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October 3, 2017

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Subject: Big Rock 1 and Laurel 1, 2, and 3 Solar Projects Cultural Resources Literature Review, Imperial County, California

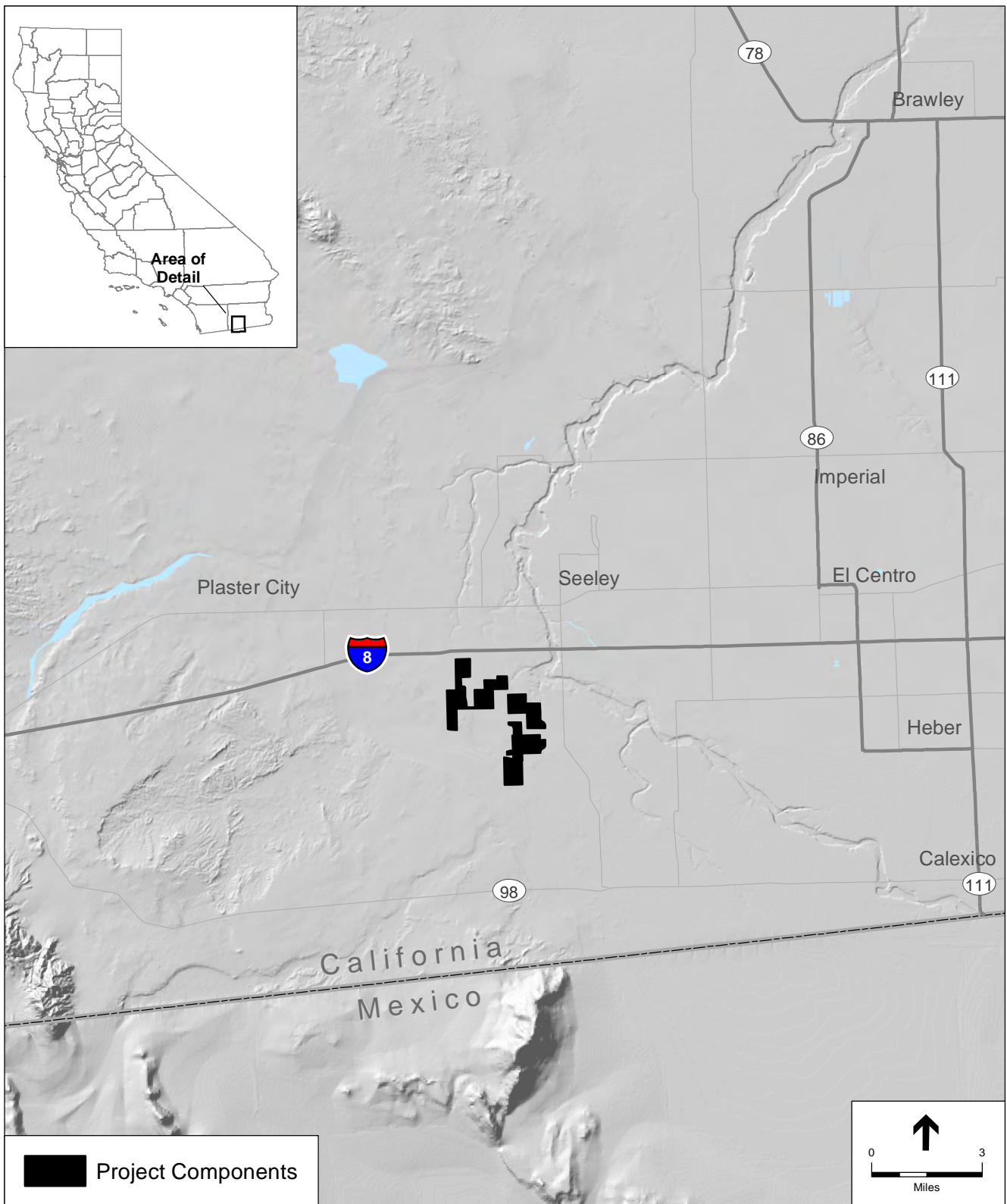
Dear Mr. Kolta:

Environmental Science Associates (ESA) is pleased to provide this literature review to 92JT 8me LLC and 90FI 8me LLC (Applicants) for the proposed Big Rock 1, and Laurel 1, 2, and 3 solar projects located in Imperial County, California. The proposed projects would include the construction of six solar fields on a total of 1,279-acres of land currently used for agriculture. The proposed Fern Substation would also be constructed on an approximately 8.32-acre parcel located within an abandoned agricultural field. If the construction of the proposed Fern Substation is found to be infeasible, an approximately 0.70-mile long gen-tie would be constructed to connect the solar projects to the Imperial Valley Substation located on lands administered by the Bureau of Land Management (BLM). This gen-tie alternative has not yet been delineated but would be constructed within an approximately 242-acre alternative gen-tie area located south of the Big Rock 1 project area.

This letter report provides an outline of the methodology and results of the literature review, which includes a records search at the California Historic Resource Information System (CHRIS) South Coast Information Center (SCIC), a Sacred Lands File (SLF) search conducted by the California Native American Heritage Commission (NAHC), and a review of historic maps and aerial photographs.

Project Location

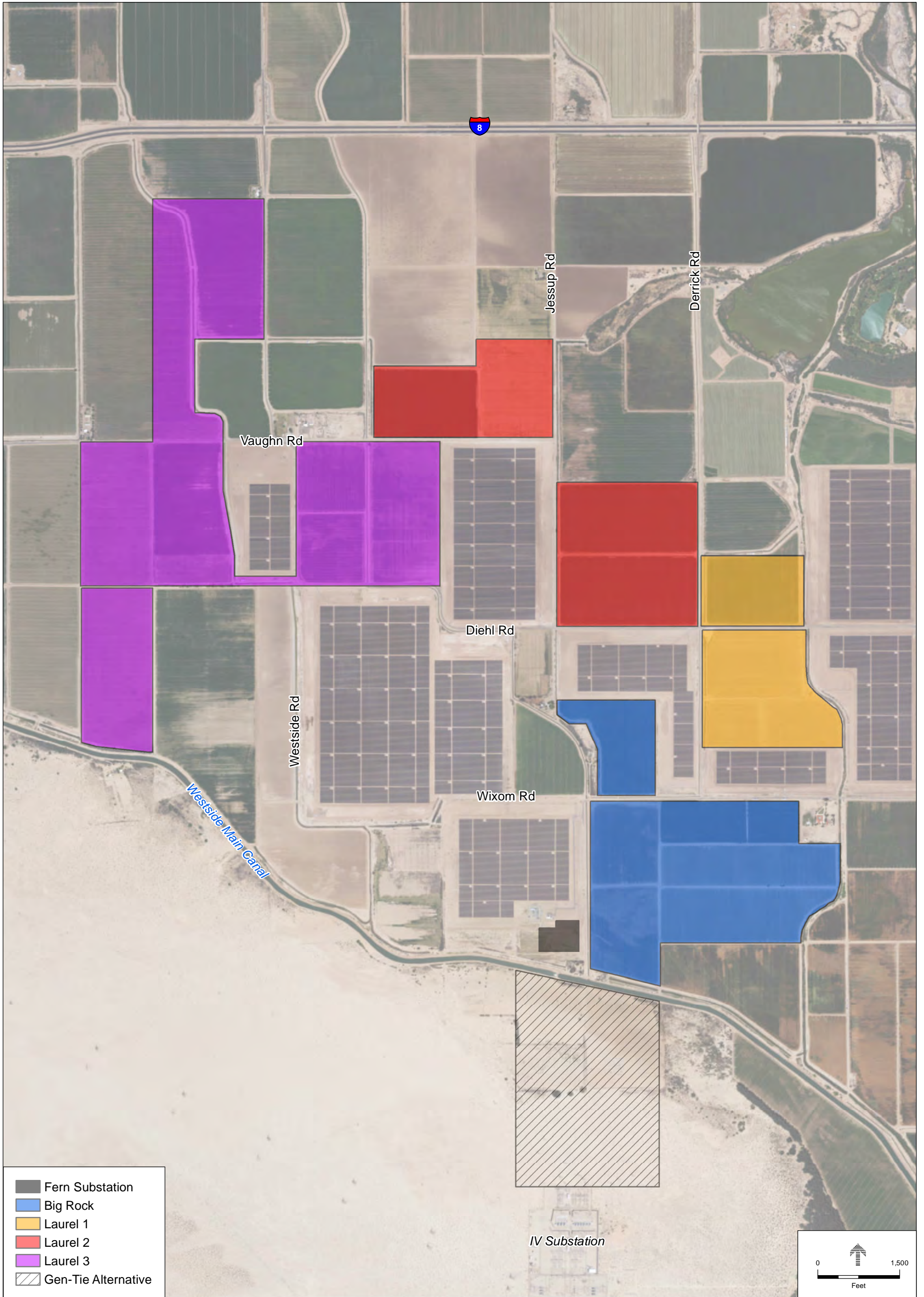
The proposed solar projects, proposed Fern Substation, and alternative gen-tie area are located in Imperial County, approximately 8 miles west of the City of El Centro and south of Interstate 8 (**Figure 1**). The proposed solar projects and Fern Substation are largely located within existing agricultural fields bounded by solar fields, and the alternative gen-tie area is located within largely undeveloped desert lands located south of the Westside Main Canal (**Figure 2**). Specifically, the 340-acre Big Rock 1 project area is located in Sections 27, 34, and 35 of Township 16 South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map; the 167-acre Laurel 1, the 280-acre Laurel 2, and the 587-acre Laurel 3 project areas are located in Sections 21, 22, 26, 28, 45, 53, 81, and 82 of Township 16 South, Range 12 East on the Mount Signal and Seeley 7.5-minute USGS topographic maps; the 8.32-acre proposed Fern Substation is located within Section 34 of Township 16 South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map; and the 242-acre gen-tie area is located in Sections 3 and 34 of Township 16 and 16½ South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map (**Figure 3**).

