Final Environmental Assessment

Mana Solar Project
American Samoa

U.S. Department of Agriculture
Rural Utilities Service (RUS)

Prepared for:

Mana Solar, LLC

Prepared by:

SWCA Environmental Consultants

DRAFT ENVIRONMENTAL ASSESSMENT
MANA SOLAR PROJECT
AMERICAN SAMOA

Prepared for

U.S. Department of Agriculture
Rural Utilities Service
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CONTENTS

Appendices

Figures

Tables

1 INTRODUCTION

Mana Solar, LLC is proposing construction of the Mana Solar Project (Project or the Proposed Action), a 13.37-megawatt (MW) direct current (DC)/10.2-MW alternating current (AC) solar generation facility in the Western District of American Samoa. The Proposed Action would occur within three parcels totaling approximately 30 acres of land (Project Area) in the village of Pava'ia'i, County of Tualauta, island of Tutuila, Territory of American Samoa (Figure 1). The Proposed Action is located on the Tutuila Island U.S. Geological Survey (USGS) topographic map.

To support Project construction, Mana Solar, LLC is filing an application for financial assistance from the U.S. Department of Agriculture (USDA) Rural Development, Rural Utilities Service (RUS). On behalf of Mana Solar, LLC, SWCA Environmental Consultants (SWCA) has prepared this environmental assessment (EA) in accordance with Rural Development Instruction 1970, published April 1, 2016, and as required under the National Environmental Policy Act (NEPA) of 1969 to describe, evaluate, and consider the impacts to environmental resources from the Project. This Environmental Assessment (EA) has been prepared to analyze potential impacts to the natural and human environments associated with the Proposed Action in accordance with NEPA (42 United States Code [U.S.C.] §§ 4321–4347) and its implementing regulations (40 Code of Federal Regulations [CFR] 1500–1508) promulgated by the Council on Environmental Quality (CEQ), Rural Development's (RD) NEPA Regulations (7 CFR Part 1970—Environmental Policies and Procedures), and RD Instructions 1970-Subpart C. This EA also addresses other laws, regulations, executive orders (EOs), and guidelines promulgated to protect and enhance environmental quality including, but not limited to, the National Historic Preservation Act (NHPA), Endangered Species Act (ESA), Farmland Protection Policy Act (FPPA), Clean Water Act (CWA), and EOs governing floodplain management, protection of wetlands, and environmental justice.

1.1 Purpose and Need

USDA Rural Development consists of three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service (RUS). These agencies have in excess of 50 programs that provide financial, technical, and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with the goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives. The USDA's purpose and need is to either approve or deny Mana Solar's application for financing. The USDA's RUS administers programs that provide infrastructure improvements to rural communities. Specifically, the RUS Electric Program provides loans and loan guarantees to finance the construction or improvement of electric distribution, transmission, and generation facilities in rural areas (USDA 2018b). Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives. The Project and borrower meet the eligibility requirements to receive the loan through RUS, as established by the Rural Electrification Act of 1936 and pursuant to 7 CFR Chapter XVIII.

The purpose and need for this Project is to aid in the American Samoa Renewable Energy Committee's goal of 50% renewable power by 2025 and 100% renewable power by 2040 (U.S. Energy Information Administration 2023). The construction of a commercial solar facility to generate and distribute clean, renewable photovoltaic solar energy to the existing electrical grid for the County of Tualauta per the existing purchase power agreement (PPA) with American Samoa Power Authority (ASPA) would help in attaining the renewable power goals identified above.

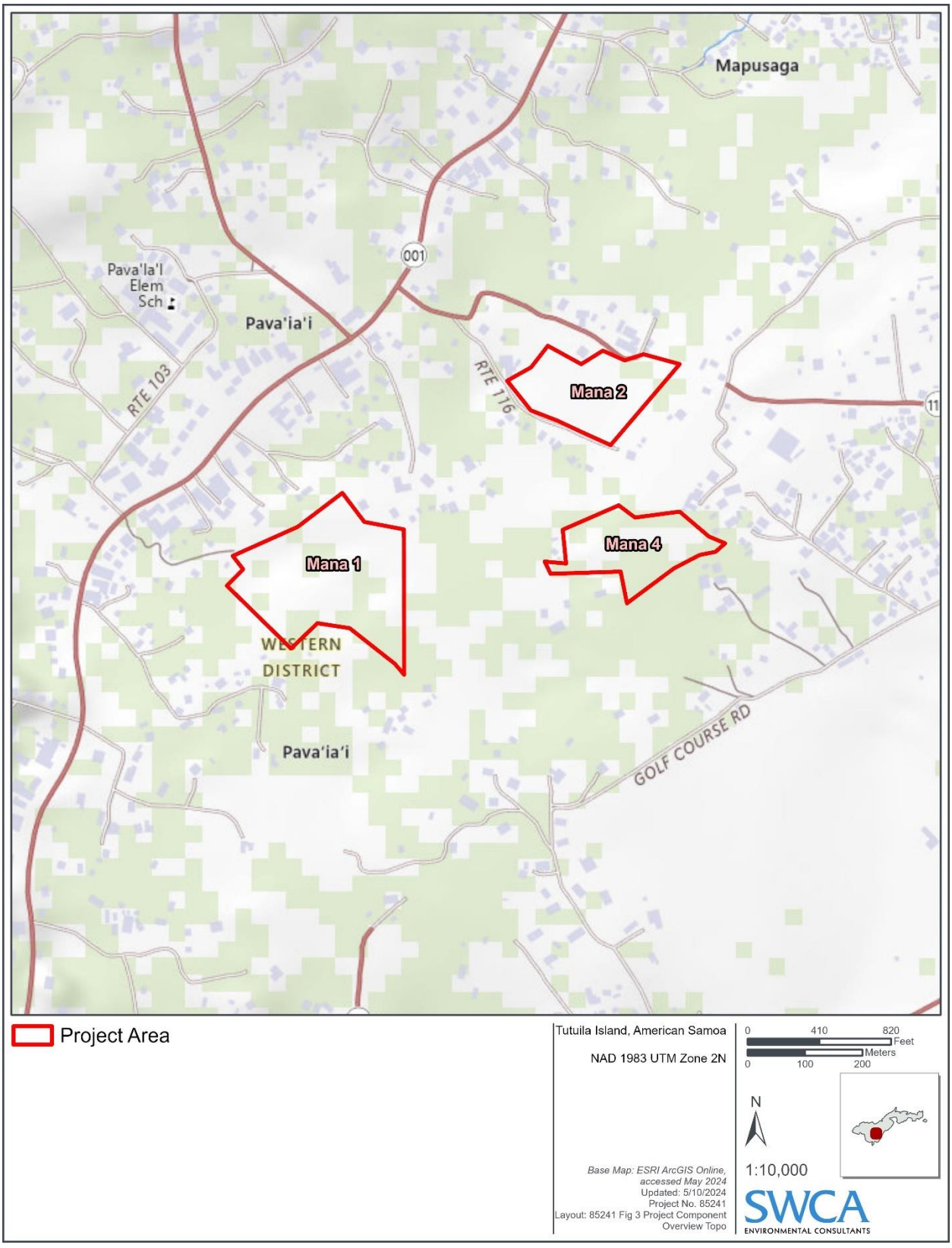

Figure 1. Mana Solar Project Area Location

2 PROPOSED ACTION AND PROPOSED ACTION ALTERNATIVES

2.1 Proposed Action

The Proposed Action would consist of three, irregularly shaped parcels of land totaling 30.2 acres (Project Area; Figure 2).

- The largest parcel, referred to as Mana 1, totals 16.7 acres.
- Two additional parcels, referred to as Mana 2 and Mana 4, total 7.06 acres and 6.46 acres, respectively.

The Proposed Action would include the installation of approximately 23,000 commercially available polycrystalline modules to convert sunlight to direct current (DC) power. Modules would be grouped into solar arrays totaling 16.1 acres that would be oriented east to west and installed in in a saw-toothed manner, as allowed by on-site topography. The solar arrays would be ground mounted on a fixed tilt racking system using galvanized rebar foundations. The rebar would be driven approximately 3 feet underground within approximately 1.5-inch diameter holes to support the upper mounting structures.

DC power generated by the Mana Solar arrays would be routed via underground cables to a fenced control area on an adjacent solar farm, which would contain a control room, one transformer, PCP (primary control provision), EMS (energy management system), and a lithium-ion battery energy storage system with a storage capacity of up to 4 MW/hour. From the control area, power would be "stepped-up" to a higher voltage for transmission to the local distribution grid via a 34.5-kilovolt transmission line owned and managed by the American Samoa Power Authority. The control area and transmission line are not included as part of Mana Solar, LLC's application for financial assistance. Project underground cables would consist of approximately 4-inch PVC pipe installed 2 to 3 feet below ground.

