

1.0 Executive Summary

Solar Millennium, LLC and Chevron Energy Solutions (joint developers hereafter referred to as the Applicants), propose to construct, own, and operate the Blythe Solar Power Project (BSPP or Project). The Project is a concentrated solar thermal electric generating facility with four adjacent, independent, and identical solar plants of 250 megawatt (MW) nominal capacity each for a total capacity of 1,000 MW nominal.

As a solar thermal project over 50 MW located on land managed by the Bureau of Land Management (BLM), the Project is under the jurisdiction of both the California Energy Commission (CEC) and BLM. In 2007, the BLM California Desert District and the CEC executed a Memorandum of Understanding (MOU) to establish a policy for the joint environmental review of solar thermal power plant projects. As a California agency, the CEC must comply with the requirements of the California Environmental Quality Act (CEQA), and as a Federal agency, the BLM must comply with the requirements of the National Environmental Policy Act (NEPA). The two agencies are conducting a joint review of the Project and a combined CEQA/NEPA document will be prepared.

Although CEQA and NEPA differ in several respects, they are sufficiently similar and flexible that a single environmental document can be prepared that will comply with both laws. This AFC is intended to address BLM needs as well as those of the CEC in order to support preparation of the joint NEPA/CEQA document.

1.1 Project Description

The BSPP site is located approximately two miles north of U.S. Interstate-10 (I-10) and eight miles west of the City of Blythe in an unincorporated area of Riverside County, California (Figure 1-1). The Blythe Airport is about one mile south of the site. The Applicants have applied for a right-of-way (ROW) grant from BLM ROW for about 9,400 acres of flat desert terrain. The total area within the ROW that will be disturbed by Project construction and operation will be about 7,030 acres. The area inside the Project's security fence, within which all Project facilities will be located, will occupy approximately 5,950 acres of the ROW.

Access to the site will be provided by a new public road. The BSPP site is nearly completely vacant and undisturbed and is almost entirely owned by BLM; two 160-acre private parcels exist within the ROW but neither of these is currently planned for use by the Project. There are no existing structures on the site.

The Project will utilize solar parabolic trough technology to generate electricity. With this technology, arrays of parabolic mirrors collect heat energy from the sun and refocus the radiation on a receiver tube located at the focal point of the parabola. A heat transfer fluid (HTF) is heated to high temperature (750°F) as it circulates through the receiver tubes. The heated HTF is then piped through a series of heat exchangers where it releases its stored heat to generate high pressure steam. The steam is then fed to a traditional steam turbine generator where electricity is produced.

The Applicants' primary objectives for the BSPP are to construct, operate and maintain an efficient, economic, reliable, safe and environmentally-sound utility-scale solar generating facility utilizing proven, reliable, and efficient parabolic trough technology. The Project supports both State and national goals and objectives of energy independence, environmental protection, and economic prosperity. It helps meet specific legal and policy mandates in support of these goals. These include SB 1078 (California Renewable Portfolio Standard Program); AB 32 (California Global Warming Solutions Act of 2006); and

Executive Orders by Governor Schwarzenegger. On the national level, the Project implements Federal law (Energy Policy Act of 2005), and orders by Secretary of the Interior Salazar and his predecessor aimed at significantly increasing the supply of renewable energy from public lands. On an economic and social level, the Project creates jobs and helps ensure an adequate supply of electric energy to power and sustain the economy of Riverside County and the rest of California

The Project's nominal 1,000 MW output will be generated by four identical and independent 250 MW units (Unit #1 through Unit #4). The four power generating units will share a main office building, main warehouse and maintenance building, parking lot; other support facilities and a central internal switchyard. Each unit will have its own solar field, comprised of piping loops arranged in parallel groups, and its own power block, centrally located within the solar field. Each power block will have own its own HTF system, solar steam generator; steam turbine generator; air-cooled condenser (cooling tower), and various auxiliary equipment.

From the onsite central switchyard, a new single circuit 500 kV transmission line will interconnect with Southern California Edison's (SCE) regional system at SCE's planned Colorado River substation, at a location about five miles southwest of the site. Because the terminus of the Project's gen-tie line was only recently finalized, the Project's transmission line route has not been finalized. Section 2.0, Projection Description of the AFC was written using what ultimately was selected as the substation site and a possible transmission line route. However, this is only a possible route and no environmental surveys have been conducted to date. For these reasons, transmission line impacts are not discussed in various environmental resource areas of the AFC (e.g., biological and cultural resources). When the Project's transmission line route is finalized, the needed environmental surveys and analyses will be performed and reported to the agencies and stakeholders.

The Project will use a natural gas-fueled boiler for quick startup and for HTF freeze protection. Natural gas will be supplied from a new Southern California Gas Company pipeline that will extend south offsite about two miles to a point where it will connect with an existing gas line. Because the gas line is expected to be installed in the same utility corridor as the north-south reach of the transmission line leaving the Project site, the gas line route will be surveyed at the same time as the transmission line route and the results reported together,

Thermal power plants require cooling which historically has involved large quantities of cooling water. The Project will utilize an air cooled condenser (ACC) commonly referred to as "dry cooling", thereby dramatically reducing the amount of water needed by the facility. Total water consumption for the entire facility (all four 250-MW units) is estimated at approximately 600 acre-feet per year (afy) supplied by onsite wells, about one-third of which will be used for washing the solar mirrors.

