Plan of Development

Skylar Energy Resources LLC
Townsite Solar 2 Project

Prepared for

Bureau of Land Management
Las Vegas Field Office

May 2022

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SECTION 1

Project Description

1.1 Introduction

1.1.1 Type of Facility, Planned Uses, Generation Output

Skylar Energy Resources, LLC (Applicant), a wholly owned subsidiary of the William O. Perkins III, Revocable Trust, proposes to construct, own, operate, and decommission the Townsite Solar 2 Project (Townsite Solar 2 or the Proposed Project), consisting of up to a 19-megawatt (MW) alternating current (MW/ac) solar photovoltaic (PV) power generating facility and an up to 35 MW four to eight hour Battery Energy Storage System (BESS) on federally owned land located in Clark County, Nevada administered by the Bureau of Land Management (BLM). The Project would be constructed using photovoltaic solar modules mounted on single-axis, horizontal tracker structures and would have year-round use for the 30-year right of-way (ROW) being requested from the BLM.

The requested ROW for the Proposed Project is approximately 80 acres consisting of approximately 76 acres for the solar photovoltaic and BESS facility and approximately 4 acres for an 80-ft by 2000-ft site access ROW. The ROW application contains a slightly larger area than required for the solar field to allow for adjustments in the facility layout to minimize any environmental impacts identified during the National Environmental Policy Act (NEPA) analysis. The ROW for any land not needed for the Proposed Project will be relinquished at the appropriate time. Included in the requested ROW for the Proposed Project is approximately 4 acres fora 80foot wide by 2000 feet ROW to be used for site access for construction, operations, maintenance, 34.5 kV interconnecting electric cables and electric distribution line for permanent and temporary power (Site Access ROW). This Site Access ROW commences on the southeastern corner of the solar field and runs due east for approximately 2000 feet to the western border of private non-federal land owned by Boulder City, NV. (see Figures 1-2 and 1-3 for additional details). The Applicant will use the Site Access ROW for access during construction and operation, installation of electric temporary and permanent 12. kV to 13.8 kV distribution power line (the “Distribution Line”) and for underground 34.5 kV electric cables to interconnect the Proposed Project with the solar project located on Boulder City land (BCNV Solar). The Applicant intends to assign a 50-ft by 2000-ft portion of the Site Access ROW to the owner of the Distribution Line at a later date. The existing access road on the south side of the Proposed Project is under the control of a third party, necessitating the request by the Applicant for its own ROW for access, Distribution Line and underground 34.5kVelectric cables. Construction of the Proposed Project would take approximately nine months and would commence following completion of the NEPA process and the obtainment of other necessary permits. All Project staging and construction activities will occur within the solar field development area and if any temporary facilities are required for these activities, they will be included in a separate temporary ROW application.

The power produced by the Proposed Project would be conveyed to the Western Electricity Coordinating Council (WECC) transmission system. Average annual energy production from a 19 MW/ac project equates to the annual daytime electricity needs of approximately 5,000 households. Solar electric power is produced during daylight hours when electricity demand is highest. The Project would generate greenhouse gas-free electricity that would offset approximately 50,000 metric tons/year of carbon dioxide and other emissions that would result from producing an equivalent amount of electricity from fossil fuel-fired electric generators.

1.1.2 Applicant's Schedule for the Proposed Project

The BLM would be the lead federal agency for approving the Proposed Project and would issue a ROW grant authorizing the use of BLM-administered lands for Proposed Project construction, operation, and decommissioning. The project site is within a "variance area" for solar power plant development, as defined in the Record of Decision prepared for the Final Programmatic Environmental Impact Statement (EIS) for Solar Energy. The Applicant anticipates that the Proposed Project will require an Environmental Assessment (EA) which will be completed within one year of the decision to prepare an EA as set forth in 40 CFR § 1501.10.

Prior to any activity on the site, required resource management plans would be developed and approved, and regulatory and permit conditions would be integrated into the final construction compliance documents. Construction would begin once all applicable approvals and permits have been obtained. Construction is expected to take up to 12 months and would include the major activities of mobilization, construction grading and site preparation, installation of drainage and erosion controls,

The Applicant is planning to commence construction in Q1-2023. Once construction is completed, the Proposed Project would be in operation for at least 30 years with the possibility of a subsequent repowering for additional years of operation.

TABLE 1-1 PROPOSED PROJECT SCHEDULE

Activity	Date
NEPA Initiation	Q2 2022
BLM Permitting/NEPA (EA) Process Complete	Q3 2022
Construction Commencement	Q1 2023
Startup and Testing Phase I	Q3 2023
Commercial Operation	Q4 2023

1.1.3 Applicant's Purpose and Need for the Project

Need for Renewable Energy

The United States has a greater solar energy resource potential than any other industrialized nation. The multiple benefits associated with developing this resource have been recognized repeatedly by both federal and state policymakers. Development of solar resources reduces reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios and contributes to the reduction of greenhouse gas emissions. The demand for power continues to grow in the Western United States. As older technology fossil-fuel plants reach the end of their useful lives, there is a need to replace them with clean, reliable resources. Recognizing this need, many Western states, including Nevada, have enacted legislation to encourage or mandate the development of renewable generation.

The federal government has enacted legislation strongly encouraging the development of renewable energy. As part of an overall strategy to develop a diverse portfolio of domestic energy supplies for our future, the National Energy Policy of 2001 and the Energy Policy Act of 2005 (Public Law 109-58, August 8, 2005) encourage the development of renewable energy resources, which includes solar energy. Section 211 of the Energy Policy Act of 2005 encourages the approval of at least 10,000 MW of non-hydropower renewable energy production on the public lands; this goal was met in 2012. In early 2009, the Secretary of the Interior issued Orders 3283 and 3285, making the production, development, and delivery of renewable energy top priorities for the Department of the Interior. Congress is also considering legislation that would implement greenhouse gas emissions requirements and/or national renewable portfolio standards.

Part of the government's efforts to promote renewable energy depend on the ultimate development of increasingly economical facilities that drive down the price of renewable energy, and enable it to compete in the marketplace with fossil fuel facilities.

1.1.4 Applicant's Purpose and Need of the Facilities

Nevada law requires utilities to phase out their use of coal-fired generation and partially replace that generation with renewable energy, as well as renewable portfolio standards that require utilities to increase their use of renewable energy. In order to achieve these goals, it is necessary to build new renewable energy facilities, including solar energy facilities such as the Proposed Project. Applicant believes that the Proposed Project would generate electricity that is cost competitive with electricity from other types of renewable energy projects.

The fundamental purpose of the Proposed Project is to construct a clean, renewable source of solar electricity that helps meet Nevada's and the region's growing demand for power and helps fulfill national and state renewable energy and greenhouse gas emission goals. Solar energy provides a sustainable, renewable source of power that helps reduce fossil fuel dependence and greenhouse gas emissions. Considering the entire process, from raw material sourcing through end-of-life-cycle collection and recycling, the additional generating capacity of the Proposed Project would produce a small fraction of the greenhouse emissions of a similar capacity fossil fuel plant.

1.1.5 General Facility Description, Design and Operation

The Proposed Project is a 19 MW/ac photovoltaic electric generating facility on up to 80 acres of federally owned land under the management of the BLM. The Proposed Project may include a BESS on the Proposed Project site or will share a BESS with BCNV Solar. Since Applicant intends to utilize shared facilities with the Townsite Solar 1 Project, it did not analyze alternative locations for the Proposed Project. The Proposed Project intends to use the transmission infrastructure of the Townsite Solar 1 Project and interconnect into Townsite's newly constructed bay at the Western Area Power Administration (WAPA) 230 kV substations. It is also in the vicinity of significant amounts of solar and transmission development in Boulder City's El Dorado Valley Energy Zone and was therefore, deemed to be the most suitable site for the Proposed Project.

Total Acreage and General Dimensions of All Facilities and Components

Table 1-2 lists Project facilities and the associated permanent and temporary disturbance acreages. The proposed site plan is provided in Attachment B.

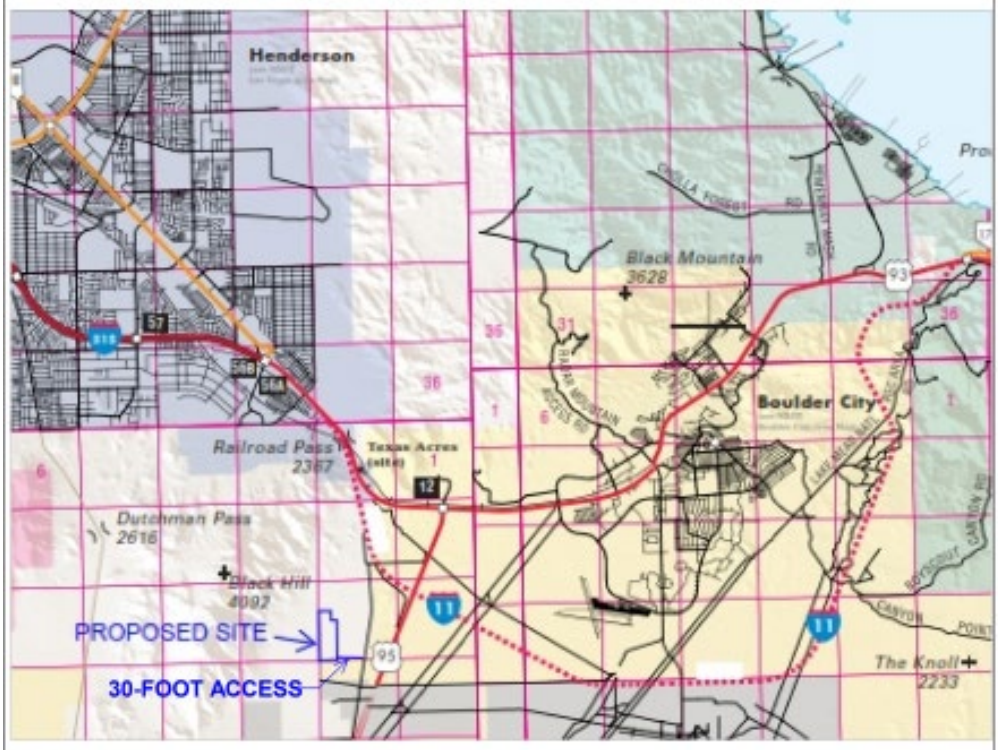
TABLE 1-2 SUMMARY OF PERMANENT AND TEMPORARY DISTURBANCE