2.1.1 Project Construction

Construction would take up to 4 months and would involve approximately 60 local construction staff for each, using a mixture of backhoes, excavators, flatbed trucks, ATVs, and a crane to conduct:

- Site preparation (Project Area vegetation clearing, grading, removal of existing debris)
- Racking/ground screw installation
- Installation of electrical components (trenching, conduit installation and refill)
- Module assembly and installation
- Interconnection of the transmission line
- Project testing and Project clean up

Site inspections would be conducted by the Project engineer and consultants to demarcate the site prior to construction activities. Land surveyors would mark the locations of foundations and Project components using steel pins and paint markings. Excavated soil would be stockpiled on site, tested for backfill suitability, and either reused as backfill or removed off-site. Battered excavation slopes greater than 5 feet in height would be supported. If excavation extends below the groundwater table, a dewatering system would be installed to lower ambient groundwater levels to a depth that is sufficiently below the excavation level. All excavated areas would be barricaded with appropriate signage.

Mana Solar, LLC, would implement erosion control measures per their Erosion Control Plan (Eastern Power Solutions 2023). Erosion control measures would include the use of soft or hard barrier materials such as turf blankets, mats, silt fencing, geo-textiles, fiber rolls, and other tools to create short-term barriers to restrict soil movement. Construction waste, such as cardboard, paper, and pallets, would be disposed of in a nearby landfill by ASPA.

Construction and Project equipment would be shipped to the Project site and stored on-site. Specific manufacturers/models for Project equipment are subject to market availability. However, all equipment would comply with the Build America, Buy America Act, enacted as part of the Infrastructure Investment and Jobs Act signed into law on November 1, 20521by President Bident and other relevant requirements. All Project components would be constructed and operated in accordance with all applicable guidelines including National Electrical Code standards and the National Fire Protection Association. DC and AC equipment would be rated for their intended use and certified for exposed site conditions in American Samoa. Mana Solar, LLC would develop and implement a Health and Safety Plan to be followed by all contractors on site, and only authorized operators would be allowed to operate vehicles or machinery.

The Project would be situated on private land that has been leased under agreement with ASPA. Project power would be supplied to the local distribution grid, based on the executed PPA with ASPA. The terms of the PPA is 30 years, plus two five-year options. Project operations are anticipated to start in 2024 once all approvals and construction are complete.

2.1.2 Project Operation and Maintenance and Decommissioning

Production for the Mana Project is estimated at 20,187,000 kWh in Year 1, with a 0.5% annual degradation for all subsequent years. Mana Solar, LLC would conduct weekly system performance checks and monthly or quarterly infrastructure assessments by off-site personnel using monitoring software. No permanent staff would be stationed at the Project, but the Project would use local staff to conduct facility maintenance and module cleaning. Ground maintenance would occur as necessary to prevent shading of solar panels from any ground cover that naturally revegetates after construction is complete; however, the close spacing of panels and limited sunlight is anticipated to limit regrowth. Damaged or underperforming system components would be repaired or replaced as needed to maintain adequate power production.

At the end of the Project's lifecycle, the Project would be decommissioned. All aboveground Project components would be removed from the site for disposal or recycling.

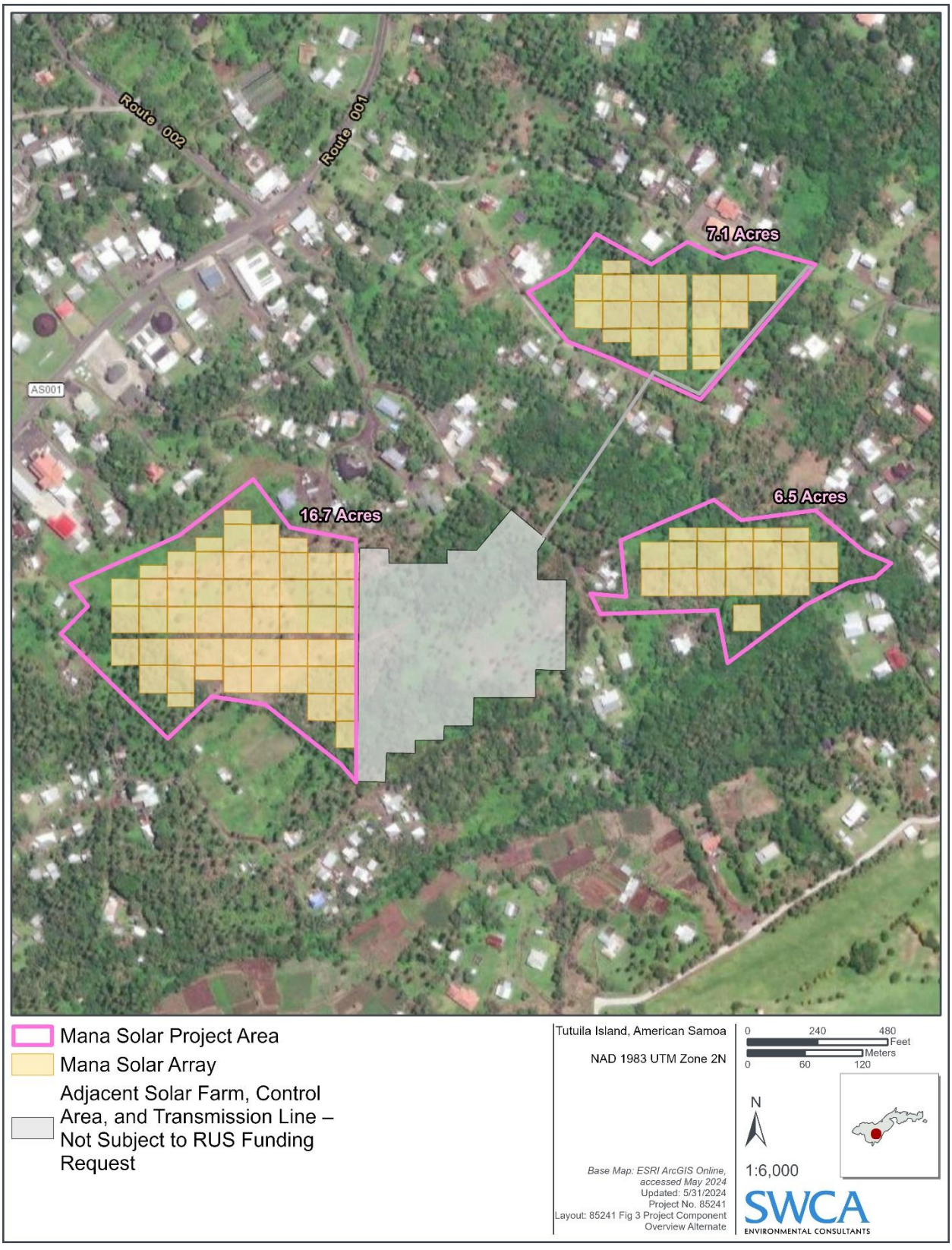

Figure 2. Aerial View and Layout of the Mana Solar Project

2.2 No Action Alternative

Under the "No Action" alternative, RUS would not provide funding for the Project, and the site would not be developed with a solar facility. Potential impacts associated with Project activities (i.e., construction, operation and maintenance, and decommissioning) would not occur, and the island would not receive the distributed power in accordance with the PPA with ASPA. The anticipated generation from this potential alternative energy/solar source would not be available, and ASPA would then have to seek alternative electric generation sources to meet anticipated needs. The Project site would continue as previously disturbed agricultural land. The no-action alternative does not meet the purpose and need of the Project as it would not result in the generation and distribution of a clean source of renewable energy; however, the no-action alternative is presented as a point of comparison to the Project.

2.3 Alternatives Considered but Dismissed from Detailed Analysis

This EA considered whether there were reasonable project locations or energy source alternatives to the Proposed Action that would avoid or minimize adverse effects while still satisfying the purpose and need. The ASPA provides electrical services to over 43,000 residents in American Samoa; therefore, the Project could be sited at alternative locations within the island of Tutuila and still serve the desired population. However, Mana Solar, LLC ultimately selected the proposed Project site based on available lease agreements as well as placement near adjacent power and transmission infrastructure, which minimized the extent of land disturbance and avoided potential land use conflicts as compared to other locations. Therefore, no alternative locations were carried forward for analysis.