Project construction is scheduled to begin in the fourth quarter of 2010 and take approximately 69 months till completion of unit #4 in 2016. Commercial operation of the first completed unit is expected to begin in mid 2013, with subsequent units coming online in 6 to 12 month intervals.

1.2 Project Alternatives

Alternatives evaluated by the Applicants include the "No Action" ("No Project") alternative, alternative Project sites, an alternative site layout, a smaller facility, freeze protection and auxiliary boiler heating alternatives, alternative water sources, and alternative power generation technologies. The "No Project" alternative was rejected because it would not fulfill the Project's objectives of helping meet Federal and State renewable energy mandates and goals.

The selected site was the most suitable among the various alternative sites based on economic, technical, environmental, transmission access, and other criteria. Four alternative sites were considered and rejected because they would not avoid or substantially reduce environmental impacts or meet Project

objectives as well as the proposed site. Two of the sites posed substantial site control challenges; a third site is in a flood zone and much of the site is in designated desert tortoise critical habitat; the fourth alternative site directly conflicts with an off highway vehicle (OHV) use area. A smaller facility would not meet Project objectives and would not offer economies of scale. Given the ready availability of natural gas service, none of the other boiler fuel alternatives were economically preferable to the selected natural gas option. Even with dry cooling, the Project requires some water (e.g., for mirror washing, makeup feedwater, and domestic uses), and there are no feasible alternatives to site groundwater. Other renewable technology alternatives were rejected because one of the Applicants (Solar Millennium) is an industry leader in parabolic trough technology.

1.3 Environmental Information

The following paragraphs briefly summarize, in alphabetical order, the information contained in Section 5.0 of the AFC for each topical area. Both impacts of the BSPP and the cumulative impacts of the Project considered together with other probable or reasonably foreseeable projects. The focus of the cumulative impacts analysis is on projects in a roughly 50-mile stretch of the I-10 corridor between Blythe and Desert Center. Numerous renewable energy projects have been proposed in that area, mostly solar projects on BLM land, although it is considered unlikely that all of these actually will be constructed. Three transmission projects also are proposed. Projects were considered that have at least begun the permitting process; for projects on BLM lands, they were included in the cumulative analysis if they have submitted a draft or final Plan of Development (POD) to BLM. The PODs and published environmental documents for other projects were the source of data on these projects. A total of 19 projects (including the BSPP) were included, 16 generating facilities (11 on BLM land) and three transmission projects.

1.3.1 Air Quality

The Project will consist of four identical power plant units and will be a source of criteria pollutants nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), and respirable and fine particulate matter (PM₁₀ and PM_{2.5}). During operation of the BSPP, emissions will come from the equipment at the power blocks (four each of auxiliary boilers, heat transfer fluid (HTF) heaters, emergency fire water pump engines, emergency generator engines, auxiliary cooling towers, and HTF expansion tanks) and maintenance traffic in the four solar fields. Controlled Project emissions will not exceed major source thresholds and the BSPP will not need emission offsets.

Best Available Control Technology (BACT) will be applied for sources that emit NO_x, SO_x, volatile organic compounds (VOC), PM₁₀, or CO. As BACT, the Applicants propose ultra-low-NO_x burners with natural gas fuel for auxiliary boilers and HTF heaters; Tier 3-compliant engines fueled with ultra-low sulfur diesel fuel for emergency fire water pump and generator engines; high-efficiency drift eliminators for auxiliary cooling towers; and two-stage condensing system with carbon absorption for the HTF expansion tank vents.

Modeling showed that the Project's impacts during construction (without background) potentially would exceed the California Ambient Air Quality Standards (CAAQS) for NO₂ and PM₁₀ at or near the facility fence line. However, the modeling analysis is very conservative, the site is remote, and feasible mitigation measures will be implemented, including a dust control plan. The Project's modeled impacts during operation, when added to background concentrations, are projected to be below the Federal and State standards for all criteria pollutants except 24-hour and annual PM₁₀. The daily and annual PM₁₀ modeled concentrations without background are below the Federal and State standards and represent only five percent and two percent respectively of the standards. However, because the background PM₁₀ concentrations themselves already exceed the applicable standards, 24-hour and annual PM₁₀ exceedances are unavoidable.

Although there is some potential for BSPP to cause short-term exceedances of NO₂ and PM₁₀ ambient air quality standards during construction, the Project will have a long term benefit of reducing greenhouse gas (GHG) and other pollutant emissions compared to fossil-fueled power plants. The Project also will aggressively control PM₁₀ emissions because a film of dust on the mirrors will reduce their efficiency for power production.

With respect to cumulative impacts, each of the cumulative projects will be required to undergo a separate environmental review process and address its own emissions and impacts. If cumulative projects near each other are built on overlapping schedules, there potentially would be cumulative adverse impacts during construction. Virtually all of the cumulative projects are renewable energy facilities and thus would displace electricity generation that otherwise likely would occur with higher-polluting fossil fuels.

