solar renewable energy facilities utilize high-speed rotating mechanical equipment, including turbines and generators, that may generate groundborne vibrations. Such vibrations may arise due to an imbalance in a turbine; however, design of wind, ~~and~~ geothermal, ~~and~~ solar renewable energy facilities typically includes features to maintain balance to avoid substantial vibration levels. Furthermore, renewable energy facilities typically include vibration-monitoring systems to ensure that the equipment remains balanced. Vibration monitoring combined with appropriate setback distances between facilities and the nearest sensitive receptors (typically on the order of a half-mile or more for renewable energy), as well as the characteristics of the buildings surrounding turbine generators, would reduce vibration below the threshold of detectability beyond the project boundary. Furthermore, the proposed Project has taken steps to minimize potential impacts related to operational noise by developing a 0.5-mile buffer around all urban areas for the overlay zones. Consequently, all future renewable energy facilities developed under the proposed Project would be located at least 0.5 mile from any urban area within Imperial County, thereby ensuring that all potential sensitive receptors within these areas would be protected by adequate setbacks that would allow vibration to dissipate over this distance. Nonetheless, the potential does exist for sensitive receptors within rural areas to be exposed to operational vibrations from future renewable energy facilities and result in a significant impact.

4.16 TRANSPORTATION/TRAFFIC

The following changes were made to Section 4.16.4 Impacts and Mitigation under the discussion of TRA-1 on pages 4.16-9:

Mitigation Measures

Mitigation Measures TRA-1a through TRA-1d ~~and TRA-4a through TRA-4c~~ are based on measures presented in the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.19-23;24). Furthermore, additional mitigation may be developed during environmental evaluation of specific renewable energy projects developed in the future.

The following changes were made to Section 4.16.4 Impacts and Mitigation under the discussion of TRA-4 on page 4.16-12:

Mitigation Measures

Mitigation measures TRA-4~~1~~a through TRA-4~~1~~d would also be implemented to reduce impacts associated with inadequate emergency access. Mitigation Measures TRA-4a through TRA-4c are based on measures presented in the DRECP EIR/EIS (DRECP EIR/EIS 2014, IV.19-25).

TRA-4a: Provide on-site laydown and staging. Project proponents shall ensure that their future renewable energy facility site contains adequate area for construction laydown and staging, parking for construction and operation worker vehicles, and site traffic circulation aisles.

Figure Revisions to Chapter 4.0 - Environmental Analysis

The following changes were made to figures listed below in Chapter 4.0 - Environmental Analysis:

Figure 4.1-1 was revised to present the updated Overlay Zone Map.

Figure 4.2-1 was revised to present the updated Overlay Zone Map.

Figure 4.4-1 was revised to present location references.

Figure 4.4-4 was revised to more accurately present the Sonny Bono Salton Sea National Wildlife Refuge.

Figure 4.5-1 was revised to present the updated Overlay Zone Map.

Figure 4.8-1 was revised to present the updated Overlay Zone Map.

Figure 4.9-1 was revised to accurately identify the Westside Main Canal.

Figure 4.9-2 was revised to accurately identify the Westside Main Canal.

Figure 4.9-3 was revised to accurately identify the Westside Main Canal.

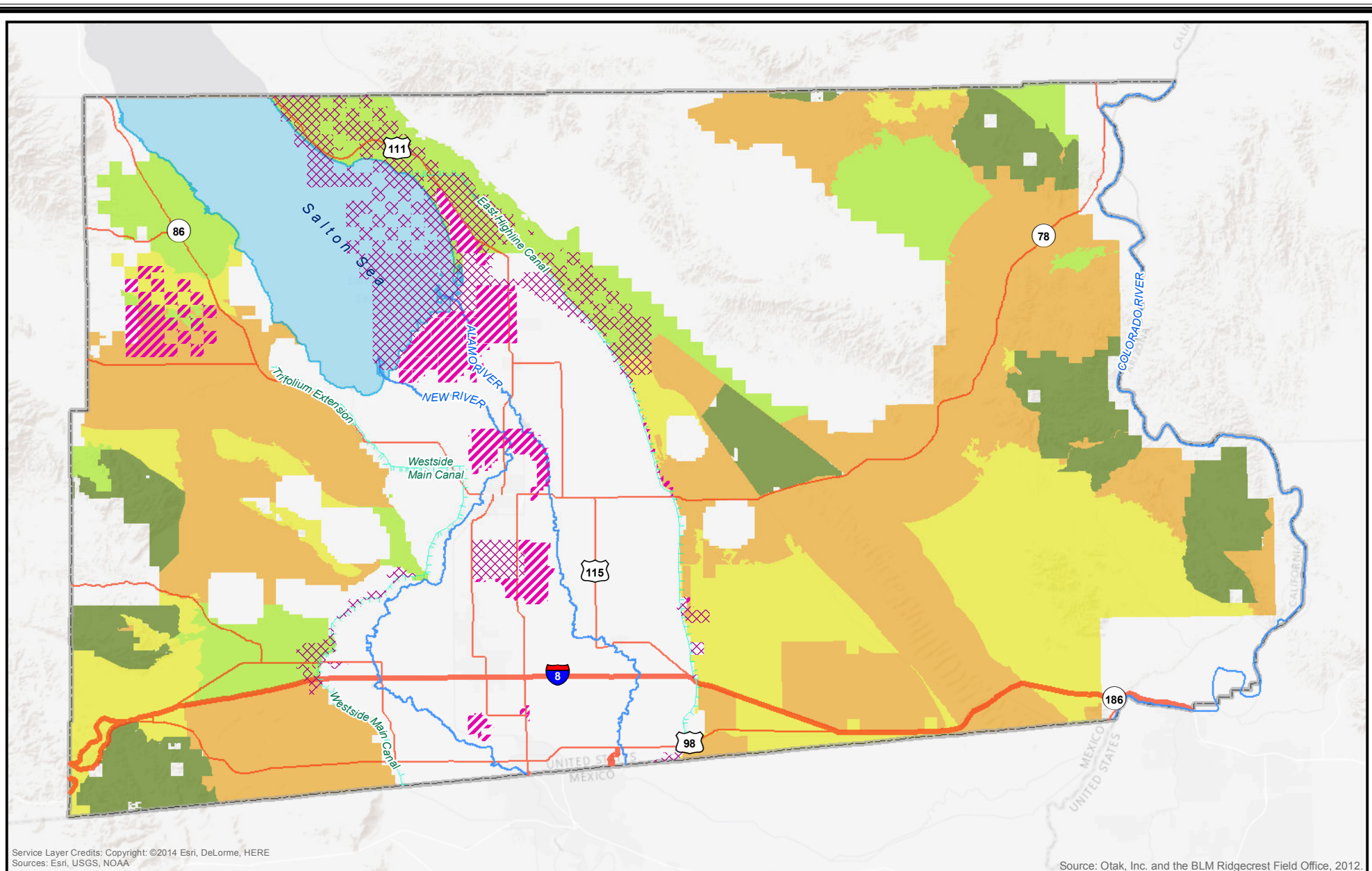
Figure 4.9-4 was revised to accurately identify the Westside Main Canal.

Figure 4.10-1 was revised to present the updated Overlay Zone Map.

Figure 4.11-1 was revised to present the updated Overlay Zone Map.

Figure 4.11-2 was revised to present the updated Overlay Zone Map.

Figure 4.16-1 was revised to present the updated Overlay Zone Map.



Legend

Visual Sensitivity Levels

- High
- Moderate
- Low

Overlay Zones

- Geothermal (69,146 acres)
- Renewable Energy/Geothermal (131,650 acres)