Some non-renewable fuel sources such as liquified natural gas could offer a lower emission energy source, but would not reduce American Samoa dependence on imported fuels. Although other renewable energy sources such as wind could meet the purpose and need for increasing local renewable energy resources, the Project power purchase agreement with ASPA is exclusively for photovoltaic solar energy. Therefore, no alternative energy sources were carried forward for analysis.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the current conditions of existing resources that may be affected by the Proposed Action and the No Action Alternative. Effects addressed in this chapter include those caused by the action in the same time and place (direct) as well as those caused by the action, but later in time or further in distance (indirect). Effects are described as either adverse (detrimental to a resource) or beneficial (positive effect on a resource). Because effects can vary in duration, this chapter describes them as either short-term (during Project construction) or long-term (over the life span of the Project). The relative degree of effect on each resource is described as negligible (impacts are imperceptible and consequences are not measurably adverse or beneficial), minor (has a relatively low effect on, or creates only marginal change), moderate (causes a noticeable change), or major (causes substantial change). The terms "effect" and "impact" are used synonymously.

3.1 Resource Issues Determination and Analysis Methodology

SWCA followed document preparation requirements for NEPA Environmental Assessments as stipulated under 1970-C of USDA Environmental Policies and Procedures. This EA relies on publicly and readily available data, such as published literature, online resources, SWCA's in-house sources, regulatory agencies, reports, maps, aerial photography, databases, public records, and geographic information system (GIS) data sets. Data sources reviewed for this EA are provided in Section 7, Literature Cited.

As part of the EA scoping process, environmental resources to be analyzed and those eliminated from the detailed study were determined in accordance with guidance provided by the Council on Environmental Quality (CEQ) and regulations *40 CFR §1501.7[a] [3].* Environmental resources that have no potential to be impacted through the Proposed Action were not carried forward for analysis within the EA. Resource areas that were eliminated from further study and the rationale for elimination are presented below.

- **Coastal Resources**. The American Samoa Coastal Zone Management Area is defined as "The Island of Tutuila, the Manu'a Island group, Aunu'u Island, Rose Island, and Swains Island, Territory of American Samoa, and all coastal waters and submerged lands for the distance of three nautical miles seaward in all directions" (American Samoa Coastal Management Program 2008). Although the Project is located within the Coastal Zone Management Area, Project activities have no reasonably foreseeable effects to coastal uses or resources of the coastal zone. The inland location of the Project (roughly 1.5 miles from the nearest coastline), small disturbance footprint, and implementation of erosion control measures would preclude Project impacts to coastal or marine waters and wildlife and avoid potential disruption of existing commercial or recreational water activities. The Project's inland location would also preclude impacts to coral reef ecosystems and the Project is not within the Coastal Barrier Resources System (CBRS). Therefore, a detailed analysis of Coastal Resources is not required.
- **Corridor Analysis**. A corridor analysis is not applicable for this Project as the Project does not follow a linear path nor have above-ground transmission lines; therefore, a detailed analysis is not required.
- **Electromagnetic Fields and Interference (EMF)/Human Health**. During the construction phase of the Project, there would not be an increase in the existing EMFs, as the solar array would not yet be energized. During operations and maintenance, solar inverters would produce a non-stationary EMF, known as extremely low frequency (ELF) EMF, 60 Hz. ELF magnetic fields are well below the International Commission of Non-Ionizing Radiation Protection's (ICNIRP) recommended magnetic field exposure limit of 2,000 milligauss (Massachusetts Department of Energy Resources, Massachusetts Department of Environmental Protection, and Massachusetts Clean Energy Center 2015). Therefore, a detailed analysis of EMF is not required.
- **Hazardous Materials.** The Project consists of currently undeveloped lands without electricity or natural gas. A Phase I environmental site assessment has not been completed for the Project. However, per correspondence with the American Samoa Environmental Protection Agency ([ASEPA]; Sili 2023), the EPA has no records of any chemical releases or other spills within the Project site. The Project would not result in the production or release of hazardous materials or consist of construction of a new Resource Conservation and Recovery Act hazardous materials handling facility. Therefore, a detailed analysis of Hazardous Materials is not required.
- **Historic and Cultural Resources.** ASPA conducted an archival and records search of the Project APE and the surrounding 0.5-mile radius in July and August of 2023. The search identified one previous cultural resource survey conducted in the APE as well as two prior surveys conducted

within the broader vicinity. These surveys recorded prehistoric and historic sites such as house foundations, stone platforms, defensive structures, star mounds, and stone walls. A pedestrian survey was conducted on February 19-24, 2024. No prehistoric artifacts or structural features were observed in the survey area; however, monitoring during construction was recommended (Peau 2024). Based on survey findings and monitoring efforts, there would be no impact to cultural resources from Project activities.

RUS submitted a Findings Letter to the SHPO on May 3, 2024, recommending a Findings of No Historic Properties Affected. The SHPO responded on May 3, 2024, concurring with the RUS's determination of No Historic Properties Affected within the APE provided that all ground disturbing activities will have archaeological monitoring (see Appendix A). Should any previously unrecorded cultural resources be discovered during Project construction, they will be treated as per 36 CFR 800.13 for Post Review Discoveries. Mana Solar, LLC will provide a report documenting the archaeological monitoring and any findings to SHPO within a year of the end of construction.

- **Land Use (Important Farmland and Formally Classified Lands)**. No prime farmland is present within the Project site (NRCS 2019). Formally Classified Lands are those afforded special protections under federal, state, or local agencies. The Project does not contain any formally classified lands such as wildlife refuges, wilderness, parks, recreational areas, or other publicly owned land that could be impacted by the Project. The nearest classified land is the National Marine Sanctuary of American Samoa, located approximately 3 miles northeast of the Project along the Samoan Archipelago. Since neither resource would be impacted by the Proposed Action, a detailed analysis is not required.
- **Recreation Resources**. Recreational activities in American Samoa are typically centered around coastal resources, such as beaches, inlets, and the ocean, and include snorkeling, diving, boating, fishing, and swimming. No recreational resources exist within the Project Area, nor do any recreational resources rely on the existing use of the Project parcel. One golf course is located 0.2 miles south of the Project but is disconnected from the Project by roads, trees, and residential houses. Therefore, a detailed analysis of Recreation Resources is not required.
- **Wetlands and Waterbodies.** According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2023a), no wetlands are mapped within or directly adjacent to the Project Area. According to the USGS National Hydrography Dataset (NHD), no waterbodies exist within the Project Area (USGS 2024). The NHDPlus dataset (USGS 2022) indicates the presence of 1,124 feet of stream within the Project site. However, this stream was not observed during a review of remote and aerial imagery, as well as previous site visits (DMWR 2023). Therefore, no impact to Waters of the United States are anticipated to occur, no Clean Water Act Section 404 permitting would be required, and a detailed analysis of wetlands and waterbodies is not required.

3.2 Air Quality and Climate/Greenhouse Gases

3.2.1 Affected Environment

The Clean Air Act (CAA) 42 U.S.C. §7401 et seq. (1970) regulates air emissions and establishes National Ambient Air Quality Standards (NAAQS) to protect public health and regulate hazardous air pollutant emissions. Areas are classified as attainment and nonattainment; where nonattainment areas are those which do not meet NAAQS criteria. The County of Tualauta is currently in attainment for all criteria pollutants as designated by the EPA (2023a). The climate is generally hot, wet, and humid. Island

temperatures average 80 degrees Fahrenheit, and annual rainfall typically ranges from 118 to 158 inches (Peau 2024).

Climate change is a global issue that results from several factors, including the release of greenhouse gases (GHGs); land use management practices; and the albedo effect, or reflectivity of various surfaces (including reflectivity of clouds). Projected future climate trends in American Samoa include higher air and ocean temperatures, sea level rise, changing rain patterns, and ocean acidification. In 2022, stationary and mobile combustion produced 287,125 metric tons of GHGs across the territory (American Samoa Environmental Protection Agency 2024). Current sources of criteria air emissions and GHGs near the Project site include vehicles, generators, and machinery that travel or operate on nearby public roads and lands.

3.2.2 Environmental Consequences

3.2.2.1 PROPOSED ACTION

The primary Project impact to air quality and climate would occur from traffic and dust-based emissions (criteria air pollutants and GHGs) generated by construction activities. However, these impacts would be 1) limited in scale based on the small, localized area where construction would occur and a limited number of vehicles and equipment needed, and 2) temporary in duration—once construction ends, criteria air pollutant and GHG emissions would also cease. Mana Solar, LLC's implementation of their erosion control plan would be employed to further reduce particulate matter emissions, as practicable. Therefore, adverse construction impacts would be direct, minor, and short-term. Operational activities are anticipated to generate negligible, long-term criteria air pollutant and GHG emissions associated with intermittent and short-duration vehicle or equipment operation.

