APPENDIX A – Tables and Figures

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Table 1. Past, Present, and Reasonably Foreseeable Future Action

Number	Project Name	Description	Location	Approximate Distance from Project Site	Status
16	Parker-Blythe No. 2 161-kV Transmission Line Rebuild	WAPA's Parker-Blythe No. 2 161-kV transmission line was originally built in 1969. The wood pole structures are degrading and require replacement to comply with NERC reliability standards.	Within WAPA's ROW on land administered by BLM, Colorado River Indian Tribes (CRIT), CA State Lands Commission, and WAPA.	8 miles	Present, construction is expected to begin in the fall of 2025 and be complete in summer 2029.
	Headgate Rock-Blythe 161-kV Transmission Line Rebuild	WAPA's Headgate Rock-Blythe 161-kV transmission line was originally built in 1948. The wood pole structures are degrading and require replacement to comply with NERC reliability standards.	Within WAPA's ROW on land administered by BLM and CRIT, Arizona and California.	Within Project area	WAPA is conducting preliminary studies to identify alternatives for rebuilding the transmission line. Construction is preliminarily estimated to begin in 2029.
Approved Projects					
2	Bouse-Kofa 161-kV Transmission Line Rebuild	WAPA's Bouse-Kofa 161-kV transmission line was originally built in the 1950s as part of the Parker-Gila 161-kV Transmission Line. WAPA is currently replacing the wood pole structures to comply with NERC reliability standards and reconductoring the line to fix clearance violations and obtain the required line rating.	Within WAPA's ROW between WAPA's Bouse and Kofa Substations on land administered by BLM, Arizona State Land Department, and Department of Defense.	10 miles	Present, expected to be complete in January 2025.
3	Parker-Davis Transmission System Routine Operation	WAPA conducts routine operations and maintenance and implements an integrated	WAPA's Parker-Davis Transmission System (The Parker-Davis	Within Project area	Past, Present, and Future

Number	Project Name	Description	Location	Approximate Distance from Project Site	Status
	and Maintenance Project and Proposed Integrated Vegetation Management Program (WAPA 2015)	vegetation management program on the Parker-Davis Transmission System.	Transmission system includes 1,534 miles of transmission line throughout Arizona, Nevada, and California).		
4	Routine Transmission inspections	WAPA conducts inspections of transmission facilities by helicopter as well as ground patrols four times per year to maintain system reliability.	WAPA's Parker-Davis Transmission System throughout Arizona, Nevada, and California.	N/A*	Past, Present, and Future
5	Past/Present Dispersed Recreation OHV Travel on BLM lands	Public recreation opportunities in designated areas.	BLM lands within Project area.	N/A*	Past, Present, and Future

Table 2. Resource Issues Carried Forward for Analysis

Issue Topic	Analysis Issues
Air Quality	• Fugitive dust emissions • Other vehicle and equipment emissions • Impacts to air quality standards
Biological Resources, including vegetation and special status species	• Vegetation loss • Impacts to special status species and habitat • Impacts to avian species, including migratory
Cultural Resources	• Impacts to prehistoric or historic cultural resources
Visual Resources	• Impacts to residential areas near the project • Impacts to views from nearby roads
Socioeconomics	• Impacts to area employment • Housing • Impacts to property values • Tax benefits to area

Table 3. Impact Analysis Terminology

Impact Category	Terminology	Definition
Type	Beneficial	A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
	Adverse	A negative change that moves the resource away from a desired condition or detracts from its appearance or condition.
	Direct	An effect on a resource which is caused by the action and occurs at a particular time and place.
	Indirect	An effect on a resource which is caused by the action and is later in time or farther removed in distance but is still reasonably foreseeable.
	Cumulative	Impacts to resources which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.
Duration	Short-term/ Temporary	Impact occurring during the construction period (4–6 months) or for a limited time thereafter (generally less than 1 or 2 years).
	Long-term/ Permanent	Impact lasts beyond the construction period, and the resources may not regain their pre- construction conditions for a longer period of time.
Intensity	Negligible	Impact at the lowest levels of detection with barely measurable consequences.
	Minor	Impact is measurable or perceptible, with little loss of resource integrity and changes are small, localized, and of little consequence.
	Moderate	Impact is measurable and perceptible and would alter the resource but not modify overall resource integrity, or the impact could be mitigated successfully in the short term.
	Major	Impacts would be substantial, highly noticeable, and long term.

Table 4. Resource Issues Dismissed from Further Evaluation

Issue Topic	Analysis Issues
Military and Civilian Aviation	Page 4.1-19 of the EIR for the Vidal Energy Project provides a more detailed discussion of the glint and glare impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Of primary concern for military and civilian aviation in the vicinity of the Vidal Energy Project area is the potential for glare from the PV solar array. Potential glint and glare conditions were evaluated through a review of the Utility-Scale Solar Energy Facility Visual Impact Characterization and Mitigation Study Project Report published by the Argonne National Laboratory, which evaluates visual impacts for different types of solar projects (Sullivan and Abplanalp 2013). The Vidal Energy Project would use darkly colored matte PV solar panels featuring an anti-reflective coating. Photovoltaic solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. The solar panels are also designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels of panels are further reduced with the application of anti-reflective coatings. PV suppliers typically use stippled glass for panels as the "texturing" of the glass to allow more light energy to be channeled/transmitted through the glass while weakening the reflected light. With the application of anti-reflective coatings and use of modern glass technology, Vidal Energy Project PV panels would display overall low reflectivity and therefore no impacts are anticipated to military and civilian aviation. Although new overhead transmission structures are included as part of WAPA's Proposed Action, these structures are not expected to impact military or civilian airspace.
Agriculture / Prime and Unique Farmlands	Pages 6-4 to 6-5 of the EIR for the Vidal Energy Project provide a more detailed discussion of agricultural impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes no impacts is incorporated by reference here. The entirety of Vidal Energy Project site, including the area to be impacted by WAPA's Proposed Action, is vacant desert land with scattered abandoned residences nearby. According to the Department of Conservation's Important Farmland Finder, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is designated within the Vidal Energy Project site (DOC 2020) and the closest designated farmland is approximately 20 miles to the south. No impacts to agriculture or prime/unique farmlands would occur. The Farmland Mapping and Monitoring Program study area uses soil surveys developed by the US Department of Agriculture (DOC 2024); therefore, the lack of important farmland also indicates there is no US Department of Agriculture prime or unique farmland at the Vidal Project Site.

Issue Topic	Analysis Issues
Climate Change	Pages 4.6-1 to 4.6-20 of the EIR for the Vidal Energy Project provide a more detailed discussion of climate change resulting from the emissions of greenhouse gas impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Climate change is a global issue that results from several factors, including, but not limited to, the release of greenhouse gases (GHGs), land use management practices, and the albedo effect, or reflectivity of various surfaces (including reflectivity of clouds). Specific to the Proposed Action and Vidal Energy Project, GHGs would be produced and emitted by various sources during the development and operational phases of transmission lines and utility-scale solar facilities. The primary sources of GHGs associated with transmission lines and substations are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) from fuel combustion in construction and maintenance vehicles and equipment, as well as operational emissions of sulfur hexafluoride (SF_6) associated with potential leakage from gas-insulated circuit breakers at the substation. Construction of the Proposed Action and Vidal Energy Project would result in temporary activity and minor levels of GHG emissions, which would cease after the construction period. During operations, periodic operations and maintenance would generate negligible GHG emissions. Overall emissions from construction and operation of the Proposed Action and Vidal Energy Project would be minimal in comparison to global GHG emissions. The addition of up to 160 MW nameplate capacity of renewable energy that would be developed as part of the Vidal Energy Project would result in an overall net benefit to GHG emissions, because no fuel is burned, and no air emissions are produced in the process of generating electricity from photovoltaic sources. Furthermore, this fossil fuel–less energy generation means there are also no GHG emissions due to the extraction of fossil fuel. San Bernardino County's EIR estimated that the Vidal Energy Project and Proposed Action would create 1,426.62 metric tons of CO2-equivalents per year, which would be off-set by the Vidal Energy Project's renewable energy production. The EIR confirmed that the Vidal Energy Project and Proposed Action would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and confirmed that the projects would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
Fire and Fuels Management	Pages 6-20 to 6-22 of the EIR for the Vidal Energy Project provide a more detailed discussion of Wildfire impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Vegetation under the Vidal Energy Project's solar panels and around the interconnection facilities associated with WAPA's Proposed Action would be cleared to reduce wildfire hazard. Conservation measures and emergency preparedness measures would be implemented during construction and operation to reduce fire potential. San Bernardino County's EIR confirmed that the Vidal Energy Project and Proposed Action would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.
Geology and Mineral Resources	Pages 6-13 to 6-14 of the EIR for the Vidal Energy Project provide a more detailed discussion of the mineral resource impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes no impacts is incorporated by reference here. There are no mineral resources within the Vidal Energy Project area, including the area to be occupied by WAPA's Proposed Action. On page 4.5-9 of the San Bernardino County's EIR described that without appropriate conservation the Vidal Energy Project and Proposed Action have the potential to result in impacts to geological resources associated with unanticipated discovery of paleontological resources. As described in the conservation measures in Section 2.6, any impacts associated with paleontological discoveries will be minimized. Therefore, the Vidal Energy Project and Proposed Action would have no adverse effects to mineral resources and negligible effects to geological resources.