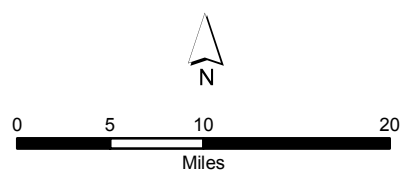
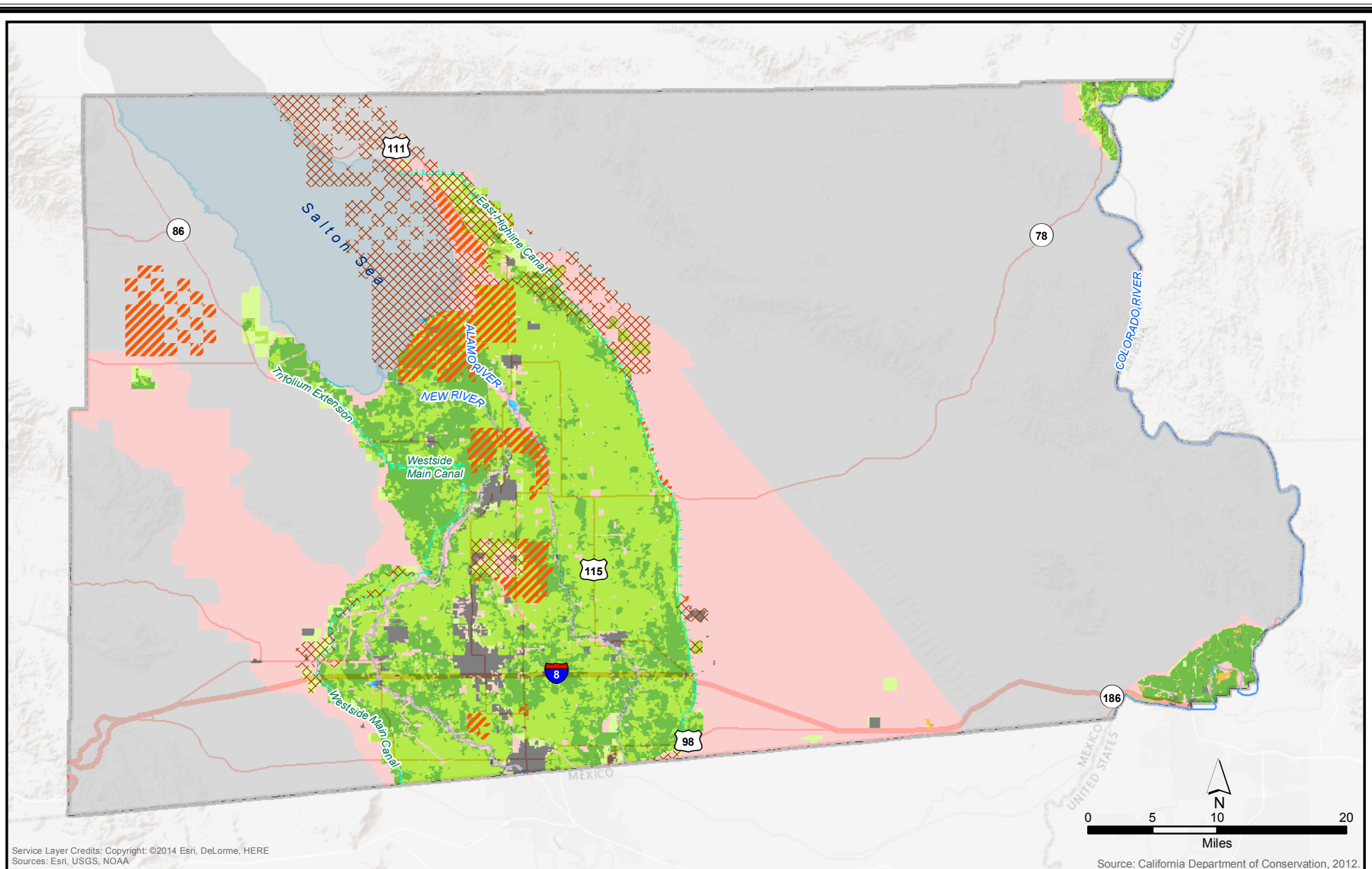


Figure 4.1-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
VRI Sensitivity Level Ratings for BLM-managed Lands



Legend

Farmland Mapping and Monitoring Program

- Prime Farmland (P)
- Farmland of Statewide Importance (S)
- Unique Farmland (U)

- Farmland of Local Importance (L)
- Urban and Built-Up Land (D)
- Other Land (X)
- Water (W)
- Area not mapped (Z)

Overlay Zones (Total Acres)

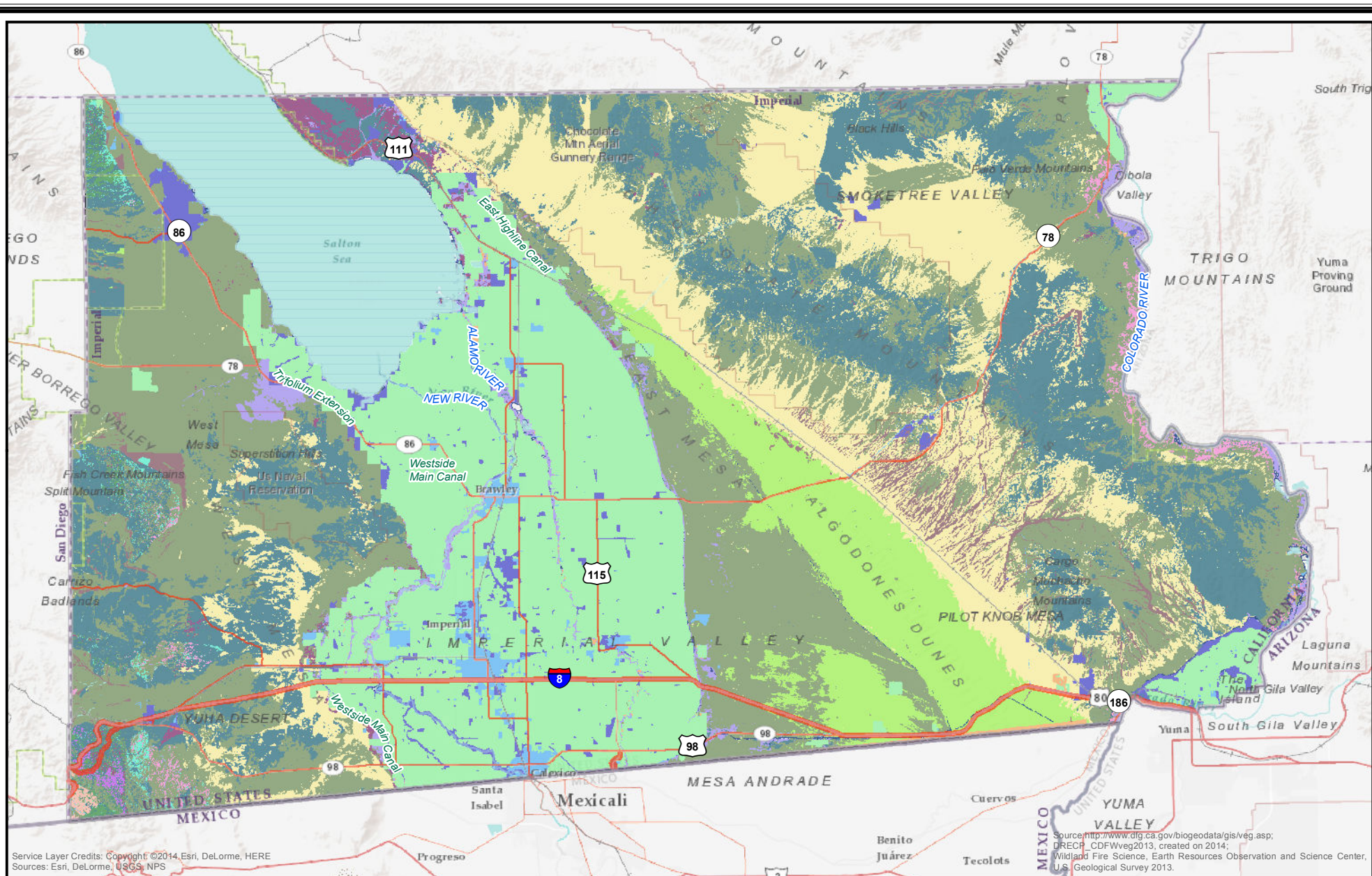
- Geothermal (69,146 acres)
- Renewable Energy/Geothermal (131,650 acres)

See Table 4.2-2 For The Acreage of Each Important Farmland Type Within Each Overlay Zone Category

Figure 4.2-1
Imperial County Renewable Energy and Transmission Element Update PEIR
State of California
Farmlands of Significance

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Legend

See Page 2 of this figure.

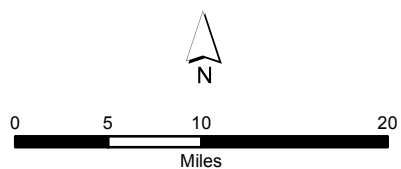























Figure 4.4-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Vegetation Communities
Page 1 of 2