1.3.2 Biological Resources

BSPP impacts on biological resources would be less than significant with implementation of avoidance, minimization, and mitigation measures, except for unmitigable significant impacts to desert tortoise (DT) dispersal. The Project biological investigation included literature research, field surveys, and discussions with resources agencies staff. The investigation covered the 7,030-acre area that will be disturbed by BSPP construction and operation plus a surrounding 11,870-acre buffer, for a total of about 19,000 acres.

The area that will be affected by Project construction and operation is relatively undisturbed at present and is dominated by Sonoran creosote brush scrub. Other communities found in the disturbance area include desert dry wash woodland, unvegetated ephemeral dry wash, and developed areas. Agricultural areas occur at the eastern side of the BRSA. The fallow fields within the BRSA are being reclaimed by Sonoran creosote bush scrub. Las Animas colubrine, a California Native Plant Society (CNPS) and BLM-listed species, was found in the disturbance area as well as the survey buffer. Harwood's milkvetch, also CNPS and BLM-listed, was found in the survey buffer but not in the disturbance area. Jurisdictional waters delineations by Project scientists indicate that there are unlikely to be waters on the site considered jurisdictional by the U.S. Army Corps of Engineers (USACE), but USACE concurrence has not yet been obtained. However, 128.8 acres of desert washes are considered State jurisdictional waters under CDFG jurisdiction. Impacts to plants and jurisdictional waters can be mitigated to below significance levels.

One DT, a Federal and State-listed threatened species, was found in the disturbance area in the 2009 surveys and two additional DT were observed in the buffer. The area is considered suitable habitat for DT but of low-quality. The Project's impact on low-quality DT habitat will be mitigated to below significance levels. However, DT home ranges are small in relation to the 7,030-acre disturbance area and Project implementation may increase the number of DT generations it takes for individuals to move across the valley floor from southwest to northeast and vice versa; these impacts to DT dispersal are not mitigatable to below significance.. Acquired land for habitat mitigation may provide opportunities for DT movement elsewhere to help minimize Project impacts to DT dispersal.

One WBO, a CDFG State Species of Special Concern, was detected in the disturbance area, another individual was found in the survey buffer. WBO sign also was observed in association with 90 burrows. WBO impacts can and will be mitigated. No USFWS-designated critical habitat for any plant or wildlife species exists within the Project disturbance area or one-mile buffer. Each of the cumulative projects will be required to mitigate their own biological impacts. However, the stress on species whose habitats are shrinking due to development activities will continue. Further, the numerous large project sites will cumulatively affect wildlife dispersal.

1.3.3 Cultural Resources

With required subsurface investigations at a number of sites to comply with Federal law, and implementation of appropriate mitigation measures, Project impacts on cultural resources would be less than significant. Based on archival research, systematic field survey, and consultation with interested parties, 205 archaeological sites and one historic architectural resource were inventoried. There is the potential for significant impacts under CEQA at 38 archaeological sites and the one historic architectural resource. These resources will need to be assessed under the requirements of Section 106 of the National Historic Preservation Act (NHPA).

Eleven of the 38 archaeological sites requiring Section 106 review are low-density lithic scatters that appear to qualify for mitigation under an Office of Historic Preservation programmatic treatment plan, known as the Sparse Lithic Scatter *California Archaeological Resource Identification and Data Acquisition Program* (CARIDAP), for NHPA compliance. The remaining 27 sites will require additional subsurface investigation under Section 106. If unanticipated archaeological and/or historical resources are discovered during construction, Project construction activities will be halted in the immediate vicinity so that the significance of the resources can be evaluated and appropriate mitigation measures implemented.

1.3.4 Geologic Resources and Hazards

The Project would not have significant adverse impacts on geologic hazards or resources. No major unique geologic or physical features have been identified in the Project area. No active fault zones are present within the Project boundaries or within a 1.5-mile radius of the site. The Project site is located in Seismic Zone 3, the second highest seismic activity zone. All Project structures will be designed to meet the seismic design standards established for Seismic Zone 3. Geotechnical investigations are being performed at present to provide additional data regarding site conditions to support the design of foundations of Project structures and other elements of site development; the results of these investigations will be provided when available. Additional geotechnical investigations are expected in support of detailed design.

Evidence of ground subsidence (e.g., fractures possibly caused by historic groundwater extraction) has not been noted at the Project site, although the site is in an area considered to be susceptible to subsidence. Given the high historic use of local groundwater resources for agricultural development near the Project vicinity (although not on the site) with no subsidence reported, it is not anticipated that the Project's limited pumping program will induce subsidence below the site due to groundwater pumping. Although seismically induced subsidence can occur at the site due to soil conditions, adherence to the recommendations of Project geotechnical investigations would mitigate these hazards to a less-than-significant level.

1.3.5 Hazardous Materials Handling

The BSPP would have no significant hazardous materials handling-related impacts. The Project will be designed, constructed, operated, and maintained to ensure the safe use and storage of hazardous materials and in compliance with applicable LORS. A wide variety of accident prevention and mitigation programs, plans, and procedures will be implemented, including hazards assessments, process management systems, release prevention and emergency response programs, employee training, and adherence to sound professional design standards and operating procedures.