Issue Topic	Analysis Issues
Groundwater	Pages 6-11 to 6-13 of the EIR for the Vidal Energy Project provide a more detailed discussion of groundwater impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Water demand during construction is estimated at a total of 10 to 15 acre-feet, which would be trucked in or obtained from a local purveyor. Regardless of source, most (89 percent) of the ground surface within the Project area would be permeable, and operational water use would be small, estimated at approximately 1 acre-foot per year or less. The small amount of water to be used and the large amount of permeable surface within the Project Site would not deplete groundwater supplies or interfere substantially with groundwater recharge such that a net deficit in aquifer volume or a lowering of the local groundwater table level would result. Therefore, impacts to groundwater would be negligible.
Indian Trust Assets	Indian Trust Assets are legal assets associated with rights or property held in trust by the United States for the benefit of federally recognized Indian Tribes or individual tribal members. The United States, as trustee, protects and maintains the specific rights reserved by, or granted to, Indian Tribes or individuals by treaties, statutes, and executive orders. There are no known Indian Trust Assets within the Vidal Energy Project area, including the area to be occupied by WAPA's Proposed Action, therefore there would be no adverse effects to any Indian Trust Asset.
Livestock Grazing / Rangeland Health / Wild Horses and Burros	Grazing occurs and wild horses and burros may be present on BLM lands in the vicinity of the Vidal Energy Project area. However, the nearest BLM Herd Management Area, the Chemehuevi Herd Management Area, is located on BLM lands north of U.S. 62, approximately 5 miles to the north. No grazing allotments are in the vicinity. The Proposed Action and Vidal Energy Project would not displace livestock, wild horses, or burros during construction, operations, or decommissioning. No adverse impact on livestock/wild horses and burros would occur.

Issue Topic	Analysis Issues
Intentional Destructive Acts	Neither the Vidal Energy Project nor the Proposed Action present a likely target for an act of terrorism or sabotage, with an extremely low probability of attack. The DOE requires that NEPA documents explicitly address potential environmental consequences of intentional acts of destruction (DOE 2006). The purpose is to inform the decision maker and the public about chances that reasonably foreseeable accidents associated with proposed actions and alternatives could occur, and their potential adverse consequences. Reasonably foreseeable means events that may have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is with the rule of reason or reasonably foreseeable (40 CFR § 1502.22). This includes determining the appropriate level of detail for analysis based on the type of project, level of risk, and sensitivity for releasing information to the public. The addition of the interconnection and associated facilities (i.e., the switchyard) as part of WAPA's Proposed Action would continue to support the reliability of delivering electricity in the vicinity because if one line is impacted, the other adjacent line could potentially still be available to continue the delivery of electricity. Vandalism and intentional acts of destruction (sabotage) of the proposed facility and related interconnection are unpredictable events. The chances of such acts occurring would be reduced by the limited access and remote nature of the area. In addition, WAPA inspects their transmission lines and substations on a regular O&M schedule for any signs of sabotage or vandalism and takes immediate action if a potential hazard is found. The potential for serious injury resulting from vandalism is negligible; therefore, impacts would be less than significant. The public should call 1-800-209-8962 should any suspicious activity be seen in the project area or its immediate vicinity, or if anyone is seen: • Shooting at WAPA's insulators, power lines, transmission towers or substation equipment; • Dumping waste or other materials on WAPA's property; • Vandalizing WAPA's property, buildings, and vehicles; • Stealing WAPA equipment, supplies, tools, or materials; or • Harming WAPA staff. No additional detailed analysis in the EA is warranted because the impacts would be negligible.
Invasive and Noxious Weeds	Some invasive and/or noxious weeds are present in previously disturbed areas within the Vidal Energy Project area, including along existing roads and drainages (see Section 3.5), although the area to be impacted by WAPA's Proposed Action exists within an undisturbed area with a low likelihood of invasive/noxious weeds. Vegetation would be cleared prior to construction, as described in Chapter 2. Ground-disturbing activities can create conditions that could increase the potential for introduction and/or establishment of nonnative plants. However, because WAPA and the Proponent would comply with all federal, state, and local weed control regulations, and conservation measures would be implemented as described in Section 2.6, the potential for spread of invasive and/or noxious weeds would be very low resulting in negligible impacts associated with invasive and noxious weeds.

Issue Topic	Analysis Issues
Land Use	Page 6-13 of the EIR for the Vidal Energy Project provide a more detailed discussion of land use impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts, is incorporated by reference here. WAPA's Proposed Action and the Vidal Energy Project would occur solely on private land and as such only San Bernardino County's land use plans apply. Neither project would conflict with any applicable land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect. San Bernardino County's current General Plan land use designation for the area is Resource Conservation (RC), which allows development of electrical power generation facilities with a Conditional Use Permit (CUP). A CUP that includes conditions of approval has already been issued to the Vidal Energy Project, and this CUP also covers all activities associated with WAPA's Proposed Action. Therefore, impacts to land use would be negligible.
Recreation	Page 6-17 of the EIR for the Vidal Energy Project provide a more detailed discussion of the recreational impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Recreation opportunities exist on BLM lands in the vicinity although no formal recreation opportunities exist on the private property within – the Vidal Energy Project area. Neither WAPA's Proposed Action nor the Vidal Energy Project would impact recreational opportunities in the vicinity of the Project area.
Environmental Justice	Low-income and minority populations are present within the vicinity of the Project area (USEPA 2022); however, no adverse impacts would disproportionately burden minority or low- income populations. The Proposed Action would have a minor impact on the identified tribal resources of vegetation, wildlife, and visual setting; however, these impacts would be minor, and similar vegetation communities and habitat types occur in abundance throughout the analysis area.
Wildlife, excluding special status species	Pages 4.3-1 to 4.3-21 of the EIR for the Vidal Energy Project provide a more detailed discussion of the biological resource impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts to wildlife excluding special status species, is incorporated by reference here. General wildlife (e.g., lizards, coyote, rabbits) in the Vidal Energy Project area and vicinity would be negligibly impacted by construction, operation, and decommissioning of the project, similar to those impacts described for special status species in Section 3.5. Similar habitat types occur in abundance on the undeveloped public lands surrounding the Vidal Energy Project area and wildlife would continue to be able to use these areas during and after construction.
Special Management Areas, including Wilderness and Areas of Critical Environmental Concern	The closest BLM Area of Critical Environmental Concern (ACEC), the Chuckwalla to Chemehuevi Tortoise Linkage, is located near the Vidal Energy Project area's western boundary but is separated by U.S. 95. This ACEC is even further from the area to be impacted by WAPA's Proposed Action, which is located within the southeastern portion of the Vidal Energy Project area. The nearest Wilderness area is more than 35 miles west of the Vidal Energy Project area. There are no special designation areas within the Vidal Energy Project area boundaries. Construction, operation, and decommissioning activities would not occur in the ACEC, and since no tortoise or their sign have been observed within the Vidal Energy Project Area, the Proposed Action and Vidal Energy Project would not block or interfere with the natural movements or behaviors of tortoises or other wildlife using the ACEC. Therefore, neither the Vidal Energy Project nor WAPA's Proposed Action would adversely impact special management areas.
Wild and Scenic River	As described on pages 4.3-16 of the Biological Section of the EIR the Vidal Project, the Project is located within the Vidal Wash. The Vidal Wash drains into the Colorado River. Although California does have rivers included in the National Wild and Scenic Rivers System, the Vidal Wash is not listed nor is the Colorado River (https://www.rivers.gov/california). Based on the Vidal Energy Project location, the Wild and Scenic River analysis is not necessary because there is no reasonable expectation of any impact by the Project on a Wild and Scenic River direct or indirect.