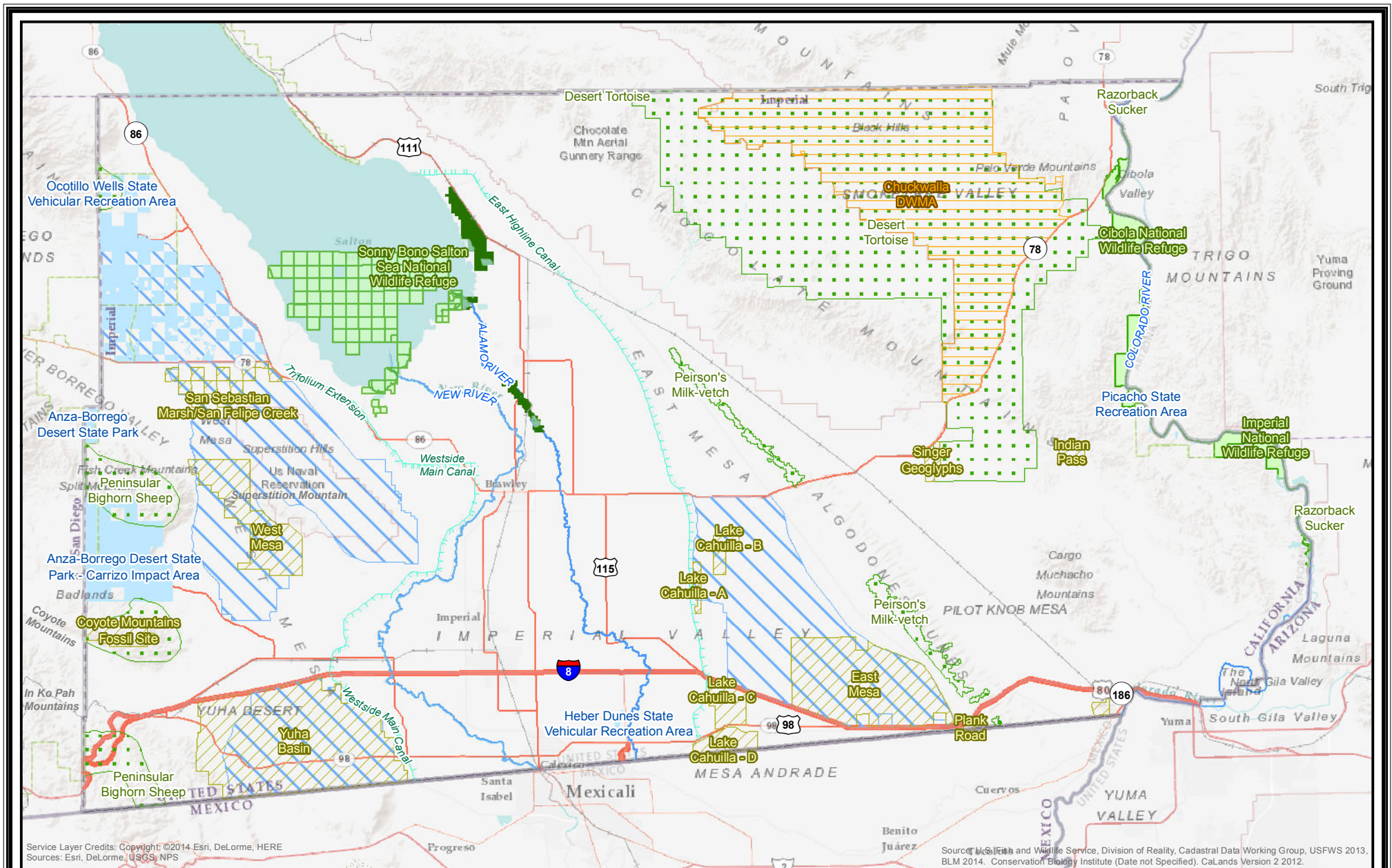
Legend

General Community, Group Community

-  Agriculture, Agriculture
-  Chaparral and coastal scrub community (Cismontane scrub), Central and South Coastal Californian coastal sage scrub
-  Chaparral and coastal scrub community (Cismontane scrub), Western Mojave and Western Sonoran Desert borderland chaparral
-  Desert Outcrop and Badlands, North American warm desert bedrock cliff and outcrop
-  Desert Scrub, Arizonan upland Sonoran desert scrub
-  Desert Scrub, Inter-Mountain Dry Shrubland and Grassland
-  Desert Scrub, Lower Bajada and Fan Mojavean - Sonoran desert scrub
-  Desert Scrub, Shadscale - saltbush cool semi-desert scrub
-  Developed and Disturbed Areas, Developed and Disturbed Areas
-  Developed and Disturbed Areas, Rural
-  Dunes, North American warm desert dunes and sand flats
-  Grassland, California Annual and Perennial Grassland
-  Not Mapped, Not Mapped
-  Riparian, Madrean Warm Semi-Desert Wash Woodland/Scrub
-  Riparian, Mojavean semi-desert wash scrub
-  Riparian, Sonoran-Coloradan semi-desert wash woodland/scrub
-  Riparian, Southwestern North American riparian/wash scrub
-  Wetland, North American Warm Desert Alkaline Scrub and Herb Playa and Wet Flat
-  Wetland, Open Water
-  Wetland, Playa
-  Wetland, Southwestern North American salt basin and high marsh

Source: <http://www.dfg.ca.gov/biogeodata/gis/veg.asp>; DRECP_CDFWveg2013, created on 2014;
Wildland Fire Science, Earth Resources Observation and Science Center, U.S. Geological Survey 2013.

Figure 4.4-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Vegetation Communities
Page 2 of 2



Legend

Agency Designated Habitat

- BLM ACEC Designated
- BLM DWMA Designated Areas

- U.S. Fish & Wildlife Service National Wildlife Refuge
- CDFW Wildlife Management Areas
- California State Parks
- BLM Flat-tailed Horned Lizard Reserve

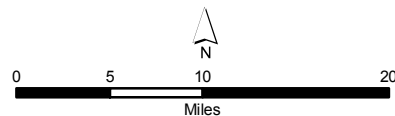
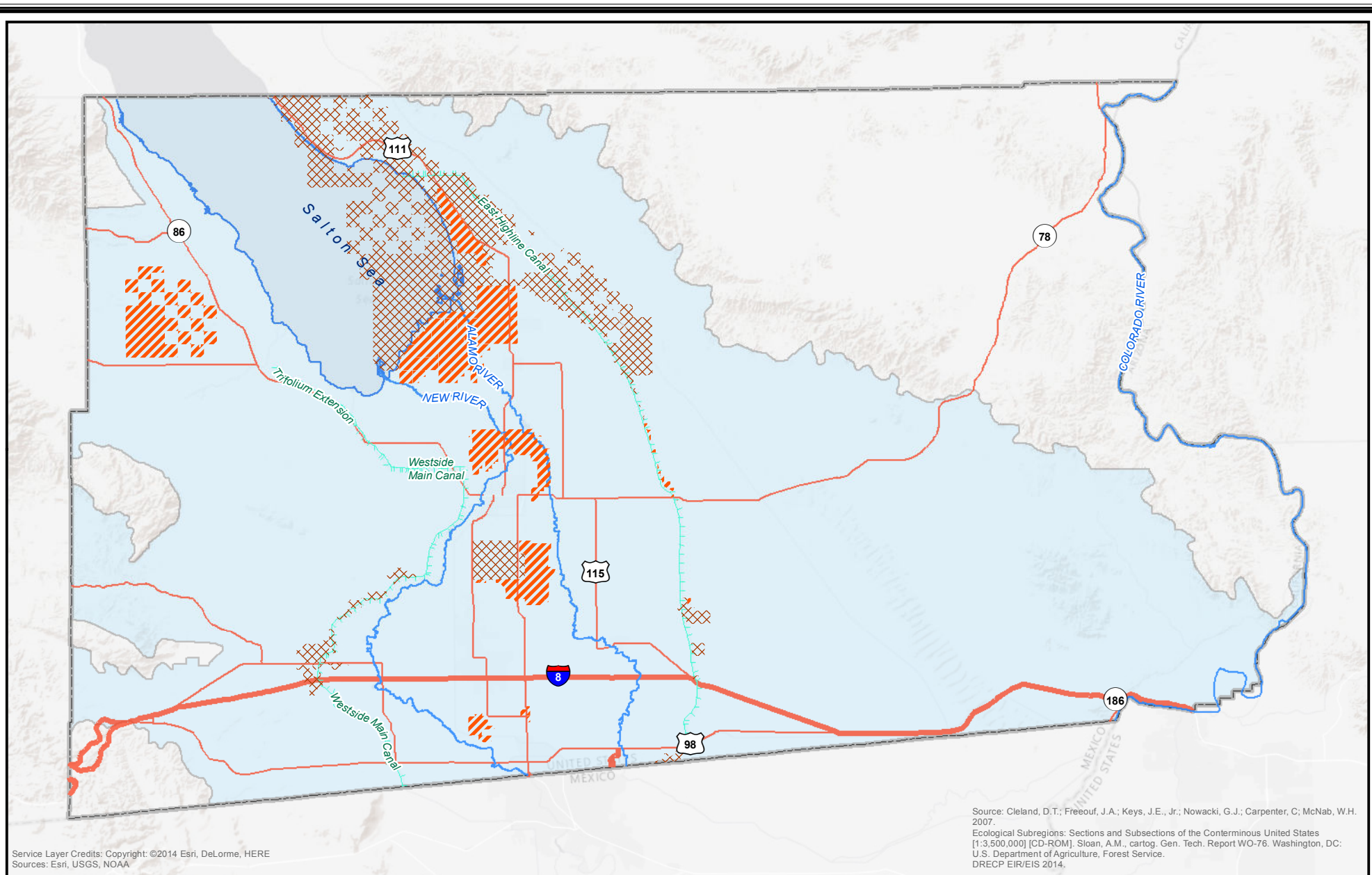


Figure 4.4-4

Imperial County Renewable Energy and
Transmission Element Update PEIR
Special Management Areas Including
Designated Critical Habitat



