From: **Dennis, Christopher@Energy** <Christopher.Dennis@energy.ca.gov>
Date: Tue, Feb 25, 2014 at 1:49 PM
Subject: Blythe Solar DEIS - correction to WASTE-10, page 3.7-6
To: "Frank McMenimen (fmcmenimen@blm.gov)" <fmcmenimen@blm.gov>
Cc: "Marshall, Paul@Energy" <Paul.Marshall@energy.ca.gov>

Hi Frank,

WASTE-10 currently reads, “WASTE-10 requires the Grant Holder to ensure that all non-hazardous, non-recyclable, and non-reusable construction and operation waste is not diverted to Desert Center Landfill or Oasis Sanitary Landfill.” In this design feature, the Oasis landfill should be removed and the Mecca II landfill put in its place. The Oasis landfill has disposal capacity, whereas Mecca II does not and is only open two days per year.

Thank you,
Chris Dennis

Christopher Dennis, PG, CHG
Engineering Geologist
California Energy Commission
1516 Ninth Street, MS 46
Sacramento, CA 95814
(916) 654-4399 wk
christopher.dennis@energy.ca.gov

From: **Barbara Catlin** <anniegirl081@gmail.com>
Date: Fri, Mar 14, 2014 at 12:34 PM
Subject: Blythe Solar Power Project
To: CAPSSolarBlythe@blm.gov

To whom it may concern:

Please consider this my "written comment" against the Blythe Solar Power Project.

I am protesting this project because it is closing public access to "public" land which has been taken away from us, "we the people."

I am protesting also, because the enormous environmental impact of such projects as this is inexcusable, causing much death and destruction to many animals and plants.

I am protesting also, because the cost of electricity will be increased because of this and other solar projects on "public" land.

I am protesting also, because of the undemocratic way in which the solar projects have been forced on the public by "Executive Order."

Barbara A. Catlin

19605 Kris Avenue

Sky Valley, CA 92241-7775

760-251-0780

Copy to: President Barak Obama

Modified Blythe Solar Power Project Comment Letter

March 13, 2014

Heather Kalei

Student, University of Hawaii at Hilo

Sent by email:capssolarblythe@blm.gov

Dear Mr. McMenimen,

I am writing to provide comments on the proposed Draft Environmental Impact Statement (DEIS) related to the construction, operation, and decommissioning of the Modified Blythe Solar Power Project (MBSPP).

I understand the global need to reduce Greenhouse Gas (GHG) emissions as they are a serious driver of climate change, and that climate change has begun and is expected to continue to increase in severity impacts to our planet that will cause large-scale biological, social, and economic changes.

I tentatively support the Modified BSPP because I believe it is necessary to reduce GHG emissions, however, I am concerned with the project based on the extent of its biological and cultural/historical impacts. Figure 3.4-1 Habitat Management Areas shows a high density of special status species habitat and resources in the Phase 5 proposed footprint. Please consider an analysis of the feasibility of relocation of Phase 5 infrastructure. In the event the relocation of that feature is not possible the pre-, during- and post-construction monitoring plan for special interest species becomes even more critical.

The cultural assessment also mention that many of the cultural sites have not been recognized through historic preservation authorities, although they may be warranted for listing. It is critical that the symbols of a people are given the respect deserved as extensions of the people themselves. Traditional accessways and gathering areas allow for the perpetuation of cultural practices from generation to generation. A plan for continued access to any such resources should be made in collaboration with those native peoples.

Thank you very much for your time and consideration of this request.

Sincerely,

Heather Kalei

La Cuna de Aztlan
Sacred Sites Protection Circle

Alfredo A. Figueroa
424 N. Carlton Ave
Blythe, Ca 92225

Phone: (760) 922-6422
E-mail: lacunadeaztlan@aol.com

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March 11, 2014

Frank McMenimen
BLM Project Manager
California Desert District Office
1201 Bird Center Drive
Palm Springs California 92262

RE: Letter in Opposition of the Modified California NextEra Blythe Solar Project, Meeting at Blythe City Hall, Blythe, California on March 5, 2014

Dear Mr. McMenimen:

We are totally perturbed by the California Energy Commission's recent decision of January 15, 2014 approving NextEra's Blythe solar project.

As stipulated in the Palo Verde Times newspaper, the Blythe Solar Power Amendment Committee said that the cumulative impacts that cannot be mitigated to less than significant levels are impacts to biological resources, cultural resources, land use, and visual resources. The CEC has now taken the same stance as the Genesis Solar Power's Attorney, Scott Galati, as stated in their defense against the Colorado River Indian Tribes (CRIT) preliminary injunction filing (TRO) against Genesis by allowing Genesis to continue its project at Ford Dry Lake. The Genesis attorney stated that **public interest in renewable energy was more important than preserving Native American Cultural Resources.**

We all know what happened at the Genesis Solar Site after Judge George H. Wu of the 9th District Federal Court denied the motion on June 28, 2012. During the construction, they committed one of the worst destructions of sacred sites and burials that were found just as the CRIT Elders had said were there. It is our recommendation that the BLM does not commit these same atrocities at the Blythe solar site.

The CEC's own cultural resources investigation had found an abundant of cultural resources as stipulated in their report. C-3 Cultural Resources Docket 09-AFC-8 C.3.1 Summary of conclusions dated 06/22/10 by Elizabeth A. Bagwell, Ph.D., RPA and Beverly E. Bastian: *Staff Finds that the GSEP construction impacts, when combined with impacts from past, present, and reasonably foreseeable projects, contribute in a small but significant way to the cumulatively considerable adverse impacts for cultural resources at both the local I-10 Corridor and regional levels.* ***This analysis estimates that more than 800 sites within the I-10 Corridor and 17,000 sites within the Southern California Desert Region will potentially be destroyed. Mitigation can reduce the impact of the destruction, but not to a less-than-significant level.***

There has already been vast destruction by the Solar Millennium Company on the pristine desert site by the 300 foot wide transmission roadway, 5 miles long. At the end of the 5 mile roadway, there is 1 square mile of pristine desert leveled off.

At the meeting at Blythe City Hall in Blythe, California on March 5, 2014, it was stated by the NextEra representative that they are reducing the overall site acreage and also moving the transmission line roadway west

of the original roadway where the Kokopilli/Cicimtil geoglyph group have partially been destroyed. Though there will be a reduction of the acreage, the temple and other sacred sites that are located on the east portion of the proposed project will be destroyed such as the four circles that represent the four past suns of the Aztec Sunstone calendar. A large 10' by 10' eagle geoglyph that was located in the area can no longer be found. This eagle was one of the sites that Boma Johnson, the retired Yuma BLM archaeologist that is on our committee, would take the students from the Palo Verde College Indian Guides Student Program in the 70's to show them the sacred sites. This geoglyph eagle represents the eagle on the surface of earth and the large white limestone eagle (1/2 mile wide) that is on the Big Maria Mountains represents the cosmos as it lands on the peak of Granite Peak (Tamoanchan-where sky meets earth). This is the basis of the creation story as it is related by the Mexica codices and currently is represented in the Mexican flag. The creation story as it relates to this area is also told through the oral history of the tribes in the Colorado River Basin Valleys.

For the indigenous people, there would not be any authentic history if it wasn't backed up by the cosmic archetype, The visible part and the invisible of reality correspond mutually. All the geoglyphs and sacred sites have their duality in the cosmos.

The following is an excerpt of the book, *Tamoanchan/Tlalocan Places of Mist* based on the codices and written by Alfredo Lopez Austin that relates to Tamoanchan:

"The Earth and the Sky were created, from the body of Cipactli, and with them was also established, along with the great division of the feminine and the masculine of the cosmos, the four posts, represented by trees or gods, or men, were converted into the roads of the gods. They were the roads of the gods because through their hollow trunks flowed the opposite divine essence (man/sun and woman/earth) they flowed between the two halves of Cipactli."

Seeing the falling of the sky over the Earth, all four were ordered to make through its center of Earth, four roads to be able to enter and raise up the sky and to get help. Four men were created. One was called Cuauhtémoc; the other, Itzcoal; Izmalli; and the other, Tenexochilt. Cuauhtémoc is the southeast corner of the Nahui-Ollin for the four directions (swastika image). Cuauhtémoc's Nagualli(your animal spiritual representation) is the eagle during the descending Sun. The translation of Cuauhtli is Eagle and Temoc is descending. Cuauhtémoc means Descending Sun (Eagle) which is manifested by the sun descending on Eagle Mountain.

The Descending Sun when seen from the Ripley Intaglio during the Summer Solstice (June 21) sets on a large V that is on the southeast side of the Eagle Mountain range inside of Joshua Tree National Park. The V is the origin of Dragon Wash (the dragon represents Quetzalcoatl, the Plume Serpent). The Plume Serpent descends down to earth from the V where the sun sets.

The four corners of the base of the sky falling are shown in the Borgia Codex Plate 72, and its Earth's cosmic duality geographical site is Granite Peak. This is where sky meets earth and gives the image of the X or hourglass appearance. The top V of the X represents the cosmos and the upside down V of the X represents Granite Peak and Mother Earth.

During President Barack Obama's speech of January 28, 2014, he stated that "And while we are at it, I'll use my authority to protect more of our pristine federal lands for future generations." Also, 109 House Democratic members urged President Obama to protect National Monuments using the Antiquities Act.

The Obama administration is preparing to designate areas in New Mexico and California off-limits to development under its executive authority, a move that signals a bolder public-lands policy in the President's second term. One of the two sites, the nearly 500,000-acre Organ Mountains-Desert Peaks region near Las Cruces, N.M., is twice as large as the largest national monument established by President Obama. The other site is about 1,600 acres on California's central coast known as the Point Arena-Stornetta Public Lands.

We wholeheartedly support this effort by President Obama but would strongly encourage him to support the cultural resources that are related to the Native American creation story and support all the laws that have been approved by the United States government and the United Nations.

In the Smithsonian magazine of March, 2009, the featured article related to the must-see 10 endangered cultural treasures that included many of the sacred sites that should be preserved from all over the world. In the United States, they included Route Hwy 66 but no indigenous sacred sites.

The Blythe Solar Millennium Power Project is so close to the Palo Verde Valley that the orchards remaining near there are already being destroyed because water is no longer being used to irrigate them and is going to be used for the proposed solar power project instead. Due to the heat intensity of the project changing the atmospheric conditions, the agriculture will be affected more.

In a recent article regarding the Jenko Solar Project in China, the Chinese are setting an example in protesting against the large solar panel projects in their country because they have not only contaminated their water but also the climate change has ruined their agriculture industry. Apparently not even China is benefitting from these thousands of solar panel projects. The Jenko Solar Project is an excellent example of why we do not need these projects near agricultural land much less near the Colorado River where its water reserve in Lake Mead is barely 1/3 of its capacity and all of its water has already been allocated.

Currently California is suffering its worst drought since the records have been kept and this is a well-known fact. The Blythe Solar Power Project will drill wells from aquifers that lead to the Colorado River. The Colorado River Board of California has stipulated that all these aquifers within 50 miles go the Colorado River and any water taken from these aquifers has to be approved by the Board of Directors.

On February 14, 2014, during his recent visit to Fresno, California, President Obama said he will direct federal facilities in California to curb water use, including a moratorium on new or unnecessary landscaping projects. Soitec Solar Development Project Company in Boulevard, California, found it had severely underestimated its water usage on the project and other high profile projects according to an East County magazine article by Mirian Rafferty. The solar power projects should be included in the moratorium because they require an abundance of water to function.

When the Blythe Natural Gas Plant was constructed, it destroyed 1,500 acres of citrus so they could obtain the water rights of those citrus orchards thus leaving about 550 citrus farm workers unemployed that worked with the Coachella Growers Citrus Company. Now the solar power projects are going to destroy all the existing citrus orchards for all the water rights causing further farm worker unemployment. These farm workers are all permanent residents of the Palo Verde Valley. Currently the Palo Verde Valley is suffering the highest unemployment rate in California with the exception of the Imperial and Yuma Valleys.

One of the most recognized butterflies is the Monarch Butterfly that has its massive migration from the Northern United States and Canada down to Michoacán in the winter. One of its migration routes is centered through the Colorado River/McCoy Valley and its representative is the Midland Mountain. The Monarchs, along with any other butterfly flying through the area will be completely destroyed as will the birds such as the eagles, herrons, etc.

Last Spring, there were many complaints by the Mesa Verde residents of the bronchitis and other respiratory illnesses that related to the dust storms caused by the leveling of the pristine desert. Solar sites have been proposed all around the Mesa Verde area. Likewise, the suffering by the residents of East San Joaquin Valley parallel to I-5 north from Bakersfield to San Francisco, have been suffering grave Valley Fever. Inmates from the Correctional facilities in that area have died from Valley Fever which is being spread by the leveling of the land that was supposed to be farmed but was fallowed because of the lack of water. The fungus is carried by the dust of the fields that are fallowed.

The U.S. Government does not need to continue its manifest destiny policy of the 1900s. The Native American cultural cosmic tradition is still alive despite its 500 years of domination by the Spanish and English. We all know that the Taliban tried to destroy all remnants of the Buddha tradition in Afghanistan. In the United States, one of the most popular geoglyph images, the Kokopilli/Cicimitl Twin Group of the Creator, recognized throughout the world especially the United States and Mexico is being threatened to be destroyed by the solar power companies.

Agriculture Secretary Tom Vilsack has called for the USDA and the U.S. Forest Service to work more closely with tribal governments in the protection, respectful interpretation and appropriate access to Indian sacred sites. Vilsack said, "American Indian and Alaska Native values and culture have spirit and deserve to be honored and respected. By honoring and protecting sacred sites on national forests and grasslands, we foster improved tribal relationships and a better understanding of the Native people's deep reverence for natural resources and contributions to society."

We are also opposing to the construction of these solar power projects because of their gross violation to the following Indigenous, State, Federal and United Nations laws that support our demands and why these projects should not be constructed within sacred areas:

- **National Congress of American Indians**: Resolution #LNK-12-036, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 17, 2012.

- **Inter-Tribal Council of Arizona: Resolution** 2012, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 29, 2012. The Resolution specifies that whereas over 40 proposed solar and wind renewable energy projects are to be undertaken within a 50-mile radius of the Colorado River Indian Tribes Reservation which puts tens of thousands of acres of land within the ancestral territory homelands of CRIT as well as other Yuma tribes, at further risk of destruction.

- **Colorado River Indian Tribes Resolution and Letter to President Barack Obama**: opposing the construction of Solar Power Projects within 50-miles from the CRIT Reservation boundary of February 27, 2012.

- **United Nations Declaration on the Right of Indigenous People Resolution** of 2007: was adopted by the General Assembly during the 107th plenary meeting and was signed by President Barack Obama on December 15, 2010.

- **Native American Sacred Places**, March 6, 2003(S.B. 18)

- **Native American Sacred Lands Act**, June 11, 2003 (H.R. 2419)

- **The Sacred Land Protection Act**, July 18, 2002 (H.R. 5155)

- **The Native American Sacred Sites Protection Act**, February 22, 2002 (S.B. 1828)

- **Accommodations of Sacred Sites and Federal Land**, Signed by President Bill Clinton on May 24, 1996 (Executive Order 13007) This focuses on specific sites and Indian religion.

- **Native American Graves Protection & Repatriation Act** of 1990

- **Archeological Resources Protection Act** of 1979

- **American Indian Religious Freedom Act**, August 11, 1978

- **The Civil Right Act** of 1968

- **Antiquities Act** of 1906

We strongly urge that the BLM consider the above information and disapprove this notorious solar power project. It will behoove President Obama to continue his motivation and concern in protecting those sacred sites by enforcing the laws and establish a National Monument in the McCoy/Big Maria Mountains and Valleys.

Sincerely,
Alfredo Acosta-Figueroa

Patricia Robles

Alfredo Acosta Figueroa
Elder/Historian/Chemehuevi Tribe Monitor

Patricia Robles
President of La Cuna de Aztlan Sacred Sites Protection Circle

Enclosures included

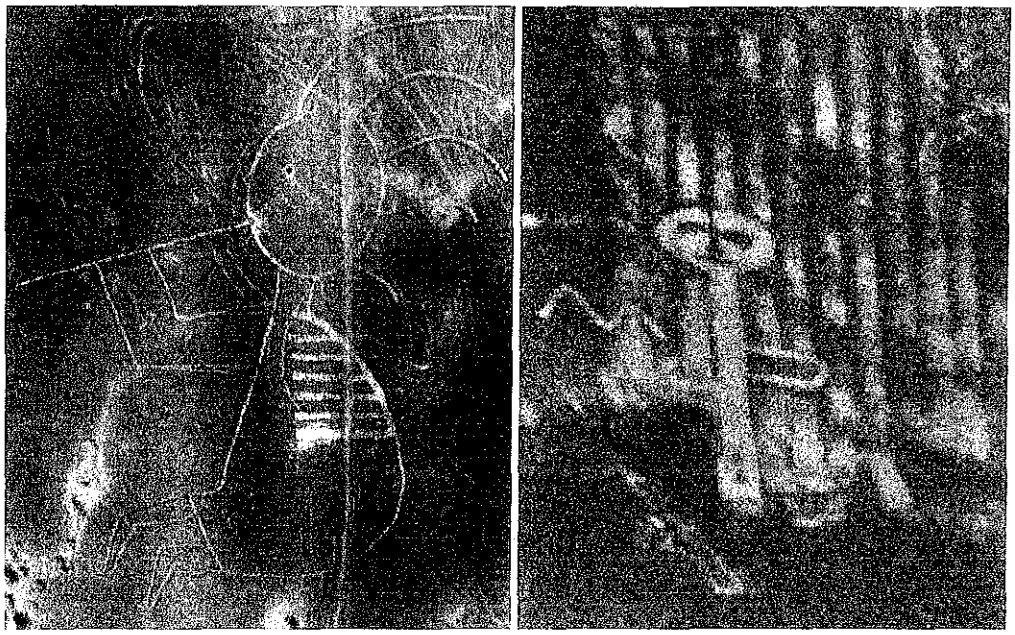
The protection of sacred sites has been well demonstrated during the 2nd World War. On June 23, 1943, President Franklin D. Roosevelt created the American Commission for the Protection and Salvage of Artistic and Historic Monuments in war areas. The commission drew up lists of cultural treasures with the hope that military action might be planned to avoid harming them. During World War II, Dwight D. Eisenhower understood the importance of the protection and preservation of these sacred sites. Eisenhower stated "if we have to choose between destroying a famous building and sacrificing our own men, then our men's lives count infinitely more and the building must go". He prefaced the proclamation by saying, "Shortly we will be fighting our way across the Continent of Europe in battles designed to preserve our civilization....". His order made clear that destruction of everything in an army's path was not justifiable, that a people's long-established culture and the most beautiful manifestations of what it believes in and values matter and we, when we enter and defend it, are duty-bound to respect those things. Currently a movie is in theaters directed by George Clooney, and based on the book by Robert M. Edsel called "Monuments Men". This is a story of how strongly Eisenhower felt about saving these cultural sites and artistic monuments. Cathedrals, historic structures, famous paintings, sculptures and more were saved for the preservation of the culture of our civilization.

During the Iraq war, in 2003 and 2004, the United States caused damage to ancient sites with their heavy vehicles and machinery. Military forces built a helipad, carved out parking areas and trenches destroying these sites. Babylon, Iraq was damaged by war and by looters. The U.S. has said it will help rehabilitate Babylon, funding an effort by the World Monuments Fund and Iraq's State Board of Antiquities. This site is tremendously important according to Gaetano Palumbo of the World Monuments Fund, yet in its present state, Babylon is "hardly understandable" as a place where so much happened in history".

On July 22, 2012, columnist Victor Davis Hanson said, "sometimes post-modern, politically correct westerners can be every bit as zealous-and as potentially destructive of the pass- as pre-modern Islamics.

Twin Geoglyphs of Kokopilli/Cicimitl

Sacred geoglyphs that are within the approved NextEra Blythe Solar Energy Project by the California Energy Commission, January 15, 2014



Kokopilli is the Creator's image of Quetzalcoatl in the form of a half human, half insect. He is leaving during the end of the 3rd sun of the suns in the Aztec Sunstone Calendar. Kokopilli means koko-hurt and pilli-our Lord. He is hurt because humans have not respected the Creator's dictation of harmonious equilibrium among all species

Cicimitl, the Great Spirit, El Cucuy, Kokokpilli's twin takes the human spirits to the 4 directions and to its final destination at the Topock Maze which is 13 magnetic north from the Mule Mountains (Calli-earth). In English, this image is called extra-terrestrial (ET)

Bamiyan Buddha twins carved into a sandstone cliff near the provincial capital in Central Afghanistan. They stand 165 feet and 114 feet tall. They were built around the 2nd century. Appeals came from all over the world such as the World Monument Fund and the United Nations Secretary General for the Taliban government of Afghanistan to preserve these sacred sites of the Buddha creation story in Afghanistan. W.L. Rathje an archaeologist at Stanford University described the destruction of the statues as a crime against humanity. Afghanistan was later invaded by the United States after they destroyed the statues that the world considered to be masterpieces. The United State Government fought for these foreign religious sacred sites but is not willing to fight to preserve sacred sites in its own country.

Groundbreaking of the Solar Trust of American Solar Power Project at the Blythe Site on June 17, 2011

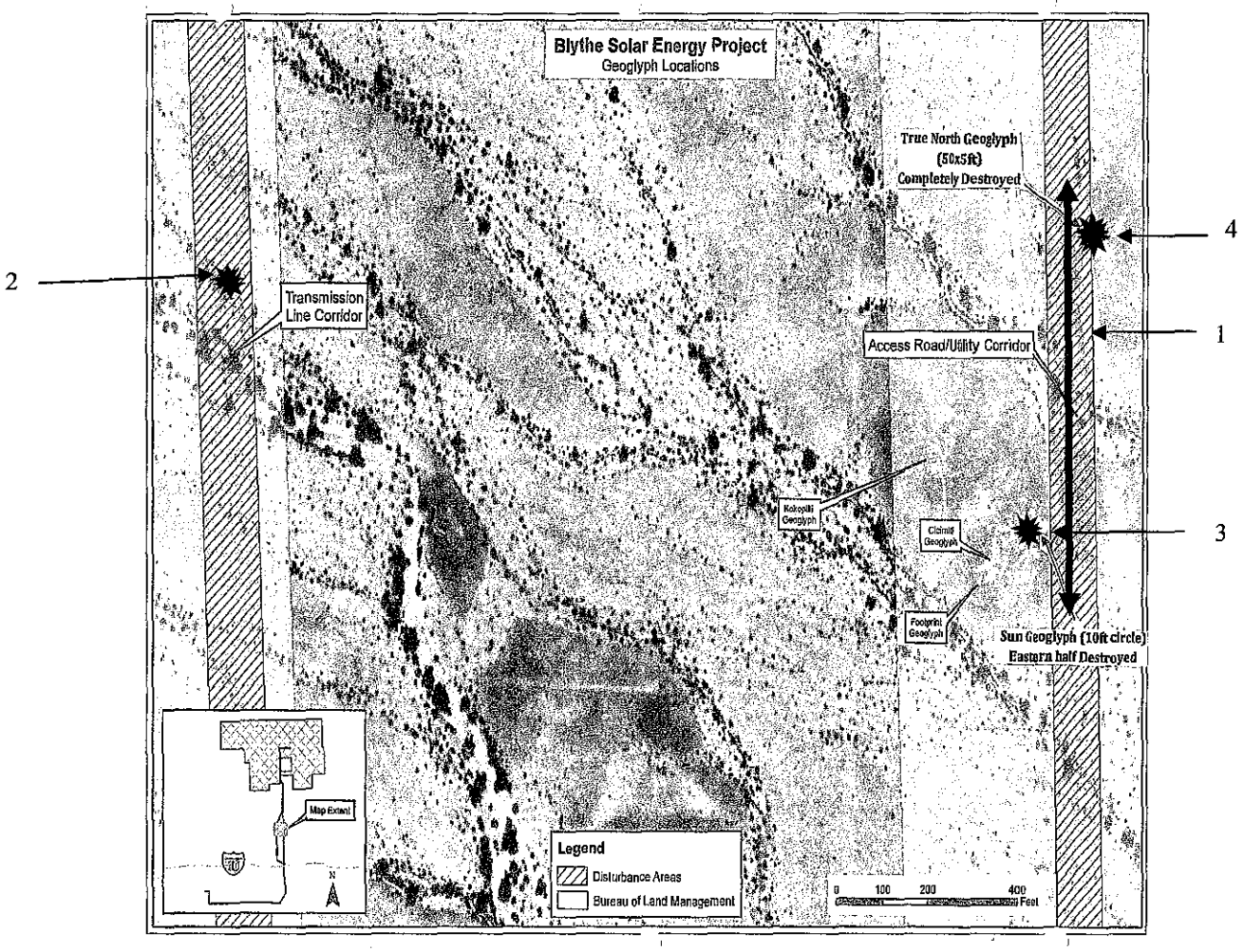
Left to Right: City of Blythe Mayor Joseph DeConinck, California Governor Jerry Brown, Solar Trust of America Chairman and CEO Uwe T. Schmidt, U.S. Secretary of the Interior Ken Salazar and 80th Assembly District Assemblymember V. Manuel Perez shovel dirt on June 17, 2011 during a groundbreaking event near Blythe, California for the Blythe Solar Power Project.

Three Musketeer cartoon emulating what the above government officials and company representatives are manifesting in the destruction of the Kokopilli/Cicimitl Geoglyph Sites.

Left to right are 80th Assembly District Assemblymember V. Manuel Perez (Señor El Vendido), Governor Jerry Brown and Secretary of Interior, Ken Salazar. Mr Perez has been fully aware of the sacredness of the site and is knowledgeable of its significance. He had previously taken a tour of the sacred sites. Governor Brown was a main supporter in stopping the construction of the Sun Desert Nuclear Power Plant 10 miles south of the Kokopilli/Cicimitl site in 1979, now one of the main supporters of destroying the sacred sites. Mr. Salazar is well aware of the atrocities that are being committed.

Attachment 2

2010 Map of Proposed Blythe Solar Energy Project Transmission Corridors and Location of Kokopilli/Cicimitl Twin Geoglyph Group



After protest by the Indigenous people, Blythe Solar proposed to move the transmission corridor to the approximately 1 1/2 miles to the west but that road will also destroy Sacred Sites such as Quetzalcoatl Human Quartz Image.
All of the McCoy Valley is the most sacred place and is inter-related with the other Sacred Sites along the Colorado River.
1. Roadway leveled out 5 miles long and 300 foot wide by the bankrupt Blythe Solar Millennium 2. Quetzalcoatl Quartz Human Image leaving to the sunset. 3. Sun Geoglyph, eastern half destroyed 4. True north geoglyph destroyed

La Cuna de Aztlan
Sacred Sites Protection Circle

Alfredo A. Figueroa
424 N. Carlton Ave
Blythe, Ca 92225

Phone: (760) 922-6422
E-mail: lacunadeaztlan@aol.com

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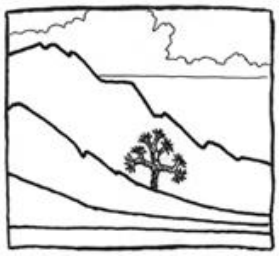
February 14, 2014

We are opposing to the construction of the Blythe Solar and McCoy Solar projects because of their gross violation to the following **Indigenous, State, Federal** and **United Nation laws** that support our demands and why these projects should not be constructed within sacred areas:

- **National Congress of American Indians**: Resolution #LNK-12-036, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 17, 2012.
- **Inter-Tribal Council of Arizona**: Resolution 0212, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 29, 2012. The Resolution specifies that whereas over 40 proposed solar and wind renewable energy projects are to be undertaken within a 50-mile radius of the Colorado River Indian Tribes Reservation which puts tens of thousands of acres of land within the ancestral territory homelands of CRIT as well as other Yuma tribes, at further risk of destruction.
- **Colorado River Indian Tribes Resolution** and **Letter to President Barack Obama**: opposing the construction of Solar Power Projects within 50-miles from the CRIT Reservation boundary of February 27, 2012.
- **United Nations Declaration on the Right of Indigenous People Resolution of 2007**: was adopted by the General Assembly during the 107th plenary meeting and was signed by President Barack Obama on December 15, 2010.
- **Native American Sacred Places**, March 6, 2003(S.B. 18)
- **Native American Sacred Lands Act**, June 11, 2003 (H.R. 2419)
- **The Sacred Land Protection Act**, July 18, 2002 (H.R. 5155)
- **The Native American Sacred Sites Protection Act**, February 22, 2002 (S.B. 1828)
- **Accommodations of Sacred Sites and Federal Land**, Signed by President Bill Clinton on May 24, 1996 (Executive Order 13007)
- **Native American Graves Protection & Repatriation Act** of 1990
- **Archeological Resources Protection Act** of 1979
- **American Indian Religious Freedom Act**, August 11, 1978
- **The Civil Right Act** of 1968
- **Antiquities Act** of 1906



Basin and Range Watch

March 22nd, 2014

To: Frank McMenimen,

Project Manager,
1201 Bird Center
Drive, Palm Springs, CA 92262
CAPSSolarBlythe@blm.gov

Subject: Please accept these comments on the Blythe Solar Power Project Draft Environmental Impact Statement: **CACA: 048811**

Basin and Range Watch is a group of volunteers who live in the deserts of Nevada and California, working to stop the destruction of our desert homeland. Industrial renewable energy companies are seeking to develop millions of acres of unspoiled habitat in our region. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems and open spaces. We have visited and camped on the Blythe Solar Power Project site and are concerned about the direct and cumulative impacts that the project would have on the region.

Purpose and Need: The BLM's Purpose and Need Statement for the Blythe DEIS is a weak statement that ignores BLM's "need" to permit renewable energy on public lands in an environmentally responsible fashion. The statement also ignores the need to consider more environmentally friendly alternatives to the project. The statement fails to acknowledge the public request to recognize the "need" to protect biological, visual, cultural, public access and air quality resources. Environmentally friendly alternatives are rejected simply because "they would not meet the BLM's purpose and need to respond to the Grant Holder's request for a Level 3 variance associated with the current Approved Project under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. §1701 et seq.) and modification of the existing ROW grant".

The statement was carefully crafted to meet the needs of the applicant, but ignores the needs of anyone who may oppose the project. In effect, BLM is not being fair to those who are not associated with the applicants. A reasonable range of alternatives has not been considered because you have not placed a

priority on environmental protection. That does not fully represent public opinion. It only represents the desire of those supporting the project. According to the NEPA Handbook: *"A carefully crafted purpose and need statement can be an effective tool in controlling the scope of the analysis and thereby increasing efficiencies by eliminating unnecessary analysis and reducing delays in the process. The purpose and need statement dictates the range of alternatives, because action alternatives are not "reasonable" if they do not respond to the purpose and need for the action (see section* ***6.6.1, Reasonable Alternatives****). The broader the purpose and need statement, the broader the range of alternatives that must be analyzed. The purpose and need statement will provide a framework for issue identification and will form the basis for the eventual rationale for selection of an alternative. Generally, the action alternatives will respond to the problem or opportunity described in the purpose and need statement, providing a basis for eventual selection of an alternative in a decision."* http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf

So the BLM clearly has the choice to at least partially represent the requests of those who oppose this project. The purpose and need statement could easily incorporate a "need" to protect cultural resources and integrity, protect birds from colliding with solar panels, protect microphyll woodlands, protect connectivity for desert bighorn sheep. While the BLM is not required to respond to off- site alternatives that are not located on public lands, there are no regulations that would prevent the BLM from selecting a No Action Alternative based on the fact that there are several feasible more environmentally friendly ways to build this project. Furthermore, BLM CAN select and alternative outside of the jurisdiction of the lead agency. That is clearly defined in the National Environmental Policy Act. By ignoring the requests of all of the interested stakeholders, BLM is in violation of its own direction to consider reasonable alternatives.

The Purpose and Need Statements in many BLM large scale renewable project EIS documents reflect a need to develop so many megawatts on so many acres of public lands. All alternatives are now defined by a Need reflecting the recent Secretarial Order 3283: Enhancing Renewable Energy Development on Public Lands. The goals of Section 4 in Secretarial Order 3283 clearly state a need for environmental responsibility: *"the permitting of* ***environmentally responsible*** *wind, solar, biomass, and geothermal operations and electrical transmission facilities on the public lands;*

The Blythe Solar Energy Project in its proposed location would be inconsistent with the Best Management Practices concerning the National Environmental Policy Act, the Endangered Species Act, and the Federal Lands Management Policy Act, etc and should not be considered "environmentally responsible".

The Purpose and Need Statement also states: "In accordance with Section 103(c) of the Federal Land Policy and Management Act (FLPMA) of 1976, public lands are to be managed for multiple uses that take into account the long-term needs of future generations for renewable and non-renewable resources." There is nothing in FLPMA that states the need for renewable and non-renewable resources trumps the responsibility to protect natural, cultural and visual resources from unnecessary harm. Equally, there is nothing specific in FLPMA that points out that the project site targeted for the project needs to be developed. In fact, FLPMA stresses preservation of important resources as pointed out in Section 8 in the FLPMA Declaration of Policy: "*the public lands be managed in a manner that will protect the quality*

of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will pro-vide for outdoor recreation and human occupancy and use".

The Purpose and Need Statement also refers to the President's climate action plan:

"The President's Climate Action Plan, announced on June 25, 2013, to reduce carbon pollution, prepare the U.S. for the impacts of climate change, and lead international efforts to address global climate change. To ensure America's continued leadership in clean energy, the Climate Action Plan set a new goal for the Department of the Interior to permit enough renewable electricity generation from public lands to power more than 6 million homes by 2020. This goal will require the approval of 20,000 MWs of renewable energy projects on the public lands by 2020."

The climate action plan does not specifically target the Blythe Solar Project site for development. In fact, any sound climate action plan would recognize the potential for 4,000 acres of established Colorado Desert habitat to sequester C02. The alluvial fans of the McCoy Mountains contain thick caliche which sequesters C02.

The Blythe Solar Energy site would convert up to 5 square miles of Colorado Desert habitat into a solar farm. Public land access would be extremely limited and other land use would be impaired. It would be impossible to manage these lands for multiple use when so much of the land is sacrificed for just one use.

The statement needs to be rewritten to include the need to protect sensitive biological, air quality, cultural and visual resources. We would also like the statement to include a mandate to maintain access to public lands as well as preserve in the California Desert Conservation Area. If the statement were rewritten to consider off site alternatives, the BLM would serve its own mission as a public land agency. The BLM has failed to recognize the "need" of all stakeholders.

Alternatives:

The BLM has rejected the requested off-site alternatives because "*because they would not meet the BLM's purpose and need to respond to the Grant Holder's request for a Level 3 variance associated with the current Approved Project under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. §1701 et seq.) and modification of the existing ROW grant."* But the BLM has also failed to consider the comments of all stakeholders. Had BLM respected all the requests, they would have put specific language in the Purpose and Need Statement that would accommodate better alternatives. By setting the EIS up to serve the applicant, the BLM has eliminated the requests of the opposition from the beginning and has failed to fully be a "public" agency. It would appear that the Interior Department has decided to approve this project from the beginning.

Because the BLM has failed to acknowledge requests for offsite alternatives, you have put us in the narrow position of not being able to support any clean energy alternative for this destructive project. This is not fair to all the stakeholders. We will once again request some more reasonable alternatives.

Following the guidelines of the National Environmental Policy Act, a full range of alternatives should be considered in every Environmental Impact Statement.

Also following the guidelines of the National Environmental Policy Act, the final EIS should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) **Include reasonable alternatives not within the jurisdiction of the lead agency.**

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives. We would like to request that the following alternatives be included in the Draft Environmental Impact Statement.

Under the California Environmental Quality Act, an EIR is required to examine a “reasonable range” of alternatives to the project or its location. These must include the “no project” alternative. Alternatives must be feasible, meet most of the project objectives, and reduce one or more of the project’s significant effects.

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment.

California's Renewables Portfolio Standard of achieving 33 percent renewable energy by 2020 does not say that the proposed location of the Blythe Solar Energy Project is required to achieve this goal.

It is sad that the BLM does not want to explain why these requested alternatives were rejected. While we don’t expect BLM to cooperate with us, we would like to request that BLM reconsider some reasonable, more environmentally friendly alternatives.

A **private lands alternative** has been rejected by BLM. because it does not meet BLM’s Purpose and Need to site renewable energy on public lands. But again, there is nothing written that states that BLM

cannot consider this alternative. A private lands alternative should be reconsidered. Or the BLM can select a No Action Alternative and justify it with a alternate location on private lands.

Brownfields and Degraded Lands Alternative: The US Environmental Protection Agency has identified over 15 million acres of brownfields in the United States that would be suitable for utility scale solar development. See here: http://www.epa.gov/brownfields/sustain.htm

The Arizona BLM is reviewing the "The Restoration Design Energy Project" http://www.blm.gov/az/st/en/prog/energy/arra_solar.html (RDEP), funded by the American Recovery and Reinvestment Act of 2009, which supports the Secretary of Interior's goals to build America's new energy future and to protect and restore treasured landscapes. The following statement is made:

"Emphasis will be on lands that are previously disturbed, developed, or where the effects on sensitive resources would be minimized. The BLM intends to use the results of the EIS to amend its land use plans across Arizona to identity areas that are considered to be most suitable for renewable energy projects.

While these amendments will only apply to BLM-managed lands, the EIS will examine all lands in Arizona and serve as a resource to the public, policy makers, and energy planners."

BLM rejects a brownfields alternative for similar reasons to the private lands alternative. The Westlands Solar Park (WSP) is a Competitive Renewable Energy Zone (CREZ) identified by the Renewable Energy Transmission Initiative (RETI) located in northwestern Kings County in central California. The WSP includes the phased development of utility-scale solar PV generating facilities with a total capacity of approximately 2,400 MW on about 24,000 acres of drainage-impaired agricultural lands in the southeastern portion of the Westlands Water District. The EIR will also evaluate three planned transmission corridors in the region, which are intended to facilitate the conveyance of renewable energy. More information on the project and its goals are included in the NOP. More on the Westlands Solar Park can be seen here: www.westlandswater.org

Distributed Generation Alternative: Distributed generation in the built environment should be given more full analysis as a completely viable alternative. This project will need just as much dispatchable baseload behind it, and also does not have storage. But environmental costs are negligible with distributed generation, compared with this project. Distributed generation cannot be "done overnight," but neither can large transmission lines across hundreds of miles from remote central station plants to load centers. Most importantly, distributed generation will not reduce the natural carbon-storing ability of healthy desert ecosystems, will not disturb biological soil crusts, and will not degrade and fragment habitats of protected, sensitive, and rare species.
Germany is a distributed generation success story and has installed 22 GW of renewable energy in 2012, about 80 percent of which is in the built environment. This alternative is viable and can be integrated into the grid.

In-Depth: Germany's 22 GW Solar Energy Record Read more at

http://cleantechnica.com/2012/05/31/in-depth-germanys-22-gw-solar-energy-record/#XJfxt6OcUUkdvr3S.99

Palo Verde Mesa Solar Project Alternative: represents a more environmentally friendly option to the Blythe Solar Project and is in the same area. Alternatives like this should be prioritized before public lands are forever impacted.

The Renewable Resources Group has an application with Riverside County to construct a 486 megawatt solar photovoltaic facility on 3,400 acres of land that is mostly degraded. There would be no issues with biological or cultural resources.
It is filed with the Riverside County Clerk as Environmental Impact Report No. 532, Conditional Use Permit No. 3684, Public Use Permit No. 916.

Basin and Range Watch Preferred Alternative: Deny the project ROW, designate the region inappropriate for solar energy development, and examine a brownfield or distributed generation alternative to so much destruction.

Air Quality: The DEIS fails to fully examine the impacts that scraping 5 square miles of Colorado Desert Habitat will have on air quality resources. The cumulative scenario of the Blythe, McCoy, Genesis and other big solar applications will degrade air quality resources. The Blythe area already has compromised air quality resources from extensive agriculture. The Blythe and McCoy projects alone would completely scrape up to 10 square miles. The company First Solar would build the projects. They leave no vegetation standing and have done an extremely poor job of controlling their disturbance. First Solar has endangered the health of thousands of people in Los Angeles County with their Antelope Valley Solar Ranch. They have been shut down by the county three times for their dust emissions.

First Solar has made controversial news over their lack of ability to control fugitive dust emissions for their Antelope Valley Solar Ranch. The AVSR project has been delayed due to large fugitive dust violations. As pointed out in the linked article, local residents have been complaining about First Solar;s apparent inability to control fugitive dust for this project as well: ***"Can First Solar Play Nice With the Locals? "*** http://www.greentechmedia.com/articles/read/Can-First-Solar-Play-Nice-With-The-Locals/

^Photo of dust blackout on the Antelope Valley Solar Ranch from GreenTech Media

The below photos show the dust blackouts from the Desert Sunlight Project. This project is expected to be 4,400 acres and the poor air quality resulted from disturbance of only 1,000 acres so far.

The air quality has been made so poor by the construction of this project, that you can hardly even see the Coxcomb Mountains in Joshua Tree National Park looking from the south.

The Bureau of Land Management has required that the company control the dust as a condition of mitigation in the Record of Decision. First Solar chose a very hot area to build this project. In order to control dust, they must use a very large amount of water on a consistent basis. The area will often see temperatures approaching 120 F (49 C) in the summer. The rate of evaporation at that temperature can be over 150 inches per year. Summer temperatures on the Blythe Solar proposed project site can average 115 F (47 C) and the evaporation rate is quite similar to that of the Desert Sunlight Site.

^Dust storm from the Nextera owned and built Genesis Solar Energy Project, April, 2012. Naturally occurring dust from Ford Dry Lake was combined with newly disturbed surface soils from project construction.

Dust control in hot, arid climates is very problematic. The removal of well established vegetation, biological soil crusts and centuries old desert pavement creates opportunities for dust to be airborne every time the wind blows. Not only does fugitive dust create problems for visual and biological resources, it creates issues for public health as well.

We are seeing this problem with several of the recently approved, prioritized large energy projects. The Department of Interior has been so effective in streamlining the environmental review of these projects that they have created a perfect storm of compromised air quality.

There is a real potential for fugitive dust emissions to spread Coccidioidomycosis (Valley Fever) to nearby communities.

Valley Fever has been blamed for 62 deaths among California prison inmates statewide, most at the Avenal and Pleasant Valley facilities, but also two at Blythe, California:

http://www.pe.com/local-news/riverside-county/corona/corona-headlines-index/20130806-valley-fever-inland-inmates-may-replace-transferred-prisoners.ece

According to the Center for Disease Control in 2010 there were over 16,000 reported cases of Valley Fever (i.e. coccidioidomycosis), the majority of which were located in Arizona and California (Accessed by Internet, July 3 2012 at:
http://www.cdc.gov/fungal/coccidioidomycosis/statistics.html.

In San Luis Obispo County, 28 workers were sent home with Valley fever. One of the solar projects was a First Solar project called Topaz:

Epidemiologists are investigating an outbreak of valley fever that has sickened 28 workers at two large solar-power construction sites in San Luis Obispo County: http://articles.latimes.com/2013/may/01/local/la-me-ln-valley-fever-solar-sites-20130501

The region has a history of valley fever.

From: http://history.amedd.army.mil/booksdocs/wwii/PM4/CH16.Cocciodioidomycosis.htm

"Subsequent serologic examinations confirmed the epidemic as coccidioidomycosis. The site of the infections was specifically located in an area near Pallen Pass, 20 miles west of Blythe, Calif. This was in the maneuver area where personnel received final polishing. The information was sent at once to the Surgeon General's Office which immediately notified the Surgeon.

Recognition of the problem began in 1943. In January, Lt. Col. Roswell Brown of the Desert Warfare Board visited the author and discussed the possible hazard of coccidioidomycosis in the Desert Training Center. Sample skin-testing surveys were advised, and it was suggested that medical officers be alerted to the danger of this infection, particularly in the spectacular and easily recognized form of erythema nodosum. While this plan was under consideration, the Desert Training Center received the following information from the 54th Station Hospital near Yuma, Ariz.[21]

** * * We were out on "grand maneuvers" for three weeks, returning to our base a week ago. Very suddenly we got a number of men with influenza-like symptoms, and a bizarre lung finding, on physical and on x-ray. Today we have three positives out of five tests, as well as an outbreak of "Epidermo phytid" [doubtless erythema multiforme] and erythema nodosum in these same patients. (One of these is a man from the Royal Dutch Army, who had been in this country only one month, three weeks of which were out on the desert, and one week in the hospital.)"*

We would like to request the following mitigation measures for air quality on the Blythe Solar Project:

1. Stop all construction when wind speeds reach ten miles per hour or more.
2. Limit construction hours by half when temperatures climb above 100 degrees.
3. Hold both First Solar accountable for their air quality violations. Give them steep fines until they can get their act together. The Right of Way/Lease Grant issued for this project states: *"Failure of the holder to comply with any diligent development provision of this instrument may cause the Authorized Officer to suspend or terminate the authorization in accordance with 43 CFR 2807.1 7 -2807.19, and use the posted Performance and Reclamation bond to cover the costs for removal of any equipment and/or facilities. The Authorized Officer will provide the holder a written Notice of Failure to Ensure Diligent Development prior to the suspension or termination of the authorization. The holder will be provided an opportunity to correct any noncompliance in accordance with 43 CFR 2807.18 or submit a written request to the Authorized Officer for an extension ofthe time lines in the approved Plan of Development."*
4. Provide a web page where the general public can monitor disciplinary actions taken by BLM to insure that developers are in compliance with conditions of mitigation. This web site should have a place for the public to report violations.

Mitigation for dust emissions: Most solar and wind projects are using water to control dust (which we will be elaborating on), but since that is having questionable success, many developers are looking to use synthetic and organic polymers The use of these products in single applications can fall within acceptable limits for their use, however continued use within the same area and the build up over time has not been studied and therefore no restrictions have been made for any product.

Synthetic polymers are generally considered acrylic or acetate based or from similar chemicals. The information available shows that they can decompose to components which are considered hazardous by themselves.

Some polymer based products create very hard crusts, is that when they start breaking down they will break down into clumps that are difficult to rework into the existing soil. This makes the restoration of the site problematic for decommissioning. This would make the reestablishment of biological soil crusts very difficult and ultimately make the ecological restoration of the project site unlikely.

Another concern is that polymers would erode into the drainage of the project site and end up in the groundwater. What impacts would synthetic polymers have on water quality and public health to local communities?

Dust Control for Low-Volume Roads: Update on Public Lands Highway Discretionary Program Project (See Williams et al. 2011)

After Solar Trust of America was issued the ROW for their Blythe Solar Project in 2010, they started to have financial issues. Before filing for insolvency, Solar Trust bulldozed a network of roads on the site. They were watering the roads twice per day. This did not control the fugitive dust.

^Blythe Solar Power Project site, June 2011. The fugitive dust is coming from the water truck that is supposed to control the dust.

We have heard complaints from residents of the nearby community of Mesa Verde that dust from this disturbance is still a problem. We can't even imagine how bad the problem will be when the bulldoze 5 square miles. The DEIS fails to recognize this Environmental Justice issue.

Cultural Resources:

By BLM's own admission, they failed to identify 84 of the 99 sites for listing in the National Register of Historic Places (NRHP). Why has this not been done? A full analysis of all of these sites should be conducted before any ROW decision is made for this project.

The project site is very important to the local tribes in the area. Traditional uses in the region should be studied and a cultural landscape study completed with tribal people who hold an interest in the Blythe area. There are trails, artifacts, archaeological sites, and associated stories, songs, and histories that need to be documented with full Tribal Government consultation.

Complete archeological surveys will need to be conducted and at better quality than on the adjacent Genesis Solar Project. Lack of surveys resulted in the destruction of a large array of important cultural sites and artifacts.

Evidence of a human settlement spread was found including grinding stones lying on a bed of charcoal — possible evidence of an ancient cremation site.

In a subsequent meeting with Colorado River Indian Tribes, a federally recognized reservation just east of the work site, Bureau of Land Management officials described the discovery as "unprecedented," tribal leaders said.

On January 16, 2012, over 10 Tribal Chairman, other traditional/indigenous people, and Alfredo Figueroa of La Cuna de Aztlan Sacred Sites Protection Circle met at the Agua Caliente Casino Conference Center with the BLM and solar company officials. "All the tribes expressed their adamant opposition against the Genesis project so that they could stop this destruction immediately," Mr. Figueroa told us. The area has a network of ancient trails heading from these village sites to springs in the surrounding mountains and to the Colorado River. Many traditional groups today hold this area sacred.
Any mitigation that would be proposed by the applicants could not compensate for the loss of the integrity of the landscape

The only way to mitigate these impacts is to select a No Action or Off Site Alternative.

Herbicides to Control Invasive Plants:

The herbicide of choice is most likely going to be Glyphosate (Roundup).

While Roundup is a common herbicide, it is usually not used in such large quantities at one time. Glyphosate can be hazardous to human health as identified in studies:

"Symptoms of exposure to glyphosate include eye irritation, blurred vision, skin rashes, burning or itchy skin, nausea, sore throat and difficulty breathing, headache, lethargy, nose bleeds and dizziness.

In lab tests, glyphosate and herbicides containing glyphosate caused genetic damage to human and animal cells.

Studies of farmers and other people exposed to glyphosate herbicides link this exposure to increased risks of cancer, miscarriages and attention deficit disorder.

Additional laboratory tests have confirmed the results of these studies. Laboratory evidence indicates that glyphosate herbicides can reduce production of sex hormones.

Application of glyphosate herbicides increases the severity of a variety of plant diseases.

Studies of glyphosate contamination of water are limited, but new results indicate that it can easily contaminate streams in both agricultural and urban areas.

Glyphosate herbicides cause more off-target damage incidents than all but one other herbicide — 2, 4-D. Glyphosate herbicides cause genetic damage and harm to the immune system in fish. In frogs, glyphosate herbicides cause genetic damage and abnormal development."

Glyphosate has also been linked to a decline of Monarch butterflies in Mexico and the USA.

In particular, glyphosate has impacted populations of **Asclepias (milkweed).**

Populations of common species of Asclepias such as desert milkweed ***(Asclepias subulata)*** occur on the site. **Monarchs use milkweed as a food plant.**

So how will the BLM mitigate the impacts of the use of so much glyphosate? What other plants will be impacted? A list should be provided. How will the removal and development of this and the McCoy solar project sites impact migrating Monarch butterfly populations?

If glyphosate infiltrates the groundwater supply, what impacts would this have on the Colorado River? This is the Safe Herbicide procedure that will be adopted for the Blythe Project from the EIS:

"Chemical: Herbicides known to have residual toxicity, such as pre-emergents and pellets, shall not be used in natural areas or within the engineered channels. Only the following application methods may be used: wick (wiping onto leaves); inner bark injection; cut stump; frill or hack and squirt (into cuts in the trunk); basal bark girdling; foliar spot spraying with backpack sprayers or pump sprayers at low pressure or with a shield attachment to control drift, and only on windless days, or with a squeeze bottle for small infestations (see Nature Conservancy guidelines described above);"

These methods are for trees like tamarisk and do not apply to the invasive weeds like Sahara mustard that occur on the site, but if they can apply herbicide to each leaf, than they can have a manual weed removal program. There is no bark on Sahara mustard. The DEIS should state how much glyphosate will be used and what potential wind events have to transport residue to nearby communities.

Please develop a "Physical Removal Only" alternative to using glyphosate for invasive plants.

Biological Resources:

Vegetation: We believe the applicant and the BLM are underestimating the amount of microphyll on the northwest side of the project site. The DEIS states that there is only 25 acres of this habitat on the site. We have visited the site and there is still a lot of dry wash habitat in the northwest. The below map

shows the topography of the site. Microphyll tress are more dispersed and numerous than the applicant wants us to think.

Polarized Glare, Colorado River, Avian Slaughter:

The Colorado River supports a large list of avian wildlife and birds would fly over the site to move from the river to places like the Salton Sea.

Night traveling water birds will be killed by the Blythe Project as they collide with the panels.

The polarized "lake effect" is now well known from the Genesis, Desert Sunlight and Ivanpah Projects. Bird species that have collided (or dehydrated) with solar panels and heliostats include the Endangered Yuma clapper rail, peregrine falcon, American kestrel and a host of water birds.

At this point, those are among the few projects that are reporting findings of dead birds at their sites.