Issue Topic	Analysis Issues
Surface Waters, including floodplains and wetlands	Pages 4.3-16 to 4.3-17 and pages 6-11 to 6-12 of the EIR for the Vidal Energy Project provide a more detailed discussion of the jurisdictional waters and surface water impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant with mitigation (conservation). a According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center, the Vidal Energy Project area is not located within a special flood hazard area and is designated as Zone D. Zone D is designated for areas where there are possible but undetermined flood hazards (FEMA 2022). There are no wetlands in the Vidal Energy Project area (Federal Emergency Management Agency [FEMA] 2022; USFWS 2022a and Appendix E). Although rarely if ever containing surface water, there are six drainages located within the Vidal Energy Project site, which make up 136 acres of ephemeral wash features potentially under the jurisdiction of the State of California, of which roughly 25 acres may be impacted by the Vidal Energy Project. Roughly 500 linear feet of these ephemeral washes would be impacted by WAPA's Proposed Action. A supplemental delineation was completed in December 2023 and provided in Appendix E. The supplemental delineations support the original delineations results completed for the Vidal Energy Project that all water features are ephemeral washes that are not relatively permanent, and thus not subject to federal jurisdiction. Nevertheless, as discussed in Section 2.6, the Vidal Energy Project has been designed to avoid the two largest ephemeral wash drainages, thereby ensuring that the drainages' function as wildlife corridors is not adversely affected. As described in the conservation measures in Section 2.6, any impacts to state jurisdictional ephemeral washes would be mitigated. Any impacts to CDFW jurisdictional waters would require a Section 1602 Streambed Alteration Agreement from the CDFW. Since no Section 404 permit is required, Section 401 of the Clean Water Act is not applicable; however, Waste Discharge Requirements (WDRs), or a waiver of WDRs, may be required by the Regional Water Quality Control Board. A conservation plan would be submitted for agency approval with each of the permit application packages. Although roughly 25 acres of State waters could be impacted by the Vidal Energy Project and Proposed Action, acquisition of required permits and implementation of the conservation measures in Section 2.6 would ensure impacts are negligible.

Issue Topic	Analysis Issues
Public Health and Safety	Pages 4.7-1 to 4.7-15 of the EIR for the Vidal Energy Project provide a more detailed discussion of the hazards and hazardous material impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Workers would be exposed to noise and exhaust from motorized equipment and vehicles during construction, O&M, and decommissioning of the WAPA Proposed Action and Vidal Energy Project. The use of hearing protection and operation of equipment in well-ventilated areas would minimize effects to operator health. It is unlikely that the public would be at risk from any construction, O&M, or decommissioning activities given public access to the construction area would be precluded, the nearest sensitive receptor is an unoccupied home located approximately 740 feet west of the Vidal Energy Project Site on the west side of U.S. Route 95, and the closest occupied residence is located over 1,600 feet to the north along Old Parker Road (County 2022a*)*. The Vidal Energy Project would be required to comply with all applicable design codes and implement a plans to minimize risks to workers and public alike, such as spill prevention and emergency response plans, hazardous materials management plans, fire management plans, and health and safety programs. WAPA would be required to comply with all FERC standards for large generator interconnections. San Bernardino County's EIR confirmed that the Vidal Energy Project and Proposed Action would not create a significant hazard to the public or the environment through the release of hazardous materials, would not emit hazardous emissions or handle materials within one-quarter mile of an existing or proposed school, and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the potential risk to worker and public health during construction, O&M, and decommissioning would be negligible for the WAPA Proposed Action and Vidal Energy Project. No additional detailed analysis in the EA is warranted.
Transportation	Pages 4.9-1 to 4.9-10 of the EIR for the Vidal Energy Project provide a more detailed discussion of the transportation impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant impacts is incorporated by reference here. Primary access to the Vidal Energy Project site would be via U.S Route 95 directly onto a new project-controlled dirt access road on the west side of the site. Access to WAPA's facilities installed under the Proposed Action would occur by travelling through the Vidal Energy Project site, or by utilizing existing access along WAPA's established transmission right-of-way. A 26-foot-wide perimeter access road would be constructed surrounding the Project site. Additional 20-foot-wide internal maintenance roads would be located throughout the Project site. All new access roads would be designed in compliance with the SBCFD Fire Code to ensure accessibility for the fire department and emergency vehicles. Internal access roads would be cleared and compacted for equipment and emergency vehicle travel and access to the solar blocks and BESS. During construction, the WAPA Proposed Action and Vidal Energy Project would result in a minor, short-term increase in traffic on U.S. Route 95 in the immediate vicinity of the construction area as equipment is transported to the site. Delays may occur during delivery of large equipment, such as the substation components; however, deliveries would be directed to the laydown areas within the site to minimize traffic delays on local roadways or at intersections, even during peak construction. There will be no road closures required and delays are not expected to impede the existing use of U.S. 95. Impacts to transportation from O&M activities would be negligible and would not impact traffic flow on local roadways as the solar site would only be visited once per week, on average. San Bernardino County's EIR confirmed that the Vidal Energy Project and Proposed Action would not conflict with a program, plan, ordinance, or policy addressing the circulation system, nor would the projects result in vehicle miles traveled that exceed an applicable threshold of significance. No additional detailed analysis in the EA is warranted.

Issue Topic	Analysis Issues
Noise	Pages 4.8-1 to 4.8-18 of the EIR for the Vidal Energy Project provide a more detailed discussion of the noise impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant is incorporated by reference here. While the Project is located within the Resource Conservation land use zoning district, Section 83.01.080 of the County's Development Code sets an exterior noise limit for residential noise sensitive land uses of 55 dBA Leq for daytime hours of 7 a.m. to 10 p.m. and 45 dBA Leq during the noise sensitive nighttime hours of 10 p.m. to 7 a.m. The cumulative noise level increase, created from a project, would range from 0 to 7 dBA for the added Project sound of 51-65 dBA Leq based on the existing (ambient) noise levels in the project vicinity (FTA 2006). **Construction:** The nearest occupied sensitive receptor is an existing residence located over 1,600 feet to the north from the boundary of the Vidal Energy Project and over 6,700 feet from the area of the Proposed Action. Noise levels from construction equipment for both the Vidal Energy Project and Proposed Action have the potential to exceed 80 dBA. At over 1,600 feet to the nearest residence, noise levels due to construction would be reduced a minimum of 30 dBA and would not contribute to the overall ambient noise levels because the lowest added sound to create an increase would be 51 dBA. Therefore, no impacts are anticipated, and no conservation measures are required during construction of the Vidal Energy Project or Proposed Action. In addition, construction noise levels are considered exempt if activities occur within the hours specified in the County of San Bernardino Development Code, Section 83.01.080 of 7:00 a.m. to 7:00 p.m., except Sundays and Federal holidays. No construction activity is planned outside these hours Additionally, all equipment would be properly fitted with mufflers. **Operation:** Based on empirical data, the manufacturer specifications, and distances to the property lines the cumulative noise levels from the operating battery energy storage systems, transformers, and inverters at the Vidal Energy Project were found to meet the most restrictive nighttime standard of 45 dBA at the nearest property lines. Additionally, the noise levels of the transformers, inverters, substation, and multiple PV tracker motors were combined and propagated out to the worst-case property lines at a common location. The result of the propagated cumulative noise levels is 38 Dba Leq at the property line. Therefore, the Vidal Energy Project or Proposed Action will meet the daytime standard of 55 dBA at the nearest property lines. Additionally, the nearest occupied sensitive receptor is the existing residence located over 1,600 feet to the north along Old Parker Road. Therefore, no impacts at the adjacent property lines and the existing residence are anticipated and no conservation measures are required. San Bernardino County's EIR confirmed that the Vidal Energy Project and Proposed Action would not generate a substantial temporary or permanent increase in ambient noise levels in excess of established standards, nor would they result in generation of excessive groundborne noise levels or vibration. Therefore, impacts associated with noise are negligible.

Issue Topic	Analysis Issues
Soils	Pages 4.5-8 to 4.5-9 of the EIR for the Vidal Energy Project provide a more detailed discussion of the soil erosion and topsoil loss impacts of the Vidal Energy Project and the Proposed Action. That discussion, which concludes less than significant with mitigations (conservation) is incorporated by reference here. The WAPA Proposed Action and Vidal Energy Project would have negligible long-term adverse impacts to soil resources. Onsite soils generally consist of medium dense to very dense sand with varying amounts of silt and gravel. Impacts to soils from the WAPA Proposed Action and Vidal Energy Project, including soil compaction and soil erosion by wind and water, would mainly occur from construction and decommissioning and would result in short-term, minor, adverse impacts. San Bernardino County's EIR determined that without appropriate conservation the Vidal Energy Project and Proposed Action have the potential to result in soil erosion or the loss of topsoil, although with appropriate conservation these impacts were determined to be less than significant. These conservation measures are detailed in Section 2.6 to minimize impacts to soil erosion, hydrology, and water quality. Additionally, during O&M activities, maintenance vehicles would be restricted to designated roads. With the implementation of BMPs, including those for stormwater, erosion, and fugitive dust control, impacts to soils would be minimized. All development associated with the WAPA Proposed Action and Vidal Energy Project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit (Order No. 99- 08-DWQ) for construction activities. Compliance with the CBC and the NPDES would minimize effects from erosion and ensure consistency with Colorado River Regional Water Quality Control Board requirements, which establish water quality standards for the groundwater and surface water of the region. Impacts associated with soils are negligible. No additional detailed analysis in the EA is warranted.