Legend

Imperial Borrego Valley
Ecoregion Subarea

Preferred Alternative

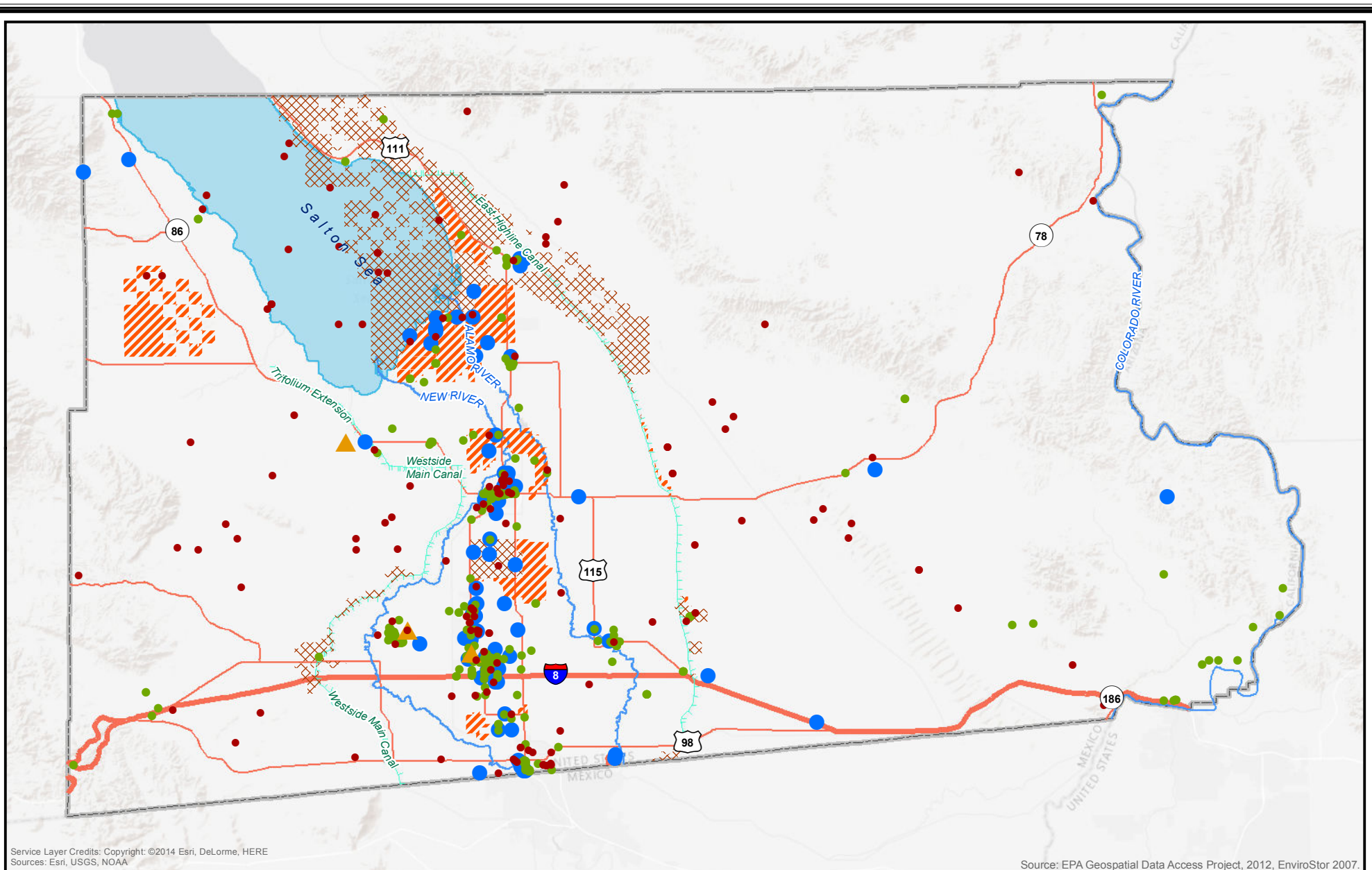
Geothermal

Renewable Energy/Geothermal



0 5 10 20
Miles

Figure 4.5-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Imperial Borrego Valley Ecoregion Subarea



Legend

- EPA Regulated Facilities
 - ▲ Hazardous Waste Sites
 - Cleanup Sites
 - Hazardous Cleanup Sites
- Overlay Zones (Total Acres)**
- ▨ Geothermal (69,146 acres)
 - ▩ Renewable Energy/Geothermal (131,650 acres)

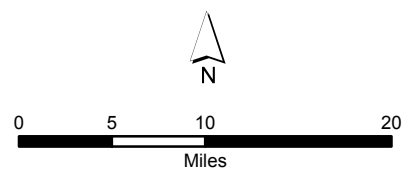
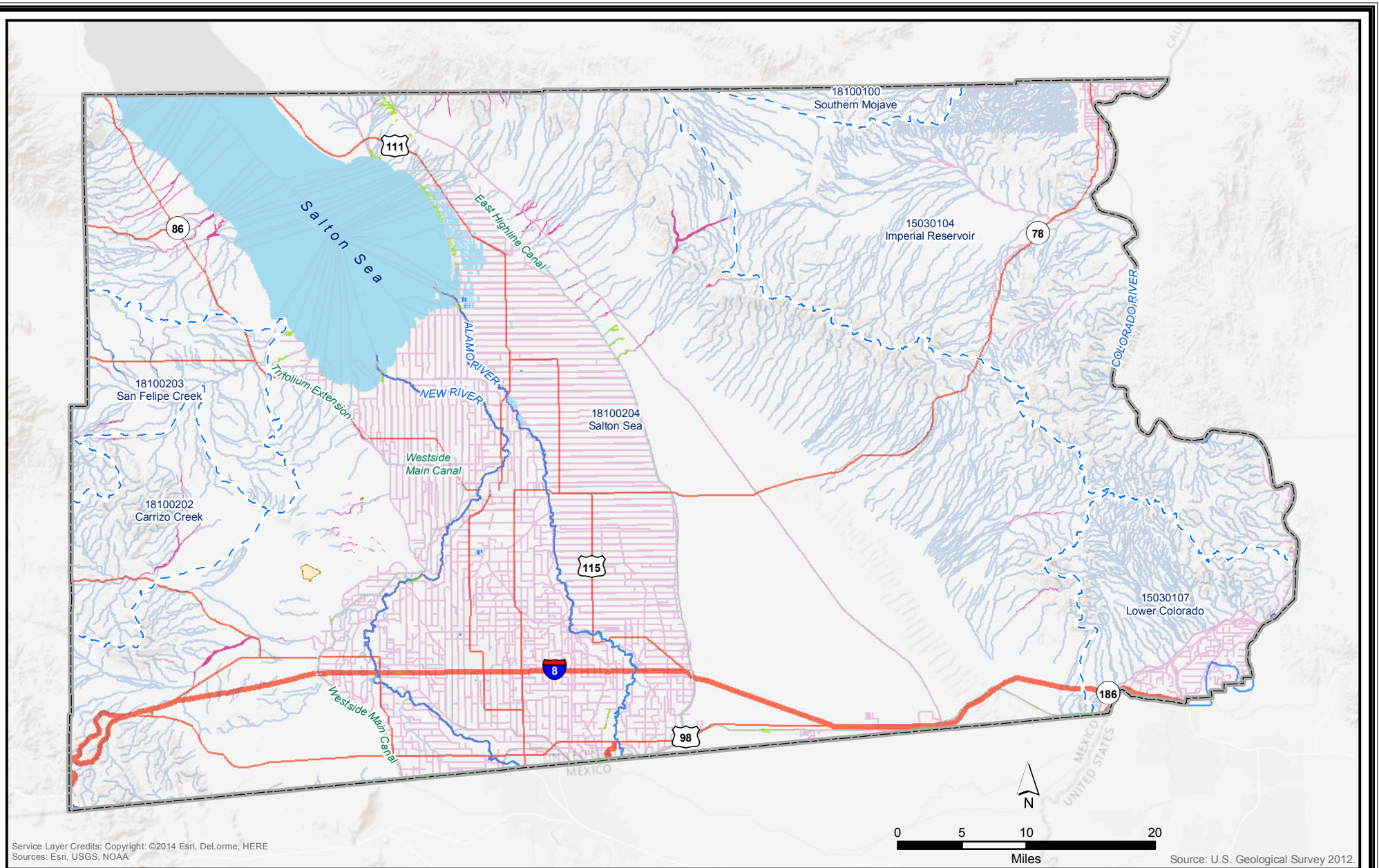


Figure 4.8-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Hazardous Materials