Hazardous materials that will be used during Project operations include the solar heat transfer fluid (Therminol VP-1™, a synthetic hydrocarbon), propane, diesel fuel, mineral insulating oil, and lube oil, among others. It is important to note that solar power plants use fewer (and lower quantities of) hazardous materials than do combined-cycle or other fossil-fuel fired power plants,

1.3.6 Land Use

Project land use impacts would be less than significant. The Project site is located almost entirely on BLM-managed public lands within the California Desert Conservation Area (CDCA), and is managed under the CDCA Plan (1980) as amended. The site is classified as Multiple Use Class Moderate by BLM, which allows energy and utility development, but a CDCA Plan Amendment will be required because the Project was not identified in the existing Plan. The Project is not within, and would not be expected to significantly affect designated wilderness areas, National Parks, Desert Wildlife Management Areas (DWMAs), Areas of Critical Environmental Concern (ACEC), or recreational areas.

There is one 160-acre private parcel inholding on the facility site, but no Project activity is currently planned on that parcel. There are two residences within one mile of the Project site. These nearby land uses may be inconvenienced temporarily by noise, dust, and traffic during Project construction. However, there would be minimal impacts on these residences during Project operation.

The Project is located in close proximity to the Blythe Airport and within its Area of Influence and will require reviews by the FAA and the Riverside County Airport Land Use Commission. Project structures will stay below applicable FAA height limitations and the Project is expected to be considered a compatible use.

Cumulatively, the Project and other renewable energy projects will unavoidably alter the land use patterns of portions of eastern Riverside County along the U.S. Interstate 10 (I-10) corridor. However, these changes are compatible with Federal legislation (e.g., Energy Policy Act of 2005), Department of Interior policy (orders issued by the last two Secretaries of the Interior), and State law and policy (e.g., Renewable Portfolio Standards) that recognize the need to utilize the solar energy resource of the California desert.

1.3.7 Noise

Project noise impacts would be less than significant. The Project site and surrounding areas have few noise sensitive land uses nearby that could be impacted by Project noise emissions. The nearest human noise sensitive receptor is a mobile home structure located off-site approximately 725 feet east and 775 feet south of the Project site boundary. The Interstate 10 (I-10) freeway is the predominant noise source in the area.

Temporary noise would be generated during the 69-month Project construction period. Construction noise levels would be most noticeable when construction activities occur near the site boundary closest to the nearby residence. The Riverside County Noise Ordinance does not limit construction noise levels; it only limits construction to daytime hours Monday – Saturday when near a residence. However, construction noise equipment emissions will be controlled, a complaint procedure put in place, and arrangements made as needed to resolve noise issues with the owner of the nearby residence.

Operational noise from the Project would result primarily from daytime operation of equipment in the power blocks. The modeled daytime operational plant noise levels are estimated to attenuate over approximately 6,000 feet to about 40 decibels absolute (dBA) equivalent continuous noise level (Leq) at the nearest residence; non-daylight noise levels would be approximately 20 dBA Leq less due to the primary noise sources in shutdown mode. The resultant community noise equivalent level [CNEL] of the plant noise at the residence would be approximately 41 dBA CNEL. The ambient CNEL at the residence without the project is 49 dBA CNEL. The 8 dBA difference between the two CNELs would result in a 1 dBA increase to the higher of the CNELs (49 dBA), resulting in a CNEL with the project of 50 dBA CNEL. This 1 dBA increase above ambient is not perceptible.

The County Noise Ordinance sets limits not to exceed 45 dBA during day and night hours for rural residential properties. The daytime operational Project noise was estimated at 40 dBA Leq at the residence; the nighttime Project noise would be substantially less. Comparing the Project's estimated noise level at night with the lowest measured L90 of 29 dBA at the quietest time of the night (4:00 A.M.), the difference would be less than the applicable significance criteria of 5 dBA above the lowest measured L90 at any noise sensitive receptor.

1.3.8 Paleontological Resources

With implementation of planned mitigation measures, the Project would have no significant impacts on paleontological resources. A comprehensive paleontological records search and literature review indicated that no fossil localities have been previously recorded in the Project area. No significant fossils were observed on the surface during the paleontological field survey that was conducted for the Project.

However, geologic units underlying the Project site include areas of low, low to high (increasing with depth), and high sensitivity for the likelihood of discovery of significant fossils. The planned mitigation includes a comprehensive professionally-prepared monitoring and mitigation plan approved by the agencies before construction, including employee training; monitoring during excavations in locations of high paleontological sensitivity; and appropriate data recovery of fossil materials encountered, if any.

1.3.9 Public Health

Project public health impacts would be less than significant. The focus of the analysis is human exposure to the toxic air contaminant (TAC) emissions associated with Project operation. The nearest residential receptor is located close to the facility's southern boundary, approximately 0.1 mile from the site, with the next nearest residence located approximately one mile east of the Project site. Project TAC emissions are expected to be minimal. A health risk assessment (HRA) was performed. It showed estimated cancer risks at all receptors to be very low, with a maximum individual cancer risk (MICR) of 0.38 in-one-million at a residential receptor, which is lower than the Best Available Control Technology for air toxics (T-BACT) threshold of 1-in-one million in Mojave Desert Air Quality Management District Rule 1320. Based on the results of the HRA, the Project poses an insignificant incremental cancer and non-cancer health risk.