Table 5. State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 / 3- month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Table 6. Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year[1]		
	2018	2019	2020
Ozone:[1]			
Maximum 1-Hour Concentration (ppm)	0.067	0.064	0.066
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.060	0.059	0.053
Days > NAAQS (0.070 ppm)	0	0	0
Days > CAAQs (0.070 ppm)	0	0	0
Nitrogen Dioxide:[2]			
Maximum 1-Hour Concentration (ppb)	42.5	41.4	47.4
Days > NAAQS (100 ppb)	0	0	0
Inhalable Particulates (PM_{10}) :[23]			
Maximum 24-Hour National Measurement (ug/m^3)	331.5	155.7	239.8
Days > NAAQS (150 ug/m^3)	10	1	1
Days > CAAQS (50 ug/m^3)	7	49	66
Annual Arithmetic Mean (AAM) (ug/m^3)	47.5	32.1	35.6
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates ($PM_{2.5}$):[4]			
Maximum 24-Hour National Measurement (ug/m^3)	34.1	21.6	47.4
Days > NAAQS (35 ug/m^3)	0	0	**2**
Annual Arithmetic Mean (AAM) (ug/m^3)	ND	ND	ND
Annual > NAAQS and CAAQS (12 ug/m^3)	ND	ND	ND

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.

[1] Data obtained from the Blythe Station.

[2] Data obtained from the Palm Springs Station.

[3] Data obtained from the Niland Station.

[4] Data obtained from the Joshua Tree Station.

Source: http://www.arb.ca.gov/adam/

Table 7. Construction-Related Air Pollutant Emissions

Construction Year	Pollutant Emissions[1] (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
2022	0.49	2.92	4.5	<0.01	0.65	0.77
2023	0.11	0.53	1.02	<0.01	0.05	0.07
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Construction based on adherence to fugitive dust suppression requirements from MDAQMD Rule 403.2.
Source: CalEEMod Version 2020.4.0.

Table 8. Operations-Related Air Pollutant Emissions

Emissions Source	Pollutant Emissions tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Area Sources[1]	4.19	<0.01	<0.01	0.00	<0.01	<0.01
Energy Sources[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.01	0.02	0.12	<0.01	0.03	<0.01
Total Emissions	**4.2**	**0.02**	**0.12**	**<0.01**	**0.03**	**<0.01**
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, hearths, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage (no natural gas would be utilized by the Vidal Energy Project).
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: CalEEMod Version 2020.4.0.

Table 9. Vegetation Communities within the Combined Project Area

Vegetation community	Project area (acres)
Blue Palo Verde – Ironwood Woodland	81.44
Creosote Bush Scrub	913.57
Disturbed Creosote Bush Scrub	30.75
Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance	20.26
Tamarisk Thickets	1.53
Disturbed	24.95
Total Vegetation Communities	***1,072.50***
Bare Ground	16.61
Developed	1.79
Total	**1,090.90**

Table 10. Criteria for Evaluating Sensitive Species Potential for Occurrence (PFO)

PFO*	Criteria
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
Low:	Historical records for this species do not exist within the immediate vicinity (approximately 5 miles) of the Project Area, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the immediate vicinity of the Project Area (approximately 5 miles) and marginal habitat exists within the Project Area, or the habitat requirements or environmental conditions associated with the species occur within the Project Area, but no historical records exist within 5 miles of the Project Area.
High:	Both a historical record exists of the species within the Project Area or its immediate vicinity (approximately 5 miles), and the habitat requirements and environmental conditions associated with the species occur within the Project Area.
Present:	Species was detected within the Project Area at the time of the survey.

*PFO: Potential for Occurrence

Table 11. Temporary and Permanent Impacts to Vegetation Communities

Vegetation Community	Project Area Temporary Impacts (acres)	Project Area Permanent Impacts (acres)	Project Area Total Impacts (acres)
Blue Palo Verde – Ironwood Woodland	1.29	1.68	2.97
Creosote Bush Scrub	563.64	325.62	889.26
Disturbed Creosote Bush Scrub	18.63	8.92	27.55
Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance	11.96	8.30	20.26
Tamarisk Thickets	1.10	0.43	1.53
Disturbed	14.73	10.20	24.93
Total Vegetation Communities	***611.35***	***355.15***	***966.50***
Bare Ground	12.40	4.16	16.20
Developed	1.17	0.62	1.79
Total	**624.56**	**359.93**	**984.49**

Table 12 Analysis Area Labor Force and Employment Rate (Population 16 Years and Over), 2017 and 2022

Analysis Area	Labor Force 2017	Employment Rate 2017	Labor Force 2022	Employment Rate 2022	Employment Rate Percent Change from 2018 to 2022
San Bernardino County	1,652,005	60.1	1,701,389	62.9	+2.8
Big River CDP	934	43.5	867	43.4	-0.1

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates (U.S. Census Bureau 2022)

Table 13. Policy Plan Consistency Associated with Aesthetics

Policy Plan Policies	Consistency with Policy Plan	Analysis
Natural Resources Element		
Goal NR-4 Scenic Resources		
Policy NR-4.1 Preservation of Scenic Resources – We consider the location and scale of development to preserve regionally significant scenic vistas and natural features, including prominent hillsides, ridgelines, dominant landforms, and reservoirs.	Consistent	The Project is not located within an area with any prominent hillsides, ridgelines, dominant landforms, or reservoirs. No scenic vistas would be impacted.
Policy NR-4.2 Coordination with agencies – We coordinate with adjacent federal, state, local and tribal agencies to protect scenic resources that extent beyond the County's land use authority and are important to countywide residents, businesses, and tourists.	Consistent	The Project includes coordination with the appropriate federal, state, local and tribal agencies.
Policy NR-4.3 Off-site signage – We prohibit new off-site signage and encourage the removal of existing off-site signage along or within view of County Scenic Routes and State Scenic Highways.	Consistent	The Project will not include any off-site signage.
Land Use Element		
Goal LU-2 Land Use Mix and Compatibility		
Policy LS-2.3 Compatibility with natural environment – We require that new development is located, scaled, buffered, and designed for compatibility with the surrounding natural environment and biodiversity.	Consistent	The Project will be designed with the intent to be compatible with the surrounding natural environment and biodiversity, with the inclusion of mitigation measures described in Section 2.8, impacts to biological resources would be less than significant.
Renewable Energy and Conservation Element		
Goal RE-4 Environmental Compatibility		
Policy RE-4.1 Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality, water supply and quality, archaeological, paleontological and scenic resources. • RE 4.3.4: Establish inspection protocols and programs to ensure that RE facilities are constructed, operated, and eventually decommissioned consistent with the requirements of the San Bernardino County Code, and in a manner that will not be detrimental to the public health, safety, or welfare.	Consistent	The Project will follow all County standards regarding design, siting, and operation of the renewable energy facility.

Policy Plan Policies	Consistency with Policy Plan	Analysis
Policy RE-4.4 Encourage siting, construction and screening of RE generation facilities to avoid, minimize or mitigate significant changes to the visual environment including minimizing light and glare.	Consistent	The Project will not include significant changes to the visual environment, as the site is only distantly visible from the nearest paved road. In addition, lighting associated with the battery storage portion would be motion-activated and down-shielded.
Goal RE-5 Siting		
Policy RE-5.1 Encourage the siting of RE generation facilities on disturbed or degraded sites in proximity to necessary transmission infrastructure.	Consistent	The Project is sited in proximity to WAPA energy transmission infrastructure and the Project site is disturbed based on previous agricultural use as well as the presence of several small, developed areas and areas used as OHV areas.
Policy RE-5.7 Support renewable energy projects that are compatible with protection of the scenic and recreational assets that define San Bernardino County for its residents and make it a destination for tourists.	Consistent	The Project is not located in the vicinity of any scenic or recreational assets.