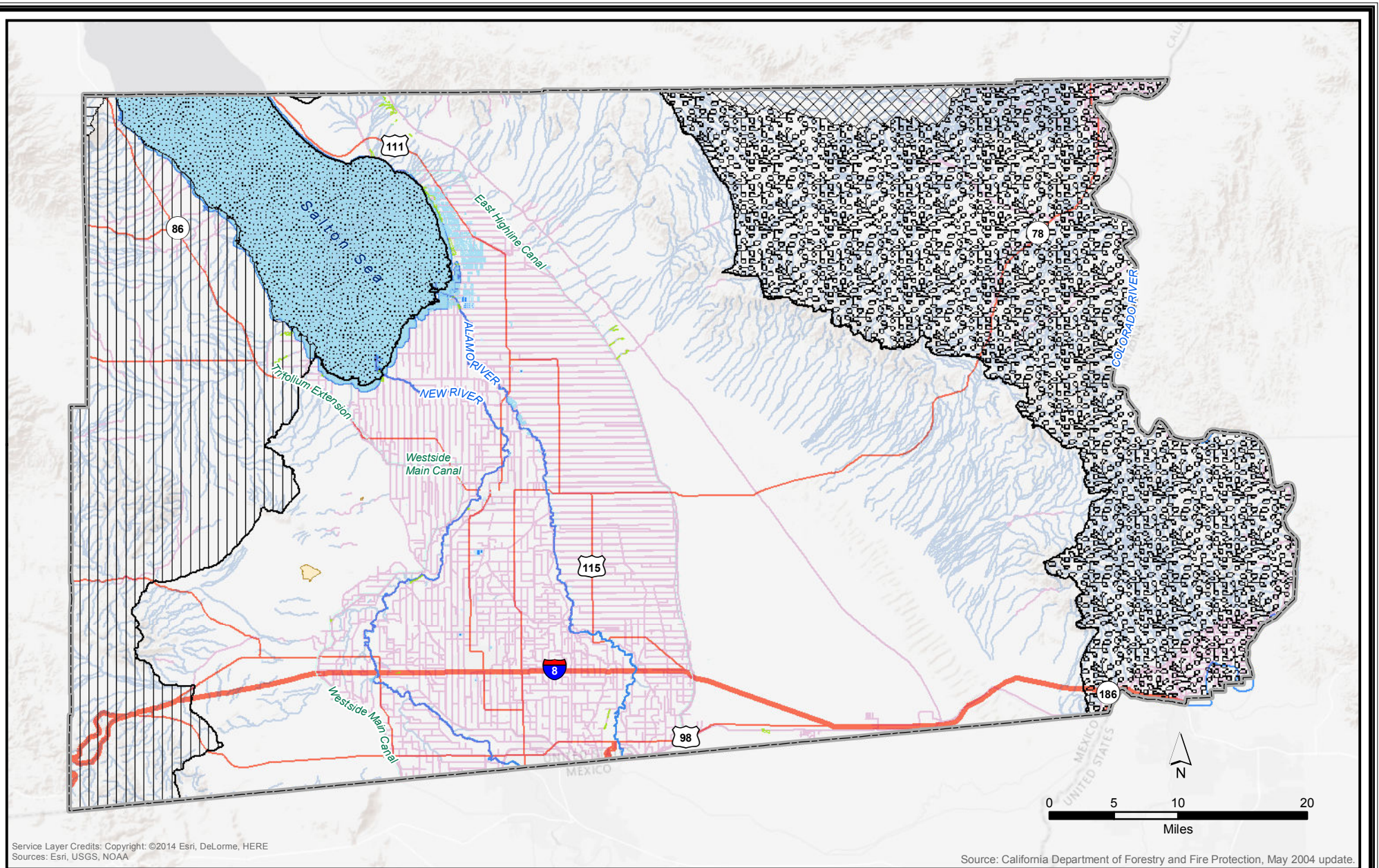
Legend

- Hydrologic Unit
- Lake-Pond
- Playa
- Reservoir
- Swamp-Marsh
- Other Flowline Types (Pipeline, Connector, Canal Ditch, Artificial Path)
- Stream/River: Intermittent
- Stream/River: Perennial

Hydrologic Area

- Canal/Ditch
- Inundation Area
- Stream/River: Intermittent
- Stream/River: Perennial
- Wash

Figure 4.9-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Surface Waters

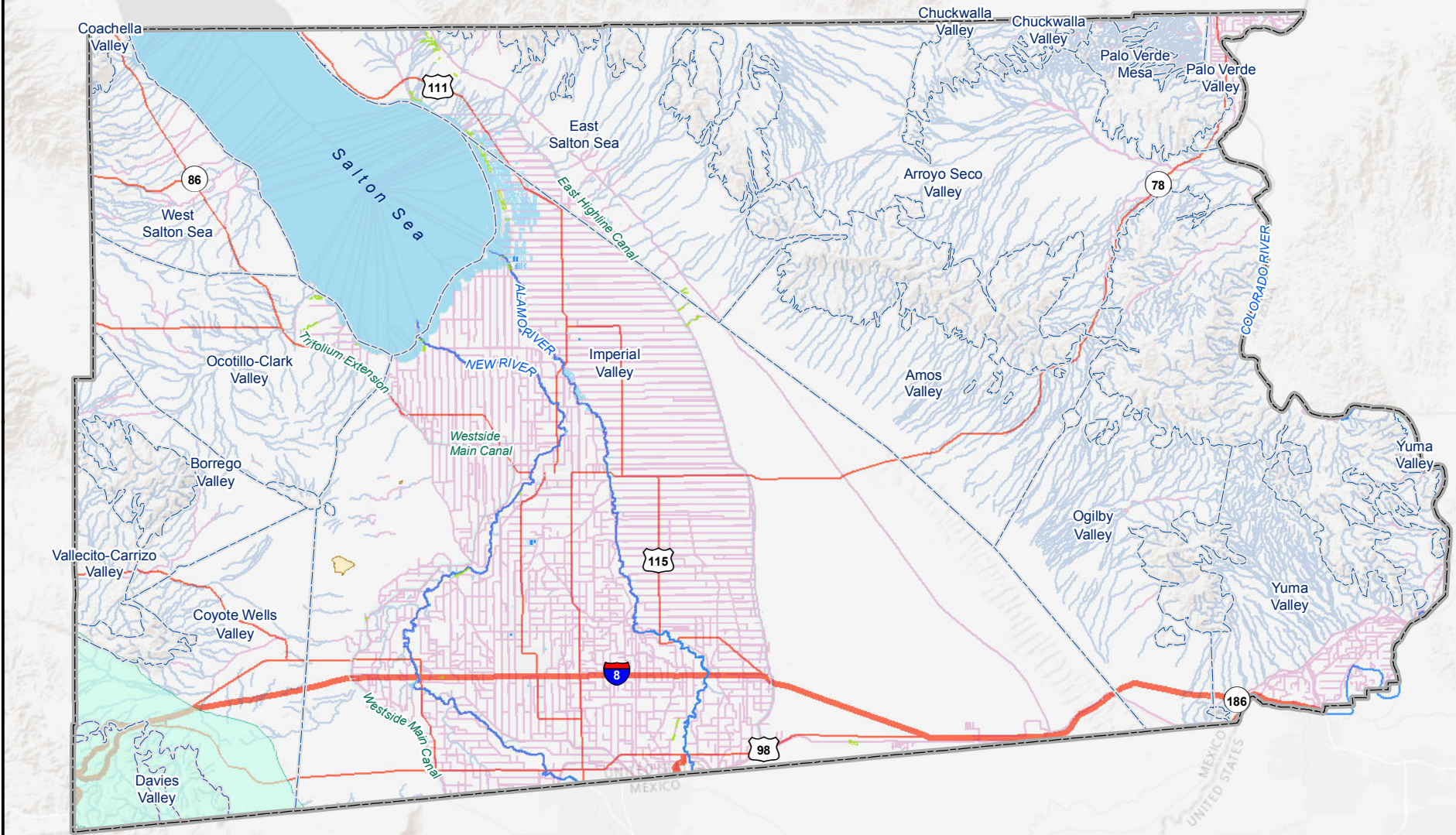


Legend

- | | |
|-------------|--|
| Lake-Pond | Other Flowline Types (Pipeline, Connector, Canal Ditch, Artificial Path) |
| Playa | Stream/River: Intermittent |
| Reservoir | Stream/River: Perennial |
| Swamp-Marsh | |

- Hydrologic Planning Area**
- | | |
|--------------------|-----------------|
| Anza-Borrego | Hayfield |
| Coachella Valley | Imperial Valley |
| East Colorado Unit | Salton Sea |

Figure 4.9-2
Imperial County Renewable Energy and
Transmission Element Update PEIR
Hydrologic Planning Areas



Service Layer Credits: Copyright: ©2014 Esri, DeLorme, HERE
Sources: Esri, USGS, NOAA

Source: U.S. Geological Survey 2012;
Department of Water Resources, CWP 2013.