Disturbance Type	Acres of Disturbance	Notes
Permanent Disturbance		
Solar Facility	76[1]	19 -MW/ac PV solar facility
BESS	4	Includes Battery Energy Storage System, including inverters, all within solar facility footprint
Site Access Road for site access during construction and operations, 34.5 kV interconnecting cables and Distribution Line for Solar Array Field	4	80-ft wide Site Access ROW wide traversing 2000 ft eastward along the southern border of E ½ , SW ¼ of Section 14 of BLM property currently reserved for mining operation. This area will be graded and covered with gravel base.
Construction Laydown	5	Construction laydown area within the solar facility area
Drainage Features	TBD	~15 acres (TBD in final design). The drainage features are included within the solar array footprint.
Berms	TBD	~15 acres (TBD in final design). The drainage features are within the solar array footprint.
Gen-tie and Access Road to Gen-tie	NA	The Proposed Project will interconnect to an existing Gen-tie of the Townsite Solar 1 Project, so no new disturbance is expected
Total	**80[2]**	
Temporary Disturbance (granted through a short-term ROW, if outside the project ROW area)		
Alternate Laydown areas	5.0	Alternatively, applicant may seek temporary ROW for construction laydown, Applicant will apply for this temporary ROW separately, if needed.
Collection line construction	0	2 pulling sites 80 feet by 300 feet, within the permanent Site Access ROW area or the Alternate Laydown area
Total	**5.0**	

[1]The Solar Array Field area within the Proposed Project is 1300-ft wide by 1700-ft long
[2]All acreages in this table are included within the requested 80 acre ROW.

1.1.6 Right-of-way Location, Maps and Drawings

Figure 1-1-Project location map



SITE LOCATION

TOWNSITE SOLAR 2 PROJECT

SECTION 14
TOWNSHIP 23 SOUTH, RANGE 63 EAST, M.D.M.

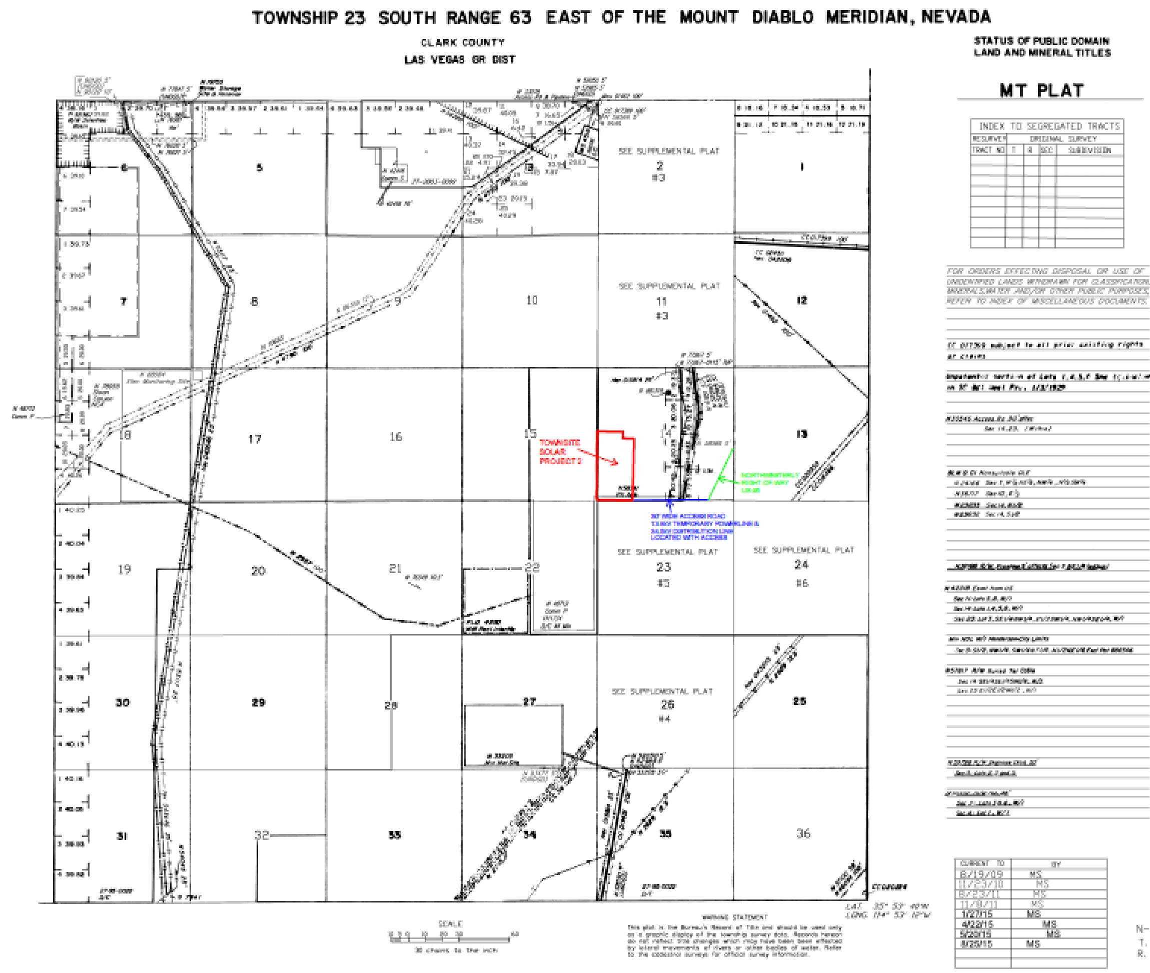

TOWNSHIP 23 SOUTH RANGE 63 EAST OF THE MOUNT DIABLO MERIDIAN, NEVADA
CLARK COUNTY
LAS VEGAS GR DIST
STATUS OF PUBLIC DOMAIN
LAND AND MINERAL TITLES
MT PLAT
INDEX TO SEGREGATED TRACTS
TOWNSITE SOLAR PROJECT 2
SEE SUPPLEMENTAL PLAT
SCALE
WARNING STATEMENT
N-050
T. 23S
R. 65E

Figure 1-2 Depicting Site Location with Proposed Solar Facility , Site Access ROW for Site Access, Distribution Line 34.5 kV Underground Electric Cables