Table 14 Glossary

Term	Definition
Anti-reflective Coating	A thin coating of material applied to a solar cell surface that reduces the light reflection and increases light transmission.
Avian Power Line Interaction Committee	Committee that works in partnership with other utilities, resource agencies and the public to develop and provide educational resources, identify and fund research, develop and provide cost-effective management options, and serve as the focal point for avian interaction utility issues.
Census Designated Places	The statistical counterparts of incorporated places and are delineated to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated under the laws of the state in which they are located.
Chemical Suppressant/Tackifier	Chemical-based soil stabilization is intended to counteract the erosive influences of rainfall, snowmelt, and wind on bare soil. The use of tackifiers to prevent the movement of mulch material by wind and rain helps to keep straw and/or other mulches in place, preventing soil erosion.
Clean Air Act	(42 U.S.C. 7401 et seq.) Establishes (1) national air quality criteria and control techniques (Section 7408); (2) NAAQS (Section 7409); (3) State implementation plan requirements (Section 4710); (4) Federal performance standards for stationary sources (Section 4711); (5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (Section 7412); (6) applicability of CAA to Federal facilities (Section 7418), i.e., Federal agency must comply with Federal, State, and local requirements respecting control and abatement of air pollution, including permit and other procedural requirements, to the same extent as any person; (7) Federal new motor vehicle emission standards (Section 7521); (8) regulations for fuel (Section 7545); (9) aircraft emission standards (Section 7571).
Code of Federal Regulations	All Federal regulations in force are published in codified form in the Code of Federal Regulations
Combined Project Area	The Vidal Energy Project and the Proposed Action areas combined
Criteria Air Pollutants	An air pollutant that is regulated by the NAAQS. The EPA must describe the characteristics and potential health and welfare effects that form the basis for setting or revising the standard for each regulated pollutant. Criteria pollutants include sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter.
Cultural Resources	Districts, sites, structures, and objects and evidence of some importance to a culture, a subculture, or a community for scientific, traditional, religious, and other reasons. These resources and relevant environmental data are important for describing and reconstructing past lifeways, for interpreting human behavior, and for predicting future courses of cultural development.
Cumulative impact	The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person

Term	Definition
	undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
Decommissioning	The process to remove the Proposed Project Components, or portions thereof, from service. Decommissioning may include decontamination, dismantling, shipment and final disposition of project components, and site rehabilitation, in compliance with applicable rules and regulations.
Emissions	Pollution discharged into the atmosphere from smoke stacks, other vents, and surface areas of commercial or industrial facilities, residential chimneys, and vehicle exhausts.
Ephemeral Drainage	Drainages that flow for short durations during and after significant rainfall events
Fixed Tilt Foundation	A photovoltaic panel foundation set in at a fixed angle with respect to horizontal,
Flashy Rain Event	A sudden, intense downpour that can lead to rapid surface water runoff, often overwhelming drainage systems and increasing the risk of flash flooding.
Generation Interconnect (Gen-Tie)	These are facilities that connect the original source of electric power (generation) to the transmission system. They are typically less than five miles long.
Habitat Conservation Plan	A planning document designed to accommodate economic development to the extent possible by authorizing the limited and unintentional take of listed species when it occurs incidental to otherwise lawful activities. The plan is designed not only to help landowners and communities but also to provide long-term benefits to species and their habitats.
Key Observation Point	An element of the contrast rating system used by the Bureau of Land Management (BLM) to analyze the potential visual impact of proposed projects and activities. The rating is done from the most critical viewpoints, or Key Observation Points. Factors that should be considered in selecting KOPs are: angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions.
Kilovolt	The electrical unit of power that equals 1,000 volts.
Megawatt hour	1,000 kilowatt-hours or 1 million watt-hours
National Ambient Air Quality Standards	Standards defining the highest allowable levels of certain pollutants in the ambient air. Because the EPA must establish the criteria for setting these standards, the regulated pollutants are called criteria pollutants.
Optical Ground Wire	A type of cable that is used in overhead power lines. Such cable combines the functions of grounding and communications.
Particulate matter (PM, PM10, and PM2.5)	Any finely divided solid or liquid material, other than uncombined water. A subscript denotes the upper limit of the diameter of particles included. Thus, PM10 includes only those particles equal to or less than 10 micrometers

Term	Definition
	(0.0004 inch) in diameter; PM2.5 includes only those particles equal to or less than 2.5 micrometers (0.0001 inch) in diameter.
Photovoltaic	Pertaining to the direct conversion of light into electricity.
Photovoltaic Array	An interconnected system of PV modules that function as a single electricity-producing unit. The modules are assembled as a discrete structure, with common support or mounting. In smaller systems, an array can consist of a single module.
Prehistoric	Of, relating to, or existing in times before written history. Prehistoric cultural resources are those that precede written records of the human cultures that produced them.
Renewable portfolio standards	Renewable portfolio standards (RPS are policies designed to increase the use of renewable energy sources for electricity generation. These policies require or encourage electricity suppliers to provide their customers with a stated minimum share of electricity from eligible renewable resources.
Scoping	An early, open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.
Sensitive Species	Those plants and animals for which population viability is a concern, as shown by a significant current or predicted downward trend in populations or density and significant or predicted downward trend in habitat capability.
South Central Coastal Information Center	One of twelve regional Information Centers that comprise the California Historical Resources Information System (CHRIS). CHRIS works under the direction of the California Office of Historic Preservation (OHP) and the State Historic Resources Commission (SHRC). The SCCIC houses information about historical resources (e.g. location, size, age, etc.)
Switchyard	Facility with circuit breakers and automatic switches to turn power on and off on different transmission lines. Switchyards are typically associated with substations.
Threatened Species	Plant and wildlife species likely to become endangered in the foreseeable future.
Tribal Resources	Tribal resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR) or included in a local register of historical resources.

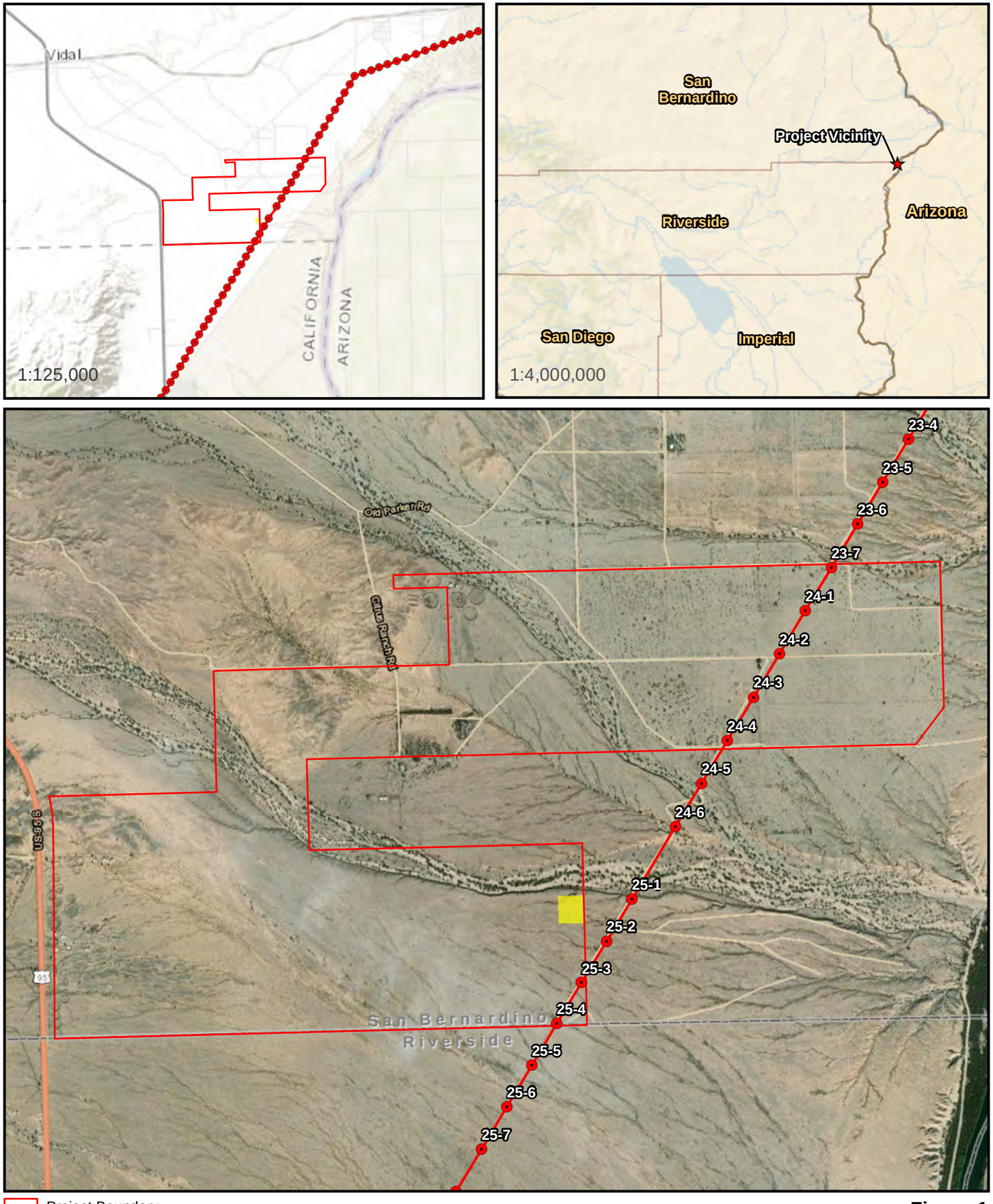
Table 15 Acronyms and Abbreviations

Term	Definition
AC	Alternating Current
APN	Assessor Parcel Number
AQMD	Air Quality Management District
BESS	Battery Energy Storage System
BLM	Bureau of Land Management
B.P.	Before Present
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
CO	Carbon Monoxide
CO_2	Carbon Dioxide
County	San Bernardino County
CRHR	California Register of Historic Resources
CRIT	Colorado River Indian Tribes
CRPR	California Rare Plant Rank
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agencies
DC	Direct Current
DFA	Development Focus Area
DOC	California Department of Conservation
DPM	Diesel Particulate Matter
DRECP	Desert Renewable Energy Conservation Plan
DSLR	Digital Single-Lens Reflex
DTC	Desert Training Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	Emission Factor Model
EO	Executive Order
EPA or USEPA	United States Environmental Protection Agency
ES	Executive Summary
FE	Federally listed; Endangered
FEMA	Federal Emergency Management Agency