Legend

- | | |
|-------------------|--|
| Groundwater Basin | Other Flowline Types (Pipeline, Connector, Canal Ditch, Artificial Path) |
| Lake-Pond | Stream/River: Intermittent |
| Playa | Stream/River: Perennial |
| Reservoir | Ocotillo-Coyote Wells Aquifer |
| Swamp-Marsh | |

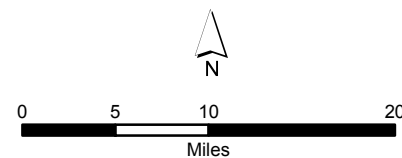
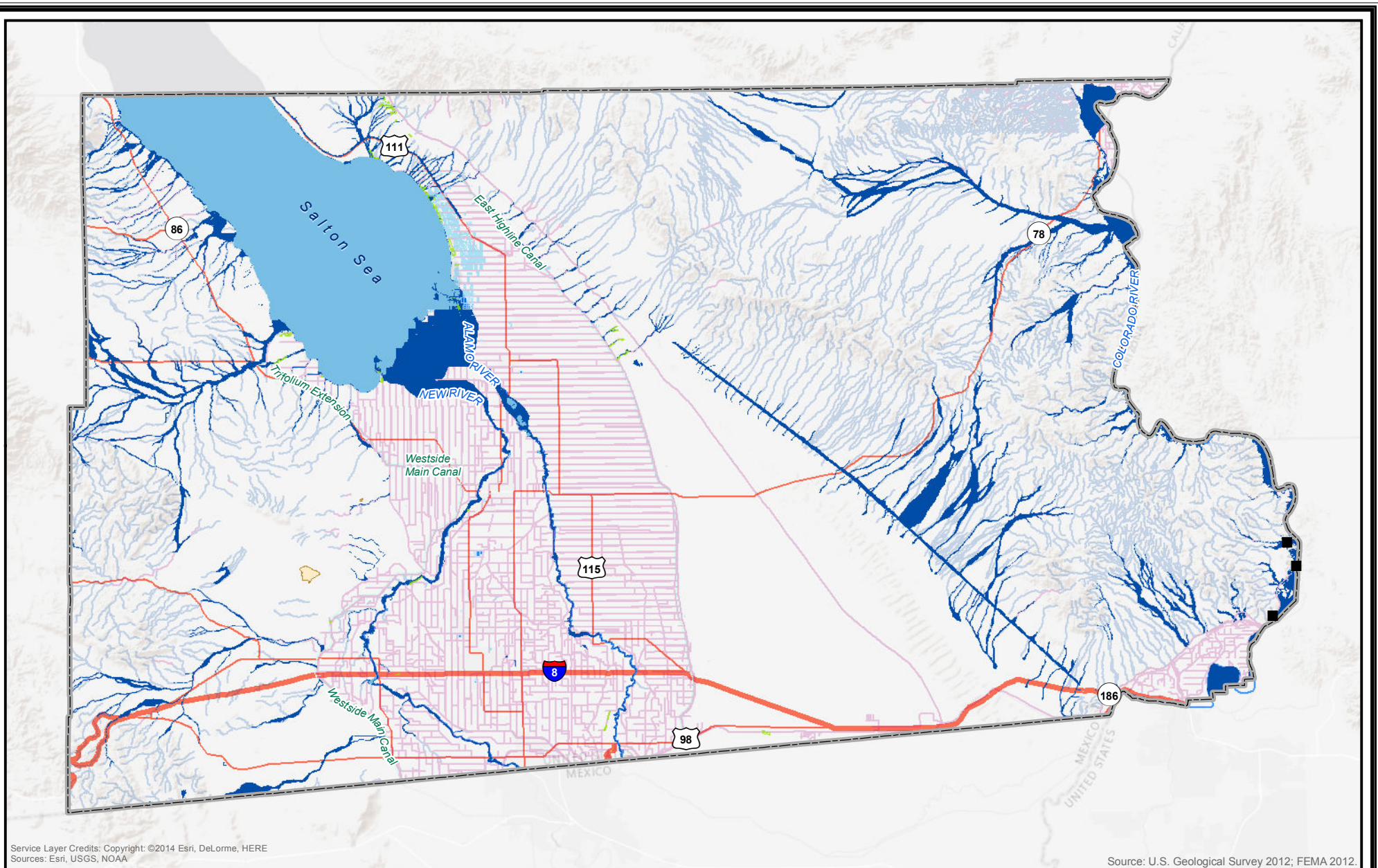


Figure 4.9-3
Imperial County Renewable Energy and
Transmission Element Update PEIR
Groundwater Basins

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Date Saved: 6/11/2015, Author: msimmons



- Legend**
- FEMA 100-year Floodzone
 - Lake-Pond
 - Playa
 - Reservoir
 - Swamp-Marsh
 - Other Flowline Types (Pipeline, Connector, Canal Ditch, Artificial Path)
 - Stream/River: Intermittent
 - Stream/River: Perennial
 - Dam

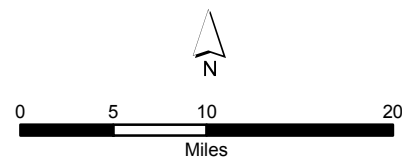
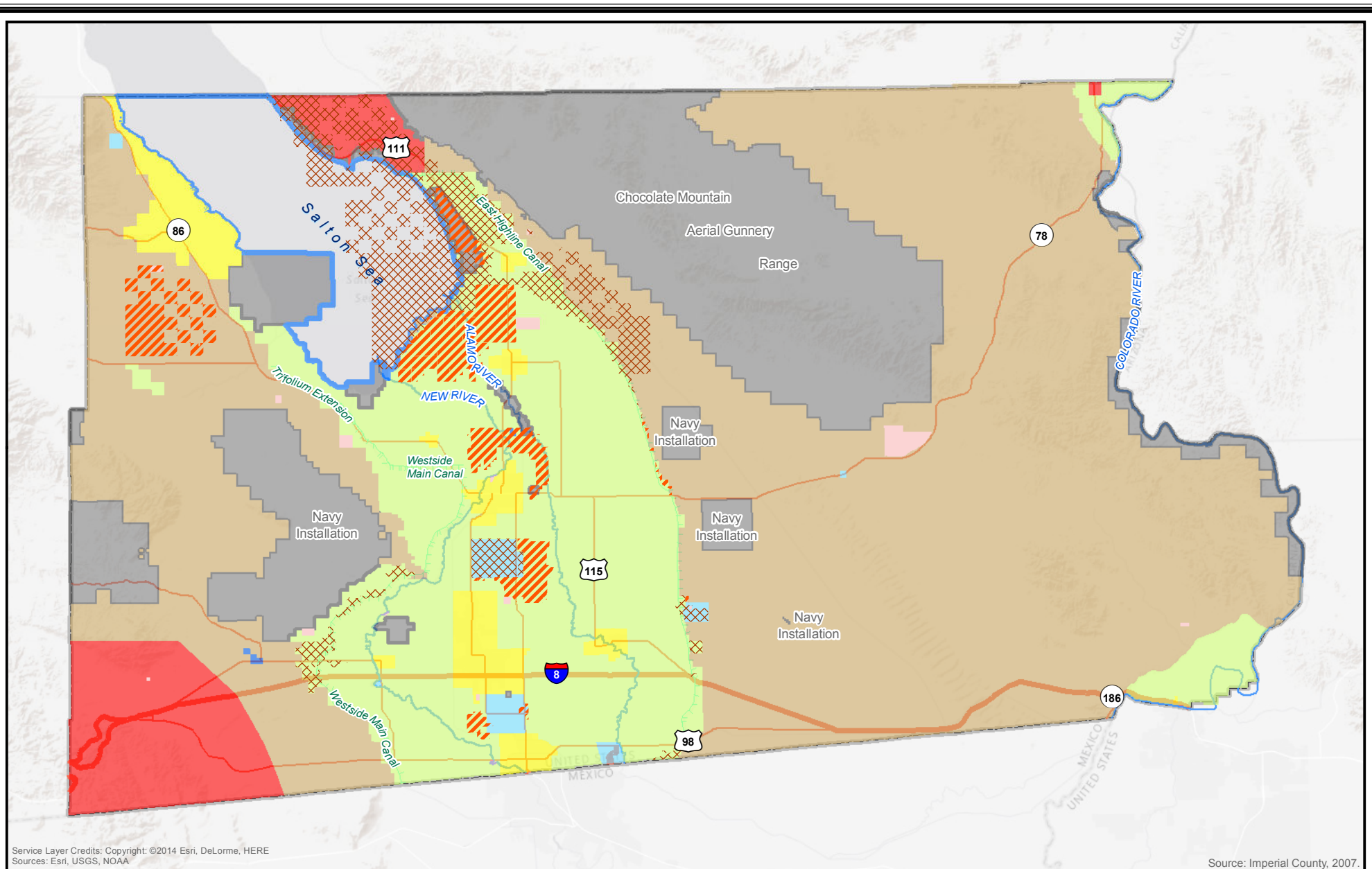


Figure 4.9-4
Imperial County Renewable Energy and
Transmission Element Update PEIR
FEMA 100-Year Floodzones



Legend

Land Use

- Agriculture
- Community Area
- Government/Special Public
- Industry

Recreation/Open Space

- Recreation/Open Space
- Special Purpose Facility
- Specific Plan Area
- Urban Area

Overlay Zones (Total Acres)