Here is the official list compiled by KCET Rewire : http://www.kcet.org/news/rewire/solar/water-birds-turning-up-dead-at-solar-projects-in-desert.html

Genesis, March 13, lesser goldfinch
Genesis, March 19, lesser goldfinch
Genesis, March 28, bufflehead
Desert Sunlight, April 3 eared grebe
Desert Sunlight, April 15 surf scoter
Genesis, April 17, black- throated grey warbler
Genesis, April 17, house wren
Genesis, April 17, orange- crowned warbler
Desert Sunlight, April 18 great-tailed grackle
Desert Sunlight, Week of April 21 red breasted merganser

Genesis, April 25, barn owl injured, taken to rehab
Genesis, May 1, pied-billed grebe
Genesis, May 1, eared grebe* injured, to rehab
Desert Sunlight, May 6 double crested cormorant
Desert Sunlight, May 8 Yuma clapper rail
Genesis, May 8, Wilson's warbler (poss. line strike)
Genesis, May 14, yellow- headed blackbird* injured, taken to rehab
Genesis, May 15, hermit thrush (bulldozer)
Genesis, May 16, Wilson's warbler
Genesis, May 16, Townsends warbler

Genesis, May 16, unidentified bird
Genesis, May 22, western grebe injured, taken to rehab
Genesis, May 22, yellow warbler
Genesis, May 23, warbler, species unknown
Genesis, May 24, unidentified sparrow
Genesis, May 30, American coot
Desert Sunlight, June 4, common loon
Desert Sunlight, June 5, eared grebe
Desert Sunlight, June 5, western grebe
Desert Sunlight, June 5, western grebe live, released after consultation.
Desert Sunlight, June 6, American coot
Desert Sunlight, June 6, double crested cormorant
Desert Sunlight, June 9, Common raven
Genesis, June 10, brown pelican- injured, sent to rehab
Desert Sunlight, June 19, hummingbird
Genesis, July 10, brown pelican
Desert Sunlight, July 10, brown pelican
Desert Sunlight, July 11, brown pelican
Desert Sunlight, July 13, brown pelican
Desert Sunlight, July 15, black-crowned night heron

In early September, 2013, a peregrine falcon was injured badly (burned is what they say) on the Ivanpah Project and later died in rehabilitation. The August compliance reports for the Ivanaph Solar Electric Generating System confirm 7 bird kills on the project site. The reports can be viewed here: http://docketpublic.energy.ca.gov/PublicDocuments/07-AFC-05C/TN200540_20130920T095831_August_2013_MCR.pdf

Since there would be no solar flux burning at the Blythe Project, the threats would be to birds colliding and dehydrating by getting deceived by the lake effect. The threats would be both at day and at night. Night time would potentially be the biggest threat to moving water birds.

The only real organized surveys for avian mortality are taking place at the Ivanpah Solar Project with only a 20 percent coverage. The rest of the finds are simply incidental which may indicate that mortality numbers are far greater than being reported.

We are surprised the DEIS fails to include much of the information gathered at the recent California Energy Commission hearing for the project, There were interveners. LABORERS' INTERNATIONAL UNION OF NORTH AMERICA had biologist Shawn Smallwood estimate a number of birds that would be killed for one of the Interveners to the project. He estimated that over 2,100 birds would be killed per year by the 4,000 acre Blythe Solar Power Project. The estimate can be viewed here: http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-06C/TN201152_20131108T155000_Testimony_of_K_Shawn_Smallwood_PhD.pdf

The BLM should have a similar estimate prepared for the Blythe Project before this review process is allowed to continue.

A monitoring plan should look for birds at full coverage no less than twice a week.

What mitigation is being discussed? Can panels be placed on single axis tracking units and be turned upside down? Can the bottoms of the panels be painted a texture that will be non-reflective to where they will not attract birds at day or night? Has a curtailment option (turning panels upside down) been discussed for spring migration periods?

Has other mitigation been discussed? Such as placing horizontal bars across the panels to disrupt the lake effect?

Since there so little know information about the polarized lake effect, we do not believe the BLM is ready to review a project like this that lies so close to the Colorado River. This is reason to select a No Action Alternative.

Golden Eagle: The DEIS claims the loss of golden eagle foraging habitat would not be significant because there are no active nests within a mile of the project site, but fails to acknowledge that there are potential future nest sites in the McCoy Mountains. This is a poor analysis. The DEIS should do a much better job of analyzing impacts to golden eagles.

Burro deer: Scat of burro deer has been found on the project site. The northwest corner of the project site contains washes and microphyll woodland yet the DEIS fails to talk about it. How much burro deer habitat will vanish? What mitigation has been talked about?

Desert Bighorn Sheep: The DEIS fails to discuss the impacts this project could have on bighorn sheep. While no large populations are known in the McCoy Mountains, bighorn scat was found on the project site. We are surprised that the DEIS is so poorly written that this is not even mentioned.

^photo of bighorn ewe crossing between mountain ranges near the Last Chance Range, Nye County, Nevada

The site is habitat for bighorn sheep, and need not have well-used trails or other sign to be use by sheep. We have seen lone bighorn sheep, especially rams, traveling along interstate highways looking for crossing points in valley and low hill habitats between mountain ranges. Such long-range movements would not leave trails but are very important for maintaining genetic flow between populations.

We have observed this in other parts of bighorn range where a single ram was running along a highway fence in areas far from steep terrain, looking to cross.

There is a potential for Gila monsters to be on the project site and the EIS should include an analysis of this sensitive species and a plan of how any individuals will be handled if encountered during construction.

Visual Resources:

There are no adequate night-time KOP simulations that simulate the security lighting that will glare all night.

The DEIS fails to include the visual impacts that would represent the cumulative scenario of both the McCoy and Blythe projects.

The DEIS should have a KOP simulation of the dust plumes that will be caused by construction.

As BLM is aware, the project site is highly visible from the McCoy Mountains Wilderness Area. The polarized lake effect, glare and tangle of transmission lines will be visible in the day, security lighting will be visible all night from the project. Dust plumes from construction will impair the. There is no way to mitigate or offset the visual impacts that 4,000 acres of solar panels will have on this landscape.

The BLM admits that the project will have unmitigable impacts on visual resources. They also classify the region as a Class III Visual Resource Management region. A Class III is defined as *"objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements of form, line, color, and texture found in the predominant natural landscape features."*

The facility would be so visually intrusive, it would not even meet the standards of VRM Class III. Taking up to 6 square miles, management activities will no doubt dominate the view! The facility would fall more into the category of VRM Class IV: *"objective is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high."*

The Silver State South Solar Project, Nevada required a downgrade of the VRM class so the facility would fit more into the BLM's Las Vegas Resource Management Plan. By allowing Class IV style development in a Class III VRM Zone, BLM should have to revise the Resource Management Plan.

We would also like to request that BLM re-evaluate the entire site for VRM II and even VRM I standards. Because the project is so large (six square miles of disturbance) the BLM's VRM Class ratings are not good enough to define the whole area visually. The project will impact areas of different designated BLM VRM classes.

While the BLM evaluates the visual resources as only Class III, they acknowledge that the site has been designated as Class L lands under the Federal Lands Policy Management Act in the California Desert Conservation Area.

Multiple-Use Class L (Limited Use) protects sensitive, natural, scenic, ecological, and cultural resource values. Public lands designated as Class L are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.

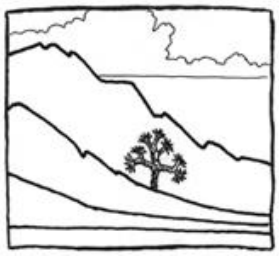
All of the public lands slated for development for this project have been designated Class L lands under the 4 multiple use classifications defined in the California Desert Conservation Area plan. The impacts from this project would be so sever, that the CDCA plan needs to be amended just to approve the project. The Blythe Solar Power Project would develop 5 square miles of Class L lands.

Large projects like Blythe are also impacting the multiple use philosophy of the BLM. A 5 square mile project will cut of a significant amount of access for public land owners. As populations grow, open space becomes more valuable culturally. Future trends of available public access to public lands relating to population growth and energy sprawl should be considered. The unspoiled character of the site may be even more important to future generations.

Conclusion: This DEIS is very poorly written and the BLM has failed on several accounts to cover many of the issues that can't be mitigated for this project. It appears that the Purpose and Need Statement was crafted to make way for a Rubber Stamp approval of the project. BLM has failed on several accounts to fully analyze the impacts the development will inflict in the region. The DEIS should be rewritten to acknowledge the needs of those who oppose the project. Instead, public money has been funneled into a document that panders to the applicant. Please write a better DEIS and consider a No Acton Alternative that designates conservation status to the site.

Thanks,

Kevin Emmerich
Laura Cunningham
Basin and Range Watch
P.O. Box 70
Beatty, NV 89003



Basin and Range Watch

March 22nd, 2014

To: Frank McMenimen,

Bureau of Land Management Project Manager,
1201 Bird Center
Drive, Palm Springs, CA 92262
CAPSSolarBlythe@blm.gov

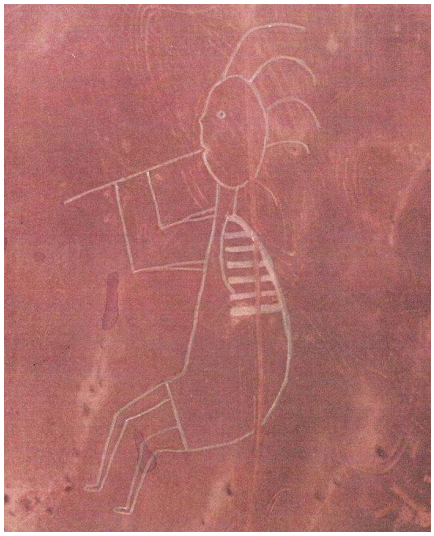
Subject: Please accept these additional comments from Basin and Range Watch for the Blythe Solar Power Project Draft Environmental Impact Statement: **CACA: 048811**

We would like to submit the below petition formed by Blythe resident Alfredo Figueroa opposing industrial Solar Energy development on the Palo Verde Mesa. Please accept this petition as an opposition letter by 239 people so far, for the Blythe Solar Power Project.

Thank you

Kevin Emmerich
Laura Cunningham
Basin and Range Watch
P.O. Box 70
Beatty, NV 89003

The petition can be seen here:
http://www.change.org/petitions/interior-secretary-sally-jewell-president-barack-obama-save-the-blythe-sacred-sites-from-sprawling-energy-development-and-solar-power-projects-please-sign-the-petition-to-save-the-sacred-sites-and-landscape-on-palo-verde-mesa-along-the-colorado-river?share_id=wFEXxJcNXj&utm_campaign=share_button_action_box&utm_medium=facebook&utm_source=share_petition



Please sign the petition to save the Sacred Sites and Landscape on Palo Verde Mesa along the Colorado River

Petition by

Alfredo Figueroa

Blythe, CA

Just west of Blythe, CA, you can walk out into the desert and find numerous rock alignments, giant geoglyphs, figures etched into the desert soil, ancient trails, petroglyphs, and images viewed in the mountain peaks that tell the stories of the oral traditions like a book visible in the rocks.

Large-scale solar power plant projects threaten this Sacred Landscape. Solar projects are a great energy source when placed in the right landscape, such as already disturbed ground or on urban area rooftops near the place where the energy is needed. But no large energy project belongs here. The viewscapes are open and when standing at certain geoglyphs -- literally "writings in stone" -- specific peaks can be seen in the distance that indicate relationships with the Creator. Stories inter-relate between figures on the ground and figures visible in the mountain ranges surrounding the Palo Verde Valley mesa. These sacred viewsheds need to remain intact, with no industrial development blocking them.

This is a landscape where you cannot simply fence off one geoglyph and preserve its meaning and context. This whole landscape should be conserved at a sacred area. Engraved images on the ground that are being threatened in the landscape include such examples as the giant twin geoglyphs of Kokopilli & Cicimitl: they represent the ending of a Sun and the beginning of the New Knowledge. Cicimitl is the ending which takes the spirits to their final resting place at

Topock Maze (Mictlan) which its location is Magnetic North (beginning from the Mule Mountains “Calli” (Earth) in the south). Kokopilli is leaving because he is hurt “pilli” and he is leaving to start a new beginning. Geoglyphs (intaglios) are on top of mesetas in the tarnished-pebble-scattered natural desert pavement, forming a continuum of past cultural legacies with present living traditions.

Local tribes and residents consider these rock alignments and geometric patterns in the stony ground to be sacred, connecting the present with the past, and they are actively cared for. In spite of the fact that these sites are still actively used by indigenous people, the Bureau of Land Management has basically determined that these sites are not significant enough to be avoided by developers. So far, two of these sites have been damaged or completely destroyed by the first development of the Blythe Solar Energy Project.

The majority of these Sacred Sites and images relate to the surrounding area of the I-10 corridor. The I-10 Highway in Eastern Riverside County parallels some of the most sacred trails that connect many of the sacred sites that are located within the area. That is where the Cocomaricopa trail goes east/west and joins together with the Quechan north/south trail at the south end of the Blythe solar power project. These trails lead from the Blythe Giant Intaglios by the Colorado River, Mule Mountains to Eagle Mountain range (at the Joshua Tree National Park) and from the Creator's Throne on Black Rock Peak (10 miles west of Blythe, CA) that leads to Corn Springs (Tulla) in the Chuckawalla Mountains. The lower Colorado River Basin Valleys have been the home of many different indigenous linguistic families which at one time or another left and returned to the area. They went on their journey to the four directions. Their migration is symbolized by the Nahui-Ollin meaning four directions in the Nahuatl language. Some of the nations settled permanently in the area and others such as the Athapaskans left the Colorado River. Some went north to Alaska before the last Ice Age according to Chief Gary Harrison of the Athapaskan tribe. Other nations such as the Azteca and Olmeca went south thousands of years ago. The Chichimeca followed afterwards, then the Tolteca, Yaqui, and finally the Mexica in the 12th century, approximately 1160 AD. Some of the nations have gone full circle returning to the Colorado River.

Solar energy is a wonderful technology if sited in the appropriate locations. When large energy projects threaten the very existence of these sacred sites, they must be moved to rooftops and other places in the built environment as well as lands that have been previously developed.

Please move these large solar project proposals to more appropriate locations such as disturbed ground, or better yet, build solar installations on rooftops and over parking lots in the urban areas. Save our sacred desert landscapes.

Alfredo Figueroa

Elder/Historian

La Cuna de Aztlan Sacred Sites Protection Circle.

COLORADO RIVER INDIAN TRIBES

Colorado River Indian Reservation

26600 MOHAVE RD.
PARKER, ARIZONA 85344
TELEPHONE (928) 669-9211
FAX (928) 669-1216

March 24, 2014

Via Electronic Mail Only

Frank McMenimen
Project Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

E-Mail: CAPSSolarBlythe@blm.gov

Re: Comments of the Colorado River Indian Tribes on the Modified Blythe Solar Power Project Draft Environmental Impact Statement (2800(P) CA660.67 CACA-48811)

Dear Mr. McMenimen:

The Colorado River Indian Tribes (CRIT or the Tribes) submit the following comments on the Draft Environmental Impact Statement (DEIS) prepared by BLM for NextEra's proposed modifications to the Blythe Solar Power Project (Blythe Project). The DEIS reveals that the Blythe Project will have significant impacts on cultural resources present within the ancestral homeland of CRIT members. It acknowledges that the cumulative effects on cultural resources would be "substantial and adverse." DEIS at 3.6-11. The DEIS also notes that this Project, together with others in the vicinity, would "substantially degrade the visual character and general scenic appeal of the expansive landscape character of the desert," and that these cumulative visual impacts would be "long-term, adverse, and unavoidable." DEIS at 3.17-9. CRIT agrees with these conclusions and has serious concerns about the continued transformation of this cultural landscape into an industrial one benefiting energy companies and distant urban populations. While CRIT acknowledges that the proposed amendment is likely to reduce impacts when compared to the Approved Project, this comparison is fictional, as it is almost certain that NextEra would not be able to build the Approved Project. For these reasons, as well as others described below and voiced by CRIT and other area tribes, CRIT respectfully urges the BLM to deny the proposed Project amendment.

I. By Taking the "No-Action" Alternative off the Table, BLM Improperly Skews the Project's Perceived Impacts.

Under the National Environmental Policy Act (NEPA), a federal agency must describe a "No-Action" alternative, such that the public can understand the incremental effects of the proposed project. 40 C.F.R. § 1502.14(d); *Center for Biological v. U.S. Department of the Interior*, 623 F.3d 633, 642 (9th Cir. 2010). In the DEIS for the Blythe Project, BLM describes the No-Action alternative as the *Approved Project* (i.e., the solar parabolic trough project approved in 2010), accounting for NextEra's relinquishment of certain acreage.[1] Across many categories, the Approved Project, even with the reduction in acreage due to relinquishment, would result in significant, adverse impacts. In particular, the Approved Project includes millions of cubic yards of cut-and-fill grading, creating a significant potential for disturbing sensitive cultural resources. These impacts would be more significant than those associated with the proposed amendment. DEIS at ES-5.

CRIT acknowledges that, via this amendment, NextEra and BLM have worked to reduce impacts *as compared to the Approved Project*. However, by using the Approved Project as the primary comparison, the DEIS creates a false picture of the Project's realistic impacts. Based on the information available to CRIT, it appears highly unlikely that the Approved Project would be built in the event that BLM denies the amendment application. As noted in documents recently filed with the California Energy Commission for the Palen Solar Electric Generating System—another project for which the new owner is seeking to change the approved technology—many significant barriers would prevent a new owner from constructing a large-scale solar energy plant using previously approved technology. Power Purchase Agreements and Large Generator Interconnection Agreements are technology specific, and previous technology is likely to be unavailable to new owners, as they are patent protected. *See* Palen Solar Holding, LLC's Alternatives Supplemental Testimony (TN # 201713), CEC Docket No. 09-AFC-07C. Unless NextEra can show that it would be feasible to actually build the Approved Project given current circumstances, it is wholly inappropriate to use it as a "No-Action" alternative. The DEIS must be revised to compare the Blythe Project to a true "No-Action" alternative—one that maintains the site in its current, largely undeveloped state.

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[1] While the DEIS mentions a true No-Action alternative (i.e., no utility scale solar project within the ROW), the DEIS states that "neither the original Approved Project (1,000 MW) *nor the No Project alternatives analyzed in the 2010 PA/FEIS* are among the possible decisions the BLM is considering in this Draft EIS." DEIS at ES-4 (emphasis added). As a result, BLM assumes that the Amendment will improve environmental impacts; this, however, is a false assumption as explained above.

II. The Analysis of Cultural Resources in the DEIS Is Inadequate.

A. The DEIS Fails to Identify and Evaluate All Affected Cultural Resources.

Under both NEPA and the National Historic Preservation Act, the identification of potentially affected resources plays a critical first step in understanding the impacts of a proposed project. Specifically, with respect to cultural resources, an agency must identify all cultural resources that may be directly or indirectly impacted by the project *and* must determine whether such resources are significant, including a determination of NRHP-eligibility.[2] Without determining whether the values associated with, or characteristics of the resource, would lead to NRHP-eligibility, a lead agency cannot determine whether the impacts of the project will adversely impact those values or characteristics, as required under federal law. *E.g.*, 36 C.F.R. §§ 800.4, 800.5

The DEIS identifies three prehistoric archaeological sites that may be directly impacted by the Project, including two trail segments and a thermal cobble feature. DEIS at 2-26. Appendix E identifies these resources as SMB-P-410, SMB-P-434 and CA-RIV-1464. The California Energy Commission, however, recently completed its analysis of the Blythe Project. The CEC Staff Assessment lists an additional eight prehistoric or prehistoric-component sites that do not appear in the DEIS, including: CA-RIV-3419, SMB-P-435, SMB-H-452, SMB-HP-453, SMB-P-454, SMB-H-234, SMB-H-CT-011, and SMB-H-WG-102. *See* Blythe Solar Power Project Staff Assessment (TN# 200840), CEC Docket No. 09-AFC-06C, at 4.3-104 to -105. The EIS must be revised to include these cultural resources or adequately explain any remaining inconsistencies with the CEC analysis.

The DEIS also attempts to shortcut its analysis of ethnographic resources that may be impacted by the Project. Rather than conduct an ethnographic study specifically for this Project and its unique impacts to the environment, the DEIS pulls information gathered for the nearby McCoy Project. That ethnographic study may be a useful *starting* point, but the DEIS fails to (a) evaluate the NRHP eligibility or importance of these resources, (b) determine with specificity how the Blythe Project will impact these resources and their use by CRIT members and other Native Americans, and (c) develop any mitigation specific to these resources. The EIS must be revised to complete these requirements. While CRIT believes that no mitigation measures can ever adequately address the loss of cultural resources caused by these projects, CRIT would welcome an opportunity to discuss potential measures that are at least related to the unique impacts of the loss of cultural and ethnographic resources on its members.

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[2] CRIT acknowledges BLM's assertion that the Programmatic Agreement permits deferral of this analysis. DEIS at 3.6-2. This Programmatic Agreement was developed in 2010, before CRIT had experienced the harm potentially caused by this deferral of assessment.

CRIT also notes that the Blythe Project will impact certain geoglyphs along the Colorado River, as outlined in the CEC Staff Assessment (SA). Blythe Solar Power Project Staff Assessment (TN# 200840), CEC Docket No. 09-AFC-06C, at 4.3-39 to -40. CEC Staff concluded that these geoglyphs are of recent origin, and thus are not entitled to protection. *Id.* at 4.3-40. Regardless of the origin of the geoglyph figures, CRIT notes that some Native Americans believe that these figures are central to their creation stories. This belief system entitles these figures to protection as ethnographic resources. *Id.* at 4.3-3 ("The decision to call resources 'ethnographic' depends on whether associated peoples perceive them as traditionally meaningful to their identity as a group and the survival of their lifeways."). The DEIS contains no information about these resources, and must be revised to clarify whether the geoglyphs are within the footprint of the Project and whether they will be destroyed as a result of Project construction.

Finally, CRIT urges BLM to undertake a more thorough investigation of the cultural resources impacted by the Project prior to finalizing the EIR. No ethnographic study has been completed for the Project. No effort has been made to incorporate recent analysis of prehistoric trail networks crossing this region, including the Blythe Project site, into the DEIS's analysis. *See* Exhibits 1 (Trails of the Chuckwalla Valley Portion of the PRGTL, developed for the Palen Project, showing trails through the Blythe Project site) and 2 (Johnston Map, showing reported trails through the Blythe Project site). No government-to-government consultation has addressed this question. And no effort has been made to learn from the discovery of significant buried cultural material at the Genesis site. The DEIS states that "the environmental context has not changed since publication of the 2010 PA/FEIS or the 2010 ROD" (DEIS at 3.6-1), implying that BLM can simply rest on its previous analysis. But given the significant new information that has been developed and revealed in the course of the last four years, the DEIS must update its cultural resource analysis.

B. The DEIS Contains Inadequate Information about Surface Disturbance.

The DEIS states that the Project amendment will involve less grading than the Approved Project. DEIS at ES-5. However, the DEIS also describes (a) construction of 24-foot and 16-foot internal roads (which will be scarified, moisture-conditioned, covered with aggregate base, and compacted) (DEIS at 2-11); (b) management of all vegetation located under the solar panels (DEIS at 2-17); (c) clearance of other vegetation for Project components (DEIS at 2-18); (d) the use of disc and roll and isolated cut/fill (DEIS at 2-19) and (e) the insertion of solar panel supports into the ground (DEIS at 2-20). All of these activities have the significant potential to disturb, damage, or destroy buried cultural resources previously unknown to BLM.

Despite describing these activities, the DEIS fails to identify the likelihood of encountering buried cultural resources during construction of the Project as a result of these activities, rotely asserting that any such discoveries can be adequately addressed by proposed mitigation measures. DEIS at 3.6-8. As described below, however, these mitigation measures only ensure that such discoveries will be boxed up for "data recovery," an outcome strongly opposed by the

Tribes. The EIS must be revised to locate the areas where buried cultural material are more likely to be found and to locate all surface disturbing activity, such that BLM and the public can accurately determine the likely impacts of the Project.

C. BLM's Proposed Mitigation Measures Do Not Adequately Address CRIT's Concerns.

CRIT has particular concerns with respect to the mitigation measures formulated to avoid or diminish harms associated with the disturbance of cultural resources. At the Genesis project, CRIT witness firsthand as BLM interpreted mitigation measures to permit NextEra to disturb thousands of buried cultural items uncovered during construction, and to ship such resources for curation in distant facilities. CRIT does not believe that this process was respectful of cultural concerns or permitted under either NEPA or the NHPA.

As a result, CRIT worked carefully with NextEra and CEC Staff to review and modify the conditions of certification for this Project during the CEC proceeding. While the parties were able to reach consensus on a number of issues, CRIT is concerned that (a) BLM's proposed mitigation measures may create conflict with these adopted measures, and (b) unresolved issues continue to render the mitigation measures confusing, weak, or ultimately harmful. CRIT notes that while NextEra has incorporated the CEC Conditions of Certification into the Blythe Project as "Design Features" (DEIS at 2-34), it does not appear that BLM has thought carefully about how these Design Features interact with existing provisions in the ROD, PA, and related appendices. CRIT urges BLM to adopt mitigation measures that fully protect cultural resources, create clear lines of communication and accountability, and respect cultural preferences, and therefore comply with both the letter and spirit of federal law.[3]

CRIT's review of the mitigation measures for the Blythe Project has been hampered by a lack of access to certain critical documents. It appears from the DEIS that the Programmatic Agreement was amended in July 2013 (DEIS at 3.6-4), but CRIT has been unable to locate a copy of the final amended version. The Programmatic Agreement also suggests that Historic Property Treatment Plans and a Monitoring and Discovery Plan should have been executed prior to construction, but CRIT has been unable to locate copies of these documents. CRIT requests

[3] CRIT acknowledges that the DEIS asserts that "[p]roposed modifications to the approved mitigation measures are not warranted because the activities that could impact cultural resources are substantially similar to or the same as the activities for which the mitigation obligations for the approved Project were designed." DEIS at 3.6-11. However, as the CEC modified the Conditions of Certification in the amendment proceedings, BLM's mitigation measures must similarly adjust to prevent conflict. Moreover, both CRIT and BLM now have four additional years of information on how mitigation measures for utility-scale solar projects are applied on the ground. CRIT urges BLM to use this significant new information to learn from past mistakes and adapt to changing understandings.

copies of all such documents and reserves the right to make additional comments following review. Nevertheless, CRIT is able to offer some specific comments below.

Avoidance

According to the cultural beliefs of CRIT members, the disturbance of cultural resources, including the discovery of buried cultural material during construction, is a significant cultural harm. For CRIT's Mohave members, such disturbances are considered taboo, with the consequences described as physically painful for some individuals. As a result, CRIT supports mitigation measures that both recognize a strong preference for avoidance of both known and unknown resources.

The Programmatic Agreement, in part, recognizes this concern. In listing performance standards that must be met in yet-to-be-developed plans, the PA states that "for cultural resources, the preferred method of mitigation is avoidance of all cultural resources to the maximum extent feasible." PA at 44. Data recovery is then permitted "only" if feasible. *Id.*

Yet instead of relying on this language to discuss what will occur in the event of a discovery, the DEIS states that NextEra has proposed to implement CUL-16 and CUL-17, which are design features adopted from the CEC proceeding, to "reduce the potential for direct impacts to currently unknown resources through the use of monitoring and measures to halt ground disturbance and implement curation and/or other appropriate mitigation in the event of a discovery." DEIS at 3.6-8. Unfortunately, neither of these measures specifically addresses any requirement for avoidance. The DEIS must be revised to ensure that the avoidance preferences provided for in the Programmatic Agreement are applied to this Project amendment and are fully enforceable (in particular, CRIT recommends including language requiring infeasibility findings supported by substantial evidence).

CRIT does note that CEC CUL-5, more closely addresses unanticipated discoveries, with CUL-16 and CUL-17 simply providing additional procedures. In approving Conditions of Certification, the CEC specifically responded to CRIT's concern about avoidance of cultural material. The Commission states that CUL-5 "does call for avoidance measures to be described in the CRMMP." Thus, CRIT encourages BLM to work with the CEC and Tribes to develop matching CRMMP and Monitoring and Discovery Plans that include strong avoidance provisions.

CRIT also has concerns about the use of data recovery on the handful of known prehistoric sites impacted by the Project, as described in the CEC Conditions of Certification (CUL-6, CUL-7). CRIT requests that BLM work with NextEra to determine the feasibility of avoiding these sites, prior to drafting any HPTP that may require data recovery.

In-situ Reburial

While CRIT believes that all cultural resources should be avoided, CRIT recognizes that avoidance can be truly infeasible in certain limited circumstances. In these circumstances, it is CRIT's strong preference that newly discovered cultural resources be re-buried nearby.

CRIT worked with NextEra and the CEC to ensure that the CRMMP will include a discussion of in-situ and onsite reburial as a preferred mechanism for addressing newly discovered resources. The Programmatic Agreement, however, specifically requires that all materials resulting from data recovery must be curated in facilities meeting certain requirements. PA at 18. CRIT requests an in-person meeting with appropriate BLM officials to discuss this requirement and possible mechanisms for allowing in-situ or onsite reburial for the Blythe Project and others in the area.

Communication and Enforcement

As CRIT learned from the Genesis discovery and ensuing litigation, clear communication and routes of enforcement are critical for ensuring that resources can be protected and all parties are on the same page. For that reason, CRIT worked diligently with NextEra and CEC staff to ensure that additional details were provided in the Conditions of Certification adopted by the Commission. While CRIT has remaining concerns regarding the Conditions of Certification,[4] CRIT requests that BLM modify the Programmatic Agreement, HPTPs and Discovery and Monitoring Plans to ensure that notification requirements are clear, Tribes have an opportunity to comment on implementation of these plans, and interested parties can hold the agency and the company accountable if plans are not properly implemented.

Native American Monitors

CRIT strongly supports the required use of Native American Monitors whenever ground-disturbing activities occur. CRIT worked with NextEra and CEC Staff to ensure that such monitoring requirements were included in the Conditions of Certification. While CRIT notes that these Conditions are now included as "design features" from the Blythe Project, none of the BLM-specific mitigation measures (either in the DEIS, PA, or draft plans), appear to anticipate the use of Native American Monitors. To avoid any perceived conflict, CRIT strongly prefers that the use of NAMs is also required under BLM's measures.

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[4] For instance, CRIT requested that the CRMMP include additional specific language requiring avoidance if feasible and specific procedural requirements; that the CEC be responsible for responding to tribal comments; that Native American Monitors have the authority to halt construction; that notification requirements include enforcement provisions; and that Tribes have the opportunity to confer on the eligibility of newly discovered resources. *See* CRIT's Requested Additions to the Stipulated Conditions of Certification for Cultural Resources (TN# 201391), CEC Docket No. 09-AFC-06C.

Additional Comments

Finally, CRIT notes that the development of mitigation measures outside of the EIS and Section 106 process (i.e., in later-drafted plans) makes it difficult for Tribes to meaningfully comment on BLM's compliance with NEPA and the NHPA. CRIT requests an opportunity to discuss the PA, HPTPs, Monitoring and Discovery Plans, and NAGPRA plans, their potential conflicts with adopted Design Features, and their ability to avoid or reduce cultural resource harms.

D. The Cumulative Impact Analysis Underestimates Cumulative Harm.

The cumulative impact analysis for cultural resources also understates the cumulative harm from the Blythe Project in two ways. First, the analysis arbitrarily excludes projects located across the state lines in Arizona, focusing instead on "the cultural resources, traditional use areas, and cultural landscapes located along the I-10 corridor between Desert Center and Blythe in eastern Riverside County." 3.6-9. The Project, however, is located approximately 10 miles from the California-Arizona border, and projects across this geopolitical boundary will undoubtedly result in synergistic impacts to cultural resources. In particular, the approved Quartzsite project, located just on the other side of the Colorado River Indian Reservation, must be considered.

Second, the description of cultural resource impacts associated with nearby projects recounts only the resources identified in the related EIRs, rather than the resources discovered during project construction. DEIS at 3.6-10. This narrow focus significantly underplays the impacts of utility-scale solar in the region, particularly with respect to the Genesis project. During construction of that project, NextEra uncovered thousands of additional cultural resources. This find, together with additional resources uncovered during construction of other projects, must be included in the cumulative impact analysis to ensure that the total impact of the wholesale transformation of this region is adequately portrayed.

III. BLM Failed to Consult with CRIT about the Blythe Project.

The DEIS repeatedly claims that BLM engaged in government-to-government consultation with the Colorado River Indian Tribes. *E.g.*, DEIS at 3.6-4 to -5, 4-4. CRIT objects to this characterization of the meeting that occurred between BLM officials and the CRIT Tribal Council. BLM officials raised the Blythe Project only briefly with CRIT in a powerpoint presentation containing information about at least eight other projects. No substantive discussion was held about the Project or its impacts. This effort, while appreciated, does not meet the requirements of federal law. *See Quechan Tribe of Fort Yuma Reservation v. U.S.* 755 F.Supp.2d 1104, 1111 (distinguishing "informational meetings where the Tribe's opinions were not sought" from adequate government-to-government consultation).

IV. BLM's Narrow Purpose and Need Artificially Constrains Consideration of Alternatives.

The consideration of alternatives is one of the primary purposes of a NEPA analysis – it allows decisionmakers and the public to consider alternate mechanisms for achieving the same goals with less environmental damage. 40 C.F.R. § 1502.14; *Monroe Cnty. Conservation Council, Inc. v. Volpe*, 472 F.2d 693, 697 (2d Cir. 1972) (describing the alternatives analysis as the "linchpin" of an EIS). The key first step in this analysis is to set appropriate goals in the purpose and need statement.

As with many other utility-scale solar projects, BLM's purpose and need statement for the Blythe Project is artificially narrow. Rather than explaining the public goals to be met, such as the need for renewable energy or the creation of jobs, BLM focuses exclusively on the goals of the applicant: the purpose and need of the Blythe Project "to respond to the Grant Holder's request." DEIS at 1-3. This kind of applicant-driven purpose and need statement is specifically prohibited under NEPA. *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1070 (9th Cir. 2010).

The impact of this narrow purpose and need statement is clear from BLM's rejection of certain alternatives. Through the scoping process and in other proceedings, BLM is aware that CRIT and other organizations strongly prefer distributed generation, brownfield redevelopment, and demand-side strategies to address the nation's energy needs. Yet these alternatives are blithely dismissed, as "they would not meet the BLM's purpose and need *to respond to the Grant Holder's request*." DEIS at 2-33 to -34. In other words, because NextEra wants an amendment (for a project situated wholly on public lands and within the ancestral homelands of CRIT members), BLM refuses to look at any alternative that would otherwise meet the legitimate *public* goals of the Project.[5]

The EIR must be revised to include a statement of purpose and need that reflects the goals of the agency and the public—rather than the applicant's exclusive goals—and to include alternatives that can meet such goals with reduced environmental harm, including distributed generation, demand-side management programs, and brownfield alternatives.

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[5] While the BLM cites to certain executive orders and other federal policy documents supporting renewable energy on public lands, it does not (and may not) rely on these policy statements to reject otherwise feasible alternatives. Moreover, these policy documents only support renewable energy projects completed in an "environmentally sound manner." Given the panoply of significant and adverse impacts resulting from the Blythe Project, it cannot be said that the proposed project would meet this purpose and need.

V. While Recognizing the Potential for Environmental Justice Impacts to Native Americans, the DEIS Fails to Conduct the Requisite Analysis.

CRIT appreciates that the DEIS for the Blythe Project recognizes that CRIT members and other Native Americans may be "at risk for environmental justice impacts related to effects on cultural resources." DEIS at 3.13-10. CRIT has urged BLM to undertake this analysis with respect to utility-scale solar projects for some time.

While recognizing the potential for impacts, the DEIS ultimately missteps, however, when it finds that the Blythe Project "is not expected to result in impacts . . . that would have disproportionately high and adverse impacts on communities of concerns." DEIS at 3.13-14. This conclusion is based on BLM's assertion that "no cultural resources of importance to Indian tribes have been identified that would be affected by the Modified Project." *Id.*

This statement is directly contradicted by the evidence in the record. CRIT raised its concerns about the prehistoric archaeological resources that will be directly impacted by the Project in the parallel CEC proceedings, in which BLM participated. Moreover, the DEIS itself acknowledges that ethnographic resources are located in the area (as identified in the McCoy Ethnographic Study), and that these resources will be indirectly, but adversely, impacted by the Blythe Project. DEIS at 3.6-8. Finally, the direct and indirect impacts to archaeological districts are also a concern to CRIT and its members. As a result, the Environmental Justice analysis must be revised to accurately conclude that the Project will have disproportionately high and adverse impacts on communities of concern. More importantly, BLM must consider the environmental injustice that will result from approving the Project and seriously assess whether it is equitable to approve a project under such circumstances.

In addition, the environmental justice section incorrectly assesses potential cumulative impacts from the Project. The DEIS states that "because no environmental justice impacts have been identified for the Modified Project . . . , no potential contribution to a cumulative environmental justice impact is anticipated." DEIS at 3.13-18. However, the purpose of a cumulative impact analysis is to determine whether the incrementally small impacts of a project, when viewed in tandem with other nearby or similar projects, cumulatively contribute to a larger impact. Thus, even if an impact is small at the project level, it can be cumulatively considerable. As such, the DEIS's analysis must be revised to consider whether the Project's environmental justice impacts creates synergistic effects across the wider landscape. From CRIT's perspective, anything but strong acknowledgement of the disparate impact of these utility-scale projects on local tribes would be disingenuous.

VI. The Project Conflicts with Land Use Designations Intended to Protect the Area.

A. The Project Conflicts with CDCA Class L Designation.

The Blythe Project would be located on lands designated as Class L under the California Desert Conservation Act (CDCA) Plan, which are so designated to "protect[] sensitive, natural, scenic,

ecological and cultural resource values." DEIS at 3.8-2. Under this standard, no proposed uses can be allowed if they would cause such sensitive values to be "significantly diminished."

The DEIS therefore errs in concluding that *any* electric generation facility, including this one, can be completed on Class L lands so long as NEPA requirements are met. DEIS at 3.8-2. Instead, in order to give meaning to the Plan's requirement that Class L lands be managed to protect cultural resource and other values, any project that would significantly diminish these resources is not in conformance with the Plan and must be denied.

The DEIS concludes that the Project results in no nonconformance with CDCA Plan Class L guidelines. DEIS at ES-9. The DEIS, however, also explains the significant ways that the Project will adversely impact cultural and visual resources. *E.g.*, DEIS at 3.6-11. These findings alone indicate a lack of conformity, but CRIT's additional concerns regarding BLM's lack of analysis of all cultural resources adds to the inconsistency.

Finally, the cumulative impact analysis of Class L land conversion focuses on all Class L land in the 4-million-acre CDCA. This perspective, however, is much too large to provide any accurate picture of the cumulative impacts of conversion. Instead, the analysis should focus on a more manageable region – when compared to the area within a 50 mile radius of the proposed project, the picture is likely much more stark.

B. The Project Conflicts with Visual Resource Management Class III Designation.

Acknowledging the visual sensitivity of the surrounding area, BLM has already classified the Project area as Interim VRM Class III (DEIS at 3.17-1), which requires that: (1) the existing character of the landscape is partially retained; (2) the change to the characteristic landscape is moderate; and (3) management activities do not dominate the view of the casual observer. However, instead of complying with these requirements, BLM merely notes that from various Key Observation Points (KOPs), the Project "would not conform to VRM Class III objectives." DEIS at 3.17-5 to -6. CRIT is particularly concerned about the lack of conformity from vantages in the McCoy Mountains, which contain areas of spiritual significance.

While BLM admits the Project does not conform to the Interim VRM Class III objectives, the DEIS fails to acknowledge the import of this determination. The California Desert Conservation Act required BLM to establish VRM classifications to manage the protection of scenic values. 43 U.S.C. § 1711(a). While BLM continues to establish these classifications on a piecemeal basis, BLM must comply with the classifications once established. *Southern Utah Wilderness Alliance*, 144 IBLA 70, 85 (May 20, 1998). It is not sufficient for BLM to simply state that the lack of conformity creates a significant, adverse impact under NEPA. Instead, BLM must comply with the *substantive* requirements created by the Federal Lands Policy and Management Act and the specific standards set forth in the CDCA and CDCA Plan. As the Project does not conform to established VRM objectives, it cannot be approved.

Conclusion

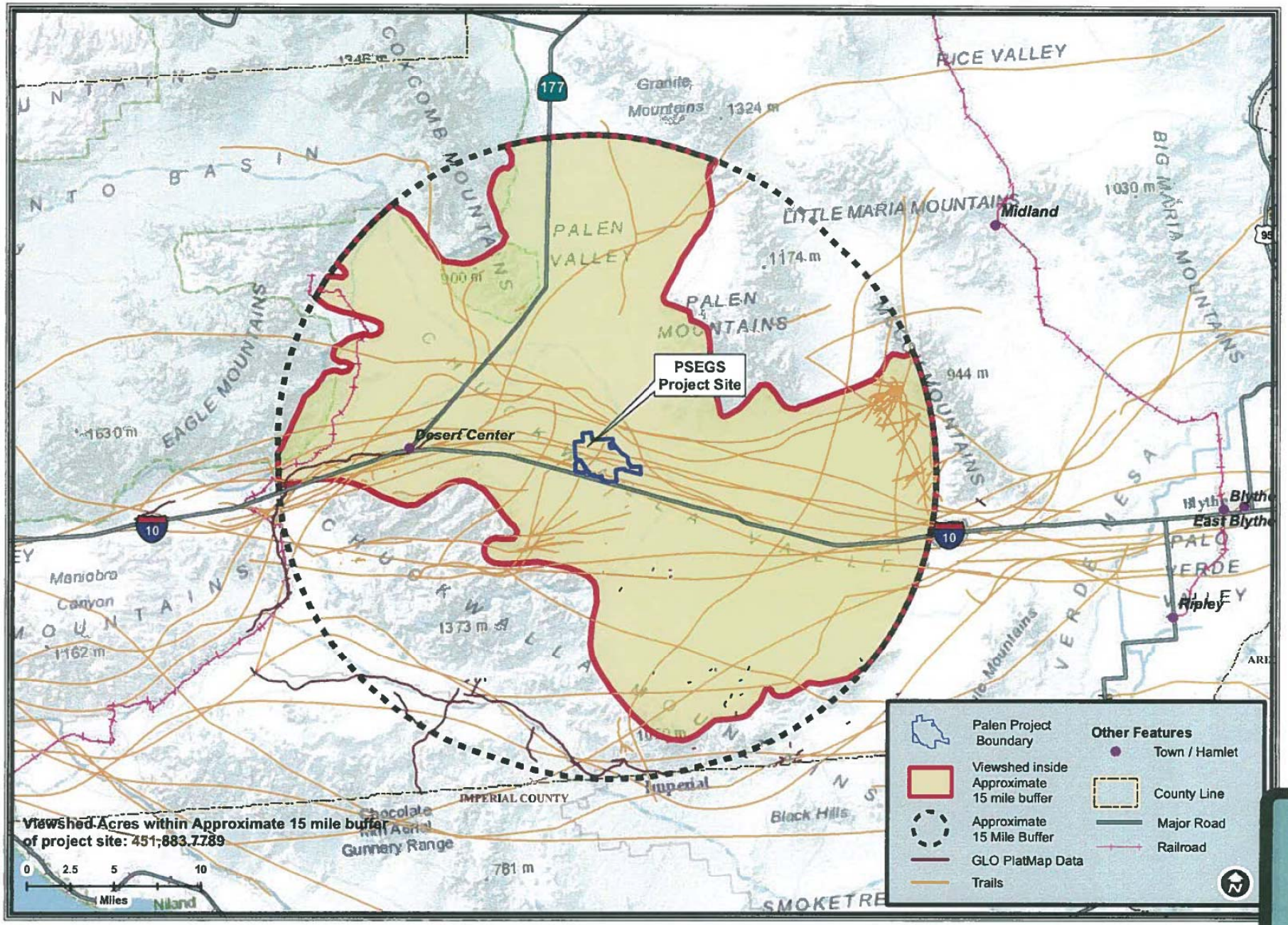
The DEIS reflects BLM's opinion that because the Project amendment will result in fewer impacts than the Approved Project, it can shirk its duties to adequately investigate, analyze and mitigate harms to cultural resources and to comply with clear federal law. CRIT respectfully requests that BLM prepare a *revised* DEIS, rather than proceeding forward to FEIS. Moreover, CRIT urges BLM to carefully consider the severe impacts that will result from the Blythe Project, whether less damaging alternatives can still meet the same public goals, and most importantly, whether the public benefits of the proposed project—a potential reduction in greenhouse gas emissions and production of domestic energy—outweigh these significant harms. Any honest assessment of these impacts and benefits would show they do not.

Sincerely,

Dennis Patch
Chairman, Colorado River Indian Tribes

CULTURAL RESOURCES - FIGURE 10

Palen Solar Electric Generating System - Trails of the Chuckwalla Valley Portion of the PRGTL



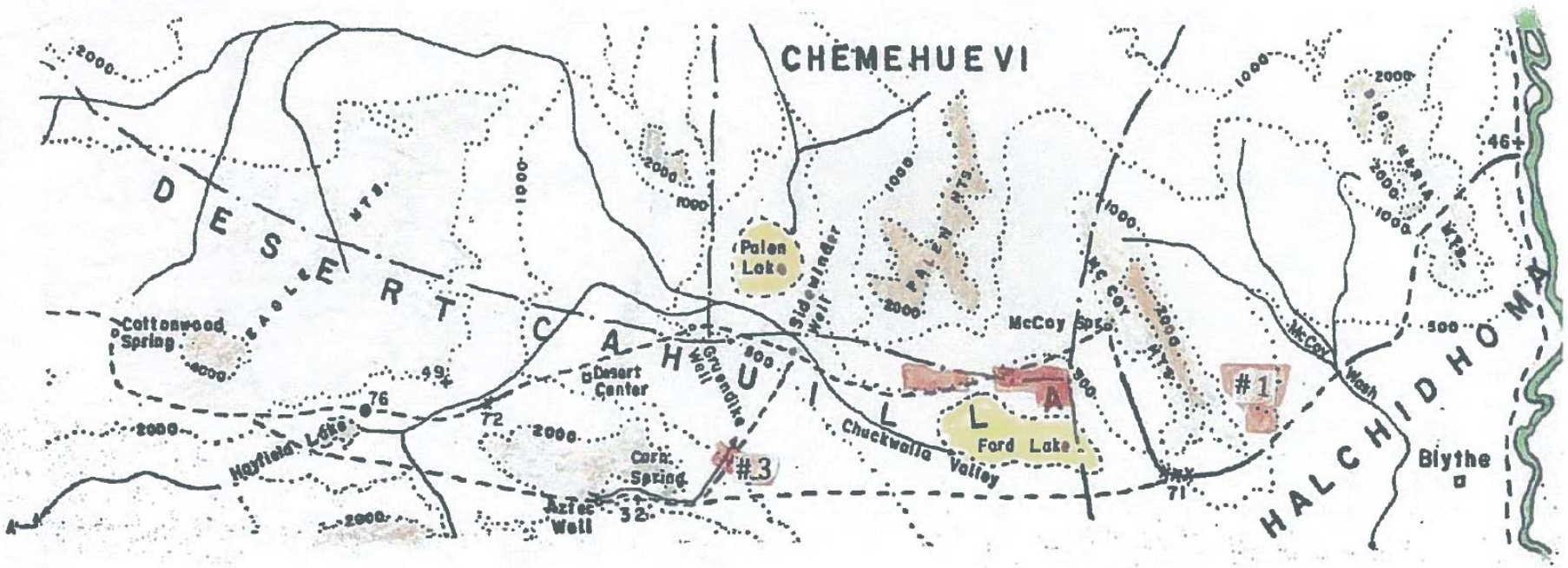
CULTURAL RESOURCES

EXHIBIT

CALIFORNIA ENERGY COMMISSION - SITING,TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION

SOURCE: ESRI, Delorme, Tele Atlas

Francis J. & Patricia H. Johnston's Map: University of California Archaeological Survey, April 1, 1957



MAP I

Trail Riv-53T

- Recorded trail
- Reported trail
- Tribal boundary
- Occupation site
- x Sherds or trail feature
- \+ Petroglyphs

N

Blythe Solar Power Project Site - # 1
Genesis Solar Power Project Site- #2
Palen Solar Power Project Site- # 3

EXHIBIT 2

Defenders of Wildlife
Natural Resources Defense Council
Sierra Club
Audubon California
California Native Plant Society
Center for Biological Diversity
Submitted via email and FedEx

Frank McMenimen, Project Manager
BLM Palm Springs Field Office
1201 Bird Center Drive
Palm Springs, CA 92262–8001.
fmcmenimen@blm.gov
mailto:CAPSSolarBlythe@blm.gov

March 24, 2014

Re: Comments on Draft Environmental Impact Statement for the Proposed Modified Blythe Solar Power Project

Dear Mr. McMenimen;

The above named conservation organizations (the Conservation Organizations) hereby submit comments on the Draft Environmental Impact Statement ("DEIS")for the Proposed Modified Blythe Solar Power Project ("Modified Project"). Most all of our organizations have participated in all facets of the permitting process for this project including the process by which the original project was previously permitted. Our organizations filed issue scoping comments for the Modified Project in a letter to the Bureau of Land Management ("BLM") dated September 26, 2013, and we incorporate by reference the contents of our previous letter, including the descriptions of groups participating in these comments. In addition, the Proposed Modified Blythe Solar Power Project underwent an amendment process at the California Energy Commission and we incorporate the docket log for that proceeding[1] herein because all of these documents contain relevant project specific data that should be incorporated into the project's NEPA analysis. It appears that not all of the information from the CEC proceeding is addressed in the DEIS, so a supplemental DEIS needs to be produced to adequately address these issues and the changes that may be required to avoid, minimize and mitigate impacts and possibly alter the proposed project.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impacts of large scale renewable energy development with the long-term impacts of climate change on our biological diversity, wildlife habitats and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations near existing transmission lines and on already disturbed lands with low value to special-status plant and animal species.

[1] https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=09-AFC-06C

We strongly support the emission reduction goals found in California's landmark Global Warming Solutions Act of 2006, AB 32, including the development of renewable energy in this state. However, we urge that, in seeking to meet our renewable energy portfolio standard in California, renewable energy projects, like all types of development, are developed and designed from their inception in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile desert landscape and wildlife in the rush to meet our renewable energy goals.

Brief description of the proposed project and federal action: NextEra purchased the right of way (ROW) issued by the BLM to the proponent of original Blythe Solar Power Project (BSPP) that was approved in 2010, after that company declared bankruptcy. Subsequently, NextEra proposed to amend the previously approved ROW to change the technology and footprint. The original BSPP involved parabolic trough technology to produce 1000 MW on 6831 acres of public lands. *See* DEIS, p. ES-4. If approved, the Modified Project would result in a facility using photovoltaic technology capable of producing up to 485 MW of electricity on 4,138 acres of public land, all within the footprint of the previously authorized project right-of-way. *Id.* In addition, the Modified Project contemplates significant sharing of infrastructure with two other projects proposed to the north all of which are within the East Riverside Solar Energy Zone, unlike the original project. *Id.* The pending federal decision is whether to approve, further modify or deny issuance of a modified ROW grant. The BLM's preferred alternative is to approve the Modified Project. *Id.*, PDF p. 34. Its ultimate decision does not require revisiting any of the land use plan decisions that were analyzed in the original EIS on the previously approved project or in the accompanying ROD. *Id.*, PDF p. 34.
Our specific comments are as follows:

1. Introduction

Our organizations recognize the need to develop our nation's renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. Unique natural resources here in California are already being affected by climate change, including, for example, American pikas in the Sierra Nevada and Joshua trees in the Mojave Desert. We also recognize the renewable energy development can help create jobs in communities that are eager for them. For these and other related reasons, our organizations are working with regulators and project proponents to move properly sited renewable energy projects forward. That said, renewable energy development is not appropriate everywhere and, as previously stated, must be balanced against the equally urgent need to protect unique and sensitive resources in the California Desert Conservation Area (CDCA).

While we strongly support renewable energy production and utilization, we do not consider the construction of large-scale projects, and especially solar energy projects proposed on relatively undisturbed public lands in the CDCA, to be the only, or even the best way, to achieve our renewable energy goals. Ideally such large scale solar projects should be located on degraded or disturbed land such as abandoned agricultural fields, industrial sites, and near existing structures rather than on public lands containing intact natural biological communities, particularly those that include threatened, endangered or other at-risk species.

As we and colleagues at other conservation organizations have repeatedly stated, the best way to develop the renewable energy resources of the CDCA is through comprehensive, pro-active planning, involving federal, state and local governments to identify the most appropriate areas for such development – i.e., development zones – and to guide development to those zones.

That said, we recognize that this proposed project is in a BLM-designated Solar Energy Zone although the requirements of that designation are not applicable to this project because the original application was filed before the zone was designated. We also recognize that it is in a previously approved ROW area. What is more, we recognize that the proposed project has been reconfigured in significant ways, thus minimizing the impacts predicted for its predecessor as well as resource conflicts identified by us. For example, in

addition to reducing the acreage and changing the technology, the proposed project, if approved, will use no natural gas, *see* Table 2-2, p. 2-6, eliminating the GHG emissions that would otherwise have resulted from use of the original technology. It will involve the drilling of fewer groundwater wells – 3 instead of 10, *id.*, p. 2-14 and use less water for construction and operations and management, *id.* Equally importantly, it will eliminate from development certain areas with desert dry wash woodlands in the southwest portion of the ROW area, id., p. 2-34, a resource that our groups have been particularly concerned about in connection with this project (as well as the one immediately to the north). Specifically, the Modified Blythe project avoids most of the blue palo-verde – ironwood microphyll woodlands across the southwest quadrant of the project's original footprint. A total of 26 acres of microphyll woodland will be impacted within the modified footprint, a reduction from 225 acres potentially impacted by the original Right-Of-Way footprint. Additionally, 173 acres of sparse blue palo-verde – ironwood stands will be impacted, a reduction from 413 acres impacted by the original ROW footprint.