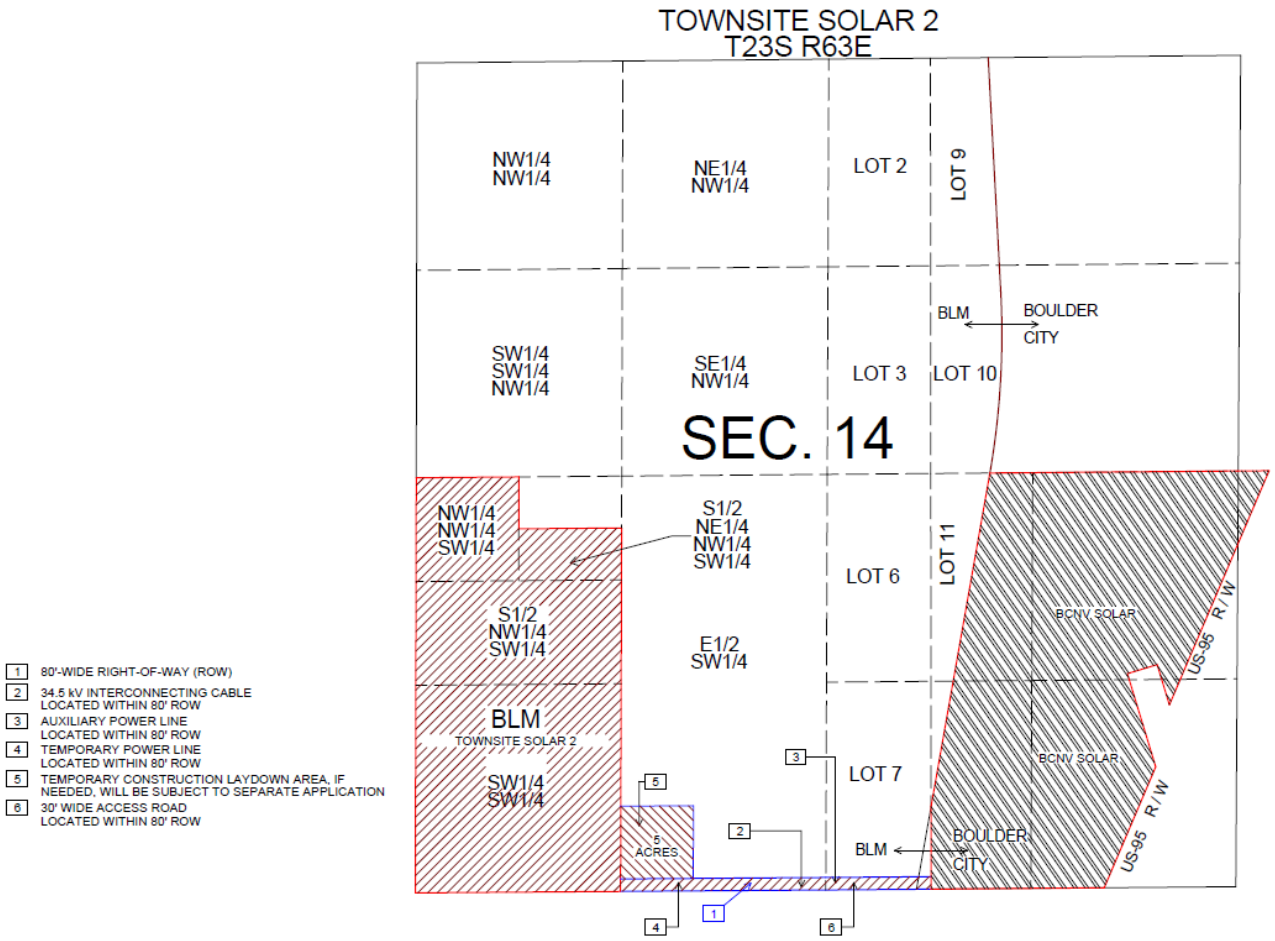
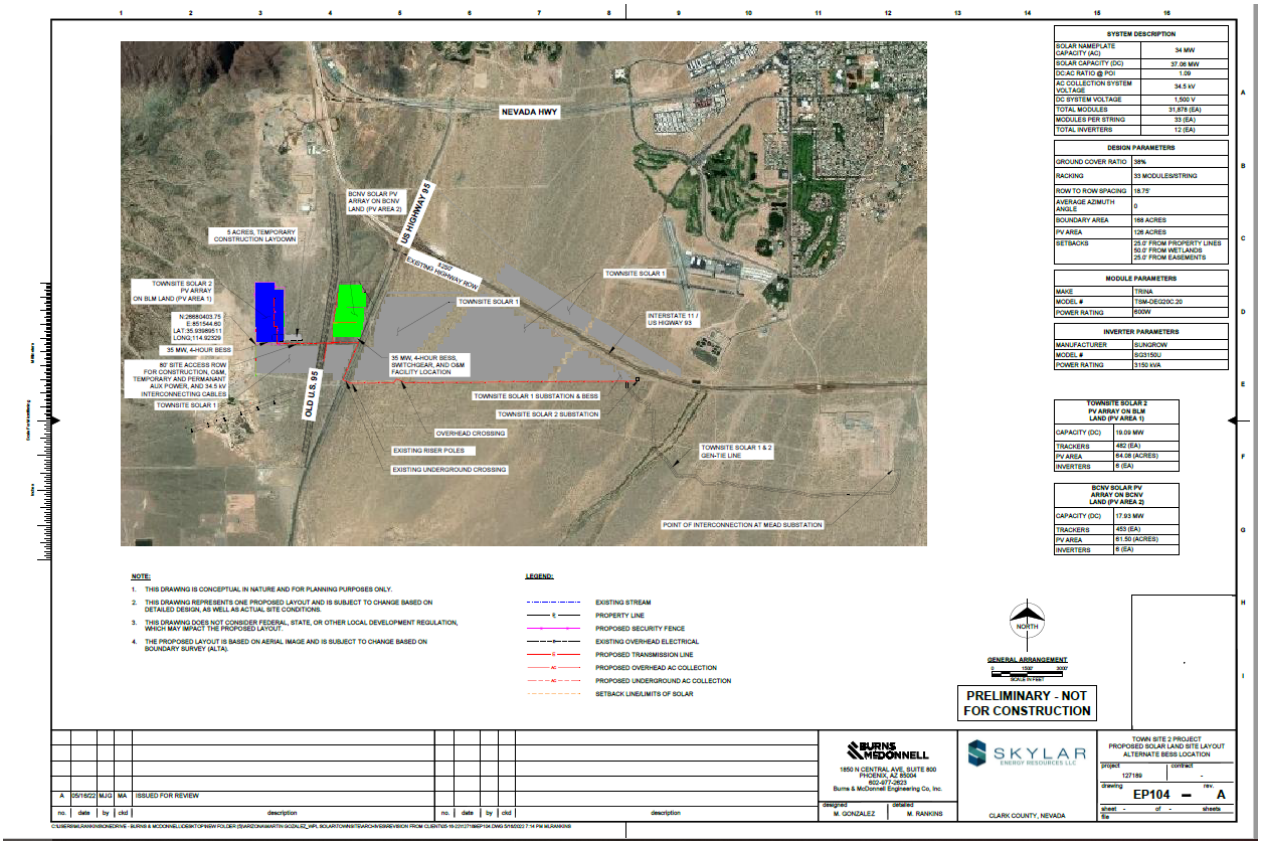


Figure 1-3 Site layout
(Townsite Solar 2 Area Shaded in Blue)



1.2 Project Elements

The Proposed Project would include the following primary elements (see Figures 1-2 and 1-3):

- Solar array blocks consisting of PV modules mounted on fixed-tilt mounting systems and/or single-axis, horizontal tracker mounting systems supported by driven steel posts or other embedded foundation design.
- Meteorological stations within the solar field, and if tracker technology is utilized, up to 5 meteorological towers (steel lattice), approximately 30 feet high, mounted on concrete foundations would be installed around the perimeter of the solar field.
- Lithium-ion BESS
- Interior access ways and a perimeter road.
- Direct current (DC) collection system and Power Conversion Stations (PCSs) to collect power from the array blocks.
- Underground 34.5 kV AC collection system to convey electricity from the PCSs to the switching station located on non-federal land at the Townsite Solar 1 facility.
- A 50-ft by 2000-ft temporary and permanent 12 kV to 13.8 kV Distribution Line located within the Site Access ROW to provide electric distribution service for auxiliary power to the Proposed Project during construction and operations. The Applicant will assign a portion of the Site Access ROW to the owner of the Distribution Line at a later date sufficient to accommodate area required for the Distribution Line.
- Project security using a combination of perimeter security fencing, controlled access gates, onsite security patrols, lighting, electronic security systems and/or remote monitoring.
- Desert tortoise exclusion fencing around the Project perimeter.
- A newly constructed 34.5 kV underground located on private land traveling from BCNV Solar through Townsite Solar 1 to interconnect the Proposed Project to the Townsite Gen-Tie
- Drainage control structures, final design to be determined upon completion of a hydrologic study.
- A 5-acre temporary construction mobilization and laydown area within the southeastern border of the Proposed Project for temporary installation of construction trailers, construction workforce parking, above ground water tanks, materials receiving, and materials storage (graded/compacted earth). Alternatively, the Applicant may seek temporary ROW for construction laydown outside of the southeastern border of the Proposed Project and the above the Site Access ROW. The Applicant will apply for this temporary ROW separately, if needed.

- Fiber optic communications cable installed underground or on overhead lines along the Distribution Line or the gen-tie transmission line.

- A Site Access ROW for site access during construction and operation, Distribution Line, and underground 34.5 kV interconnecting cables enable the Proposed Project to interconnect to the BCNV Solar Project to the east of the Proposed Project.

The following Townsite Solar 1 facilities were completed at the end of 2021. These facilities will be shared with the Proposed Project:

- An approximately 190,000 square-foot substation.

- An 3-mile 230 kV gen-tie line owned by Townsite Solar 1 (the "Townsite Gen-Tie") connecting the substation to WAPA's Mead 230 kV Substation and a 20-foot-wide road along the Townsite Gen-tie used for periodic maintenance of the Townsite Gen-Tie.

- An existing water pipeline that would deliver reclaimed water from the Boulder City Wastewater Treatment plant to be used for dust control during construction and operation and additional water, if needed, would be obtained from existing commercial sources.

- Site access will be via an existing access road. Applicant will not be building or improving any roads outside the solar array other than the Site Access ROW

The Project would be designed in accordance with federal and industrial standards including American Society of Mechanical Engineers, National Electrical Code (NEC 2008), International Energy Conservation Code (IECC 2006), International Building Code (IBC 2006), Uniform Plumbing Code (UPC 2006), Uniform Mechanical Code (UMC 2006), National Fire Protection Association and Occupational Safety and Health Administration (OSHA).

Solar Panel Arrays

The Proposed Project would utilize high-efficiency commercially available solar PV modules that are Underwriters Laboratory (UL)-listed or approved by another nationally recognized testing laboratory. Materials commonly used for solar PV modules include monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium telluride (CdTe), and copper indium selenide/sulfide.

The principal materials incorporated into the PV modules include glass, steel, and various

semiconductor metals, including CdTe. The PV modules absorb over 90 percent of the light received.

The solar PV modules would be mounted on fixed-tilt mounting systems and/or single-axis, horizontal tracker mounting systems. Mounted PV modules, inverters, and transformers would be combined to form array blocks of 1.25 MWac to 2.5 MWac in size.

Fixed Tilt Mounting System

If a fixed-tilt mounting system is used, panel arrays would be constructed in east-west oriented rows. The fixed-tilt panels would be positioned to receive optimal solar energy at an angle of 20 to 25 degrees and would not move. The vertical height of fixed-tilt panel arrays would be between 4 feet high and 10 feet high. If 10 feet high, then the arrays would be up to 13 feet above the ground surface at the highest point (**Figure 1-3 and Figure 1-4**). The height of the panel array would vary depending on the panels used and on the site conditions, since the solar field would not be graded to a level surface. The mounting system for the fixed-tilt module includes steel posts driven into the ground (or other embedded foundation design), with steel table frames bolted to the driven posts. The modules then would be then mechanically fastened to the steel table frame.