1.3.10 Socioeconomics

BSPP construction and operation would cause minimal adverse socioeconomic impacts and substantial positive impacts. Project employment would provide additional income to Riverside County and other nearby areas, as would local expenditures for materials and services. The Project construction workforce would average about 600 workers over a 69-month period with a short term peak of 1,000, while the long-term work force will be 221.

Studies have shown that construction workers typically commute as much as two hours rather than leaving home. Riverside and neighboring San Bernardino Counties combined have over 150,000 construction workers, laborers, and carpenters in their work forces. Most non-local construction workers are likely to commute rather than relocate to the Project area. There are residential opportunities or amenities in Blythe about eight miles to the east on Interstate-1- (!-10) or to the west about 90 miles in Coachella and Some workers may use campgrounds, RV parks, or motels; housing vacancy rates are high in the region. Impacts on socioeconomic factors (e.g., population, housing, services).during construction would be very small. The Project's long-term operation work force of 221, some likely local residents, would not significantly affect local socioeconomic conditions. The Project would not have disproportionate impacts on minority or low-income populations (adverse environmental justice impacts).

The Project would provide an annual beneficial economic impact during construction of about \$96 million, with annual economic impacts during operation of about \$26 million. Property taxes are estimated at about \$800,000 per year, and the Palo Verde Unified School District would receive a development impact fee of about \$116,000. The Project would have beneficial socioeconomic impacts for the entire State by helping ensure an adequate supply of electrical power to fuel the State's economy, helping California meet its Renewable Portfolio Standard and greenhouse gas emissions reduction goals, as well as providing jobs in an area that is experiencing hard times. .

The many solar projects proposed in the I-10 corridor of eastern Riverside County conceivably could have cumulative socioeconomic impacts. These impacts would depend on how many of the proposed projects actually reach construction and when. It is unlikely they all will be built. However, even though eastern Riverside County is currently experiencing difficult times with high housing vacancy rates, there is a possibility of a period (a few years between roughly 2012 and 2014), where the demand for housing, and services of all kinds associated with the cumulative energy projects conceivably might strain the infrastructure, services, and communities of the Blythe area.

1.3.11 Soils

The Project would not have significant impacts on soils. The Project is not located on agricultural lands, there is little likelihood of encountering contaminated soils during construction, and there will be no import or export of fill material. Limited soils data is available from any known source for the Project site and the Applicants are developing soils maps and other detailed soils data as part of the ongoing geotechnical investigation program. These data will be provided to the regulatory agencies and other stakeholders when the geotechnical investigation is complete.

The site will be graded as part of construction. With the implementation of best management practices (BMPs), such as soil compaction, dust suppression, straw bales, and silt fences, as well as limiting exposed areas, impacts during construction would be less than significant. Likewise, BMPs and dust control measures will be implemented to minimize water and wind erosion impacts during Project operation. BMPs will be provided in the Storm Water Pollution Prevention Plan (SWPPP) and Draft Erosion and Sedimentation Control Plan (DESCP) required for the Project. A preliminary construction SWPPP/DESCP is provided in Appendix L.

1.3.12 Traffic and Transportation

Project traffic and transportation impacts will be less than significant. Peak construction will involve a work force of approximately 1,000 workers whose commuting vehicles will increase traffic volumes on U.S. Interstate 10 (I-10), the primary access to the site vicinity. All roadways are forecast to continue operating at their existing traffic flow conditions with no Project impacts on traffic conditions during peak BSPP construction activity. Because of the moderate size work force of 221 people associated with Project operation around the clock, traffic impacts will be minimal during commercial operations.

All access routes to and from the proposed BSPP, including I-10 east and west, the Mesa Drive interchange, and Blackrock Road, are forecast to operate at Level of Service (LOS) A (free flowing) in morning and afternoon hours through year 2014, including year 2013, when Project construction traffic is anticipated to be at its peak. However, at peak construction, traffic at the intersection of Mesa Drive and Hobsonway in the morning and afternoon would be highly congested if all 1,000 workers in individual vehicles arrived at/departed from the work site at the same time. However, signalization of the intersection or with Applicant- proposed mitigation to reduce peak employee vehicle volumes (van pools, park and ride, shuttle buses, etc., or staggered shift start times), the intersection would operate at an acceptable level.

The Project site is located about one mile northwest of the Blythe Airport. The Federal Aviation Administration (FAA) is responsible for ensuring that construction near airports does not adversely impact

navigable airspace. Following FAA guidance, an assessment was made of the allowable heights for Project structures near the Blythe Airport, including the 500-kilovolt (kV) transmission line. The analysis identified a limitation in transmission pole height for a distance of approximately 1,000 meters along the likely route leaving the site. The BSPP will be constructed so that the height of all structures complies with FAA regulations.

Transmission lines and electronic equipment associated with the BSPP have the potential to produce radio-frequency interference (RFI) that can interfere with aircraft avionics and communications. The BSPP will be constructed to reduce the potential for RFI from Project power lines. Installed electronic equipment will meet applicable Federal Communication Commission (FCC) standards for RFI minimization.