While the Modified Project incorporates improvements compared to the previously approved ROW, our groups believe first that it must be improved still further. And second, we believe that the DEIS must be improved as well. Our specific comments which follow below are intended to offer ways in which the project can be made more environmentally appropriate and the BLM's NEPA process improved. We hope that both the project proponent and the BLM will give them serious consideration.

2. Purpose and Need Statement

The proposed action that is the subject of this DEIS involves the amendment of an already approved right of way. Nonetheless, the purpose and need statement set out in the DEIS still appears to us to be too narrow. The document states that the purpose and need "is to respond to the Grant Holder's request for a Level 3 variance … and modification of the existing ROW grant," "[t]aking into account BLM's multiple use mandate…." Id. at ES-2. The purpose and need statement is important because it determines the scope of alternatives considered. Indeed, it is this purpose and need on which the BLM relies in order to justify its failure to consider other alternatives, including the alternative of a smaller, less impactful alternative as discussed in the section on alternatives immediately below.

With this proposal, the BLM has the opportunity to address a broader and, in our view, more legally defensible, approach to its purpose or need statement: i.e., one that addresses the need to generate, deliver and utilize greater amounts of electrical energy derived from renewable energy sources so that dependency on carbon-based fuels is reduced while preserving the natural and cultural resources of the CDCA. This is the statement that we recommended in our scoping comments and we were hopeful that the BLM would adopt it because the developer in this instance does not have a power purchase agreement.

In the past, the agency has frequently tied the purpose and need for a proposed project to the applicant's power purchase agreement. As a result, the purpose and need statements have resulted in EISs that examined projects at a specific location and a specific size in terms of power output and acres needed to meet the terms of the applicable PPA. . We do not support tying the purpose and need to a power purchase agreement as it may potentially impede BLM's ability to analyze a full range of alternatives. Here, regrettably, the BLM is relying on the applicant's preference of project size to dictate the purpose and need, without even the requirements of a power purchase agreement to support this restriction. In fact, in recent years, utilities have significantly reduced their appetite for larger projects, indicating that a smaller project that excluded sensitive biological resources, could in fact be equally commercially attractive.

The company wants to change the terms of the right of way it purchased. The reasons for this change include, at least impliedly, the desire to avoid or at least minimize adverse environmental impacts that would otherwise result. By adopting its narrow purpose and need statement, the BLM has foreclosed the examination – at least in the DEIS – of options which would be more ecologically sound, including those

discussed below. Such options are fully consistent with BLM's multiple use mandate and, as discussed below, are eminently reasonable. We urge the BLM to revise its approach to the purpose and need statement and alternatives considered in the final EIS for this proposal in order to fully satisfy applicable legal requirements, *see, e.g.*, National Parks Conservation Assn v. BLM, 586 F.3rd 735 (9th Cir. 2009), and thus help ensure that environmentally acceptable projects – which this project may end up being –will not only be permitted but will also be built without unnecessary delays.

3. Alternatives]

As we have pointed out repeatedly in our comments on other proposed utility scale solar projects, NEPA requires that the BLM consider a range of alternatives, which is "the heart of the environmental impact statement." 40 CFR § 1502.14. NEPA requires BLM to explore and objectively evaluate a range of alternatives to proposed federal actions. See id., §§ 1502.14(a) and 1508.25(c). All reasonable alternatives, including more environmentally protective options, must be examined, "with the range dictated by the nature and scope of the proposed action." Northwest Envtl. Defense Center v. Bonneville Power Admin., 117 F.3d 1520, 1538 (9th Cir. 1997). See also 40 CFR § 1502.14. We appreciate that, as indicated above, the proposed project is smaller than the previously approved one as well as that BLM did "compare" the proposal to another option that was also smaller than the original approved one. Nonetheless, we believe that the agency should have considered an alternative that has fewer acres than the proposed project as we urged in our scoping comments.

As stated in those comments, the BLM should have examined an alternative that would allow for development only within the eastern one-half of the ROW area. Such an alternative would significantly reduce habitat loss and impacts to several species of special concern. As such, it would address concerns about development in the ROW that were raised by our groups previously. Additionally, analysis of such an alternative would allow analysis of the potential of shifting development to the east including already degraded private lands located immediately east of the proposed project site (the "Blythe Mesa area").

In addition, and at the very least the BLM should have considered an alternative that excluded lands within the applicant's Unit 4 which is located in the western half of the right of way footprint and includes 886 acres. DEIS, p. 2-3. Unit 4 (as described in the amended project description filed with the CEC) contains very sensitive and important resources including numerous washes which support plant communities comprised of certain species of sensitive vegetation such as smoke tree, blue palo-verde and ironwood. The washes also support other important vegetation types, including an association comprised of galleta grass, often in combination with brittlebush and other shrubs and the desert lavender alliance (*Hyptis emoryi* shrubland alliance). These washes and their associated vegetation provide particularly important habitats for wildlife species in the area, including the desert tortoise, numerous resident and migratory birds, mule deer and carnivores. Washes in this area of extensive desert pavement provide greater amounts of food, water and cover that support much of the biological diversity in the area.

In **A Natural History of the Sonoran Desert (2000)**, Mark Dimmitt wrote that "dry washes occupy less than five percent of this subsection (the Lower Colorado River subsection) of the Sonoran Desert, but support ninety percent of its bird life."

Precisely because the proponent does not have a power purchase agreement for the proposed project these particular alternatives are reasonable. Both are within the footprint of the ROW to be amended, just like the Modified Project, and would have fewer environmental impacts than the Modified Project. Accordingly, the Bureau should include them in the final EIS.

4. Cumulative Impacts

The DEIS relies on a NECO vegetation map published in 2002 to calculate cumulative effects from existing and foreseeable future projects on desert dry wash woodland (DEIS p. 3.3-9).[2] The DEIS confines the geographic scope of cumulative impacts affecting vegetation resources to the Palo Verde Valley (p. 3.3-8), and sets the baseline date of environmental conditions analyzed in the DEIS "on or about August 30, 2013" (DEIS p. 3.1-1). The DEIS calculates that projects analyzed will cumulatively impact 16,030 acres, or 14.8%, of a total 108, 335 acres of desert dry wash woodland occurring within Palo Verde Valley, and that 26 of the 16,030 impacted acres are due to the Modified Blythe Project footprint (Table 3.3-2, DEIS p. 3.3-9).

While the 2002 NECO vegetation map provided the best-available vegetation information for its time, by today's standards and available information, the 2002 NECO vegetation map is coarse-scale, spatially inaccurate, and outdated. In April 2013, The California Department of Fish and Wildlife (CDFW) published the 2013 California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan (2013 DRECP Vegetation Map). This map along with its associated reports and geodatabase were funded in part by the BLM and greatly improve the ability to resolve locations of plant communities with finer resolution (1-10acre minimum mapping units), quantify the aerial extent of plant communities with higher spatial accuracy, assess the quality of discrete stands of vegetation, and identify vegetation types using nomenclature that reflects State and national classification standards.[3]

The 2013 DRECP Vegetation Map delineates a total of 12,076 acres of blue palo-verde - ironwood, and 347 acres of mesquite woodlands within the Palo Verde Valley (PVV; see Figure 1)[4]. This totals 12,423 mapped acres of microphyll woodlands within the area described in the DEIS as the geographic scope of the cumulative effects analysis for vegetation resources. Of this total, 2,337 acres, or 19% of the PVV microphyll woodlands will be impacted by 5 projects with proposed / approved BLM ROWs within Palo Verde Valley (Gypsum, McCoy enXco, McCoy-FPL, Modified Blythe, Desert Quartzite). The map identifies an additional 72,986 acres of sparse microphyll stands within the Palo Verde Valley. 8,781 acres of this total will be impacted by the 5 BLM ROW projects within PVV.

Approximately 12,760 acres of microphyll woodlands, predominantly blue palo-verde - ironwood, and 52,385 additional acres of sparse microphyll stands occur within the developable lands of the Riverside East SEZ[5] (see Figure 2). 5,492 acres of microphyll woodlands and an additional 14,405 acres of sparse stands occur within renewable energy ROWs in and adjacent to the Riverside East SEZ. Table 1 lists the acreage of microphyll woodlands and sparse stands within preliminary and verified BLM ROWs in the Riverside East SEZ.[6] Figure 2 illustrates the extent and locations of impending losses of microphyll woodlands within and adjacent to the Riverside East SEZ.

The geographic scope used to analyze cumulative effects of projects on microphyll woodlands differs between the original Blythe project 2010 FEIS (NECO planning area), and the Modified Blythe DEIS (Palo

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[2] See below for a more thorough discussion of the flaws with relying on the 2002 NECO vegetation map for effects analysis of microphyll woodland.

[3] For example, the older term Desert dry wash woodland is parsed more finely in the 2013 DRECP Vegetation Map into five microphyll woodland plant community types; blue palo-verde - ironwood, smoke tree, desert willow, mesquite, and mesquite on coppice dunes. All but blue palo-verde - ironwood communities are ranked as rare natural communities.

[4] Palo Verde Valley boundaries are based on the CalWater 2.2.1 geodatabase for the Palo Verde watershed unit. We equate the Palo Verde watershed boundaries with the Palo Verde Valley geographic scope for cumulative impacts assessment to plant communities, as the DEIS is not clear on what geographic boundaries are used for the Palo Verde Valley.

[5] Vegetation acreage values calculated from the 2013 DRECP Vegetation Map. As improved in detail as the 2013 map is, its 6 million-acre effort will not achieve the level of detail provided by a properly conducted project-level mapping effort. For example, across the 6 million acre area, woodlands less than 90ft in width were not mapped. Therefore the acreage values above likely under represent total acreage of microphyll woodlands.

[6] Project locations and acreage obtained from geodatabase file (RenewEnergyROW_v10.gdb) downloaded 03/07/14 from BLM's GIS data portal website (http://www.blm.gov/ca/gis/). Vegetation acreage obtained from the 2013 DRECP Vegetation Map geodatabase file (Mojave Vegetation for the DRECP, final (ds735)) downloaded from CDFW VegCAMP GIS data portal (https://www.dfg.ca.gov/biogeodata/gis/veg.asp).

Verde Valley). The Modified Blythe DEIS, while stating that the geographic scope for cumulative impacts to vegetation is the Palo Verde Valley, include projects outside of the PVV when calculating direct impacts to vegetation (e.g., Desert Sunlight, Palen, Genesis). While we agree that cumulatively these and other projects will greatly impact these critical resources, *we urge the BLM to ensure microphyll mitigation acquisitions are located in ecologically appropriate places and protected in perpetuity*. For example, compensatory mitigation requirements of CEC Condition of Certification BIO-22 (for impacts to waters of the state) call for acquisition of microphyll woodlands in either the Chuckwalla Valley or Colorado River hydrologic units, both of which differ from the geographic scope of cumulative effect analysis. The Final EIS must re-examine the acreage calculations for cumulative effects to microphyll woodlands based on the 2013 DRECP Vegetation Map, and reconcile the geographic scope between past and current analysis efforts in a manner that recognizes cumulative impacts to vegetation resources from current and proposed projects within and adjacent to the Riverside East SEZ developable lands. Our concern results from the fact that there is a diminishing amount of microphyll woodland available for mitigation acquisition and conservation. We are especially concerned because the mitigation acquisition and conservation for microphyll woodlands needs to occur within the same area where the impact occurs, so that the localized resources are not extirpated.

5. Desert Dry Wash Vegetation

The northwestern part of the proposed Modified project contains the greatest diversity and density of biological resources, including braded washes of varying size and complexity, most of which support vegetation dependent on intermittent water flow from precipitation events. The Desert Dry Wash vegetation, comprised largely of blue palo-verde, smoke tree and ironwood, is prominent in many of the washes. Microphyll vegetation are generally deep-rooted small-leaved desert shrubs and trees growing primarily in the Colorado / Sonoran subregion of California's desert. The term microphyll woodlands refers specifically to deep-rooted, small-leaved (microphyllous) desert plant communities whose growth forms are predominantly trees or tree-like shrubs. Species typical of the designation include blue palo-verde, ironwood, mesquite, smoke tree, and desert willow. In the Sonoran subregion of California's desert, including the Riverside East Solar Energy Zone (SEZ), microphyll woodlands are predominantly blue palo-verde and ironwood communities.

Microphyll woodlands are important structural components of desert landscapes because they provide vertical nesting and roosting space for both resident and migratory bird species (including Southwestern willow flycatcher, Least Bell's vireo, Bendire's thrasher, Crissal thrasher, and Lucy's warbler), shade and refuge for terrestrial species (including burro deer, Leaf-nosed bat, Couch's spadefoot toad, and big horn sheep), and are able to sequester atmospheric CO2 and regulate its storage, at high concentrations, underground.

The 2013 DRECP Vegetation Map delineates areas of microphyll woodlands (stand densities =/> 2.5% cover, 90ft. minimum width), as well as areas of sparse blue palo-verde - ironwood stands where microphyll trees occur consistently across the landscape but at densities too sparse (< 2.5% cover) to be counted as woodlands. These latter areas are often small rivulets of blue palo-verde and/or ironwood that occur between pavement surfaces from runoff being focused into the channels and are too narrow to have been mapped as per the 90ft. minimum width chosen for this mapping effort.

Acreage mapped as microphyll woodlands in the 2013 DRECP Vegetation Map and comparably mapped desert areas,[7] capture the 2013 biological baseline for these ecologically important communities, and provide a

[7] California desert vegetation maps created using the National Vegetation Classification System's Alliance-level classifications for microphyll woodland communities: the 2013 DRECP Vegetation Map, the Anza Borrego State Park Vegetation Map, the Joshua Tree National Park Vegetation Map, and data points associated with the Mojave Desert Ecosystem Program (MDEP) vegetation map, and the Northeast Colorado (NECO) Plan's vegetation map.

means for determining compensatory mitigation requirements for microphyll communities during desert land use planning. This information was publically accessible in April 2013.

Acreage mapped as sparse microphyll stands in the 2013 DRECP Vegetation Map are useful for identifying desert areas that provide values related to landscape structure and ecological process ascribed to microphyll plants. While woodlands are counted toward compensatory mitigation requirements, both woodlands and sparse microphyll stands provide important biotic and abiotic functions of deep-rooted desert trees, some of which are distinct from those provided by surrounding desert shrublands.

We commend the Modified Blythe project proponents for modifying the project footprint so as to avoid most of the microphyll woodlands across the southwest quadrant of the project's original footprint. A total of 26 acres will be impacted within the modified footprint. . We believe with a relatively minor reduction of the project footprint, a change which would not affect the project's commercial viability, the project could avoid these impacts, significantly improving the projects environmental impacts.

Additionally another 34 acres of blue palo-verde - ironwood woodlands, and 30 acres of sparse stands immediately adjacent to and downstream of Unit 3 will experience altered hydrologic conditions as a result of the project. The DEIS does not address how these additional acres of blue palo-verde - ironwood stands will avoid indirect impact from altered surface hydrology caused by the project footprint immediately upstream. The Final EIS must assess whether these additional 34 acres of woodlands adjacent to and downstream of Unit 3 represent additional impacted microphyll woodlands for which additional management actions or mitigation is required.

Another 173 acres of sparse microphyll stands will be impacted by buildout of Units 2 and 3. We raise this issue to account for the cumulative loss of ecological function and value of microphyll communities represented by both woodlands and sparse stands that is occurring as a result of direct and indirect effects from desert renewable energy development.

6. Migratory Birds

Large-scale renewable energy facilities in California are having direct and indirect impacts on migratory birds. The scale of the impacts and the significance to the overall population abundance and ecology of migratory bird species is potentially significant, yet due to a lack of standardized monitoring and analysis, remains unknown. It is essential that standardized before-after-control-impact surveys of migratory birds are conducted when developing new projects, including the Modified Blythe Solar Power Project in order to understand how renewable energy projects are affecting our migratory bird populations and to ensure that projects are developed in accordance with federal law and international treaties.

At this time, there are three large-scale solar energy projects under construction or operational in the California desert and there are more under review or approved. The land being developed for renewable energy is habitat used by migratory bird species as they migrate and periodically stopover at various sites. These areas are crucial for the viability of the migratory populations. At solar facilities in California that are either under construction or operational, individuals of over 40 species of migratory birds have been found injured or dead. Avifauna impacted by these facilities includes multiple species of raptors, passerines, and waterbirds, including the endangered Yuma clapper rail (*Rallus longirostris yumanensis*), and the proposed Yellow-billed cuckoo (*Coccyzus americanus*).

We are seriously concerned that birds of multiple species perceive solar facilities as large bodies of standing water or reflected airspace through which to fly. In the case of power tower technology, we are concerned about the effect on birds that come into contact with elevated flux levels, resulting in immolation.

Pursuant to Executive Order 13186, federal agencies taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations are responsible for promoting the conservation of migratory birds. Per the Migratory Bird Treaty Act, and related regulations, the FWS has no framework to accept compensation to help mitigate a project's impact on migratory bird populations and habitats; however, the BLM may accept mitigation in collaboration with the FWS. At this time, it is essential that the agencies focus on identification of the source of mortality so that it can be avoided completely or minimized.

With regard to the Blythe project, we recommend the BLM require the project proponent to accumulate accurate and reliable information on the background mortality rate of migratory birds at the project site and to establish protocols for mandatory standardized monitoring during and post-construction. Once the monitoring is in place, BLM can begin to assess the impacts to migratory birds and develop strategies to avoid, minimize and mitigate these impacts at other facilities.

In any case, because every large scale solar project approved by BLM has had an indirect impact through loss of habitat for migratory birds, and since this loss is potentially significant, the DEIS must provide for mitigation lands for this loss of habitat under the Migratory Bird Treaty Act. As is well documented, this mitigation, to be effective, needs to involve riparian areas, additions to wildlife reserves and/or conservation and restoration of lands adjacent to riparian corridors or wildlife reserves. Consultation with the USFWS will provide a ratio, which we suggest should be greater than 1:1 due to the cumulative impacts of this project and others in the same area.

7. Yuma Clapper Rail

The DEIS incorrectly identifies the Yuma clapper rail "is expected to occur in the vicinity of the project study area only as a migrant" (DEIS at PDF pg. 221). Actually, the U.S. Fish and Wildlife Service identifies the population along the Colorado River as non-migratory[8], and therefore, the *resident* population could be impacted when making non-migratory movements around the Colorado River Valley.

8. Failure to Fully Evaluate At-Risk Avian Species

Because we agree with the DEIS that "[m]igratory birds also may be attracted to solar panel arrays, possibly interpreting the reflective panels as bodies of water"(DEIS at PDF pg. 225), it is likely that on-site avian surveys are inadequate to evaluate the potential impacts of the proposed project to avian species. Therefore the DEIS should have looked at nearby water features to evaluate the number and types of species that could be attracted to the thousands of acres of PV panels. Review of ebird local hotspots indicate that numerous special status species occur at locations very close to the proposed project site including:

Common Name	**Scientific Name**	**Status[1]**	**Location[2]**
American kestrel	*Falco sparverius*	SSC(BP)	BFP/BWTP/BDCP/MCP
White-faced ibis	*Plegadis chihi*	SSC	BFP/BWTP/BDCP/MCP
Northern harrier	*Circus cyaneus*	SSC(BP)	BFP/BDCP/MCP
Burrowing owl	*Athene cunicularia*	SSC(BP)	BFP/BWTP/MCP
Osprey	*Pandion haliaetus*	SSC(BP)	BFP/MCP
Peregrine falcon	*Falco peregrinus*	SFP	BFP
Prairie Falcon	*Falco mexicanus*	SSC(BP)	BWTP/BDCP/MCP
Swainson's hawk	*Buteo Swainsoni*	ST	BWTP/MCP
snowy plover *(interior population)*	*Charadrius alexandrinus*	SSC	BWTP/RE

[8] USFWS 2006. Five year review – Yuma clapper rail. http://ecos.fws.gov/docs/five_year_review/doc782.pdf

Crissal thrasher	*Toxostoma crissale*	SSC	BWTP/MCP
Ferruginous hawk	*Buteo regalis*	SSC(BP)	BDCP/MCP
Sandhill crane	*Grus canadensis*	SSC	BDCP/MCP
willow flycatcher	*Empidonax traillii*	SE	RE/MCP
loggerhead shrike	*Lanius ludovicianus*	SSC	RE/MCP
Gila woodpecker	*Melanerpes uropygialis*	SE	MCP
yellow breasted chat	*Icteria virens*	SSC	MCP
Bell's sage sparrow	*Amphispiza belli bellii*	SSC	MCP

[1]SE = State Endangered
ST = State threatened
SFP = State Fully Protected
SSC = Species of Special Concern
SSC (BP) = Species of Special Concern – Bird of Prey
[2]BFP = Blythe Fish Ponds http://ebird.org/ebird/ca/hotspot/L1490204
BWTP = Blythe Water Treatment Plant http://ebird.org/ebird/ca/hotspot/L719463
BDCP= Blythe D Canal Pond http://ebird.org/ebird/ca/hotspot/L1072812
RE= River Estates http://ebird.org/ebird/ca/hotspot/L1164384
MCP = Mayflower County Park http://ebird.org/ebird/ca/hotspot/L353751

Recent evidence from a large PV solar project – Desert Sunlight - and a solar trough project – Genesis documented many water bird mortalities[9]. The proposed project is located in a recognized avian migratory corridor – the Colorado River corridor and adjacent to one of Audubon's global Important Bird Areas – the lower Colorado River Valley[10]

Additionally, as part of the California Energy Commission proceedings for the Blythe Amendment, an estimate of impacts to avian species was performed[11], and that determination should be used as a basis for evaluating the impacts to avian species in this environmental review process in the supplemental DEIS.

9. Willow Flycatcher

The DEIS overlooks the presence of the willow flycatcher (*Empidonax trallii*) near the project site. The southwestern willow flycatcher is a federally endangered species. While the willow flycatcher has not been reported on the proposed project site, it has recently been recorded very close to the site along the Colorado River. According to eBird hotspot list, which is reviewed by local experts prior to posting, willow flycatchers were documented using the resources at River Estates and the Mayflower County Park (see above table). It is unclear if the birds were the federally protected southwestern willow flycatcher. However, southwestern willow flycatchers are known to migrate along the Colorado River[12], and it is possible that the willow flycatchers were the southwestern subspecies. Therefore, the BLM should consult with US Fish and Wildlife Service on impacts associated with the proposed project to the endangered southwestern willow flycatcher.

10. Burrowing Owl

[9] http://www.kcet.org/news/rewire/solar/water-birds-turning-up-dead-at-solar-projects-in-desert.html ; http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-08C/TN200657_20130930T120056_August_2013_Monthly_Compliance_Report.pdf
[10] http://ca.audubon.org/california-iba-interactive-site-map
[11] http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-06C/TN201152_20131108T155000_Testimony_of_K_Shawn_Smallwood_PhD.pdf
[12] USFWS 2013 http://www.gpo.gov/fdsys/pkg/FR-2013-01-03/pdf/2012-30634.pdf at PDF pg 11.

The DEIS uses dated data for the analysis of burrowing owl impacts on the site.

While burrowing owls are declining in California, the remaining stronghold for burrowing owls in California – the Imperial Valley – has documented decline of 27% in the past[13], resulting in an even more dire state for burrowing owls in California. Because burrowing owls are in decline throughout California, and now their "stronghold" is documented to be declining severely, the burrowing owls on this proposed project site (and on other renewable energy projects) become even more important to species conservation efforts. While the acquisition of habitat specifically for burrowing owls as offsets to impacts is important, it is impossible to evaluate the impact of the proposed project primarily because the actual number of breeding pairs of burrowing owls on the proposed project site is not evident. Absent accurate data on the actual number of burrowing owls that could be impacted, the DEIS simply cannot effectively analyze the impacts.

Therefore it is also unclear how adequate mitigation can actually be determined. These basic data need to be included in the revised DEIS.

Because there is no scientific evidence that passively relocating burrowing owls is a successful strategy for long-term survival of burrowing owls, if owls are to be "passively relocated", the only way to evaluate the effectiveness of that action is monitoring, therefore the BLM needs to require monitoring of passively relocated owls to determine their ultimate fate.

The mitigation acquisition to offset impacts to on-site burrowing owls is woefully inadequate. Mean burrowing owl foraging territories are 242 hectares in size, although foraging territories for owl in heavily cultivated areas is only 35 hectares[14]. The DEIS fails to identify the number of territories that occur on the proposed project site. Absent the actual number of territories that overlap with the proposed project site, the evaluation of mitigation acquisition is flawed. However, additional mitigation acreage is likely needs to be required – calculated using the mean foraging territory size times the number of territories, will result in a much greater number of acres of habitat that would need to be acquired, although using the average foraging territory size for mitigation calculations may not accurately predict the carrying capacity and may *overestimate* the carrying capacity of the lands selected for mitigation. While the DEIS may have relied on guidance from CDFW from 2012, that guidance still does not fully incorporate current population declines[15] and additional research on the species habitat[16]. Lastly, because the carrying capacity is tied to habitat quality, mitigation lands that are acquired for burrowing owl that can not be avoided be native habitat on undisturbed lands, not cultivated lands, which are subject to the whims of land use changes. The long-term persistence of burrowing owls lies in their ability to utilize natural landscapes, not human-created ones.

11. Badger and Desert Kit Foxes

The desert kit fox and badgers are experiencing unprecedented impacts from development of renewable energy projects in their habitat. For desert kit fox, to date on public lands alone, eighteen solar and

[13] Manning 2009.
[14] USFWS 2003
[15] Manning 2009
[16] USFWS 2003

transmission project applications covering more over 96,000 acres are currently filed as of January 2013[17]. Fifteen approved solar projects, most of which are currently under construction, cover almost 39,000 acres of desert kit fox habitat[18]. Over 30,000 additional acres of proposed solar projects are actively undergoing environmental review[19]. As of January 2013, eleven wind projects covering almost 75,000 acres have been approved with many of them in the construction phase[20]. Three additional projects covering 16,611 acres are currently under environmental review[21]. In addition, twenty-eight projects are authorized to do wind testing on almost 270,000 acres[22]. Another forty wind project applications are in development or propose testing, covering an additional 485,000 acres[23]. The potential cumulative development for wind in desert kit fox and badger habitat could cover close to 850,000 acres. In our review of these projects, very few of them evaluate the impacts to desert kit fox populations or require any mitigation other than "passive relocation". The DEIS still fails to adequately discuss the desert kit fox in the context of their great site fidelity, challenges of "passive relocation" with this species that generally go to great effort to return to their on-site territories.

Additionally, the DEIS relies on outdated data on desert kit fox occurrence on the proposed project site. The DEIS fails to estimate the number of desert kit fox or badgers on the project site, or analyze impacts to them from the proposed project. Through COC Bio-17 in the DEIS (at PDG pg. 105) and the requirement of an *American Badger and Desert Kit Fox Mitigation and Monitoring Plan*, additional safeguards are put in place for the kit fox and badger. However, that plan (along with many others) are not available as part of the public review. As part of that plan, a "monitoring and reporting plan to evaluate success of the relocation efforts and any subsequent re-occupation of the project site" is required, and long-term monitoring for the life of the project of the "passively relocated" animals needs to be included.

Among other concerns about passive relocation, we share all of the State veterinarians' concerns about passive relocation as stated in the CEC proceeding[24]:

- "canine distemper virus (CDV) can cause repeated (cyclical) outbreaks. The time when this is most likely to happen is when susceptible young of the year are growing up and dispersing because density is high and animals are moving, therefore there is more opportunity to transmit the virus and more naïve animals present on the landscape to be infected. This time of year also corresponds to the time when projects are permitted to passively relocate foxes whose dens are within the project construction area
- Passive relocation or hazing activities conducted in an area experiencing or adjacent to distemper cases may enhance disease transmission and spread by multiple mechanisms.

[17] BLM 2012. Solar Apps and Auths. http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/energy/solar.Par.84447.File.dat/BLM%20Solar%20Apps%20and%20Auths.pdf
[18] Ibid
[19] Ibid
[20] BLM Wind Apps & Auths July 2012 http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/energy.Par.5556.File.dat/BLM%20Solar%20Apps%20&%20Auths%20July%202012.pdf and Kern County wind projects http://www.co.kern.ca.us/planning/pdfs/renewable/wind_projects.pdf
[21] Kern County wind projects http://www.co.kern.ca.us/planning/pdfs/renewable/wind_projects.pdf
[22] BLM Wind Apps & Auths July 2012 http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/energy.Par.5556.File.dat/BLM%20Solar%20Apps%20&%20Auths%20July%202012.pdf
[23] Ibid
[24] http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200995_20131022T141658_Exhibit_2005__CDFW_Outline_for_Proposed_Desert_Kit_Fox_Health_M.pdf

    - First, animals stressed by disturbance or relocation may be more susceptible to illness and death because CDV infection decreases immune function (ref).
    - Second, passive relocation activities in an area experiencing clinical CDV cases may result in increased movement of animals shedding virus, thereby increasing the number of new cases or enhancing the spread of disease into new areas.
- Little to nothing is known about the potential impacts of passive relocation on foxes from solar sites nor have alternative techniques been explored to determine best practices. Important unanswered questions include:
    - Do passively relocated animals re-establish territories adjacent to the solar site? Or might this depend on the density or spatial distribution of foxes around a site.
    - Do relocated foxes experience lower survival or different causes of mortality that might need to be addressed through mitigation efforts?
    - Recursion rate – how likely are relocated foxes going to try to get back on site and return to former den areas?
    - Demographic shifts of neighbors
        - Reproductive impact (n=1 relocated pair this year had den failure; most other dens were successful this year in producing pups).
        - Rapid vs. slow relocation etc.
        - Utilization of artificial dens
        - Longer term translocation decisions
        - Current monitoring limited in scope and inadequate to address needs (underfunded).
        - Methods and outcomes for relocation are not evaluated systematically or reported."

These issues should also be incorporated into requirements for the proposed project, especially because this proposed project is close to the Genesis solar project, which was the site of the unprecedented first outbreak of canine distemper ever documented in desert kit fox.[25]

12. Cryptobiotic soil crusts and Desert Pavement

The proposed project is located in the Mojave Desert Air Quality Management District area, which is already in non-attainment for PM-10 particulate matter[26]. The construction of the proposed project further increases emissions of these types of particles because of the disruption and elimination of potentially thousands of acres of cryptobiotic soil crusts. Cryptobiotic soil crusts are an essential ecological component in arid lands. They are the "glue" that holds surface soil particles together precluding erosion, provide "safe sites" for seed germination, trap and slowly release soil moisture, and provide CO_2 uptake through photosynthesis[27].

The DEIS does not describe or quantify the on-site cryptobiotic soil crusts. The proposed project will disturb an unidentified portion of these soil crusts and cause them to lose their capacity to stabilize soils and trap soil moisture. The DEIS fails to provide a map of the soil crusts over the project site, and to present any avoidance or minimization measures. It is unclear how many acres of cryptobiotics soils will be affected by the project. The DEIS must identify the extent of the cryptobiotic soils on site and analyze the potential impacts to these diminutive, but essential desert ecosystem components as a result of this project.

While desert pavements are defined in the DEIS, and are mentioned as occurring on the proposed project site, quantitative acreage of pavement is not identified and the impact to air quality and hydrology from disturbance of desert pavements is not analyzed.

[25] http://articles.latimes.com/2012/apr/18/local/la-me-0418-foxes-distemper-20120418
[26] http://www.mdaqmd.ca.gov/index.aspx?page=214
[27] Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007

13. Missing Plans Necessary to Evaluate Adequacy of Mitigation

The DEIS relies upon the old BSPP FEIS and still fails to include key plans for public review. Plans identified in this DEIS and relied upon for adequate mitigation but which are unavailable include:

- Worker Environmental Awareness Program (WEAP) (DEIS at PDF pg. 222)
- Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), (DEIS at PDF pg. 222)
- Desert Tortoise Relocation/Translocation Plan, (DEIS at PDF pg. 222)
- Raven Management Plan (DEIS at PDF pg. 223)
- Weed Management Plan (DEIS at PDF pg. 223)
- Avian and Bat Protection Plans (DEIS at PDF pg. 223)
- Decommissioning and Reclamation Plan (DEIS at PDF pg. 223)
- Couch's Spadefoot Toad Protection and Mitigation Plan (DEIS at PDF pg. 223)
- Project Construction Phasing Plan (DEIS at PDF pg. 224)

All of these plans are key components to evaluating the effectiveness of the avoidance, minimization and mitigation to biological resources by the proposed project. Their absence makes it impossible to evaluate the impacts from the proposed project. Each of these plans needs to be included in a revised DEIS. Given these inadequacies in the sections of the DEIS provided to date, it is impossible to provide a complete evaluation of whether the project will fully comply with relevant federal (and state) laws.

14. Failure to Analyze Impacts to North-south Wildlife Connectivity Corridor

While the proposed project is within the boundaries of the Riverside-East Solar Energy Zone identified in the Final Solar Programmatic Environmental Impact Statement (SPEIS), the Right of Way (ROW) may preclude a key provision in the SPEIS which requires that:

> "Within the [Riverside-East] SEZ, two north–south wildlife corridors of sufficient width (a minimum width of 1.3 mi [2 km], but wider if determined to be necessary through future site-specific studies) should be identified by the BLM in coordination with the USFWS and CDFG. These corridors should be identified as non-development areas within the SEZ on the basis of modeling data (Penrod et al. 2012) and subsequent field verification of permeability for wildlife[28].

To our knowledge, these wildlife corridors remain unidentified and are certainly not identified in this DEIS. It is our concern that the lower bajada east of the McCoy Mountains is a key north-south connectivity corridor for wildlife. Despite the modified footprint of the proposed project, no analysis has been done on how the proposed project could impact or even preclude the identification and designation of this key wildlife corridor as required by the SPEIS.

15. Surface Hydrology and Ground Water

[28] FSPEIS at pg. 9.4-50.

Based on the latest Intergovernmental Panel on Climate Change report,[29] we can expect that the North American Monsoon that frequents the Sonoran desert in California may increase in intensity and duration. This will affect the landscape of desert regions slated for large scale renewable energy development and must be considered when choosing sites and designs for utility-scale solar energy developments. Already, we have seen the impacts of summer monsoonal storms in the BLM's Riverside East Solar Energy Zone. This past August, intense storms rolled through the region and washed out roads and infrastructure. Utility-scale projects that remove vegetation, soil surface or stabilized pebble terraces are likely to exacerbate the impacts of increasing storm intensity in the region. We recommend the BLM carefully analyze the interconnected direct impacts of a changing climatic regime and large-scale soil and vegetation removal on drainage systems, sedimentation and soil erosion; and the indirect impacts to desert ecology, covered species, natural communities and human development.

Reserved Water Rights: As BLM is well aware, the California Desert Protection Act ("CDPA") expressly reserved water rights for wilderness areas that were created under the act including the Palen-McCoy Wilderness and others. 16 U.S.C. §410aaa-76.[30] The CDPA reserved sufficient water to fulfill the purposes of the Act which include to "preserve unrivaled scenic, geologic, and wildlife values associated with these unique natural landscapes," "perpetuate in their natural state significant and diverse ecosystems of the California desert," and "retain and enhance opportunities for scientific research in undisturbed ecosystems." 103 P.L. 433, Sec. 2. The priority date of such reserved water rights is 1994 when the CDPA was enacted. Therefore, at minimum, the BLM must ensure that use of water for the proposed project (and cumulative projects) *over the life of the proposed projects* will not impair those values in the wilderness that depend on water resources (including perennial, seasonal, and ephemeral creeks, springs and seeps as well as any riparian dependent plants and wildlife).

Although no *express* reservation of rights has been made for many of the other public lands in the CDCA, the DEIS should have addressed the federal reserved water rights afforded to the public to protect surface water sources on all public lands affected by the proposed project. Pursuant to Public Water Reserve 107 ("PWR 107"), established by Executive Order in 1926, government agencies cannot authorize activities that will impair the public use of federal reserved water rights.

PWR 107 creates a federal reserved water right in water flows that must be maintained to protect public water uses. *U.S. v. Idaho*, 959 P.2d 449,453 (Idaho, 1998) *cert. denied; Idaho v. U.S.* 526 U.S. 1012 (1999); *Cappaert v. U.S.*, 426 U.S. 128, 145 (1976). PWR 107 applies to reserve water that supports riparian areas, reserve water that provides flow to adjacent creeks and isolated springs that are "nontributary" or which form the headwaters of streams. *U.S. v. City & County of Denver*, 656 P.2d 1, 32 (Colo., 1982). Accordingly, BLM cannot authorize activities that will impair the public use of reserved waters covered by PWR 107.

BLM must examine the federal reserved water rights within the area affected by the proposed project and other proposed projects in this area that will use significant amounts of groundwater. This examination

[29] The report states that: it is likely that the area encompassed by monsoon systems will increase over the 21st century. While monsoon winds are likely to weaken, monsoon precipitation is likely to intensify due to the increase in atmospheric moisture." The report also claims that the length of the monsoon season is likely to increase as well. (IPCC. Climate Change 2013: The Physical Science Basis. Summary for Policymakers. 27 September 2013. Available online at: http://www.climatechange2013.org/images/uploads/WGIAR5-SPM_Approved27Sep2013.pdf)

[30] The reservation excluded two wilderness areas further south than this project area with regard to Colorado River water. See 103 P.L. 433; 108 Stat. 4471; 1994 Enacted S. 21; 103 Enacted S. 21, SEC. 204. COLORADO RIVER. ("With respect to the Havasu and Imperial wilderness areas designated by subsection 201(a) of this title, no rights to water of the Colorado River are reserved, either expressly, impliedly, or otherwise.")

must include a survey of the any water sources potentially affected by the proposed project. The BLM must ensure that any springs, seeps, creeks or other water sources on public land and particularly within the wilderness areas are not degraded by the proposed projects' use of water and continue meet the needs of the existing wildlife and native vegetation that depend on those water resources.

PWR 107 also protects the public lands on which protected water sources exist. Accordingly, BLM should not only consider the impact of projects on water sources present on public lands, but also the direct and indirect impacts of the proposed project on the surrounding lands as well as impacts to the ecosystem as a whole.

We are also concerned that the discussion in the DEIS is also incomplete because it fails to address any potential water rights that could arguably be created from use of groundwater by the proposed project on these public lands. While we recognize that this issue may involve somewhat complex legal issues, at minimum, the BLM must address this question and to ensure that any water rights that could *arguably* be created will be conveyed back to the BLM owner and run with the land at the end of the proposed project ROW term. The BLM must provide a mechanism to insure that in no case will the use of water for the proposed project on these public lands result in water rights accruing to the project applicant that it could arguably convey to any third party. Therefore, any water rights *arguably* created by groundwater pumping on these public lands for the proposed project must not ultimately accrue to any third party for use *off-site or on-site* in the future for any other project. Moreover, BLM should ensure that the applicant will not use the groundwater associated with the project off-site for any purpose.

16. Climate Change

The Climate Change analysis in the DEIS references a 2010 analysis conducted for the original BSPP and addresses the potential GHG emissions as a result of the potential construction, operation and maintenance and decommissioning of the proposed project. The DEIS refers to the direct and indirect impacts on climate change for each of the stages of project development: construction, operation and maintenance and decommissioning. All of the emissions for each of these stages are attributed to vehicle and other machinery operation. Additionally, the DEIS (p 3.5-7) analyzes the amount of carbon uptake eliminated by disruption of 4,070 acres of vegetation. Based on the assumption that the desert uptakes 0.93 metric tons of CO2 per acre per year[, the maximum carbon uptake expressed as CO2 that would be eliminated as a result of ground disturbance under the Modified Project alternative would be about 3,785 metric tons of CO2 per year. (DEIS, p 3.5-7) The DEIS also reports that an estimated 399,835 metric tons of CO2 emissions would be displaced annually as a result of the Modified Project implementation.

We appreciate this analysis of CO2 emissions and climate change impacts and appreciate the impact summary provided in the DEIS. We would like to bring to the attention of the BLM new research being conducted by scientists at UC-Riverside's Boyd Deep Canyon Desert Research Center (Palm Desert, CA)[31] for consideration in the climate change impacts analysis. The new research describes how carbon dioxide is being cycled and stored beneath the surface of California's desert. The work has implications for desert energy development, and highlights the importance of building projects on already-disturbed lands. While not published yet, we think it is important to highlight this new research for consideration as this project and others move forward and thus provide a summary below.

[31] The goals of this research are summarized in (Allen and McHughen 2011) available at: http://escholarship.org/uc/item/2ff17896. Research results are in prep. (Allen, pers. com.) as a report to the CEC later this year.

Deep-rooted desert vegetation (non-annuals) creates an underground system of roots and rhizomes where dissolved nutrients, water, and gases are exchanged between plant roots and surrounding soils. Within this dynamic subsurface zone, or rhyzosphere, carbon dioxide is both pumped from roots into surrounding soils and absorbed from surrounding soils into roots. This exchange occurs on daily cycles and is enhanced during wet periods when plant metabolism increases. The plants siphon CO2 from the atmosphere and transfer it to deep-storage underground, where scientists have measured concentrations up to 10,000ppm CO2 (where current atmospheric levels of CO2 are c. 400ppm). Parallel studies in active agricultural fields measured concentrations up to 50,000ppm CO2. In the agricultural plots, most of the subsurface CO2 diffuses back to the surface and reenters the atmosphere. Not so in the desert.

In a geochemical reaction occurring simultaneously and in response to desert plant root activity, rich concentrations of CO2 within the rhyzosphere combine with calcium, a primary element of desert soils, to form calcium carbonate (CaCO3) - the main ingredient of caliche. Over time, the upward diffusion of CO2 is delayed by the interaction with calcium (CaCO3 is formed, then dissolves, reforms, etc.), or prevented from resurfacing over geologic time by the formation of caliche.

When desert vegetation is removed by blading the surface, that area of the desert's ability to scrub atmospheric CO2 is lost. When desert soils are further disturbed and/or when desert caliche is exposed to the surface, air moisture and precipitation chemically release the CO2 trapped as calcium carbonate back into the atmosphere. Research into this phenomenon is summarized in a forthcoming research paper funded by the California Energy Commission.[32]

This new research suggest that taken together, the removal of desert vegetation's ability to remove CO2 creates a loss, while the destabilizing of subsurface carbon import / export by loss of plant root function, and the exposure of subsurface desert soils to the atmosphere can result in far more CO2 greenhouse gas emissions per acre of disturbed desert soil - especially desert pavement - than previously calculated.

Disturbing desert soils during construction of desert projects can lead to dust storms, decreases in air quality, and health problems for nearby residents. Additionally, disturbing desert soils can lead to significant increases in greenhouse gas (CO2) releases by exposing deposits of calcium carbonate resident in desert soil (e.g., caliche) to dissolution by atmospheric moisture. This CO2 release would be especially acute when disturbing desert pavement (which are calcium carbonate-rich) across an area the size of a large-scale solar site.

The DEIS includes an accounting for loss of carbon uptake by above ground vegetation that is removed during construction and operation. However, the DEIS does not include variables in the project's carbon budget that reflect increases in subsurface carbon diffusion into the atmosphere that now seem to occur once loss of surface vegetation destabilizes biotic and abiotic subsurface carbon exchange. Additionally, the DEIS lacks a calculation of increased GHG (CO2) emissions based on increases in dissolution of caliche and other CaCO3-rich soils exposed to the atmosphere during construction and operation. We raise these issues herein to alert the BLM to this emerging research, and recommend its incorporation into the Final EIS, and when reviewing future projects.

17. Land Disturbance

The DEIS proposes to use various surface disturbance techniques to prepare the site for construction including "disc and roll" as well as "isolated cut/fill" techniques. Additionally, the Modified Project proposes to water patches of newly scraped land in order to control dust emissions. A drum roller is expected to return the soil to its previous state of compaction. Considering the proposed project is in an extremely unique part of the Colorado Desert known as the Palo Verde Mesa, which is an ancient Pleistocene terrace of the Colorado River, we do not expect either watering the soil to control dust emissions over the long term, nor

[32] Pers. Comm. Between Dr. Michael Allen, UCR and Greg Suba, CNPS.

do can we believe that a drum roller will "return the soil to a compaction level similar to the preconstruction stage." (DEIS at 2-19) Water from the Colorado River washed over this area tens of thousands of years ago, leaving rounded water-worn pebbles and rocks that have created a natural stabilized soil surface. This soil surface has been in place since the Pleistocene and disruption of this ancient stabilized surface will result in the release of dust emissions leading to significant air quality impacts; soil erosion; and uncontrollable surface water flows during summer monsoon storms.

It has been shown at other solar facilities under development that mass grading, scraping, tilling or other methods of land disturbance across the entire project area is not necessary for operational functionality and safety. While solar trough technology has engineering constraints that require mass grading, we know that solar photovoltaic panels do not. The Ivanpah Solar Energy Generating Station (ISEGS) demonstrates that that mass grading or surface disturbance is not required to install mirrors. Similarly, solar photovoltaic panels should not require mass grading of the project area and we do not see any need to unnecessarily disturb the desert pavement and underlying soil, which, in turn causes erosion and unpredictable changes to surface hydrology on and off site. Given FLMPA mandates that any development actions should not cause "unnecessary and undue degradation of lands," (43 U.S.C. 1732(b)) and given there is minimal vegetation at the proposed project site, particularly if changes are made to avoid high-value vegetation such as Microphyll woodlands – none of which would present an operational or fire hazard – we do not see any need to disturb the desert pavement and underlying soils. As previously noted, mass grading and scraping of the desert pavement in the proposed project site would have impacts on air quality, greenhouse gas emissions, hydrology and wildlife. In the event that this project moves forward, the BLM should not allow mass grading or scraping of lands where it is unnecessary.

18. . Conclusion

BLM included several mitigation requirements in the original ROD for Blythe as agreed upon between the developer, several parties that protested the original FEIS and the BLM and set forth in a protest resolution agreement. BLM must carry forward all relevant mitigation requirements set out in that agreement in the new DEIS, FEIS and ROD. The one measure that is clearly not being carried forward involves mitigation for impacts to Bighorn Sheep habitat. This change is understandable since the reduced footprint no longer impacts Bighorn Sheep habitat.

Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the BLM to revise and re-circulate the DEIS before making any decision regarding the proposed modified plan amendment and modified right-of-way application. Please feel free to contact us if you have any questions about these comments or the documents provided.

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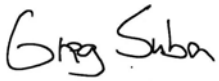

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Re: LIUNA Comments on Draft Environmental Impact Statement (EIS) for the proposed amendment to Right-of-Way (ROW) Grant CACA 048811 for the Modified Blythe Solar Power Project

Dear Mr. McMenimen,

Thank you for this opportunity to comment on the Draft Environmental Impact Statement (EIS) for the proposed amendment to Right-of-Way ("ROW") Grant CACA 048811 for the Modified Blythe Solar Power Project. These comments are submitted on behalf of Laborers International Union North America, Local 1184 ("LIUNA Local 1184") and its numerous members who reside in Riverside County, California.

Members of LIUNA Local 1184 live, work, and recreate in the vicinity of the Project site. These members will suffer the impacts of a poorly executed or inadequately mitigated Project, just as would the members of any nearby homeowners association, community group, or environmental group. Indeed, construction workers will suffer many of the most significant impacts from the Project as currently proposed, such as PM10 pollution emissions and accompanying Valley Fever risks from the Project. Therefore, LIUNA Local 1184 and its members have a direct interest in ensuring that the Project is adequately analyzed and that its environmental and public health impacts are mitigated to the fullest extent feasible.

We have prepared these comments with the assistance of environmental consultant Petra Pless, D.Env. Dr. Pless's comments are attached hereto as Exhibit A and are incorporated herein in their entirety.

Although the dramatic changes to the previously approved thermal solar facility have significantly reduced the environmental impacts of that planned but not built 1,000 MW project, the newly proposed solar photovoltaic facility remains a very large project with significant air quality impacts, especially during the four-year long construction

phase. The Project area is designated as non-attainment for state ambient air quality standards for ozone and particulate matter equal to or smaller than 10 micrometers ("PM10"). EIS, p. 3.2-13 ("As disclosed in Section 3.2 of the 2010 PA/FEIS (Appendix A, p. 3.2-1 et seq.), the study area currently is designated as a non-attainment area for the state ozone standards and the state PM10 24-hour standard"); *Id*., p. 3.2-2 ("the state 8-hour ozone standard was exceeded in 2012"). Dr. Pless's review has turned up a number of concerns relating to the DEIS's discussion of the significance of impacts resulting from the Project's emissions during construction of PM10 and nitrogen oxides ("NOx"), which are precursors to ozone formation. Dr. Pless's analysis confirms that, contrary to the DEIS's apparent conclusion that Project construction emissions of criteria air pollutants will be less than significant, PM10 and NOx emissions from Project construction will contribute significantly to existing exceedances of the applicable air quality standards and remain significant. Accordingly, Dr. Pless recommends additional mitigation measures that should be added as conditions of the Project, and disclosed and discussed in the DEIS, including among other recommendations requiring measure AQ-SC4 to be applied at the boundary of the project area and requiring temporary shutdown of construction whenever fenceline monitoring for PM10 indicates that ambient air quality standards are exceeded

LIUNA Local 1184 recognizes that the development of renewable energy is critical for the reduction of greenhouse gas emissions. Renewable energy is essential to forestall the worst consequences of climate change and to help the state of California meet its ambitious GHG emissions reductions goals. LIUNA Local 1184 supports the development of renewable energy production, including the development of solar power generation through both appropriately sited solar power utilities and distributed solar power generation. All solar power projects must be properly sited and carefully planned to minimize impacts on the environment. Renewable energy projects should avoid displacing prime farmland, be constructed and operated in order to avoid exacerbating PM10 and ozone pollution problems, avoid exposing workers and residents to dangerous Valley Fever spores, avoid impacts to sensitive species and their habitat, and be sited in proximity to electricity consumers to reduce the costs and impacts associated with new transmission corridors. Only by maintaining the highest standards in these and other ways can renewable energy production be truly sustainable. In regard to air pollution impacts, although the proposed Project does include some effective mitigation measures, given the severity of the PM10 and ozone problems in Riverside County and the extensive grading and other ground-disturbing activities required to build a project of this size, additional feasible conditions including additional construction shutdown triggers should be discussed in the DEIS and added to any ROW conditions in order for BLM to support a conclusion that the Project will not have a significant impact on air quality and will comply with all applicable state and federal air quality standards.

I. THE DEIS DOES NOT MEET THE REQUIREMENTS OF NEPA.

Congress enacted NEPA in recognition of the "profound impact of man's activity on the interrelations of all components of the natural environment," including "industrial expansion, resource exploitation, and new and expanding technological advances." 42 U.S.C. § 4331(a). NEPA is the "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a).

NEPA requires that federal agencies prepare a "detailed statement" – known as an environmental impact statement ("EIS") – for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332. The EIS is intended to create an open, informed, and public decision-making process that insures "that environmental information is available to public officials and citizens before decisions are made and before actions are taken" and "to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 40 C.F.R. § 1500.1. A federal agency's obligation to prepare an EIS extends to any federal action that "will or may" have a significant effect on the environment. 40 C.F.R. § 1508.3. The federal agency must "[r]igorously explore and objectively evaluate" a range of alternatives to proposed federal actions and their impacts in the EIS. 40 C.F.R. § 1502.14(a). The EIS must take a "hard look" at the environmental impacts of proposed major federal actions and provide a "full and fair discussion" of those impacts. 40 C.F.R. § 1502.1; *see also National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001). "The 'hard look' 'must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011). Nor can an EIS's discussion of adverse impacts "improperly minimize negative side effects." *Id*. at 491.

The evaluation of mitigation measures is an essential component of an EIS. A federal agency is required to evaluate possible mitigation measures in defining the scope of the EIS, in examining impacts of the proposed action and alternatives, and in explaining its ultimate decision. *See* 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1505.2(c), 1508.25(b).

Agencies must insure the professional integrity, including scientific integrity, of the discussion and analysis in an EIS. 40 C.F.R. § 1502.24. The information in an EIS must be of high quality, as accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. 40 C.F.R. §§ 1500.1(b), 1502.24.

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A. The DEIS Fails to Describe and Make its Data Reasonably Available for the Public to be Capable of Understanding and Reviewing the DEIS's Discussion of Air Quality Impacts.