Term	Definition
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FONSI	A Finding of No Significant Impact
FR	Federal Register
FT	Federally listed; Threatened
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GIS	Geographic Information System
GPS	Global Positioning Systems
KOP	Key Observation Point
kV	Kilovolt
Ldn	Day-Night Average Sound Level
LLG	Linscott, Law & Greenspan, Engineers
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
$MMTCO_2e$	Metric Tons of Carbon Dioxide Equivalent
MPH	Miles per Hour
MW	Megawatt
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
N_2O	Nitrous Oxide
NO	Nitric Oxide or Nitrogen Monoxide
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NW	Northwest
NWI	National Wetlands Inventory
O_3	Ozone
O&M	Operations and Maintenance
OATT	Open Access Transmission Service Tariff
OHV	Off-Highway Vehicle
OHWM	Ordinary High-Water Mark
OPGW	Optical Ground Wire

Term	Definition
PM	Particulate Matter
PM2.5	Particulate Matter with diameters equal to or less than 2.5 micrometers
PM10	Particulate Matter with diameters equal to or less than 10 micrometers
ppm	Parts per Million
PRC	Public Resources Code
PRMMP	Paleontological Resources Monitoring and Mitigation Plan
PV	Photovoltaic
Q	Younger Alluvium
Qoa	Older Alluvium
RC	Resource Conservation Zone
RCRA	Resource Conservation and Recovery Act
REA	Risk/Exposure Assessment
RGHGRP	Regional Greenhouse Gas Reduction Plan
ROW	Right-of-Way
RPS	Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCCIC	South Central Coastal Information Center
SCS	Sustainable Communities Strategy
SHPO	State Historic Preservation Office
SLF	Sacred Lands File
SO_X	Sulfur oxide
SR	State Route
SSC	California State Species of Special Concern
SVP	Society of Vertebrate Paleontology
State	California
SW	Southwest
US	United States of America
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	Volatile Organic Compound
WAPA	Western Area Power Administration
WEAP	Worker Environmental Awareness Program
WRRS	Worker Response Reporting System

Figures



Project Boundary

Proposed Project Substation

Structures

Transmission Line

N

0 750 1,500 3,000

Feet

Figure 1
Project Layout

Name: 21232 PLAN Fig 1 Project Location and Vicinity.Mxd
Print Date: 8/14/2024, Author: pcarlos

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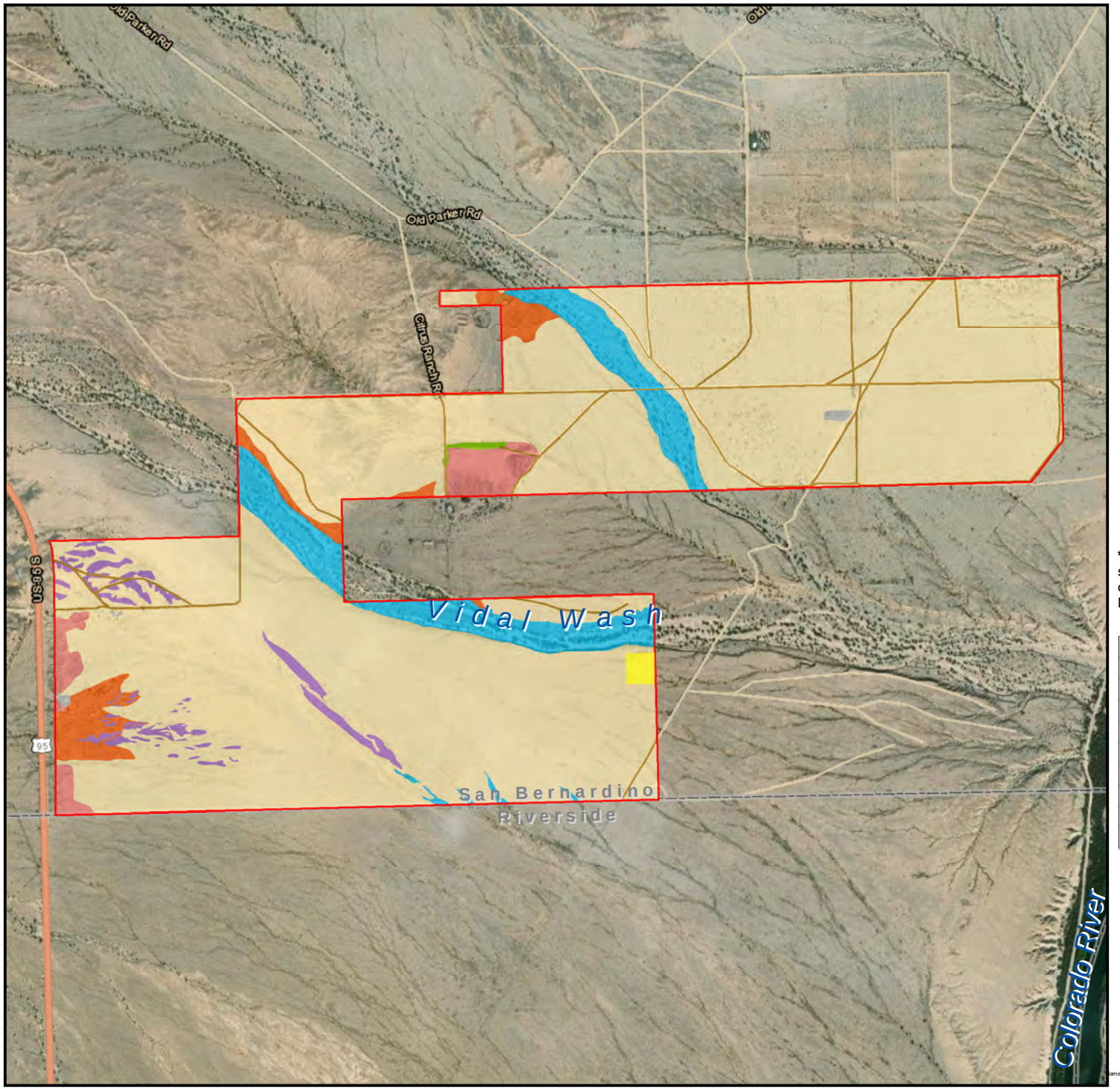

Figure 2
Vegetation Communities within
Vidal Energy Project Area

- Project Boundary
- Proposed Project Substation

Vegetation Communities

- Bareground
- Blue Palo Verde - Ironwood Woodland*
- Creosote Bush Scrub
- Disturbed Creosote Bush Scrub
- Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance
- Developed
- Disturbed/Ruderal
- Tamarisk Thickets

*Habitat with the potential to contain smoke trees, mesquites, palo verdes, and/or any other species covered under the California Desert Native Plants Act. Individual tree count pending.