Additionally, long-term, the Project could also help reduce criteria air pollutant and GHG emissions by providing a local source of renewable energy to the grid. Currently, the island of Tutuila relies entirely on diesel generators for power, which release a combination of volatile organic compounds, carbon monoxide, particulate matter, nitrogen oxides, and sulfur dioxide. Replacing these emissions with more efficient technologies and renewable sources of energy would provide a benefit by reducing sources of air quality impairment as well as health risks to local communities. Through the implementation of renewable energy projects such as Mana Solar, ASPA estimates that up to 100,583 tons of carbon dioxide could be reduced per year (American Samoa Environmental Protection Agency 2024).

During decommissioning, equipment would be removed in a similar manner as installed during construction. Therefore, impacts would likely also be similar to those described for construction.

3.2.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed Project Area would remain in its current state, and no adverse impacts to air quality would occur. However, any benefits associated with avoided emissions from traditional fossil fuel sources would also not occur.

3.3 Geology and Soils

3.3.1 Affected Environment

According to the Natural Resources Conservation Service (NRCS) (2019), the Project Area consists entirely of Iliili extremely stony mucky clay loams, 3 to 15 percent slopes. This soil type is composed of

shallow, well drained soils in uplands that are moderately susceptible to soil erosion (NRCS 2005; Tonkin & Taylor 2023).

American Samoa is part of a volcanic island chain approximately 300 miles long. The Project lies within the Tafuna Plain and is underlain by less than 6.5 feet of soil overlying moderately weathered, moderately strong to strong Basalt rock (Tonkin & Taylor 2023). Seismic-induced liquefaction damage and expansive or compressible soil risk is low in the Project Area (Tonkin & Taylor 2023).

3.3.2 Environmental Consequences

3.3.2.1 PROPOSED ACTION

During Project construction, grading and ground-disturbing activities on up to 30 acres of land within the Project would be required. Project actions could result in compaction or affect soil productivity due to loss or mixing of organic matter during site preparation. However, these direct and indirect, short-term, and minor adverse impacts to soil resources during construction would be minimized through the implementation of erosion controls such as turf blankets, mats, silt fencing, geo-textiles, fiber rolls, and other tools to restrict soil movement. Excavation depths would be shallow (up to 3 feet) and limited to installation of solar array and fencing foundations as well as approximately 1,000 feet of underground cables, which could result in negligible, long-term adverse alteration of less than 1 acre of geologic features due to earth-moving activities. No soils susceptible to seismic-induced liquefaction damage and expansive or compressible soil risk would be impacted.

No surface or subsurface ground disturbing activities are anticipated during operations, and all activities would occur within the previously disturbed Project Area; therefore, no impacts to soils or geologic resources would occur. During decommissioning, equipment would be removed in a similar manner as installed during construction. Therefore, impacts would likely also be similar to those described for construction.

3.3.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, impacts to protected wildlife would not occur, and invasive species management would not occur. The Project Area would be left as previously disturbed, and invasive woody species would be anticipated to spread throughout the site.

3.4 Land Use and Vegetation

3.4.1 Affected Environment

The Project Area consists of gently sloped topography, falling from west to east from an elevation of about 250 to 165 feet (Tonkin & Taylor 2023). Previous surveying indicates that the Project Area primarily consists of plantation vegetation (i.e., papaya and bananas) that has been historically cleared and cultivated with a small area of regrowth of mixed invasive and native trees where the land had been previously disturbed (DMWR 2023). According to National Land Cover Database (Yang et al. 2018), the majority of land cover within the Project Area is Evergreen Forest and Cultivated Crops (Table 1).

Table 1. National Land Cover Dataset Land Uses Within the Project Area

Land Use/Land Cover Description	Acreage	Percent of Project Area
Cultivated Crops	12.1	40.0%
Evergreen Forest	10.8	35.6%
Scrub/Shrub	3.6	11.9%
Grassland	3.0	9.8%
Impervious Surface	0.5	1.6%
Developed Open Space	0.3	1.1%

The Project would be located on approximately 30 acres of communal land in the village of Pava'ia'i in Tualauta County, which is located in the Western District of American Samoa. The property is privately owned by the Tuanaitau family and is currently leased to the American Samoa Power Authority for the purposes of solar farm development.

The majority of the land use surrounding the Project Area is agriculture, commercial uses, and residential development. Although no buildings are present in the Project Area, residential homes exist adjacent to the Project Area.

3.4.2 Environmental Consequences

3.4.2.1 PROPOSED ACTION

Project construction would require the clearing of existing vegetation within the 30-acre Project Area. These direct, short-term, minor adverse impacts would occur within non-native vegetation types. Disturbed areas could revegetate once Project construction is complete, although grounds maintenance would occur to ensure that site vegetation does not impact power production, which would preclude regrowth of crop, forested, or shrub vegetation types. Indirect adverse effects to adjacent vegetation outside the Project Area would not be anticipated with Mana Solar, LLC's implementation of their Erosion Control Plan, which would minimize the risk of decreased plant productivity as a result of fugitive dust, soil compaction, or exposure to contaminants.

Additional short-term vegetation impacts could occur during operation and maintenance activities due to soil compaction or vegetation trampling caused by foot travel, vehicles or equipment, as well as decreased plant productivity due to accidental spills. However, these activities would only occur intermittently within the previously disturbed Project Area. Therefore, impacts would be direct and indirect, long-term, and negligible adverse.

As stated above, the Project land is under lease to ASPA for the purposes of solar farm development. Project activities would, therefore, be compatible with planned land uses. All necessary permits would be obtained before construction commences to ensure regulatory compliance. There are no buildings present in the Project site; therefore, no residents would be displaced by Project activities. Potential impacts to private residential landowners located near the Project Area are described in Section 3.11 of this EA.

During decommissioning, equipment would be removed and revegetated in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

3.4.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the private land would remain in lease to ASPA; however, a solar farm would not be developed, and the purpose of the lease would not be met. No construction would occur, and the land would remain as previously disturbed and previously cultivated areas with regrowth of native and invasive woody species.

3.5 Floodplains

3.5.1 Affected Environment

According to digital Federal Emergency Management Agency (FEMA) floodplain map numbers 6000010067C and 6000010086C (both dated July 17, 2006), the Project is predominantly located within Zone X (FEMA 2024). Zone X designates areas with minimal flood hazard and outside of the 100-year floodplain. Approximately 0.4 acres of the Mana 4 parcel intersects Zone AE, which has a one percent chance (or 100-year) of flooding.

3.5.2 Environmental Consequences

3.5.2.1 PROPOSED ACTION

The Project would result in a direct short-term, minor, adverse impact to less than one acre of mapped 100-year floodplain within the Project site due to construction (and future decommissioning) of the Project. However, construction of Project features would not result in a change in elevation, and floodplains would be restored to preconstruction contours once construction is complete. Therefore, no long-term adverse impacts to floodplains would occur.

3.5.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, a solar farm facility would not be constructed and therefore, no changes to floodplain function or hydrology are anticipated.

3.6 Water Quality and Quantity

3.6.1 Affected Environment

Nearly all of the public drinking water supply on the island of Tutuila, American Samoa, comes from groundwater resources. Groundwater production from the Tafuna Plain is currently distributed among four main well fields: 1) Malaeloa, 2) Iliili, 3) Tafuna, and 4) Malaeimi. However, the Project is not located in these well fields and does not contain any aquifers that are designated as a sole source aquifer by the U.S. Environmental Protection Agency (EPA 2023b). Groundwater was not encountered during the Project geotechnical site investigation in excavated test pit depths up to 5.25 feet (Tonkin & Tayor 2023).

3.6.2 Environmental Consequences

3.6.2.1 PROPOSED ACTION

Site preparation, installation of the solar array, and installation of underground collection lines could increase sedimentation from stormwater runoff or potentially introduce contaminants into surface water resources adjacent to the Project during construction. However, the implementation of Mana Solar, LLC's erosion control plan would minimize the risk of Project-related water quality impacts. Temporary disturbance areas from construction would be revegetated, which would also reduce the risk of runoff carrying sediment or pollutants to adjacent surface or groundwater would be minimized. Therefore, impacts would be direct and indirect, short-term, and negligible adverse. Because no sources of drinking water are present in the analysis area, they would not be affected.

Operation and maintenance activities would consist of vegetation management and facility inspection. These actions could result in the transport of sedimentation or pollutants to adjacent surface water resources if they result in ground disturbance or accidental spills. However, these activities would only occur intermittently within the previously disturbed Project site. Therefore, impacts would be direct and indirect, long-term, and negligible adverse.

During decommissioning, equipment would be removed and revegetated in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

3.6.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, a solar farm facility would not be constructed and therefore, no changes to water quality or quantity would occur, and no impacts are anticipated.