The DEIS must make available the data upon which it purports to base its technical analysis. "NEPA does not permit an agency to rely on the conclusions and opinions [of experts] without providing both supporting analysis and data." *Idaho Sporting Cong.*, 137 F.3d at 1150; *Sierra Nev. Forest Prot. Campaign v. Tippin*, 2006 U.S. Dist. LEXIS 99458, at *29-37 (E.D. Cal. Sept. 6, 2006). The CEQ regulations emphasize that "No material may be incorporated by reference unless it is ***reasonably available for inspection by potentially interested persons within the time allowed for comment***." 40 C.F.R. §1502.21 (emphasis added). Although supporting studies need not be physically attached to an EIS, the studies must "***be available and accessible"*** to the public for comment. *Coalition for Canyon Preservation v. Bowers*, 632 F.2d 774, 782 (9th Cir. 1980) (emphasis added). *See also Trout Unlimited v. Morton*, 509 F.2d 1276, 1284 (9th Cir. 1974). The DEIS's reference to the air emission analyses upon which its bases its PM10 and NOx discussions fails to meet these standards. Specifically, the DEIS fails to provide the technical report by AECOM which was submitted to the California Energy Commission ("CEC") in 2013 as an appendix to the Applicant's Revised Petition for Amendment.

As Dr. Pless points out, the average reviewer cannot be expected and may not be able to readily locate this AECOM report on the CEC's website. DEIS, p. 3.2-23. Given the central importance of this report to the DEIS's discussion of the Project's impacts, the report should be attached as an appendix to the DEIS in order to assure that the public has access to that analysis during the comment period.

Moreover, it appears that BLM may have factored in other data not disclosed in the DEIS because the data reported in the DEIS do not track some of the results reported in the AECOM report. Pless Comment, pp. 3-4. These inconsistencies are not explained by the DEIS. This disconnect between the DEIS and the referenced AECOM report demonstrates the lack of internal integrity evident in the DEIS's air quality discussion. *Id*.

B. The DEIS Arbitrarily Applies Thresholds Of Significance For Air Pollutants That Have Nothing To Do With The Region Where The Project Is Located And Entirely Ignore Thresholds Developed By The Mojave Desert Air Quality Management District Implementing Federal Air Standards In The Project Area.

In purporting to evaluate the Project's air quality impacts, the DEIS randomly selects the exact same significance thresholds of 100 tons per year for six distinct air pollutants despite the fact that the regional air standards for those pollutants are all different and without any explanation of how applying an arbitrary 100 ton per year

standard to all six pollutants is related to assuring achievement of standards or no degradation of air quality in the Project area or region. *See* DEIS, p. 3.2-8. Based on those random thresholds, the DEIS asserts that, "[u]sing the *de minimis* levels as a gauge, it can be concluded that construction of the Modified Project would not result in or contribute to an exceedance of a federal AAQS." *Id.* This conclusion is not supported by relevant evidence.

The 100 ton per year thresholds applied by the DEIS are borrowed from EPA General Conformity levels used to determine whether nonattainment and maintenance emissions are exempt from a formal General Conformity determination by federal agencies with that agency. *See* Pless Comment, p. 5. Applying these levels as stand-ins for air quality significance thresholds under NEPA is entirely arbitrary. The trigger numbers were designed based largely on the resources of federal agencies to perform the EPA conformity review rather than a conclusive finding of whether a project's air emissions might result in significant impacts under NEPA. EPA explained that these thresholds were set "relatively high," focusing on federal actions that would have the most significant air quality impacts rather than the totality of impacts required to be assessed by NEPA. Pless Comment, pp. 5-6.

Nor do these thresholds reflect conditions in the Project area or Riverside County and its applicable air quality standards. The General Conformity rules are applicable to the entire country. They were no developed based on air quality or conditions in Riverside County. Such general numbers cannot reasonably be linked to rational significance thresholds that would assist BLM in determining whether a project's air pollution emissions will have significant environmental impacts in the Mojave Desert Air Basin. Indeed, as explained by Dr. Pless, "[w]ith respect to linking the regional significance of emissions under Section 176(c) and under NEPA, EPA clarified: "the definition of regionally significant in conformity applies only in this context and is not the same as the NEPA definition." Pless Comment, p. 6 (citing EPA, General Conformity Guidance: Questions and Answers, July 13, 1994; http://www.epa.gov/air/genconform/documents/gcgqa_940713.pdf). "In other words, the *de minimis* levels established by EPA to determine whether a General Conformity determination is required are not appropriate to determine whether a project would result in significant impacts under NEPA." Pless Comment, p. 6.

The General Conformity levels also fail to address short-term daily impacts of air standard violations, only providing an annual threshold. As a result, the General Conformity levels "cannot be used to determine whether short-term ambient air quality standards would be exceeded and can therefore not be solely relied upon for NEPA review." Pless Comment, p. 6. Nor are they related at all to the more stringent State air standards adopted by California. "While the Draft EIS acknowledges and allegedly evaluates the Project's potential impacts on these state standards it does not recognize that the federal *de minimis* levels are not designed for protection of state ambient air quality standards." *Id*. *See* Draft EIS, Tables 3.2-5 and 3.2-8.

Contrary to the irrelevant thresholds selected by BLM for the DEIS, applicable significance thresholds exist for the Project area developed by the MDAQMD to determine the very question at hand – the significance of a project's emissions on local and regional air quality. Pless Comment, pp. 6-7. MDAQMD, California Environmental Quality Act (CEQA) And Federal Conformity Guidelines (Feb. 2009) ("MDAQMD Guidelines") (attached as Exhibit B). And, many of the air pollutants addressed by the MDAQMD are part of its mandate to enforce federal standards in the county approved by EPA. "[T]he Mojave Desert Air Quality Management District (District) is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction." *Id*., p. 2. The guidelines thresholds apply throughout MDAQMD's jurisdiction, including the Project site. *Id*., p. 3. The significance thresholds for NOx are 25 tons/year and 137 pounds per day. *Id*., p. 10.[1] MDAQMD unequivocally states that "***[a]ny project is significant if it: 1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6***…." *Id*., p. 9 (emphasis added). In light of the Mojave Desert air basin's status as being in non-attainment of the state ambient air quality standards for PM10 and ozone, selecting generic national levels designed to protect federal agencies' budgets rather than local air pollution levels is entirely arbitrary. For the DEIS and BLM to ignore MDAQMD's highly relevant thresholds designed to consider the significance of a project's air quality impacts, is unreasonable and arbitrary and capricious.

C. By Relying on Excessively High Thresholds and Faulty Dispersion Modeling, the DEIS Arbitrarily Minimizes the Extent of Impacts That Will Result from the Project's Emissions of PM10 and ROGs.

NEPA forbids an EIS from downplaying a Project's impacts inconsistent with the relevant data. *See W. Watersheds Project*, 632 F.3d at 491. In this case, the DEIS arbitrarily claims that the Project's emissions of PM10 and ozone precursors, particularly NOx, will be less than significant. *See* DEIS, p. 3.2-12 "PM10 concentrations associated with the Modified Project would not be expected to contribute substantially to exceedances of PM10 AAQSs in downwind areas"); DEIS, p. 3.2-8. By ignoring the MDAQMD's highly relevant significance thresholds in favor of highly irrelevant national conformity rules, downplay the Project's air impacts is precisely what the DEIS does. As Dr. Pless explains:

> [E]missions from construction of the Modified BSPP are high enough to exceed the MDAQMD's annual significance thresholds for NOx by 112 percent and for PM10 by 382 percent and the MDAQMD's daily

[1] Also of note, MDAQMD has established significance thresholds for PM10 of 15 tons/year and 82 pounds per day. *Id*. The significance thresholds for PM2.5 also are 15 tons/year and 82 pounds per day. *Id*.

> significance thresholds for NOx by 233 percent, for PM10 by 759 percent, and for PM2.5 by 22 percent.

Pless Comment, p. 7. "The exceedance of the MDAQMD's daily significance thresholds for NOx indicate that construction of the Modified BSPP may result in downwind exceedance of ambient air quality standards for ozone, for which NOx are precursors." *Id*. Failing to disclose these very significant exceedances undermines the DEIS effectiveness by avoiding rather than disclosing this readily understood and scientifically robust method of gauging a Project's air impacts.

In addition, the DEIS relies on the misleading theme that the previously approved larger thermal solar project ***that was never built*** is a rational point of comparing the air pollution impacts of the current project. The reader is informed that the new Project "reduces" air pollution from the previously approved project. *See* DEIS, pp. ES-6 – 14; 3.2-9. The efficiencies of tiering to a previous site-specific EIR cannot be used by the agency to misrepresent the actual baseline for a project.

A project that never existed is not relevant to a rational discussion of the current revised Project's existing environmental baseline. "The environmental baseline is an integral part of an EIS, because it is against this information that environmental impacts are measured and evaluated; therefore, it is critical that the baseline be accurate and complete. *Or. Natural Desert Ass'n v. Shuford*, 2007 U.S. Dist. LEXIS 42614 at *13 (D. Or. June 8, 2007) (citing America Rivers, 201 F.3d 1186 at 1195 and n. 15). "[W]ithout establishing … baseline conditions … there is simply no way to determine what effect [an action] will have on the environment and, consequently, no way to comply with NEPA." *Half Moon Bay Fishermans' Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988); *American Rivers v. Fed. Energy Regulatory Comm'n*, 201 F.3d 1186, 1195 (9th Cir. 1999); see also Council on Environmental Quality, Considering Cumulative Effects under the National Environmental Policy Act (visited May 11, 1999) ("The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process.")<http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm >. "To fulfill NEPA's goal of providing the public with information to assess the impact of a proposed action, the "no action" alternative should be based on the status quo -- with a full description of what the status quo is and how it was reached -- and should be consistently used as the benchmark by which the various alternatives are compared." *Ctr. for Biological Diversity v. United States BLM*, 2009 U.S. Dist. LEXIS 90016 (N.D. Cal. 2009). The baseline to which an alternative is compared cannot assume the existence of the very project being reviewed. *See Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1037-1038 (9th Cir. 2008). *See also Friends of Yosemite Valley v. Scarlett*, 439 F. Supp. 2d 1074, 1105 (E.D. Cal. 2006) **("**A no action alternative in an EIS is meaningless if it assumes the existence of the very plan being proposed"). This illogic is exacerbated when the DEIS compares the proposed action to an even larger version of the action.

The DEIS's discussion of the Project's air quality impacts misdirects the public by focusing on its analysis of relative emission of air pollutants compared to the project that was never constructed.[2] As a result, the DEIS's discussion unreasonably applies a baseline inconsistent with the no action alternative and that does not reflect the status quo.

D. The EIS Fails to Consider Additional Feasible Mitigation Measures That Would Further Reduce the Project's Significant Air Quality Impacts From its Emissions of NOx And PM10.

In addition to ignoring or understating the Project's likely significant air quality impacts during construction and decommissioning from its substantial emissions of NOx, an important ozone precursor, and PM10, the DEIS fails to consider additional mitigation measures that would at least reduce these impacts. Pless Comment, pp. 8-11. Because the EIS understates the impact of these emissions, the impact will in fact be greater than suggested by the EIS and additional mitigations must be considered. By failing to consider these mitigations, the DEIS is inadequate.

Pursuant to NEPA, BLM "must utilize the EIS to discuss such mitigation measures in sufficient detail to ensure there has been a fair evaluation of the consequences." *High Sierra Hikers Ass'n v. U.S. Dep't of Interior*, 848 F.Supp.2d 1036, 1052-54 (N.D. Cal. 2012). In the EIS, BLM "must perform some assessment of whether the mitigation measures would be effective." *Id*. at 1056. "[The] assessment must include "an estimate of how effective mitigation measures would be if adopted" or a "reasoned explanation as to why such an estimate is not possible." *Id.* Because BLM did not take a hard look at additional mitigation measures to further reduce the Project's NOx and PM10 emissions, the DEIS is arbitrary as currently written.

As for ozone [NOx] impacts, the DEIS fails to acknowledge that construction activities would likely contribute to significant adverse ozone impacts. Compared with the significance thresholds adopted by the MDAQMD, there is ample evidence demonstrating that the Project's NOx emissions will be significant. In addition, as Dr. Pless explains, "the exceedance of the MDAQMD's daily significance thresholds for NOx indicate that construction of the Modified BSPP may result in downwind exceedance of ambient air quality standards for ozone, for which NOx are precursors." Pless Comment, p. 7. The DEIS's failure to acknowledge this impact is arbitrary and capricious.

In order to adequately address the significant impact of the Project's NOx emissions during construction and decommissioning, mitigation measures also must be identified and evaluated. "NOx are emitted from combustion sources such as

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[2] The only portion of the previously approved project that was initiated was grading of four miles of roads. DEIS, p. 1-2.

construction equipment, trucks and construction worker commuter vehicles." Pless Comment, p. 7. The identified mitigation only applies to off-road diesel-powered construction equipment and does not address the significant ozone precursor emissions from the numerous on-road vehicles that will be needed for the Project's construction. Pless Comment, p. 10. The combustion emissions from off-site, on-road vehicles including haul trucks and construction worker vehicles are responsible for a majority of NOx emissions, accounting for 73 percent of total daily and 75 percent of total annual NOx emissions during construction. *Id*. And although measure AQ-SC5 would reduce the ozone precursor emissions from off-road diesel equipment as compared to the average construction fleet, those sources will still exceed the MDAQMD significance threshold. *Id*..

In addition to exceeding that threshold, Design Feature AQ-SC3 ozone mitigation exempts all off-road construction equipment with a rating of less than 50 hp and all equipment on site for less than 10 days. DEIS, p. 2-49 (Table 2-6). However, the DEIS's emission estimates from the 2013 AECOM report assume that all equipment is subject to EPA Tier 3 emission factors. Pless Comment, p.10. Thus, rather than reduce emissions, the mitigation may very well permit increased emissions for these smaller or more temporary diesel engines compared to those reported in the DEIS's tables.

The DEIS also should consider and include mitigations for NOx and ROG emissions from on-road vehicles. First, it must be noted that the DEIS's conclusion about where project workers would be commuting from is inconsistent with the conclusion of the CEC. The CEC indicates that workers likely would come from closer communities, namely Blythe, Indio, and Ehrenberg, Arizona. *See* CEC Staff Assessment, Part A, p. 4.8-15. The DEIS, however, states that "[m]ost construction workers are expected to come from western Riverside County...." DEIS, p. 3.13-11. Wherever the workers come from, the applicant should be required to establish natural-gas powered shuttle buses with pick-up locations in the towns where workers likely will lodge or reside – either Blythe, Indio, and Ehrenberg, Arizona or a location in western Riverside County. Pless Comments, p. 11. If implemented properly, this mitigation would substantially reduce ROG emissions from worker vehicles, a significant source of the Project's ozone precursors.

As for on-road, diesel powered vehicles associated with the Project, BLM should require one of the following mitigation conditions. A condition should require that ninety percent of the truck carriers used by the Project shall be Environmental Protection Agency SmartWay partners. The DEIS could discuss a temporary variance from this percentage due to specified circumstances not created by the applicant. Alternatively, the Project should also establish a condition that all on-road diesel powered vehicles shall be equipped with CARB certified Tier 3 pollution control equipment (as set forth in http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm), capable of achieving at least 85% reduction in particulate matter and 25% reduction in nitrogen oxide emissions (or

better). A mitigation increasing this requirement to Tier 4 standards as of January 1, 2015 should be evaluated for inclusion in the ROW conditions.

MDAQMD's rules suggest a number of additional mitigation measures that are feasible and necessary to further mitigate the Project's excessive PM-10 emissions during its four-year construction phase.

MDAQMD Rule 401 provides:

> A person shall not discharge into the atmosphere from ***any single source of emission whatsoever*** any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
> (a) As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
> (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a) of this rule.

MDAQMD, Rule 401. However, the DEIS identifies mitigation that is designed to violate Rule 401's standard. AQ-SC4 would excuse visible dust plumes from any additional controls unless they are observed "off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner or (B) 200 feet beyond the centerline of the construction of linear facilities." DEIS, p. 2-49. However, Rule 401 applies throughout the site, not just within 400 feet of an off-site structure. Given that the nearest resident may be as far as a half-mile away from the nearest Project boundary, looking for and reacting to plumes at far-flung structures would encourage violations of Rule 401 rather than compliance. *See* DEIS, p. 3.10-2 (closest two residences are "approximately 2,300 feet west of the southwestern site boundary and the other approximately 4,000 feet south of the southern boundary"). In order to protect workers and persons passing through the site, Mitigation AQ-SC4 should be applied throughout the Project site. AQ-SC4 also should be clarified to require its additional dust control measures and possible shutdown whenever a visible plume is observed at the project's property line, rather than some off-site structure. Pless Comments, p. 9.

MDAQMD Rule 403 provides in relevant part:

> (a) A person shall not cause or allow the emissions of fugitive dust from any transport, handling, construction or storage activity so that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source. (Does not apply to emissions emanating from unpaved roadways open to public travel or farm roads. This exclusion shall not apply to industrial or commercial facilities)….
> (c) A person shall not cause or allow particulate matter to exceed 100 micrograms per cubic meter when determined as the difference between upwind

> and downwind samples collected on high volume samplers at the property line for a minimum of five hours….
> (e) Subsections (a) and (c) shall not be applicable when the wind speed instantaneously exceeds 40 kilometers (25 miles) per hour, or when the average wind speed is greater than 24 kilometers (15 miles) per hour. The average wind speed determination shall be on a 15 minute average at the nearest official air-monitoring station or by wind instrument located at the site being checked.

MDAQMD, Rule 403. Rule 403(a) reinforces the common sense of applying mitigations prohibiting visible plumes or implementing air pollution limits at the Project's property line, rather than at occupied structures at some distance from the work. Thus, as discussed above, AQ-SC4's focus on off-site structures appears inconsistent with this prohibition, as well as Rule 401. *See* Pless Comment, p. 9.

Rule 403(c) suggests an additional feasible mitigation that should be considered I the DEIS requiring upwind and downwind monitoring and establishing a PM10 standard of no increase in PM10 levels greater than 100 $\mu g/m^3$ that is more protective than Rule 403(c)'s standard. However, a trigger level of 50 $\mu g/m^3$ is more appropriate given the risks of Valley Fever and the existing degradation from PM10 in the area. In addition, the proposed monitoring should be accompanied by a temporary shutdown condition whenever the recommended PM10 level is exceeded. *See* Pless Comment, p. 9.

With regard to Rule 403(e), although this rule provides relief from Rules 403(a) and 403(c) during very high wind events, the logical corollary to that concession to the forces of nature is that construction and vehicle activity at the site should not be occurring during high wind events. Pless Comments, p. 9. The DEIS does not discuss the air pollution impact scenarios that will result when construction activities at the Project occur in high wind events. Rule 403(e) provides an objective standard of an average 15 mph wind speed for determining when wind velocity risks air quality violations and when construction activity should be suspended. Pless Comments, p. 9.

E. The DEIS Fails to Adequately Address the Project's Cumulative Air Pollution Impacts When Considered Together With the Numerous Other Projects in the Mojave Desert Air Basin.

Assessing cumulative impacts is an essential component of environmental review under NEPA. "Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. §1508.7.

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a. The Scope of the DEIS's Cumulative Impact Analysis for Air Quality Impacts Does Not Encompass the Geographic Scope Identified by the DEIS.

According to the DEIS, "The geographic scope considered for potential cumulative impacts to regional air resources is the MDAB." DEIS, p. 3.2-13. However, the projects listed as relevant to the DEIS's cumulative impact assessment for air pollution emissions does not consider projects throughout the Mojave Desert Air Basin. DEIS, pp. 3.1-5 – 3.1-7, Table 3.1-1. The MDAB extends from the eastern portions of Kern County and Los Angeles County, south to the northern part of Riverside County, and eastward to the Nevada and Arizona borders. *See* http://www.arb.ca.gov/pm/pmmeasures/pmch05/mojd05.pdf (attached as Exhibit C). There are a large number of solar projects proposed throughout the Mojave Desert Air Basin. The relatively short list of projects mentioned in the DEIS does not come close to evaluating or discussing cumulative impacts from renewable energy projects and associated power lines being proposed and approved throughout the Air Basin. The failure of the DEIS to evaluate the cumulative air impacts of all renewable energy development being constructed in the Mojave Desert Air Basin during construction of the project is arbitrary and capricious.

The DEIS also fails to address air impacts across the nearby border with Arizona. Pless Comment, pp. 11-12. That omission is a serious gap in the DEIS's analysis of air quality impacts.

b. The DEIS/DEIR's Perfunctory Analysis of Cumulative Air Impacts is Inadequate Pursuant to NEPA and CEQA.

When considering a project's cumulative impacts, a DEIS must include "'some quantified or detailed information; . . . general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.' " *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 993-94 (9th Cir. 2004); *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1379-80 (9th Cir. 1998)). "The analysis must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects." *Klamath-Siskiyou Wildlands*, 387 F.3d at 993-94. A mere assertion that an environmental factor will be further degraded in a minor or major way does not provide sufficient "objective quantification." *Id*. at 994. Likewise, a tabulated list of other projects in the area including acreage affected is not a sufficient description of the actual environmental effects of those other projects. *See id*. at 994-95. A "conclusory presentation does not offer any more than the kind of "general statements about possible effects and some risk" which we have held to be insufficient to constitute a "hard look." *Id.* at 995.

In addition, the DEIS must disclose data underlying its discussion and conclusions. "[W]hile the conclusions of agency experts are surely entitled to deference, NEPA documents are inadequate if they contain only narratives of expert opinions." *Klamath-Siskiyou Wildlands*, 387 F.3d at 996. "Allowing the Forest Service to rely on expert opinion without hard data either vitiates a plaintiff's ability to challenge an agency action or results in the courts second guessing an agency's scientific conclusions. As both of these results are unacceptable, we conclude that NEPA requires that the public receive the underlying environmental data from which a Forest Service expert derived her opinion." *Id*.; Idaho *Sporting Cong. v. Thomas*, 137 F.3d 1146, 1150 (9th Cir. 1998). An EIS is "unacceptable if [it is] indecipherable to the public." *Klamath-Siskiyou Wildlands*, 387 F.3d at 996.

In addressing the Project's cumulative air quality impacts, the DEIS relies on an inappropriate perfunctory analysis, listing some of the projects within the air basin and simply asserting that air impacts from those projects and the current Project could be significant. DEIS, pp. 3.2-13 – 3.2-14. *See* Pless Comment, p. 12. This is precisely the type of generic cumulative impact discussion that has been rejected by the courts. To make matters worse, no mitigations involving timing of construction, phasing, or additional controls to address such cumulative impacts are discussed within the DEIS. Pless Comment, p. 13. These include the air pollution mitigations discussed above. Another important mitigation to address cumulative air pollution emissions relates to the timing and phasing of not only this Project but numerous other projects planned or underway in the Air Basin. By failing to identify the extent of the cumulative air quality impacts of the project's emissions of PM10 and NOx and also failing to discuss and, in the case of CEQA, adopt feasible mitigations that would reduce those impacts, the DEIS/DEIR is arbitrary and capricious and inadequate.

F. A Right-Of-Way That Fails to Include All Feasible Air Pollution Mitigation Measures Will Be Inconsistent With 43 U.S.C. §1765(a).

By not discussing the additional feasible air pollution controls discussed above for pollutants already impairing California's air quality standards, a right-of-way for the Project would run afoul of BLM's duties to protect the environment and require compliance with more stringent state standards. 43 U.S.C. §1765(a) requires each right of way to contain terms and conditions to "minimize damage to…wildlife habitat and otherwise protect the environment" and to "require compliance with state standards for… environmental protection… if those standards are more stringent than applicable Federal standards." The standards include state "substantive standards" but not state procedural requirements. *Montana v. Johnson*, 738 F.2d 1074, 1077 (9th Cir. 1984). As the Ninth Circuit has explained, Congress adopted a version of competing FLPMA bills requiring that "BLM comply with, rather than merely consider, federal and state pollution standards." *Columbia Basin Land Protection Ass'n v. Schlesinger*, 643 F.2d 585, 605 (9th Cir. 1981). "This clearly indicates congressional intent to require federal

agencies to meet the state's substantive standards for projects under FLPMA." 643 F.2d at 605.

The air quality impacts acknowledged or overlooked by the DEIS indicate that the Project, as conditioned in the manner described in the DEIS, cannot meet BLM's duties under 43 U.S.C. §1765(a). The DEIS identifies Impact Air-1 as "[c]onstruction and decommissioning of the Proposed Action would generate short-term emissions of criteria air pollutants that could contribute to an existing or projected air quality violation." DEIS/DEIR, Table ES-2. Likewise, Impact Air-3 states that "[t]he Proposed Action would generate emissions of criteria air pollutants which could contribute to existing non-attainment conditions and further degrade air quality." *Id.* By not adopting all mitigations that would reduce the Project's PM10 and NOx emissions as much as feasible as conditions of the Project, BLM will have violated Section 1765(a)'s fundamental duties when issuing a ROW under FLPMA.

CONCLUSION

For the foregoing reasons, LIUNA Local 1184 and its members living in Riverside County and areas near the Project urge the BLM to make substantive changes to the DEIS's analysis of the Project's air quality impacts, including the additional conditions of the proposed ROW recommended above, and recirculate the DEIS for public review and comment. LIUNA Local 1184 appreciates this opportunity to comment and looks forward to your responses.

Sincerely,

Michael Lozeau

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EXHIBIT A

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BY EMAIL

March 24, 2014

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Re: Review of Draft Environmental Impact Statement for Modified Blythe Solar Power Project, Proposed Amendment to Right-of-Way Grant CACA 048811

Dear Mr. Lozeau,

Per your request, I have reviewed the Draft Environmental Impact Statement ("Draft EIS") for the Modified Blythe Solar Power Project ("Modified BSPP"") released by the Bureau of Land Management ("BLM") in February 2014.[1] The Draft EIS considers proposed amendments to the previously approved Blythe Solar Power Project ("Approved BSPP") right-of-way ("ROW") grant (CACA-048811) under the National Environmental Policy Act ("NEPA").

I. Background

The BLM previously analyzed and issued a ROW grant in 2010 to construct a 1,000-megawatt ("MW") solar energy generating plant utilizing thermal parabolic trough technology on 6,831 acres of public land near the City of Blythe in unincorporated Riverside County. The current holder of this ROW grant, NextEra Blythe Solar Energy, LLC ("Applicant") has relinquished a portion of the original ROW and is requesting a variance from the existing approval to amend the grant to convert the solar plant to photovoltaic ("PV") technology, reduce the nominal capacity to 485 MW, reduce the footprint of the site to 4,138 acres, and reconfigure the site to allow

[1] BLM, Draft Environmental Impact Statement, Modified Blythe Solar Power Project, Proposed Amendment to Right-of-Way Grant CACA 048811, February 2014; http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/blythe_feis0.Par.79439.File.dat/Vol1_Modified%20Blythe%20Draft%20EIS_508%20%282%29.pdf.

transmission and access road corridors through the site for shared use with other approved and proposed projects.[2]

The Approved BSPP and the Modified BSPP were previously analyzed by the California Energy Commission ("CEC") for compliance with applicable state laws, ordinances, regulations, and standards. The CEC issued its Final Decision granting a certificate to construct and operate the Modified BSPP on January 21, 2014.[3]

The Draft EIS states that "BLM and CEC will continue to work cooperatively to review the Modified Project and administer mitigation measures and conditions of certification as outlined in the adopted ECCMP [Environmental and Construction Compliance Monitoring Plan] for the Approved Project and as modified by the CEC's Commission Decision and BLM's ROD [Record of Decision] for the Modified Project."[4]

II. The Draft EIS's Air Resources Analysis Is Unsupported and Deficient

The Draft EIS does not provide a complete new analysis of impacts on air resources due to criteria air pollutant emissions from construction or operation of the Modified BSPP. Instead, the Draft EIS relies on prior analyses that were developed for the Approved BSPP to piece together an analysis of the Modified BSPP's "relative" impacts when compared to those of the Approved BSPP. This analysis is inadequate to satisfy the BLM's mandate to provide adequate information for public review and fails to adequately disclose significant impacts on air quality.

The Draft EIS's Analysis is Unsupported and Not Consistent with Cited References

In order to verify the Draft EIS's conclusions, a reviewer must have access to the BLM's and CEC's prior analyses, neither of which are provided here. For example, the Draft EIS's presentation of air pollutant emissions from construction and operation of the Modified BSPP is based on a technical study prepared by AECOM which was submitted to the CEC in 2013.[5] This 2013 AECOM study is not provided in the Draft EIS but rather only referenced without as much as a weblink where the study can be located on the CEC's website.[6] (An average reviewer cannot be expected to and may not be able to readily locate this AECOM report on the CEC's website.)

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[2] Draft EIS, pp. 1-1 and 2-1.

[3] Draft EIS, p. 1-5.

[4] *Ibid*.

[5] Draft EIS, p. 3.2-23.

[6] Draft EIS, p. 3.2-15.

Further, the Draft EIS provides percentages for total daily and annual construction and operational emissions from the Modified BSPP compared to the Approved BSPP[7]. In order to verify these percentages, the reviewer is required to find the Final EIS for the Approved BSPP in the Draft EIS appendices, identify the respective tables in this document, and then calculate the respective percentages by comparing the emission estimates provided in the respective tables in the Draft EIS and the 2013 AECOM study. This exercise is complicated by the fact that the Final EIS for the Approved BSPP and the Draft EIS for the Modified BSPP use different terminology for photochemically reactive organic compounds (ROG = reactive organic gases and VOC = volatile organic compounds) and present emission estimates in a different order. In sum, the Draft EIS's approach and presentation frustrates public review.

What's more, a comparison of the emission estimates provided in the 2013 AECOM study[8] with those presented in the Draft EIS shows that they are not consistent, as shown in the tables below for daily and annual emissions during construction of the Modified BSPP (discrepancies shaded).

Maximum daily criteria pollutant emissions for construction of Modified BSPP (pounds/day)*

	CO	ROG	NOx	SOx	PM10	PM2.5
Draft EIS, Table 3.2-4						
On-site	54.9	18.4	122.5	0.2	679.1	87.3
Off-site	304.2	40.4	333.3	0.7	25.2	12.6
Total	**359.1**	**58.8**	**455.8**	**0.9**	**704.3**	**99.9**
2013 AECOM Study, Construction Emissions, Tables 16a and 19a						
On-site	54.9	14.9	122.5	0.2	679.1	87.4
Off-site	304.2	40.4	333.3	0.7	25.2	12.5
Total	**359.1**	**55.3**	**455.8**	**0.9**	**704.3**	**99.9**
Discrepancy						
On-site	0.0	3.5	0.0	0.0	0.0	-0.1
Off-site	0.0	0.0	0.0	0.0	0.0	0.1
Total	**0.0**	**3.5**	**0.0**	**0.0**	**0.0**	**0.0**

CO = carbon monoxide, ROG = reactive organic gases, NOx = nitrogen oxides, SOx = sulfur oxides, PM10 = particulate matter equal to or smaller than 10 micrometers, PM2.5 = particulate matter equal to or smaller than 2.5 micrometers

[7] Draft EIS, Tables 3.2-3 and 3.2-4 (construction) and Tables 3.2-6 and 3.2-7 (operation).

[8] AECOM, Air Quality and Greenhouse Gas Construction and Operations and Maintenance Emissions and Screening Health Risk Assessment Results and Construction Schedule and Equipment Use Information, April 2013; http://energy.ca.gov/sitingcases/blythe_solar/pv_amendment/rev-amendment/BSPP_Revised_PTA_Appendices.pdf.

Maximum annual criteria pollutant emissions for construction of Modified BSPP (tons/year)

	CO	ROG	NOx	SOx	PM10	PM2.5
Draft EIS, Table 3.2-3						
On-site	5.7	2.1	13.4	0.0	69.5	9.2
Off-site	31.7	4.3	39.7	0.1	2.8	1.5
Total	**37.4**	**6.4**	**53.1**	**0.1**	**72.3**	**10.7**
2013 AECOM Study, Construction Emissions, Tables 16b and 19b						
On-site	5.8	1.6	13.4	0.0	69.5	9.2
Off-site	31.7	4.3	39.7	0.1	2.8	1.4
Total	**37.5**	**5.9**	**53.1**	**0.1**	**72.3**	**10.6**
Discrepancy						
On-site	-0.1	0.5	0.0	0.0	0.0	0.0
Off-site	0.0	0.0	0.0	0.0	0.0	0.1
Total	**-0.1**	**0.5**	**0.0**	**0.0**	**0.0**	**0.1**

The Draft EIS provides no explanation for these discrepancies. While the differences between the emission estimates presented in the 2013 AECOM study and the incorrectly transcribed emission estimates presented in the Draft EIS appear modest, they nonetheless demonstrate that the Draft EIR's unsupported analyses cannot be relied upon.

Similarly, the percentages of daily and annual emissions estimates for the Modified BSPP as compared to the Approved BSPP presented by the Draft EIS are not supported by the emission estimates presented in the Final EIS for the Approved BSPP, as illustrated in the table below for annual construction emissions (discrepancies shaded).

Maximum annual criteria pollutant emissions for construction of Modified BSPP compared to Approved BSPP

	CO	ROG	NOx	SOx	PM10	PM2.5
Modified BSPP (Draft EIS, Table 3.2-3)	37.4	6.4	53.1	0.1	72.3	10.7
Approved BSPP (Final EIS, Table 4.2-4)*	105.19	17.17	142.63	0.31	117.88	28.14
Percentage (Draft EIS, Table 3.2-3)	36%	35%	32%	28%	61%	35%
Percentage calculated	36%	37%	37%	32%	61%	38%
Discrepancy	**0%**	**-2%**	**-5%**	**-4%**	**0%**	**-3%**

* Sum of onsite and offsite emissions

Here, the Draft EIS miscalculates the percentage emissions estimated for the Modified BSPP compared to the Approved BSPP. While the discrepancies may not be substantial enough to affect the BLM's decision, they nonetheless illustrate that the Draft EIS is unsupported and the presented information cannot be relied upon.

The Draft EIS's Adopted Significance Thresholds Are Arbitrary and Not Applicable under NEPA and, as a Result, the Draft EIS Fails to Identify Potentially Significant Impacts on Air Quality during Construction of the Modified BSPP

The Draft EIS relies on *de minimis* levels established by the U.S. Environmental Protection Agency ("EPA") under Section 176(c) of the federal Clean Air Act ("CAA") for determining federal conformity as mass emissions indicators to evaluate whether emissions from construction or operation of the Modified BSPP would adversely impact air quality.

Section 176(c) of the CAA prohibits federal entities from taking actions in nonattainment or maintenance areas which do not conform to state implementation plans ("SIPs") for the attainment and maintenance of the federal ambient air quality standards ("AAQS"). The purpose of determining conformity is to (1) ensure federal activities do not interfere with the budgets in the SIPs; (2) ensure actions do not cause or contribute to new violations; and (3) ensure attainment and maintenance of the federal ambient air quality standards.[9] The requirements of CAA Section 176(c) apply to all federal actions that take place in areas designated nonattainment and maintenance of federal ambient air quality standards for all criteria pollutants, *i.e.*, ozone, particulate matter, nitrogen dioxide, carbon monoxide, lead, and sulfur dioxide.

The Draft EIS recognizes that the federal CAA requirements are independent of the NEPA process and that the Modified BSPP is located in an area that is designated attainment/unclassifiable for all federal ambient air quality standards but does not provide any explanation why it nonetheless deems the *de minimis* levels applicable in this instance. Specifically, the Draft EIS relies upon *de minimis* levels of 100 tons/year for maintenance areas.[10]

The EPA, in guidance for implementing the General Conformity rule, clearly states that the General Conformity rule "only applies to nonattainment areas. A separate rulemaking process would establish a conformity rule for attainment/unclassifiable areas." [11] Further, EPA explains why the *de minimis* emission levels in the conformity rule are "relatively high": "Under the general conformity rule, conformity determinations are made on a project-by-project basis. However, in an effort to limit time and resources invested by agencies in making determinations for thousands of Federal actions annually, EPA included the *de minimis* levels in the rule to serve as a cutoff point to focus on those Federal actions likely to have the most

[9] EPA, General Conformity Regulations; http://www.epa.gov/ttn/oarpg/genconformity.html.

[10] Draft EIS, p. 3.2-6.

[11] EPA, General Conformity Guidance: Questions and Answers, July 13, 1994; http://www.epa.gov/air/genconform/documents/gcgqa_940713.pdf.

significant impacts on air quality." With respect to linking the regional significance of emissions under Section 176(c) and under NEPA, EPA clarified: "the definition of regionally significant in conformity applies only in this context and is not the same as the NEPA definition."[12] In other words, the *de minimis* levels established by EPA to determine whether a General Conformity determination is required are not appropriate to determine whether a project would result in significant impacts under NEPA.

Further, the General Conformity *de minimis* levels are provided on an annual basis; thus, they cannot be used to determine whether short-term ambient air quality standards would be exceeded and therefore cannot be solely relied upon for NEPA review. What's more, these levels were determined to assess a project's potential impacts on federal ambient air quality standards; the state of California has developed several lower, more health protective ambient air quality standards for which the federal *de minimis* levels are not applicable. While the Draft EIS acknowledges and allegedly evaluates the Project's potential impacts on these state standards[13] it does not recognize that the federal *de minimis* levels are not designed for protection of state ambient air quality standards.

The Draft EIS omits any reference to the quantitative annual and daily significance thresholds for construction and operational emissions established by the local air district, the Mojave Desert Air Quality Management District ("MDAQMD"), which were specifically developed to address air pollution problems in the Mojave Desert Air Basin ("MDAB"). These significance thresholds are considerably lower than the federal *de minimis* thresholds used by the Draft EIS, as summarized in the following table.

Comparison of Draft EIS *de minimis* levels and MDAQMD significance thresholds

	Draft EIS[a]	**MDAQMD[b]**	
Pollutant	(tons/year)	(tons/year)	(pounds/day)
CO	100	100	548
ROG/VOC	100	25	137
NOx	100	25	137
SOx	100	25	137
PM10	100	15	82
PM2.5	100	15	82

a Draft EIS, p. 3.2-6

b MDAQMD, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, February 2009 p. 8; http://www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=1806

[12] *Ibid*.

[13] *See* Draft EIS, Tables 3.2-5 and 3.2-8.

When compared with the MDAQMD's thresholds, the emission estimates presented by the Draft EIS for construction and operation of the Modified BSPP are significant, as shown in the following table.

Construction emission estimates for Modified BSPP compared to MDAQMD annual and daily significance thresholds

Pollutant	Annual emissions (tons/year) Modified BSPP[a]	MDAQMD[b] threshold	Significant?	Daily emissions (pounds/day) Modified BSPP[c]	MDAQMD[b] threshold	Significant?
CO	37.4	100	no	359.1	548	no
ROG/VOC	6.4	25	no	58.8	137	no
NOx	53.1	25	**YES**	455.8	137	**YES**
SOx	0.1	25	no	0.9	137	no
PM10	72.3	15	**YES**	704.3	82	**YES**
PM2.5	10.2	15	no	99.9	82	**YES**

a Draft EIS, Table 3.2-3

b 4MDAQMD, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, February 2009 p. 8; http://www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=1806

c Draft EIS, Table 3.2-

Specifically, emissions from construction of the Modified BSPP are high enough to exceed the MDAQMD's annual significance thresholds for NOx by 112 percent[14] and for PM10 by 382 percent[15] and the MDAQMD's daily significance thresholds for NOx by 233 percent[16], for PM10 by 759 percent[17], and for PM2.5 by 22 percent[18].

The exceedance of the MDAQMD's daily significance thresholds for NOx indicate that construction of the Modified BSPP may result in downwind exceedance of ambient air quality standards for ozone, for which NOx are precursors. NOx are emitted from combustion sources such as construction equipment, trucks and construction worker commuter vehicles. Because the Draft EIS does not identify this potential significant impact on air quality from construction of the Modified BSPP, it also does not discuss sufficient mitigation to reduce exhaust emissions during the construction phase. Hence, the Draft EIS's discussion of these significant air pollution issues is deficient. As discussed below, feasible mitigation measures beyond the Design Features specified by the Applicant are feasible and should be required.

[14] (53.1)/(25) = 2.12.

[15] (72.3)/(15) = 4.82.

[16] (455.8)/(137) = 3.33.

[17] (704.3)/(82) = 8.59.

[18] (99.9)/(137) = 1.22.

The Draft EIS's Interpretation of Dispersion Modeling Results Fails to Identify and Mitigate Significant Impacts on Air Quality from Construction PM10 Emissions

The Draft EIS recognizes that "given the relatively high ambient concentrations of PM10 in the study area (*i.e.*, 24-hour average of up to 140 µg/m^3 [micrograms per cubic meter] and annual average of up to 22 µg/m^3)," construction of the Modified Project "could create new exceedances or contribute to existing exceedances of PM10 AAQS."[19] To assess the potential for such exceedances, the Draft EIS relies upon dispersion modeling previously conducted for the Approved Project, and ambient PM10 background concentrations based on PM10 concentrations measured at monitoring stations in the area between 2009 and 2012.[20] Specifically, the Draft EIS computes ambient annual and 24-hour PM10 concentrations for the Modified Project based on the percentage of emissions compared to the Approved Project. For example, the Draft EIS determines that construction of the Modified BSPP would result in approximately 61 percent of emissions compared to construction of the Approved BSPP[21]; consequently, the Draft EIS assumes that construction of the Modified BSPP would result in 61 percent of the modeled ambient PM10 concentrations resulting from construction of the Approved BSPP. The Draft EIS determines that although the Modified BSPP would result in fewer construction emissions of PM10, modeled ambient concentrations combined with the background concentrations would continue to exceed the state 24-hour and annual ambient air quality standards (332 and 120 percent of the standard, respectively) as well as the federal 24-hour ambient air quality standard for PM10 (111 percent of the standard[22]).[23] While the Draft EIS recognizes that state and federal ambient air quality standards for PM10 may be exceeded during construction of the Modified BSPP[24], it does not discuss feasible mitigation to reduce these significant impacts.

III. The Draft EIR Fails to Require Adequate Mitigation for Potential Significant Impacts on Air Resources during Construction of the BSPP

The Draft EIS lists six Applicant-proposed Design Features, AQ-SC1 through AQ-SC6 intended to reduce impacts on air resources resulting from construction of the

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[19] Draft EIS, p. 3.2-9.

[20] Draft EIS, p. 3.2-2 and Table 3.2-3.

[21] Draft EIS, p. 3.2-9.

[22] (166 µg/m^3)/(150 µg/m^3) = 1.11.

[23] Draft EIS, p. 3.2-9.

[24] *Ibid* and Draft EIS, Table 2-5, p. 2-24.

Modified BSPP.[25] These measures are not adequate to address the above identified significant impacts due to emissions of PM10, PM2.5 and NOx.

Additional Mitigation for Fugitive Dust Is Feasible and Should Be Required to Reduce Significant Impacts on Air Quality during Construction of the Modified BSPP

The MDAQMD's Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust) are applicable to the construction period of the Modified BSPP. These rules contain several requirements that are not reflected by the Draft EIS's proposed Design Features that would reduce PM10 and PM2.5 emissions. In order to assure implementation and compliance with MDAQMD rules, the Draft EIS should incorporate these requirements.

MDAQMD Rule 403(a) stipulates that fugitive dust emissions from any transport, handling, construction or storage activity may not remain visible in the atmosphere beyond the property line of the emission source. Yet, Design Feature AQ-SC4 (Dust Plume Response Requirement) specifies measures to be implemented only when observations indicate that "visible dust plumes … have the potential to be transported … off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner…" This condition appears to substantially relax the requirements of MDAQMD Rule 403, which explicitly requires compliance at the property line. In order to prevent exceedances of ambient air quality standards and nuisance, the Draft EIS should require fenceline monitoring for PM10 rather than relying on unspecified "observations of visible dust plumes."

Further, Design Feature AQ-SC4, Step 3, requires temporary shutdown of construction activities in case intensified application of existing mitigation measures or additional dust suppression methods would not result in abatement of visible dust plumes within one hour. MDAQMD Rule 403(e) provides relief from the above discussed requirements when the wind speed instantaneously exceeds 25 miles per hour ("mph") or when the wind speed averaged over 15 minutes exceeds 15 mph. The logical corollary to this requirement appears to be that construction and vehicle activity at the site should cease during high wind events so as not to add to adverse conditions. MDAQMD Rule 403(e) appears to provide an objective standard for determining when winds are likely to result in adverse impacts on air quality and when construction activity should be suspended. Thus, Design Feature AQ-SC4 should be amended to specify that the dust abatement and temporary shutdown requirements laid out in Step 1 through 3 of this measure apply at the wind speeds specified in MDAQMD Rule 403(e) and when fenceline monitoring for PM10 indicates that ambient air quality standards are exceeded.

[25] Draft EIR, p. 3.2-7 and Table 2-6.

Proposed Mitigation Combustion Emissions Is Inadequate and Additional Mitigation Is Feasible and Should Be Required to Reduce Significant Impacts on Air Quality during Construction of the Modified BSPP

The Draft EIS specifies one Design Feature, AQ-SC5, intended to reduce combustion emissions during construction of the BSPP Project. While AQ-SC5 is extensive and would likely reduce equipment exhaust emissions substantially compared to a typical unrestricted construction fleet, it would not reduce emissions during BSPP construction, particularly NOx emissions, to less than significant levels.

First, the measures specified in AQ-SC5 only address emissions from on-site diesel-powered construction equipment. However, combustion emissions from off-site, on-road vehicles including haul trucks and construction worker vehicles are responsible for a majority of NOx emissions, which account for 73 percent of total daily and 75 percent of total annual NOx emissions during construction.[26] These emissions would not be reduced by AQ-SC5.

Second, AQ-SC5 requires that diesel-powered construction equipment comply with California Emissions Standards for Off-Road Compression-Ignition Engines, Tier 3.[27] The control efficiency of this measure is already included in the emission estimates presented by the Draft EIS[28] and would therefore not further reduce emissions.

Third, the proposed measure exempts all off-road construction equipment with a rating of 50 horsepower ("hp") or greater and all equipment on site for a less than 10 days (considered "not practical") from compliance with the Tier 3 emission standard. The Applicant's emission estimates assume EPA Tier 3 emission factors for all equipment regardless of horsepower. Thus, emissions for equipment with 50 hp or less may be substantially underestimated. Further, equipment on site for less than 10 days may include equipment such as graders or scrapers which may be very old. A study of construction equipment in California found that the average useful life, *i.e., the age at which half of the equipment of a given model year has been retired*, varies from 10 to 32 years.[29] Older equipment may have very high emissions which would disproportionally contribute to project construction emissions and which are not

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[26] AECOM 2013,

[27] Draft EIS, p. 2-49.

[28] AECOM 2013, Table 1 "Construction Equipment Emission Factors." (*See* heading "Model Year" and Footnote a "Earliest model year required to meet at least Tier 3 emission standards.")

[29] Union of Concerned Scientists, Digging up Trouble, The Health Risk of Construction Pollution in California, November 2006, p. 4; available http://www.ucsusa.org/assets/documents/clean_vehicles/digging-up-trouble.pdf.

accounted for in the Draft EIS's assessment of short-term impacts on air quality. I recommend that BLM eliminate these exemptions or prepare revised emission estimates.

Fourth, off-site combustion exhaust emissions from construction worker commuter vehicles, including NOx, could be substantially reduced by requiring the Applicant to establish natural-gas powered shuttle buses with pick-up locations in the towns where construction workers will likely lodge or reside, *i.e.*, Blythe and Indio in California and Ehrenberg in Arizona and other locations in western Riverside County.[30]

IV. The Draft EIS Fails to Adequately Address the Project's Cumulative Impacts on Air Resources

NEPA requires an adequate analysis of cumulative impacts, *i.e.*, the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The Draft EIS lists two past projects (Blythe Solar Power Generation Station 1 and Blythe PV Project) and 18 present or reasonably foreseeable projects along the Interstate 10 ("I-10") corridor.[31]

The Geographic Scope of the Cumulative Impact Analysis on Regional Air Resources Is Arbitrary

The Draft EIS states that for purposes of cumulative impact analyses, "the geographic scope of analysis is based on the natural boundaries of the resource or issue affected, rather than on jurisdictional boundaries."[32] For its analysis of potential cumulative impacts to regional air resources, the Draft EIR considers the Mojave Desert Air Basin ("MDAB") as the geographic scope.[33] The MDAB is administered by the Mojave Desert Air Quality Management District, and is located entirely within California. The BSPP Project is located only a few miles west of the California/Arizona borders, yet, the Draft EIS does not analyze impacts on Arizona air quality nor does it

[30] It should be noted that the Draft EIS's assumptions where construction workers would be commuting from is inconsistent with the CEC's assumptions. The Draft EIS, p. 3.13-11, states that "[m]ost construction workers are expected to come from western Riverside County…" The CEC in its Staff Assessment, p. 4.8-15, indicates that workers likely would come from closer communities, namely Blythe, Indio, and Ehrenberg, Arizona.

[31] Draft EIS, p. 3.1-3 and Table 3.1-1.

[32] Draft EIS, p. 3.1-3.

[33] Draft EIS, p. 3.2-13.

justify why it artificially limits the geographic scope of the air quality analysis to the jurisdictional boundaries of the California/Arizona border. (The Draft EIS lists, but does not analyze, the proposed Quartzite Solar Project in La Paz County, Arizona, a 100-MW solar thermal project (not to be confused with the Desert Quartzite photovoltaic solar project in California south of Blythe), as one of the cumulative projects within the geographic scope[34].) The Draft EIS contains no discussion of Arizona's attainment status nor does it provide monitoring results or a discussion of cumulative impact analysis on air quality in Arizona as a basis to assess cumulative impacts.

The Draft EIS's Perfunctory Analysis of Cumulative Impacts on Air Resources Is Inadequate

The Draft EIS's analysis of potential cumulative impacts to regional air resources is short: it defines the geographic scope (MDAB) and the temporal scope (30-year term of ROW grant), reiterates previously provided information regarding the MDAB's attainment status for criteria air pollutants, concludes that pollutant concentrations in the area are well below the state and federal AAQS, "making the potential for future non-attainment designations in the MDAB related to these pollutants unlikely," and provides that the PM10 emissions increases due to construction of the BSPP would "contribute to an adverse cumulative effect relative to potential exceedances of the AAQS for PM10."[35] The Draft EIS's entire discussion of impacts associated with the identified past, present and reasonably foreseeable cumulative projects within the geographic scope consists of the following paragraph:

> The projects listed in Table 3.1-1 have at least one agency approval, and the Genesis project is currently under construction. Those projects within the MDAB that would be constructed, operated, or decommissioned at the same time as the Modified Project or Alternative 2 could contribute to existing adverse cumulative effects relative to potential exceedances of AAQSs for PM10.[36]

Such a discussion could be the opening for a cumulative impact discussion that actually assesses the impact of projects "that would be constructed, operated, or decommissioned at the same time" as the Modified BSPP, yet, the Draft EIS simply ends its discussion. This "analysis" is not adequate. The Draft EIS already discussed that construction of the Modified BSPP may be individually significant for PM10, therefore,

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[34] BLM, Quartzite Solar Energy Project; http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/priority_projects.Par.53606.File.dat/factsheet_Quartzsite%20Solar.pdf.

[35] Draft EIS, pp. 3.2-13 and 3.2-14.

[36] Draft EIS, p. 3.2-14.

its cumulative contribution on air quality impacts due to PM10 emissions is significant. NEPA requires that these emissions be analyzed in a cumulative context. This includes more than merely listing past, present and future projects. Here, the Draft EIS makes no effort to further discuss, let alone quantify cumulative impacts on air quality.

Several of the listed projects have undergone or are under environmental review by the BLM, the CEC, or other agencies during which quantitative estimates of these projects' impacts on air quality were provided. The Draft EIS should summarize this information and provide a reasonable quantitative estimate of cumulative impacts.

To make matters worse, the Draft EIS requires no mitigation measures involving timing of construction, phasing, or additional controls to address the potential cumulative impacts it identifies.

V. Recommendation

In sum, the Draft EIS's analysis of the potential project-level and cumulative impacts on air resources from emissions associated with construction and operation of the Modified BSPP is deficient. I suggest that the BLM prepare a revised Draft EIS for public review.

If you have any questions regarding the above comments, please give me a call at (415) 492-2131 or e-mail at petra.pless@gmail.com.

With best regards,

Petra Pless, D.Env.

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Dr. Pless is a court-recognized expert with over 20 years of experience in environmental consulting conducting and managing interdisciplinary environmental research projects and preparing and reviewing environmental permits and other documents for U.S. and European stakeholder groups. Her broad-based experience includes air quality and air pollution control; water quality, water supply, and water pollution control; biological resources; public health and safety; noise studies; California Environmental Quality Act ("CEQA"), Clean Air Act ("CAA"), and National Environmental Policy Act ("NEPA") review; industrial ecology and risk assessment; and use of a wide range of environmental software.