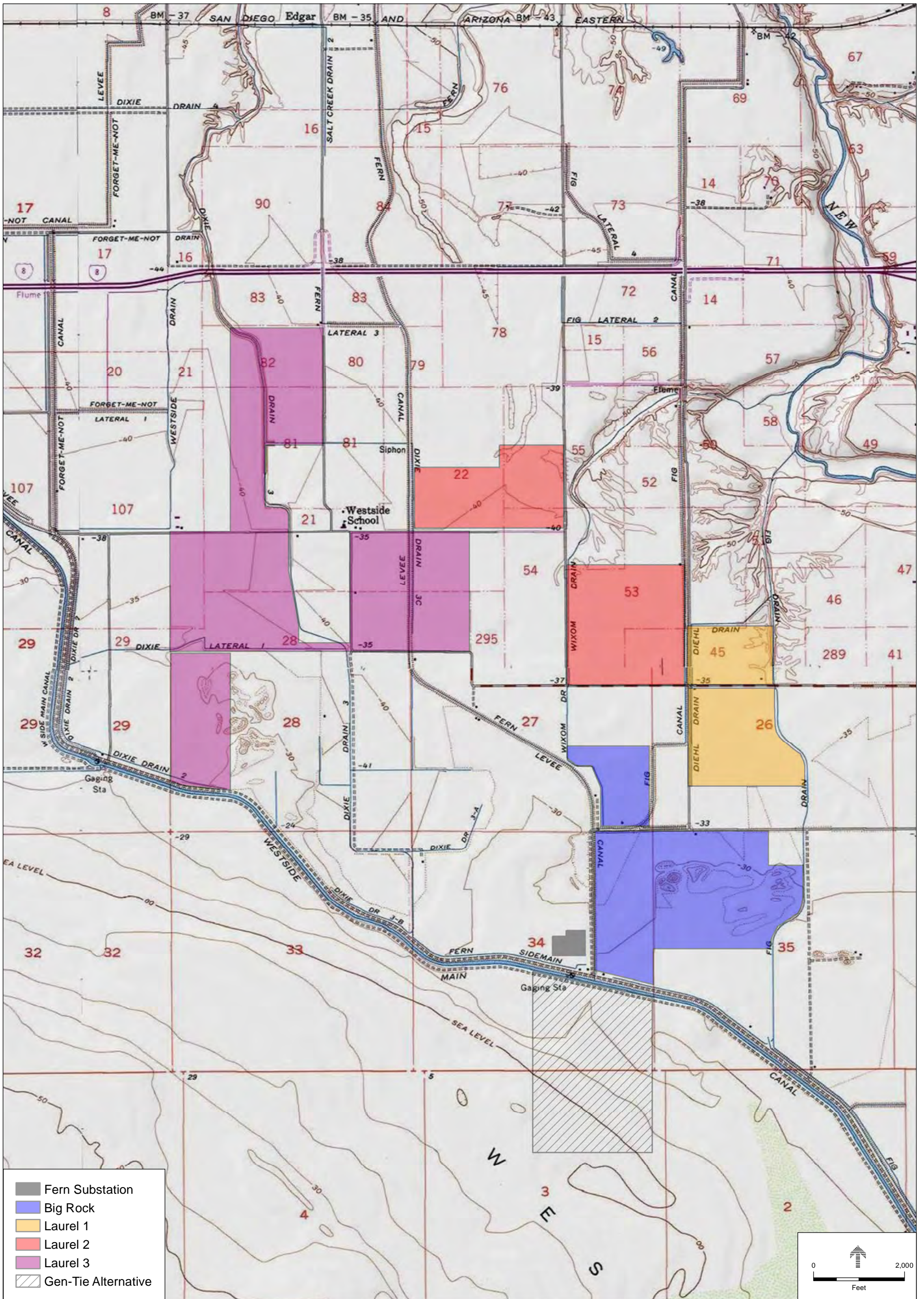


SOURCE: ESRI.

8minutenergy Big Rock and Laurel Projects Literature Review. 170491.01

Figure 1
Project Vicinity







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SCIC Records Search

Records searches for the projects were conducted on May 16 and September 7, 2017 at the CHRIS SCIC housed at San Diego State University. The records searches included a review of all recorded cultural resources within a 1-mile radius of the project areas, the proposed Fern Substation, and the alternative gen-tie area, as well as a review of cultural resource reports on file.

Previous Studies

The records search results indicate that 39 cultural resources studies have been conducted within a 1-mile radius of the Big Rock and Laurel project areas, the proposed Fern Substation, and the alternative gen-tie area (**Table 1**). Approximately 60 percent of the 1-mile records search radius has been included in previous cultural resources surveys. Of the 39 previous studies, 11 (IM-00203, -00207, -00210, -00906, -00960, -01072, -01275, -01388, -01433, -01488, and -01517) overlap the alternative gen-tie area, two (IM-01486 and -01487) overlap the proposed Fern Substation, the alternative gen-tie area and the Laurel 1 project area, one (IM-01512) overlaps the Laurel 3 project area, and one (IM-01306) overlaps both the alternative gen-tie area and the Laurel 3 project area. Approximately 5 percent of the Laurel 1 project area has been included in previous studies; 75 percent of the gen-tie area has been included in previous studies; 80 percent of the Laurel 3 project area has been included in previous studies; and the entirety of the proposed Fern Substation has been included in previous studies. The Big Rock 1 project area, as well as the Laurel 2 project area, do not appear to have been previously surveyed.

TABLE 1
PREVIOUS CULTURAL RESOURCES STUDIES WITHIN 1 MILE OF THE PROJECT AREAS

Author	SCIC# (IM-)	Title	Year
Berryman, Judy A.	01072*	<i>Cultural Resource Treatment Plan in Support of the Construction of Two 230-kV Transmission Lines from the Imperial Valley Substation to the International Border with Mexico</i>	2001
Brian F. Mooney Associates	00460	<i>Final Environmental Impact Report of the Rio Bend Specific Plan, Imperial County, California</i>	1992
Bureau of Land Management	00906*	<i>Environmental Assessment for Presidential Permit Application for Baja California Power, Inc. and Sempra Energy Resources</i>	2001
Bureau of Land Management	00960*	<i>Draft Environmental Impact Statement for the Imperial-Mexicali 230-kV Transmission Lines</i>	2004
Bureau of Land Management	00235	<i>APS/SDG&E Interconnection Project - Supplement to the Draft Environmental Document</i>	1981
Burkenroad, David	00536	<i>Phase 1 Regional Studies APS/SDG&E Interconnection Project transmission System Environmental Study Cultural Resources: History</i>	1979
CSRI	00595	<i>Mountain Springs (Jade) to Sand Hills Data Recovery Preliminary Report</i>	1982
Cultural System Research	00262	<i>Archaeological Field Investigation of Cultural Resources Associated with the Proposed Imperial Valley Substation (7A) Access Road, Cultural Resource Report</i>	1982
Cultural System Research	00547	<i>Draft Archaeological Research Design and Data Recovery Program for Cultural Resources within the Mountain Springs (Jade) to Sand Hills Portions of the APS/SDG&E Interconnection project 500 kV Transmission Line</i>	1982
Davis, Emma Lou	00207*	<i>Class II Cultural Resource Inventory East Mesa and West Mesa Regions Imperial Valley, California</i>	1980