Horizontal Tracker Mounting System

If a horizontal tracker mounting system is used, the panel arrays would be arranged in north-south oriented rows and drive motors would rotate the horizontally mounted solar panels from east to west to follow the sun (on a single axis) throughout the day. A typical panel array layout using horizontal trackers is shown in Figure 1-3 and Figure 1-4. The highest point for a horizontal tracker would be achieved during the morning and evening hours when the trackers are tilted at their maximum angle and would be a maximum of 13 feet above the ground surface depending on the grade where the posts are installed. When solar modules are roughly parallel to the ground, the overall height of the tracker unit would be a maximum of 10 feet above the ground surface depending on the grade where the posts are installed.

Figure 1-3 Typical Fixed Tilt and Tracker Configuration

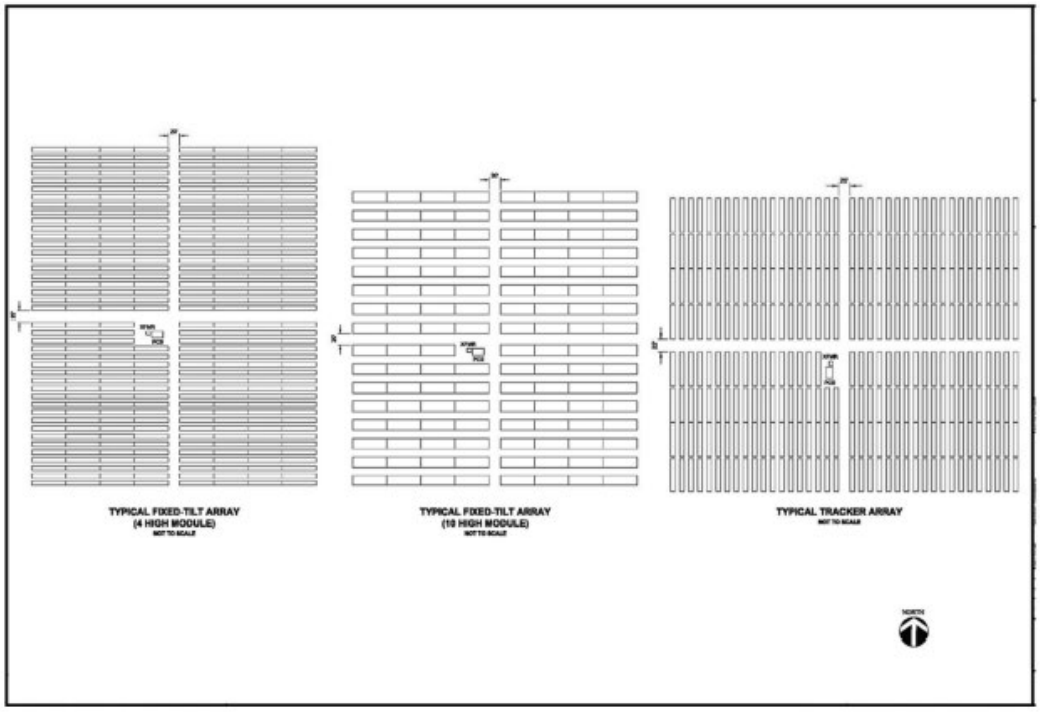
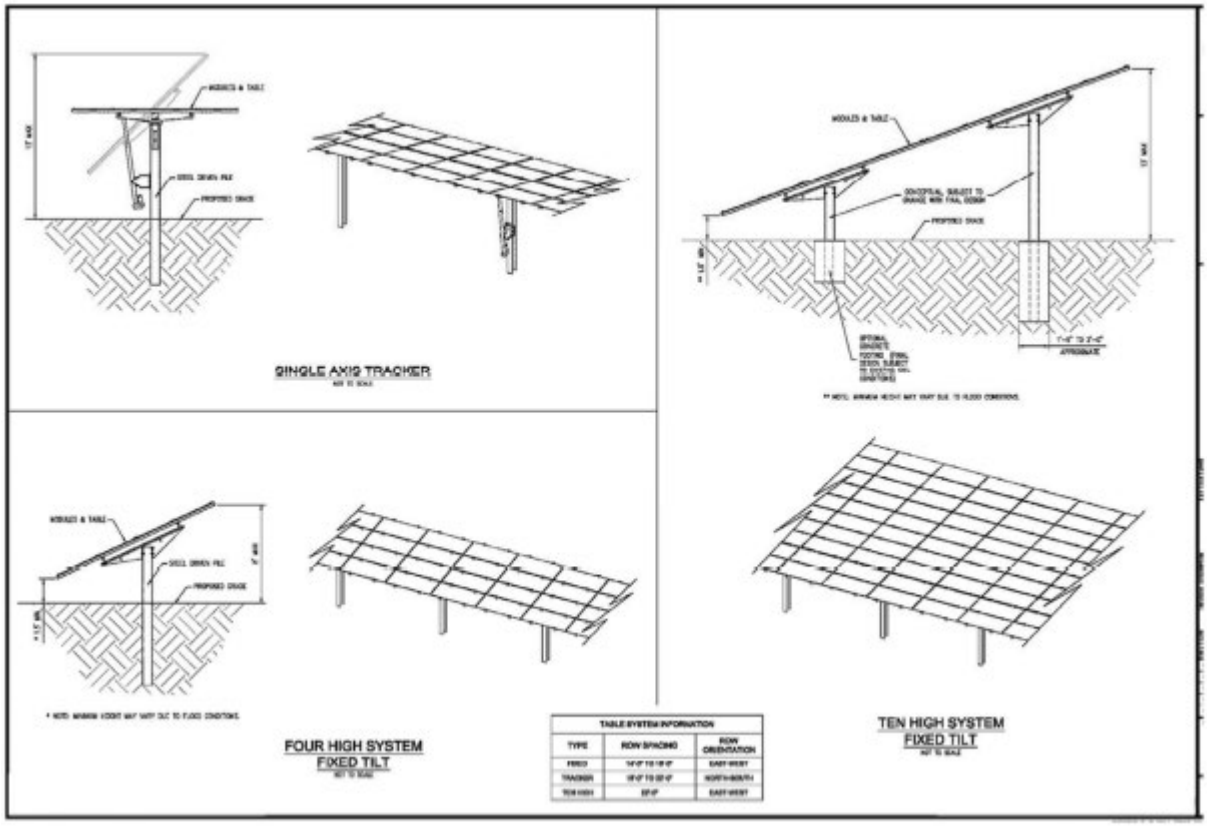


Figure 1-4 Single Axis Tracker Layout and Configuration



Emergency Backup Power

If horizontal trackers are used, the PCSs would be equipped with emergency backup power required to rotate the tracker units to their stow position in the unlikely event of high winds and a loss of the primary 230 kV electrical connection from the Project to Boulder City's transmission system. The emergency back-up power system would consist of a15 kilovolt-ampere (kVA) battery-based uninterruptible power supply (UPS) at each PCS.

Electrical Collection System

PV modules convert sunlight into DC electricity. One or more combiner boxes will be in the array block to collect the DC electricity from PV modules. The electricity will be delivered through underground cables to an inverter that changes the DC electricity to AC electricity and delivers the energy to a medium-voltage transformer that steps up the voltage to 34.5 kV. This

converted electricity t would then be either be stored in a BESS at the Proposed Project Site or combined with the solar electricity generated at BCNV Solar where it will be either stored in a BESS or delivered to the Townsite Solar 1 Substation where the electricity again would be stepped up to 230 kV for delivery to the Townsite Gen-Tie and the Mead 230 kV substation.

Inverters, Transformers, and Medium Voltage Switchgear

Each array block would have a Power Conversion Station ("PCS") containing inverters and medium voltage transformers, as well as other electrical equipment. Each PCS also would contain communication equipment to wirelessly communicate with the tracker units to control operation and detect anomalous conditions. Photovoltaic Combining Switchgear, or PVCS, will be located along the 34.5 kV collector line. All electrical equipment would be housed in protective enclosures on concrete pads.

34.5 kV Collection System

The 34.5 kV collection system would comprise underground cabling. From the medium-voltage transformers to the PVCSs, the 34.5 kV system would be installed underground using 35 kV-rated medium voltage cables listed for direct buried applications. Underground 34.5 kV cables would be installed to comply with the minimum burial depth in accordance with the National Electrical Code.

The solar power will be transmitted from the PVCSs to switching station located on non-federal land of BCNV Solar through an underground e 34.5 kV.

Site Security and Fencing

Security at the Proposed Project site would be achieved by fencing, lighting, security patrols, and electronic security systems. The Project site would be monitored 24 hours per day, seven days per week during all phases. Lighting would be provided at the O&M building and Project entrance gate.

The solar field and support facilities perimeter would be secured with chain link metal-fabric security fencing. Controlled access gates would be located at the site entrance. The perimeter fence would be an 6 to 7-foot-high chain link fence with 1-foot-high barbed-wire security strands at the top; a 10-foot-wide fire break would be maintained around the exterior of the perimeter fence (the security fence in proximity to the gen-tie line would be properly grounded). Approved desert tortoise exclusion fencing also would be utilized and will be installed outside the perimeter security fence.

1.3 Operation and Maintenance Facilities

Internal Project-Related Roads

Project-related roads within the solar plant site would include the perimeter road and solar field access ways as described below. The proposed primary and secondary site access roads are described in Section 1.3.6.2, *Project Access Roads*. Similar to the disturbance that would occur from other Project components (based on the assumption that all acreage within the fenced perimeter would be disturbed), the acreage identified for roads is also considered to be permanent disturbance.