- Geothermal (69,146 acres)
- Renewable Energy/Geothermal (131,650 acres)

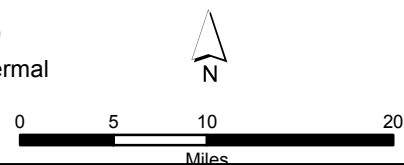
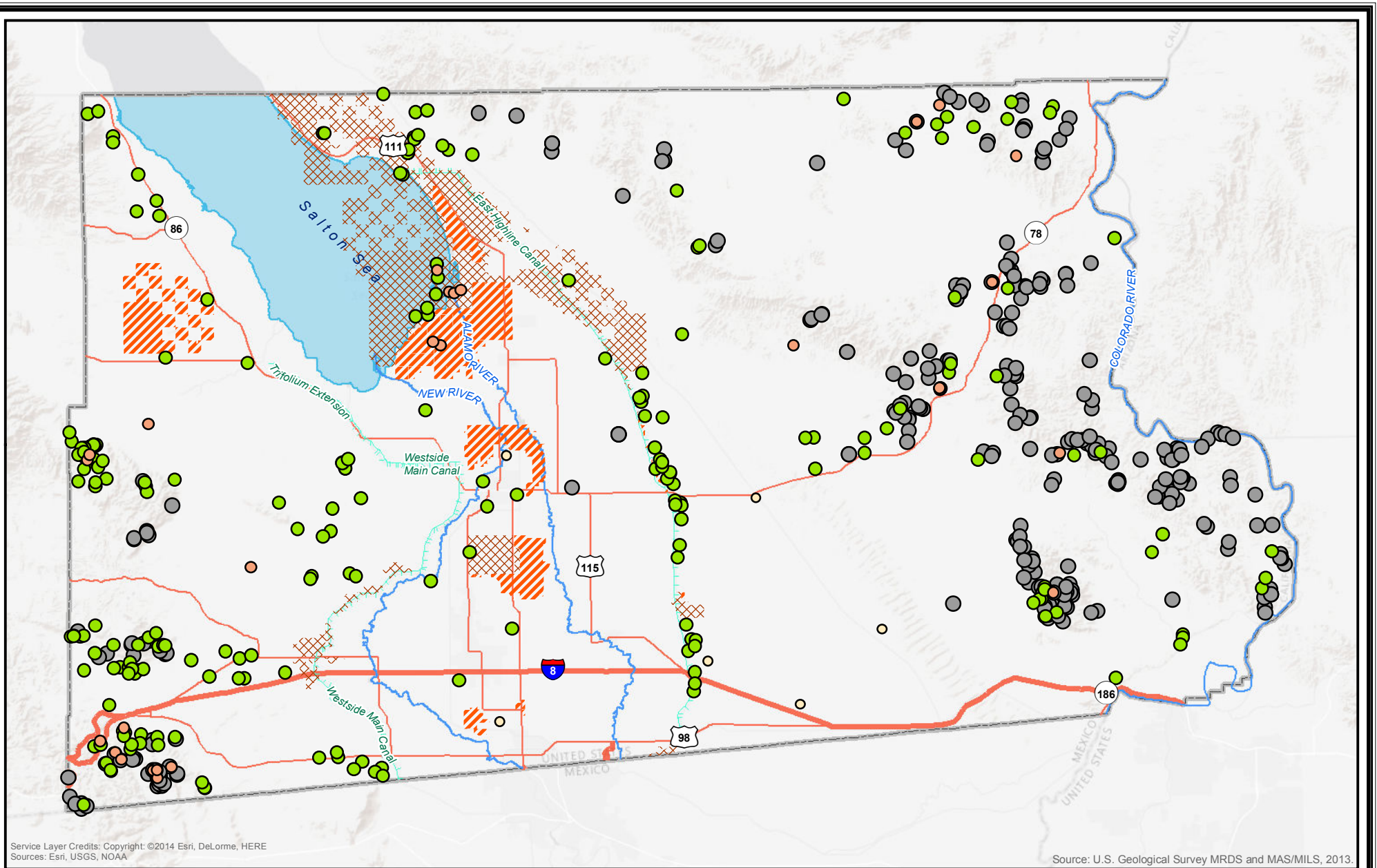


Figure 4.10-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Existing General Plan/Land Use



Legend

Commodity Type

- Unknown
- Both Metallic and Non-metallic
- Non-metallic
- Metallic

Overlay Zones (Total Acres)

- ▨ Geothermal (69,146 acres)
- ▩ Renewable Energy/Geothermal (131,650 acres)

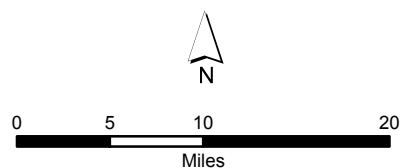
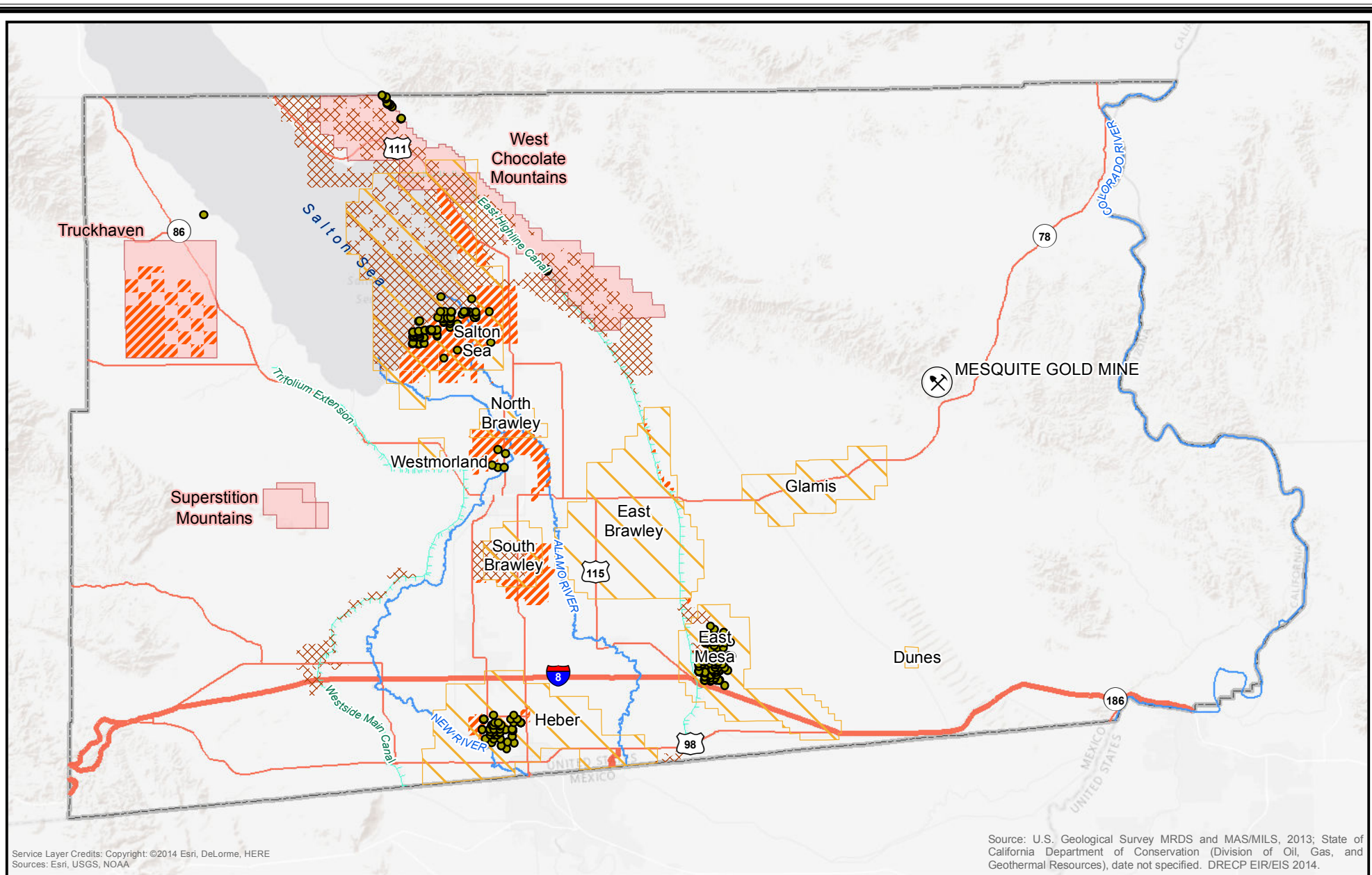








Figure 4.11-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Existing Mineral Resources



Legend

-  High Priority Operations
-  Active Geothermal Wells
-  Prospectively Valuable KGRA
-  Geothermal Lease
- Preferred Alternative**
 -  Geothermal
 -  Renewable Energy/Geothermal