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Author	SCIC# (IM-)	Title	Year
Davis, Shannon	01516	<i>Final Inventory, Evaluation and Analysis of Effects on Historic Built Environment Properties within the Area of Potential Effect of the Imperial Solar Energy Center South Imperial County, California</i>	2014
Davis, Shannon, Jennifer Krints, Sinead Ni Ghablain, and Michael Humphrey	01517*	<i>Final Inventory, Evaluation and Analysis of Effects on Historic Built Environment Properties within the Area of Potential Effect of the Imperial Solar Energy Center West Imperial County, California</i>	2011
Department of the Army	01542	<i>Plaster City Water Pipeline Project</i>	2012
Gallegos, Dennis	00203*	<i>Class II Cultural Resource Inventory East Mesa and West Mesa Regions Imperial Valley, California, Volume 1</i>	1979
Graves Engineering	00307	<i>Environmental Impact Report, Rio Bend Resort Ranch, Imperial County, California</i>	1984
Haas, Hannah, Kevin Hunt, and Robert Ramirez	01512‡	<i>Phase I Cultural Resources Survey for the Silverleaf Solar Project, Imperial County, California</i>	2013
Imperial County	00538	<i>Proposed Work Scope Phase II Cultural Resources Studies APS-SDG&E Transmission Interconnect Project, Miguel to Sand Hills, Sand Hills to PVNGS</i>	1979
Mitchell, Patricia T.	01464	<i>Inventory Report of the Cultural Resources within the Centennial Solar Energy Gen-Tie Line, Imperial County California</i>	2011
Mitchell, Patricia T.	01486**	<i>Inventory Report of the Cultural Resources within the Campo Verde Solar Project BLM Gen-Tie Option Alternatives, Imperial County, California</i>	2012
Mitchell, Patricia T.	01487**	<i>Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California</i>	2011
Mitchell, Patricia T.	01488*	<i>Addendum Letter Report for the Centennial Solar Energy Gen-Tie Line Cultural Resources Inventory Report, Imperial County, California</i>	2011
Mitchell, Patricia T.	01464	<i>Inventory Report of the Cultural Resources within the Centennial Solar Energy Gen-Tie Line, Imperial County California</i>	2011
Noah, Anna and Dennis Gallegos	01350	<i>Final Class II Archaeological Inventory for the SDG&E Sunrise Powerlink Project, San Diego and Imperial Counties, California</i>	2008
Olech, Lilliana	01388*	<i>Yuha Basin Area of Critical Environmental Concern Management Plan</i>	1981
REH Consultants	00459	<i>Rio Bend Specific Plan</i>	1992
Ritter, Eric W.	01275*	<i>An Analysis of Cultural Resource along the Proposed Yuha Desert ORV Courses</i>	1975
Schaefer, Jerome	00252	<i>Archaeological Survey of the La Rosita 230 kV Interconnection Project</i>	1981
Shackley, Steven M.	00279	<i>Phase III Archaeological Survey of the Mountain Springs (Jade) to Sand Hills Portion of the APS/SDG&E Interconnection Project 500 kV Transmission Line</i>	1982
SWCA Environmental Consultants	01330	<i>Final Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project in Imperial, Orange, Riverside, and San Diego Counties, California</i>	2008
Townsend, Jan	01308	<i>Southwest Powerlink Cultural Resources Management Plan (Draft)</i>	1983
Von Werlhof, Jay and Karen McNitt	00210*	<i>Archaeological Examination of the Republic Geothermal field, East Mesa, Imperial County</i>	1980
Von Werlhof, Jay, Sherrill Von Werlhof, and Marlin Childers	00109	<i>Archaeological Examinations of the Obsidian Butte Quarry Site, Imperial County</i>	1977
Walker, Carol, Charles Bull and Jay Von Werlhof	00199/00233	<i>Cultural Resource Study of a Proposed Electric Transmission Line from Jade to the Sand Hills, Imperial County, California</i>	1979
Walker, Carol, Charles Bull and Jay Von Werlhof	00233	<i>Cultural Resources Study of a Proposed Electric Transmission Line from Jade to the San Hills, Imperial County, California</i>	1981
Welch, Patrick	00301	<i>Cultural Resource Inventory for Thirty Proposed Asset Management Parcel in Imperial County, California</i>	1983



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Author	SCIC# (IM-)	Title	Year
Wirth Associates	00537	Phase 1 Regional Studies APS/SDG&E Interconnection Project Transmission System Environmental Study Cultural Resources: Archaeology	1979
Wirth Associates	01306†	APS/SDG&E Interconnection Project Environmental Study Phase II Corridor Studies Native American Cultural Resources Appendices	1980
Wirth Associates	01313	APS/SDG&E Interconnection Project (Phase II Corridor Studies) - Cultural Resources: Archaeology	1980
Zepeda-Herman, Carmen	01433*	Class III Cultural Resources Survey for the Imperial Solar Energy Center South Project, Imperial County, California	2011

*Indicates study overlaps alternative gen-tie area

**Indicates study overlaps Fern Substation, alternative gen-tie area, and Laurel 1 and 3 projects

‡Indicates study overlaps Laurel 3 project

†Indicates study overlaps alternative gen-tie area and Laurel 3 project

Previously Recorded Resources

The records search indicates that 140 cultural resources have been previously recorded within 1-mile of the project areas, the proposed Fern Substation, and the alternative gen-tie area (**Table 2**). Of these 140 previously recorded resources 37 are prehistoric archaeological sites, two are historic-period archaeological sites, one is a multicomponent archaeological site, 11 are historic-period built environment resources, two are historic-period linear resources, one is a landscape resource, eight are historic architectural resources, and 78 are isolates. Of the 78 isolates, 68 are prehistoric isolates, and 10 are historic-period isolates. The vast majority of the previously recorded resources consist of prehistoric archaeological sites and isolates. These resources are primarily located within the relatively undeveloped desert lands located south and southwest of the agriculture fields that encompass the project areas.

TABLE 2
PREVIOUSLY RECORDED RESOURCES WITHIN 1 MILE OF THE PROJECT AREAS

Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
001402	-	-	Prehistoric isolate: ceramic sherds	1976	120 feet from alternative gen-tie area
001403	-	-	Prehistoric isolate: ceramic sherds	1976	Within alternative gen-tie area
001408	1408	-	Prehistoric archaeological site: lithic and ceramic scatter	1979	0.84 miles from Laurel 3
003176	3176	-	Prehistoric archaeological site: lithic and ceramic scatter	1979	Within alternative gen-tie area
003403	3404	-	Historic-period archaeological site: crossed wagon road	Not given	320 feet from Laurel 2
003404	3404	-	Historic-period linear resource: wagon road	Not given	Within Laurel 3
003405	3405	-	Landscape resource: south shoreline of Lake Cahuilla	Not given	Within Laurel 3
003406	3406	-	Historic-period linear resource: wagon road	Not given	0.20 miles from Laurel 2



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
003780	-	-	Prehistoric isolate: scraper	1980	0.83 miles from Laurel 3
003781	-	-	Prehistoric isolate: projectile point	1980	0.83 miles from Laurel 3
003782	3782	-	Prehistoric archaeological site: ceramic scatter and trail segment	1980	0.82 miles from Laurel 3
003783	3783	-	Prehistoric archaeological site: ceramic scatter	1980	0.80 miles from Laurel 3
003790	3790	-	Prehistoric archaeological site: lithic scatter	1980	1 mile from Laurel 3
003791	3791	-	Prehistoric archaeological site: lithic and ceramic scatter	1980	1 mile from Laurel 3
003792	-	-	Prehistoric isolate: one flake	1979	0.44 miles from alternative gen-tie area
004244	4244	-	Prehistoric archaeological site: lithic scatter	1980	0.18 miles from alternative gen-tie area
004510	4510	-	Prehistoric archaeological site: lithic scatter	1981	0.32 miles from alternative gen-tie area
004511	4511	-	Prehistoric isolate: one flake	1981	0.30 miles from alternative gen-tie area
004512	4512	-	Prehistoric isolate: one flake	1981	0.22 miles from alternative gen-tie area
004515	4515	-	Prehistoric archaeological site: lithic and ceramic scatter	1981	0.36 miles from alternative gen-tie area
004516	-	-	Prehistoric isolate: one flake	1981	0.45 miles from alternative gen-tie area
004518	4518	-	Prehistoric archaeological site: temporary camp site	1981	0.74 miles from Laurel 3
004531	4531	-	Prehistoric archaeological site: lithic scatter	1981	1 mile from Laurel 3
005297	-	-	Prehistoric isolate: two flakes	1982	Within alternative gen-tie area
005298	-	-	Prehistoric isolate: one bifacial mano	1982	Within alternative gen-tie area
005585	-	-	Prehistoric isolate: one flake	1983	100 feet from alternative gen-tie area
005586	-	-	Prehistoric isolate: one flake	1983	400 feet from alternative gen-tie area
005587	-	-	Prehistoric isolate: one flake	1983	350 feet from alternative gen-tie area
005588	-	-	Prehistoric isolate: one flake	1983	400 feet from alternative gen-tie area
005648	-	-	Prehistoric isolate: one flake	1984	100 feet from alternative gen-tie area
008334	-	-	Historic-period built resource: Westside Main Canal	1999	Bounds Big Rock 1, Laurel 3, and alternative gen-tie area
009121	8793	-	Prehistoric archaeological site: lithic and ceramic scatter	2006	0.35 miles from alternative gen-tie area
009122	-	-	Prehistoric isolate: one flake	2006	0.41 miles from alternative gen-tie area
009549	-	-	Prehistoric isolate: volcanic core	2006	0.99 miles from Laurel 3
009655	8698	-	Prehistoric archaeological site: lithic and ceramic scatter	2006	0.99 miles from Laurel 3