Perimeter Road

A new perimeter road would be located just inside the site's perimeter fence and within the solar field area around specific blocks of equipment. The perimeter road would be constructed to allow access by maintenance and security personnel. The perimeter road would be approximately

20 feet wide and would be composed of native graded and compacted dirt. Alternatively, the perimeter road may use an aggregate base in some or all areas to meet Project dust and flood control requirements.

Solar Field Access Ways

Within the solar field, new access ways would be built to provide vehicle access to the solar equipment (PV modules, inverters, transformers) for O&M activities. These access ways would be approximately 20 feet wide and approximately every 500 to 1,500 feet across the solar field. The existing surface area would be graded and compacted using onsite materials to facilitate use by two-wheel-drive vehicles.

Gen-Tie Transmission Line

The Proposed Project will utilize the Townsite Gen-Tie and road recently constructed for Townsite Solar 1.

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Electric Distribution Line

A new 12 kV to 13.8 kV Distribution Line (up to approximately 2 miles in length) interconnecting to NV Energy or some other electric utility or municipality to provide electric distribution service for auxiliary power to the Proposed Project during construction and operations would be installed within the requested linear Site Access ROW. The centerline would at least 25 feet from the proposed site access road. A portion of the Site Access ROW will be assigned to the owner of the Distribution Line once the electricity provider has been selected. In addition a portion of the Distribution Line would be constructed on non-federal land owned by BCNV. . Distribution Line poles would be approximately 40feet high from ground surface and an average of 300feet from one another. To the extent applicable, all overhead electrical lines would be designed and installed in accordance with the Avian Power Line Interaction Committee's (APLIC) Suggested Practices for Avian Protection on Power Lines (APLIC 2006). Permanent power conduits would be run underground or overhead from the substation located at Townsite Solar 1 to the O&M building located on non-federal land of BCNV Solar. . Alternatively, generators may be used to provide temporary construction power. During operational daylight hours, the Proposed Project would generate its own power for equipment operation. During non-daylight hours, the Project would require auxiliary power to keep transformers energized, maintain communications to Project equipment, and provide power for heating, ventilation, air conditioning, and lighting.

Water

An estimated 25 acre-feet (AF) of water would be required over the Proposed Project construction period for construction-related activities, including dust control. After construction is complete, the Proposed Project's water consumption during operation would require up to 2-3 acre-feet per year. During operations, water would be used for panel washing and for dust control in conjunction with dust palliatives. The Proposed Project will not require process water.

Water for the Proposed Project would be obtained from commercial water sources with existing water rights including Boulder City.

Wastewater

Wastewater generated during construction and operation would include sanitary waste from the O&M building, stormwater runoff, equipment washdown water, and water from excavation dewatering during construction (if dewatering is required). These wastewaters may be classified as hazardous or nonhazardous depending on their chemical quality and handled and disposed of in accordance with applicable law.

Lighting

Lighting would be provided at the Project entrance gate. Lighting for facilities and associated infrastructure would be down- shielded to keep light within the boundaries of the Proposed Project site and the minimum amount and intensity necessary for the intended use. Nighttime activities would be performed with temporary lighting. Night lighting used during construction, operation, and maintenance of the Proposed Project would be controlled or reduced using directed lighting, shielding, and/or reduced lumen intensity.

The Applicant will prepare a Lighting Management Plan for construction and operation of the Proposed Project.

Waste and Hazardous Materials Management

The primary wastes generated at the Proposed Project during construction, operation, and maintenance would be nonhazardous solid and liquid wastes including the following: scrap wood, steel, glass, plastic, paper and metals, empty hazardous waste containers, waste oil filters, oily rags and oil sorbent, spent lead acid batteries, waste oil and sanitary waste. The Applicant will prepare a Hazardous Materials and Waste Management Plan, as well as a Spill Prevention and Emergency Response Plan, which would address waste and hazardous materials management, including Best Management Practices (BMPs) related to storage, spill response, transportation, and handling of materials and wastes.

Nonhazardous Wastes

The Project would produce wastes typically associated with O&M activities. These would include defective or broken electrical materials, empty containers, the typical refuse generated by workers and small office operations, and other miscellaneous solid wastes.

Hazardous Materials and Hazardous Waste

Limited quantities of hazardous materials would be used and stored on site for O&M activities. **Table 1-4**, *Hazardous Materials That May Be Used During Operation*, lists the hazardous materials anticipated that would be stored and used on site. Material Safety Data Sheets (MSDSs) for each of these materials would be provided in the Spill Prevention and Emergency Response Plan.

Fire Protection

The Project's fire protection water system would be supplied from a water storage tank. During construction, one electric and one diesel-fueled backup firewater pump would deliver water to the fire protection water-piping network. The electrical equipment enclosures that house the inverters and transformers would be either metal or concrete structures. Any fire that could occur would be contained within the structures, which would be designed to meet National Electric Manufacturers Association (NEMA) 1 or NEMA 3R IP44 standards for electrical enclosures (heavy duty sealed design to withstand harsh outdoor environmental conditions). The Applicant would prepare and implement a Fire Management Plan.

TABLE 1-4
HAZARDOUS MATERIALS THAT MAY BE USED DURING OPERATION

Hazardous Material	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Mineral Insulating Oil	Carbon steel transformers; total onsite inventory of 80,000 gallons.	Used only in transformers, secondary containment for each transformer would be managed in accordance with the Spill Response and Emergency Response Plan.
Batteries, lead acid based and/or lithium ion	Battery-based emergency back-up power at each of the PCS plus BESS at substation	Enough cooling capacity to maintain ambient temperatures appropriate for the selected battery would be provided.
Propane	Generator-based emergency back-up power at each of the PCS shelters (or one centralized generator); tanks at PCS will be sized between 20 and 100 gallons (or 1000 gallons if one centralized tank).	Would be managed in accordance with the Spill Response and Emergency Response Plan.
Herbicide Roundup® (glyphosate) or equivalent; Pesticide	Brought on site by licensed contractor, used immediately.	No mixing will occur onsite, and no herbicides will be stored onsite.

Health and Safety Program

The Applicant would require that all employees and contractors adhere to appropriate health and safety plans and emergency response plans. All construction and operations contractors would be required to operate under a Health and Safety Program (HASP) that meets industry standards. All site personnel would be required to go through a new hire orientation and follow a Worker Education and Awareness Plan (WEAP), which would address Project-specific safety, health, and environmental concerns.

Stormwater Management

All major existing drainages on the Project site would be avoided and the Project would be designed and engineered to maintain the existing hydrology. Generally, offsite flows to the Project site come from the southern side of US-11/US-93. In most cases, the runoff generated from these offsite areas flows onto the site through culverts crossing under US-11/US-93 or by overtopping it. A lessor source of storm flows comes from the northwest. These flows also cross US Hwy 95 and a portion of them is directed south toward the Project site.

A series of proposed channels would be constructed to convey water flows to existing drainages or by spreading the flows to allow them to leave the site as sheet flow. The proposed channels would be rip-rapped and grouted as required to reduce erosion. One or more detention basins may be located above the channels or to intercept flows at the top of the site to manage stormwater entering the site. Spreader basins and or riprapping may be located below each channel to reduce flow velocity before stormwater enters existing downstream drainages or allow offsite flows to be discharged as sheet flow. Runoff generated onsite would be conveyed as sheet flow across the site. This would maintain existing terrain.

Vegetation Management

The site would be allowed to re-vegetate following construction. Vegetation would typically be maintained to a height of no more than approximately 12 inches as needed for site maintenance and fire-risk management using mechanical and chemical controls. Project roads and the O&M area would remain free of vegetation. The Applicant will address post construction vegetation management including invasive and noxious weed control as part of a BLM approved Integrated Weed Management Plan for the Project.

Noxious Weed and Pest Control

The Applicant would prepare an Integrated Weed Management Plan for the Project that would follow the Las Vegas Resource Management Plan (BLM/LVFO 1998), Noxious Weed Plan (BLM 2006), and the interagency guidance Partners Against Weeds (BLM 2007c) for an active integrated weed management program. BLM-approved herbicides such as Roundup (glyphosate) would be used to control noxious weeds, if required. Pest control may also be required, including control of rodents and insects inside of the buildings and electrical equipment enclosures.

1.4 Alternatives

No Action Alternative

The ROW application would be denied.

Alternatives Considered but Eliminated from Further Analysis

Alternative locations for the Project were considered but were eliminated due to distance from the facilities which the Project will interconnect with, the unavailability of land and resource conflicts.

Other Permits and Authorizations

Federal, state, and local permits, authorizations, or inter-agency consultations that may be required for the Project.

I. Federal Permits, Authorizations or Inter-Agency Consultations

U.S. Department of the Interior, BLM

- ROW grant under Title V of FLPMA
- Finding of No New Significant Impact (FONSI) and Decision Record

U.S. Department of the Interior, BLM and State Historic Preservation Office

- BLM/SHPO, NHPA Section 106 Consultation

U.S. Department of the Interior, Fish and Wildlife Service

- Endangered Species Act Section 7 Consultation and Biological Opinion/Incidental Take Statement

II. State of Nevada Permits or Authorizations

Nevada Department of Wildlife

- Special Purpose Permit
- Energy Planning and Conservation Cost Recovery Fund Application

III. Clark County Permits

Clark County Department of Air Quality

- Dust Control Permit

Clark County Regional Flood Control District

- Drainage Study Approval

Clark County Department of Comprehensive Planning

- Development Agreement
- Special Use Permit

Clark County Building Department

- Grading Permit
- Building Permit

1.5 Financial and Technical Capability of the Applicant

The applicant is utilizing the same personnel that successfully developed the Townsite Solar 1 Project. The applicant has enough financial resources to complete the development and construction of the Proposed Project. Prior to the start of construction of the Proposed Project the Applicant may supplement its own financial resources with tax equity, private equity, bank financing. Personnel for the applicant have successfully developed and raised financing for over 1500 MW of Solar.