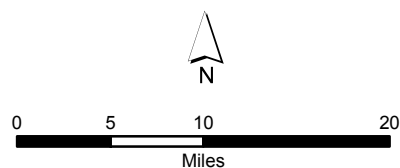
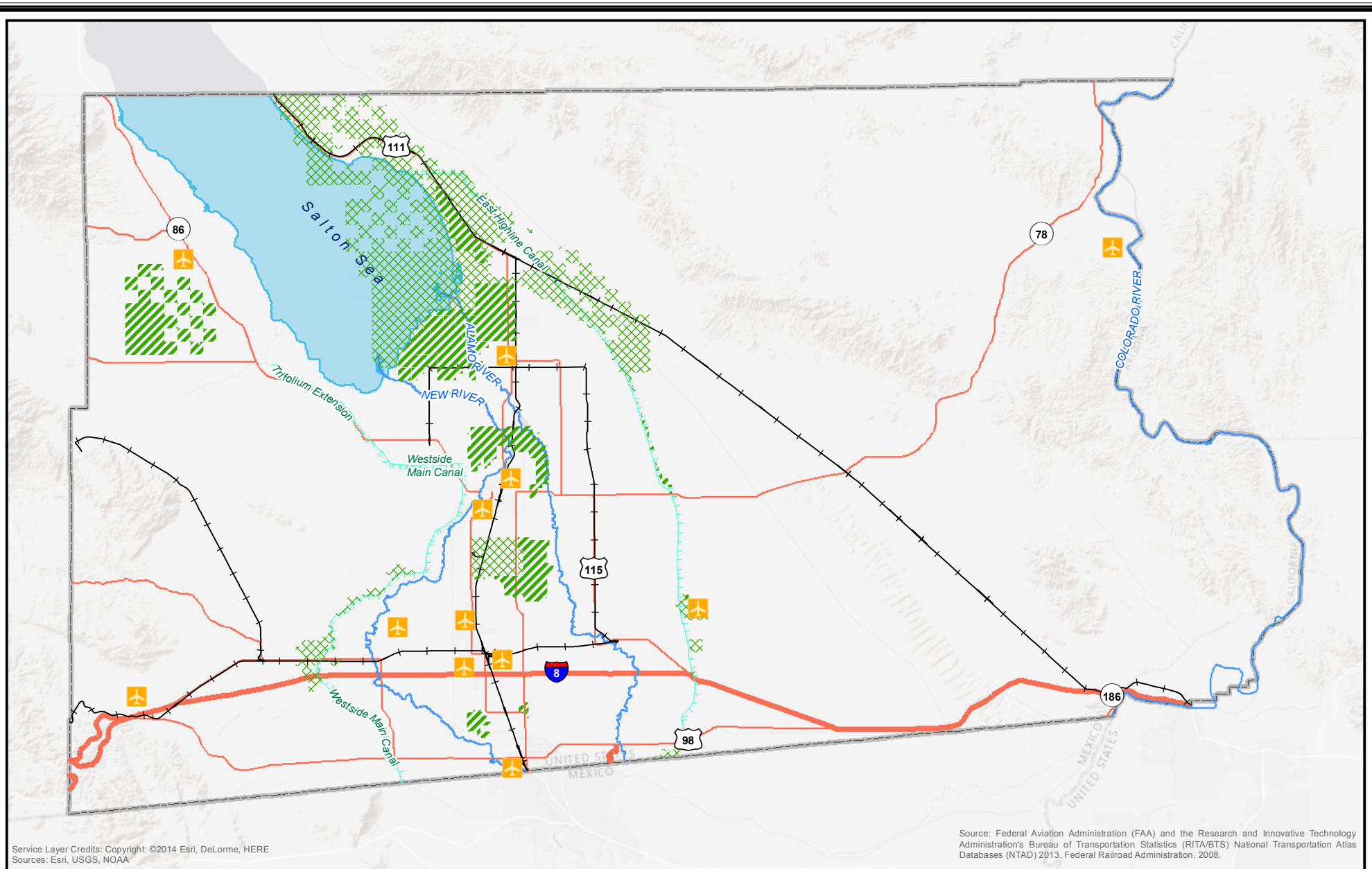


Figure 4.11-2
Imperial County Renewable Energy and
Transmission Element Update PEIR
Geothermal Resources and
High Priority Operations



Legend

Major Roadways

Primary Roads

Secondary Roads

Railroads

Airport

Preferred Alternative

Geothermal

Renewable Energy/Geothermal

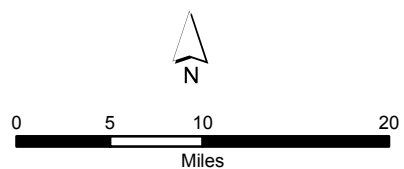


Figure 4.16-1
Imperial County Renewable Energy and
Transmission Element Update PEIR
Major Roadways, Railroads, and Airports

5.0 ALTERNATIVES

The following changes were made to Section 5.3-1 under the discussion of Agricultural Resources on page 5-9:

Agricultural Resources

The DRECP Alternative would result in greater impacts to agricultural resources than the proposed Project but lesser impacts than the No Project Alternative. This Alternative has identified locations for future renewable energy facilities that would restrict development from some agricultural lands within Imperial County that otherwise may be developed under the No Project Alternative; however, the development footprint for this Alternative is far larger than the overlay zones developed for the proposed Project and possess a far greater amount of agricultural resources. As shown in Table 5.3-1, this Alternative encompasses a total of 483,847.83 acres of important farmland compared to ~~92,113.80~~72,811.97 acres for the proposed Project. The locations of important farmlands within the development footprint of this Alternative are shown on Figure 5.3-2. Although this Alternative would not increase the renewable energy goal of up to 7,000 MW for Imperial County identified for the proposed Project, the larger development footprint would potentially allow for a greater level of conversion of more valuable agricultural resources such as Prime Farmland and Farmland of Statewide Importance.

**Table 5.3-1: Comparison of Important Farmland Between
Proposed Project and DRECP Alternative**

Farmland Classification	Proposed Project	DRECP Alternative	Larger Amount Present Under DRECP Alternative
Prime Farmland	26,145.71 <u>21,434.34</u>	160,504.78	134,359.07 <u>139,070.44</u>
Farmland of Statewide Importance	46,006.41 <u>38,613.59</u>	293,522.53	247,516.12 <u>254,908.94</u>
Unique Farmland	379.75 <u>226.55</u>	734.37	354.62 <u>507.82</u>
Farmland of Local Importance	19,581.93 <u>12,537.50</u>	29,086.15	9,504.22 <u>16,548.65</u>
Total	92,113.80 <u>72,811.97</u>	483,847.83	391,734.03 <u>411,035.86</u>

6.0 OTHER CEQA CONSIDERATIONS

The following changes were made to Section 6.1 Irreversible Environmental Changes on page 6-1:2:

The commitment of resources required for the construction and operation of future renewable energy facilities would limit the availability of such resources for future generations or for other uses. However, impacts on energy supply would be less than significant given that the Proposed Project would develop renewable energy in support

of the CEC's requirement of providing 33 percent of electricity retail sales by renewable energy resources. As described in Section 4.7.4, introduction of renewable energy facilities developed under the proposed Project would displace power currently produced by carbon-based fuels that would otherwise be used to meet regional demand for electricity. As documented in the Draft EIR/EIS prepared for the DRECP, estimates prepared by the California Public Utilities Commission (CPUC) project that by 2020, the marginal power plant would consist of a new combined-cycle combustion turbine 95 percent of the time or a new combustion turbine 5 percent of the time. Based on this ratio, GHG emissions associated with marginal power production are 830 pounds CO₂E per MWh. Additionally, the Environmental Protection Agency (USEPA) estimates presented in the DRECP EIR/EIS project that estimates baseline GHG emissions for marginal power in California would be more than 990 pounds CO₂E per MWh (DRECP EIR/EIS 2014, IV.3-9).

Electricity generated by future renewable energy facilities developed under the proposed Project would displace GHG emissions currently produced by carbon-based fuels. Using the conservative estimate of GHG emissions for marginal power plants developed by the CPUC, future solar and wind facilities would eliminate a minimum of 830 pounds CO₂E per MWh. Similarly, future geothermal energy facilities developed under the proposed Project would displace approximately 520 pounds CO₂E per MWh. The displacement of CO₂E for geothermal production would be reduced by 310 pounds CO₂E per MWh due to the CO₂ that occurs naturally in geothermal steam released by operations at a geothermal plant (DRECP EIR/EIS 2014, IV.3-9). Consequently, displacement of power currently produced by carbon-based fuels by development of future renewable energy facilities would offset energy resources consumed during construction, operation, and decommissioning of future renewable energy facilities.

7.0 REFERENCES

The following references were added to Chapter 7.0 References:

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2015a Imperial County Renewable Energy and Transmission Element Update.

2015b Land Use Ordinance, Title 9, Division XVII: Renewable Energy Resources.

2015c Imperial County Renewable Energy and Transmission Element Update – Baseline Environmental Inventory Report (January, by Chambers Group, Inc).

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