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
009709	-	-	Prehistoric isolate: one flake	2007	0.32 miles from alternative gen-tie area
009710	8720	-	Prehistoric archaeological site: lithic scatter	2007	0.35 miles from alternative gen-tie area
009711	8721	-	Prehistoric archaeological site: lithic scatter	2007	0.20 miles from alternative gen-tie area
009855	-	-	Prehistoric isolate: one hammerstone	2007	0.41 miles from alternative gen-tie area
009861	-	-	Prehistoric isolate: one mano	2007	0.11 miles from alternative gen-tie area
009862	-	-	Prehistoric isolate: one flake	2007	0.28 miles from alternative gen-tie area
011437	-	-	Prehistoric isolate: ceramic sherd	2006	0.75 miles from Laurel 3
012224	-	-	Prehistoric isolate: metavolcanic core	2006	0.74 miles from Laurel 3
012240	-	-	Prehistoric isolate: one metate fragment	2007	0.20 miles from alternative gen-tie area
012688	-	-	Historic-period built resource: Dixie drains and laterals	2009	Within Laurel 3
012689	-	-	Historic-period built resource: Fern Canal	2009	Bounds Big Rock 1 and Laurel 2, and is within Laurel 3
012690	-	-	Historic-period built resource: Forget-me-not Canal	2009	0.47 miles from Laurel 3
012692	-	-	Historic-period built resource: Fem Check	2010	60 feet from alternative gen-tie area
012693	-	-	Historic-period built resource: Fig Canal	2009	Bounds Big Rock 1, Laurel 1, and Laurel 2
012695	-	-	Prehistoric isolate: one flake	2010	Within alternative gen-tie area
012696	-	-	Prehistoric isolate: ceramic sherds	2009	60 feet from alternative gen-tie area
013104	-	-	Historic-period isolate: pull tab can	2009	0.69 miles from Laurel 3
013105	-	-	Historic-period isolate: solarized glass fragment	2009	0.18 miles from alternative gen-tie area
013106	-	-	Prehistoric isolate: one flake	2009	0.51 miles from alternative gen-tie area
013107	-	-	Prehistoric isolate: two flakes	2009	0.75 miles from alternative gen-tie area
013108	-	-	Prehistoric isolate: metavolcanic flake	2009	0.99 miles from Laurel 3
013109	-	-	Prehistoric isolate: two pieces of debitage	2009	0.95 miles from Laurel 3
013110	-	-	Prehistoric isolate: two flakes	2009	0.73 miles from Laurel 3
013113	-	-	Historic-period isolate: aluminum top beverage can	2009	0.67 miles from Laurel 3
013114	-	-	Historic-period isolate: liquor bottle	2009	0.82 miles from Laurel 3
013116	-	-	Prehistoric isolate: two flakes	2009	0.73 miles from Laurel 3
013117	-	-	Prehistoric isolate: two flakes	2009	0.64 miles from Laurel 3



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
013128	11439	-	Historic-period archaeological site: refuse scatter	2009	0.52 miles from Laurel 3
013129	11440	-	Prehistoric archaeological site: lithic scatter	2009	0.75 miles from alternative gen- tie area
013130	11441	-	Multicomponent archaeological site: prehistoric lithic and ceramic scatter, and historic-period refuse scatter	2009	0.71 miles from Laurel 3
013131	11442	-	Prehistoric archaeological site: lithic scatter	2009	0.77 miles from Laurel 3
013132	11443	-	Prehistoric archaeological site: lithic and ceramic scatter	2009	0.68 miles from Laurel 3
013133	11444	-	Prehistoric archaeological site: lithic scatter	2009	0.77 miles from alternative gen- tie area
013134	11445	-	Prehistoric archaeological site: lithic scatter	2009	0.77 miles from Laurel 3
013140	11451	-	Historic-period built resource: earthen detention basin	2009	0.67 miles from Laurel 3
013155	-	-	Prehistoric isolate: one flake	2011	0.79 miles from Laurel 3
013179	-	-	Prehistoric isolate: metate fragment	2010	0.25 miles from alternative gen- tie area
013180	-	-	Prehistoric isolate: one flake	2010	0.17 miles from alternative gen- tie area
013195	11469	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.16 miles from alternative gen- tie area
013197	-	-	Prehistoric isolate: one flake	2010	0.45 miles from alternative gen- tie area
013198	-	-	Prehistoric isolate: one flake	2010	0.31 miles from alternative gen- tie area
013199	-	-	Prehistoric isolate: one flake	2010	0.31 miles from alternative gen- tie area
013200	-	-	Prehistoric isolate: one core	2010	0.45 miles from alternative gen- tie area
013201	-	-	Prehistoric isolate: one flake	2010	350 feet from alternative gen-tie area
013202	-	-	Prehistoric isolate: ceramic sherds	2010	350 feet from alternative gen-tie area
013240	-	-	Prehistoric isolate: ceramic sherd	2010	0.80 miles from Laurel 3
013242	-	-	Prehistoric isolate: assayed cobble	2010	0.70 miles from Laurel 3
013246	-	-	Prehistoric isolate: one flake	2010	0.54 miles from Laurel 3
013248	-	-	Prehistoric isolate: two flakes	2010	0.98 miles from Laurel 3
013249	-	-	Prehistoric isolate: pot drop	2010	0.71 miles from Laurel 3
013250	-	-	Prehistoric isolate: one ceramic sherd	2010	1 mile from Laurel 3
013260	-	-	Prehistoric isolate: one flake	2010	0.78 miles from Laurel 3
013264	-	-	Prehistoric isolate: one ceramic sherd	2010	0.84 miles from Laurel 3
013266	-	-	Prehistoric isolate: one flake	2010	0.84 miles from Laurel 3



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
013267	-	-	Prehistoric isolate: two ceramic sherd	2010	0.84 miles from Laurel 3
013268	-	-	Prehistoric isolate: one flake	2010	0.77 miles from Laurel 3
013271	-	-	Prehistoric isolate: one flake	2010	0.72 miles from Laurel 3
013272	-	-	Prehistoric isolate: one flake	2010	0.79 miles from Laurel 3
013273	-	-	Prehistoric isolate: one flake	2010	0.80 miles from Laurel 3
013283	11471	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	500 feet from alternative gen-tie area
013284	11472	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	500 feet from alternative gen-tie area
013294	11482	-	Prehistoric archaeological site: lithic scatter	2010	0.68 miles from Laurel 3
013296	11484	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.99 miles from Laurel 3
013301	11489	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.99 miles from Laurel 3
013305	11493	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.90 miles from Laurel 3
013306	11494	-	Prehistoric archaeological site: hearth feature and lithic scatter	2010	0.99 miles from Laurel 3
013307	11495	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.52 miles from Laurel 3
013311	11499	-	Prehistoric archaeological site: lithic and ceramic scatter	2010	0.73 miles from Laurel 3
013313	11501	-	Prehistoric archaeological site: ceramic scatter	2010	0.34 miles from alternative gen-tie area
013548	11638	-	Prehistoric archaeological site: lithic scatter	2011	0.25 miles from alternative gen-tie area
013559	-	-	Prehistoric isolate: two flakes	2011	Within alternative gen-tie area
013560	-	-	Prehistoric isolate: one flake	2011	Within alternative gen-tie area
013747	-	-	Historic-period built resource: Diehl Drain	2011	Bounds Laurel 1 and 2
013748	-	-	Historic-period built resource: Fig Drain	2011	Bounds Big Rock 1 and Laurel 1
013749	-	-	Historic-period isolate: bottle base and nail	2011	Within Laurel 3
013752	-	-	Historic-period isolate: tableware fragment	2011	200 feet from Laurel 3
013754	11758	-	Historic-period archaeological site: refuse scatter	2011	0.24 miles from Laurel 1
013756	-	-	Historic-period isolate: Liberty Head nickel	2011	0.22 miles from Laurel 1
013758	11759	-	Historic-period architectural resource: residence constructed in 1955	2011	150 feet from Laurel 3
013759	-	-	Historic-period isolate: solarized glass fragment	2011	0.80 miles from Laurel 3
013760	-	-	Historic-period built resource: Westside Drain	2011	90 feet from Laurel 3



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	Date Recorded	Distance from Project
013761	-	-	Historic-period built resource: Wixom Drain	2011	Bounds Big Rock 1, and Laurel 2
013844	-	-	Prehistoric isolate: ceramic sherds	2012	0.20 miles from alternative gen-tie area
013846	-	-	Prehistoric isolate: two flakes	2012	Within alternative gen-tie area
013847	-	-	Prehistoric isolate: ceramic sherds	2012	Within alternative gen-tie area
013848	-	-	Prehistoric isolate: one flake	2012	Within alternative gen-tie area
013849	-	-	Prehistoric isolate: one unifacial mano	2012	Within alternative gen-tie area
013850	-	-	Prehistoric isolate: one flake	2012	Within alternative gen-tie area
013851	-	-	Prehistoric isolate: one flake	2012	Within alternative gen-tie area
013852	11789	-	Prehistoric archaeological site: ceramic scatter and unifacial mano	2012	260 feet from alternative gen-tie area
013853	11790	-	Prehistoric archaeological site: lithic scatter	2012	Within alternative gen-tie area
013854	-	-	Prehistoric isolate: one flake	2012	Within alternative gen-tie area
013855	11791	-	Prehistoric archaeological site: lithic scatter	2012	Within alternative gen-tie area
013856	-	-	Prehistoric isolate: one flake	2012	Within alternative gen-tie area
013857	11792	-	Prehistoric archaeological site: lithic scatter	2012	0.36 miles from Big Rock 1
014267	-	-	Historic-period isolate: square-shaped soldered-edge can	2011	400 feet from alternative gen-tie area
014268	-	-	Historic-period isolate: Coke bottle	2011	Within alternative gen-tie area
014269	-	-	Prehistoric isolate: Cottonwood projectile point	2011	Within alternative gen-tie area
-	-	1105 Liebert Road	Historic-period architectural resource: residence constructed between 1972-75	-	285 feet from Big Rock 1
-	-	Liebert Road and Mandrapa Road	Historic-period architectural resource: barn constructed between 1940-1950	-	50 feet from Big Rock 1
-	-	1905 Wixom Road	Historic-period architectural resource: residence constructed in 1970	-	400 feet from Big Rock 1
-	-	2094 Wixom Road	Historic-period architectural resource: residence constructed between 1940-1950	-	150 fee from Big Rock 1
-	-	Vogel Road and Wixom Road	Historic-period architectural resource: residence constructed between 1940-1950	-	0.50 miles from Big Rock 1
-	-	2396 Vaughn Road	Historic-period architectural resource: residence constructed in 1952	-	125 feet from Laurel 3
-	-	Westside School	Historic-period architectural resource: elementary school constructed between 1960 and 1970	-	230 feet from Laurel 3