EDUCATION

Doctorate in Environmental Science and Engineering (D.Env.), University of California Los Angeles, 2001

Master of Science (equivalent) in Biology (focus on Limnology), Technical University of Munich, Germany, 1991

PROFESSIONAL HISTORY

Pless Environmental, Inc., Principal, 2008–present

Environmental Consultant, Sole Proprietor, 2006–2008

Leson & Associates (previously Leson Environmental Consulting), Kensington, CA, Environmental Scientist/Project Manager, 1997–2005

University of California Los Angeles, Graduate Research Assistant/Teaching Assistant, 1994–1996

ECON Research and Development, Environmental Scientist, Ingelheim, Germany, 1992–1993

Biocontrol, Environmental Projects Manager, Ingelheim, Germany, 1991–1992

REPRESENTATIVE EXPERIENCE

Air Quality and Pollution Control

Projects include CEQA/NEPA review; CAA attainment and non-attainment new source review; prevention of significant deterioration ("PSD") and Title V permitting; control technology analyses (BACT, LAER, RACT, BARCT, BART, MACT); technology evaluations and cost-effectiveness analyses; criteria and toxic pollutant and greenhouse gas emission inventories; emission offsets; ambient and source monitoring; analysis of emissions estimates and ambient air pollutant concentration modeling. Some typical projects include:

- Provided expert support for intervention in California Energy Commission ("CEC") proceedings for numerous power plants including natural gas-fired, integrated gasification combined-cycle, geothermal (flash and binary) solar (thermal and photovoltaic) facilities with respect to air quality including emission reduction credits, hazards and hazardous materials, public health, noise, and biological resources.
- Critically reviewed and prepared technical comments on the air quality, biology, noise, water quality, and public health and safety sections of CEQA/NEPA documents for numerous commercial, residential, and industrial projects (*e.g.*, power plants, airports, residential developments, retail developments, university expansions, hospitals, refineries, slaughterhouses, asphalt plants, food processing facilities, slaughterhouses, feedlots, printing facilities, mines, quarries, landfills, and recycling facilities) and provided litigation support in a number of cases filed under CEQA.
- Critically reviewed and prepared technical comments on the air quality and public health sections of the Los Angeles Airport Master Plan (Draft, Supplement, and Final Environmental Impact Statement/Environmental Impact Report) for the City of El Segundo. Provided technical comments on the Draft and Final General Conformity Determination for the preferred alternative submitted to the Federal Aviation Administration.
- Prepared comments on proposed PSD and Title V permit best available control technology ("BACT") analysis for greenhouse gas emissions from a proposed direct reduced iron facility in Louisiana.
- Prepared technical comments on U.S. Environmental Protection Agency ("EPA")'s *Inhalation of Fugitive Dust: A Screening Assessment of the Risks Posed by Coal Combustion Waste Landfills* prepared for EPA's proposed coal combustion waste landfill rule.
- Prepared technical comments on the potential air quality impacts of the California Air Resources Board's *Proposed Actions to Further Reduce Particulate Matter at High Priority California Railyards*.
- For several California refineries, evaluated compliance of fired sources with Bay Area Air Quality Management District Rule 9-10. This required evaluation and review of hundreds of source tests to determine if refinery-wide emission caps and compliance monitoring provisions were being met.
- Critically reviewed and prepared technical comments on draft Title V permits for several refineries and other industrial facilities in California.
- Evaluated the public health impacts of locating big-box retail developments in densely populated areas in California and Hawaii. Monitored and evaluated impacts of diesel exhaust emissions and noise on surrounding residential communities.
- In conjunction with the permitting of several residential and commercial developments, conducted studies to determine baseline concentrations of diesel exhaust particulate matter using an aethalometer.
- For an Indiana steel mill, evaluated technology to control NOx and CO emissions from fired sources, including electric arc furnaces and reheat furnaces, to establish BACT. This required a comprehensive review of U.S. and European operating experience. The lowest emission levels were being achieved by steel mills using selective catalytic reduction ("SCR") and selective non-catalytic reduction ("SNCR") in Sweden and The Netherlands.

- For a California petroleum coke calciner, evaluated technology to control NOx, CO, VOCs, and PM10 emissions from the kiln and pyroscrubbers to establish BACT and LAER. This required a review of state and federal clearinghouses, working with regulatory agencies and pollution control vendors, and obtaining and reviewing permits and emissions data from other similar facilities. The best-controlled facilities were located in the South Coast Air Quality Management District.
- For a Kentucky coal-fired power plant, identified the lowest NOx levels that had been permitted and demonstrated in practice to establish BACT. Reviewed operating experience of European, Japanese, and U.S. facilities and evaluated continuous emission monitoring data. The lowest NOx levels had been permitted and achieved in Denmark and in the U.S. in Texas and New York.
- In support of efforts to lower the CO BACT level for power plant emissions, evaluated the contribution of CO emissions to tropospheric ozone formation and co-authored report on same.
- Critically reviewed and prepared technical comments on applications for certification ("AFCs") for numerous natural-gas fired, solar, biomass, and geothermal power plants in California permitted by the California Energy Commission. The comments addressed construction and operational emissions inventories and dispersion modeling, BACT determinations for combustion turbine generators, fluidized bed combustors, diesel emergency generators, etc.
- Critically reviewed and prepared technical comments on draft PSD permits for several natural gas-fired power plants in California, Indiana, and Oregon. The comments addressed emission inventories, greenhouse gas emissions, BACT, case-by-case MACT, compliance monitoring, cost-effectiveness analyses, and enforceability of permit limits.
- For a California refinery, evaluated technology to control NOx and CO emissions from CO Boilers to establish RACT/BARCT to comply with BAAQMD Rule 9-10. This required a review of BACT/RACT/LAER clearinghouses, working with regulatory agencies across the U.S., and reviewing federal and state regulations and State Implementation Plans ("SIPs"). The lowest levels were required in a South Coast Air Quality Management District rule and in the Texas SIP.
- In support of several federal lawsuits filed under the federal Clean Air Act, prepared cost-effectiveness analyses for SCR and oxidation catalysts for simple cycle gas turbines and evaluated opacity data.
- Provided litigation support for a CEQA lawsuit addressing the adequacy of pollution control equipment at a biomass cogeneration plant.
- Prepared comments and provided litigation support on several proposed regulations including the Mojave Desert Air Quality Management District Rule 1406 (fugitive dust emission reduction credits for road paving); South Coast Air Quality Management District Rule 1316, San Joaquin Valley Air Pollution Control District Rule 2201, Antelope Valley Air Quality Management District Regulation XIII, and Mojave Desert Air Quality Management District Regulation XIII (implementation of December 2002 amendments to the federal Clean Air Act).
- Critically reviewed draft permits for several ethanol plants in California, Indiana, Ohio, and Illinois and prepared technical comments.

- Reviewed state-wide average emissions, state-of-the-art control devices, and emissions standards for construction equipment and developed recommendations for mitigation measures for numerous large construction projects.
- Researched sustainable building concepts and alternative energy and determined their feasibility for residential and commercial developments, *e.g.*, regional shopping malls and hospitals.
- Provided comprehensive environmental and regulatory services for an industrial laundry chain. Facilitated permit process with the South Coast Air Quality Management District. Developed test protocol for VOC emissions, conducted field tests, and used mass balance methods to estimate emissions. Reduced disposal costs for solvent-containing waste streams by identifying alternative disposal options. Performed health risk screening for air toxics emissions. Provided permitting support. Renegotiated sewer surcharges with wastewater treatment plant. Identified new customers for shop-towel recycling services.
- Designed computer model to predict performance of biological air pollution control (biofilters) as part of a collaborative technology assessment project, co-funded by several major chemical manufacturers.
- Experience using a wide range of environmental software, including air dispersion models, air emission modeling software, database programs, and geographic information systems.

Water Quality and Pollution Control

Experience in water quality and pollution control, including surface water and ground water quality and supply studies, evaluating water and wastewater treatment technologies, and identifying, evaluating and implementing pollution controls. Some typical projects include:

- Evaluated impacts of on-shore oil drilling activities on large-scale coastal erosion in Nigeria.
- For a 500-MW combined-cycle power plant, prepared a study to evaluate the impact of proposed groundwater pumping on local water quality and supply, including a nearby stream, springs, and a spring-fed waterfall. The study was docketed with the California Energy Commission.
- For a 500-MW combined-cycle power plant, identified and evaluated methods to reduce water use and water quality impacts. These included the use of zero-liquid-discharge systems and alternative cooling technologies, including dry and parallel wet-dry cooling. Prepared cost analyses and evaluated impact of options on water resources. This work led to a settlement in which parallel wet dry cooling and a crystallizer were selected, replacing 100 percent groundwater pumping and wastewater disposal to evaporation ponds.
- For a homeowner's association, reviewed a California Coastal Commission staff report on the replacement of 12,000 linear feet of wooden bulkhead with PVC sheet pile armor. Researched and evaluated impact of proposed project on lagoon water quality, including sediment resuspension, potential leaching of additives and sealants, and long-term stability. Summarized results in technical report.

Applied Ecology, Industrial Ecology and Risk Assessment

Experience in applied ecology, industrial ecology and risk assessment, including human and ecological risk assessments, life cycle assessment, evaluation and licensing of new chemicals, and fate and transport studies of contaminants. Experienced in botanical, phytoplankton, and intertidal species identification and water chemistry analyses. Some typical projects include:

- Conducted technical, ecological, and economic assessments of product lines from agricultural fiber crops for European equipment manufacturer; co-authored proprietary client reports.
- Developed life cycle assessment methodology for industrial products, including agricultural fiber crops and mineral fibers; analyzed technical feasibility and markets for thermal insulation materials from natural plant fibers and conducted comparative life cycle assessments.
- For the California Coastal Conservancy, San Francisco Estuary Institute, Invasive Spartina Project, evaluated the potential use of a new aquatic pesticide for eradication of non-native, invasive cordgrass (*Spartina spp.*) species in the San Francisco Estuary with respect to water quality, biological resources, and human health and safety. Assisted staff in preparing an amendment to the Final EIR.
- Evaluated likelihood that organochlorine pesticide concentrations detected at a U.S. naval air station are residuals from past applications of these pesticides consistent with manufacturers' recommendations. Retained as expert witness in federal court case.
- Prepared human health risk assessments of air pollutant emissions from several industrial and commercial establishments, including power plants, refineries, and commercial laundries.
- Managed and conducted laboratory studies to license pesticides. This work included the evaluation of the adequacy and identification of deficiencies in existing physical/chemical and health effects data sets, initiating and supervising studies to fill data gaps, conducting environmental fate and transport studies, and QA/QC compliance at subcontractor laboratories. Prepared licensing applications and coordinated the registration process with German environmental protection agencies. This work led to regulatory approval of several pesticide applications in less than six months.
- Designed and implemented database on physical/chemical properties, environmental fate, and health impacts of pesticides for a major multi-national pesticide manufacturer.
- Designed and managed experimental toxicological study on potential interference of delta-9-tetrahydrocannabinol in food products with U.S. employee drug testing; co-authored peer-reviewed publication.
- Critically reviewed and prepared technical comments on applications for certification for several natural-gas fired, solar, and geothermal power plants and transmission lines in California permitted by the California Energy Commission. The comments addressed avian collisions and electrocution, construction and operational noise impacts on wildlife, risks from brine ponds, and impacts on endangered species.
- For a 180-MW geothermal power plant, evaluated the impacts of plant construction and operation on the fragile desert ecosystem in the Salton Sea area. This work included baseline noise monitoring and assessing the impact of noise, brine handling and disposal, and air emissions on local biota, public health, and welfare.

- Designed research protocols for a coastal ecological inventory in Southern California; developed sampling methodologies, coordinated field sampling, determined species abundance and distribution in intertidal zone, and conducted statistical data analyses.
- Designed and conducted limnological study on effects of physical/chemical parameters on phytoplankton succession; performed water chemistry analyses and identified phytoplankton species; co-authored two journal articles on results.

PRO BONO ACTIVITIES

Founding member of "SecondAid," a non-profit organization providing tsunami relief for the recovery of small family businesses in Sri Lanka. (www.secondaid.org.)

PUBLICATIONS & RECOMMENDATIONS

Available upon request.

EXHIBIT B

MDAQMD

California Environmental Quality Act (CEQA)

And

Federal Conformity

Guidelines

August 2011

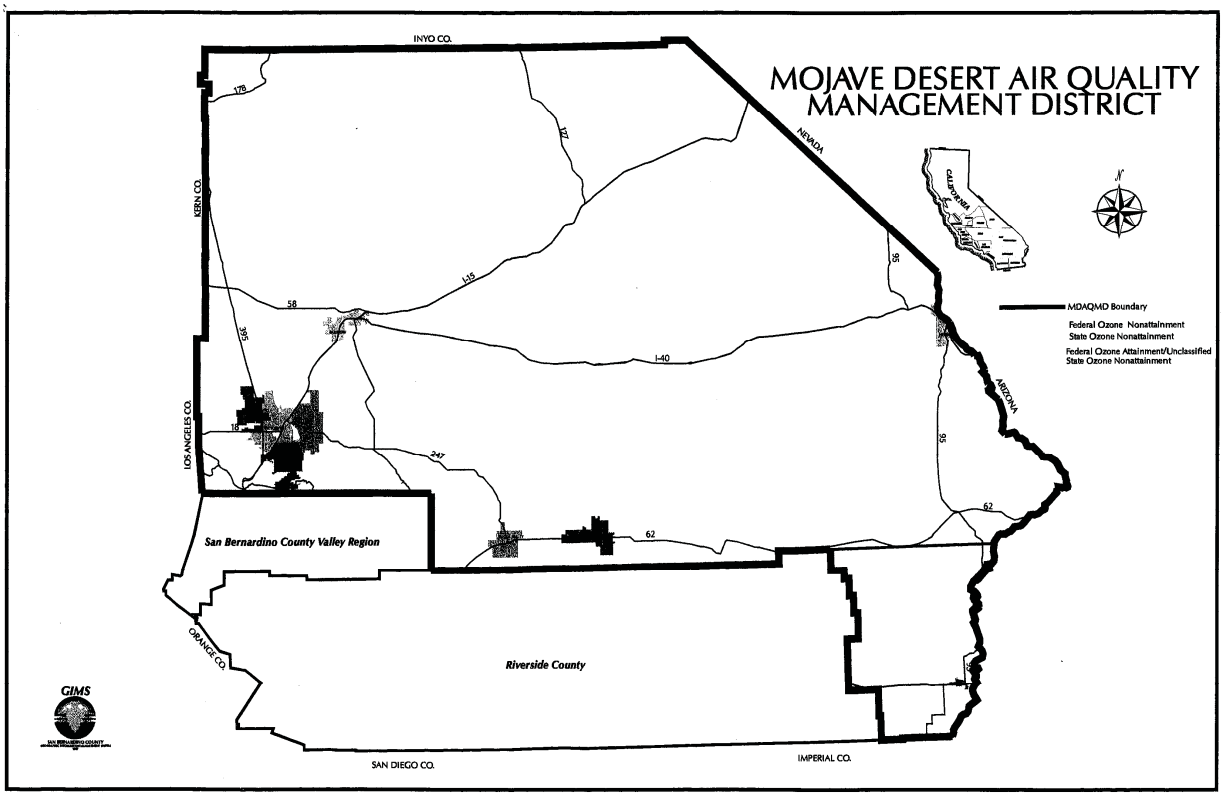
Planning, Rule Making and Grants Section
Surveillance Section

Table of Contents

Background

Under CEQA, the Mojave Desert Air Quality Management District (District) is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the Federal Clean Air Act the District has adopted federal attainment plans for ozone and PM_{10}. The District has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. These Guidelines are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction of the District by providing background information and guidance on the preferred analysis approach.

Map 1 - District Boundaries



Jurisdiction

The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County (please refer to Map 1). This region includes the incorporated communities of Adelanto, Apple Valley, Barstow, Blythe, Hesperia, Needles, Twentynine Palms, Victorville, and Yucca Valley. This region also includes the National Training Center at Fort Irwin, the Marine Corps Air Ground Combat Center, the Marine Corps Logistics Base, the eastern portion of Edwards Air Force Base, and a portion of the China Lake Naval Air Weapons Station.

Non-attainment Designations and Classification Status

The United States Environmental Protection Agency and the California Air Resources Board have designated portions of the District non-attainment for a variety of pollutants, and some of those designations have an associated classification. Please refer to Table 1 for a chart of these designations and classifications.

Table 1 - Designations and Classifications

Ambient Air Quality Standard	AVAQMD	MDAQMD
One-hour Ozone (Federal) – standard has been revoked, this is historical information only	Non-attainment; classified Severe-17	Non-attainment; classified Severe-17 (portion of MDAQMD outside of Southeast Desert Modified AQMA is unclassified/attainment)
Eight-hour Ozone (Federal 84 ppb)	Subpart 2 Non-attainment; classified Moderate	Subpart 2 Non-attainment; classified Moderate (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment)
Eight-hour Ozone (Federal new standard, 75 ppb or lower)	Non-attainment (expected)	Non-attainment (expected)
Ozone (State)	Nonattainment; classified Extreme	Non-attainment; classified Moderate
PM_{10} (Federal)	Unclassified	Non-attainment; classified Moderate (portion of MDAQMD in Riverside County is unclassified)
$PM_{2.5}$ (Federal)	Unclassified/attainment	Unclassified/attainment
$PM_{2.5}$ (State)	Unclassified	Non-attainment (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment)
PM_{10} (State)	Non-attainment	Non-attainment
Carbon Monoxide (State and Federal)	Attainment	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/unclassified	Attainment/unclassified
Sulfur Dioxide (State and Federal)	Attainment/unclassified	Attainment/unclassified

Ambient Air Quality Standard	AVAQMD	MDAQMD
Lead (State and Federal)	Attainment	Attainment
Particulate Sulfate (State)	Unclassified	Attainment
Hydrogen Sulfide (State)	Unclassified	Unclassified (Searles Valley Planning Area is non-attainment)
Visibility Reducing Particles (State)	Unclassified	Unclassified

Attainment Plans

The District has adopted a variety of attainment plans for a variety of non-attainment pollutants. Please refer to Table 2 for a chart of these attainment plans.

Table 2 – MDAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment Area)	9-Jun-08	Federal eight hour ozone (84 ppb)	Western Mojave Desert Non-attainment Area (MDAQMD portion)	NO_x and VOC	2021
2004 Ozone Attainment Plan (State and Federal)	26-Apr-04	Federal one hour ozone	Entire District	NO_x and VOC	2007
Attainment Demonstration, Maintenance Plan, and Redesignation Request for the Trona Portion of the Searles Valley PM_{10} Non-attainment Area	25-Mar-96	Federal daily and annual PM_{10}	Searles Valley Planning Area	PM_{10}	N/A
Triennial Revision to the 1991 Air Quality Attainment Plan	22-Jan-96	State one hour ozone	Entire District	NO_x and VOC	2005
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	31-Jul-95	Federal daily and annual PM_{10}	Mojave Desert Planning Area	PM_{10}	2000
Searles Valley PM_{10} Plan	28-Jun-95	Federal daily and annual PM_{10}	Searles Valley Planning Area	PM_{10}	1994

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO_x and VOC	2007
Reasonable Further Progress Rate-Of-Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO_x and VOC	2007
1991 Air Quality Attainment Plan	26-Aug-91	State one hour ozone	San Bernardino County portion	NO_x and VOC	1994

*Note: A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table 1.

Rules and Regulations

The District maintains a set of Rules and Regulations to improve air quality and maintain good air quality. Please contact the District to obtain a copy of the District rulebook, or visit www.mdaqmd.ca.gov.

Recommended Environmental Setting Elements

Air Quality Data

The District gathers a variety of air quality data from a variety of monitoring sites (from the USMC AGCC site on contract). Table 3 details the data available from the District for each monitoring site.

Table 3 - Available Air Quality Data

Site	Address	Pollutants	Dates
Barstow	225 E. Mountain View	O_3, NO_x, CO, PM_{10}	5/1/80 to present
Hesperia	17288 Olive	O_3, PM_{10}	1/2/86 to present
Lucerne Valley	8560 Aliento Road	PM_{10}	6/1/89 to present
Phelan	Beekley Road	O_3	1/1/88 to present
Trona	Market Street	O_3, NO_x, SO_2, H_2S, PM_{10}	8/1//80 to 2/13/93
Trona	Athol Street	O_3, NO_x, SO_2, H_2S, PM_{10}	1/25/93 to 3/1997
Trona	Telescope	O_3, NO_x, SO_2, H_2S, PM_{10} (Hi-Vol and TEOM)	4/1997 to present
Twentynine Palms	Adobe	O_3, NO_x, SO_2, CO, PM_{10}	8/1/80 to 12/2005
USMC AGCC Twentynine Palms	Bldg 700	O_3, NO_x, SO_2, CO, PM_{10} (TEOM)	1/2006 to present
Victorville	County Fairgrounds	O_3, NO_x, SO_2, CO, TSP	8/1980 to 12/1985

Site	Address	Pollutants	Dates
Victorville	Eighth Street	O_3, NO_x, SO_2, CO, TSP	1/1985 to 12/1989
Victorville	County Fairgrounds	O_3, NO_x, SO_2, CO, PM_{10}	1/1990 to 4/1991
Victorville	Amargosa Road	O_3, NO_x, SO_2, CO, PM_{10}	4/1991 to 12/1999
Victorville	Park Avenue	O_3, NO_x, SO_2, CO, $PM_{2.5}$ (dual co-located), PM_{10} (Hi-Vol and TEOM)	1/2000 to present

Meteorological Data

A variety of meteorological data is available from the District for several monitoring sites throughout the District. Table 4 contains a list of monitoring sites and the data available for each site.

Table 4 - Available Meteorological Data

Site	Address	Data	Dates
Barstow	225 E. Mountain View	Wind speed (hourly average and peak), wind direction, temperature, barometric pressure	1/1988 to present
Hesperia	17288 Olive Street	Wind speed (hourly average and peak), wind direction, temperature, barometric pressure	1/1988 to present
Phelan	Beekley Road	Wind speed (hourly average and peak), wind direction, temperature	1/88 to present
Trona	Athol Street	Wind speed (hourly average and peak), wind direction, pressure, temperature	2/1993 to 3/1997
Trona	Telescope	Wind speed (hourly average and peak), wind direction, pressure, temperature	4/1997 to present
Twentynine Palms	W. Adobe	Wind speed (hourly average and peak), wind direction, pressure, temperature	1/1988 to 12/2005
USMC AGCC Twentynine Palms	Bldg. 700	Wind speed (hourly average and peak), wind direction, pressure, temperature	1/2006 to present
Victorville	Amargosa Road	Wind speed (hourly average and peak), wind direction, pressure, temperature, solar radiation	4/91 to 12/1999

Site	Address	Data	Dates
Victorville	Park Avenue	Wind speed (hourly average and peak), wind direction, pressure, temperature, solar radiation	1/2000 to present

Topography and Climate Discussion

The District covers the majority of the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevadas in the north by the Tehachapi Pass (3,800 ft elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 ft). The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriels by the Cajon Pass (4,200 ft). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley).

The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley) whose primary channel is the San Gorgonio Pass (2,300 ft) between the San Bernardino and San Jacinto Mountains.

During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time the reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. As can be seen from Table 5, the MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The MDAB is classified as a dry-hot desert climate (BWh), with portions classified as dry-very hot desert (BWhh), to indicate at least three months have maximum average temperatures over 100.4° F.

Table 5 - MDAB Average Precipitation and Evaporation History

Location	Precipitation (inches)	Precipitation (days)	Evaporation (inches)	Length of Observations (years)
Trona	3.82	16		48
Randsburg	5.89	23		48
China Lake	4.42			34
Goldstone Echo	5.42	20		23
Daggett Airport	3.87	23		48

Location	Precipitation (inches)	Precipitation (days)	Evaporation (inches)	Length of Observations (years)
Barstow Fire	4.60	23		16
Barstow CIMIS	5.10	27	70	22
Granite Mountain	5.76	22		5
Victorville CIMIS	7.30	29	63	15
Mitchell Caverns	10.41	32		38
Mountain Pass	7.63	28		41
Parker Reservoir	5.38	24		48
Needles Airport	4.55	23		48
Twentynine Palms	3.95	19		48
Blythe Airport	3.57	17		48
Iron Mountain	3.40	19		48

Recommended Impacts Discussion Elements

Direct Impacts

Direct impacts are the result of the project itself (from its construction and operation), in the form of project activity and trips generated by the project. For example, in the case of a subdivision project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), housing use activity (natural gas consumption) and trips to and from the housing (vehicle exhaust, tire wear) represent direct impacts. In the case of a new mine project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), material handling (drilling, blasting, transfers, crushing, screening, bagging), operational emissions (wind erosion, vehicle travel, vehicle exhaust, tire wear), and employee/customer/delivery travel (vehicle exhaust, tire wear) represent direct impacts.

Indirect Impacts

Indirect impacts are the result of changes that would not occur without the project. In the case of a subdivision project, indirect impacts on the surrounding community can be generated in many ways: nearby construction of roadways (or roadway modifications) and other infrastructure to support the subdivision, construction and operation of new commercial/retail establishments, changes in traffic/circulation patterns that result in increased congestion/delays, etc. In the case of a new mine project, indirect impacts can be generated by nearby construction of infrastructure to support the mine, housing constructed and/or occupied by mine employees, changes in traffic/circulation patterns that result in increased congestion/delays, etc.

Cumulative Impacts

Cumulative impacts are similar to direct and indirect impacts of the project, which the project contributes to. In the case of a subdivision project, a given project has a cumulative impact with all other subdivision projects, from the standpoint of each type of impact (cumulative construction emissions, residential natural gas consumption, solvent use, transportation

emissions, congestion, etc.). Similarly, a new mine project has a cumulative impact with all other mining projects, from the standpoint of each type of impact (cumulative construction emissions, diesel equipment emissions, blasting emissions, fugitive emissions, transportation, congestion, etc.).

Conformity Impacts

A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

Sensitive Receptor Land Uses

Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion):

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

Recommended Substantiation Discussion Elements

For projects applying the emissions-based significance thresholds, project emissions quantification is required. In addition the environmental documentation must include support for the quantification methodology used, including emission factors, emission factors source, assumptions, and sample calculations where necessary. For projects using a calculation tool such as URBEMIS, the support section must specify the inputs and settings used for the evaluation.

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6;

2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) [1];
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.*

**Refer to the Sensitive Receptor Land Use discussion above*

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Table 6 – Significant Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_x)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	15	82
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

District Contacts

If an address is not listed, use the general address for the District, to the attention of the listed individual.

Mojave Desert Air Quality Management District General	(760) 245-1661 x2574 14306 Park Avenue Victorville, CA 92392-2310
Planning and Rules	Tracy Walters (760) 245-1661 x6122
Air Quality and Meteorological Data	Fred Wohosky (760) 245-1661 x1921
CEQA and Conformity	Alan De Salvio (760) 245-1661 x6726
Permitting	Sam Oktay (760) 245-1661 x1610

[1] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

Appendix A – Basic Definitions of Major Air Pollutants

Technical and/or legal definitions exist for many of these pollutants, depending on context. The following definitions are for general, introductory purposes only:

Carbon Dioxide (CO_2) – Common product of combustion. Not a criteria pollutant, but considered an important "greenhouse gas." Important on a national or global scale.

Carbon Monoxide (CO) – Common product of incomplete combustion. A criteria pollutant with state and federal standards. Not a primary photochemical reaction compound, but involved in photochemical reactions. Dissipates rapidly, and is therefore only important on a local scale near sources.

Criteria Pollutants – Those air pollutants specifically identified for control under the Federal Clean Air Act (currently six: carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone and particulates).

Lead (Pb) – A heavy metal, present in the environment mainly due to historical use in motor vehicle fuel. Primarily associated with lead smelting operations. A criteria pollutant with state and federal standards. Primarily of concern near sources.

Oxides of Nitrogen (NO_x) – Common product of combustion in the presence of nitrogen. Includes NO_2, which is a criteria pollutant with state and federal standards. Locally and regionally important due to its involvement in the photochemical formation of ozone.

Oxides of Sulfur (SO_x) – Common product of combustion in the presence of sulfur. Associated primarily with diesel and coal burning. Includes SO_2, a criteria pollutant with state and federal standards. Primarily of concern near sources.

Ozone (O_3) – A gas mainly produced by a photochemical reaction between reactive organic gases and oxides of nitrogen in the presence of sunlight (also produced by molecular oxygen in the presence of ultraviolet light or electrical discharge). A strong oxidant that is damaging at ground level but necessary at high altitude (in the stratosphere, where it absorbs dangerous ultraviolet light). Also considered an important greenhouse gas. A criteria pollutant with state and federal standards.

Particulate Matter (TSP or PM_{30}) – Solid or liquid matter suspended in the atmosphere, excluding water. Includes aerosols and droplets that form in the atmosphere. Locally and regionally important.

Reactive/Volatile Organic Compounds/Gases (ROG, VOC, NMOG, NMOC) – A portion of total organic compounds or gases, excludes methane, ethane and acetone (due to low photochemical reactivity). "ROG" is generally used by the California Air Resources Board, "VOC" is generally used by the United States Environmental Protection Agency, but all four terms are interchangeable for most uses. Regionally important due to its involvement in the photochemical reaction that produces ozone.

Respirable Particulate Matter (coarse or PM_{10}, and fine or $PM_{2.5}$) – That portion of particulate matter that tends to penetrate into the human lung. The subscript refers to aerodynamic diameter. Criteria pollutants with state and federal standards. Locally and regionally important.

Total Organic Compounds/Gases (TOC or TOG) – Compounds containing at least one atom of carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and metallic carbonates. Primarily methane in the atmosphere, a "greenhouse gas."

EXHIBIT C

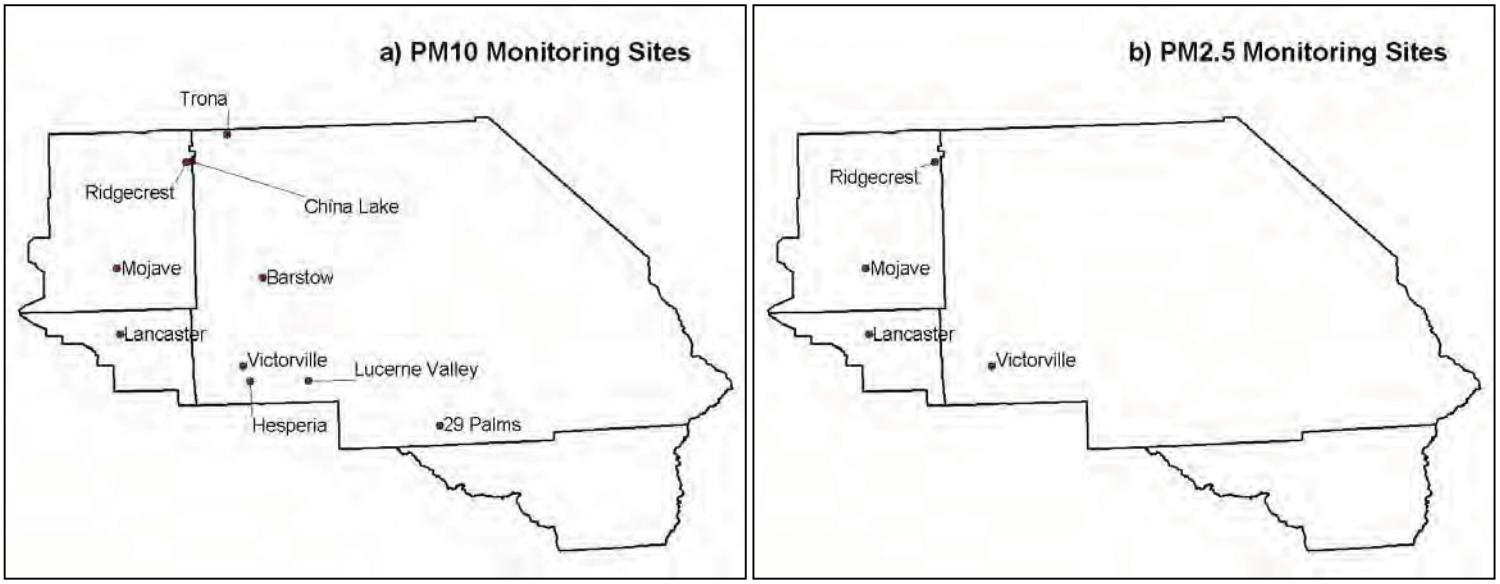
D. Mojave Desert Air Basin

The Mojave Desert Air Basin is comprised of four air districts, the Kern County APCD, the Antelope Valley AQMD, the Mojave Desert AQMD, and the eastern portion of the South Coast AQMD. The Kern County APCD consists of the eastern portion of Kern County; the Antelope Valley AQMD consists of the northeastern portion of Los Angeles County; the Mojave Desert AQMD includes San Bernardino County and the most eastern portion of Riverside County; and the portion of the South Coast AQMD includes the eastern part of Riverside County.

The entire air basin is currently designated as nonattainment for both the State 24-hour and the annual average PM10 standards, with only the western portion of the Mojave Desert AQMD designated as nonattainment for the State annual average PM2.5 standard. The San Bernardino portion of the Mojave Desert AQMD is currently designated as nonattainment for the national PM10 standards. However, although this portion of the air district has not been officially redesignated, it has not exceeded these standards in many years.

Figure D-1 shows the PM10 (a) and PM2.5 (b) monitoring sites throughout the Mojave Desert Air Basin. Sites are located in the more densely populated western portion of the air basin.

Figure D-1. PM10 and PM2.5 Monitoring Sites throughout the Air Basin.



Kern County APCD

Table D-1 provides information on the yearly variations in the highest PM10 and PM2.5 concentrations recorded across the Kern County APCD in 2001 through 2003. During this period, particulate levels are estimated to have exceeded the State 24-hour PM10 standard of 50 $\mu g/m^3$ thirty times and also exceeded the State annual PM10 standard of 20 $\mu g/m^3$. Data are insufficient to determine if PM2.5 levels exceeded the State annual standard of 12 $\mu g/m^3$.

Table D-1. PM10 and PM2.5 Air Quality in the Kern County APCD.

Year	PM10 (ug/m^3)			PM2.5 (ug/m^3)	
	Calculated Days over State Std.	Max 24-hour (Std.=50)	Max Annual Average (Std.=20)	Max 24-hour*	Max Annual Average (Std.=12)
2001	6	112	20	15	Incomplete Data
2002	12	194**	24	31	Incomplete Data
2003	12	158**	22	23	Incomplete Data

* The maximum 24-hour PM2.5 values are provided for information only.
** These values were excluded for determining attainment status. See text.

Table D-2 provides the 24-hour and annual designation values for the State standards for the 2001-2003 period. Designation values represent the highest 24-hour PM10 concentration measured during the three year period, after concentrations measured during highly irregular and infrequent events have been excluded, and the highest estimated PM10 and PM2.5 annual average in the same period. For example, the maximum 24-hour PM10 concentrations in 2002 and 2003 shown in Table D-1 were identified as extreme concentration events and were excluded in determining the designation values shown in Table D-2. The designation values are determined for each site, and the highest site is used for determining an area's designation. Based on these data, the Kern County APCD currently is nonattainment for both the State 24-hour and annual average PM10 standards. The District is designated as unclassified for the State annual PM2.5 standard – available data are insufficient to support designation as attainment or nonattainment.

Table D-2. Air District Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Designation Value	112	24	Incomplete Data

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Table D-3 provides designation values for each monitoring site in the air district to provide further information on the geographic distribution of concentrations. The data show that all three PM10 monitors in the Kern County APCD exceeded the 24-hour PM10 standard, with China Lake recording the highest concentrations. China Lake, however, did not exceed the PM10 annual standard of 20 $\mu g/m^3$, while the Mojave and Ridgecrest monitoring sites did. PM2.5 data are not yet complete enough to determine PM2.5 annual average concentrations.

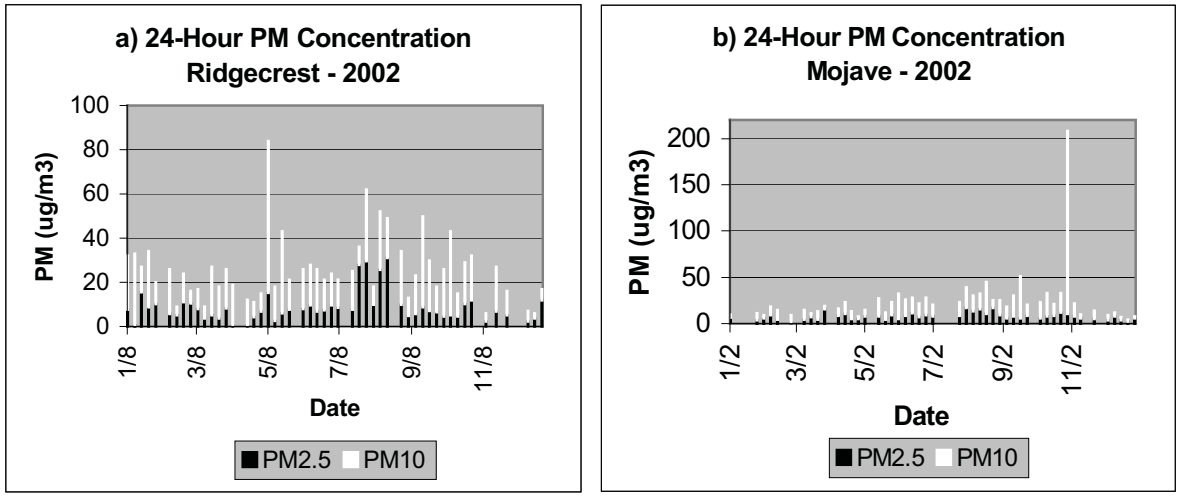
Table D-3. Monitoring Site Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

Site	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
China Lake	112	15	No monitor
Mojave	93	21	Incomplete Data
Ridgecrest	78	24	Incomplete Data

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Figure D-2 illustrates the variation in PM10 and PM2.5 levels throughout 2002 at Ridgecrest (a) and Mojave (b). The total height of the bars represents PM10 concentrations, while the height of the black portion of the bars represents the PM2.5 fraction. At Ridgecrest, higher PM10 concentrations occurred during the spring through the early fall. During the spring and early fall, the coarse fraction (particles between PM2.5 and PM10 in size) drove the ambient PM10 levels, while during the late summer, the PM2.5 fraction was more prominent. The coarse fraction is primarily due to activities that resuspend dust, such as emissions from paved and unpaved roads and construction, as well as windblown dust. The very high PM10 concentration in October 2002 at Mojave for example was likely caused by fugitive wind blown dust. On an annual average, based on 2000-2003 monitoring data, we estimate PM2.5 comprises 32 percent of the ambient PM10 levels in the Kern County APCD.

Figure D-2. Seasonal Variation in PM10 and PM2.5 Concentrations.



Based on PM2.5 chemical composition data available from sites operated at China Lake, Edwards, and Mojave during the 2000 California Regional PM10 and PM2.5 Air Quality Study, the fraction of PM2.5 that is comprised of secondary ammonium nitrate and ammonium sulfate was approximately 40 percent on an annual average.

Antelope Valley AQMD

Table D-4 provides information on the yearly variations in the highest PM10 and PM2.5 concentrations recorded across the Antelope Valley AQMD in 2001 through 2003. During this period, particulate levels are estimated to have exceeded the State 24-hour PM10 standard of 50 $\mu g/m^3$ at least six times and also exceeded the State annual PM10 standard of 20 $\mu g/m^3$. Although data are insufficient to determine the calculated days exceeding the State 24-hour PM10 standard in 2002, one day measured PM concentrations exceeding the standard. In 2003, annual average PM2.5 levels were well below the State annual PM2.5 standard of 12 $\mu g/m^3$, but data were insufficient to determine if this was also the case in 2001 and 2002.

Table D-4. PM10 and PM2.5 Air Quality in the Antelope Valley APCD.

Year	PM10 (ug/m^3)			PM2.5 (ug/m^3)	
	Calculated Days over State Std.	Max 24-hour (Std.=50)	Max Annual Average (Std.=20)	Max 24-hour**	Max Annual Average (Std.=12)
2001	No monitor	No monitor	No monitor	No monitor	No monitor
2002	Incomplete Data	73*	Incomplete Data	24	Incomplete Data
2003	6	54	23	25	9

* The maximum 24-hour PM2.5 values are provided for information only.
** This value is excluded for determining attainment status. See text.

Table D-5 provides the 24-hour and annual designation values for the State standards for the 2001-2003 period. Designation values represent the highest 24-hour PM10 concentration measured during the three year period, after concentrations measured during highly irregular and infrequent events have been excluded, and the highest estimated PM10 and PM2.5 annual average in the same period. For example, the maximum 24-hour PM10 concentration in 2002 shown in Table D-4 was identified as an extreme concentration event and was excluded in determining the designation values shown in Table D-5. The designation values are determined for each site, and the highest site is used for determining an area's designation. Based on these data, the Antelope Valley AQMD currently is nonattainment for the State 24-hour and annual average PM10 standards. The District is designated as unclassified for the State annual PM2.5 standard – available data are insufficient to support designation as attainment or nonattainment.

Table D-5. Air District Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Designation Value	54	23	Incomplete Data

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Table D-6 provides designation values for each monitoring site in the air district to provide further information on the geographic distribution of concentrations. Only a single monitoring site at Lancaster is operated in the District. As noted above, Lancaster exceeds the State 24-hour and annual average PM10 standards. Although data are not complete for all three years, the PM2.5 annual average concentration at Lancaster is below the State standard.

Table D-6. Monitoring Site Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

Site	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Lancaster	54	23	9

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Figure D-3. Seasonal Variation in PM10 and PM2.5 Concentrations.

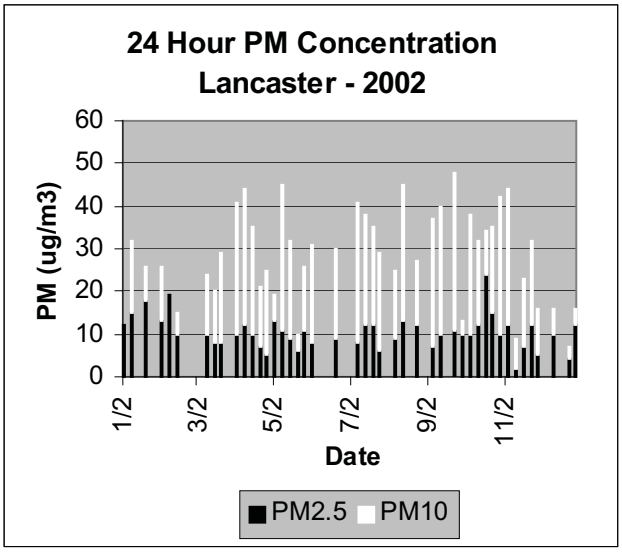
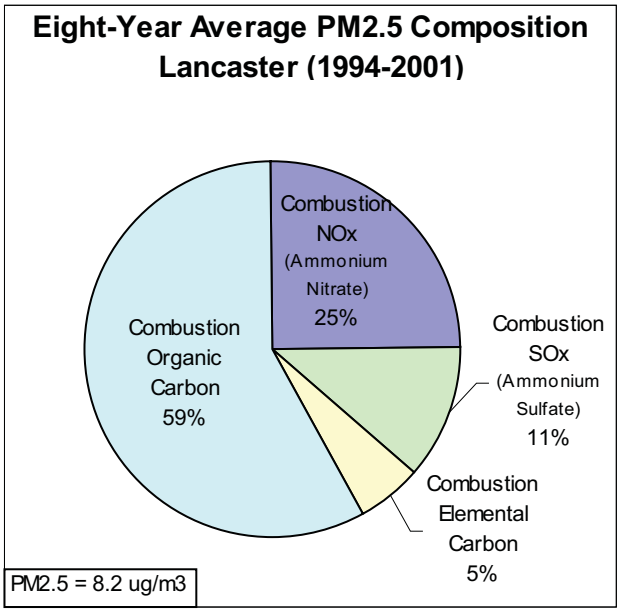


Figure D-3 illustrates the variation in PM10 and PM2.5 levels throughout 2002 at Lancaster. The total height of the bars represents PM10 concentrations, while the height of the black portion of the bars represents the PM2.5 fraction. PM10 levels were highest from spring through early fall and were driven by the coarse fraction (particles between PM2.5 and PM10), while PM2.5 concentrations remained low throughout the year. The coarse fraction is primarily due to activities that resuspend dust, such as emissions from paved and unpaved roads and construction, as well as windblown dust.

On an annual average, based on 2000-2003 monitoring data, we estimate that PM2.5 comprises 36 percent of the PM10 ambient levels.

Figure D-4. Eight-Year Average PM2.5 Chemical Composition and Link to Source Type.



Data for Figure D-4 are from analysis of ambient PM2.5 data collected at Lancaster as part of the Southern California Children's Health Study. The data show the major contribution to PM2.5 is from organic carbon (59 percent). The majority of organic carbon is expected to be due to directly emitted carbon from combustion sources. Key sources include vehicles, residential wood combustion, agricultural and prescribed burning, and stationary combustion sources. However, a fraction may be due to secondary organic aerosol formation from anthropogenic and biogenic VOC emissions.

Secondary ammonium nitrate and ammonium sulfate - formed in the atmosphere through chemical reactions of NOx and SOx from mobile and stationary source combustion processes, together contribute about 36 percent to PM2.5 levels. Elemental carbon from combustion sources also contributes to PM2.5 levels, but to a much lesser extent.

Mojave Desert AQMD

Table D-7 provides information on the yearly variations in the highest PM10 and PM2.5 concentrations recorded across the Mojave Desert AQMD in 2001 through 2003. During this period, particulate levels are estimated to have exceeded the State 24-hour PM10 standard of 50 $\mu g/m^3$ at least 18 times. PM concentrations also exceeded the State annual PM10 standard of 20 $\mu g/m^3$ and the annual PM2.5 standard of 12 $\mu g/m^3$.

Table D-7. PM10 and PM2.5 Air Quality in the Mojave Desert AQMD.

Year	PM10			PM2.5	
	Calculated Days over State Std.	Max 24-hour (Std.=50)	Max Annual Average (Std.=20)	Max 24-hour*	Max Annual Average (Std.=12)
2001	Incomplete Data	84**	Incomplete Data	32	12
2002	Incomplete Data	98**	Incomplete Data	38	14
2003	18	169***	28	28	Incomplete Data

* The maximum 24-hour PM2.5 values are provided for information only.
** Data are reported in standard conditions.
*** This value is excluded for determining attainment status. See text.

Table D-8 provides the 24-hour and annual designation values for the State standards for the 2001-2003 period. Designation values represent the highest 24-hour PM10 concentration measured during the three year period, after concentrations measured during highly irregular and infrequent events have been excluded, and the highest estimated PM10 and PM2.5 annual average in the same period. For example, the maximum 24-hour PM10 concentration in 2003 shown in Table D-7 was due to wildfires and was excluded in determining the designation values shown in Table D-8. The designation values are determined for each site, and the highest site is used for determining an area's designation. Based on these data, the Mojave Desert APCD currently is nonattainment for both the State 24-hour and annual average PM10 standards. The San Bernadino County portion of the District is also designated as nonattainment for the State annual PM2.5 standard.

Table D-8. Air District Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Designation Value	129	28	14

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Table D-9 provides designation values for each monitoring site in the air district to provide further information on the geographic distribution of concentrations. All six monitors in the Mojave Desert AQMD recorded PM10 concentrations exceeding the State 24-hour standard, with particulate levels at Hesperia also exceeding the State annual PM10 standard of 20 $\mu g/m^3$. 24-hour PM10 concentrations were highest at Barstow, Hesperia, and Trona. Annual average PM2.5 levels at Victorville exceeded the State annual PM2.5 standard.

Table D-9. Monitoring Site Level Designation Values* for State PM10 and PM2.5 Standards (2001-2003 Period).

Site	PM10 (ug/m^3)		PM2.5 (ug/m^3)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
29 Palms	64	16	No Monitor
Barstow	129	Incomplete Data	No Monitor
Hesperia	119	28	No Monitor
Lucerne Valley	75	17	No Monitor
Trona	104	17	No Monitor
Victorville	63	Incomplete Data	14

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Figure D-5. Seasonal Variation in PM10 and PM2.5 Concentrations.

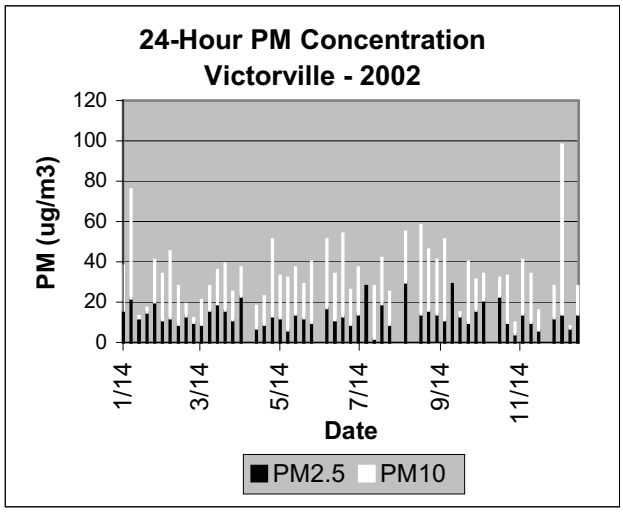


Figure D-5 illustrates the variation in PM10 and PM2.5 levels throughout 2002 at Victorville. The total height of the bars represents PM10 concentrations, while the height of the black portion of the bars represents the PM2.5 fraction. The two highest PM10 concentrations occurred in December and January. PM10 concentrations around the level of the State 24-hour standard occurred in the late spring and through the summer and were driven by the coarse fraction (particles between PM2.5 and PM10). The coarse fraction is primarily due to activities that resuspend dust, such as emissions from paved and unpaved roads and construction, as well as windblown dust. PM2.5 concentrations were more uniform throughout the year.

On an annual average, based on 2000-2003 monitoring data, we estimate that PM2.5 comprises approximately 38 percent of ambient PM10 levels. Although no chemical composition data is available, based on data from the Kern County APCD portion of the air basin, we estimate that the secondary ammonium nitrate and sulfate comprise approximately 40 percent of PM2.5.

South Coast AQMD

No PM10 or PM2.5 monitors are located in the South Coast AQMD portion of the Mojave Desert Air Basin.

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March 24, 2014

Via U.S. Mail and E-mail (PDF): capssolarblythe@blm.gov

Mr. Frank McMenimen
Project Manager
Bureau of Land Management Palm Springs
South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262-8001

Re: NextEra Blythe Solar Energy Center, LLC Comments on Draft Environmental Impact Statement for the Proposed Right-of-Way Amendment for the Blythe Solar Project, CACA 048811

Dear Mr. McMenimen:

I am writing on behalf of NextEra Blythe Solar Energy Center, LLC ("NextEra Blythe"), the Right-of-Way Grant holder for the Blythe Solar Project, to convey NextEra Blythe's comments on the Draft Environmental Impact Statement ("DEIS") for the Proposed Right-of-Way Amendment for the Blythe Solar Project.

As an initial matter, we wish to extend our appreciation to the Bureau of Land Management ("BLM") for its thorough work in preparing the DEIS in response to NextEra Blythe's variance request to reduce the size of the project and convert the approved solar technology to solar photovoltaic (the "Modified Project"). Based on our review of the DEIS, we have only one comment, which concerns the need to update the proposed Design Features ("DFs") set out in Table 2-6 to more closely conform to the final Conditions of Certification ("COCs") approved by the California Energy Commission ("Commission"), which the Commission finalized during BLM's preparation of the DEIS.

As explained by BLM in the DEIS (Section 2.7, at 2-34), NextEra Blythe proposed to utilize the Commission's COCs as DFs in conjunction with BLM's review of the variance request in order to reduce or avoid potential environmental impacts that could result from the Modified Project. At the time NextEra Blythe provided the COCs to BLM for inclusion in BLM's environmental review process in December 2013, the COCs had not yet been finalized by the Commission. The Commission formally adopted the final COCs on January 21, 2014 in the final Commission Decision. While the final COCs are substantially similar to those included

as DFs in Table 2-6 of the DEIS, there were some minor changes to the final COCs that differ from the DFs set forth in the DEIS. A redline document setting out these changes is attached to this letter.

Thank you for your consideration and please let us know if you have any questions.

Sincerely,

David J. Lazerwitz

DJL: jy

Attachment: Revised DEIS Table 2-6

TABLE 2-6
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design	
GEN-1: The Project Owner shall design, construct, and inspect the project in accordance with the 2010 California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering LORS in effect at the time initial design plans are submitted to the CBO for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The Project Owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility. All transmission facilities (lines, switchyards, switching stations and substations) are covered in the conditions of certification in the **Transmission System Engineering** section of this document. In the event that the initial engineering designs are submitted to the CBO when the successor to the 2010 CBSC is in effect, the 2010 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. The Project Owner shall ensure that all contracts with contractors, subcontractors, and suppliers clearly specify that all work performed and materials supplied comply with the codes listed above.	Within 30 days following receipt of the certificate of occupancy, the Project Owner shall submit to the CPM a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design. The Project Owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO. Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.
GEN-2: Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, and master drawing and master specifications lists. The schedule shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the Project Owner shall provide specific packages to the CPM upon request.	At least 60 days (or a Project Owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the master drawing and master specifications lists of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures and equipment listed in **Facility Design Table 2**, below. Major structures and equipment shall be added to or deleted from the table only with CPM approval. The project owner shall provide schedule updates in the monthly compliance report.