The solar troughs are constructed from parabolic mirrors that focus the sun's light on a central tube containing heat transfer fluid and the design minimizes extraneous reflections. Limited reflections and glare from the mirrors will occur but are expected to be comparable to the reflection of the sun off of a lake's surface and are not expected to produce a hazard to aviation.

1.3.13 Transmission System Safety and Nuisance

Project's transmission line safety and nuisance impacts would be less than significant. Analyses indicate that neither Project construction nor operation would result in significant increases in electromagnetic fields (EMF) levels or audible noise. Because the Project transmission system will conform to applicable California Public Utilities Commission (CPUC) and other regulatory requirements, induced current and voltage are unlikely to lead to hazardous electrical shocks. Corona caused by power lines can cause interference with radio and television reception. Corona typically becomes a design concern for transmission lines with voltages of 345 kV and above. The Project will be connected at 500 kV, but because it will use a bundled connector design, no corona-related design issues are expected. Due to the remoteness of the Project electric transmission facilities, no adverse effects to local communication networks are anticipated. Project design and construction will adhere to standards and procedures that minimize the likelihood of interference with aircraft communications or avionics.

1.3.14 Visual Resources

Project visual resources impacts would be less than significant. During the Project construction period, construction activities and construction materials, equipment, trucks, and parked vehicles, all potentially may be visible on the Project site, and along linear facility routes. These represent changes to the visual environment, but because they will be moderate in intensity and temporary in duration, impacts are considered less than significant.

The completed Project will change the visual appearance of the area but when viewed from eye level, during most hours of the day, the solar field would be relatively unobtrusive, with the power block visible above the solar field. Power block structures would have neutral colors and non-reflective surfaces to minimize their contrast with the natural background. From elevated locations, because of the movement of the sun and the changing orientation of the mirrors to track the sun's movement, the view would change over time. In afternoon hours when viewed from distant elevated locations to the southwest, the reflective surface of the mirror would be oriented toward the viewer. At these times, on a sunny day, the solar array would create a visual impression that more closely resembles a body of water than a power plant or other industrial facility because the array would be reflecting the blue sky. On a cloudier day, the visual impression would appear grayer. In the morning hours viewed from the same elevated locations to the southwest, viewers would have the non-reflective backs of the mirrors toward them, in which case the visual contrast with the surrounding environment would be considerably less. Finally, viewers may find visually interesting this facility that will contribute to important societal goals (providing renewable energy and reducing greenhouse gases).

1.3.15 Waste Management

Project waste management impacts would be less than significant. Construction and operation will generate relatively modest quantities of non-hazardous solid waste (e.g., heat transfer fluid [HTF]-contaminated soil), liquid waste (e.g., residual solids from treatment of small quantities of makeup feedwater), and small quantities of hazardous waste (e.g., used hydraulic fluids). Where practicable, waste materials will be recycled or reused. Project procedures and personnel training will ensure that waste generation is minimized, and that wastes generated are managed appropriately. Disposal of Project wastes will not significantly affect the capacity of available waste disposal facilities. Management of HTF-contaminated soil is based on the HTF concentrations in the soil. HTF-contaminated soil will be managed in an onsite land treatment unit (LTU) permitted by the Colorado River Basin Regional Water Quality Control Board (RWQCB). A Phase I ESA did not identify any recognized environmental conditions on the Project site.

There are numerous renewable energy (mostly solar) projects proposed along the U.S. Interstate 10 (I-10) corridor between the Desert Center area and the Blythe area. Compared to other kinds of developments, solar power plants are not major waste generators. Considering the large remaining capacities of available landfills, the Project's contribution to potential significant adverse cumulative impacts on waste disposal facilities would be less than significant.

1.3.16 Water Resources

The BSPP would not have significant impacts on groundwater or surface water resources. The Project is a dry-cooled facility that will use approximately 600 acre-feet per year (afy) of groundwater from two onsite wells for all operation activities. For perspective, this is equivalent to the annual water use of the neighboring municipal golf course. The BSPP will use approximately 540 afy of groundwater over the 69-month construction period (~3,100 af total), also obtained from onsite wells. The Project will recycle the process makeup water to offset about 25 percent of annual operational consumptive use.

As discussed in Section 4.0, Alternatives, there is no feasible water supply option other than groundwater. The Project site is located in the Palo Verde Mesa Groundwater Basin (Basin). Groundwater in the area is contained within alluvial sediments in the Basin, which is part of the Colorado River Hydrologic Region. According to a 1975 Department of Water Resources (DWR) estimate, the total storage capacity in the Basin is 6,840,000 acre-feet (af). A 1979 DWR reconnaissance study on sources of power plant cooling water in the southern California desert estimated that half of the usable storage in the basin (5,000,000 af) was in the area of McCoy Wash north-northeast of the BSPP. The proposed annual use of 600 af is a very small fraction of this storage capacity and would not put the basin into overdraft or cause a significant drawdown in the regional water table. Water level data indicate that the water level in the Basin has generally remained stable in recent years because of from the Colorado River.

Numerical groundwater modeling of the proposed construction and operational water use revealed that the Project would not produce drawdown greater than five feet in adjacent water supply wells. As such, operational supply would not significantly impact offsite water supply wells within a one-mile radius of the site.