Of these 140 previously recorded resources, 33 are located within or immediately adjacent to (within 100 feet of) the project areas, the proposed Fern Substation, and the alternative gen-tie area. These 33 resources include three prehistoric archaeological sites, nine historic-period built resources, one historic architectural resource, two historic-period linear resources, and 18 isolates. **Table 3** shows the resources by project component.

TABLE 3
RESOURCES WITHIN OR ADJACENT TO PROJECT COMPONENTS

Project Area	Previously Recorded Resources Within or Adjacent to
Big Rock 1	P-13-008334 (Westside Main Canal), -012689 (Fern Canal), -012693 (Fig Canal), -013748 (Fig Drain), -013761 (Wixom Drain), and Liebert Road and Mandrapa Road
Laurel 1	P-13-012693 (Fig Canal), -013747 (Diehl Drain), and -013748 (Fig Drain)
Laurel 2	P-13-012689 (Fern Canal), -012693 (Fig Canal), -013747 (Diehl Drain), and -013761 (Wixom Drain)
Laurel 3	P-13-003404 (wagon road), -003405 (south shore of Lake Cahuilla), -008334 (Westside Main Canal), -012688 (Dixie drains and laterals), -012689 (Fern Canal), -013749 (historic-period isolate), and -013760 (Westside Drain)
Fern Substation	No previously recorded resources within or adjacent to
Alternative Gen-tie Area	P-13-003176 (archaeological site), -008334 (Westside Main Canal), , -012692 (Fern Check), -013853 (archaeological site), and -013855 (archaeological site), and 17 isolates

Resource Descriptions

Of the 33 previously recorded resources located within or immediately adjacent to the project areas, proposed Fern Substation, and alternative gen-tie area, 15 are described in detail below. The remaining 18 resources consist of isolates, which are not typically considered significant resources. As such, detailed descriptions of the isolates are not provided.

P-13-003404

Resource P-13-003404 is a historic-period linear resource consisting of a segment of the wagon road that ran from Yuma, Arizona to Warner’s Ranch in San Diego County during the mid to late 19th century (SCIC, 2017a). The road segment was not documented as part of a field reconnaissance; rather, it was documented based on a visual inspection of a USGS survey map dating to 1856 (SCIC, 2017a). The resource has not been previously evaluated for inclusion in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). Resource P-13-003405 is mapped as being located within the Laurel 3 project area; however, it is possible that physical evidence of the resource does not exist within the project area given that its location is based solely on USGS survey map features dating to the 1850s.

P-13-003405

Resource P-13-003405 is a landscape resource consisting of the relict shoreline of Lake Cahuilla. The resource was not documented as part of a field reconnaissance or consultation with Native American groups; rather, it was documented based on visual inspection of a USGS survey map dating to 1856, which identifies the resource as



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“south shore of big laguna” (SCIC, 2017b). The resource has not been previously evaluated for inclusion in the NRHP or CRHR. Resource P-13-003405 is mapped as being located within the Laurel 3 project area; however, it is likely that physical evidence of the resource does not exist within the project area given that its location is based solely on USGS survey map features dating to the 1850s.

P-13-003176

Resource P-13-003176 is a prehistoric archaeological site originally recorded in 1979 as a lithic and ceramic scatter within a 3-meter diameter area (Von Werlhof, 1979). In 2010, the site was revisited as part of a pedestrian survey and was found to consist of a lithic scatter that included one flake, one core, one core tool, and two pieces of debitage, as well as 14 calcined bone fragments (Mitchell et al., 2012a). Although the site has not formally been evaluated as part of a Phase II testing program, it has been recommended eligible for listing in the NRHP and CRHR under Criterion D/4 because of its potential to answer research questions pertaining to regional chronology, technology, and settlement patterns (Mitchell, 2012). Resource P-13-003176 is located within the alternative gen-tie area.

P-13-008334 (Westside Main Canal)

Resource P-13-008334 is a historic-period built resource consisting of the Westside Main Canal. The approximately 11-mile long irrigation canal is concrete-lined and was constructed in 1906 (Hupp, 1999). The Westside Main Canal was integrated into the All American Canal’s irrigation system when it was constructed between 1936 and 1940 (Burkard et al., 2007). The Bureau of Reclamation and California Office of Historic Preservation determined that resource P-13-008334 is eligible for listing in the NRHP and the CRHR (Burkard et al., 2007). The canal bounds the southern margins of the Big Rock 1 and Laurel 3 project areas, as well as the northern margin of the alternative gen-tie area.

P-13-012688 (Dixie drains and laterals)

Resource P-13-012688 is a historic-period built resource consisting of the three drains (Dixie Drains 2, 3, and 4) and one lateral (Dixie Lateral 1) associated with the Dixie Drain. The earthen drainage system was constructed between 1909 and 1949, and extends from the Westside Main Canal in the south to the New River in the north (Krintz, 2011a). Resource P-13-012688 has been previously recommended ineligible for the NRHP and CRHR due to a lack of integrity resulting from routine dredging and widening of the drains and laterals associated with the system (Krintz, 2011a). A segment of Dixie Drain 3 is located within the Laurel 3 project area, and Dixie Lateral 1 bounds the southern portion of Laurel 3.

P-13-012689 (Fern Canal)

Resource P-13-012689 is a historic-period built resource consisting of the Fern Canal. The approximately 10-mile long irrigation canal is concrete-lined and was constructed in 1909 (Krintz, 2011b). In the 1960s the canal underwent modifications that included dredging and widening (Krintz, 2011b). Resource P-13-012689 has been previously recommended ineligible for the NRHP and CRHR due to a lack of integrity resulting from the modification undertaken in the 1960s (Krintz, 2011b). The Fern Canal bounds the western margins of the Big Rock 1, and Laurel 2 project areas, and is located within the Laurel 3 project area.



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P-13-012692 (Fern Check)

Resource P-13-012692 consists of the Fern Check, a concrete and metal check structure that controls and measures the flow of irrigation water in the Westside Main Canal where it enters the Fern Canal. The check structure was constructed between 1943 and 1947 but has undergone improvements and has been partially reconstructed since its original construction (Hollins, 2010). The resource has been previously recommended ineligible for listing in the NRHP and CRHR as an individual resource and as a contributor to the Westside Main Canal due to its lack of integrity arising from the improvements and reconstruction of the check structure (Hollins, 2010). The resource is located within 60 feet of the alternative gen-tie area.

P-13-012693 (Fig Canal)

Resource P-13-012693 is a historic-period built resource consisting of the Fig Canal. The irrigation canal was constructed sometime around 1912 and has concrete-lined and earthen segments (Hollins, 2009). The canal underwent modification including widening and dredging in the 1940s and 1950s (Hollins, 2009). Resource P-13-012693 has been previously recommended ineligible for listing in the NRHP and CRHR due to a lack of integrity resulting from the modifications to the canal carried out in the 1940s and 1950s (Hollins, 2009). The Fig Canal bounds the northwestern margin of the Big Rock 1 project area, the western margin of the Laurel 1 project area, and the eastern margin of the Laurel 2 project area. The canal is also located within the southeastern quadrant of the northern portion of the Big Rock 1 project area.

P-13-013747 (Diehl Drain)

Resource P-13-013747 is a historic-period built resource consisting of the Diehl Drain. The earthen drainage ditch was constructed sometime between 1922 and 1949, and extends approximately 1 mile from Wixom Road in the south to the Fig Drain in the north (Krintz, 2011c). Resource P-13-013747 has been previously recommended ineligible for listing in the NRHP and CRHR because of its inability to convey the theme of early agricultural development in Imperial County as well as other resources such as the All American Canal and the Westside Main Canal (Krintz, 2011c). The drainage ditch overlaps the western margins of the Laurel 1 and 2 project areas.