Facility Design Table 2
Major Structures and Equipment List

Equipment/System	Quantity (Plant)
PV Module	6,000,000
PV Racking System[1]	71,500
Step-up Transformer Foundation and Connections	4
Power Conversion Station Foundation and Connections	250

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
	Facility Design Table 2 (continued) **Major Structures and Equipment List**

Equipment/System	Quantity (Plant)
Met Station Foundation and Connections	4
Circuit Breaker Foundation and Connections	29
Operation and Maintenance Facility Building Structure, Foundation and Connections	1
Raw/Fire Water Tank Structure, Foundation and Connections	1
Demineralized Water Tank Structure, Foundation and Connections	1
Potable Water Tank Structure, Foundation and Connections	1
Drainage System (including sanitary drain and waste)	1 Lot
HVAC Systems	1 Lot
Temperature Control and Ventilation Systems (including water and septic connections)	1 Lot
Building Energy Conservation Systems	1 Lot
Switchboards, Buses and Towers for Operations	1 Lot
Electrical Cables/Duct Banks	4 Lots

[1] PV equipment quantities are based on the existing plant layouts

GEN-3: The Project Owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the Project Owner and the CBO. These fees may be consistent with the fees listed in the 2010 CBC, adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.	The Project Owner shall make the required payments to the CBO in accordance with the agreement between the Project Owner and the CBO. The Project Owner shall send a copy of the CBO's receipt of payment to the CPM in the next monthly compliance report indicating that applicable fees have been paid.
GEN-4: Prior to the start of rough grading, the project owner shall assign a California- registered architect, or a structural or civil engineer, as the resident engineer (RE) in charge of the project. All transmission facilities (lines, switchyards, switching stations, and substations) are addressed in the conditions of certification in the **Transmission System Engineering** section of this document.	At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
The RE may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project, respectively. A project may be divided into parts, provided that each part is clearly defined as a distinct unit. Separate assignments of general responsibility may be made for each designated part. The RE shall: 1. Monitor progress of construction work requiring CBO design review and inspection to ensure compliance with LORS; 2. Ensure that construction of all facilities subject to CBO design review and inspection conforms in every material respect to applicable LORS, these conditions of certification, approved plans, and specifications; 3. Prepare documents to initiate changes in approved drawings and specifications when either directed by the project owner or as required by the conditions of the project; 4. Be responsible for providing project inspectors and testing agencies with complete and up-to-date sets of stamped drawings, plans, specifications, and any other required documents; 5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other engineers who have been delegated responsibility for portions of the project; and 6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests when they do not conform to approved plans and specifications. The RE (or his delegate) must be located at the project site, or be available at the project site within a reasonable period of time, during any hours in which construction takes place. The RE shall have the authority to halt construction and to require changes or remedial work if the work does not meet requirements. If the RE or the delegated engineers are reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.	If the RE or the delegated engineer(s) is subsequently reassigned or replaced, the project owner has five days to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.
GEN-5: Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of PV plants and equipment support; a mechanical engineer; and an electrical engineer. (California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California). All transmission facilities (lines, switchyards, switching stations, and substations) are handled in the conditions of certification in the **Transmission System Engineering** section of this document. The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (for example, proposed earthwork, civil structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.	At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist assigned to the project. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
The project owner shall submit, to the CBO for review and approval, the names, qualifications, and registration numbers of all responsible engineers assigned to the project. If any one of the designated responsible engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned responsible engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer. A. The civil engineer shall: 1. Review the foundation investigations, geotechnical, or soils reports prepared by the soils engineer, the geotechnical engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering; 2. Design (or be responsible for the design of), stamp, and sign all plans, calculations, and specifications for proposed site work, civil works, and related facilities requiring design review and inspection by the CBO. At a minimum, these include: grading, site preparation, excavation, compaction, construction of secondary containment, foundations, erosion and sedimentation control structures, drainage facilities, underground utilities, culverts, site access roads and sanitary sewer systems; and 3. Provide consultation to the RE during the construction phase of the project and recommend changes in the design of the civil works facilities and changes to the construction procedures. B. The soils engineer, geotechnical engineer, or civil engineer experienced and knowledgeable in the practice of soils engineering, shall: 1. Review all the engineering geology reports; 2. Prepare the foundation investigations, geotechnical, or soils reports containing field exploration reports, laboratory tests, and engineering analysis detailing the nature and extent of the soils that could be susceptible to liquefaction, rapid settlement or collapse when saturated under load; 3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with requirements set forth in the 2010 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both); and 4. Recommend field changes to the civil engineer and RE. This engineer shall be authorized to halt earthwork and to require changes if site conditions are unsafe or do not conform to the predicted conditions used as the basis for design of earthwork or foundations. C. The engineering geologist shall: 1. Review all the engineering geology reports and prepare a final soils grading report; and 2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2010 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both).	If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
D. The design engineer shall: 1. Be directly responsible for the design of the proposed structures and equipment supports; 2. Provide consultation to the RE during design and construction of the project; 3. Monitor construction progress to ensure compliance with engineering LORS; 4. Evaluate and recommend necessary changes in design; and 5. Prepare and sign all major building plans, specifications, and calculations. E. The mechanical engineer shall be responsible for, and sign and stamp a statement with, each mechanical submittal to the CBO, stating that the proposed final design plans, specifications, and calculations conform to all of the mechanical engineering design requirements set forth in the Energy Commission's decision. F. The electrical engineer shall: 1. Be responsible for the electrical design of the project; and 2. Sign and stamp electrical design drawings, plans, specifications, and calculations.	
GEN-6: Prior to the start of an activity requiring special inspection, including prefabricated assemblies, the project owner shall assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2010 CBC. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the **Transmission System Engineering** section of this document. A certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels). The special inspector shall: 1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection; 2. Inspect the work assigned for conformance with the approved design drawings and specifications; 3. Furnish inspection reports to the CBO and RE. All discrepancies shall be brought to the immediate attention of the RE for correction, then, if uncorrected, to the CBO and the CPM for corrective action; and 4. Submit a final signed report to the RE, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications, and other provisions of the applicable edition of the CBC.	At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above. The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report. If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval. The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.
GEN-7: If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, applicable sections of the CBC and/or other LORS.	The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
GEN-8: The project owner shall obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. The project owner shall notify the CPM after obtaining the CBO's final approval. The project owner shall retain one set of approved engineering plans, specifications, and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project. Electronic copies of the approved plans, specifications, calculations, and marked-up as-builts shall be provided to the CBO for retention by the CPM.	Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, in the next monthly compliance report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans. After storing the final approved engineering plans, specifications, and calculations described above, the project owner shall submit to the CPM a letter stating both that the above documents have been stored and the storage location of those documents. Within 90 days of the completion of construction, the project owner shall provide to the CBO three sets of electronic copies of the above documents at the project owner's expense. These are to be provided in the form of "read only" (Adobe pdf 6.0) files, with restricted (password-protected) printing privileges, on archive quality compact discs.
CIVIL-1: The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2010 CBC.	At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.
CIVIL-2: The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications, and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area.	The project owner shall notify the CPM within 24 hours, when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.
CIVIL-3: The project owner shall perform inspections in accordance with the ~~2007~~**2010** CBC. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO. If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM. The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.	Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR), and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following monthly compliance report.
CIVIL-4: After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans.	Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
	combined grading plans, and that the facilities are adequate for their intended purposes, along with a copy of the transmittal letter to the CPM. The project owner shall submit a copy of the CBO's approval to the CPM in the next monthly compliance report.
STRUC-1: Prior to the start of any increment of construction of any major structure or component listed in **Facility Design Table 2** of condition of certification **GEN-2**, above, the project owner shall submit to the CBO for design review and approval the proposed lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be those for the following items (from **Table 2**, above): 1. Major project structures; 2. Major foundations, equipment supports, and anchorage; and 3. Large field-fabricated tanks. Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component. The project owner shall: 1. Obtain approval from the CBO of lateral force procedures proposed for project structures; 2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications; 3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation; 4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer; and 5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to applicable LORS.	At least 60 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in **Facility Design Table 2** of condition of certification **GEN-2**, above, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM. The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.
STRUC-2: The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets;	If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2010 CBC.	The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.
STRUC-3: The project owner shall submit to the CBO design changes to the final plans required by the 2010 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.	On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.
STRUC-4: Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2010 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.	At least 30 days (or project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification. The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.
MECH-1: The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in **Facility Design Table 2**, condition of certification **GEN-2**, above. Physical layout drawings and drawings not related to code compliance and life safety need not be submitted. The submittal shall also include the applicable QA/QC procedures. Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction. The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards, which may include, but are not limited to: 1. Title 24, California Code of Regulations, Part 5 (California Plumbing Code); 2. Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems); 3. Title 24, California Code of Regulations, Part 2 (California Building Code); and 4. Riverside County codes. The CBO may deputize inspectors to carry out the functions of the code enforcement agency.	At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in **Facility Design Table 2**, condition of certification **GEN-2,** above, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report. The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
MECH-2 (deleted)	
MECH-3: The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC) or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets. The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS.	At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.
ELEC-1: Prior to the start of any increment of electrical construction for all electrical equipment and systems over 240 Volts (V) (see a representative list, below), with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the **Transmission System Engineering** section of this document. A. Final plant design plans shall include: 1. one-line diagrams for the 34.5 kV systems and typical one-line diagrams for all systems under 34.5 kV and over 240 V systems; and 2. system grounding drawings. B. Final plant calculations must establish: 1. short-circuit ratings of plant equipment; 2. ampacity of feeder cables; 3. voltage drop in feeder cables; 4. system grounding requirements; 5. coordination study calculations for fuses, circuit breakers and protective relay settings for ~~the~~ all AC systems under 34.5 kV and over 240 V; 6. system grounding requirements; and 7. lighting energy calculations.	At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Facility Design (cont.)	
C. The following activities shall be reported to the CPM in the monthly compliance report: 1. Receipt or delay of major electrical equipment; 2. Testing or energization of major electrical equipment; and 3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission decision.	
Transmission System Engineering	
TSE-1: The project owner shall provide the Compliance Project Manager (CPM) and the Chief Building Official (CBO) with a schedule of transmission facility design submittals, a master drawing list, a master specifications list, and a major equipment and structure list. The schedule shall contain both a description and a list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.	Prior to the start of construction of transmission facilities, the project owner shall submit the schedule, a master drawing list, and a master specifications list to both the CBO and the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List, below). Additions and deletions shall be made to the table only with both CPM and CBO approval. The project owner shall provide schedule updates in the monthly compliance report. **Table 1** **Major Equipment List** Breakers; Surge arrestors; Switchyard control building Step-up transformer; Disconnects; Transmission pole/tower Switchyard; Take-off facilities; Grounding system Busses; Electrical control building
TSE-2: Before the start of construction, the project owner shall assign to the project an electrical engineer and at least one of each of the following: a. a civil engineer; b. a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; c. a design engineer who is either a structural engineer or a civil engineer and fully competent and proficient in the design of power plant structures and equipment supports; or d. a mechanical engineer (Business and Professions Code, § 6704 et seq. require state registration to practice as either a civil engineer or a structural engineer in California). The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers as long as each engineer is responsible for a particular segment of the project, e.g., proposed earthwork, civil structures, power plant structures, or equipment support. No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical	Prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the names, qualifications, and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the engineers within five (5) days of the approval. If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five (5) days in which to submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five (5) days of the approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Transmission System Engineering (cont.)	
engineer. The civil, geotechnical, or civil and design engineer, assigned as required by Facility Design Condition of Certification GEN-5, may be responsible for design and review of the Transmission System Engineering facilities. The project owner shall submit to the CBO, for review and approval, the names, qualifications, and registration numbers of all engineers assigned to the project. If any one of the designated engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer. This engineer shall be authorized to halt earth work and require changes if site conditions are unsafe or do not conform with the predicted conditions used as the basis for design of earth work or foundations. The electrical engineer shall: a. be responsible for the electrical design of the power plant switchyard, outlet, and termination facilities; and b. sign and stamp electrical design drawings, plans, specifications, and calculations.	
TSE-3: If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend corrective action (2001 California Building Code, Chapter 1, § 108.4, approval required; Chapter 17, § 1701.3, *Duties and Responsibilities of the Special Inspector;* Appendix, Chapter 33, § 3317.7, *Notification of Noncompliance*). The discrepancy documentation shall become a controlled document and shall be submitted to the CBO for review and approval, with reference to this condition of certification.~~\~~	The project owner shall submit a copy of the CBO's approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM within 15 days of receipt. If disapproved, the project owner shall advise the CPM, within five (5) days, the reason for the disapproval, along with the revised corrective action required to obtain the CBO's approval.
TSE-4: For the power plant switchyard, outlet line, and termination, the project owner shall not begin any construction until plans for that increment of construction have been approved by the CBO. These plans, together with design changes and design change notices, shall remain on the site for one (1) year after completion of construction. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. The following activities shall be reported in the Monthly Compliance Report: a. receipt or delay of major electrical equipment; b. testing or energization of major electrical equipment; and c. the number of electrical drawings approved, submitted for approval, and still to be submitted.	Prior to the start of each increment of construction, the project owner shall submit to the CBO for review and approval the final design plans, specifications, and calculations for equipment and systems of the power plant switchyard, outlet line, and termination, including a copy of the signed and stamped statement from the responsible electrical engineer verifying compliance with all applicable LORS. The project owner shall send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.
TSE-5: The project owner shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to all applicable LORS, and the requirements listed below. The project owner shall submit the required number of copies of the design drawings and calculations, as determined by the CBO. a) The power plant outlet line shall meet or exceed the electrical, mechanical, civil, and structural requirements of CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, California ISO standards, National Electric Code (NEC) and related industry standards. b) Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.	Prior to the start of construction of transmission facilities, the project owner shall submit to the CBO for approval: a. Design drawings, specifications, and calculations conforming with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, CA ISO standards, National Electric Code (NEC) and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment;

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Transmission System Engineering (cont.)	
c) Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards. d) The project conductors shall be sized to accommodate the full output of the project. e) Termination facilities shall comply with applicable SCE interconnection standards. f) The project owner shall provide to the CPM: a. The Special Protection System (SPS) sequencing and timing if applicable, b. A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable, c. The final Phase II Interconnection Study, including a description of facility upgrades, operational mitigation measures, and/or special protection system sequencing and timing if applicable; and d. A copy of the executed LGIA signed by the California ISO and the project owner.	b. For each element of the transmission facilities identified above, the submittal package to the CBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions"[2] and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, California ISO standards, National Electric Code (NEC), and related industry standards; c. Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements **TSE-5** a) through f), above; d. The Special Protection System (SPS) sequencing and timing if applicable shall be provided concurrently to the CPM. e. A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable, f. The final Phase II Interconnection Study, including a description of facility upgrades, operational mitigation measures, and/or special protection system sequencing and timing if applicable, and g. A copy of the executed LGIA signed by the California ISO and the project owner.
TSE-6: The project owner shall provide the following notice to the California ISO prior to synchronizing the facility with the California Transmission System: a. At least one (1) week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and b. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.	The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one (1) week prior to initial synchronization with the grid. The project owner shall contact the California ISO Outage Coordination Department, (Monday through Friday, between the hours of 0700 and 1530, at (916) 351-2300) at least one (1) business day prior to synchronizing the facility with the grid for testing. A report of conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

[2] Worst-case conditions for the foundations would include for instance, a dead-end or angle pole.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Transmission System Engineering (cont.)	
TSE-7: The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with: CPUC GO-95 or NESC; Title 8 CCR; Articles 35, 36, and 37 of the High Voltage Electric Safety Orders; applicable interconnection standards; NEC; and related industry standards. In case of nonconformance, the project owner shall inform the CPM and CBO in writing within 10 days of discovering such nonconformance and describe the corrective actions to be taken.	Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO: 1. "As built" engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC; Title 8 CCR,; Articles 35, 36, and 37 of the High Voltage Electric Safety Orders; applicable interconnection standards; NEC; and related industry standards. 2. An "as built" engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. "As built" drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the "Compliance Monitoring Plan." 3. A summary of inspections of the completed transmission facilities and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.
Air Quality	
AQ-SC1: Air Quality Construction Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with Conditions of Certification **AQ-SC3**, **AQ-SC4** and **AQ-SC5** for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM Delegates. The AQCMM and AQCMM Delegates shall have full access to all areas of construction on the project site and linear facilities, and shall have the authority to stop any or all construction activities as warranted by applicable construction mitigation Conditions. The AQCMM and AQCMM Delegates may have other responsibilities in addition to those described in this Condition. The AQCMM shall not be terminated without written consent of the Compliance Project Manager (CPM).	At least 30 days prior to the start of ground disturbance, the project owner shall submit to the CPM for approval, the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates.
AQ-SC2 Air Quality Construction Mitigation Plan (AQCMP): The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with Conditions of Certification **AQ-SC3**, **AQ-SC4,** and **AQ-SC5**.	At least 30 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval. The AQCMP shall include effectiveness and environmental data for the proposed soil stabilizer. The CPM will notify the project owner of any necessary modifications to the plan within 15 days from the date of receipt.
AQ-SC3: Construction Fugitive Dust Control: The AQCMM shall submit documentation to the CPM in each Monthly Compliance Report that demonstrates compliance with the Air Quality Construction Mitigation Plan (AQCMP) mitigation measures for the purposes of minimizing fugitive dust emission creation from construction activities and preventing all fugitive dust plumes that would not comply with the performance standards identified in **AQ-SC4** from leaving the project site. The following fugitive dust mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**, and any deviation from the AQCMP mitigation measures shall require prior CPM notification and approval.	The AQCMM shall provide the CPM a Monthly Compliance Report to include the following to demonstrate control of fugitive dust emissions: A. A summary of all actions taken to maintain compliance with this Condition; B. Copies of any complaints filed with the District in relation to project construction; and

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Air Quality (cont.)	
a. The main access roads through the facility to the power block areas will be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, prior to initiating construction in the main power block area, and delivery areas for operations materials (chemicals, replacement parts, etc.) will be paved or treated prior to taking initial deliveries.	Any other documentation deemed necessary by the CPM or AQCMM to verify compliance with this Condition. Such information may be provided via electronic format or disk at the project owner's discretion.
b. All unpaved construction roads and unpaved operation and maintenance site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. All other disturbed areas in the project and linear construction sites shall be watered as frequently as necessary during grading (consistent with Biology Conditions of Certification that address the minimization of standing water); and after active construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods, in order to comply with the dust mitigation objectives of Condition of Certification **AQ-SC4**. The frequency of watering can be reduced or eliminated during periods of precipitation.	
c. No vehicle shall exceed 10 miles per hour on unpaved areas within the construction site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.	
d. Visible speed limit signs shall be posted at the construction site entrances.	
e. All construction equipment vehicle tires shall be inspected and washed as necessary to be cleaned free of dirt prior to entering paved roadways.	
f. Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.	
g. All unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.	
h. All construction vehicles shall enter the construction site through the treated entrance roadways, unless an alternative route has been submitted to and approved by the CPM.	
i. Construction areas adjacent to any paved roadway below the grade of the surrounding construction area or otherwise directly impacted by sediment from site drainage shall be provided with sandbags or other equivalently effective measures to prevent run-off to roadways, or other similar run-off control measures as specified in the Storm Water Pollution Prevention Plan (SWPPP), only when such SWPPP measures are necessary so that this Condition does not conflict with the requirements of the SWPPP.	
j. All paved roads within the construction site shall be swept daily or as needed (less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.	
k. At least the first 500 feet of any paved public roadway exiting the construction site or exiting other unpaved roads en route from the construction site or construction staging areas shall be swept as needed (less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff resulting from the construction site activities is visible on the public paved roadways.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Air Quality (cont.)	
l. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds. m. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard. n. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this Condition shall remain in place until the soil is stabilized or permanently covered with vegetation.	
AQ-SC4: Dust Plume Response Requirement: The AQCMM or an AQCMM Delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported (A) off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner or (B) 200 feet beyond the centerline of the construction of linear facilities indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified. The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed. Step 1: The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination. Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1, specified above, fails to result in adequate mitigation within 30 minutes of the original determination. Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2, specified above, fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shutdown source. The owner/operator may appeal to the CPM any directive from the AQCMM or Delegate to shut down an activity, if the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.	The AQCMM shall provide the CPM a Monthly Compliance Report to include: A. A summary of all actions taken to maintain compliance with this Condition; B. Copies of any complaints filed with the District in relation to project construction; and Any other documentation deemed necessary by the CPM or AQCMM to verify compliance with this Condition. Such information may be provided via electronic format or disk at the project owner's discretion.
AQ-SC5: Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a construction mitigation report that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction-related emissions. The following off-road diesel construction equipment mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**, and any deviation from the AQCMP mitigation measures shall require prior and CPM notification and approval. a. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCM showing that the engine meets the Conditions set forth herein. b. All construction diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the on-site AQCMM demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 3 engine is not available for any off-road equipment larger than 50 hp, that equipment shall be equipped with a Tier 2 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides	The AQCMM shall include in the Monthly Compliance Report the following to demonstrate control of diesel construction-related emissions: A. A summary of all actions taken to control diesel construction related emissions; B. A list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained; and Any other documentation deemed necessary by the CPM or AQCMM to verify compliance with this Condition. Such information may be provided via electronic format or disk at the project owner's discretion.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Air Quality (cont.)	
(NO_X) and diesel particulate matter (DPM) to no more than Tier 2 levels unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this Condition, the use of such devices is "not practical" for the following, as well as other, reasons. 1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or 2. The construction equipment is intended to be on site for 10 days or less. 3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not practical. c. The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within 10 working days of the termination and that a replacement for the equipment item in question meeting the controls required in item "b" occurs within 10 days of termination of the use, if the equipment would be needed to continue working at this site for more than 15 days after the use of the retrofit control device is terminated, if one of the following conditions exists : 1. The use of the retrofit control device is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure. 2. The retrofit control device is causing or is reasonably expected to cause engine damage. 3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public. 4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination. d. All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications. e. All diesel heavy construction equipment shall not idle for more than ten minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement. f. Construction equipment will employ electric motors when feasible.	
AQ-SC6: The project owner, when obtaining dedicated on-road or off-road vehicles for panel washing activities and other facility maintenance activities, shall only obtain vehicles that meet California on-road vehicle emission standards or appropriate U.S.EPA/California off-road engine emission standards for the latest model year available when obtained.	At least 30 days prior to the start commercial operation, the project owner shall submit to the CPM a copy of the plan that identifies the size and type of the on-site vehicle and equipment fleet and the vehicle and equipment purchase orders and contracts and/or purchase schedule. The plan shall be updated every other year and submitted in the Annual Compliance Report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Air Quality (cont.)	
AQ-SC7: The project owner shall provide a Ssite Operations Dust Control Plan, including all applicable fugitive dust control measures identified in the verification of **AQ-SC3** that would be applicable to minimizing fugitive dust emission creation from operation and maintenance activities and preventing all fugitive dust plumes that would not comply with the performance standards identified in **AQ-SC4** from leaving the project site; that: A. describes the active operations and wind erosion control techniques such as windbreaks and chemical dust suppressants, including their ongoing maintenance procedures, that shall be used on areas that could be disturbed by vehicles or wind anywhere within the project boundaries; and B. identifies the location of signs throughout the facility that will limit traveling on unpaved portion of roadways to solar equipment maintenance vehicles only. In addition, vehicle speed shall be limited to no more than 10 miles per hour on these unpaved roadways, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. The Ssite ~~o~~Operations ~~f~~Fugitive ~~d~~Dust Cc~~o~~ontrol ~~p~~Plan shall include the use of durable non-toxic soil stabilizers on all regularly used unpaved roads and disturbed off-road areas, or alternative methods for stabilizing disturbed off-road areas, within the project boundaries, and shall include the inspection and maintenance procedures that will be undertaken to ensure that the unpaved roads remain stabilized. The soil stabilizer used shall be a non-toxic soil stabilizer or soil weighting agent that can be determined to be as efficient as or more efficient for fugitive dust control than ARB approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. The performance and application of the fugitive dust controls shall also be measured against and meet the performance requirements of Condition **AQ-SC4**. The measures and performance requirements of **AQ-SC4** shall also be included in the operations dust control plan.	At least 30 days prior to start of commercial operation, the project owner shall submit to the CPM for review and approval a copy of the site Operations Dust Control Plan that identifies the dust and erosion control procedures, including effectiveness and environmental data for the proposed soil stabilizer, that will be used during operation of the project and that identifies all locations of the speed limit signs. Within 60 days after commercial operation, the project owner shall provide to the CPM a report identifying the locations of all speed limit signs, and a copy of the project employee and contractor training manual that clearly identifies that project employees and contractors are required to comply with the dust and erosion control procedures and on-site speed limits.
Biological Resources	
BIO-1: Designated Biologist Selection and Qualifications.[3] The project owner shall assign at least one Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist(s), with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) for approval in consultation with CDFW and USFWS. The Designated Biologist must meet the following minimum qualifications: 1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; 2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; 3. Have at least one year of field experience with biological resources found in or near the project area;	At least 60 days prior to site mobilization or construction-related ground disturbance, the project owner shall submit the names of the Designated Biologist (s) along with completed USFWS Desert Tortoise Authorized Biologist Request Form (www.fws.gov/ventura/speciesinfo/protocols_guidelines) to the USFWS and the CPM for review and final approval. No site mobilization or construction-related ground disturbance, grading, boring, or trenching shall commence until an approved Designated Biologist is available to be on site. If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM at least 10 working

[3] USFWS <www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/dt> designates biologists who are approved to handle tortoises as "Authorized Biologists." Such biologists have demonstrated to the USFWS that they possess sufficient desert tortoise knowledge and experience to handle and move tortoises appropriately, and have received USFWS approval. Authorized Biologists are responsible for the implementation of all desert tortoise measures for which a project is approved and are permitted to then approve specific monitors to handle tortoises, at their discretion. The California Department of Fish and Wildlife (CDFW) must also approve such biologists, potentially including individual approvals for Biological Monitors approved by the Authorized Biologist. Designated Biologists are the equivalent of Authorized Biologists. Only Designated Biologists and certain Biological Monitors who have been approved by the Designated Biologist would be allowed to handle desert tortoises.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
4. Meet the current USFWS Authorized Biologist qualifications criteria (www.fws.gov/ventura/speciesinfo/protocols_ guidelines), demonstrate familiarity with protocols and guidelines for the desert tortoise, and be approved by the USFWS; and 5. Possess a California ESA Memorandum of Understanding pursuant to Section 2081(a) for desert tortoise. 6. In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM, in consultation with CDFW and USFWS, that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the Conditions of Certification.	days prior to the termination or release of the preceding Designated Biologist. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM and for consideration.
BIO-2: Designated Biologist Duties. The project owner shall ensure that the Designated Biologist(s) performs the activities described below during any pre- construction site mobilization and construction, commissioning, or other activities that may impact biological resources. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner and the CPM. The Designated Biologist, or project owner if no Designated Biologist is available, duties, shall include the following: 1. Advise the project owner's Construction and Operation Managers and the CPM on the implementation of the biological resources Conditions of Certification; 2. Consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to be submitted by the project owner; 3. Be available to supervise, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special-status species or their habitat; 4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and Conditions; 5. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way; 6. Notify the project owner and the CPM within 24 hours of any non-compliance with any biological resources Conditions of Certification, injury or mortality of a special status species, or if more than six injured or dead birds or bats are located onsite at one time, and collect all data necessary to document such events, such as GPS location, photographs, and observations necessary to develop a comprehensive report; 7. Respond directly to inquiries of the CPM or responsible Energy Commission staff regarding biological resource issues, and provide or collect reasonably available data upon CPM request, including information as specified in **BIO-2** #6; 8. Respond to reports of onsite kit fox mortality or injury, and to the extent possible, reports of dead or injured kit fox offsite and immediately adjacent the project boundaries or on access roads in accordance with Conditions of Certification **BIO-17**, fully document and record the event and collect pertinent data, and undertake restorative and/or disease prevention actions as specified within the American Badger and Kit Fox Management Plan prepared in accordance with Condition of Certification **BIO-17**.	The Designated Biologist shall provide copies of all written reports, email communications and summaries that document biological resources compliance activities in the Monthly Compliance Reports submitted to the CPM. If actions may affect biological resources during operation a Designated Biologist shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless his or her duties cease, as approved by the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
9. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the Monthly Compliance Report and the Annual Compliance Report; 10. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura/speciesinfo/protocols_guidelines>, as well as all terms and conditions of the Biological Opinion; and 11. Maintain the ability to be in regular, direct communication with representatives of CDFW, USFWS, and the CPM, including notifying these agencies of dead or injured listed species and reporting special-status species observations to the California Natural Diversity Data Base.	
BIO-3: Biological Monitor Selection and Qualifications. The project owner's approved Designated Biologist shall submit the resume, at least three references, and contact information of the proposed Biological Monitors to the CPM. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks. The Biological Monitor is the equivalent of the USFWS designated Desert Tortoise Monitor (USFWS 2008). Biological Monitor(s) training by the Designated Biologist shall include familiarity with the Conditions of Certification, BRMIMP, WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura /speciesinfo/protocols_guidelines>.	The project owner shall submit the specified information to the CPM for approval at least 45 days prior to the start of any site mobilization or construction activities. The Designated Biologist shall submit a written statement to the CPM confirming that individual Biological Monitor(s) has been trained including the date when training was completed. If additional biological monitors are needed during construction the specified information shall be submitted to the CPM and for approval at least 10 days prior to their first day of monitoring activities.
BIO-4: Biological Monitor Duties. The Biological Monitors shall assist the Designated Biologist(s) in conducting surveys and in monitoring of site mobilization, and construction related ground disturbance, site preparation, or permanent installation activities, including installation of desert tortoise exclusion fencing or reporting responsibilities. The Designated Biologist shall remain the contact for the project owner and the CPM, however, biological monitors will also respond directly to inquiries of the CPM or other responsible Energy Commission staff regarding biological resource issues, and collect and provide reasonably available information as requested by the CPM.	The Designated Biologist shall submit in the Monthly Compliance Report to the CPM and copies of all written reports and summaries that document biological resources compliance activities, including those conducted by Biological Monitors. If actions may affect biological resources during operation a Biological Monitor, under the supervision of the Designated Biologist, shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless their duties cease, as approved by the CPM.
BIO-5: Designated Biologist and Biological Monitor Authority. The project owner's construction/operation manager shall act on the advice of the Designated Biologist, Biological Monitor(s), and CPM to ensure conformance with the Biological Resources Conditions of Certification. The project owner shall provide Energy Commission staff with reasonable access to the project site under the control of the project owner and shall otherwise fully cooperate with the Energy Commission's efforts to verify the project owner's compliance with, or the effectiveness of, mitigation measures set forth in the Conditions of Certification. The Designated Biologist shall have the authority to immediately stop any activity that is not in compliance with these conditions and/or order any reasonable measure to avoid take of an individual of a listed species. If required by the Designated Biologist the project owner's construction/operation manager shall halt all site mobilization, and construction, including ground disturbance, site preparation, or permanent installation activities, including installation of desert tortoise exclusion fencing and operation activities in areas specified by the Designated Biologist. During operations, or when the Designated Biologist and/or Biological Monitors are not onsite, the following provisions are the project owner's responsibility The Designated Biologist shall: 1. Require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued;	The project owner shall ensure that the Designated Biologist or Biological Monitor notifies the CPM and BLM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities, via phone and email. If the non-compliance or halt to construction or operation relates to desert tortoise or any other federal or state-listed species, the project owner shall notify the Palm Springs Office of USFWS and Ontario Office of CDFW at the same time. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem. Whenever corrective action is taken by the project owner, a determination of success or failure would be made by the CPM in consultation with BLM, USFWS and CDFW**,** within 5 working days after receipt of notice that corrective action is completed, or the project owner would be notified by the

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
2. Inform the project owner, the construction/operation manager, and the CPM when to resume activities; and 3. Notify the CPM immediately if there is a halt of any activities and advise them of any corrective actions that have been taken or would be instituted as a result of the work stoppage. If the work stoppage relates to desert tortoise or any other federal or state-listed species, the Palm Springs Office of USFWS and the Ontario Office of CDFW shall also be notified. If the Designated Biologist is unavailable for direct consultation, the Biological Monitor shall act on behalf of the Designated Biologist.	CPM that coordination with other agencies would require additional time before a determination can be made.
BIO-6: Worker Environmental Awareness Program (WEAP). The project owner shall develop and implement a Blythe Project-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from the CPM. The project owner shall also provide the, USFWS and CDFW a copy of all portions of the WEAP relating to desert tortoise and any other federal or state-listed species for review and comment. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, construction, commissioning, operation, non-operation**,** and closure. The WEAP shall: 1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants; 2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that no snakes, reptiles, or other wildlife shall be intentionally harmed (unless posing a reasonable and immediate threat to humans); 3. Place special emphasis on desert tortoise, including pictures and information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures; 4. Provide pictures of desert tortoise, golden eagles, American badger, desert kit fox, Mojave fringe-toed lizard, and burrowing owl, provide information on sensitivity to human activities, legal protection, reporting requirements, and how to identify construction avoidance zones for these species as marked by flagging, staking, or other means, also describe the protections for bird nests and provide information as described above; 5. Provide overview for staff of potential impacts to reptiles and amphibians from vehicle strikes on all project roads (paved and unpaved) during construction operations, closure phases, reporting requirements, and protection measures; 6. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers to: a) dispose of cigarettes and cigars appropriately and not leave them on the ground or buried, b) keep vehicles on graveled, cleared or well-maintained ground at all times to prevent vehicle exhaust systems from coming in contact with roadside weeds, c) use and maintain approved spark arresters on all power equipment, and d) keep a fire extinguisher on hand at all times; 7. Describe the temporary and permanent habitat protection measures to be implemented at the project site;	At least 45 days prior to site mobilization and construction the project owner shall provide to the CPM for review and approval and to BLM, USFWS, and CDFW a copy of the final WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program. The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least 10 days prior to site mobilization and construction the project owner shall submit two copies of the final WEAP and implement the training for all workers. Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least 6 months after the start of commercial operation. Throughout the life of the project, the WEAP shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the CPM, BLM, USFWS, and CDFW and upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training. During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
8. Identify whom to contact if there are further comments and questions about the material discussed in the program; and 9. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines. The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist and documented within the Monthly Compliance Report.	
BIO-7: Biological Resources Mitigation Implementation and Monitoring Plan. The project owner shall develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), and shall submit two copies of the proposed BRMIMP to the CPM for review and approval. The project owner shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Desert Tortoise Relocation Translocation Plan, the USFWS Biological Opinion, the Raven Management Plan, the Closure, Conceptual Restoration Plan, the American Badger and Desert Kit Fox Management Plan, the Burrowing Owl Mitigation and Monitoring Plan, the Weed Management Plan, and all other biological mitigation and/or monitoring plans associated with the project. The project owner shall provide to BLM, CDFW, and USFWS a copy of all portions of the BRMIMP relating to desert tortoise and any other federal or state-listed species for review and comment. The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include accurate and up-to-date maps depicting the location of sensitive biological resources that require temporary or permanent protection during construction and operation. The BRMIMP shall include complete and detailed descriptions of the following: 1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner; 2. All biological resources Conditions of Certification identified as necessary to avoid or mitigate impacts; 3. All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion; 4. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure; 5. All required mitigation measures for each sensitive biological resource, including remedial actions for standing water onsite in accordance with Conditions of Certification **BIO-8** and known or suspected disease outbreaks on the project site in accordance with Condition of Certification **BIO-17**; 6. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction. Provide planned timing of aerial photography and a description of why times were chosen. Provide a final accounting of the before/after whole acreages and a determination of whether more or less habitat compensation is necessary in the Construction Termination Report prepared in accordance with **BIO-28**; 7. All measures that shall be taken to avoid or mitigate temporary disturbances from construction activities; 8. Duration for each type of monitoring and a description of monitoring methodologies and frequency;	The project owner shall submit the draft BRMIMP to the CPM at least 60 days prior to start of any site mobilization and construction-related ground disturbance, grading, boring, and trenching. At the same time, the project owner shall provide to BLM, CDFW, and USFWS a copy of all portions of the draft BRMIMP relating to desert tortoise and any other federal or state-listed species. The project owner shall provide the final BRMIMP to the CPM, BLM, CDFW, and USFWS at least 30 days prior to the start of any site mobilization and construction, grading, boring, or trenching. The BRMIMP shall contain all of the required measures included in all biological conditions of certification. No site mobilization or-construction-related ground disturbance, grading, boring or trenching may occur prior to approval of the final BRMIMP by the CPM. If any permits have not yet been received when the final BRMIMP is submitted, these permits shall be submitted to the CPM within 5 days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit condition(s). The project owner shall submit to the CPM the revised or supplemented BRMIMP within 10 days following the project owner's receipt of any additional permits. Under no circumstances shall ground disturbance proceed without implementation of all permit conditions. To verify that the extent of construction disturbance does not exceed that described in these conditions, the project owner shall submit aerial photographs, at an approved scale, taken before and after construction to the CPM, BLM, USFWS, and CDFW. The first set of aerial photographs shall reflect site conditions prior to any preconstruction site mobilization and construction-related ground disturbance, grading, boring, and trenching, and shall be submitted prior to initiation of such activities. The second set of aerial photographs shall be taken subsequent to completion of construction, and shall be submitted to the CPM, BLM, USFWS, and CDFW no later than 90 days after completion of construction. The project owner shall also provide a final accounting in whole acres of vegetation communities/cover types present before and after construction. Construction acreages shall be rounded to the nearest acre. Any changes to the approved BRMIMP must be approved by the CPM in consultation with BLM, CDFW, and USFWS.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
9. Performance standards to be used to help decide if/when proposed mitigation is or is not successful; 10. All performance standards and remedial measures to be implemented if performance standards are not met; 11. Biological resources-related facility closure measures including a description of funding mechanism(s); 12. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval; and 13. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Data Base CNDDB per CDFW requirements.	Implementation of BRMIMP measures (for example, construction activities that were monitored, species observed) shall be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's site mobilization and construction activities, and which mitigation and monitoring items are still outstanding.
BIO-8: Impact Avoidance and Minimization Measures. The project owner shall undertake the following measures to manage the project site and related facilities during site mobilization, operation and maintenance in a manner to avoid or minimize impacts to biological resources: 1. ***Limit Disturbance Areas.*** Minimize soil disturbance by locating staging areas, laydown, and temporary parking or storage for linear facilities in existing disturbed areas. Equipment maintenance and refueling shall not be conducted with 100 feet of any sensitive resource (for example, waters of the state, creosote bush–big galleta association, desert dry wash woodland, unvegetated ephemeral dry wash, dune habitats, and rare plant populations). Limit the width of the work area near sensitive resources. Avoid blading temporary access roads where feasible and instead drive over and crush the vegetation to preserve the seed bank and biotic soil crusts. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to site mobilization and construction activities in consultation with the Designated Biologist. Spoils and topsoil shall be stockpiled in disturbed areas lacking native vegetation and which do not provide habitat for special-status species. Parking areas, staging and disposal site locations shall similarly be located in areas without native vegetation or special-status species habitat. All disturbances, project vehicles and equipment shall be confined to the flagged areas. 2. ***Minimize Road Impacts.*** New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction. 3. ***Minimize Traffic Impacts.*** Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour within the project area, on dirt maintenance roads for linear facilities, or on dirt access roads to the project site. Private paved roads shall not exceed 45 mph; speed limits will be lowered during the tortoise's most active period (April through May and September through October [USFWS 2010]) to 35 miles per hour. The speed limit within 3 miles of the Colorado River Substation will be posted at 10 mph. Speed limit signs shall be posted on new access roads to the site. 4. ***Salvage or Relocate Wildlife during Ground Disturbance Activities.*** The Designated Biologist or Biological Monitor shall salvage or relocate sensitive wildlife during ground disturbance activities including clearing, grubbing, and grading operations when feasible to off-site habitat or out of harm's way. The species shall be salvaged or relocated when conditions will not jeopardize the health and safety of the monitor.	All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures would be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how measures have been completed. As part of the Annual Compliance Report each year following construction, the Designated Biologist shall provide a report to the CPM that describes compliance with avoidance and minimization measures to be implemented during construction, operation, and maintenance (for example a summary of the incidence of road-killed animals during the year, implementation of measures to avoid toxic spills, erosion and sedimentation, efforts to enforce worker guidelines, etc.). No less than 30 days prior to site mobilization and construction, the project owner shall submit to the CPM, BLM, and CDFW a final agency-approved Revegetation Plan that has been reviewed and approved by the CPM in consultation with BLM. All modifications to the Revegetation Plan shall be made only after approval from the CPM. Within 30 days after completion of project construction, the project owner shall provide to the CPM for review and approval, a written report identifying which items of the Revegetation Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding. As part of the Annual Compliance Report, each year following construction until the completion of the revegetation monitoring specified in the Revegetation Plan, the Designated Biologist or project owner shall provide a report to the CPM that includes: a summary of revegetation activities for the year, a discussion of whether revegetation performance standards for the year were met; and recommendations for revegetation remedial action, if warranted, are planned for the upcoming year.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
5. ***Monitor During Construction.*** In areas that have not been fenced with desert tortoise exclusion fencing and cleared, the Designated Biologist shall be present at the construction site during all project activities that have potential to disturb soil, vegetation, and wildlife. Upon completion of desert tortoise fencing installation and clearing the Designated Biologist or Biological Monitor shall be present at the construction site during all Project activities that have potential to disturb soil, vegetation, and wildlife. The Designated Biologist or Biological Monitor shall clear ahead of equipment during brushing and grading activities. If desert tortoise are found during construction monitoring, procedures outlined in **BIO-9** shall be implemented.	If loud construction activities are proposed between February 15 and April 15 which would result in noise levels over 65 dBA in nesting habitat, the project owner shall submit nest survey results (as described in 8a) to the CPM no more than 7 days before initiating such construction. If an active nest is detected within this survey area the project owner shall submit a Nesting Bird Monitoring and Management Plan to the CPM for review and approval no more than 7 days before initiating noisy construction.
6. ***Minimize Impacts of Transmission/Pipeline Alignments, Roads, and Staging Areas.*** Staging areas for construction on the plant site shall be within the area that has been fenced with desert tortoise exclusion fencing and cleared. For construction activities outside of the plant site (transmission line, pipeline alignments) access roads, pulling sites, and storage and parking areas shall be designed, installed, and maintained with the goal of minimizing impacts to native plant communities and sensitive biological resources. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) S*uggested Practices for Avian Protection on Power Lines* (APLIC 1994) and *Mitigating Bird Collisions with Power Lines* (APLIC 2004) to reduce the likelihood of large bird electrocutions and collisions. Where feasible, avoid impacts to desert washes and special-status plants by adjusting the locations of poles and laydown areas, and the alignment of the roads and pipelines. Construction drawings and grading plans shall depict the locations of sensitive resources and demonstrate where temporary impacts to sensitive resources can be avoided and where they cannot.	
7. ***Avoid Use of Toxic Substances.*** Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants. Anticoagulants shall not be used for rodent control. Pre-emergents and other herbicides with documented residual toxicity shall not be used. Herbicides shall be applied in conformance with federal, State, and local laws and according to the guidelines for wildlife-safe use of herbicides in **BIO-14** (Weed Management Plan).	
8. ***Minimize Lighting Impacts.*** Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat.	
9. ***Minimize Noise Impacts.*** Loud construction activities (e.g., hydraulic ram, or other) shall be avoided from February 15 to April 15 when it would result in noise levels over 65 dBA in nesting habitat (excluding noise from passing vehicles). Loud construction activities may be permitted from February 15 to April 15 only if: a. the Designated Biologist provides documentation (i.e., nesting bird data collected using methods described in **BIO-15** and maps depicting location of the nest survey area in relation to noisy construction) to the CPM indicating that no active nests would be subject to 65 dBA noise, OR b. the Designated Biologist or Biological Monitor monitors active nests within the range of construction-related noise exceeding 65 dBA. The monitoring shall be conducted in accordance with Nesting Bird Monitoring and Management Plan approved by the CPM. The Plan shall include adaptive management measures to prevent disturbance to nesting birds from construction related noise. Triggers for adaptive management shall be evidence of project-related disturbance to nesting birds such as: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Nesting Bird Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of disturbance to the nesting bird.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
10. ***Avoid Vehicle Impacts to Desert Tortoise.*** Parking and storage shall occur within the area enclosed by desert tortoise exclusion fencing to the extent feasible. No vehicles or construction equipment parked outside the fenced area shall be moved prior to an inspection of the ground beneath the vehicle for the presence of desert tortoise. If a desert tortoise is observed outside the areas permanently fenced with desert tortoise exclusion fencing, it shall be left to move on its own. If it does not move within 15 minutes, a Designated Biologist or Biological Monitor under the Designated Biologist's direct supervision may move it out of harm's way as described in the USFWS Desert Tortoise Field Manual (USFWS 2009). 11. ***Avoid Wildlife Pitfalls.*** To avoid trapping desert tortoise and other wildlife in trenches, pipes or culverts, the following measures shall be implemented: a. *Backfill Trenches.* At the end of each work day, the Designated Biologist or Biological Monitor shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) outside the area fenced with desert tortoise exclusion fencing have been backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically throughout the day, at the end of each workday and at the beginning of each day by the Designated Biologist or a Biological Monitor. Should a tortoise or other wildlife become trapped, the Designated Biologist or Biological Monitor move it out of harm's way as described in the most recent USFWS Desert Tortoise Field Manual (currently USFWS 2009). Any other wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed. b. *Avoid Entrapment of Desert Tortoise.* Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground and within desert tortoise habitat (i.e., outside the permanently fenced area) for one or more nights, shall be inspected for tortoises before the material is moved, buried or capped. As an alternative, all such structures may be capped before being stored outside the fenced area, or placed on elevated pipe racks. These materials would not need to be inspected or capped if they are stored within the permanently fenced area after the clearance surveys have been completed. 12. ***Minimize Standing Water.*** Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises and common ravens to construction sites. A Biological Monitor shall patrol these areas to ensure water does not puddle and shall take appropriate action to reduce water application where necessary. 13. ***Dispose of Road-killed Animals.*** Road killed animals or other carcasses detected by personnel on roads associated with the project area shall be reported immediately to a Designated Biologist, Biological Monitor or Project Environmental Compliance Manager who will promptly remove the roadkill for disposal (i.e. removal to a landfill or disposal at the BSPP facility). For special-status species roadkill, the Biological Monitor shall contact the CPM, CDFW and USFWS within 1 working day of detection (within 8 hours in the case of a desert kit fox) of the carcass for guidance on disposal or storage of the carcass; all other roadkill shall be disposed of promptly, or as directed by the USFWS or CDFW. Handling of desert kit fox carcasses shall follow handling requirements included in the **BIO-17** American Badger and Kit Fox Management Plan. The Biological Monitor shall provide the special-status species record as described in **BIO-11** below.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
14. ***Minimize Spills of Hazardous Materials.*** All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the Project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.	
15. ***Worker Guidelines.*** During construction all trash and food-related waste shall be placed in self-closing containers and removed daily from the site. Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.	
16. ***Avoid Spread of Noxious Weeds.*** The project owner shall implement the following Best Management Practices during construction and operation, and all other measures as required in the final approved Weed Management Plan (**BIO-14**) to prevent the spread and propagation of noxious weeds and other invasive plants: a. For work outside the project facility fence line limit the size of any vegetation and/or ground disturbance and limit ingress and egress to defined routes; b. Prevent spread of non-native plants via vehicular sources by implementing Trackclean™ or other methods of vehicle cleaning for vehicles getting into and out of the construction sites. Earth-moving equipment shall be cleaned prior to transport to the construction site; and c. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations.	
17. ***Implement Erosion Control Measures.*** Standard erosion control measures shall be implemented for all phases of construction and operation where sediment run-off from exposed slopes threatens to enter “Waters of the State”. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the stream. All disturbed soils and roads within the project site shall be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils (access and staging areas) which slope toward drainages shall be stabilized to reduce erosion potential.	
18. ***Monitor Ground Disturbing Activities Prior to Pre-Construction Site Mobilization.*** If pre-construction site mobilization requires ground-disturbing activities such as for geotechnical borings or hazardous waste evaluations, a Designated Biologist or Biological Monitor shall be present to monitor any actions that could disturb soil, vegetation, or wildlife.	
19. ***Implement Erosion Control Measures.*** All disturbed soils and roads within the Project site shall be stabilized to reduce erosion potential, both during and following construction. All areas subject to temporary disturbance shall be restored to pre-project grade and stabilized to prevent erosion and promote natural revegetation. Temporarily disturbed areas within the Project area include, but are not limited to: linear facilities, temporary access roads, temporary lay-down and staging areas. If erosion control measures include the use of seed, only locally native plant species from a local seed source shall be used. Local seed includes seeds from plants within the Chuckwalla Valley or Colorado River Hydrologic Units.	
20. ***Avoid Spreading Weeds.*** Prior to the start of site mobilization and construction, flag and avoid dense populations of highly invasive noxious weeds. If these areas cannot be avoided, they shall be pre-treated by the methods described in **BIO-14** (Weed Management Plan). Noxious weeds and other invasive non-native plants in the temporarily disturbed areas shall be managed according to the requirements in **BIO-14**.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
21. ***Salvage Topsoil.*** Topsoil from native desert areas to be temporarily disturbed (other than existing roads that have already been disturbed from previous construction activities) shall be salvaged, preserved and re-used for restoration of temporarily disturbed areas, except where less invasive methods are used to maintain soil seed banks, functioning and root crowns (e.g., drive over/crush method). Salvaged topsoil shall be collected, stored and applied in a way that maintains the viability of seed and soil crusts. The project owner shall excavate and collect the upper soil layer (the top 1 to 2 inches that includes the seed bank and biotic soil crust) as well as the lower soil layer in accordance with the Project's Revegetation Plan. The upper and lower soil layers shall be stockpiled separately in areas that will not be impacted by other grading, flooding, erosion, or pollutants. If the soil is to be stored more than 2 weeks it shall be spread out to a depth of no more than approximately 6 inches to maintain the seed and soil crust viability, unless that storage would create increase disturbance to undisturbed surfaces. As needed, the project owner shall install temporary construction fencing around stockpiled topsoil, and signage that indicates whether the pile is the upper layer seed bank, or the lower layer, and clearly indicates that the piles are for use only in erosion control. After construction, the project owner shall replace the topsoil in the temporarily disturbed areas in the reverse order of stockpiling, subsoil, and then the seed-containing upper layer of topsoil. 22. ***Revegetation of Temporarily Disturbed Areas.*** The project owner shall prepare and implement a Revegetation Plan to restore all areas subject to temporary disturbance to pre-project grade and conditions. Temporarily disturbed areas within the project area include, but are not limited to: all proposed locations for linear facilities, temporary access roads, construction work temporary lay-down areas, and construction equipment staging areas. The Revegetation Plan shall include a description of topsoil salvage and seeding techniques and a monitoring and reporting plan, and the following performance standards by the end of monitoring year 2: a. at least 80 percent of the species observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; and b. relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60 percent. 23. ***Decommission Temporary Access Roads with Vertical Mulching.*** Discourage ORV use of temporary construction roads by installing vertical mulching at the head of the road to a distance necessary to obscure the road from view, when the road is no longer in use for construction. Construction roads that are used infrequently will be blocked by barricades that can be easily removed for access by construction personnel, until they are no longer used. Boulder barricades and gates shall not be used for permanent vertical mulch unless the remainder of the site is fenced to prevent driving around the gate or barricade. Designated ORV routes and roads shall not be closed.	
BIO-9: Desert Tortoise Clearance Surveys and Fencing. The project owner shall undertake appropriate measures to manage the project site and related facilities in a manner to avoid or minimize impacts to desert tortoise**.** Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling and other procedures shall be consistent with those described in the most recent USFWS Desert Tortoise Field Manual ~~(currently USFWS 2009) <http://www.fws.gov/ventura/speciesinfo/protocols_guidelines>~~ or more current guidance provided by CDFW and USFWS. The project owner shall also implement all terms and conditions described in the Biological Opinion prepared by USFWS. The project owner shall implement the following measures: 1. ***Desert Tortoise Exclusion Fence Installation.*** To avoid impacts to desert tortoises, permanent exclusion fencing shall be installed along the permanent perimeter security fence (boundaries) as phases are constructed. Temporary fencing shall be installed along any subset of the plant site phasing that does not correspond to permanent perimeter fencing. Temporary fencing shall be installed along linear features unless a Biological	All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of desert tortoise clearance surveys the Designated Biologist shall submit a report to BLM, the CPM, USFWS, and CDFW describing implementation of each of the mitigation measures listed above. The report shall include the desert tortoise survey results, capture and release locations of any relocated desert tortoises, and any other information needed to demonstrate compliance with the measures described above.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
Monitor is present in the immediate vicinity of construction activities for the linear facility. All permanent or temporary fencing shall be flagged and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the desert tortoise exclusionary fence and utility rights-of-way alignments shall be conducted by the Designated Biologist(s) or Biological Monitors (with direct contact to the Designated Biologist) using techniques outlined in the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009)~~ and may be conducted in any season with USFWS and CDFW approval. Biological Monitors may assist the Designated Biologist under his or her direct supervision. These fence clearance surveys shall provide 100-percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. Disturbance associated with desert tortoise exclusionary fence construction shall not exceed 30 feet on either side of the proposed fence alignment. Prior to the surveys the project owner shall provide to the CPM, BLM, CDFW and USFWS a figure clearly depicting the limits of construction disturbance for the proposed fence installation. The fence line survey area shall be 90 feet wide centered on the fence alignment. Where construction disturbance for fence line installation can be limited to 15 feet on either side of the fence line, this fence line survey area may be reduced to an area approximately 60 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. Desert tortoise located within the utility ROW alignments shall be moved out of harm's way in accordance with the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009)~~. Any desert tortoise detected during clearance surveys for fencing within the project site and along the perimeter fence alignment shall be translocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan (**BIO-10**). Tortoise shall be handled by the Designated Biologist(s) in accordance with the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009)~~. a. *Timing, Supervision of Fence Installation.* The exclusion fencing shall be installed in any area subject to disturbance prior to the onset of site clearing and grubbing in that area. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present. b. *Fence Material and Installation.* All desert tortoise exclusionary fencing shall be constructed in accordance with the current USFWS' *Desert Tortoise Field Manual* ~~(USFWS 2009) (Chapter 8 – Desert Tortoise Exclusion Fence)~~ or the most recent agency guidance with the approval of the CPM. c. *Security Gates.* Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. d. *Fence Inspections.* Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors, the fencing shall be regularly inspected. If tortoise were moved out of harm's way during fence construction, permanent and temporary fencing shall be inspected at least two times a day for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, permanent fencing shall be inspected monthly and during and within 24 hours following all major rainfall events. A major rainfall event is defined as one for which flow is detectable within the fenced drainage. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within 48 hours of observing damage. Inspections of permanent site fencing shall occur for the life of the project. Temporary fencing shall be inspected weekly and, where drainages intersect the fencing, during and within 24 hours following major rainfall events. All temporary fencing shall be repaired immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist shall inspect the area for tortoise.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
2. ***Desert Tortoise Clearance Surveys within the Plant Site.*** Clearance surveys shall be conducted in accordance with the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009) (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) or the most recent USFWS Desert Tortoise Field Manual (currently 2009)~~ and shall consist of two surveys covering 100 percent the project area by walking transects no more than 15-feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. To maximize the opportunity to find all tortoises each separate survey shall be walked in a different direction, in opposite directions, and/or offset to allow opposing angles of observation, or as directed in the Biological Opinion. Clearance surveys of the plant site may only be conducted when tortoises are most active (April through May or September through October) unless the project receives approval from CDFW and USFWS. Clearance surveys of linear features may be conducted during anytime of the year. Surveys outside of the active season ~~in areas other than Phase 1A~~ require approval by USFWS and CDFW. Any tortoise located during clearance surveys of the power plant site and linear features shall be translocated or relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan: a. *Burrow Searches.* During clearance surveys all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009)~~. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined in accordance with the Desert Tortoise Relocation/Translocation Plan. Tortoises taken from burrows and from elsewhere on the power plant site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan. b. *Burrow Excavation/Handling.* All potential desert tortoise burrows located during clearance surveys would be excavated by hand, tortoises removed, and collapsed or blocked to prevent occupation by desert tortoises in accordance with the Desert Tortoise Relocation/Translocation Plan. All desert tortoise handling, and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist, who may be assisted by a Biological Monitor in accordance with the current USFWS *Desert Tortoise Field Manual* ~~(USFWS 2009)~~. 3. ***Monitoring Following Clearing*.** Following the desert tortoise clearance and removal from the power plant site and utility corridors, workers and heavy equipment shall be allowed to enter the project site to perform clearing, grubbing, leveling, and trenching activities. A Designated Biologist or Biological Monitor shall be onsite for clearing and grading activities to move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan. 4. ***Reporting.*** The Designated Biologist shall record the following information for any desert tortoises handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; c) location moved from and location moved to (using GPS technology); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled desert. Desert tortoise moved from within project areas shall be marked and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
BIO-10: Desert Tortoise Relocation/Translocation Plan. The project owner shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of the CPM. The Plan shall include guidance specific to each of the 4 phases of project construction, as described in **BIO-28** (Phasing), and shall include measures to minimize the potential for repeated translocations of individual desert tortoises. The goals of the Desert Tortoise Relocation/Translocation Plan shall be to relocate or translocate all desert tortoises from the project site to nearby suitable habitat; minimize impacts on resident desert tortoises outside the project site; minimize stress, disturbance, and injuries to relocated/translocated tortoises; and assess the success of the relocation/translocation effort through monitoring. The final Plan shall be based on the draft Desert Tortoise Relocation/Translocation Plan prepared by the project owner and shall include all revisions deemed necessary by BLM, USFWS, CDFW and the Energy Commission staff.	At least 60 days prior to site mobilization and construction the project owner shall provide the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan that has been reviewed and approved by the CPM in consultation with BLM, USFWS and CDFW. All modifications to the approved Plan shall be made only after approval by the CPM, in consultation with BLM, USFWS and CDFW. Within 30 days after initiation of relocation and/or translocation activities, the Designated Biologist shall provide to the CPM for review and approval, a written report identifying which items of the Plan have been completed, and a summary of all modifications to measures made during implementation of the Plan.
BIO-11: Desert Tortoise Compliance Verification. The project owner shall provide Energy Commission, CDFW, and USFWS and BLM staff with reasonable access to the project site and compensation lands under the control of the project owner and shall otherwise fully cooperate with the Energy Commission's and BLM's efforts to verify the project owner's compliance with, or the effectiveness of, mitigation measures set forth in the Conditions of Certification. The Designated Biologist shall do all of the following: 1. ***Notification.*** Notify the CPM at least 14 calendar days before initiating site mobilization and construction activities; immediately notify the CPM in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified in the Conditions of Certification; 2. ***Monitoring During Grubbing and Grading.*** Remain onsite daily while vegetation salvage, grubbing, grading and other ground-disturbance construction activities are taking place to avoid or minimize take of listed species and verify personally or use Biological Monitors, to check for compliance with all impact avoidance and minimization measures, including checking all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones. 3. ***Monthly Compliance Inspections.*** Conduct compliance inspections at a minimum of once per month after ground disturbance activities including clearing, grubbing, and grading are completed and submit a monthly compliance report to the BLM, CPM, USFWS and CDFW during construction. 4. ***Notification of Injured, Dead, or Relocated Listed Species.*** If an injured or dead listed or special status species is detected within or near the Project Disturbance area, the CPM, the Ontario Office of CDFW, and Palm Springs Office of USFWS shall be notified immediately by phone and email, or as otherwise directed by the CPM or, in the case of avian species, controlling permits as issued by the USFWS. Notification shall occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine if further actions are required to protect listed species (within 8 hours in the case of desert kit fox). Written follow-up notification via FAX or electronic communication shall be submitted to these agencies within two calendar days of the incident and include the following information as relevant: a. *Injured Desert Tortoise*. If a desert tortoise is injured as a result of project-related activities during construction, the Designated Biologist or approved Biological Monitor shall immediately take it to a CDFW-approved wildlife rehabilitation and/or veterinarian clinic. Any veterinarian bills for such injured animals shall be paid by the	No later than 2 days following the above required notification of a sighting, kill, or relocation of a listed species, the project owner shall deliver to the CPM, BLM, CDFW, and USFWS via FAX or electronic communication the written report from the Designated Biologist describing all reported incidents of injury, kill, or relocation of a listed species, identifying who was notified, and explaining when the incidents occurred. In the case of a sighting in an active construction area, the project owner shall, at the same time, submit a map (e.g., using Geographic Information Systems) depicting both the limits of construction and sighting location to the CPM, BLM, CDFW and USFWS. No later than 45 days after initiation of project operation the Designated Biologist shall provide the CPM a Final Listed Species Mitigation Report. Beginning with the first month after clearing, grubbing, and grading are completed and continuing every month until construction is complete, the project owner shall submit a report describing their results of the Monthly Compliance Inspections to the CPM, BLM, USFWS, and CDFW.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
project owner. Following phone notification as required above, the CPM, CDFW, and USFWS shall determine the final disposition of the injured animal, if it recovers. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident, and the name of the facility where the animal was taken. b. *Desert Tortoise Fatality.* If a desert tortoise is killed by project-related activities during construction or operation, submit a written report with the same information as an injury report to the CPM, BLM, the Ontario Office of CDFW, and the Palm Springs Office of USFWS. These desert tortoises shall be salvaged according to guidelines described in *Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise* (Berry 2001) or most recent guidelines approved by the CPM. The project owner shall pay to have the desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident. c. *Avian or bat injury or fatality.* Notifications of injured or dead avian and bat species found onsite must include relevant scientific data such as GPS locations, photographs, observations and other reasonably available information. 5. ***Final Listed Species Report.*** The Designated Biologist or project owner shall provide the CPM and BLM a Final Listed Species Mitigation Report that includes, at a minimum: 1) a copy of the table in the BRMIMP with notes showing when each of the mitigation measures was implemented; 2) all available information about Project-related incidental take of listed species; 3) information about other Project impacts on the listed species; 4) construction dates; 5) an assessment of the effectiveness of conditions of certification in minimizing and compensating for Project impacts; 6) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future Projects on the listed species; and 7) any other pertinent information, including the level of take of the listed species associated with the Project 6. ***Stop Work Order.*** The CPM may issue the project owner a written stop work order to suspend any activity related to the construction or operation of the project to prevent or remedy a violation of one or more Conditions of Certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The project owner shall comply with the stop work order immediately upon receipt thereof.	
BIO-12: Desert Tortoise Compensatory Mitigation. To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation at a 1:1 ratio for impacts to ~~3,976~~3,975 acres, per **BIO-28 – Table 1,** adjusted to reflect the final project footprint. For purposes of this Condition, the project footprint means all lands disturbed in the construction and operation of the Blythe Solar Power Project, including all project linears, as well as undeveloped areas inside the project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. To satisfy this condition, the project owner shall acquire, protect and transfer 1 acre of desert tortoise habitat for every acre of habitat within the final project footprint, and provide associated funding for the acquired lands, as specified below. Condition **BIO-27** may provide the project owner with another option for satisfying some or all of the requirements in this Condition. In lieu of acquiring lands itself, the project owner may satisfy the requirements of this Condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as provided below in section 3.i. of this Condition. The timing of the mitigation shall correspond with the timing of the site disturbance activities as stated in **BIO-28** (phasing). If compensation lands are acquired in fee title or in easement, the requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:	If the mitigation actions required under this Condition are not completed prior to the start of ground-disturbing activities including site mobilization and construction, the project owner shall provide the CPM and CDFW with an approved form of Security in accordance with this Condition of Certification no later than 30 days prior to beginning project ground-disturbing activities, including site mobilization and construction. Actual Security shall be provided no later than 7 days prior to the beginning of project ground-disturbing activities. If Security is provided, the project owner, or an approved third party, shall complete and provide written verification to the CPM, CDFW, BLM and USFWS of the compensation lands acquisition and transfer within 18 months of the start of project ground-disturbing activities, including site mobilization and construction. The project owner may elect to fund the acquisition and initial improvement of compensation lands through NFWF or other approved third party by depositing funds for that purpose into NFWF's REAT Account. Initial deposits