3.7 Biological Resources

3.7.1 Affected Environment

3.7.1.1 GENERAL AND PROTECTED WILDLIFE SPECIES AND HABITAT

Common wildlife in the Project Area includes indigenous lizards, geckos, fruit bats, and a variety of birds (Peau 2024). Table 2 lists the federally and state-listed species with known or potential occurrence in the Project Area based on a review of the USFWS (2023b) Information for Planning and Consultation (IPaC). The Project Area does not contain any designated critical habitat (USFWS 2023b).

This USFWS list identified four terrestrial species listed as endangered under the Endangered Species Act of 1973, as amended (ESA) that may be present in the Project Area: the Pacific sheath-tailed bat (*Emballonura semicaudata semicaudata*), M'ao (*Gymnomyza samoensis*), and two snails that do not have common names, *Eua zebrina* and *Ostodes strigatus*.

According to the American Samoa Department of Marine and Wildlife Resources (DMWR), the M'ao is not present on Tutuila, and the pacific sheath-tailed bat has not been detected in American Samoa since 1998. Additionally, the Project Area does not have cave habitat for the bat. However, the two snail species are present on Tutuila and are found in native forests with an intact canopy.

The federally-listed endangered *Eua Zebrina* is a tropical tree snail that is a herbivore that feeds on partially decaying and fresh plants (USFWS 2023b). Data from iNaturalist (2024) include observations of this species approximately two miles southeast of the Project.

The federally-listed endangered *Ostodes Strigatus* is a tropical ground-dwelling snail in the family Poteriidae endemic to the island of Tutuila in American Samoa (USFWS 2023b). The *Ostodes Strigatus* habitat is on the ground in forested areas with heavy tree covers. Data from iNaturalist (2024) include observations of this species approximately four miles northeast of the Project.

DMWR conducted a site assessment of the Project site in January, September, and November 2023. The site was determined to possess low quality wildlife habitat consisting mainly of previously disturbed plantation vegetation. The site visit resulted in no observations of ESA-listed snails or ESA-listed snail shells.

Table 2. Threatened and Endangered Species With Potential to Occur Within the Project Area

Species*	Federal ‡	Suitable Habitat in Project Area	Critical Habitat in Tualauta County
Mammals			
Pacific Sheath-tailed Bat (*Emballonura semicaudata semicaudata*)	FE	None	No
Birds			
M'ao (*Gymnomyza samoensis*)	FE	None	No
Snails			
Eua zebrina	FE	None	No
Ostodes strigatus	FE	None	No

Sources: USFWS (2023b).

‡ Federal/USFWS Designation: FE – Federally Endangered

3.7.1.2 INVASIVE SPECIES

The site visit conducted by DMWR in 2023 determined that the site largely consists of previously disturbed papaya and banana plantations with areas of mixed native and invasive woody species. The invasive woody species were noted as growing within previously disturbed plantation areas that are no longer maintained. Species were not identified by name.

3.7.2 Environmental Consequences

3.7.2.1 PROPOSED ACTION

Potential impacts to wildlife from construction include the loss, degradation, and fragmentation of breeding, feeding, and sheltering habitats; collisions with or crushing by construction vehicles or equipment; loss of underground nesting or burrowing animals and their shelter in areas where grading would occur; increased invasive species establishment and spread; and increased noise and vibration levels.

Approximately 30 acres within the Project would be cleared of vegetation for the installation of the solar farm. Disturbed areas could revegetate once Project construction is complete, although grounds maintenance would occur to ensure that site vegetation does not impact power production and transmission, which would likely preclude regrowth of forested vegetation types. Given the evidence of continual cultivation and disturbance, however, DMWR concluded that the Project is not likely to be suitable as habitat for ESA-listed snail species and that the Project would be unlikely to have negative impacts on the populations or habitat of terrestrial ESA-listed species found in American Samoa (DMWR

2023). Indirect adverse effects to adjacent vegetation outside the Project would not be anticipated with Mana Solar, LLC's implementation of their erosion control plan, which would minimize the risk of decreased plant productivity as a result of fugitive dust, soil compaction, or exposure to contaminants. Therefore, direct and indirect impacts to both general and protected wildlife species would be short- to long-term, and negligible adverse.

Given the presence of invasive woody species within the Project Area currently, the Project could have a long-term, direct, beneficial impact on invasive species management as clearing of invasive woody species would likely occur for the life of the Project.

During decommissioning, equipment would be removed and revegetated in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

3.7.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, impacts to protected wildlife would not occur, and invasive species management would not occur. The Project Area would be left as previously disturbed, and invasive woody species would be anticipated to spread throughout the site.

3.8 Aesthetics

3.8.1 Affected Environment

A viewshed analysis for the Project has not been conducted; however, the Project is not located within a visually sensitive area, such as a wilderness area, park, or scenic area. Views within the Project Area consist of previously disturbed plantation vegetation, as well as limited areas containing a mix of invasive and native tree regrowth. The landscape surrounding the Project Area consists of residential and commercial structures, forested areas, and agricultural fields.

3.8.2 Environmental Consequences

3.8.2.1 PROPOSED ACTION

Based on aerial imagery, an estimated 25 structures located adjacent to the Project Area are likely to be the most affected, as they have partially or fully unobstructed views of construction activities. Impacts on visual resources during Project construction would primarily be associated with vegetation clearing and increased activity (e.g., the movement of vehicles and equipment), which could attract attention. During construction, the removal of vegetation and earthwork would introduce areas of exposed soil, which would contrast with the existing setting until construction is complete and vegetation has been restored. This would result in a short-term, direct, moderate adverse impact.

Long-term, the conversion of approximately 30 acres of existing previously agricultural lands to a solar farm would generate visual contrast through their geometric form and dark, slightly reflective surfaces, which are not common in the setting. The addition of the repetitive, vertical upright features associated with the solar arrays would be noticeable on area roads or adjacent buildings with views of the Project. However, the presence of existing vegetative screening that would be retained around much of the Project would help minimize this impact. Therefore, Project elements would attract attention but would not dominate the setting, resulting in a long-term, direct, negligible to moderate adverse impact.

During decommissioning, equipment would be removed and revegetated in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

3.8.2.2 NO ACTION ALTERNATIVE

The No Action Alternative is not anticipated to have any impacts to visual aesthetics.

3.9 Noise

3.9.1 Affected Environment

Existing sources of noise in the vicinity of the Project are typical to those found in rural and suburban areas. Noise sources include intermittent aircraft flybys, residential construction and maintenance activities, and vehicle noise from traffic, especially along major arterial roads. An existing golf course, 0.2 miles south of the Project, is likely to produce occasional noise from mowing and maintenance activities. A noise study has not been conducted for the Project Area. Nevertheless, ambient day-night noise levels in rural and suburban American Samoa towns with infrequent traffic are expected to range from 40 to 45 dBA (USACE 2022). There are no numerical noise or vibration limits in American Samoa. However, per the Occupational Safety and Health Act of 1970, employees should not be exposed to more than 85 dB for an 8-hour day.

3.9.2 Environmental Consequences

3.9.2.1 PROPOSED ACTION

The Project would introduce additional construction equipment and worker vehicle traffic on roads in the vicinity of the Project Area, as well as construction noise, over the roughly 4-month construction duration. Noise levels from the construction activities, including increased truck traffic noise during delivery of Project components, would occur primarily during daylight hours. Based on likely construction noise sources, this EA estimates that excavator and flatbed truck activity could produce up to 85 dBA (Federal Highway Administration 2006); however, these noise sources would not be continuous and would diminish rapidly over distance. Existing vegetation screening present on lands adjacent to the Project Area would also help to reduce noise levels. After construction is completed, these temporary noise impacts would cease. Therefore, adverse impacts would be direct, minor, and short-term.

The Project's solar inverters would emit noise, as would maintenance activities (e.g., repairs and mowing). Specific manufacturer-determined noise emission levels cannot be identified until final designs are complete and specific equipment is identified for the Proposed Action. However, in general, noise emission levels from operational components would range from less than 65 dBA for most solar inverters to approximately 90 dBA for mowers (Dudek 2016; Louden 2011). Normal attenuation of noise levels emitted and existing vegetative screening would minimize the potential for adverse noise impacts to adjacent properties. Therefore, adverse impacts would be direct, minor, and long-term.

3.9.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, no changes to ambient noise conditions would occur.

3.10 Socioeconomics and Environmental Justice

3.10.1 Affected Environment

The Project Area is located within the village of Pava'ia'i in the western district of Tutuila Island, Tualauta County. The U.S. Census Bureau American Community Survey (ACS 2023) determined that the median household income was $28,977 in 2020 dollars, the estimated per capita personal income in the village of Pava'ia'i was $7,726 in 2019 dollars, and unemployment was 6.8%. Approximately 58.6% of the total village of Pava'ia'i population was considered to be living below the poverty level in 2019 (ACS 2023). The village is predominately Samoan (81%) in ethnicity.