P-13-013748 (Fig Drain)

Resource P-13-013748 is a historic-period built resource consisting of the Fig Drain. The earthen drainage ditch was constructed sometime prior to 1945, and extends approximately 2.5 miles from the Westside Main Canal in the south to the New River in the north (Mitchell, 2012). Resource P-13-013748 has been previously recommended ineligible for listing in the NRHP and CRHR because of its inability to convey the theme of early agricultural development in Imperial County as well as other resources such as the All American Canal and the Westside Main Canal (Mitchell, 2012). The drainage ditch overlaps the eastern margins of the Big Rock 1 and Laurel 1 project areas.

P-13-013760 (Westside Drain)

Resource P-13-013760 is a historic-period built resource consisting of the Westside Drain. The earthen drainage ditch was constructed in the early 1900s, and extends approximately 1.65 miles from the intersection of Hyde Road and Vaughn Road in the south to Interstate 8 in the north where it empties into Dixie Drain 3. Resource P-



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13-013760 has been previously recommended eligible for listing in the NRHP and CRHR under Criterion A/1 for its association with the Westside Main Canal and its significance in the agricultural development of Imperial County (Thompson, 2011a). The drainage ditch bounds the western margins of the Big Rock 1 and Laurel 2 project areas

P-13-013761 (Wixom Drain)

Resource P-13-013761 is a historic-period built resource consisting of the Wixom Drain. The earthen drainage ditch was constructed in 1941, and extends approximately 2.2 miles from Wixom Road in the south to Campbell road where it intersects with the New River in the north. Resource P-13-013761 has been previously recommended ineligible for listing in the NRHP and CRHR because of its inability to convey the theme of early agricultural development in Imperial County as well as other resources such as the All American Canal and the Westside Main Canal (Thompson, 2011b). The drainage ditch is located within 90 feet of the Laurel 3 project area's northwest corner.

P-13-013853

Resource P-13-013853 is a prehistoric archaeological site documented in 2012 as a sparse lithic scatter. The site is comprised of seven primary flakes, seven secondary flakes, two tertiary flakes, two core fragments, two exhausted cores, one core, and one piece of reddened sandstone (Mitchell et al., 2012b). The artifacts are composed of very weathered fine-grained metavolcanic material (Mitchell, 2012). The site has not been formally evaluated as part of a Phase II testing program, but it has been recommended eligible for listing in the NRHP and CRHR under Criterion D/4 due to the site's potential to answer research questions pertaining to regional chronology (Mitchell, 2012). Resource P-13-013853 is located within the alternative gen-tie area.

P-13-013855

Resource P-13-013855 is a prehistoric archaeological site documented in 2012 as a sparse lithic scatter. The site is comprised of ten artifacts including one hammerstone, one weathered projectile point fragment, three primary flakes, two secondary flakes, and three tertiary flakes (Mitchell et al., 2012c). The projectile point fragment consists of the basal portion of a stemmed dart or spear point (Mitchell, 2012). The site has not been formally evaluated as part of a Phase II testing program, but it has been recommended eligible for listing in the NRHP and CRHR under Criterion D/4 due to the site's potential to answer research questions pertaining to regional chronology given the presence of the projectile point fragment (Mitchell, 2012). Resource P-13-013855 is located within the alternative gen-tie area.

Liebert Road and Mandrapa Road

This resource is a historic-period architectural resource consisting of a barn constructed between 1940 and 1950. The resource has not been previously evaluated and is located within 60 feet of the southwestern corner of the Big Rock 1 project area.



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Sacred Lands File Search

The NAHC maintains the confidential SLF which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on May 19 and September 12, 2017 to request searches of the SLF. The NAHC responded to the requests in letters dated May 22, and September 14, 2017 (**Appendix A**). The results of the SLF search indicate that Native American cultural resources are not known to be located within or in the vicinity of the project areas or the gen-tie area. The NAHC also provided a list of Native American groups and individuals who are culturally and traditionally affiliated with the region.

Historic Map and Aerial Review

Historic maps and aerial photographs were examined to provide historical information about the project areas and gen-tie area and to contribute to an assessment of their archaeological sensitivity. Available maps include the 1940 and 1942 Heber 15-minute topographic quadrangles, and the 1957 Mount Signal and Seeley 7.5-minute topographic quadrangles. Historic aerial photographs of the projects were available for the years 1953, 1996, and 2012 (historicaerials.com 2017).

The 1940, 1943, and 1957 topographic maps show a series of canals and drains located along the margins of the project areas. One structure is depicted along the north-central portion of the Big Rock 1 project area, two structures are depicted in the central portion of the Laurel 1 project area, and one structure is depicted along the west-central boundary of the Laurel 3 project area. The 1953 aerial photograph shows the project areas as consisting primarily of agricultural fields bounded by canals and ditches, although the western half of the Big Rock 1 project area consists of uncultivated desert lands. A structure is shown in the southeast corner of the Big Rock 1 project area, one is shown in the west-central portion of the Laurel 1 project area, and one is shown along the west-central boundary of the Laurel 3 project area. The northern portion of the gen-tie area is composed of agricultural fields and the southern portion consists of undeveloped desert lands. The 1996 aerial photograph shows little change with the exception of the desert lands within the western portion of the Big Rock 1 project area are now agricultural lands, and the structure along the west-central boundary of the Laurel 3 project area is no longer present. The Imperial Valley Substation is also depicted along the southern boundary of the alternative gen-tie area. The 2012 aerial photograph shows that the structure located in the west-central portion of the Laurel 1 project area is no longer present.

In sum, the topographic map and aerial photograph review indicates that the project areas have been used for agricultural purposes since at least 1940, and probably earlier considering agricultural use appears on the earliest aerial imagery, but that little has changed within the projects between the mid-20th century and the present day, with the exception of some agricultural expansion.

Summary and Recommendations

As a result of this literature review, 33 previously recorded cultural resources have been identified within or immediately adjacent to the project areas, the proposed Fern Substation, and alternative gen-tie area. Of these 33 resources, three are prehistoric archaeological sites consisting of lithic scatters (P-13-003176, -013853, and -013855), nine are historic-period built resources (P-13-008334 [Westside Main Canal], -012688 [Dixie drains and laterals], -012689 [Fern Canal], -012692 [Fern Check], -012693 [Fig Canal], -013747 [Diehl Drain], -013748 [Fig Drain], -013760 [Westside Drain], and -013761 [Wixom Drain]), one is a historic architectural resource (Liebert Road and Mandrapa Road [barn constructed between 1940 and 1950]), one is a historic-period linear resource (P-13-003404 [wagon road segment]), one is a landscape resource (P-13-003405 [south shore of Lake Cahuilla]), and 18 are prehistoric and historic-period isolates (P-13-001403, -005297, -005298, -005585, -005648, -012695, -012696, -013749, -013846, -013847, -013848, -013849, -013850, -013851, -013854, -013856, -014268, and -014269).

Of the 33 previously recorded resources within or immediately adjacent to the project area, 25 resources have been recommended or determined not eligible for listing in the NRHP or CRHR; five resources have been recommended or determined eligible for listing; and three have not been previously evaluated. **Table 4** provides a summary of the identified resources within the and immediately adjacent to the project areas, including their NRHP and CRHR status.

TABLE 4
SUMMARY OF RESOURCES LOCATED WITHIN THE PROJECT AREAS

Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	NRHP/CRHR Status	Project Area
001403	-	-	Prehistoric isolate: ceramic sherds	Not Eligible	Within alternative gen-tie area
003176	3176	-	Prehistoric archaeological site: lithic and ceramic scatter	Recommended Eligible	Within alternative gen-tie area
003404	3404	-	Historic-period archaeological site: crossed wagon road	Not Evaluated	Within Laurel 3
003405	3405	-	Prehistoric archaeological site: "south shore of big laguna"	Not Evaluated	Within Laurel 3
005297	-	-	Prehistoric isolate: two flakes	Not Eligible	Within alternative gen-tie area
005298	-	-	Prehistoric isolate: one bifacial mano	Not Eligible	Within alternative gen-tie area
005585	-	-	Prehistoric isolate: one flake	Not Eligible	100 feet from alternative gen-tie area
005648	-	-	Prehistoric isolate: one flake	Not Eligible	100 feet from alternative gen-tie area
008334	-	-	Historic-period built resource: Westside Main Canal	Determined Eligible	Bounds Big Rock 1, Laurel 3, and alternative gen-tie area