SECTION 2

Construction of the Facilities

2.1 Overview

Construction is expected to take up to 12 months and would include the major phases of mobilization, construction grading and site preparation, installation of drainage and erosion controls, PV panel/tracker assembly, and solar field construction. The Applicant is planning to commence construction in Q1-2023. Some aspects of construction will need to be coordinated with Boulder City and Nevada Department of Transportation, this includes but is not limited to construction traffic on US-95, construction power, and usage of the transmission corridor for access.

Site Temporary Construction Workspace, Laydown and Mobilization Areas

The Proposed Project construction contractor would develop an approximately 5-acre temporary construction mobilization and laydown area either within the Proposed Project area or adjacent to the southeastern corner of the Proposed Project site (see Figure 1-3) The construction laydown area would be used to accommodate temporary construction trailers with administrative offices, construction worker parking, temporary water service and fire water supply holding tanks, temporary construction power services, tool sheds and containers, as well as a laydown area for construction equipment and material delivery and storage.

In addition, temporary construction areas would be located at each tower location and at locations required for conductor stringing and pulling operations to accommodate construction of the on-site underground 34.5kV electric cables. These areas would be required for staging equipment and materials for foundation construction and tower installation. All land needed on a temporary basis will be applied for by Skylar in a separate temporary ROW application.

2.2 Site Preparation

A geotechnical investigation and environmental clearance surveys would be performed at the Proposed Project site prior to commencement of construction activities. During the environmental clearance phase, the boundaries of the construction area would be delineated and marked. The site then would be prepared for use; existing vegetation removal and grading would be minimized to the extent reasonably practicable. Site preparation techniques are described below.

Surveying and Staking

Prior to construction, the limits of construction disturbance areas would be determined by surveying and staking. Where necessary, the limits of the ROW also would be flagged. All construction activities would be confined to these areas to prevent unnecessary impacts affecting sensitive areas. These areas, which would include buffers established to protect biological resources, also would be staked and flagged. The locations of underground utilities would be located and staked and flagged in order to guide construction activities.

Clearance Surveys and Fencing

Approved tortoise fencing would be installed around the perimeter of the construction area to prevent tortoise from moving onto the site from adjacent areas. Authorized biologists would be retained to survey and relocate desert tortoise, if needed, and perform other sensitive species removal and mitigation in accordance with an approved Desert Tortoise Translocation Plan.

Vegetation Removal and Treatment

Within the solar field areas that would be graded, existing vegetation would be worked into the underlying surface soils. Vegetation would be permanently cleared from roadways, access ways, and where concrete foundations are used for the inverter equipment, medium voltage transformers, combiner boxes. BESS and other ancillary equipment. A 10-foot-wide fire break would be established around the outside of the perimeter fence and maintained clear of vegetation.

Site Clearing, Grading, and Excavation

All earthwork required to install drainage control detention basins, access roads, and foundations for project-related buildings would be balanced on site. Trenching would be required for placement of collector lines. The solar field would require a positive natural terrain slope of less than 5 percent. The disk and roll technique would be used to prepare the surface of the solar field for post and PV panel installation. The disk and roll technique utilize conventional farming equipment to prepare the site for construction. Typical farming equipment will have rubber-tired tractors with disking equipment and drum rollers with limited use of scrapers to perform micro grading. In areas where the terrain is not suitable for disk and roll, conventional cut and fill grading would be used to prepare the relevant area.

Solar Field and Internal Roads. Within the solar field, some grading would be required for roads and access ways between the solar arrays, and for electrical equipment pads. In general, the design standard for the roads and access ways within the solar field would be consistent with the amount and type of use they would receive.

Gravel, Aggregate, and Concrete Needs and Sources

Concrete would be poured in place for equipment and building foundations, fence footing and miscellaneous small pads. Aggregate material would be used for the trench backfill, temporary construction area, access and perimeter roads Proposed Project. Rip-rap material would be required for erosion control. The Applicant would determine a source for these materials that would be presented for BLM review and approval, as necessary.

2.3 PV Solar Array Assembly and Construction

Prior to any construction in PV equipment areas, the clearance and site preparation steps for those areas would be completed. Within each area designated for PV equipment, the construction sequence would follow a consecutive order.

1. The construction of the solar field would proceed by arrays. Each array would contain solar panels, a PCS, and a step-up transformer. Within each array, materials for each row of PV modules would be staged next to that row. Prepare trenches for underground cable;
2. Install underground cable;
3. Backfill trenches;
4. Install steel posts and table frames;
5. Install PV modules;
6. Install concrete footings for inverters, transformers, and medium voltage transformers and BESS equipment;
7. Install inverter and transformer equipment;
8. Install BESS equipment;
9. Perform electrical terminations; and
10. Inspect, test, and commission equipment.

Cable trenches would be used to provide underground connection of Project equipment. Trenches would contain electrical conductors for power generation and fiber optic cables for equipment communication. Trenches would vary between 2 to 3 feet wide and 2 to 3 feet deep depending on the number of conductors and voltage of equipment to comply with applicable electrical codes.

The assembled solar equipment would be installed on steel posts to which steel table frames would be attached. Trucks would be used to transport the PV modules to the solar field. A small mobile crane may be used to assist construction workers in setting the solar modules on the driven steel posts. Final solar field assembly would require small cranes, tractors, and forklifts.

2.4 Electrical Collection and Transmission System Construction

Electrical construction would consist primarily of the following elements:

1. **Equipment**—Installation of all electrical equipment including DC combiner boxes, PCS Shelters (including inverters), transformers, circuit breakers, disconnect switches, switchgear and distribution panels, lighting, communication, control, and SCADA equipment.

2. **Cables**—Installation of all cables necessary to energize the Project equipment including instrument control wiring. High, medium, and low voltage cables would be routed via cable trays, above-grade conduits, below-grade conduit in duct bank, and overhead structures.

3. **Grounding**—All equipment and structures would be grounded as necessary. Within the solar field, an appropriate grounding system would be engineered and constructed in order to maintain personnel safety and equipment protection.

4. **Telecommunications**—Multiple communication systems would be required for the Project to properly operate, including T-1 internet cables, fiber optic, and telephone. All communications would be installed during electrical construction.

2.4.1 Standard Transmission Line Construction Techniques

The Proposed Project would include an underground 34.5 kV collection system. Standard transmission line construction techniques would be used to construct the 34.5 kV collector lines. Primary stages in underground 34.5 kV collection system construction are trenching and cable placement. In general, little to no grading is expected to be required for these areas. Typical equipment expected to be used for transmission line construction includes backhoe, , various pickup and flatbed trucks, conductor reel, bucket trucks, and truck-mounted tensioner and puller.

Foundation Installation. Once final design is completed an overhead 34.5 kV line could be required. If an overhead 34.5 KV overhead lines is necessary and it is located within the Proposed Project are then any wood poles used would be embedded into the ground to a depth of at least 10 percent of the pole height plus 2 feet. Installation of wood poles is anticipated to require auguring holes approximately 2 feet in diameter and 8 feet deep. Aggregate or high strength backfill would be used to stabilize the installed poles. Angle points on the 34.5 kV collection line would require steel poles supported by steel-reinforced poured pier concrete foundations.

Tower/Pole Installation(if required). Poles would be placed onto their using backhoes or heavy lifter vehicles for the smaller, lighter poles, or a crane for longer poles. The poles would be supported, as necessary, during backfilling or bolting to the foundation to ensure correct pole seating.

Conductor Stringing(if required). Conductor stringing would be conducted one phase at a time, with all equipment in the same operational place until all phases of that operation are strung.

Grounding for overhead line(if required). Ground rods would be hammered into the earth with a jackhammer device attached to a small excavator (such as a Bobcat). Typically, the rods are 8 to 12 feet long and can be longer if needed by joining multiple rods. For the 34.5 kV wood poles, a 3-foot square by 2-foot-deep area would be excavated to expose the ground rod for connection to the plant's grounding grid.

2.5 Road System Construction

Preconstruction activities for the project-related roads would include installation of tortoise fencing, relocation of desert tortoise, and meeting any necessary cactus and yucca salvage requirements. The construction entrance and exit gates would be established to utilize the site access are of the Townsite Solar 1 Project. The Proposed Project's main access road would be graded and constructed in order to facilitate travel to the Project site and would connect to the existing road on the Townsite Solar 1 Project. Within the solar field, some grading would be required for roads and access ways between the solar arrays. All project-related roads are proposed to be native graded/compacted dirt; however, roads may alternatively use an aggregate base in some or all areas to meet Proposed Project dust and flood control requirements.

Any temporary or permanent crossings under the existing transmission lines will be coordinated and approved with respective owners of the Transmission lines. The main access is through old Hwy 95 and the existing access road off current Hwy 95 and the use of all existing permitted roads will be coordinated with the appropriate owners and authorities.

2.6 Building Construction

2.6.1 O&M Building Construction

Following environmental clearance and site preparation of the O&M area, construction in the shared O&M area would commence. Concrete foundations would be poured to support the permanent O&M building and an area adjacent to the building may be paved for parking. The modular steel approximately 3,000 square-foot building would be erected. A 4-inch aggregate base would be installed on all unpaved areas within the O&M area. The active and reserve septic fields would be established and connected to O&M buildings waste system. Auxiliary power for construction and operations would be connected to the O&M building. The potable water treatment equipment would be installed in the O&M building and the water pump and line would be connected to the potable water well.