3.10.2 Environmental Consequences

3.10.2.1 PROPOSED ACTION

Construction of the Project could cause temporary inconveniences to local residents through increased construction noise and traffic on roads near the Project and at the construction site. Conversely, the Project could also provide a source of short-term employment for some local residents during construction, as well as an increase in local spending due to local procurement of goods and services. Project construction-related jobs would not substantially change the population or workforce or adversely impact housing availability because the number of construction workers would be negligible in comparison to the county. For similar reasons, no change in demand for public services during construction is anticipated.

During operations, the number of staff would represent a negligible, long-term impact to population, housing, employment, or public services. Long-term, the Project could also help offset rising prices of imported fuel and reduce health impacts associated with the combustion of diesel fuel by providing a local source of renewable energy to the grid. During decommissioning, equipment would be removed in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

The village of Pava'ia'i contains both a minority and low-income environmental justice population. However, these populations are not anticipated to be uniquely susceptible to Project impacts; risks related to climate change, routes of exposure, and cultural practices are shared by residents across the island of Tutuila. Therefore, no disproportionately high and adverse impacts would occur.

3.10.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, no change to existing population, housing, employment, or public services would occur. Additionally, no renewable energy would be provided to the village of Pava'ia'i, and the village would continue to rely on imported fuel sources, with increasing costs to residents.

3.11 Transportation

3.11.1 Affected Environment

Transportation in American Samoa largely consists of personal vehicles and local bus services (in available areas). The three main east-west transportation routes are American Samoa Highways 001, 005, and 006. These highways are managed by the American Samoa Department of Public Works and are heavily used with frequent heavy truck traffic (U.S. Army Corps of Engineers [USACE] 2022). The

Project Area is accessible by Route 116 and several unnamed residential roads that originate off of Route 001. Recent traffic studies for the village of Pava'ia'i are not available; however, traffic in the immediate vicinity of the Project is likely limited to residential uses, as the roads are not through roads.

3.11.2 Environmental Consequences

3.11.2.1 PROPOSED ACTION

The Project would introduce additional construction equipment and worker vehicle traffic on roads in the vicinity of the Project Area over the roughly 4-month construction duration. However, the number of equipment and worker vehicles required would be limited and this traffic would vary in occurrence throughout the day. Traffic generated as part of the construction activities (i.e., workers commuting, truck deliveries) would also likely not follow a single travel path because workers and deliveries would be traveling from different areas and accessing different locations of the Project site. After construction is completed, these temporary impacts would cease. Therefore, construction impacts to transportation would be direct, short-term, and minor adverse.

Anticipated traffic volume during Project operation and maintenance would have no measurable impact on existing transportation resources during the life of the Project, due to the limited number of vehicles and equipment needed and the intermittent nature of these activities. Therefore, impacts to transportation would be direct, long-term, and negligible adverse.

During decommissioning, equipment would be removed in a similar manner as during construction. Therefore, impacts would likely be similar to those described for construction.

3.11.2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, no change in the existing transportation network or traffic volumes in the vicinity of the Project would occur.

3.12 Summary of Environmental Impacts

Resource	Impact Analysis
Land Use and Vegetation	Negligible to minor adverse impacts to land use and vegetation due to clearing and trampling or accidental spills. Project activities would be compatible with planned land uses.
Geology and Soils	Negligible to minor adverse impact to geology and soils due to Project ground-disturbing activities.
Floodplains	Minor adverse impact to mapped 100-year floodplain.
Water Quality and Quantity	Negligible adverse impacts to water quality due to potential for sedimentation or Project-related spills.
Biological Resources	Negligible adverse risks to general and protected wildlife species. Beneficial impacts to invasive species management due to control of invasive woody species.
Aesthetics	Negligible to moderate adverse visual impacts to adjacent buildings and roads with views of the Project due to views of construction activities and increased long-term visual contrast.
Air Quality and Climate	Negligible to minor impacts due to worker vehicle and equipment emissions and ground-based disturbance. Long-term potential benefits by replacing imported diesel fuel with a local source of renewable energy.
Noise	Minor adverse impacts during construction due to construction activities and worker vehicles to and from the Project Area and during operations due to grounds maintenance and solar equipment.

Resource	Impact Analysis
Socioeconomics and Environmental Justice	Beneficial impacts anticipated from the short-term creation of jobs during construction and the long-term supply of renewable energy. Negligible adverse impacts to population, housing, and public services. No disproportionately high and adverse impacts to minority and low-income environmental justice populations.
Transportation	Negligible to minor adverse impacts due to worker vehicles and equipment traveling to and from the Project Area.

4 CUMULATIVE IMPACTS

CEQ regulations define cumulative impacts as "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 undertakes such other action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.70). Also, cumulative impacts are those "which when viewed with other reasonably foreseeable or proposed agency actions have cumulatively significant impacts" (40 CFR 1508.25(a)(2)).

The cumulative effects of past actions are accounted for in the description of the affected environment; therefore, no past projects are included in the cumulative analysis. For this EA, present actions were included if determined to have ongoing impacts that could result in cumulative impacts when combined with Project-specific impacts. Present actions with no changes in ongoing impacts or anticipated new impacts to resources during implementation of the Project are accounted for in the description of the affected environment.

Reasonably foreseeable actions were considered where there is an existing decision (e.g., record of decision or issued permit), a commitment of resources or funding, or a formal proposal (e.g., a permit request). In addition, actions for which there is a reasonable expectation that the action could occur based on known opportunities or trends (e.g., agricultural activities in a historically farmed area) are also considered to be reasonably foreseeable. Speculative future developments (such as those that are not formally proposed or do not have enough project details to inform analysis) were not considered.

The methodology used to identify present and reasonably foreseeable projects consisted of review of relevant federal agency websites, including the Federal Emergency Management Agency, USACE, NRCS, USFWS, National Park Service, Department of Defense, Department of Energy, as well as American Samoa governmental department websites, for publicly available data on known actions that could coincide with the Project in both spatial and temporal extent. This search identified numerous reported funding/grants awarded to American Samoa for future activities related to wetland delineation, road/bridge projects, water improvements, improved public transit options, airport runway improvements, and port and waterway projects. However, no specific projects based on these funding opportunities were identified in the vicinity of the Project site.

Ongoing agricultural, commercial, and residential uses are anticipated to continue. Additionally, the American Samoa Renewable Energy Committee has created a goal of 50% renewable power by 2025 and 100% renewable power by 2040 (EIA 2023) which is anticipated to spur future renewable energy development on the island. Within the *American Samoa Priority Climate Action Plan* (USFWS 2024), ASPA identified a goal of developing an electrical grid control center and associated infrastructure to support future wind and solar projects, as well as replacing their work fleet with electric vehicles. However, the timing of these actions is unknown. A 42-MW onshore wind power project has also been

proposed in the Western District of American Samoa. This Project is located outside of the Project site but would contribute to renewable energy goals if developed. Likewise, Banana Solar LLC is currently constructing a 6.6-MW solar farm on lands adjacent to the Mana Solar Project.

4.1 No Action Alternative

Under the No Action Alternative, there would be no Project effects as the Project would not be constructed and no impacts would occur. However, ongoing agricultural, commercial, and residential uses would continue to affect Project Area resources through potential air emissions, land conversion, soil and habitat disturbance, noise, viewshed changes, traffic, or other physical or social changes. Additionally, the No Action Alternative would not aid in efforts by American Samoa to reduce reliance on traditional fuels and generators by transitioning to renewable energy sources.

4.2 Proposed Action

The Proposed Action would add up to 30 acres of long-term land development to other reasonably foreseeable actions and trends in the vicinity of the Project, including construction of a roughly 10-acre adjacent solar farm. Reasonably foreseeable construction activities would result in short- to long-term negligible to minor adverse impacts to biological resources, air quality, noise, transportation, and visual resources. However, RUS assumes that other projects would occur where land development regulations, such as zoning and land use plan designations, allow such uses, and that these activities could also generate beneficial economic impacts to the local economy.

The Project would contribute additional air emissions, traffic and traffic-related noise, ground disturbance, vegetation removal, and viewshed changes during construction, but the Project would impact less than 0.5% of the County of Tualauta's total acreage, and these impacts would be minimized by the use of Project controls (including compliance with all local, state, and federal regulations). Additionally, the Project would cumulatively add to the beneficial socioeconomic impacts and air quality improvements from other ongoing and proposed future renewable energy projects. Therefore, no significant adverse cumulative impacts would occur.

5 MITIGATION

Mana Solar, LLC intends to implement best management practices and other measures to avoid and minimize Project effects. As the Project is anticipated to have only negligible to moderate adverse impacts to affected resources, no additional mitigation is warranted.