Vegetation Community	Acres
Bareground	16.56
Blue Palo Verde - Ironwood Woodland	81.43
Creosote Bush Scrub	913.22
Desert Pavement	20.26
Developed	1.79
Disturbed Creosote Bush Scrub	30.74
Disturbed/Ruderal	24.93
Tamarisk Thickets	1.53
Total	**1090.46**

N

0 1,000 2,000 4,000

Feet

Name: 21232 PLAN Fig 2 Vegetation Communities within Vidal Energy Project Area.Mxd
Print Date: 7/16/2024, Author: pcarlos

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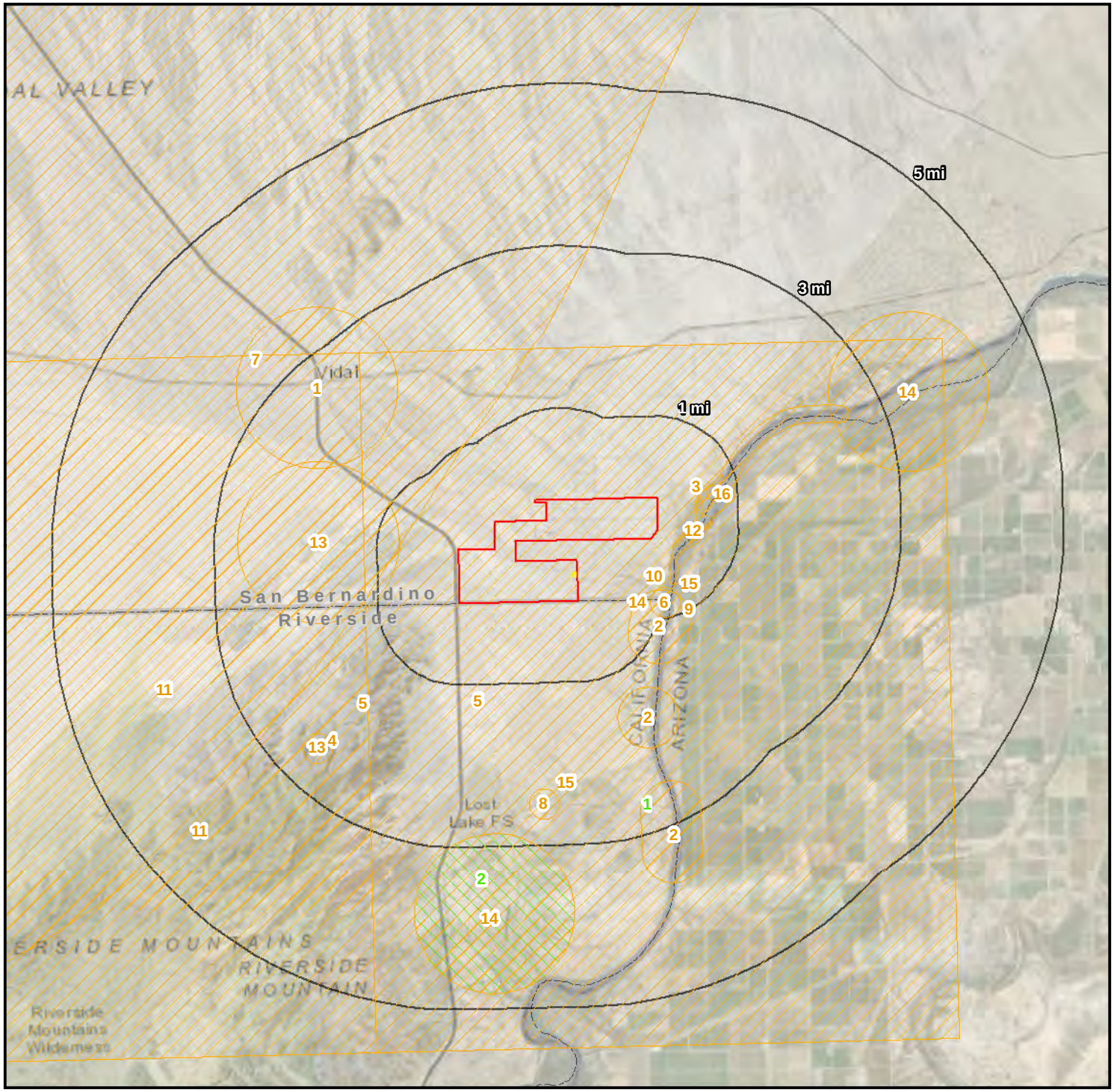

Figure 3

Sensitive Species within 5mi of the Vidal Energy Project Area

Project Boundary

Proposed Project Substation

Distance

Distance

CNDDB Occurrences

Animals

1- American badger
2 - Arizona bell's vireo
3 - California black rail
4 - California leaf-nosed bat
5 - cave myotis
6 - Crissal thrasher
7 - desert tortoise
8 - elf owl
9 - Gila woodpecker
10 - northern cardinal
11 - prairie falcon
12 - razorback sucker
13 - Townsend's big-eared bat
14 - western yellow-billed cuckoo
15 - yellow-breasted chat
16 - Yuma Ridgway's rail

Plants

1 - Abrams' spurge
2 - Alverson's foxtail cactus

N

0 1 2 4

Miles

Name: 21232 PLAN Fig 3 Sensitive Species within 5mi of the Vidal Energy Project Area.Mxd
Print Date: 7/17/2024, Author: pcarlos

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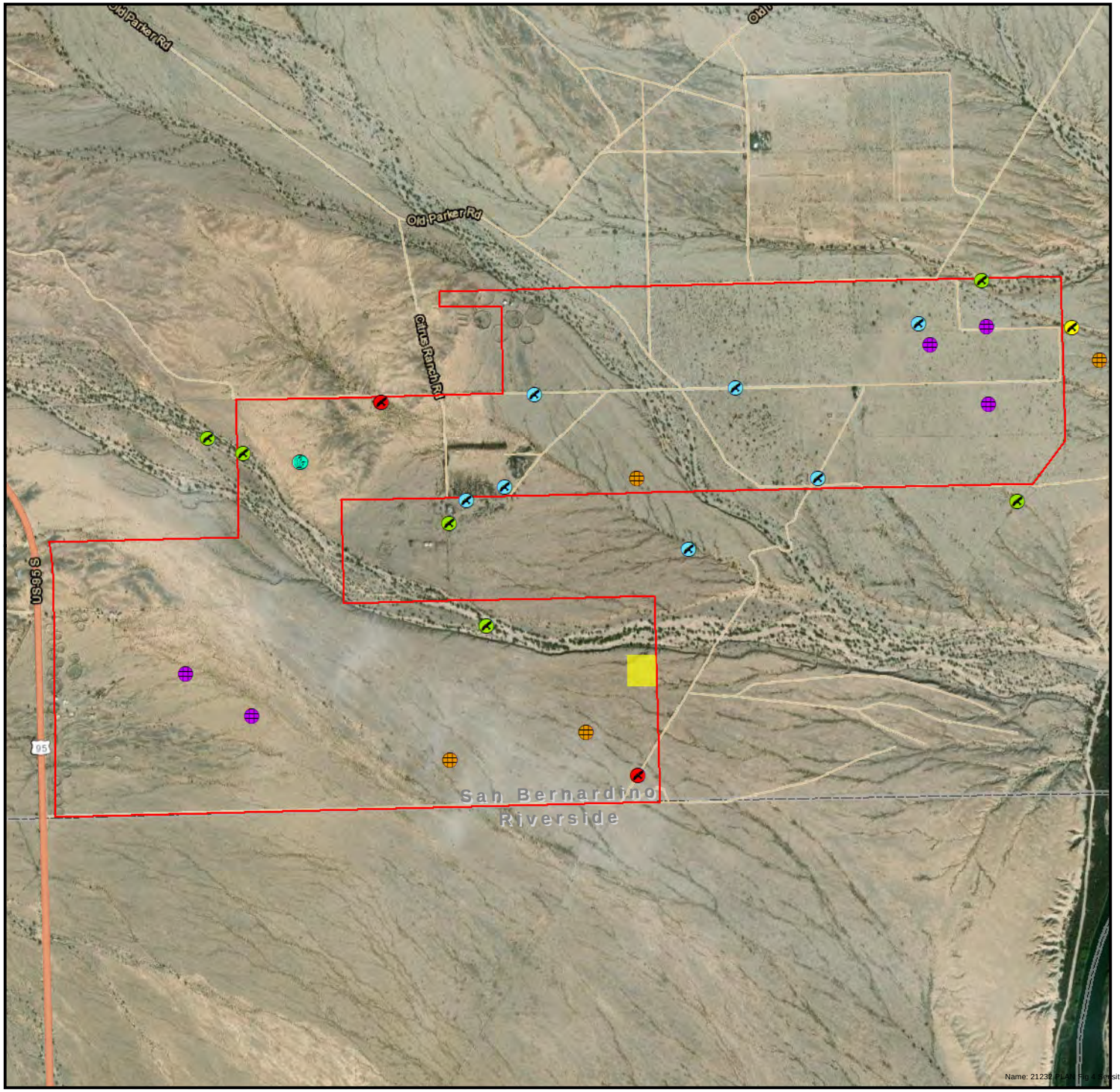

Figure 4
Sensitive Species Observations within Vidal Energy Project Area

- Project Boundary
- Survey Buffer (500 ft)
- Potential Burrowing Owl Burrows w/ Sign
- Kit Fox Burrow/ Burrow Complexes w/ Sign

Plants

- Utah vine milkweed

Animals

- black-tailed gnatcatcher
- loggerhead shrike
- osprey
- yellow warbler

N

0 1,000 2,000 4,000

Feet

Name: 21232 Fig 4 Sensitive Species Observations within Vidal Energy Project Area.Mxd
Print Date: 7/16/2024, Author: pcarlos