2.7 Workforce, Schedule, Equipment, and Materials

The onsite construction workforce would consist of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel. The Proposed Project onsite construction workforce are anticipated to be an average of 200 to 400 construction workers with a peak not expected to exceed 500 workers at any given time. Most construction staff and workers would commute daily to the jobsite from within Clark County, primarily from the Las Vegas area.

Construction would occur between 5:00 a.m. and 5:00 p.m. and may occur seven days a week. Additional hours may be necessary to make up schedule deficiencies, or to complete critical construction activities. For instance, during hot weather, it may be necessary to start work earlier (e.g., at 3:00 am) to avoid work during high ambient temperatures. Further, construction requirements would require some night-time activity for installation, service or electrical connection, inspection and testing activities.

Construction activities would follow a generally consecutive order, however, most construction activities associated with each construction component would overlap to some degree and would include the following:

1. Installation of tortoise fencing and security fencing;
2. Construction of the access road, laydown areas, concrete pad and Distribution Line;
3. Site preparation activities, and construction of drainage control detention basins;
4. Erection of collection system and auxiliary components; and
5. PV solar array assembly, construction and commissioning.

Table 2-1A, 2-1B, and **2-1C**, below, provides a description of the onsite equipment expected to be used for solar panel array and collection system construction (Table 2-1A), , and gen-tie line construction (Table 2-1C). Actual construction equipment details and durations may vary.

TABLE 2-1A
ESTIMATED ON-SITE EQUIPMENT FOR SOLAR PANEL ARRAY AND COLLECTION SYSTEM CONSTRUCTION

Equipment Description	Daily Quantity	Horsepower	Fuel Type	Equivalent Full-Load Operating Time(hr./day)	Vehicle Miles(VMT) per Day on Unpaved Surface
Install BMP Measures (Part of Site Preparation)					
Rough Terrain Forklift	4	75	Diesel	1.7	10
Delivery / Work Trucks	6	200	Diesel	2	5
Site Prep – Solar Arrays					
Truck, Pick-Up (Survey Crew)	4	180	Gas	1.7	5
Grader	6	200	Diesel	6.8	20
Backhoe/Front Loader	4	120	Diesel	3.4	20
Tractor / Disc	6	210	Diesel	6.8	40
Scraper	8	265	Diesel	3.4	30
Compactor	4	120	Diesel	1.7	10
Water Truck	4	175	Diesel	6.8	N/A
Site Prep – Roads					
Grader	6	200	Diesel	6.8	20
Backhoe/Front Loader	2	120	Diesel	6.8	10
Compactor	4	120	Diesel	6.8	20
Water Truck	4	175	Diesel	6.8	N/A
Dump Truck	8	235	Diesel	2.7	10
Install Fencing					
Rough Terrain Forklift	4	75	Diesel	1.7	10
Delivery / Work Trucks	6	200	Diesel	1	5
Post Installation					
Delivery / Work Trucks	4	200	Diesel	1	5
Post Machine	10	45	Diesel	8.1	1
Rough Terrain Forklift	4	75	Diesel	6.8	10
Install Support Structure					
Rough Terrain Forklift	4	75	Diesel	6.8	10
Delivery / Work Trucks	4	200	Diesel	1	5
Install Inverters and Switchgear & sub-structure					
Crane	4	125	Diesel	4.5	1
Backhoe/Front End Loader	4	120	Diesel	6.8	10
Delivery / Work Trucks	4	200	Diesel	1	5
DC and AC Wire Installation (UG)					
Backhoe/Front Loader	8	120	Diesel	6.8	10
Crawling Trencher	4	100	Diesel	4.1	1
Mini-Excavator	8	42	Diesel	6.8	10

2.8 Construction Traffic

Typical construction traffic would consist of trucks transporting construction equipment and materials to and from the site and vehicles of management and construction employees during the construction period. Most construction staff and workers would commute daily to the jobsite from within Clark County, primarily from the Las Vegas area. All traffic US-93/US-11and US-95 to access the site. The Applicant would prepare a Traffic Management Plan to address Project-related traffic.

2.9 Construction Power

A Distribution Line (up to approximately 2 miles in length) interconnecting to the existing utility distribution service would be installed to provide auxiliary power during construction and operation. Distribution Line poles will be made of wood, steel or concrete and would be spaced between 40-ft 0 feet high from ground surface and an average of 300 feet from one another.. The Distribution Line would be installed during construction to provide power to the laydown areas during construction and to maintain communications to Project equipment, and provide power for heating, ventilation, air conditioning, and lighting at the solar inverters and BESS during operations. Alternatively, generators may be used to provide temporary construction power.

SECTION 3

Related Facilities and Systems

3.1 Transmission System Interconnect

3.1.1 Proposed Transmission System

The Proposed Project will utilize the newly constructed Townsite GenTie to transmit power generated by the Project site to WAPA's 230 kV substation.

3.1.2 Ancillary Facilities

The Proposed Project will access the shared facilities at the Townsite Solar 1 Project. The Proposed Project will connect with the bulk power transmission system at the existing Mead 230 kV Substation owned by WAPA. Three-phase conductors would terminate on steel angle pull-off structures and would be insulated from the structure by porcelain insulators. Line disconnects are included for disconnect of any of the incoming lines for maintenance or repair without complete disruption of power flow. All bus, cable, hardware, and electrical equipment ratings would be determined during detailed design.

3.1.3 Status of Power Purchase Agreements

The Applicant intends to sell power from the project in accordance with a PPA to be negotiated with one or more utilities or to utilize the solar energy to compliment the power supply to an existing PPA.

3.1.4 Status of Interconnection Agreement

The Applicant will file a large generator interconnection material modification request with WAPA by the Q2-2021and an updated LGIA in place by the end of 2022.

3.1.5 General Design and Construction Standards

The Project would be designed in accordance with federal and industrial standards including American Society of Mechanical Engineers, National Electrical Code (NEC 2008), International Energy Conservation Code (IECC 2006), International Building Code (IBC 2006), Uniform Plumbing Code (UPC 2006), Uniform Mechanical Code (UMC 2006), National Fire Protection Association and Occupational Safety and Health Administration (OSHA).

Construction will be performed in accordance with the federal codes listed above and all applicable state and local codes. Local Clark County codes would include Title 13 – Fire and Fire Prevention, Title 22 – Buildings and Construction, Title 24 – Water, Sewage and Other Utilities and Title 25Plumbing and Electrical Regulations.

3.2 Gas Supply Systems

The Project will not require a natural gas supply system.

3.3 Other Related Systems

3.3.1 Communication System Requirements

Multiple communication systems will be used for construction and operation. These items would include telephone, fiber optics, and T1 internet. The Applicant expects to utilize existing wired or wireless telecommunications facilities. If these facilities are not available in the Project vicinity, the Applicant would install hard-wired (landline) systems as part of the electrical construction activities or would supplement with small aperture (less than 1 meter) satellite communications gear.

SECTION 4

Operation and Maintenance

4.1 Operation and Maintenance

Operation of the Project would require a workforce of up to 2-3 full time-equivalent (FTE) positions. This workforce would include administrative and management personnel, operators, and security and maintenance personnel. Employees would be based at the O&M building.

A solar PV project uses no process water, gas, or fuels for the power generation process. The maintenance protocol is mainly routine inspections. The frequency and type of maintenance is described in **Table 4-1**, *Routine Maintenance Protocol*. During the first year of operation, the frequency of inspections would be increased to address settling and electrical termination torque (e.g., for year 1, inspections shown as semi-annually are performed quarterly, inspections shown as annual are performed semi-annually). At designated intervals, every 10 to 15 years, major equipment maintenance would be performed.

Operation and maintenance would require the use of vehicles and equipment including crane trucks for minor equipment maintenance. Additional maintenance equipment would include forklifts, manlifts, and chemical application equipment for weed abatement and soil stabilizer treatment in the bioremediation area. Pick-up trucks would be in daily use on the site. No heavy equipment would be used during normal plant operation.

Dust during operations and maintenance would be controlled and minimized by applying water and/or BLM-approved palliatives (See Section 2.10, *Site Stabilization, Protection, and Reclamation*).