6 COORDINATION, CONSULTATION, AND CORRESPONDENCE

Scoping letters were submitted electronically to the following entities on April 5, 2024:

- American Samoa Coastal Management Program, Department of Commerce
- American Samoa Department of Public Works
- American Samoa Department of Marine and Wildlife Resources
- American Samoa Environmental Protection Agency

- American Samoa Power Authority
- American Samoa State Historic Preservation Office

These scoping letters introduced the Project and requested input on preliminary concerns. As of May 5, 2024, no response to these scoping letters has been received by RUS. A copy of these submittals, along with other agency correspondence received during EA preparation, is provided in Appendix A.

7 LIST OF PREPARERS

Name	Affiliation	Responsibilities
Sue Wilmot	SWCA Environmental Consultants	Project Management, Senior Technical Report Review
Allison McKenzie	SWCA Environmental Consultants	EA Preparation
Jason Kainer	SWCA Environmental Consultants	GIS Lead
Neisa Smith	SWCA Environmental Consultants	Technical Editor

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APPENDIX A

Agency Communications

Hon. Lemanu Peleti Mauga
Governor

La'apui Talauega E.V Ale
Lieutenant Governor

Executive Offices of the Governor
American Samoa Historic Preservation Office
American Samoa Government
Pago Pago, American Samoa 96799

Letitia M. Peau-Folau
Historic Preservation Officer

May 3, 2024

018-24HP

Kristen Bastis
Archaeologist
Environmental & Historic Preservation Division
Rural Utilities Service, Rural Development
United States Department of Agriculture

Re: Section 106 Concurrence for Mana Solar Farm Project at Pavaia'i Village, Tutuila Island, American Samoa, Tualauta County, Western District of American Samoa

Talofa Ms. Kristen Bastis,

Thank you for your letter dated May 3, 2024, concerning the above undertaking which proposes the construction of a 13.37-megawatt (MW) direct current (DC)/10.2-MW alternating current (AC) solar generation facility, on three parcels of privately owned land in the village of Pavaiai, Tualauta County, on Tutuila Island, American Samoa. Based on review of the attachments:

I concur with your determination of the APE for the above listed undertaking location.

I also concur with your determination of No Historic Properties Affected within the APE for this undertaking provided that all ground disturbing activities will have archaeological monitoring due to potential cultural significance. In addition, if any historic properties are discovered during the construction process, including site access and preparation, they will be treated as per 36 CFR 800.13 for Post Review Discoveries. Also, *a report documenting the archaeological monitoring and any findings shall be provided to my office within a year of the end of construction.*

Thank you for your time and attention. This correspondence was provided upon the request of the United States Department of Agriculture in order to assist with its Section 106 responsibilities under the National Historic Preservation Act of 1966, as amended.

Sincerely,

Letitia M. Peau
Historic Preservation Officer

Cc: Sue Wilmot, Senior Environmental Planner, SWCA Environmental Consultants
ASHPO Review and Compliance Files

Department of Marine and Wildlife Resources

American Samoa Government
PO Box 3730
Pago Pago American Samoa 96799
TEL: (684) 633-4456
FAX: (684) 633-5944

LEMANU P. S. MAUGA
Governor

TALAUEGA E. V. ALE
Lt. Governor

TAOTASI ARCHIE SOLIAI
Director

SELAINA V. TUIMAVAVE
Deputy Director

November 20, 2023

Wallon Young Fong
Executive Director
American Samoa Power Authority

RE: DMWR Endangered Species Determination for Mana Site 2 – 4 Solar Project

Talofa Wallon,

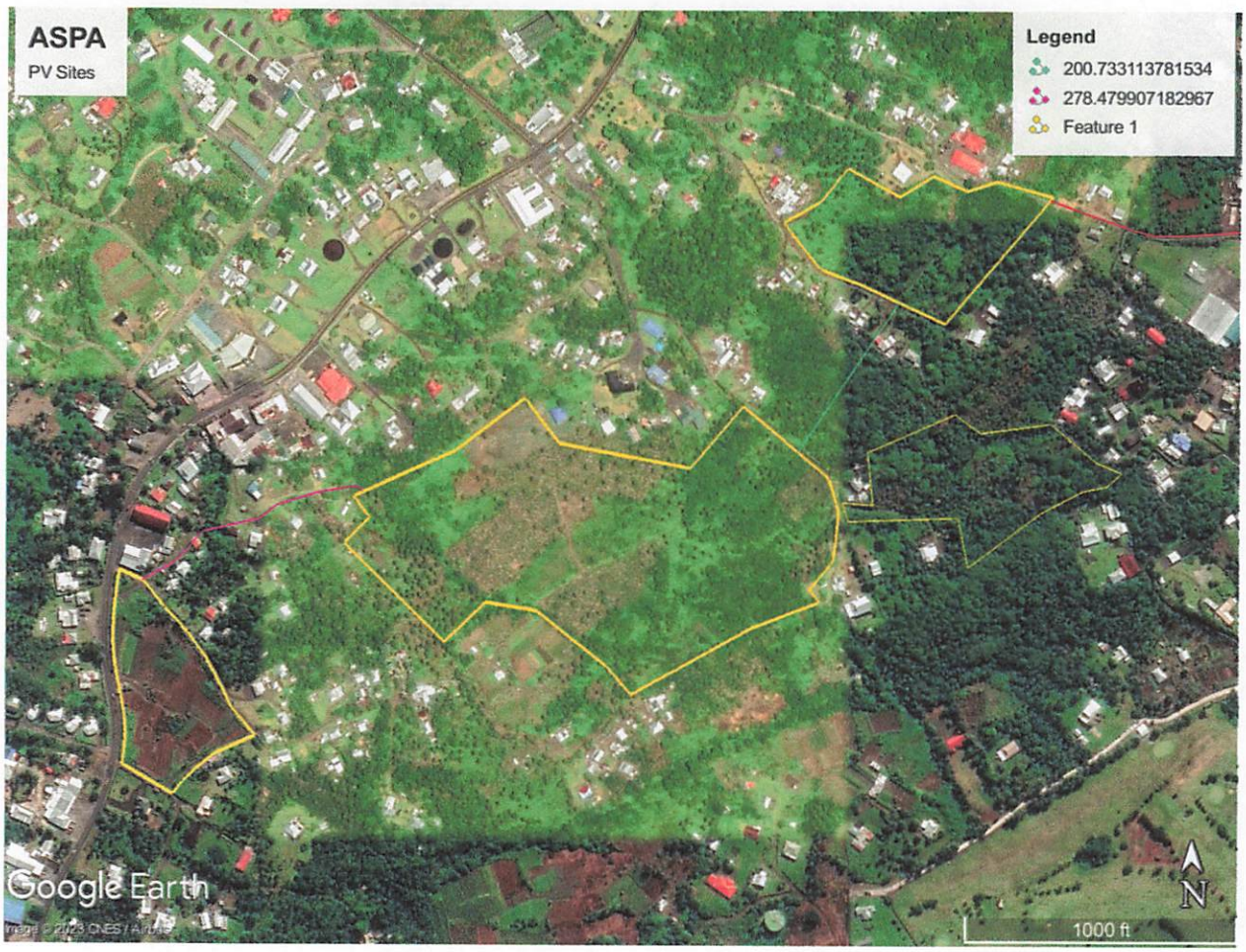
DMWR was asked to review plans for the American Samoa Power Authority Solar Power Installation at the proposed solar site in Pavaiai, Tutuila in regards to the US Endangered Species Act. The Territory of American Samoa has 5 terrestrial species listed as Endangered under the Endangered Species Act. Two of the species (Ma'o and Friendly ground Dove) are not present on Tutuila Island where the project is planned. One species, the Pacific sheath-tailed bat, has not been detected in American Samoa since 1998, and the location of this project does not have suitable cave habitat for the bat. The two listed land snails (*Eua zebrina*, Tutuila Tree Snail, and *Ostodes strigatus*) are present on the island of Tutuila but mainly use native forest with an intact canopy as habitat.

DMWR conducted site assessments of the proposed Tuanaitau (Mana #1) site (Figure 1) on the 13th and 18th of January 2023. DMWR conducted additional site assessments of the additional 3 sites including Toluao (Mana #2), Leomiti (Mana #3), and Tuanaitau's Niece (Mana #4) in September and November 2023. The assessments were conducted by the DMWR Wildlife Chief Wildlife Biologist Adam Miles as well as other DMWR Wildlife staff. The site consisted of mainly previously disturbed plantation vegetation consisting of papaya and banana. There appeared to be a history of disturbance, clearing, and cultivation on the site and it appeared to be low quality wildlife habitat. There was a small area of mixed invasive and native trees which was regrowth from being previously disturbed or cultivated. The site visit resulted in no observations of ESA listed snails or ESA listed snail shells. Given the low-quality habitat and evidence of continual cultivation and disturbance of the site, DMWR concluded that the site is not likely to be suitable as habitat for ESA listed snail species.