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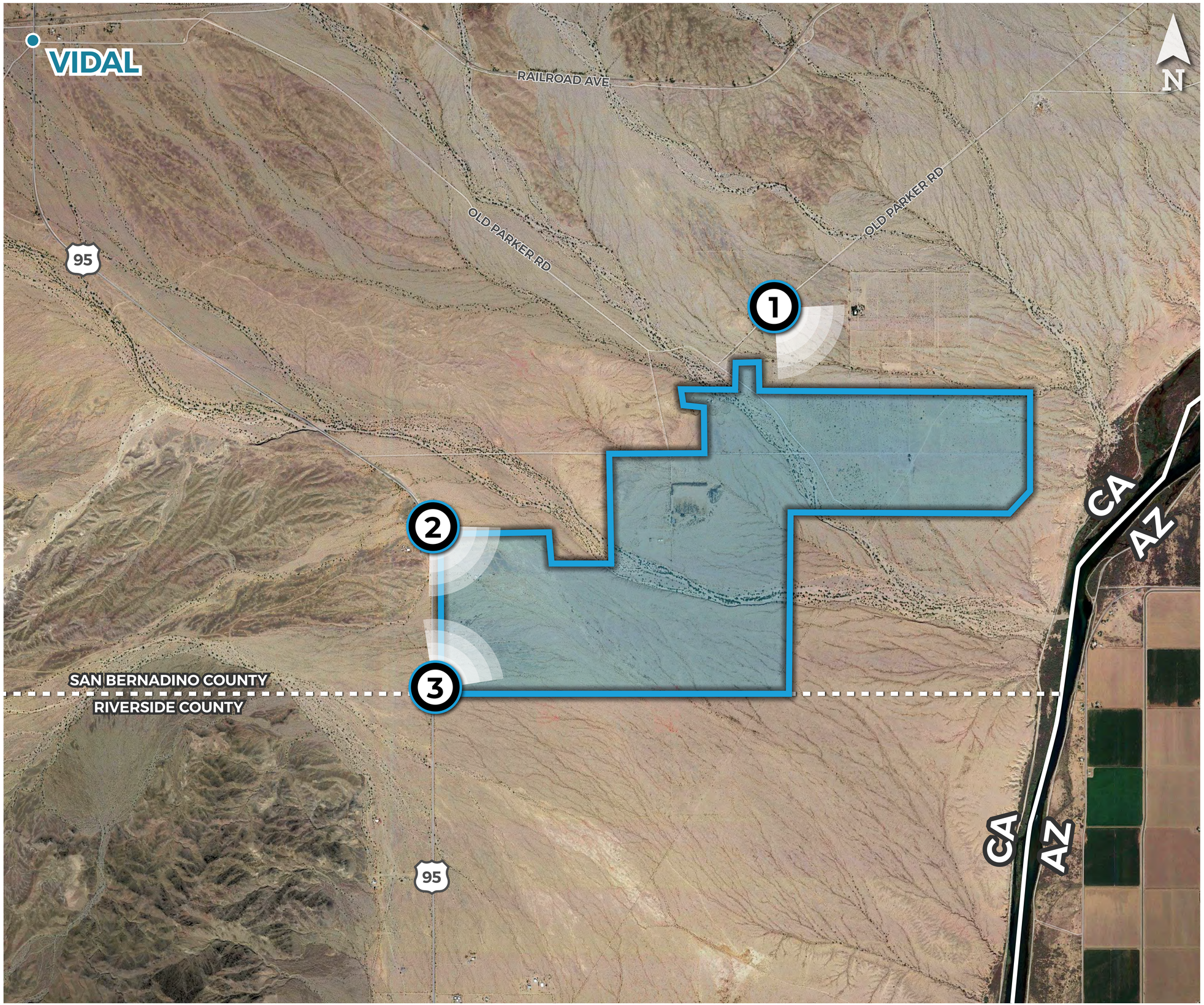
VIDAL SOLAR
ENERGY FACILITY

Figure 5
KOP Overview Map



1 PHOTO VIEWPOINT

MAP DETAIL AREA

PROJECT AREA*

*Does not reflect the current project boundary

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VIDAL SOLAR
ENERGY FACILITY

Figure 6 KOP 1

DATE: 6/16/21
TIME: 1:12 PM
DIRECTION: SOUTHEAST

EXISTING CONDITIONS

PROPOSED CONDITIONS

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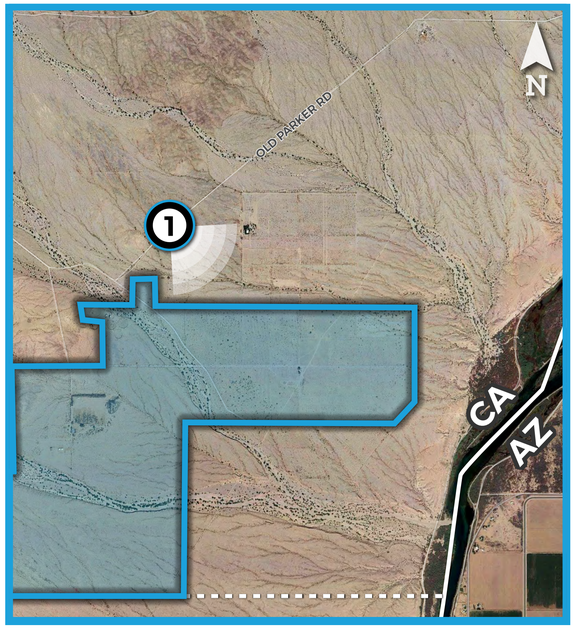

1 PHOTO VIEWPOINT

PROJECT AREA*

*Does not reflect the current project boundary

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VIDAL SOLAR
ENERGY FACILITY

Figure 7 KOP 2

DATE: 6/16/21
TIME: 12:32 PM
DIRECTION: SOUTHEAST

EXISTING CONDITIONS

PROPOSED CONDITIONS

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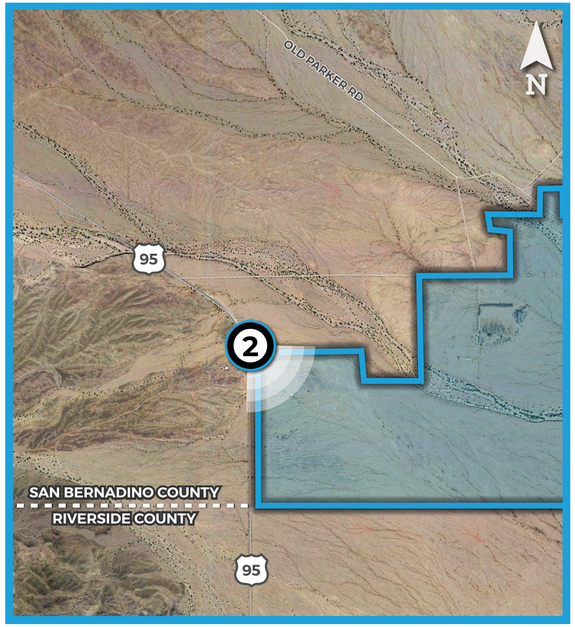

2 PHOTO VIEWPOINT

PROJECT AREA*

*Does ot reflect the current project boundary

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VIDAL SOLAR
ENERGY FACILITY

Figure 8 KOP 3

DATE: 6/16/21
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DIRECTION: NORTHEAST

EXISTING CONDITIONS

PROPOSED CONDITIONS

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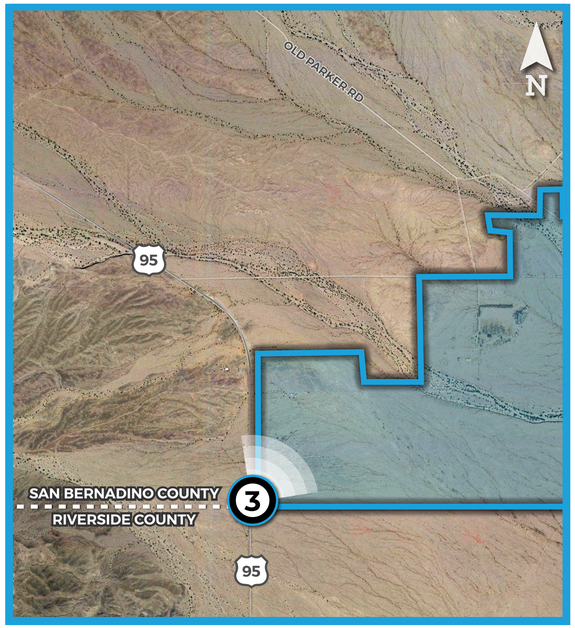

3 PHOTO VIEWPOINT

PROJECT AREA*

*Does not reflect the current project boundary

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