TABLE 4-1
ROUTINE MAINTENANCE PROTOCOL

Equipment	Maintenance Interval	Task
PV Modules	Quarterly	• Visually inspect panels for breakage and secure mounting • Visually inspect modules for discoloration • Visually inspect wiring for connections and secure mounting • Visually inspect mounting structure for rust and erosion around foundations • Manually clean localized debris from bird droppings, etc.
	Semi-Annually	• Clean modules if determined necessary
Inverters and BESS	Semi-annually	• Perform temperature checks on breakers and electrical terminations • Visual inspection of all major components and wiring harnesses for discoloration or damage • Measure all low voltage power supply levels • Inspect/remove any dust/debris inside cabinet • Inspect door seals • Check proper fan and HVAC operation • Inspect and clean (replace if necessary) filters • Check electrical termination torque • Check the operation of all safety devices (e-stop, door switches, ground fault detection)
	Annually	• Check all nuts, bolts and connections for torque and heat discoloration • Calibrate control board and sensors • Inspect air conditioning units for proper operation
Medium voltage transformers	Semi-annually	• Perform temperature check • Inspect door seals • Record all gauge readings • Clean any dirt/debris from low voltage compartment
		•
		•
Breakers and switchgear	Semi-annually	• Inspect for discoloration of equipment and terminations • Inspect door seals
	Annually	• Check open/close operation

TABLE 4-1
ROUTINE MAINTENANCE PROTOCOL

Equipment	Maintenance Interval	Task
Overhead transmission lines(if any)	Annually (and after heavy rains)	• Inspect guy wires and tower angle • Visual inspection of supports/insulators • Visual inspection for discoloration at terminations
Roadways	Annually (and after heavy rain)	• Inspect access ways and roads that cross drainage paths for erosion
Vegetation	Semi-annually	• Noxious weed inspections would be conducted in accordance with the BLM-approved Integrated Weed Management • Inspect for localized vegetation control to restrict height to less than 12 inches to address faster growth vegetation • Apply herbicides as necessary to control noxious weeds
	Every 3 years	• Mowing as required to reduce vegetation height to 9 inches
Water Wells	Annually	• Visual inspection • Pressure test
		•
		•
Backup Power	Annually	• Visually inspect backup power system • Perform functional test of backup power system
Fencing	Quarterly (and after heavy rain)	• Inspect fence or vandalism and erosion at base • Desert tortoise fence inspections would be conducted in accordance with the terms and conditions of the Project-specific BO,

SECTION 5

Environmental Considerations

5.1 Site Characteristics and Potential Environmental Issues

A detailed analysis of site characteristics and environmental considerations will be provided as part of the EA to be completed for the Proposed Project. The EA will assess the environmental impact of the Proposed Project in the following areas:

- Air Resources
- Areas of Critical Environmental Concern
- Cultural Resources
- Native American Religious Concerns
- Wildlife, Excluding Federally Listed Species
- Migratory Birds
- Threatened, Endangered, and Candidate Animal Species (i.e., the Desert Tortoise)
- Vegetation, Excluding Federally Listed Species
- Forestry
- Invasive and Noxious Weeds
- Geology and Mineral Resources
- Soil Resources
- Hazards and Hazardous Materials
- Lands/Access
- Military and Civilian Aviation
- Recreation
- Socioeconomics and Environmental Justice
- Transportation
- Visual Resources
- Water Resources

5.2 Other Uses on the Project Site

5.2.1 Grazing and Mining

There are no grazing allotments within the Project site.

5.2.2 Other Existing Uses and Access

The Proposed Project would not adversely affect the existing ROWs inside BLM property. North of the Project site is an operating gravel quarry which would not be impacted by Project construction or operations. An evaluation of these and other uses on the site will be evaluated in the NEPA process.

5.2.3 Recreation and OHV Conflicts

In accordance with the existing Las Vegas Resource Management Plan, OHV use in the surrounding area has been designated as "Limited to existing roads, trails, and dry washes" (BLM/LVFO 1998). The Project ROW would encompass approximately 76 acres, making this area unavailable for dispersed recreational activities. The Project also would result in access restrictions to the roads or trails within the fenced portions of the Project, displacing recreational users. The Project would limit recreational access through the site once site preparation has begun by blocking east-west recreational movement across the site via the existing unpaved roads at the southeast edge of parcel 4 of the Townsite Solar 1.

Project Military Aviation

Although the Project site is not located under any military airspace or in a DoD Consultation Area, it is approximately 40 miles south of Nellis Air Force Base. Given that distance, Project elements would not affect the approach or departure corridors for runways at the base. Because the Project would not construct facilities taller than 200 feet, it would not require FAA evaluation of safety hazards. However, the military has indicated that structures higher than 50 feet within the vicinity of the base may present electromagnetic compatibility concerns for test missions at the Nevada Test and Training Range. The Proposed Project does not include components over 50 feet in height.

5.3 Design Features

The BLM's decision in the Solar PEIS ROD (BLM 2012a) includes amending land use plans in the six-state study areas with: (1) programmatic design features that would be required for all utility-scale solar energy projects on BLM-administered lands The Applicant will incorporate applicable design features into the Proposed Project development process including the following management plans if required by the BLM:

- Bird and Bat Conservation Strategy
- Decommissioning and Site Reclamation Plan
- Desert Tortoise Translocation Plan
- Dust Abatement Plan
- Spill Prevention and Emergency Response Plan
- Health and Safety Program
- Groundwater Monitoring and Reporting Plan
- Fire Management Plan
- Lighting Management Plan
- Integrated Weed Management Plan
- Raven Management Plan
- Site Rehabilitation and Restoration Plan
- Stormwater Pollution Prevention Plan
- Site Drainage Plan
- Traffic Management Plan
- Surface Water Quality Management Plan
- Worker Education and Awareness Plan (WEAP)

5.4 Mitigation Measures

The following are preliminary Applicant-proposed mitigation measures. These measures are subject to change based on the findings of site-specific technical analyses and the analysis during the NEPA process.

5.4.1 Desert Tortoise

Applicant would implement the following mitigation measures because the Project is located in Desert Tortoise Habitat:

- A Worker Environmental Awareness Program (WEAP) would be implemented for construction crews prior to commencement of construction activities.
- All project construction within desert tortoise habitat, including access routes and fence lines, would be cleared by an authorized biologist before the start of construction or ground disturbance.
- Desert tortoise burrows would be avoided whenever possible.
- If a tortoise is found within the project site in harm's way, all potentially harmful activity shall cease until the tortoise moves or is moved out of harm's way by an authorized biologist
- If trenches are needed, trenches would have tortoise escape ramps built to USFWS standards placed at least every 1 mile.
- A maximum speed limit of 25 miles per hour would be maintained while traveling on unpaved access roads. During active season (March–May and September–October), a maximum speed limit of 15 miles per hour would be maintained.

5.4.2 Migratory Birds

- To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding seasons.
- During construction in migratory bird season, the Authorized Biologist would clear ahead of the construction crews and flag and monitor any active nests found. If active nests are found within the construction zone, construction would only occur outside the buffer zone, until the nest is inactive.

5.4.3 Cultural Resources

- Cultural resources are defined as buildings, sites, structures, or objects, each of which has historical, architectural, archaeological, cultural, and/or scientific importance. Numerous laws, regulations, and statues, on both the federal and State levels, seek to protect and target the management of cultural resources.

- In consultation with BLM and with SHPO concurrence, any areas which contain cultural resources of significance or whose eligibility for inclusion on the National Register of Historic Places (NRHP) is unevaluated, would be avoided, mitigated, or "treated" and recorded as appropriate.

- If construction occurs in proximity to an NRHP-eligible cultural resource site, Applicant would have an authorized cultural monitor on-site during the activity.

5.4.4 Reclamation

- For areas that have required clearing and/or grading work, restoration and reclamation procedures would be based on site-specific requirements and techniques commonly employed at the time the area is to be reclaimed and would include regrading, top soiling, and revegetating all disturbed areas.

- Reclamation would be conducted on all disturbed areas to comply with BLM requirements.

- After construction is complete, disturbed work areas would be graded to the approximate original contour, and the area would be revegetated with BLM-approved seed mixtures. Most postconstruction work would entail scarifying soils to reduce compaction and reseeding. Since only certain areas will be disturbed, a specific Site Restoration/Revegetation and Decommissioning Plan would be prepared that describes the recommendations for each area.

5.4.5 Weed Management

- Noxious weeds within the construction area are to be addressed by the initiation of mitigation measures in consultation with the BLM noxious weed management specialists.

- All contractor vehicles and equipment would arrive at the work site clean and weed free.

- Prior to being allowing access to vehicles and equipment in the ROW or ancillary facilities, an inspector would ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes.

- The Distribution Line ROW and ancillary facilities would be inspected for noxious weeds prior to vegetation clearing on the ROW and ancillary faculties. Any infestations would be recorded for reference in clearing the ROW and ancillary facilities for construction and for post-construction monitoring.

- The contractor would implement the reclamation of disturbed lands following construction as outlined in the Reclamation Plan.

- Continuing revegetation efforts would ensure adequate vegetative cover to prevent the invasion of noxious weeds.

5.4.6 Air Quality

- Water would be applied to the ground during the construction and use of the project area, access roads, and other disturbed areas as necessary to control dust.

- If required by Clark County, a fugitive dust permit from the Clark County would be obtained prior to construction, and requisite dust control measures and BMPs would be implemented during the Proposed Project.

- Appropriate water erosion and dust-control measures would be implemented to prevent an increased dust and sediment load to ephemeral washes around the construction site and to comply with Clark County dust control requirements. Dust during construction would be controlled and minimized by applying water and/or BLM-approved palliatives.

- The Applicant would employ BMPs to protect the soil surface by covering or binding soil particles. The Proposed Project would incorporate erosion-control measures required by regulatory agency permits and contract documents as well as other measures selected by the contractor. Project specific BMPs would be designed by the contractor and included in the Project SWPPP. BLM has allowed the use of several dust palliatives on other projects within the Southern Nevada District. If dust palliatives are used in place of water for the Proposed Project, the total amount of water needed during construction would be reduced. The Applicant may opt to use such palliatives, as authorized by the BLM for the Proposed Project. The soil binder/dust palliatives that are proposed for the Project, and which BLM previously has allowed are:

- Road Bond 1000

- For roads and heavy traffic areas: Soil Cement

- For non-traffic areas on finer soils; Formulated Soil Binder FSB 1000

- For non-traffic areas on sandier/rocker soils: Plas-Tex

5.4.7 Fire Protection

- All federal, State, and county laws, ordinances, rules, and regulations that pertain to prevention, pre-suppression, and suppression of fire would be strictly adhered to.

5.4.8 Visual Dominance

Methods to minimize visual dominance during operations and maintenance shall include but is not limited to compliance with the terms and conditions for VRM mitigation shall be monitored by the Applicant. Consultation with the BLM shall be maintained through operations and maintenance of the Proposed Project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM.

SECTION 6

References

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