DMWR determined this project will unlikely have negative impacts on the populations or habitat of terrestrial ESA listed species found in American Samoa. For clarification of this determination, please contact my office at 633-4456.
Thank you,

Taotasi Archie Soliai
Director

Figure 1. Site of the proposed ASPA Tuanaitau Solar Installation Project and survey areas.



From: Ryan Tuato'o <ryant@aspower.com>
Sent: Friday, November 3, 2023 12:44 PM
To: Scott Bonney <Sbonney@easternpowersolutions.com>
Subject: Fwd: 20MW Solar PV project - NEPA checklist

FYI.

---------- Forwarded message ---------
From: **William Sili** <william.sili@epa.as.gov>
Date: Fri, Nov 3, 2023 at 12:40 PM
Subject: Fwd: 20MW Solar PV project - NEPA checklist
To: Ryan Tuato'o <ryant@aspower.com>
CC: Fa'amao Asalele <faamao.asalele@epa.as.gov>, Tualagi Gaoteote <tualagi.gaoteote@epa.as.gov>

Talofa Ryan,

After consulting with our three branches at ASEPA (HazMat, Air Quality and Pesticide), we have no records of any chemical or spills at the identified sites.

However, one of the proposed location is an existing farm. Our Pesticide branch files has records of

numerous pesticides being used at this farm from previous farm activities to the current farm operation they have now. That information is detailed in the email response below from Tualagi Gaoteote who is our Pesticide Branch Manager.

Please feel free to reach out to him if you have any questions about the information provided.

Hope this helps. Regards.

Will Sili

---------- Forwarded message ---------
From: **Tualagi Gaoteote** <tualagi.gaoteote@epa.as.gov>
Date: Fri, Nov 3, 2023 at 10:04 AM
Subject: Re: 20MW Solar PV project - NEPA checklist
To: William Sili <william.sili@epa.as.gov>
CC: Fa'amao Asalele <faamao.asalele@epa.as.gov>, Alma Seu <alma.seu@epa.as.gov>, Ignosy Toeava <ignosy.toeava@epa.as.gov>

Talofa Deputy,

One of the four sites illustrated or outlined in the Solar PV Sites map attached to this email has a Farm operation which is ongoing. If you download the attachment, you can see the site outlined in the color red is the site I'm referring to.

This site is currently operated under Cong Toai Nguyen as the Farm Owner and the landlord is Pine Lauoletolo.

In regards to my last visit, here is a list of pesticides I've encountered during my Agriculture Use Inspection:
1. Buccaneer (EPA Reg. NO. 55467-9)
2. Spectricide (EPA Reg. No. 9688-277-8845)
3. Spectracide Malathion (EPA Reg. No. 96515-19-8845)
4. Complete Insect Killer (EPA Reg. No. 92564-12)

Before Mr. Nguyen took over this farm area, the previous farm operation was operated under the Pine Lauoletolo family.
Here's a list of pesticides I've encountered during my Agriculture Inspection with the Pine Lauoletolo family:
1. Gly-Star (EPA Reg. No. 42750-61)
2. Cropsmart (EPA Reg. No. 85945-1)
3. Dithane (EPA Reg. No. 62719-396)
4. Sevin (EPA Reg. No. 432-1209-71004)
5. Buccaneer Plus (EPA Reg. No. 55467-9)

6. Credit 41 Extra (EPA Reg. No. 71368-20)
7. Tritek (EPA Reg. No. 48813-1)
8. Abound (EPA Reg. No. 100-1098)

That is about it, I don't have records of farm operations regarding the other 3 sites indicated in the Solar PV Sites.

If you have any questions regarding the provided information, please let me know.

Thank you,

Tua.

On Fri, Nov 3, 2023 at 6:42 AM William Sili <william.sili@epa.as.gov> wrote:

> Thanks Ryan,
>
> Please advise if we could do a site visit this morning at these sites to gather more information and pinpoint exact locations.
>
> Thanks and please let me know.
>
> Will Sili
>
> On Fri, Nov 3, 2023 at 2:37 AM Ryan Tuato'o <ryant@aspower.com> wrote:
>
> > Talofa Director Fa'amao,
> >
> > I apologize for emailing again, but I'm not sure if you are on island.
> >
> > Please let us know.
> >
> > Thanks
> >
> > RT
> >
> > On Fri, Oct 27, 2023 at 11:57 AM Ryan Tuato'o <ryant@aspower.com> wrote:
> >
> > > Talofa Director Asalele,
> > >
> > > I want to introduce Dr. Scott Bonney, who is in charge of our 20MW Solar PV project in Pavaiai.
> > >
> > > We are hoping to get assistance from your team on a NEPA checklist request for the Solar PV project.
> > >
> > > They are asking if there have been any documented spills or contamination on the land we will be using to build the Solar PV project.

The site is in Pavaiai at the Tuanaitau area (border with Iliili) as we have about 4 separate sites for about 40+ acres (please see map attached).

Please let us know and if we need to do a site visit with your team to get concurrence to satisfy the NEPA checklist for this project.

Thanks

RT

--
Ryan Tuato'o, MBA
Marketing & Customer Service Manager
EMAIL: ryant@aspower.com
American Samoa Power Authority
P.O Box PPB, 1st Airport Road,
Pago Pago, American Samoa, 96799
WEB: www.aspower.com

--
Ryan Tuato'o, MBA
Marketing & Customer Service Manager
EMAIL: ryant@aspower.com
American Samoa Power Authority
P.O Box PPB, 1st Airport Road,
Pago Pago, American Samoa, 96799
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Please consider the environment before printing this email.

--
Tualagi Gaoteote
Environmental Specialist III
AS-EPA
P.O.BOX PPA

Utulei Office Building
Pago Pago, AS, 96799
tualagi.gaoteote@epa.as.gov

From:	Kasandra Resendiz
To:	faamao.asalele@epa.as.gov
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 1:59:53 PM
Attachments:	AS-EPA_Mana Agency Letter_04-05-2024.pdf image001.png

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Dear Fa'amao Asalele:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

SWCA Environmental Consultants
10245 West Little York Drive
Suite 600
Houston, TX 77040
Office: 281.617.3217
Cell: 832.545.3226

From:	Kasandra Resendiz
To:	petti.matila@doc.as.gov
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 2:04:41 PM
Attachments:	Commerce_Mana Agency Letter_04-05-2024.pdf image001.png

Dear Petti T. Matila:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

SWCA Environmental Consultants
10245 West Little York Drive
Suite 600
Houston, TX 77040
Office: 281.617.3217
Cell: 832.545.3226

From:	Kasandra Resendiz
To:	Tish.folau@go.as.gov; tishpeau@gmail.com
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 2:06:41 PM
Attachments:	SHPO_Mana Agency Letter_04-05-2024.pdf image001.png

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Dear Letitia Peau-Folau:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

SWCA Environmental Consultants
10245 West Little York Drive
Suite 600
Houston, TX 77040
Office: 281.617.3217
Cell: 832.545.3226

From:	Kasandra Resendiz
To:	archie.soliai@gmail.com
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 1:57:07 PM
Attachments:	image001.png Marine and Wildlife_Mana Agency Letter_04-05-2024.pdf

Dear Taotasi Archie Soliai:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

SWCA Environmental Consultants
10245 West Little York Drive
Suite 600
Houston, TX 77040
Office: 281.617.3217
Cell: 832.545.3226

From:	Kasandra Resendiz
To:	faleosina.voigt@dpw.as.gov
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 2:09:40 PM
Attachments:	Public Works_Mana Agency Letter_04-05-2024.pdf image001.png

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Dear Faleosina Voigt:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

SWCA Environmental Consultants
10245 West Little York Drive
Suite 600
Houston, TX 77040
Office: 281.617.3217
Cell: 832.545.3226

From:	Kasandra Resendiz
To:	wallon@aspower.com
Cc:	Sue Wilmot
Subject:	Proposed Mana Solar Project; Invitation to Participate
Date:	Friday, April 5, 2024 1:50:57 PM
Attachments:	image001.png ASPA_Mana Agency Letter_04-05-24.pdf

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Dear Wallon Young:

Mana Solar, LLC, is seeking financial assistance from the United States Department of Agriculture, Rural Utilities Service (RUS), Rural Development under the RUS Electric Program for the Mana Solar Project (Project). In anticipation of National Environmental Policy Act (NEPA) compliance, the purpose of this email and attached letter is to introduce the Project and gather information from your office on preliminary concerns, if any, for consideration in this compliance process. RUS and SWCA appreciate your attention to this matter.

Thank you,

Kasandra Resendiz
Environmental Planner

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