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Primary # (P-13-)	Permanent Trinomial (CA-IMP-)	Other Identifier	Description	NRHP/CRHR Status	Project Area
012688	-	-	Historic-period built resource: Dixie drains and laterals	Recommended Ineligible	Within Laurel 3
012689	-	-	Historic-period built resource: Fern Canal	Recommended Ineligible	Bounds Big Rock 1 and Laurel 2, and is within Laurel 3
012692	-	-	Historic-period built resource: Fem Check	Recommended Ineligible	60 feet from alternative gen- tie area
012693	-	-	Historic-period built resource: Fig Canal	Recommended Ineligible	Bounds Big Rock , Laurel 1, and Laurel 2
012695	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
012696	-	-	Prehistoric isolate: ceramic sherds	Not Eligible	60 feet from alternative gen- tie area
013747	-	-	Historic-period built resource: Diehl Drain	Recommended Ineligible	Bounds Laurel 1 and 2
013748	-	-	Historic-period built resource: Fig Drain	Recommended Ineligible	Bounds Big Rock 1 and Laurel 1
013749	-	-	Historic-period isolate: bottle base and nail	Not Eligible	Within Laurel 3
013760	-	-	Historic-period built resource: Westside Drain	Recommended Eligible	90 feet from Laurel 3
013761	-	-	Historic-period built resource: Wixom Drain	Recommended Ineligible	Bounds Big Rock 1, and Laurel 2
013846	-	-	Prehistoric isolate: two flakes	Not Eligible	Within alternative gen-tie area
013847	-	-	Prehistoric isolate: ceramic sherds	Not Eligible	Within alternative gen-tie area
013848	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
013849	-	-	Prehistoric isolate: one unifacial mano	Not Eligible	Within alternative gen-tie area
013850	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
013851	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
013853	11790	-	Prehistoric archaeological site: lithic scatter	Recommended Eligible	Within alternative gen-tie area
013854	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
013855	11791	-	Prehistoric archaeological site: lithic scatter	Recommended Eligible	Within alternative gen-tie area
013856	-	-	Prehistoric isolate: one flake	Not Eligible	Within alternative gen-tie area
014268	-	-	Historic-period isolate: Coke bottle	Not Eligible	Within alternative gen-tie area
014269	-	-	Prehistoric isolate: Cottonwood projectile point	Not Eligible	Within alternative gen-tie area
-	-	Liebert Road and Mandrapa Road	Historic-period architectural resource: barn constructed between 1940-1950	Not Evaluated	50 feet from Big Rock 1



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Should the Applicants choose to construct solar fields within the project areas, as well as the proposed Fern Substation or alternative gen-tie alignment, ESA has provided the following four recommendations that would reduce potential impacts to cultural resources:

1. The project areas, the proposed Fern Substation, and the alternative gen-tie area have been subject to varying degrees of analysis. Much of the Laurel 3 project area, the proposed Fern Substation, and the alternative gen-tie area have been previously surveyed; however, only small portions of the Laurel 1 project area has been previously surveyed, and the Big Rock 1 and the Laurel 2 project areas have not been previously surveyed. Given that the project areas and the alternative gen-tie area have not been completely surveyed, the Applicants should retain a qualified archaeologist defined as one meeting the Secretary of the Interior's Professional Qualification Standards (U.S. Department of the Interior, 2008) to oversee Phase I cultural resources surveys for the Big Rock 1, and Laurel 1, 2, and 3 project areas, as well as proposed Fern Substation or the alternative gen-tie area in order to determine if previously unidentified cultural resources exist within the project areas and to relocate and evaluate the previously identified resources that have not yet been evaluated. The methods and results of the surveys, as well as the records search included here, should be summarized in a Phase I cultural resources survey report that follows the guidelines in *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990. The report should address the requirements of the California Environmental Quality Act (CEQA). Should the portion of the alternative gen-tie area located within BLM lands be included in the surveys, the report should also address the requirements of Section 106 of the National Historic Preservation Act (NHPA).
2. If previously documented but unevaluated and/or newly documented archaeological resources are identified within the project areas, they should be evaluated for inclusion in the CRHR and/or as unique archaeological resources. Should newly documented archaeological resources be found eligible for listing in the CRHR and/or constitute unique archaeological resources, avoidance and preservation in place is the preferred manner of mitigation. If avoidance is not feasible, a treatment plan should be developed by the qualified archaeologist in coordination with the Applicants and the lead agency that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resources.
3. Should the historic architectural resource (Liebert Road and Mandrapa Road) located within 60 feet of the Big Rock 1 project be subject to indirect visual impacts as a result of project implementation, a qualified architectural historian defined as one meeting the Secretary of the Interior's Professional Qualification Standards (U.S. Department of the Interior, 2008) should be retained to evaluate the resource for inclusion in the CRHR. If the resource is not found eligible for listing, then no further work would be required. Should the resource be found eligible, the qualified architectural historian will make recommendations to reduce indirect impacts to the resource to less than significant.



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4. Development within the project areas should avoid impacts to the four resources (P-13-008334 [Westside Main Canal], - 003176 (prehistoric archaeological site), -013760 [Westside Drain], -013853 [prehistoric archaeological site], -and -013855 [prehistoric archaeological site]) located within the or immediately adjacent to the project areas and/or alternative gen-tie area that have been previously determined or recommended as eligible for listening in the NRHP and the CRHR.

If you have any questions concerning the results of this literature review, please do not hesitate to contact me at 818-919-0485.

Sincerely,

A handwritten signature in black ink, appearing to read 'Monica Strauss', with a fluid, cursive style.

Monica Strauss
Southern California Cultural Resources Group Director



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2011 Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, CA. Prepared for First Solar, Inc. by KP Environmental, LLC. December 2011.
- Mitchell, Patricia T., Erica Maier, and Heather Thompson
2012a Update Record for P-13-003176. On file at the South Coast Information Center, San Diego State University, San Diego, CA.

2012b Primary Record for P-13-013853. On file at the South Coast Information Center, San Diego State University, San Diego, CA.



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2012c Primary Record for P-13-013853. On file at the South Coast Information Center, San Diego State University, San Diego, CA.

South Coast Information Center (SCIC)

2017a Primary Record for P-13-003404. On file at the South Coast Information Center, San Diego, State University, San Diego, CA.

2017b Primary Record for P-13-003405. On file at the South Coast Information Center, San Diego, state University, San Diego, CA.

Thompson, Heather

2011a Primary Record for P-13-013760. On file at the South Coast Information Center, San Diego State University, San Diego, CA.

2011b Primary Record for P-13-013761. On file at the South Coast Information Center, San Diego State University, San Diego, CA.

U.S. Department of the Interior

2008 Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (As Amended and Annotated). Electronic resource, www.nps.gov/history/local-law/arch_stnds_0.htm, accessed November 4, 2014.

Von Werlhof, Sherilee

1979 Primary Record for P-13-003176. On file at the South Coast Information Center, San Diego State University, San Diego, CA.



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Appendix A SLF Search Results



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May 19, 2017

Native American Heritage Commission
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FAX- 916-373-5471

Subject: SLF search request for the Big Rock Solar and Laurel Solar Projects (D170491.00)

To whom it may concern:

Environmental Science Associates (ESA) has been retained by 8minutenergy (8ME) to prepare a literature review for the Big Rock and Laurel solar projects (Projects). The literature review includes a records search and a Sacred Lands File search to identify known archaeological and tribal cultural resources that may exist within the Project areas. The Projects are located within agricultural fields in Imperial County, approximately 8 miles west of the City of El Centro. The enclosed map shows the Big Rock Project located in Sections 34 and 35 of Township 16 South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map, and the Laurel Project located in Sections 26 and 45 of the Township 16 South, Range 12 East on the Mount Signal and Seeley 7.5-minute USGS topographic maps.

In an effort to provide an adequate appraisal of all potential impacts that may result from the Project, ESA is requesting that a Sacred Lands File search be conducted for sacred lands or traditional cultural properties that may exist within the Project area. We additionally request the names and contact information for Native American representatives who are associated with the Project area so that we may provide these individuals with information regarding the Project.

Thank you for your time and cooperation regarding this matter. To expedite the delivery of search results, please e-mail them to mvader@esassoc.com, or fax them to 619.719.4201. Please contact me at 619.241.9238 or e-mail me at mvader@esassoc.com if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Vader", with a long horizontal flourish extending to the right.