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
1. ***Selection Criteria for Compensation Lands.*** The compensation lands selected for acquisition in fee title or in easement shall: ~~i~~a. be within the Colorado Desert Recovery Unit; ~~ii~~b. provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed; ~~iii~~c. be prioritized near larger blocks of lands that are either already protected or planned for protection, such as the Chuckwalla DWMA, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation; ~~iv~~d. not have a history of intensive recreational use, grazing or other disturbance that does not have the capacity to regenerate naturally when disturbances are removed or might make habitat recovery and restoration infeasible; ~~v~~e. not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; ~~vi~~f. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and ~~vii~~g. have water and mineral rights included as part of the acquisition, unless the CPM, in consultation with CDFW, BLM and USFWS, agrees in writing to the acceptability of land. 2. ***Review and Approval of Compensation Lands Prior to Acquisition.*** The project owner shall submit a formal acquisition proposal to the CPM, ~~CDFG~~CDFW, USFWS, and BLM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above. Approval from the CPM and CDFW, in consultation with BLM and the USFWS, shall be required for acquisition of all compensatory mitigation parcels. 3. ***Compensation Lands Acquisition Requirements.*** The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM and CDFW, in consultation with BLM and the USFWS, have approved the proposed compensation lands: a. *Preliminary Report.* The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM and CDFW. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM and CDFW, in consultation with BLM and the USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board. b. *Title/Conveyance.* The project owner shall transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the CPM and CDFW. Transfer of either fee title or an approved conservation easement will usually be sufficient, but some situations, e.g., the donation of lands burdened by a conservation easement to BLM, will require that both types of transfers be completed. Any transfer of a conservation easement or fee title must be to CDFW, a non-profit	for this purpose must be made in the amounts in section 3h of this condition. Payment of the initial funds for acquisition and initial improvement must be made at least 30 days prior to the start of ground-disturbing activities for each phase. No fewer than 90 days prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to the CPM, CDFW, USFWS, and BLM describing the parcels intended for purchase and shall obtain approval from the CPM and CDFW prior to the acquisition. No fewer than 30 days after acquisition of the property the project owner shall deposit the funds required by Section 3e above (long term management and maintenance fee) and provide proof of the deposit to the CPM. The project owner, or an approved third party, shall provide the CPM, CDFW, BLM and USFWS with a management plan for the compensation lands within 180 days of the land or easement purchase, as determined by the date on the title. The CPM shall review and approve the management plan, in consultation with CDFW, BLM and the USFWS. Within 90 days after completion of all project related ground disturbance, the project owner shall provide to the CPM, CDFW, BLM and USFWS an analysis, based on aerial photography, with the final accounting of the amount of habitat disturbed during project construction. This shall be the basis for the final number of acres required to be acquired.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM under terms approved by the CPM and CDFW. If an approved non-profit organization holds title to the compensation lands, a conservation easement shall be recorded in favor of CDFW in a form approved by CDFW. If an approved non-profit holds a conservation easement, CDFW shall be named a third party beneficiary. If a Security is provided, the project owner or an approved third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities. c. *Initial Habitat Improvement Fund.* The project owner shall fund the initial protection and habitat improvement of the compensation lands. Alternatively, a non-profit organization may hold the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if it meets the approval of CDFW and the CPM. If CDFW takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW or its designee. d. *Property Analysis Record.* Upon identification of the compensation lands, the project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate long-term maintenance and management fee to fund the in-perpetuity management of the acquired mitigation lands. e. *Long-term Maintenance and Management Fund.* In accordance with **BIO-28** (phasing), the project owner shall deposit in NFWF's REAT Account or with another CPM-approved entity a non-wasting capital long-term maintenance and management fee in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. The CPM, in consultation with CDFW, may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFW takes fee title to the compensation lands, CDFW shall determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFW and with CDFW supervision. f. *Interest, Principal, and Pooling of Funds.* The project owner, the CPM and CDFW shall ensure that an agreement is in place with the long-term maintenance and management fee holder/manager to ensure the following conditions: i~~a~~. Interest. Interest generated from the initial capital long-term maintenance and management fee shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by CDFW designed to protect or improve the habitat values of the compensation lands. ~~b~~ii. Withdrawal of Principal. The long-term maintenance and management fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CDFW or the approved third-party long-term maintenance and management fee manager to ensure the continued viability of the species on the compensation lands. If CDFW takes fee title to the compensation lands, monies received by CDFW pursuant to this provision shall be deposited in a special deposit fund established solely for the purpose to manage lands in perpetuity unless CDFW designates NFWF or another entity to manage the long-term maintenance and management fee for CDFW.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
~~c~~iii. Pooling Long-Term Maintenance and Management Fee Funds. CDFW, or a CPM-and CDFW-approved non-profit organization qualified to hold long-term maintenance and management fees solely for the purpose to manage lands in perpetuity, may pool the endowment with other endowments for the operation, management, and protection of the compensation lands for local populations of desert tortoise. However, for reporting purposes, the long-term maintenance and management fee fund must be tracked and reported individually to the CDFW and CPM. g. ***Other expenses.*** In addition to the costs listed above, the project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to title and document review costs, expenses incurred from other state agency reviews, and overhead related to providing compensation lands to CDFW or an approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures. h. ***Mitigation Security.*** The project owner shall provide financial assurances in accordance with **BIO-28** (phasing) to the CPM and CDFW with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this Condition. These funds shall be used solely for implementation of the measures associated with the project in the event the project owner fails to comply with the requirements specified in this Condition, or shall be returned to the project owner upon successful compliance with the requirements in this Condition. The CPM's or CDFW's use of the security to implement measures in this Condition may not fully satisfy the project owner's obligations under this condition. Financial assurance can be provided to the CPM and CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFW, BLM and the USFWS, of the form of the Security. Security shall be provided in the amounts of $3,681,687 for Phase 1; $3,234,921 for Phase 2, $3,613,250 for Phase 3, and $3,115,754 for Phase 4. These Security estimates are based on the most current guidance from the REAT agencies (Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010) and may be revised with updated information. This Security estimate reflects the amount that would be required for Security if the project owner acquired the ~~3976~~ 3,975 acres of mitigation lands itself. The actual costs to comply with this condition will vary depending on the final footprint of the project and its four phases, and the actual costs of acquiring, improving and managing the compensation lands. i. ***NFWF REAT Account.*** The project owner may elect to fund the acquisition and initial improvement of compensation lands through NFWF by depositing funds for that purpose into NFWF's REAT Account. Initial deposits for this purpose, which includes a NFWF administrative fee, must be made in the amounts of $3,802,991 for Phase 1, $3,304,650 for Phase 2, $3,691,169 for Phase 3, and $3,182,894 for Phase 4 as the security required in section 3h., above and may be provided in lieu of security**.** If this option is used for the acquisition and initial improvement, the project owner shall make an additional deposit into the REAT Account if necessary to cover the actual acquisition costs and administrative costs and fees of the compensation land purchase once land is identified and the actual costs are known. If the actual costs for acquisition and administrative costs and fees are less than that estimated based on the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010,* or more current guidance from the REAT agencies, the excess money deposited in the REAT Account shall be returned to the project owner. Money deposited for the initial protection and improvement of the compensation lands shall not be returned to the project owner.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a nongovernmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission and CDFW. Such delegation shall be subject to approval by the CPM and CDFW, in consultation with BLM and USFWS, prior to land acquisition, initial protection or maintenance and management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be implemented with 18 months of the Energy Commission's approval.	
BIO-13: Raven Management Plan. The project owner shall implement a Raven Monitoring, Management**,** and Control Plan (Raven Plan) that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of the CMP, in consultation with BLM, USFWS and CDFW. The draft Raven Plan submitted by the project owner (AECOM 2010a, Attachment DR-BIO-49) shall provide the basis for the revised draft and final Raven Plan, subject to review, revisions and approval from BLM, the CPM, CDFW and USFWS. The Raven Plan shall include but not be limited to a program to monitor raven presence in the project vicinity, determine if raven numbers are increasing, and to implement raven control measures as needed based on that monitoring. The purpose of the plan is to avoid any project-related increases in raven numbers during construction, operation, and decommissioning. In addition**,** the project owner shall also provide funding for implementation of the USFWS Regional Raven Management Program, as described below. The Raven Plan shall: a. Identify conditions associated with the project that might provide raven subsidies or attractants; b. Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities; c. Describe control practices for ravens; d. Establish thresholds that would trigger implementation of control practices; e. Address monitoring and nest removal during construction and for the life of the project, and; f. Discuss reporting requirements. ***USFWS Regional Raven Management Program.*** The project owner shall submit a per phase payment to the project sub-account of the REAT Account held by the National Fish and Wildlife Foundation (NFWF) to support the USFWS Regional Raven Management Program. The one time fee shall be as described in the cost allocation methodology (~~Exhibit 213, *Renewable Energy Development And Common Raven Predation on the Desert Tortoise – Summary*~~, dated May 2010; *Cost Allocation Methodology for Implementation of the Regional Raven Management Plan*, dated July 9, 2010) or more current guidance as provided by USFWS or CDFW.	At least 45 days prior to any project-related ground disturbance activities, the project owner shall submit the revised draft Raven Plan to the CPM for review and approval and CDFW and USFWS for review and comment. No less than 10 days prior to the start of any project-related ground disturbance activities, including pre-construction site mobilization, the project owner shall provide the CPM, USFWS, and CDFW with the final version of a Raven Plan. The CPM would determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved Raven Plan shall be made only with approval of CPM in consultation with USFWS and CDFW. No less than 10 days prior to the start of any project-related ground disturbance, including pre-construction site mobilization activities for each phase of project construction as described in **BIO-28**, the project owner shall provide documentation to the CPM, BLM, CDFW and USFWS that the one-time fee for the USFWS Regional Raven Management Program of has been deposited to the REAT-NFWS subaccount for the project. Current estimate of the fee for the USFWS Regional Raven Management Program is $105/acre. Within 30 days after completion of project construction, the project owner shall provide to the CPM for review and approval, a written report identifying which items of the Raven Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding. As part of the annual compliance report, each year following construction the Designated Biologist shall provide a report to the CPM that includes: a summary of the results of raven management and control activities for the year; a discussion of whether raven control and management goals for the year were met; and recommendations for raven management activities for the upcoming year.
BIO-14: Weed Management Plan. The project owner shall implement a Weed Management Plan (Plan) that meets the approval of the CPM. The objective of the Plan shall be to prevent the introduction of any new weeds and the spread of existing weeds as a result of project site mobilization, construction, operation, and closure. The draft Weed Management Plan submitted by the previous owner (AECOM 2010a, Attachment DR-BIO-97) shall provide the basis for the final plan, subject to review and revisions from the CPM and the BLM.	No less than 10 days prior to start of any project-related ground disturbance activities including site mobilization and construction, the project owner shall provide the CPM with the final version of a Weed Management Plan that has been reviewed by BLM, and Energy Commission staff, USFWS, and CDFW and approved by CPM. Modifications to the approved Weed Control Plan shall be made only with approval from the CPM in consultation with BLM, USFWS, and CDFW.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
1. ***Weed Plan Requirements.*** The project owner shall provide a map to the CPM indicating the location of the Weed Management Area, which shall include all areas within 100 feet of the Project Disturbance Area, access roads, staging and laydown sites, and all other areas subject to temporary disturbance. The project owner shall provide a Plan for the Weed Management Area includes at a minimum the following information: specific weed management objectives and measures for each target non-native weed species; baseline conditions; a map of the Weed Management Areas; map of existing populations of target weeds within 100 feet of the Project Disturbance Area and access roads; weed risk assessment; measures to prevent the introduction and spread of weeds; measures to minimize the risk of unintended harm to wildlife and other plants from weed control activities; monitoring and surveying methods; and reporting requirements. Weed control described in the Plan shall focus on prevention, early detection of new infestations, and early eradication for the life of the Project. Weed control along the Project linears shall be limited to the areas where soils were disturbed during construction. Weed monitoring shall occur a minimum of once per year during the early spring months (February-April) to detect seedlings before they set seed. The focus of the Plan shall be on avoiding the introduction of new invasive weeds or the spread of highly invasive species, such as Sahara mustard. Non-native species with low ecological risk, or that are very widespread, such as Mediterranean grass, shall be noted but control shall not be required. When detected, new infestations of high priority species shall be eradicated immediately, if possible. ~~2~~a. ***Avoidance and Treatment of Dense Weed Populations.*** The Plan shall include a requirement to flag and avoid dense populations of the most invasive non-native weeds during any Project-related construction and operation in or adjacent to infestations. If these areas cannot be avoided, they shall be pre-treated, if practical, by one of the following methods: a) treating the infested areas ~~in the season prior to construction~~ by removing and properly disposing of seed heads by hand, prior to maturity, or spraying the new crop of plants that emerge in early spring~~, the season prior to construction,~~ to reduce the viable seed contained in the soil, or b) removing and disposing the upper 2 inches of soil and disposing it offsite at a sanitary landfill or other site approved by the County Agricultural Commissioner, or burying the infested soil, e.g. under the solar facility or in a pit, and covering the infested soil with at least three feet of uncontaminated soil. Where these measures are infeasible, then post-construction monitoring and control, as identified in Section 5, below, will be implemented. ~~3~~b. ***Cleaning Vehicles and Equipment.*** The Plan shall include specifications and requirements for the cleaning and removal of weed seed and weed plant parts from vehicles and equipment involved in Project-related construction and operation. Vehicles and equipment working in weed-infested areas (including previous job sites) shall be required to clean the equipment tires, tracks, and undercarriage *before* entering the Project area and, if necessary, before moving ~~to~~ from infested areas of the Project Disturbance Area to uninfested areas. Cleaning shall be conducted on all track and bucket/blade components to adequately remove ~~all visible~~ dirt and plant debris. Cleaning using hand tools, such as brushes, brooms, rakes, or shovels, is preferred. If water must be used, the water/slurry shall be contained to prevent seeds and plant parts from washing into adjacent habitat. ~~4~~c. ***Safe Use of Herbicides.*** The final Plan shall include detailed specifications for avoiding herbicide and soil stabilizer drift, and shall include a list of herbicides and soil stabilizers that will be used on the Project with manufacturer's guidance on appropriate use. The Plan shall indicate where the herbicides ~~will~~ are expected to be used, and what techniques will be used to avoid chemical drift or residual toxicity to special-status species and their pollinators, and consistent with the Nature Conservancy guidelines and the criteria under #2, below. ~~Only~~ Initially, weed control measures for target weeds with a demonstrated record of success shall be used, based on the best available information from sources such as The Nature Conservancy's The Global Invasive Species Team, California Invasive Plant Council: http://www.cal-ipc.org/ip/management/plant_profiles/index.php, and the California Department of Food & Agriculture	Within 30 days after completion of project construction, the project owner shall provide to the CPM for review and approval, a written report identifying which items of the Weed Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding. As part of the annual compliance report, each year following construction the Designated Biologist shall provide a report to the CPM that includes: a summary of the results of noxious weeds surveys and management activities for the year; a discussion of whether weed management goals for the year were met; and recommendations for weed management activities for the upcoming year.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Encycloweedia: http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_h~~-p.~~htm.	
Biological Resources (cont.)	
~~5~~d. Other methods that may be effective, or have proven to be effective, but are not yet published, may be used upon approval by the CPM and BLM. e. The methods for weed control described in the final Plan shall meet the following criteria: ~~a~~i. Manual: Well-timed removal of plants or seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the Riverside County Agricultural Commissioner. ~~a~~ii. Chemical: Herbicides known to have residual toxicity, such as pre-emergents and pellets, shall not be used in natural areas or within the engineered channels. Only the following application methods may be used: wick (wiping onto leaves); inner bark injection; cut stump; frill or hack and squirt (into cuts in the trunk); basal bark girdling; foliar spot spraying with backpack sprayers or pump sprayers at low pressure or with a shield attachment to control drift, and only on windless days, or with a squeeze bottle for small infestations (see Nature Conservancy guidelines described above); ~~b~~iii. Biological: Biological methods may be used subject to review and approval by CDFW and USFWS and only if approved for such use by CDFA, and are either locally native species or have no demonstrated threat of naturalizing or hybridizing with native species; ~~c~~iv. Mechanical: Disking, tilling, and mechanical mowers or other heavy equipment shall not be employed in natural areas but hand weed trimmers (electric or gas-powered) may be used. Mechanical trimmers shall not be used during periods of high fire risk and shall only be used with implementation of fire prevention measures.	
BIO-15: Avian and Bat Protection Plans. The project owner shall prepare a Bird and Bat Conservation Strategy (BBCS) and submit it to the CPM for review and approval, in consultation with BLM, CDFW, and USFWS for review and comment. The BBCS shall provide for the following: • ~~1. Survey~~Surveying and ~~monitor~~monitoring onsite avian use ~~and behavior~~ prior to commencing construction to document species composition. The project owner will submit all data gathered onsite to the CPM as specified herein ~~and within the BBCS~~, or as requested by the CPM, and will also make consulting biologists available to answer CPM inquiries. • ~~2. Implement~~Implementation of a statistically robust avian and bat mortality and injury monitoring program to identify the extent of potential avian or bat mortality or injury from collisions with facility structures, including~~:~~ assessing levels of collision-related mortality and injury with PV panels~~. The plan shall dictate which project features should be monitored~~ and ~~the frequency of monitoring, and shall also prescribe survey design based on sound scientific hypotheses, with the goal of fully monitoring and evaluating project effects~~perimeter fences. • ~~3. Implement~~Implementation of an adaptive management and decision-making framework for reviewing, characterizing, and responding to mortality monitoring results. • ~~4. Identify~~Identification of specific conservation measures and/or programs to avoid, minimize, reduce or eliminate CEQA significant ~~adverse~~ impacts over time and ~~evaluate~~evaluation of the effectiveness of those measures. ~~***5. Describe project owner responsibility for funding rehabiliatory care and transport for injured birds or bats, and determine appropriate measures to treat injured birds and bats.***~~ ***BBCS Components***	Prior to the start of construction, a draft BBCS shall be submitted to the CPM for review and comment in consultation with CDFW, BLM, and USFWS. A final BBCS shall be submitted to the CPM within 60 days of construction commencement. The project owner shall provide the CPM with copies of any written or electronic transmittal from the USFWS, BLM, or CDFW related to the BBCS within 30 days of receiving any such transmittal. **Reporting Protocol:** Verification of Survey Results (including preconstruction bird and bat use, mortality monitoring, and golden eagle monitoring): All survey results and complete reports, including raw data, shall be submitted to the CPM after each survey season and in an annual summary report throughout the course of the study period, or as otherwise directed by the CPM. The results of onsite injury and mortality monitoring will be reported monthly or more frequently, if requested by the CPM. The reports will include all data required as part of the monitoring program. Post-construction monitoring studies included in the BBCS shall be for at least two years following commencement of commercial operation of each individual unit. The BBCS shall define the circumstances under which additional years of monitoring would be necessary. The Monitoring Study shall continue until the CPM, in consultation with CDFW, BLM, and USFWS, using the criteria included in the BBCS, concludes that the cumulative monitoring data provide sufficient basis for estimating long-term bird mortality for the project. The reports will include all monitoring data required as part of the monitoring program.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
The BBCS shall ~~minimally~~ include the following components: 1. Preconstruction Baseline survey results. A description and summary of the baseline survey methods, raw data, and results.	
Biological Resources (cont.)	
2. Formation of a technical advisory committee (TAC~~), if requested by the CPM.~~). The TAC will facilitate concurrent project owner, CPM, and state and federal wildlife agency review of seasonal and annual survey results, development of decision-making framework for evaluating the effectiveness of the adaptive management measures implemented by the project owner, modification of the surveys in response to the results, if necessary, and the identification of additional mitigation responses that are commensurate with the extent of impacts that may be identified in the monitoring studies. A meeting schedule for the TAC will be identified, for regular review of avian and bat injury and mortality monitoring results, and recommend any necessary changes to monitoring, adaptive management, and appropriate adaptive mitigation. ~~The TAC will also advise the CPM in implementing the following provisions: #2 - #8. The CPM has the authority to dissolve the TAC.~~ 3. ~~The BBCS will contain full~~Full survey methodology and field documentation, identification of appropriate onsite survey locations ~~and~~, seasonal considerations~~. Bat surveying may be implemented, if the TAC or CPM determines that such surveying is necessary, based on onsite monitoring~~, and preconstruction data. 4. Avian and bat mortality and injury monitoring~~: An avian and bat injury and mortality monitoring program shall be implemented~~, including: (a) Onsite monitoring that will systematically survey representative locations within the facility, at a level that will produce statistically robust data; account for potential spatial bias and allow for the extrapolation of survey results to non-surveyed areas within the solar plant site boundary and the survey interval based on scavenger and searcher efficiency trials and detection rates~~.~~; (b) Low-visibility and high-wind weather event reporting to document potential weather-related collision risks that may be associated with increased risk of avian or bat collisions with project features, including foggy, highly overcast, or rainy night-time weather typically associated with an advancing frontal system, and high wind events ~~(~~in which 40 miles per hour winds~~)~~ are sustained for a period of greater than 4 hours~~.~~; (c) Statistically robust scavenger and searcher efficiency trials ~~post construction~~postconstruction to document the extent to which avian or bat fatalities remain visible over time and can be detected within the project area and to adjust the survey timing and survey results to reflect scavenger and searcher efficiency rates~~.~~; (d) Statistical methods used to generate facility estimates of potential post-construction ~~potential~~ avian and bat impacts based on the observed number of detections during standardized searches during the monitoring season ~~and methods used to report avian and bat impacts during construction~~; (e) Field detection and mortality or injury identification, cause attribution, handling and reporting protocols consistent with applicable legal requirements~~.~~; ~~all dead or injured bats and avian species found onsite will be assumed affected by the project, and all will be reported and used in fatality estimates.~~ 5. Survey schedule and period. Post-construction monitoring studies included in the BBCS shall be for at least two years following commencement of commercial operation of each individual unit. ~~The BBCS~~At the end of the second year, the CPM, in consultation with the TAC, shall ~~define the circumstances under which~~determine whether the survey program shall be continued for up to two additional years, based on results of onsite monitoring ~~would be necessary~~. The monitoring program may be modified with the approval of the CPM in response to survey	The reports shall also assess any adaptive management measure implemented during the prior year as approved by the CPM. After the second year of the monitoring program, the CPM shall meet and confer with the TAC (if convened) and shall use the criteria contained in the BBCS to determine if subsequent monitoring periods are warranted. If a carcass or injured live special status species is found at any time by the monitoring study or project operations staff, the project owner, Designated Biologist, or other qualified biologist that may be identified by the Designated Biologist shall contact the CPM, CDFW and USFWS by email, fax or other electronic means within one working day of any such detection. Verification of other injuries or mortalities shall be within 48 hours, or as otherwise directed by the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
results, identified scavenging efficiency rates, or other factors to increase monitoring accuracy and reliability or in accordance with the adaptive management decision-making framework included in the BBCS. 6. Adaptive management. An adaptive management program shall be developed to identify and implement reasonable and feasible measures needed to reduce ~~CEQA-significant~~ levels of avian or bat mortality or injury ~~adverse impacts~~ attributable to project operations and facilities to less than CEQA significant levels. Any such impact reduction measures must be commensurate (in terms of factors that include geographic scope, costs, and scale of effort) ~~to~~with the level of avian or bat mortality or injury ~~that is specifically and clearly attributable to the project facilities~~. Adaptive actions undertaken will be discussed and evaluated in survey reports. The adaptive management program shall include the following elements:	
Biological Resources (cont.)	
(a) Reasonable measures for characterizing the extent and significance of detected mortality and injuries clearly attributable to the project. (b) Potential measures that the project owner could implement to adaptively respond to detected mortality and injuries attributable to the project, including but not limited to passive avian diverter installations along the perimeter or at other locations within the project to avoid site use, the use of sound, light or other means to discourage site use consistent with applicable legal requirements, onsite prey or habitat control measures consistent with applicable legal requirements, and additional perch and nest minimizing of project facilities. 7. Adaptive Mitigation: The CPM may require the project owner to implement adaptive mitigation for CEQA significant onsite injury or mortality of birds and bats, based on recommendations of the TAC~~, if utilized, or as outlined within the BBCS.~~. Any such adaptive mitigation measures must be commensurate (in terms of factors that include geographic scope, costs, and scale of effort) ~~to~~with the level of avian or bat mortality or injury that is ~~specifically and clearly~~ attributable to the project facilities. Adaptive mitigation measures undertaken will be discussed and evaluated in survey reports. Such measures shall be approved by the CPM in consultation with the TAC and may include, but not be limited to: (i) restoration of degraded habitat with native vegetation; (ii) restoration of agricultural fields to bird habitat; (iii) management of agricultural fields to enhance bird populations; (iv) invasive plant species and artificial food or water source management; (v) control and cleanup of potential avian hazards, such as lead or microtrash; (vi) retrofitting of buildings to minimize collisions; (vii) retrofitting of conductors and above ground cables to minimize collisions; (viii) animal control programs; (ix) support for avian and bat research and/or management efforts conducted by entities approved by the CPM within the project's mitigation lands or other approved locations; (x) funding efforts to address avian diseases or depredation due to the expansion of predators in response to anthropomorphic subsidies that may adversely affect birds that use the mitigation lands or other approved locations; and (xi) contribute to the Migratory Bird Conservation Fund managed by the Migratory Bird Conservation Commission. Adaptive mitigation will be discussed and evaluated in survey reports.	
BIO-16: Pre-Construction Nest Surveys and Avoidance Measures. Pre-construction nest surveys shall be conducted if site mobilization and construction, mowing, trimming, or any vegetation maintenance activities would occur from February 1 through July 31. The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). The goal of the nesting surveys shall be to identify the general location of the nest sites, sufficient to establish a protective buffer zone around the potential nest site, and need not include identification of the precise nest locations. Surveyors performing nest surveys shall not concurrently be conducting desert tortoise surveys. The bird surveyors shall perform surveys in accordance with the following guidelines: 1. Surveys shall cover all potential nesting habitat areas that could be disturbed by each phase of construction, as described in **BIO-28** (Phasing). Surveys shall also include areas within 500 feet of the boundaries of the active construction areas (including linear facilities);	At least 10 days after surveys are completed, the project owner shall provide the CPM a letter-report describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor (s); and a list of species observed. If active or suspected active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest or suspected nest location and shall depict the boundaries of the no-disturbance buffer zone around the nest(s) that would be avoided during project construction. Each year during construction as part of the annual compliance report a follow-up report shall be provided to the CPM, BLM, CDFW, and USFWS describing the success of the buffer zones in preventing disturbance to

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys shall be conducted within a 14-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed three weeks, an interval during which birds may establish a nesting territory and initiate egg laying and incubation; 3. During operations and maintenance prior to mowing and any other vegetation maintenance during the nesting season, (February 1 through July 31) a single~~,~~ survey~~s~~ shall be conducted within 7 days of construction or maintenance activity to determine whether birds are nesting in the vegetation on site;	nesting activity and a brief description of the outcome of the nesting effort (for example, whether young were successfully fledged from the nest or if the nest failed).
Biological Resources (cont.)	
4. If active nests or suspected active nests are detected during the survey (including mowing and vegetation maintenance surveys during operations), a buffer zone (protected area surrounding the nest, the size of which is to be determined by the Designated Biologist in consultation with CDFW) and monitoring plan shall be developed, in coordination with the CPM. Nest locations shall be mapped and submitted, along with a report stating the survey results, to the CPM; and 5. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed; activities that might, in the opinion of the Designated Biologist, disturb nesting activities, shall be prohibited within the buffer zone until such a determination is made.	
BIO-17: American Badger and Desert Kit Fox Impact Avoidance and Minimization Measures. The project owner shall contract a qualified biologist to conduct a baseline pre-construction desert kit fox and American badger survey and develop and implement an American Badger and Desert Kit Fox Mitigation and Monitoring Plan (Plan). The survey data will be used to revise the final Plan, as necessary, with the most recent species data from the project site. The project owner shall conduct a baseline kit fox survey and submit a summary report that includes the following procedures: 1. A qualified biologist with demonstrated mammal experience shall complete a baseline pre-construction survey of desert kit fox and American badger populations on the project site and the anticipated dispersal areas for passive relocation between 30 and 60 days prior to initiation of any ground disturbing activities, not including installation of perimeter/desert tortoise fencing. Surveys of the solar plant site may be conducted after the perimeter fence is installed and concurrently with desert tortoise clearance surveys. The anticipated dispersal areas shall be defined as all suitable desert kit fox habitat within 500 meters of the project boundaries where desert kit fox would likely be displaced. The survey shall identify and record the locations of all potential dens throughout the project site (or phase) and shall characterize the approximate number and distribution of the badger and kit foxes on the site and anticipated dispersal areas. Depending on the season of the surveys (i.e. breeding or non-breeding) other demographic data will be. Approximately 30 to 60 days prior to installation of perimeter/desert tortoise fencing, a pre-construction survey for kit foxes will be conducted along the fenceline route. Depending on the fox breeding season, the width of the surveyed route and buffers may vary, as described in the approved Plan. The baseline pre-construction survey shall include the following components: a. An inventory and mapped locations of desert kit fox dens and burrows on the project site (including all project disturbance areas) and in the anticipated dispersal areas, and an evaluation whether each burrow is occupied, and reproductive status of kit foxes (single animal, mated pair, or family group with young), if known. If status unknown measures as required under Item 2b, below, will be implemented. b. Reporting: The project owner shall provide a draft Summary Report of the Baseline American Badger and Desert Kit Fox Survey to the CPM and BLM for review in consultation with CDFW. The project owner and the project owner's Designated Biologist shall consult with the CPM and BLM on any changes to the final Plan that would result from the baseline pre-construction survey data provided in the Summary Report. The project	No fewer than 90 days prior to the start of any, site mobilization and construction the project owner shall provide the CPM, BLM, and CDFW with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan for review and comment. Approximately 30 to 60 days prior to initiation of site mobilization and construction activities, not including perimeter/desert tortoise fencing, a qualified biologist with demonstrated mammal experience shall complete a baseline study of American badger and desert kit fox populations on the project site and the anticipated dispersal areas for passive relocation. Approximately 30 to 60 days prior to installation of perimeter/desert tortoise fencing, a pre-construction survey for kit foxes shall be conducted along the fenceline route. The project owner shall submit a summary report to the CPM, BLM and CDFW within 7 days of completion of any badger and kit fox surveys. The report shall describe survey methods and results of the surveys. The project owner and the Designated Biologist shall consult with the CPM and BLM upon submitting the summary report regarding any changes to the final Plan. No fewer than 15 days prior to start of any site mobilization and construction, the project owner shall provide an electronic copy of the CPM-approved final Plan to the CPM, BLM and CDFW and implement the Plan. No later than 24 hours following a phone notification of an injured, sick, or dead American badger or desert kit fox, the project owner shall provide to the CPM, BLM and CDFW, via FAX or electronic communication, a written report from the Designated Biologist describing the incident of sickness, injury, or death of an American badger or desert kit fox, when the incident occurred, and who else was notified.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
owner shall not implement the American Badger and Desert Kit Fox Mitigation and Monitoring Plan (below) until receiving the CPM and BLM's written approval of the final Plan. The objective of the plan shall be to avoid direct impacts to the American badger and desert kit fox as a result of site mobilization and construction of the power plant and linear facilities, as well as during project operation and non-operation and closure. The final plan is subject to review and comment by BLM and revision and approval by the CPM, in consultation with CDFW. The final Plan shall include, but is not limited to, the following procedures and impact avoidance measures:	Beginning with the first month after start of construction and continuing every month until construction is completed, the Designated Biologist shall include a summary of events regarding the American badger and desert kit fox in each Monthly Compliance Reports (MCR). The impact avoidance and minimization measure(s) implemented and the results of implementation of those measures shall be reported in each MCR.
Biological Resources (cont.)	
2. Describe pre-construction survey and clearance field protocol, to determine the number and locations of single or paired kit foxes or badgers on the project site that would need to be avoided or passively relocated and the number and locations of desert kit fox or badger burrows or burrow complexes that would need to be collapsed to prevent re-occupancy by the animals. a. *Pre-Construction Surveys. A baseline, preconstruction survey shall be conducted as described above under Item 1.* Surveys may be concurrent with desert tortoise and burrowing owl surveys to the extent it does not conflict with desert tortoise and burrowing owl agency protocols. Depending on the timing of the project phases and time between phases, surveys may need to be conducted for each phase of construction Options for timing of surveys shall be detailed in the Plan. If dens are detected during the survey(s), each den shall be classified as inactive, potentially active, definitely active den, or natal den. b. *Monitoring and Protection Measures, Passive Hazing, and Den Excavation:* The plan will include details on monitoring requirements, types and methods of passive hazing, and methods and timing of den excavation, including, but not limited to the following: i. Inactive dens. Inactive dens [e.g. inactive dens are dens that are mostly or entirely silted in and ones in which the back of the den can be clearly seen (e.g., the den isn't deep and doesn't curve)] that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badger or kit fox. Only outside the whelping/pup rearing season as defined in the kit fox plan, dens that are determined to be inactive based on vegetation, debris or soil conditions, indicating to an experienced field biologist that the den is not being used, can be excavated by hand in the early evening. ii. Potentially and definitely active dens. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. If the den is proven inactive then den may be collapsed during whelping season. BLM approval may be required prior to release of badgers on public lands. iii. Active natal/pupping dens. If an active natal den (a den with pups) is detected on the site, the project owner shall proceed to implement the approved Plan and shall also notify the BLM, CPM, and CDFW within 24 hours. If the situation is unusual and/or not addressed by the approved Plan, then the project owner's biologist shall consult with the CPM, BLM, and CDFW to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g. is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A	No later than 45 days after initiation of project operation, the Designated Biologist shall provide the CPM and BLM a final American Badger and Desert Kit Fox Mitigation and Monitoring Plan Report that includes: 1) a discussion of all mitigation measures that were and currently are being implemented; 2) all information about project-related kit fox and badger injuries and/or deaths; 3) all information regarding sick kit fox and badger found within the project site and along related linear facilities; and 4) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the American badger and desert kit fox. Within 30 days of participation in the CDFW led fee based Monitoring and Mitigation Program during site mobilization and construction or operation the project owner will submit a revised Plan that includes the program information related to the project and confirmation that all fees are paid.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
500-foot no-disturbance buffer shall be maintained around all active dens. The denning season for American badger is approximately March to August, and for desert kit fox the denning season is approximately Mid-January to pup independence typically by July 1 (or earlier with confirmation of pup independence based on monitoring data). If the den is active during the whelping season, even if pups are not seen, disturbance is not allowed. Active natal/pupping dens will not be excavated or passively relocated.	
Biological Resources (cont.)	
c. *Exception for American badger.* In the event that passive relocation techniques fail for badgers, outside the denning season, or during the denning season if individual badgers can be verified to not have a litter, then live-trapping by a CDFW and CPM approved trapper is an option that may be employed to safely perform active removal as a last resort. A live-trapping plan including trapping methods as well as the name and resume, including documentation of relevant handling permits of the proposed trapper, would be included in detail as part of the approved Plan. In the event live-trapping would be employed as a last resort, written notification would be submitted to the CPM for review and approval in consultation with BLM and CDFW. The CPM, BLM and CDFW would be notified in writing no less than 1 week prior to live trapping of badger. The notification would at a minimum include what passive relocation methods have been attempted to date and the justification for live-trapping as a last resort. In addition timing, and location of release of the individual badger as well as the name of the proposed trapper and resume, including documentation of relevant handling permits if not previously included and approved in the Plan shall be included in the notification. BLM approval may be required prior to release of badgers on public lands.	
3. Address other factors and procedures that may affect the success of kit fox and American badger relocation offsite, such as:	
a. Qualitative discussion of availability of suitable habitat on off-site surrounding lands within 10 miles of the project boundary, and evaluation of kit fox burrows with 500 meters of the project boundary, in areas where onsite foxes may disperse (e.g., by inventorying burrow numbers in selected representative sample areas) as identified in the pre-construction surveys above;	
b. Estimates of the distances kit foxes would need to travel across the project site and across adjacent lands to safely access suitable habitat (including burrows) off-site;	
c. Proposed scheduling of the passive relocation effort;	
d. Methods to minimize likelihood that the animals will return to the project site;	
e. Descriptions of any proposed or potential ground disturbing activities related to kit fox relocation, and locations of those activities (e.g., artificial burrow construction);	
f. A monitoring and reporting plan to evaluate success of the relocation efforts and any subsequent re-occupation of the project site; and	
g. A plan to subsequently relocate any animals that may return to the site (e.g., by digging beneath fences).	
4. Address notification procedures for notifying the CPM, BLM and CDFW if injured, sick, or dead badger or kit fox are detected. Notify the CPM, BLM and CDFW if injured, sick, or dead American badger and desert kit fox are found. If an injured, sick, or dead animal is detected on any area associated with the solar project site or associated linear facilities, the CPM, BLM Palm Springs/ South Coast Field Office and the Ontario CDFW Office as well as the CDFW Wildlife Investigation Lab (WIL) shall be notified immediately by phone (8 hours in the case of a fatality). Written follow-up notification via FAX or electronic communication shall be submitted to the CPM, BLM and CDFW within 24 hours of the incident and shall include the following information as appropriate:	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
a. *Injured animals.* If an American badger or desert kit fox is injured because of any project-related activities, the Designated Biologist or approved Biological Monitor shall immediately notify the CPM, BLM and CDFW personnel regarding the capture and transport of the animal to CDFW-approved wildlife rehabilitation and/or veterinarian clinic. Following the phone notification, the CPM and CDFW shall determine the final disposition of	
Biological Resources (cont.)	
the injured animal, if it recovers. A written notification of the incident shall be sent to the CPM, BLM and CDFW containing, at a minimum, the date, time, location, and circumstances of the incident. b. *Sick animals.* If an American badger or desert kit fox is found sick and incapacitated on any area associated with the project site or associated linear facilities, the Designated Biologist or approved Biological Monitor shall immediately notify the CPM, BLM and CDFW personnel for immediate capture and transport of the animal to a CDFW-approved wildlife rehabilitation and/or veterinarian clinic. Following the phone notification, the CPM and CDFW shall determine the final disposition of the sick animal, if it recovers. If the animal dies, a necropsy shall be performed by a CDFW-approved facility to determine the cause of death, in accordance with measure "c", below. c. *Fatalities.* If an American badger or desert kit fox is killed because of any project-related activities during construction, operation, and decommissioning or is found dead on the project site or along associated linear facilities, the Designated Biologist or approved Biological Monitor shall immediately refrigerate the carcass and notify the CPM, BLM and CDFW personnel within 24 hours (8 hours in the case of desert kit fox) of the discovery to receive further instructions on the handling of the animal. Handling of a dead kit fox shall follow the Guidelines for Handling a Desert Kit Fox Carcass (CDFW WIL) or most recent guidance. A necropsy shall be performed by a CDFW-approved facility to determine the cause of death. The project owner shall pay to have the animal transported and a necropsy performed. 5. Additional protection measures to be included in the Plan and implemented: a. All pipes within the project disturbance area outside the solar plant site, or inside the solar plant site if foxes are still on the site, must be fenced, capped and/or covered every evening or when not in use to prevent desert kit foxes or other animals from accessing the pipes and/or monitored. b. All project-related water sources shall be covered and secured when not in use to prevent drowning. c. The project owner shall coordinate with CDFW to identify any additional fence design features to maximize the effectiveness of the fence to exclude kit foxes from the project. d. Incorporate and implement the CDFW Veterinarian's guidance regarding impact avoidance measures including measures to prevent disease spread among desert kit foxes. e. Include measures to reduce traffic impacts to wildlife if the project owner anticipates night-time construction. The plan must also include a discussion of what information will be provided to all night-time workers, including truck drivers, to educate them about the threats to kit fox, what they need to do to avoid impacts to kit fox, and what to report if they see a live, injured, or dead kit fox. f. In order to reduce the likelihood of distemper transmission: ~~i~~a. No pets shall be allowed on the site prior to or during site mobilization and construction, operation, and non-operation and closure, with the possible exception of vaccinated kit fox scat detection dogs during preconstruction surveys, and then only with prior CPM and CDFW approval; ~~b~~ii. Any hazing activities that include the use of chemical or other repellents (e.g. ultrasonic noise makers, or	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
non-animal-based chemical repellents) must be cleared through the CPM and CDFW prior to use. The use of animal tissue or excretion based repellents (e.g. coyote urine, anal gland products) is not permitted.	
Biological Resources (cont.)	
~~c~~iii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to the CPM, CDFW, and the BLM immediately upon identification (within 8 hours for mortality). If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFW WIL, and the WIL shall be contacted to determine carcass suitability for necropsy. 6. The project owner may opt to participate in the CDFW led fee based Monitoring and Mitigation Program if in place prior to start of site mobilization and construction in lieu of implementation of certain items in 3i, 3j, 5a, 5b, 5d, 5f above. This includes financial responsibility for transportation and necropsy of desert kit fox mortalities due to project-related activities or sick animals found on or near the project site or associated linears as well as measures to address other factors and procedures that may affect the success of kit fox and American badger relocation offsite. If in place, the CDFW Monitoring and Mitigation Program activities associated with the Project and associated fees will be fully described in the final Plan. The project owner may also opt to participate in the program if established at a later date during site mobilization and construction or operation and will submit a revised Plan that includes the program information when established and confirmation that fees are paid.	
BIO-18: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures. The project owner shall implement the following measures to avoid, minimize and offset impacts to burrowing owls: 1. ***Pre-Construction Surveys.*** The Designated Biologist or Biological Monitor shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to initiation of site mobilization and construction activities in accordance with CDFW guidelines (CDFW 2012). Surveys shall be focused exclusively on detecting burrowing owls, and shall be conducted from two hours before sunset to 1 hour after or from 1 hour before to 2 hours after sunrise. The survey area shall include the Project Disturbance Area and surrounding 500 foot survey buffer for each phase of construction in accordance with **BIO-28** (phasing). 2. ***Implement Burrowing Owl Mitigation Plan.*** The project owner shall implement measures described in the final Burrowing Owl Mitigation Plan. The final Burrowing Owl Mitigation Plan shall be approved by the CPM, in consultation with BLM, USFWS and CDFW, and shall: a. identify suitable sites within 1 mile of the Project Disturbance Areas for creation or enhancement of burrows prior to passive relocation efforts; b. provide guidelines for creation or enhancement of at least two natural or artificial burrows per relocated owl; design of the artificial burrows shall be consistent with CDFW guidelines (CDFW 2012); c. provide detailed methods and guidance for passive relocation of burrowing owls occurring within the Project Disturbance Area; and d. describe monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the project area where WBO were relocated from and provide a reporting plan. 3. ***Implement Avoidance Measures.*** If an active burrowing owl burrow is detected within 500 feet from the Project Disturbance Area the following avoidance and minimization measures shall be implemented: a. *Establish Non-Disturbance Buffer.* Fencing shall be installed at a 250-foot radius from the occupied burrow to create a non-disturbance buffer around the burrow. The non-disturbance buffer and fence line may be reduced to 160 feet if all project-related activities that might disturb burrowing owls would be conducted during the non-breeding season (September 1st through January 31st). Signs shall be posted in English and Spanish at the	If pre-construction surveys detect burrowing owls within the Project Disturbance Area and relocation of the owls is required, within 30 days of completion of the burrowing owl pre-construction surveys the project owner shall submit to the CPM, BLM, CDFW, and USFWS a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall identify suitable areas for construction of burrows and the other passive relocation as described above. As part of the Annual Compliance Report each year following construction for a period of five years, the Designated Biologist shall provide a report to the CPM, BLM, USFWS and CDFW that describes the results of monitoring and management of the burrowing owl burrow creation or enhancement area(s). If pre-construction surveys detect burrowing owls within 500 feet of proposed construction activities, at least 10 days prior to the start of any project-related site disturbance activities the Designated Biologist shall provide to the CPM, BLM, CDFW, and USFWS documentation indicating that non-disturbance buffer fencing has been installed as described above. The project owner shall report monthly to BLM, the CPM, CDFW and USFWS for the duration of construction on the implementation of burrowing owl avoidance and minimization measures.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
fence line indicating no entry or disturbance is permitted within the fenced buffer.	
Biological Resources (cont.)	
b. *Monitoring:* If construction activities would occur within 500 feet of the occupied burrow during the nesting season (February 1 – August 31st) the Designated Biologist or Biological Monitor shall monitor to determine if these activities have potential to adversely affect nesting efforts, and shall make recommendations to minimize or avoid such disturbance. 4. ***Acquire 39 Acres of Burrowing Owl Habitat.*** The project owner shall acquire, in fee or in easement 39 acres of land suitable to support a resident population of burrowing owls and shall provide funding for the enhancement and long-term management of these compensation lands. The responsibilities for acquisition and management of the compensation lands may be delegated by written agreement to CDFW or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the CPM, in consultation with BLM, CDFW and USFWS prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. ~~1~~a. *Criteria for Burrowing Owl Mitigation Lands.* The terms and Conditions of this acquisition or easement shall be as described in **BIO-12** [Desert Tortoise Compensatory Mitigation], with the additional criteria to include: 1) the 39 acres of mitigation land must provide suitable habitat for burrowing owls, and 2) the acquisition lands must either currently support burrowing owls or be within dispersal distance from areas occupied by burrowing owl (generally approximately five miles). The 39 acres of burrowing owl mitigation lands may be included with the desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the 39 acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the project owner shall fulfill the requirements described below in this Condition. ~~2~~b. *Security.* If the 39 acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the project owner or an approved third party shall complete acquisition of the proposed compensation lands within the time period specified for this acquisition (see the verification section at the end of this Condition). Alternatively, financial assurance can be provided by the project owner to the CPM and CDFW, according to the measures outlined in **BIO-12**. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") prior to initiating ground-disturbing project activities. Prior to submittal to the CPM, the Security shall be approved by the CPM, in consultation with BLM, CDFW and the USFWS, to ensure funding. The final amount due will be determined by an updated appraisal and PAR analysis conducted as described in **BIO-12**.	The project owner shall report monthly to BLM, the CPM, CDFW and USFWS for the duration of construction on the implementation of burrowing owl avoidance and minimization measures. Within 30 days after completion of construction the project owner shall provide to the CDFW and CPM a written report identifying how mitigation measures described in the plan have been completed. No less than 30 days prior to the start of site mobilization and construction activities the project owner shall provide the CPM with an approved form of Security in accordance with this condition of certification. Actual Security for acquisition of 39 acres of burrowing owl habitat shall be provided no later than 7 days prior to the beginning of site mobilization and construction activities. No fewer than 90 days prior to the land or easement purchase, as determined by the date on the title, the project owner shall provide the CPM with a management plan for review and approval, in consultation with CDFW, BLM, and USFWS, for the compensation lands and associated funds. No later than 18 months from initiation of construction, the project owner shall provide written verification to the CPM that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient.
BIO-19: Special-Status Plant Impact Avoidance, Minimization and Compensation. This Condition contains the following four sections: • ~~1.~~ ***Section A: Special-Status Plant Impact Avoidance and Minimization Measures*** contains the Best Management Practices and other measures designed to avoid accidental impacts to plants occurring outside of the Project Disturbance Area and within 100 feet of the Project Disturbance Area during construction, operation, and closure. • ~~2.~~ ***Section B: Conduct Late Season Botanical Surveys*** describes guidelines for conducting summer-fall 2010 surveys to detect special-status plants that would have been missed during the spring 2010 surveys. • ~~3.~~ ***Section C: Avoidance Requirements for Special-Status Plants*** Detected in the Summer/Fall 2010 Surveys outlines the level of avoidance required for plants detected during the summer-fall surveys, based on the species' rarity and status codes.	The Special-Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification **BIO-7**. Raw GPS data, metadata, and CNDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the late summer/fall botanical surveys shall also be submitted to the CPM and BLM's State Botanist within two weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground-disturbing activities. The Final Report shall