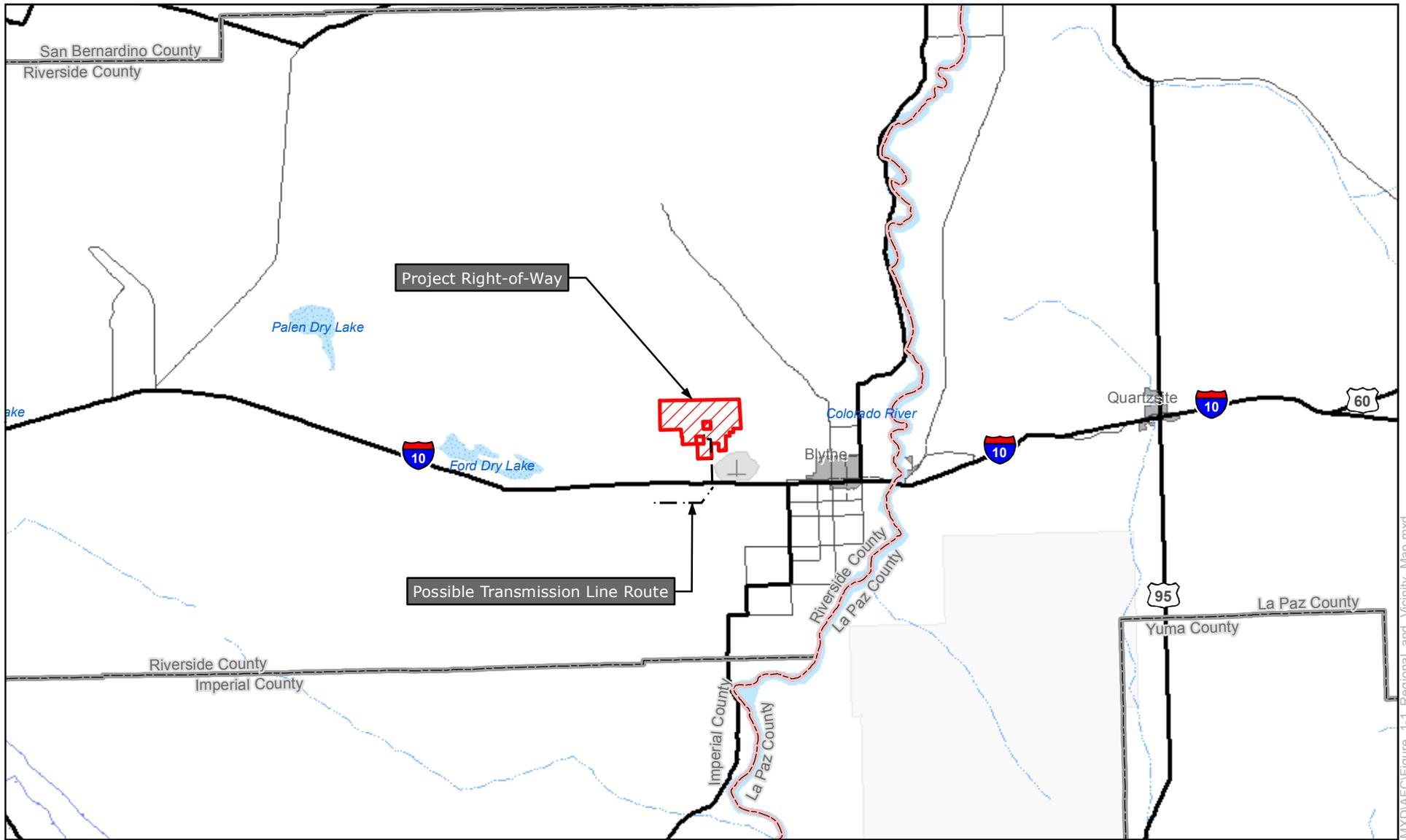
No significant impacts related to drainage, water quality or storm water runoff are expected. Impacts to a number of onsite ephemeral washes within the Project site will be mitigated by rerouting the washes in new channels around and through the facility. The new channels will be revegetated with native vegetation and will be designed to be wildlife friendly, and so that drainage downstream of the site approximates pre-existing conditions as close as practicable. A Storm Water Pollution Prevention Plan (SWPPP) and a CEC-mandated Drainage, Erosion, and Sediment Control Plan (DESCP) both of which contain Best Management Practices (BMPs), will be implemented to avoid significant drainage / stormwater runoff and water quality impacts during Project construction and operation.

1.3.17 Worker Safety

With implementation of the planned worker safety programs, no significant worker safety impacts are expected. Project construction and operations may expose workers to physical and chemical hazards. Worker exposure to such hazards will be minimized by adherence to appropriate engineering design standards and to sound construction, operations, and maintenance practices. During both construction and operations, the Project will implement appropriate safety and administrative procedures, safety training, use of personal protective equipment (PPE), and compliance with applicable health and safety-related regulations. Injury and Illness Prevention Plans (IIPPs) will be central to reducing worker hazards during both construction and operation. Site-specific Fire Protection and Prevention and Emergency Action Plans also will be implemented during both construction and operations

1.3.18 Conclusion

In conclusion, The BSPP will not have a significant impact on the environment. The Project has been carefully designed to avoid impacts to the greatest extent possible and to provide appropriate mitigation, where impacts are unavoidable. The BSPP will provide a substantial benefit to the State and the nation in meeting renewable and other energy goals. The remainder of this AFC provides the information and analyses needed for the CEC and BLM to arrive at this conclusion.