Michael Vader
Cultural Resources

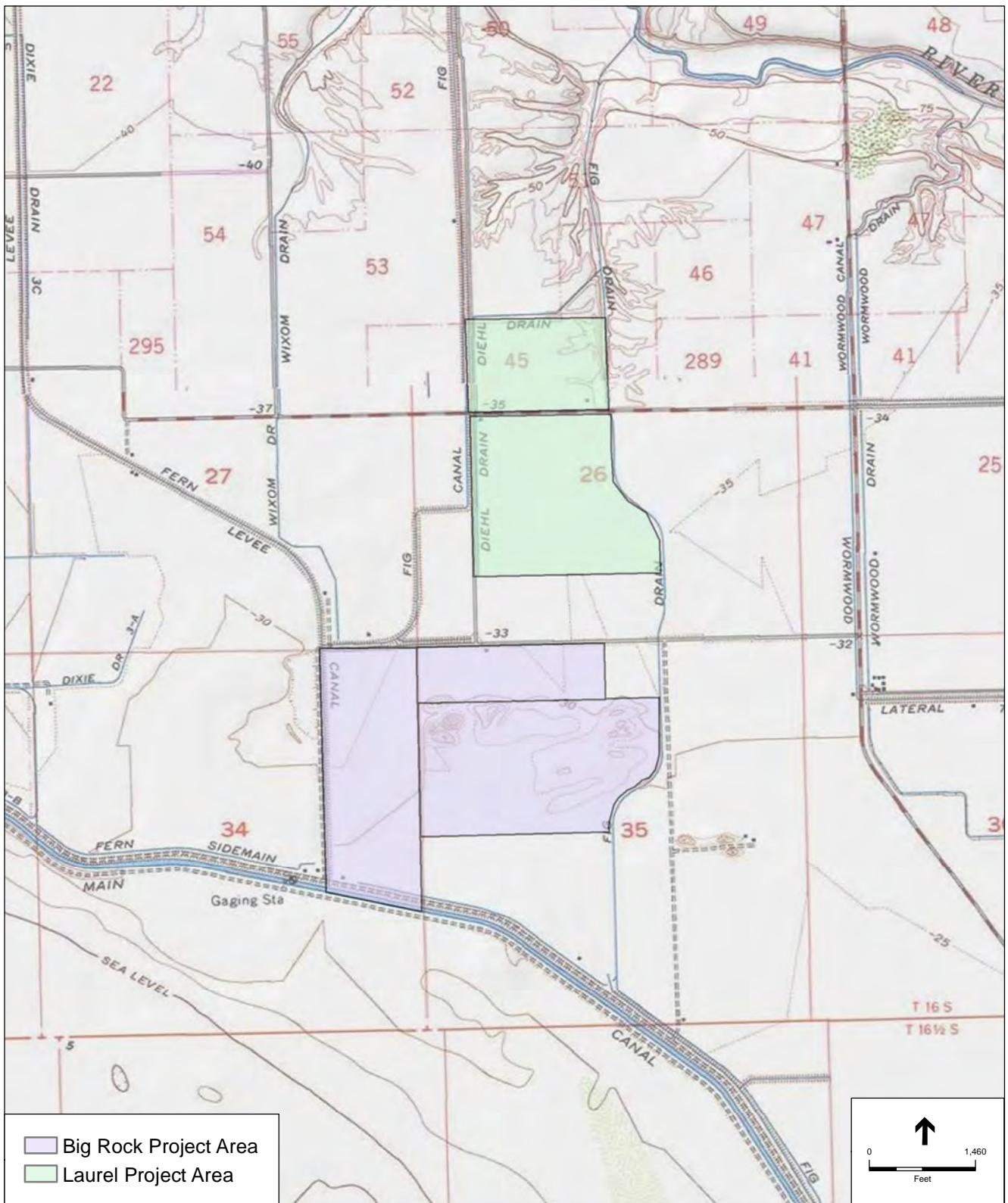


Figure 1
Records Search

**Native American Heritage Commission
Native American Contact List
Imperial County
5/22/2017**

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Native American Heritage Commission
Native American Contact List
Imperial County
5/22/2017

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550 West C Street
Suite 750
San Diego, CA 92101
619.719.4200 phone
619.719.4201 fax

www.esassoc.com

September 12, 2017

Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
FAX- 916-373-5471

Subject: SLF search request for the Big Rock Solar and Laurel Solar Projects (D170491.01)

To whom it may concern:

Environmental Science Associates (ESA) has been retained by 8minutenergy (8ME) to prepare a literature review for the Big Rock 1B project, the Laurel 2 and Laurel 3 projects, and a proposed gen-tie area located south of the Big Rock project. The literature review includes a records search and a Sacred Lands File search to identify known archaeological and tribal cultural resources that may exist within the project areas. The project areas are located within agricultural fields in Imperial County, approximately 8 miles west of the City of El Centro. The enclosed map shows the Big Rock 1B project located in Section 27 of Township 16 South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map; the Laurel projects located in Sections 21, 22, 28, 29, 53, 54, 81, and 295 of Township 16 South, Range 12 East on the Mount Signal and Seeley 7.5-minute USGS topographic maps; and the gen-tie area is located within Section 3 and 34 of Township 16 and 16½ South, Range 12 East on the Mount Signal 7.5-minute USGS topographic map.

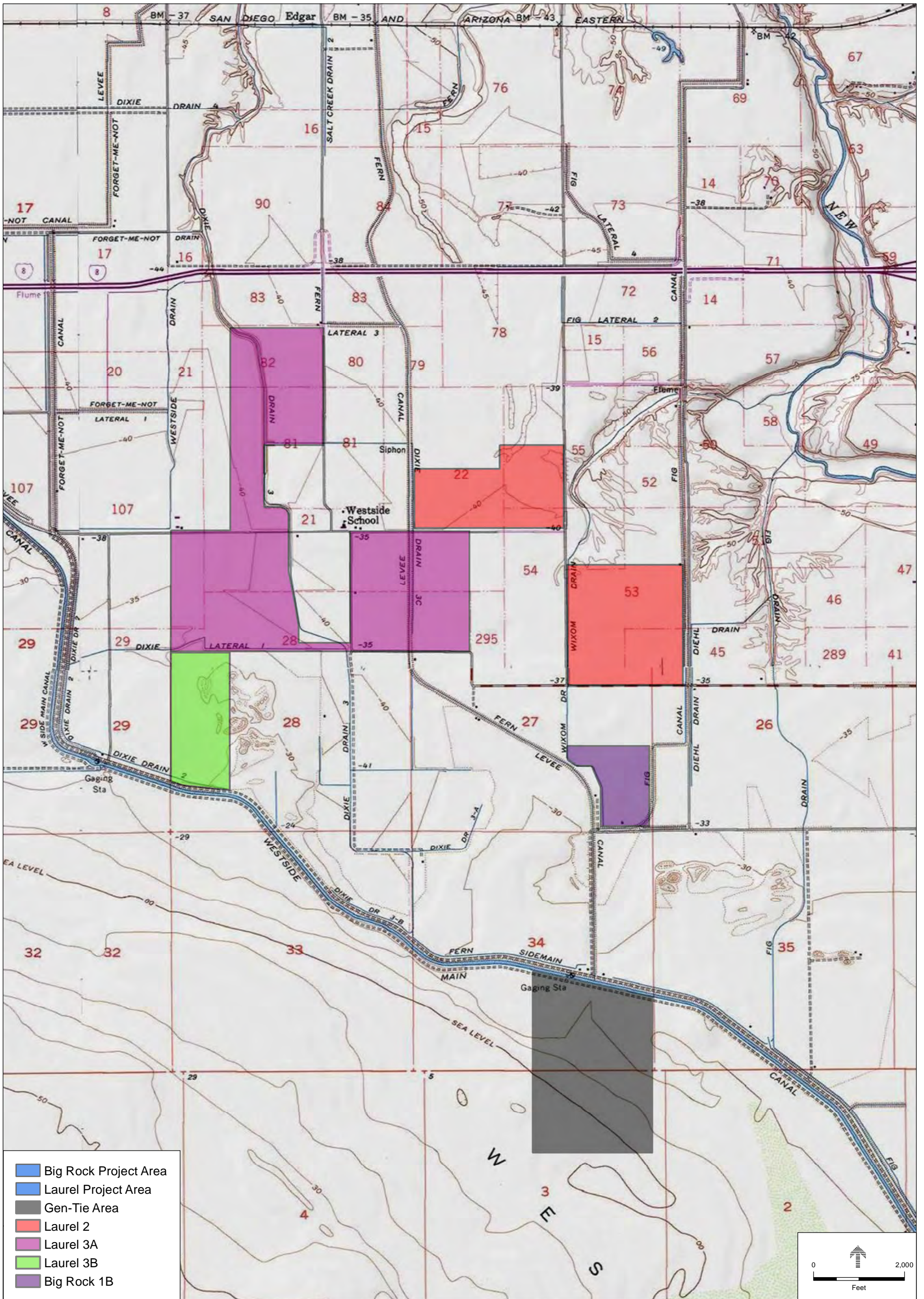
In an effort to provide an adequate appraisal of all potential impacts that may result from the Project, ESA is requesting that a Sacred Lands File search be conducted for sacred lands or traditional cultural properties that may exist within the project areas.

Thank you for your time and cooperation regarding this matter. To expedite the delivery of search results, please e-mail them to mvader@esassoc.com, or fax them to 619.719.4201. Please contact me at 619.241.9238 or e-mail me at mvader@esassoc.com if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Vader', with a long horizontal flourish extending to the right.

Michael Vader
Cultural Resources



NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710



September 14, 2017

Michael Vader
ES Associates

Sent by E-mail: mvader@esassoc.com

RE: Proposed Big Rock Solar and Laurel Solar Projects, near the City of El Centro; Mount Signal, and Seeley USGS Quadrangles, Imperial County, California

Dear Mr. Vader:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results however the area is sensitive for cultural resources. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

Attached is a list of tribes culturally affiliated to the project area. I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Gayle Totton".

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst
(916) 373-3714

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**Native American Heritage Commission
Native American Contact List
Imperial County
9/14/2017**

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lipay Nation of Santa Ysabel

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Campo Band of Mission Indians

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Inaja Band of Mission Indians

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Cocopah Indian Reservation

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Archaeologist
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Cocopah

Jamul Indian Village

Erica Pinto, Chairperson
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Jamul, CA, 91935
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Fax: (619) 669-4817

Kumeyaay

Ewiiapaayp Tribal Office

Michael Garcia, Vice Chairperson
4054 Willows Road
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Fax: (619) 445-9126
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Kwaaymii Laguna Band of Mission Indians

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La Posta Band of Mission Indians

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