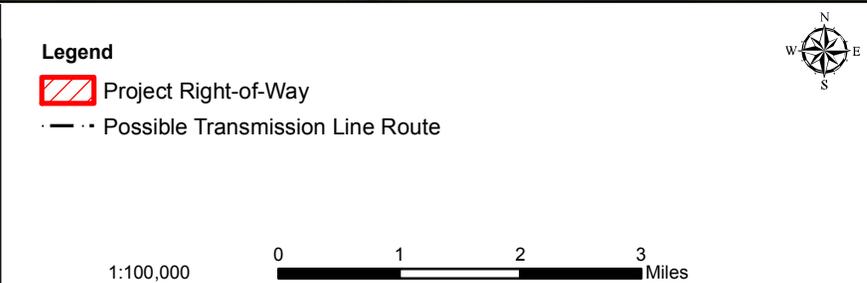
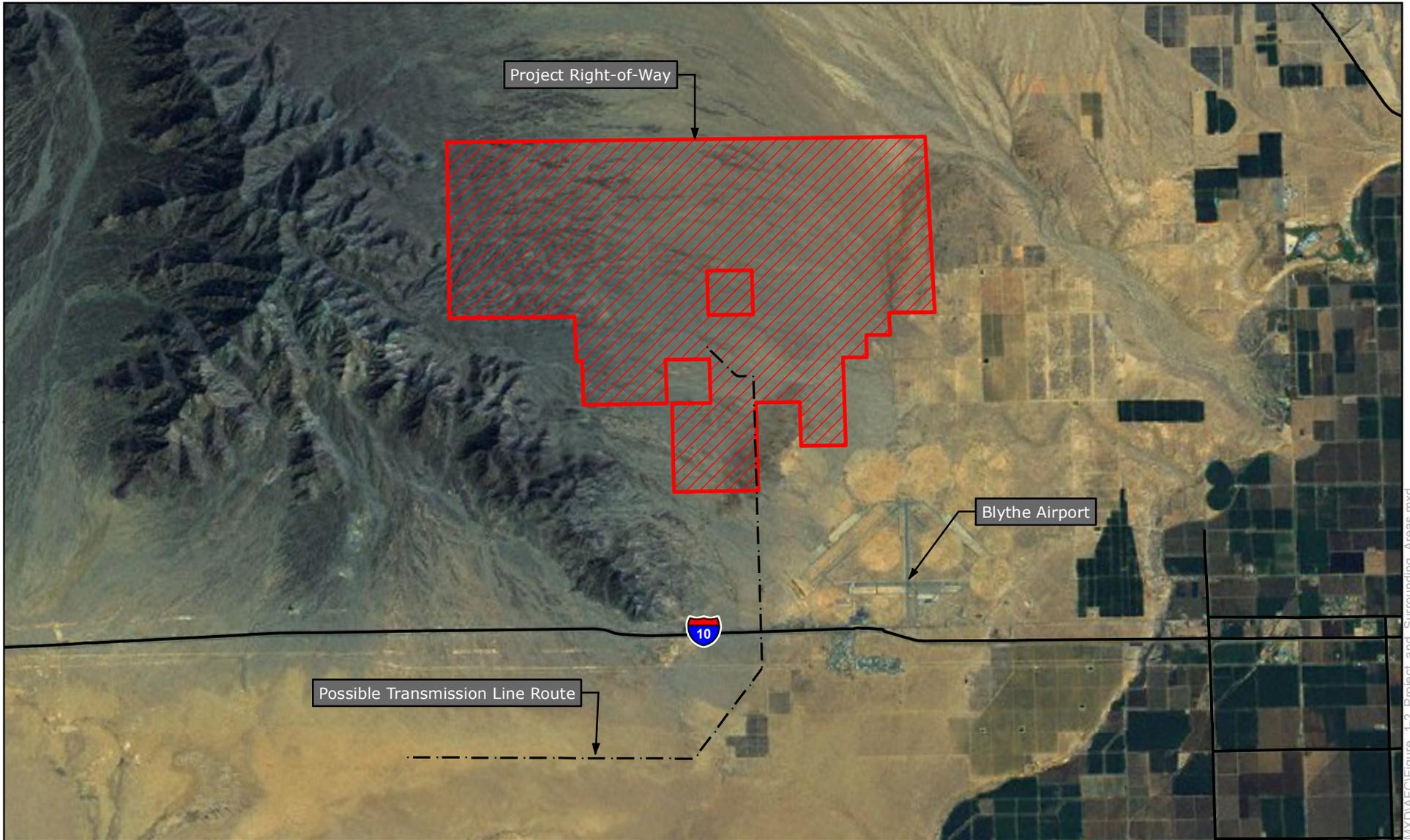
Legend

- Project Right-of-Way
- Possible Transmission Line Route

1:600,000

Blythe Solar Power Project
Figure 1-1
Regional and Vicinity Map

Date: August 2009



Blythe Solar Power Project
Figure 1-2
Project Site and Surrounding Area

Date: August 2009

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