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
• ~~4.~~ ***Section D: Off-Site Compensatory Mitigation for Special-Status Plants*** describes performance standards for mitigation for a range of options for compensatory mitigation through acquisition, restoration/enhancement, or a combination of acquisition and restoration/enhancement. "Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the project, including the plant site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation. The project owner shall implement the following measures in Section A, B, C, and D to avoid, minimize, and compensate for impacts to special-status plant species: ~~A~~1. **Section A: Special-Status Plant Impact Avoidance and Minimization Measures** To protect all special-status plants[4] located outside of the Project Disturbance Area and within 100 feet of the permitted Project Disturbance Area from accidental and indirect impacts during construction, operation, and closure, the project owner shall implement the following measures: 1. *Designated Botanist*. An experienced botanist who meets the qualifications described in Section B-2 below shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this Condition throughout construction and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. During operation of the project, the Designated Biologist shall be responsible for protecting special-status plant occurrences within 100 feet of the project boundaries. 2. *Special-Status Plant Impact Avoidance and Minimization Measures*. The project owner shall incorporate all measures for protecting special-status plants in close proximity to the site into the BRMIMP (**BIO-7**). These measures shall include the following elements: a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the project linears: limiting the width of the work area; adjusting the location of staging areas, lay downs, spur roads and poles or towers; driving and crushing vegetation as an alternative to blading temporary roads to preserve the seed bank, and minor adjustments to the alignment of the roads and pipelines within the constraints of the ROW. Design the engineered channel discharge points to maintain the natural surface drainage patterns between the engineered channel and the outlet of the natural washes that flow toward the south and east, downstream of the project These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP. b. Establish Environmentally Sensitive Areas (ESAs). Prior to the start of any ground- or vegetation-disturbing activities, the Designated Botanist shall establish ESAs to protect avoided special-status plants that occur outside of the Project Disturbance Areas and within 100 feet of Project Disturbance Areas. This includes plant occurrences identified during the spring 2009-2010 surveys and the late season 2010 surveys. The locations of ESAs shall be clearly depicted on construction drawings, which shall also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall be placed a minimum of 20 feet from the uphill side of the occurrence and 10 feet from the downhill side. Where this is not possible due to construction constraints, other protection measures, such as silt-fencing	include a detailed accounting of the acreage of project impacts to special-status plant occurrences. The draft conceptual Special-Status Plant Mitigation Plan shall be submitted to the CPM for review and approval no less than 30 days prior to the start of ground-disturbing activities. The project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the project, including conclusion of project decommissioning. No fewer than 30 days prior to the start of ground-disturbing activities the project owner shall submit grading plans and construction drawings to the CPM which depict the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition. If compensatory mitigation is required, no less than 30 days prior to the start of ground-disturbing activities, the project owner shall submit to the CPM the form of Security adequate to acquire compensatory mitigation lands and/or undertake habitat enhancement or restoration activities, as described in this Condition. Actual Security shall be provided seven days prior to start of ground-disturbing activities. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, with copies to CDFG, USFWS, and BLM, describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the start of ground disturbance. No fewer than 30 days after acquisition of the property the project owner shall deposit the funds required by Section I e above (long term management and maintenance fee) and provide proof of the deposit to the CPM. The project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of project ground-disturbing activities. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that

[4] Staff defines special-status plants as described in *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (California Natural Resources Agency, Department of Fish and Game, issued November 24, 2009).

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
and sediment controls, may be employed to protect the occurrences. Equipment and vehicle maintenance areas, and wash areas, shall be located 100 feet from the uphill side of any ESAs. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fencing or sediment controls under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be clearly identified (with signage or by mapping on site plans) to ensure that avoided plants are not inadvertently harmed during construction, operation, or closure. c. Special-Status Plant Worker Environmental Awareness Program (WEAP). The WEAP **(BIO-6)** shall include training components specific to protection of special-status plants as outlined in this Condition. d. Herbicide and Soil Stabilizer Drift Control Measures. Special-status plant occurrences within 100 feet of the Project Disturbance Area shall be protected from herbicide and soil stabilizer drift. The Weed Control Program (**BIO-14**) shall include measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by the Nature Conservancy's *The Global Invasive Species Team*[5], the U.S. Environmental Protection Agency, and the Pesticide Action Network Database[6]. e. Erosion and Sediment Control Measures. Erosion and sediment control measures shall not inadvertently impact special-status plants (e.g., by using invasive or non-native plants in seed mixes, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in the Drainage, Erosion, and Sedimentation Control Plan required under **SOIL&WATER-1**. f. Avoid Special-Status Plant Occurrences. Areas for spoils, equipment, vehicles, and materials storage areas; parking; equipment and vehicle maintenance areas, and wash areas shall be placed at least 100 feet from any ESAs. g. Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities. 2~~B~~. **Section B: Conduct Late-Season Botanical Surveys** The project owner shall conduct late-summer/fall botanical surveys for late-season special-status plants prior to start of construction or by the end of 2010, as described below: 1. *Survey Timing*. Surveys shall be timed to detect: a) summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October). Fall-blooming perennials that respond to the cooler, later season storms (typically beginning in September or October) shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification. The surveys shall not be timed to coincide with the statistical peak bloom period of the target species but shall instead be based on plant phenology and the timing of a significant storm event (i.e., a 10mm or greater rain or multiple storm events of sufficient volume to trigger germination, as measured at or within one mile of the project site). Surveys shall occur at the appropriate time to capture the characteristics necessary to identify the taxon. ~~Construction of Phase 1A as outlined in Condition of Certification **BIO-28** is authorized to commence following a September survey.~~	funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline. If habitat enhancement is proposed, no later than six months following the start of ground-disturbing activities, the project owner shall obtain CPM approval of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section D, and submit to the CPM or a third party approved by the CPM Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan. Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the enhancement project shall be completed within five years of initiation. Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a summary of activities for the following year; quantitative measurements of the project's progress in meeting the enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties. If a Distribution Study is implemented as contingency mitigation, the study shall be initiated no later than 6 months from the start of construction. The implementation phase of the study shall be completed within two years of the start of construction. Within 18 months of ground-disturbing activities, the project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual costs of (1) acquiring compensatory mitigation lands, completing initial protection and habitat improvement, and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities. Implementation of the special-status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

5 Hillmer, J. & D. Liedtke. 2003. Safe herbicide handling: a guide for land stewards and volunteer stewards. Ohio Chapter, The Nature Conservancy, Dublin, OH. 20 pp. Online: <http://www.invasive.org/gist/products.html.
6 Pesticide Action Network of North America. Kegley, S.E., Hill, B.R., Orme S., Choi A.H., PAN Pesticide Database, Pesticide Action Network, North America. San Francisco, CA, 2010 <http://www.pesticideinfo.org>

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
2. *Surveyor Qualifications and Training*. Surveys shall be conducted by a qualified botanist knowledgeable in the complex biology of the local flora, and consistent with ~~CDFG~~ CDFW protocols (~~CDFG~~ CDFW 2009). Each surveyor shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit reference sites (where available) and/or review herbarium specimens of all BLM Sensitive plants, CNPS List 1B or 2 (Nature Serve rank S1 and S2) or proposed List 1B or 2 taxa, and any new reported or documented taxa, to obtain a search image. Because the potential for range extensions is unknown, the list of potentially occurring special-status plants shall include all special-status taxa known to occur within the Sonoran Desert region and the eastern portion of the Mojave in California. The list shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.	The project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special-status plants to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, completed CNDDB field forms for each avoided occurrence on-site and within 100 feet of the project boundary off-site, and description of the remedial action, if warranted and planned for the upcoming year. The completed forms shall include an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends.
3. *Survey Coverage*. The survey coverage or intensity shall be in accordance with BLM Survey Protocols (issued July 2009)[7], which specify that intuitive controlled surveys shall only be accomplished by botanists familiar with the habitats and species that may reasonably be expected to occur in the project area.	
4. *Documenting Occurrences*. If a special-status plant is detected, the full extent of the population onsite shall be recorded using GPS in accordance with BLM survey protocols. Additionally, the extent of the population within one mile of project boundaries shall be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the population affected by the project. For populations that are very dense or very large, the population size may be estimated by simple sampling techniques. When populations are very extensive or locally abundant, the surveyor must provide some basis for this assertion and roughly map the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; the smallest populations may be recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the final botanical report shall be prepared to ensure consistency with definition of an occurrence by CNDDB, i.e., occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single 'occurrence'. The project owner shall also submit the raw GPS shape files and metadata, and completed CNDDB forms for each 'occurrence' (as defined by CNDDB).	
5. *Reporting*. Raw GPS data, metadata, and CNDDB field forms shall be provided to the CPM within two weeks of the completion of each survey. If surveys are split into two or more periods (e.g., a late summer survey and a fall survey), then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report shall be prepared consistent with ~~CDFG~~ CDFW guidelines (~~CDFG~~ CDFW 2009), and BLM 2009 guidelines and shall include all of the following components: a. the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List); b. the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes; c. the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;	

[7] Bureau of Land Management (BLM), California State Office. Survey Protocols Required for NEPA/ESA Compliance for BLM Special Status Plant Species. Issued, July 2009.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
d. an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate); e. a completed CNDDB field form for every occurrence (occurrences of the same species within one-quarter mile or less of each other combined as one occurrence, consistent with CNDDB methodology), and f. two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with project features; and a second map that follows the CNDDB protocol for occurrence mapping. ~~C~~3. **Section C: Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys** The project owner shall apply the following avoidance standards to late blooming special-status plants that might be detected during late summer/fall season surveys. Avoidance and/or the mitigation measures described in Section D below would reduce impacts to these special-status plant species to less than significant levels. 1. *Mitigation for CNDDB Rank 1 Plants (Critically Imperiled) - Avoidance Required:* If late blooming species with a CNDDB rank of 1 are detected within the Project Disturbance Area the project owner shall prepare and implement a Special-Status Plant Mitigation Plan (Plan). The goal of the Plan shall be to retain at least 75 percent of the local population of the affected species. Compensatory mitigation, as described in Section D of this Condition, and at a mitigation ratio of 3:1, shall be required for the 25~~%~~ percent or portion that is not avoided. The Plan shall include, at a minimum, the following components and definitions: a. A description of the occurrences of the CNDDB rank 1 species on the project, ecological characteristics such as micro-habitat requirements, ecosystem processes required for maintenance of the habitat, reproduction and dispersal mechanisms, pollinators, local distribution, a description of the extent of the population off-site, the percentage of the local population affected, and a description of how these occurrences would be impacted by the project, including direct and indirect effects. The "local population" shall include the number of individuals occurring within the Palo Verde Watershed boundaries. Occurrences shall be considered impacted if they are within the project footprint, and if they would be affected by project-related hydrologic changes or changes to the local sand transport system. b. A description of the avoidance and minimization measures that would achieve complete avoidance of occurrences on the project linears and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g. Cultural Resource Sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). c. A description of the measures that would be implemented to avoid or minimize impacts to occurrences on the solar facility. Avoidance is generally considered not feasible if the species is located within the Permanent Project Disturbance Area (bounded by the permanent tortoise exclusion fence and the drainage channels). d. If avoidance on the linears, construction laydown areas, and solar facility combined protect less than 75 percent of the local population of the affected species, the project owner shall implement offsite mitigation that demonstrates that the impacts will not cause a loss of viability for that species. Implementation of the compensatory offsite mitigation must meet the performance standards described in section D of this Condition, and may include land acquisition or implementation of a restoration/enhancement program for the species.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
e. "Avoidance" shall include protection of the ecosystem processes essential for maintenance of the protected plant occurrence. For all but one of the late blooming plant species with potential to occur, the plant species are annuals that depend on a viable seed bank to maintain population health and persistence. The primary goal of avoidance for these annual species will be protection of the soil integrity and the seed bank that is closely associated with undisturbed soils. Any impacts to the soil structure or surface features will be considered an impact, but measures like temporary mowing or brush removal that does not disturb the soil will not be considered impacts to the population. Isolated 'islands' of protected plants disconnected by the project from natural fluvial, aeolian (wind), or other processes essential for maintenance of the species, shall not be considered to be protected and shall not be credited as contributing to the 75 percent avoidance requirement because such isolated populations are not sustainable. 2. *Mitigation for CNDDB Rank 2 Plants (Imperiled) –Avoidance on Linears Required:* If species with a CNDDB rank of 2 are detected within the Project Disturbance Area, the project owner shall prepare and implement a Special-Status Plant Mitigation Plan (Plan) that describes measures to achieve complete avoidance of occurrences on the project linears and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g. Cultural Resource Sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). The project owner shall provide compensatory mitigation, at a ratio of 2:1, as described below in Section D for impacts to Rank 2 plants that could not be avoided. The content of the Plan and definitions shall be as described above in subsection C.1. 3. *Mitigation for CNDDB Rank 3 Plants – No On-Site Avoidance Required Unless Local or Regional Significance:* If species with a CNDDB rank of 3 are detected within the Project Disturbance Area, no onsite avoidance or compensatory mitigation shall be required unless the occurrence has local or regional significance, in which case the plant occurrence shall be treated as a CNDDB rank 2 plant species. A plant occurrence would be considered to have local or regional significance if: ~~1~~a. It occurs at the outermost periphery of its range in California; b2. It occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats), or; c~~3~~. It exhibits any unusual morphology that is not clearly attributable to environmental factors that may indicate a potential new variety or sub-species. 4. *Pre-Construction Notification for State- or Federal-Listed Species, or BLM Sensitive Species.* If a state or federal-listed species or BLM Sensitive species is detected, the project owner shall immediately notify the ~~CDFG~~CDFW, USFWS, BLM, and the CPM. 5. *Preservation of the Germplasm of Affected Special-Status Plants.* For all significant impacts to special-status plants, regardless of whether compensatory mitigation is required, mitigation shall include seed collection from the affected special-status plants on-site prior to construction to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the project owner. Any efforts to propagate and reintroduce special-status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plan approved by the CPM.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
4D. **Section D: Off-Site Compensatory Mitigation for Special-Status Plants** Where compensatory mitigation is required under the terms of Section C, above, the project owner shall mitigate project impacts to special-status plant occurrences with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the target species, or restoration/enhancement of populations of the target species, and shall meet the performance standards for mitigation described below. In the event that no opportunities for acquisition or restoration/enhancement exist, the project owner can fund a species distribution study designed to promote the future preservation, protection or recovery of the species. Compensatory mitigation shall be at a ratio of 3:1 for Rank 1 plants, with three acres of habitat acquired or restored/enhanced for every acre of habitat occupied by the special status plant that will be disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is one-fourth acre than the compensatory mitigation will be three-fourths of an acre). The mitigation ratio for Rank 2 plants shall be 2:1. So, for the example above, the mitigation ratio would be one-half acre for the Rank 2 plants. The project owner shall provide funding for the acquisition and/or restoration/enhancement, initial improvement, and long-term maintenance and management of the acquired or restored lands. The actual costs to comply with this Condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) report, and other transactional costs related to the use of compensatory mitigation. The project owner shall comply with other related requirements in this Condition: **I.** ***Compensatory Mitigation by Acquisition:*** The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following: 1. *Selection Criteria for Acquisition Lands.* The compensation lands selected for acquisition may include any of the following three categories: a. Occupied Habitat, No Habitat Threats. The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction). b. Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population could be reasonably expected to recover with habitat restoration efforts (e.g., OHV or grazing exclusion, or removal of invasive non-native plants) and is accompanied by a Habitat Enhancement/Restoration Plan as described in Section D.II, below. c. Unoccupied but Adjacent. The project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat. This acquisition may include habitat restoration efforts where appropriate, particularly when these restoration efforts will benefit adjacent habitat that is occupied by the target species.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
2. *Review and Approval of Compensation Lands Prior to Acquisition*. The project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above, and must be approved by the CPM. 3. *Management Plan*. The project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the CPM. 4. *Integrating Special-Status Plant Mitigation with Other Mitigation lands.* If all or any portion of the acquired Desert Tortoise, Waters of the State, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation. 5. *Compensation Lands Acquisition Requirements.* The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands: Preliminary Report. The project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board. Title/Conveyance. The project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title must be to ~~CDFG~~CDFW, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFW~~CDFG~~ or another entity approved by the CPM. If an entity other than CDFW~~CDFG~~ holds a conservation easement over the compensation lands, the CPM may require that CDFW~~CDFG~~ or another entity approved by the CPM, in consultation with CDFW~~CDFG~~, be named a third party beneficiary of the conservation easement. The project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands. Initial Protection and Habitat Improvement. The project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities shall be estimated based on the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010,* or more current guidance from the REAT at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, but actual costs will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFW~~CDFG~~ or another public agency may hold and expend the habitat improvement	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
funds if it	
Biological Resources (cont.)	
is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFW~~CDFG~~, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFW~~CDFG~~ takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW~~CDFG~~ or its designee. Property Analysis Record. Upon identification of the compensation lands, the project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM before it can be used to establish funding levels or management activities for the compensation lands. Long-term Maintenance and Management Funding. In accordance with **BIO-28** (phasing), the project owner shall deposit in NFWF's REAT Account a non-wasting capital long-term maintenance and management fee in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. The CPM, in consultation with CDFW~~CDFG~~, may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFW~~CDFG~~ takes fee title to the compensation lands, CDFW~~CDFG~~ shall determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFW~~CDFG~~ and with CDFW~~CDFG~~ supervision. Interest, Principal, and Pooling of Funds. The project owner shall ensure that an agreement is in place with the long-term maintenance and management fund (endowment) holder/manager to ensure the following requirements are met: Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the CPM and is designed to protect or improve the habitat values of the compensation lands. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this project must be tracked and reported individually to the CPM. Other Expenses. In addition to the costs listed above, the project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFW~~CDFG~~ or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.	
Biological Resources (cont.)	
Mitigation Security. The project owner shall provide financial assurances in accordance with **BIO-28** (phasing) to the CPM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this Condition that are not completed prior to the start of ground-disturbing project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the CPM. The amount of the Security shall be estimated based on the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010,* or more current guidance from the REAT agencies, at a ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is significantly impacted by the project. The actual costs to comply with this Condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval of the form of the Security. The CPM may draw on the Security if the CPM determines the project owner has failed to comply with the requirements specified in this Condition. The CPM may use money from the Security solely for implementation of the requirements of this Condition. The CPM's use of the Security to implement measures in this Condition may not fully satisfy the project owner's obligations under this Condition, and the project owner remains responsible for satisfying the obligations under this Condition if the Security is insufficient. The unused Security shall be returned to the project owner in whole or in part upon successful completion of the associated requirements in this Condition. The project owner may elect to comply with the requirements in this Condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this Condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the project owner, the project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the Applicant, the remaining balance shall be returned to the project owner. The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the CPM, in consultation with CDFW~~CDFG~~, BLM and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the project.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
II. **Compensatory Mitigation by Habitat Enhancement/Restoration:** As an alternative or adjunct to land acquisition for compensatory mitigation the project owner may undertake habitat enhancement or restoration for the target special-status plant species. Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio for Rank 1 plants and 2:1 for Rank 2 plants, with improvements applied to three acres, or two acres, respectively, of habitat for every acre special-status plant habitat directly or indirectly disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is one-fourth acre than the improvements would be applied to an area equal to three-fourths of an acre at a 3:1 ratio, or one-half acre at a 2:1 ratio). Examples of suitable enhancement projects include but are not limited to the following: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control of invasive non-native plants that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows, removing obstructions to the wind sand transport corridor above an occurrence, or increasing groundwater availability for dependent species. If the project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve rescue of an off-site occurrence that is currently assessed, based on the NatureServe threat ranking system[8] with one of the following threat ranks: a) long-term decline >30 percent; b) an immediate threat that affects >30 percent of the population, or c) has an overall threat impact that is High to Very High. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High"). If the project owner elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the CPM for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be estimated based on the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010,* or more current guidance from the REAT agencies, at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is directly or indirectly impacted by the project. The amount of the security may be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the CPM. The Habitat Enhancement/Restoration Plan shall include each of the following: 1. *Goals and Objectives*. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").	

[8] Master, L., D. Faber-Langendoen, R. Bittman, G. A., Hammerson, B. Heidel, J. Nichols, L. Ramsay, and A. Tomaino. 2009. *NatureServe Conservation Status Assessments: Factors for Assessing Extinction Risk.* NatureServe, Arlington, VA. Online: http://www.natureserve.org/publications/ConsStatusAssess_StatusFactors.pdf, "Threats". See also: Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity. Version 1.
NatureServe, Arlington, Virginia. Online: http://www.natureserve.org/publications/pubs/invasiveSpecies.pdf

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
2. *Historical Conditions*. Provide a description of the pre-impact or historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions. 3. *Site Characteristics*. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species. 4. *Ecological Factors*. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc. 5. *Methods*. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement must be completed within five years. 6. *Budget*. Provide a detailed budget and time-line, and develop clear, measurable, objective-driven annual success criteria. 7. *Monitoring*. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall include a minimum of five years of quarterly monitoring, and then annual monitoring for the remainder of the enhancement project, and until the performance standards for rescue of a threatened occurrence are met. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties. 8. *Reporting Program*. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties. 9. *Contingency Plan*. Describe the contingency plan for failure to meet annual goals. 10. *Long-term Protection*. Include proof of long-term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Desert Wildlife Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species. **III. *Compensatory Mitigation by Conducting or Contributing to a Special-Status Plant Species Distribution Study*:** As a contingency measure in the event that there are no opportunities for acquisition or restoration/enhancement, a Scientific Study of Special-status Plant Species Distribution Study may be funded. Distribution and occurrence health data is very limited for many of the sensitive species that occur on the project or have potential to occur on the project, especially the late summer and fall blooming species. Some of these late blooming species are only known from a few viable occurrences in California, and historic occurrences that have not been re-located or surveyed since they were first documented. The objectives of this study would be to better understand the full distribution of the affected species, the degree and immediacy of threats to occurrences, and ownership and management opportunities, with the primary goal of future preservation, protection, or recovery. This study would include the following:	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
1. *Historical Occurrence Review*. The Study would include an evaluation of historical localities for the species known to occur on the project or with potential to occur. This would include a review of the CNDDB database, herbarium records from regional herbaria (U.C. Riverside, San Diego Natural History Museum, etc.), other biotechnical reports from the region, and information from regional botanical experts. 2. *Conduct Site Visits to Historical Localities*. Historical occurrences would be evaluated in the field during the appropriate time of the year for each late blooming species. If located, these occurrences would be evaluated for population size, numbers, plant associates, soils, habitat quality, and potential threats, degree and immediacy of threats, ownership and management opportunities. GPS location data would also be collected during these site visits. 3. *Survey Areas with habitat potential that surround each of these species occurrences to better determine the full range of distribution*. If additional populations are found, collect data (GPS and assessment) on these additional populations consistent with III.2 above. 4. *Prepare a Distribution Study Report*. A report that discusses the finding from the historical information and the range extension surveys would be prepared that summarizes the information for each of the late season surveys. This report will provide valuable information and a better understanding of the actual distribution of these late blooming species within California and will help to determine when and when not there is potential for these species to occur. This valuable information will include a better understand of the ecological factors driving the distribution of these species and will help to better target appropriate habitat for both future surveys as well as potential future mitigation lands. All data from this study will be submitted for incorporation into the CNDDB system and the study report will be made available to resource agencies, conservation groups, and other interested parties. Currently there is no program or study in place that is attempting to address the distributional issues for these late blooming species. If an existing study is identified or if one is developed prior to the study outlined here, an option to fund the existing study may be considered. If an existing study cannot be indentified then one will be developed that follows the guidelines discussed above. The funding provided for the program would be no greater than the cost for acquisition, enhancement, and long-term management of compensatory mitigation lands based on impacts to late blooming sensitive plant species.	
BIO-20: Sand Dune/Fringe-Toed Lizard Mitigation. To mitigate for habitat loss and direct impacts to Mojave fringe-toed lizards the project owner shall provide compensatory mitigation at a 3:1 ratio, which may include compensation lands purchased in fee or in easement in whole or in part, for impacts to stabilized or partially stabilized desert dune habitat (25.3 acres or the acreage of sand dune/partially stabilized sand dune habitat impacted by the final project footprint from the project interconnection to the Colorado River Substation). If compensation lands are acquired, the project owner shall provide funding for the acquisition in fee title or in easement, initial habitat improvements and long-term maintenance and management of the compensation lands. 1. ***Criteria for Compensation Lands*:** The compensation lands selected for acquisition shall: a. Be sand dune or partially stabilized sand dune habitat within the Palen Valley or Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat; b. To the extent feasible, be connected to lands currently occupied by Mojave fringe-toed lizard; c. To the extent feasible, be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;	No later than 30 days prior to beginning site mobilization and construction activities, the project owner shall provide written verification of approved form of Security in accordance with this Condition of Certification. Actual Security shall be provided no later than seven days prior to the beginning of project ground-disturbing activities. The project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities. No less than 90 days prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to BLM, the CPM, CDFW and USFWS describing the parcels intended for purchase. The project owner, or an approved third party, shall provide BLM, the CPM, **CDFW** and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. The CPM shall review and approve the management plan, in consultation with BLM**,** CDFW and the USFWS.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
d. Provide quality habitat for Mojave fringe-toed lizard, that has the capacity to regenerate naturally when disturbances are removed; e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible; f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; g. Not contain hazardous wastes that cannot be removed to the extent the site is suitable for habitat; h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and i. Be on land for which long-term management is feasible. 2. ***Security for Implementation of Mitigation*:** The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this Condition. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the CPM according to the measures outlined in **BIO-12**, and within the time period specified for this assurance (see the verification section at the end of this Condition). The final amount due will be determined by an updated appraisal and a PAR analysis conducted as described in **BIO-12**. 3. ***Preparation of Management Plan:*** The project owner shall submit to the CPM, BLM, CDFW and USFWS a draft Management Plan that reflects site-specific enhancement measures for the Mojave fringe-toed lizard habitat on the acquired compensation lands. The objective of the Management Plan shall be to enhance the value of the compensation lands for Mojave fringe-toed lizards, and may include enhancement actions such as weed control, fencing to exclude livestock, erosion control, or protection of sand sources or sand transport corridors.	Within 90 days after completion of project construction, the project owner shall provide to the CPM an analysis with the final accounting of the amount of sand dune/stabilized sand dune habitat disturbed during project construction. The project owner shall provide written verification to BLM, the CPM, USFWS, and CDFW that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months from the start of ground-disturbing activities.
BIO-21 (Deleted)	
BIO-22: Mitigation for Impacts to State Waters. The project owner shall implement the following measures to avoid, minimize and mitigate for direct and indirect impacts to waters of the state and to satisfy requirements of California Fish and Game Code sections 1600 and 1607. 1. ***Acquire Off-Site State Waters:*** The project owner shall acquire, in fee or in easement, a parcel or parcels of land that includes at least 412 acres of state jurisdictional waters, or the area of state waters directly or indirectly impacted by the final project footprint. The project footprint means all lands disturbed by construction and operation of the Blythe Project, including all linears. The parcel or parcels comprising the 412 acres of ephemeral washes shall include at least 66 acres of desert dry wash woodland or the acreage of desert dry wash woodland impacted by the final project footprint at a 3:1 ratio. The terms and conditions of this acquisition or easement shall be as described in Condition of Certification **BIO-12** and the timing associated with **BIO-28** (phasing). Mitigation for impacts to state waters shall be within the Chuckwalla Valley or Colorado River Hydrological Units (HUs), as close to the project site as practicable. 2. ***Security for Implementation of Mitigation:*** The project owner shall provide financial assurances to the CPM and CDFW to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement	No less than 30 days prior to the start of construction-related ground disturbance activities potentially affecting waters of the state, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices will be implemented. The project owner shall also provide a discussion of work in waters of the state in Compliance Reports for the duration of the project. No less than 30 days prior to beginning site mobilization and construction activities, the project owner shall provide the form of Security in accordance with this Condition of Certification. No later than seven days prior to beginning project site mobilization and construction activities, the project owner shall provide written verification of the actual Security. The project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
of state waters as described in this Condition. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the CPM and CDFW in the form of an irrevocable letter of credit, a pledged savings account or Security prior to initiating ground-disturbing project activities. Prior to submittal to the CPM, the Security shall be approved by the CPM, in consultation with BLM**,** CDFW and the USFWS, to ensure funding. The final amount due will be determined by and updated appraisal and a PAR analysis conducted pursuant to **BIO-12**.	The project owner, or an approved third party, shall provide BLM, the CPM, CDFW and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. The CPM shall review and approve the management plan, in consultation with CDFW. Within 90 days after completion of project construction, the project owner shall provide to the CPM and CDFW an analysis with the final accounting of the amount of jurisdictional state waters disturbed during project construction. The project owner shall provide written verification to BLM, the CPM, USFWS and CDFW that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months from adoption of the Final Energy Commission Decision for the Blythe Solar Power Project). The project owner shall notify the CPM and CDFW, in writing, at least five days prior to initiation of project activities in jurisdictional state waters and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM and CDFW of any change of conditions to the project, impacts to state waters, or the mitigation efforts. The notifying report shall be provided to the CPM and CDFW no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. A copy of the notifying change of conditions report shall be included in the annual reports or until it is deemed unnecessary by the CPM and CDFW.
3. ***Preparation of Management Plan:*** The project owner shall submit to the CPM and CDFW a draft Management Plan that reflects site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to enhance the wildlife value of the drainages, and may include enhancement actions such as weed control, fencing to exclude livestock, or erosion control.	
4. ***Code of Regulations:*** The project owner shall provide a copy of this Condition (Condition of Certification **BIO-22**) from the Energy Commission Decision to all contractors, subcontractors, and the project owner's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFW personnel upon demand. The CPM reserves the right to issue a stop work order or allow CDFW to issue a stop work order after giving notice to the project owner, the CPM, if the CPM in consultation with CDFW, determines that the project owner has breached any of the terms or Conditions or for other reasons, including but not limited to the following: a. The information provided by the project owner regarding streambed alteration is incomplete or inaccurate; b. New information becomes available that was not known to it in preparing the terms and Conditions; or c. The project or project activities as described in the Staff Assessment have changed.	
5. **Best Management Practices:** The project owner shall also comply with the following Conditions to protect drainages near the Project Disturbance Area: a. The project owner shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible. b. The project owner shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter ephemeral drainages or be placed in locations that may be subjected to high storm flows. c. The project owner shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws, and it shall be the responsibility of the project owner to ensure compliance. d. Spoil sites shall not be located at least 30 feet from the boundaries and drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages. e. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering waters of the state. These materials, placed within or where they may enter a drainage by the project owner or any party working under contract or with the permission of the project owner, shall be removed immediately.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
f. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the state. g. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any drainage. h. No equipment maintenance shall occur within 150 feet of any ephemeral drainage where petroleum products or other pollutants from the equipment may enter these areas under any flow.	
BIO-23: Decommissioning and Reclamation Plan. Upon project closure the project owner shall implement a final Decommissioning and Reclamation Plan. The Decommissioning and Reclamation Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall be consistent with the guidelines in BLM's 43 CFR 3809.550 et seq.	No fewer than 30 days prior to the start of site mobilization and construction activities the project owner shall provide to the CPM (for review) and BLM's Authorized Officer (for review and approval) a draft Decommissioning and Reclamation Plan. The plan shall be finalized prior to the start of commercial operation and reviewed every five years thereafter and submitted to the CPM for review and to the BLM's Authorized Officer for approval. Modifications to the approved Decommissioning and Reclamation Plan shall be made only after approval from BLM's Authorized Officer. The project owner shall provide a copy of the approved Decommissioning and Reclamation Plan and any BLM approved revisions to the CPM.
BIO-24: Golden Eagle Inventory and Monitoring. The project owner shall implement the following measures to avoid or minimize project-related construction impacts to golden eagles. 1. ***Annual Inventory.*** For each calendar year during which construction will occur and for up to two years after commercial operation begins an inventory shall be conducted to determine if golden eagle territories occur within one mile of the project boundaries. Survey methods for the inventory shall be as described in the USFWS Land Based Wind Energy Guidelines (2011b) or more current guidance from the USFWS or CPM. 2. ***Inventory Data:*** Data collected during the inventory shall include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed. 3. ***Monitoring and Adaptive Management Plan:*** If an occupied nest[9] is detected within one mile of the project boundaries, the project owner shall prepare and implement a Golden Eagle Monitoring and Management Plan for the duration of construction to ensure that project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods shall be consistent with those described in the USFWS Land Based Wind Energy Guidelines (2011b) or more current guidance from the USFWS or CPM. The Monitoring and Management Plan shall be prepared in consultation with the USFWS. Triggers for adaptive management shall include any	No fewer than 30 days from completion of the golden eagle inventory the project owner shall submit a report to the CPM, CDFw, and USFWS documenting the results of the inventory. If an occupied nest is detected within one mile of the project boundary during the inventory the project owner shall contact staff at the USFWS Carlsbad Office and CDFw within one working day of detection of the nest for interim guidance on monitoring and nest protection. The project owner shall provide the CPM, CDFW, and USFWS with the final version of the Golden Eagle Monitoring and Management Plan within 30 days after detection of the nest. This final Plan shall have been reviewed and approved by the CPM in consultation with USFWS and CDFW.

[9] An occupied nest is one used for breeding by a pair of golden eagles in the current year. Presence of an adult, eggs, or young, freshly molted feathers or plucked down, or current years' mutes (whitewash) also indicate site occupancy. Additionally, all breeding sites within a breeding territory are deemed occupied while raptors are demonstrating pair bonding activities and developing an affinity to a given area. If this culminates in an individual nest being selected for use by a breeding pair, then the other nests in the nesting territory will no longer be considered occupied for the current breeding season. A nest site is considered occupied throughout the periods of initial courtship and pair - bonding, egg laying, incubation, brooding, fledging, and post - fledging dependency of the young.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
evidence of project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the CPM to be the source of golden eagle disturbance.	
BIO-25: Evaporation Pond Netting and Monitoring. The project owner shall cover the evaporation ponds prior to any discharge with mesh netting designed to exclude birds and other wildlife from drinking or landing on the water of the ponds. Netting mesh sizes approval shall be determined by the CPM in consultation with CDFW and USFWS. The netted ponds shall be monitored regularly to verify that the netting remains intact, is fulfilling its function in excluding birds and other wildlife from the ponds, and does not pose an entanglement threat to birds and other wildlife. The ponds shall include a visual deterrent in addition to the netting, and the pond shall be designed such that the netting shall never contact the water. Monitoring of the evaporation ponds shall include the following: 1. ***Monthly Monitoring.*** The Designated Biologist or Biological Monitor shall regularly survey the ponds at least once per month starting with the first month of operation of the evaporation ponds. The purpose of the surveys shall be to determine if the netted ponds are effective in excluding birds, if the nets pose an entrapment hazard to birds and wildlife, and to assess the structural integrity of the nets. The monthly surveys shall be conducted in one day for a minimum of two hours following sunrise (i.e., dawn), a minimum of one hour mid-day (i.e., 1100 to 1300), and a minimum of two hours preceding sunset (i.e., dusk) in order to provide an accurate assessment of bird and wildlife use of the ponds during all seasons. Surveyors shall be experienced with bird identification and survey techniques. Operations staff at the project site shall also report finding any dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass. The Designated Biologists shall report any bird or other wildlife deaths or entanglements within two days of the discovery to the CPM, CDFW, and USFWS. 2. ***Dead or Entangled Birds.*** If dead or entangled birds are detected, the Designated Biologist shall take immediate action to correct the source of mortality or entanglement. The Designated Biologist shall make immediate efforts to contact and consult the CPM, CDFW, and USFWS by phone and electronic communications prior to taking remedial action upon detection of the problem, but the inability to reach these parties shall not delay taking action that would, in the judgment of the Designated Biologist, prevent further mortality of birds or other wildlife at the evaporation ponds. 3. ***Quarterly Monitoring.*** If after 12 consecutive monthly site visits no bird or wildlife deaths or entanglements are detected at the evaporation ponds by or reported to the Designated Biologist, monitoring can be reduced to quarterly visits. 4. ***Biannual Monitoring.*** If after 12 consecutive quarterly site visits no bird or wildlife deaths or entanglements are detected by or reported to the Designated Biologist and with approval from the CPM, USFWS and CDFW, future surveys may be reduced to two surveys per year, during the spring nesting season and during fall migration. If approved by the CPM, USFWS and CDFW, monitoring outside the nesting season may be conducted by the Environmental Compliance Manager. 5. ***Modification of Monitoring Program.*** Without respect to the above requirements the project owner, CDFW or USFWS may submit to the CPM a request for modifications to the evaporation pond monitoring program based on information acquired during monitoring, and may also suggest adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are not observed. Modifications to the	No less than 30 days prior to operation of the evaporation ponds the project owner shall provide to the CPM as-built drawings and photographs of the ponds indicating that the bird exclusion netting has been installed. For the first year of operation the Designated Biologist shall submit quarterly reports to the CPM, CDFW, and USFWS describing the dates, durations and results of site visits conducted at the evaporation ponds. Thereafter the Designated Biologist shall submit annual monitoring reports with this information. The quarterly and annual reports shall fully describe any bird or wildlife death or entanglements detected during the site visits or at any other time, and shall describe actions taken to remedy these problems.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
evaporation pond monitoring described above and implementation of adaptive management measures shall be made only after approval from the CPM, in consultation with USFWS and CDFW. In addition, the project owner shall prepare and implement measures that will prevent Couch's spadefoot toads from using the evaporative basins (see Condition of Certification **BIO-26**)	
BIO-26: Couch's Spadefoot Toad Impact Avoidance and Minimization Measures. The project owner shall prepare and implement a Couch's Spadefoot Toad Protection and Mitigation Plan (Protection and Mitigation Plan) to avoid, minimize or mitigate impacts to Couch's spadefoot toads and their breeding habitat during construction and operation of the project. The Protection and Mitigation Plan shall be approved by the CPM in consultation with CDFW, and shall be incorporated into the project's BRMIMP and implemented. It is expected that, as currently proposed, the project would impact three potential breeding ponds. The Protection and Mitigation Plan shall address methods to achieve this avoidance and minimization, and shall include avoidance, minimization, and mitigation measures that would be required if additional habitat or Couch's spadefoot toad are found during habitat surveys. The Protection and Mitigation Plan shall include, at a minimum: 1. ***Habitat Survey Results:*** a. Survey methodology that focuses on areas that are susceptible to ponding (such as areas that are disturbed and/or artificially compacted); b. Survey results, including a detailed discussion of potential breeding sites, and a description of areas determined not to include breeding habitat; and c. Figures showing the areas surveyed and the location of potential breeding habitat in relation to proposed project features. 2. ***Impacts Assessment from:*** ~~i~~a. Habitat disturbance from construction; ~~ii~~b. Noise from construction, operations, and potential ORV traffic; ~~iii~~c. Increased access for vehicles from road construction or improvements; ~~iv~~d. Changes in breeding habitat due to changes in flow levels and flow patterns to breeding ponds; ~~v~~e. Increased traffic from construction and operations; ~~vi~~f. Risk of exposure to elevated selenium and salinity levels in evaporative ponds; and ~~vii~~g. Increased risk of predation. 3. ***Avoidance and Minimization Measures:*** a. Description of measures that would be implemented to avoid impacts to potential breeding ponds, such as design strategies; protective fencing or other barriers, worker's education, minimizing construction traffic within the vicinity of breeding ponds, and biological monitoring;	No less than 30 days prior to any project-related ground disturbance, the project owner shall submit to the CPM and CDFW, a final Protection and Mitigation Plan. The Protection and Mitigation Plan shall address on-site protection and mitigation measures to be implemented during construction. Modifications to the Protection and Mitigation Plan shall be made only after approval from the CPM, in consultation with CDFW. If the Protection and Mitigation Plan includes creation of ponds, the number and acreage of created ponds shall be described in the plan. No less than 90 days prior to operation of project the project owner shall provide to the CPM as-built drawings and photographs of the created ponds and maps showing the size and location of the ponds in relation to project features. On January 31st of every year following initiation of operation of the project, the project owner shall submit reports to the CPM documenting the capacity of the created ponds to hold water for at least nine days during the spadefoot toad breeding season. If ponds fail to hold water as described above the project owner shall implement remedial actions. The annual reporting may be terminated upon satisfactory demonstration of this performance standard, and with approval of the CPM. If mitigation land is purchased as an alternative to pond creation, the project owner shall provide the CPM and CDFW with an approved form of Security and the calculation of such security in accordance with this Condition of Certification and **BIO-12** no later than 30 days prior to beginning project ground-disturbing activities. Actual Security shall be provided no later than seven days prior to the beginning of project ground-disturbing activities. If Security is provided, the project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities. No less than 90 days prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to the CPM, CDFW and USFWS describing the parcels intended for purchase. The project owner, or an approved third party, shall provide the CPM, CDFW and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. The CPM shall review and approve the management plan, in consultation with CDFW.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
b. Designation of a Management Area around breeding ponds that includes an appropriate upland buffer, and a description of measures used to minimize impacts within this buffer; and c. Design and operation measures that will bar individuals from entering evaporative ponds.	The project owner shall provide written verification to the CPM, and CDFW that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months from the start of ground-disturbing activities.
4. ***Mitigation:*** a. If complete avoidance of the ponds or other breeding sites identified during surveys is not possible, the Protection and Mitigation Plan shall include plans to create additional breeding habitats (ephemeral pond) at least equal in area to the acreage of ponds being impacted. Alternatively, the project owner may purchase mitigation land that has the potential for ponding that is equal to or greater than the ponds identified as potential Toad breeding ponds within the Project Disturbance Area. b. If ponds are to be created, the created ponds shall be capable of holding water for at least nine days during the spadefoot toad breeding season. The created ponds shall be monitored and managed to ensure fulfillment of this performance standard by site visits at the pond following summer rainfall events. If the created ponds fail to achieve this standard, remedial action shall be implemented (for example, by compacting the soil in the pond to increase water-holding capacity). c. If compensation lands are acquired, the project owner shall provide funding for the acquisition in fee title or in easement, initial habitat improvements and long-term maintenance and management of the compensation lands.	
~~a~~5. **Criteria for Mitigation Lands:** If the project owner chooses to mitigate in whole or in part by purchasing habitat: a~~i~~. The project owner shall purchase habitats in fee title or easement within the known range of the Couch's spadefoot toad. The habitat shall have similar characteristics to those impacted on site including: 1. artificial or natural depressions should be deep enough to have the potential to support the Couch's spade ~~-~~foot toad; 2. depressions should have potential to pond water for nine days; 3. adjacent uplands should have potential to provide refugia and foraging habitat; and 4. other characteristics that a trained biologist would employ in designating potential habitat for the species. ~~ii~~b. If the above criteria are met, these habitats may overlap on other lands preserved by the project owner for other mitigation (e.g., desert tortoise habitat within Northern and Eastern Colorado Desert Coordinated Management) and shall: 1. Provide quality habitat for Couch's spadefoot toad, that has the capacity to regenerate naturally when disturbances are removed; 2. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible; 3. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; 4. Not contain hazardous wastes that cannot be removed to the extent the site is suitable for habitat;	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	
5. Not be subject to property constraints (i.e. mineral leases, cultural resources); and 6. Be on land for which long-term management is feasible. 6b. **Security for Implementation of Mitigation:** The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Couch's spadefoot toad habitat as described in this Condition. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the CPM and according to the measures outlined in **BIO-12**, and within the time period specified for this assurance (see the verification section at the end of this Condition). The final amount due will be determined by an updated appraisal and a PAR analysis conducted as described in **BIO-12**.	
BIO-27: In-Lieu Fee Mitigation Option. The project owner may choose to satisfy its mitigation obligations by paying an in lieu fee instead of acquiring compensation lands, pursuant to Fish and Game code sections 2069 and 2099. Alternately, the CPM, in conjunction with the BLM, CDFW, and USFWS, may approve the project owner's use of another mitigation program or any other applicable in-lieu fee provision, toprovided that the extent theProject's in-lieu fee provisionproposal or mitigation program is found by the Commission CPM to mitigate the impacts identified herein. If the in-lieu fee proposal or mitigation program is found by the Commission CPM, in coordination with the BLM, CDFW, and USFWS to be in compliance, and the project ownerProject Owner chooses to satisfy its mitigation obligations through the in-lieu fee or mitigation program, the project ownerProject Owner shall provide proof of the in-lieu fee payment to the CPM prior to site mobilization and construction related ground disturbance.	If electing to use this provision, the project owner shall notify the Commission that it would like a determination that the project's in-lieu fee proposal or mitigation program mitigate for the impacts identified herein. Prior to site mobilization and construction related ground disturbance the Project Owner shall provide proof of the in lieu fee payment to the CPM.
BIO-28: Project Construction Phasing Plan. The project owner shall provide compensatory mitigation for the total Project Disturbance Area and may provide such mitigation in four phases as depicted in Figure 2-3 (Project Phasing) in Revised Petition for Amendment dated April 2013, "Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the project including all linear and ancillary facilities, as well as undeveloped areas inside the Project's boundaries that would no longer provide viable long-term habitat. Project construction will occur in phases that generally follow development of the solar units, • 1. Phase 1: Includes Unit 1 and the linear corridor from where the gen-tie leaves Unit 1 south to the Colorado River Substation, and the distribution line • 2. Phase 2: Includes Unit 2 • 3. Phase 3: Includes Unit 3 • 4. Phase 4: Includes Unit 4 and the linear corridor from where the gen-tie leaves Unit 1 to the northern boundary of solar plant site. This portion of the linear corridor would not need to be constructed/disturbed until Unit 4 is constructed. These phases will generally include installation of fencing, clearing, grubbing and grading, and development of common facilities first, followed by the remaining power block units. All construction activities for the non-linear features during these subsequent phases will occur within desert tortoise exclusionary fenced areas that have been cleared in accordance with USFWS protocols. The estimated disturbance area for each project Phase and resource type is provided in **BIO-28 Table 1** below. This table shall be refined prior to the start of each construction phase with the disturbance area adjusted to reflect the final project footprint for each phase. Prior to initiating each phase of construction the project owner shall submit the actual construction schedule, a figure depicting the locations of proposed construction and amount of acres to be disturbed.	The project owner shall not disturb any area outside of the area that has been approved for that phase of construction and for the previously approved phases of construction. No less than 30 days prior to the start of desert tortoise clearance surveys for each phase, the project owner shall submit a description of the proposed construction activities for that phase to CDFW, USFWS and BLM for review and to the CPM for review and approval. The description for each phase shall include the proposed construction schedule, a figure depicting the locations of proposed construction and amount of acres of each habitat type to be disturbed. No less than 30 days prior to beginning Project ground-disturbing activities for each phase, the project owner shall provide the form of Security in accordance with this Condition of Certification in the amounts described in BIO-28 Table 1. No later than 7 days prior to beginning Project ground-disturbing activities for each phase, the project owner shall provide written verification of the actual Security. The project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities for each phase.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Biological Resources (cont.)	

Mitigation acres are calculated based on the compensation requirements for each resource type as described in the above Conditions of Certification – **BIO-12** (Desert Tortoise), **BIO-20** (Mojave Fringe-toed Lizard), **BIO-18** (Western Burrowing Owl), and **BIO-22** (State Waters). Compensatory mitigation for each phase shall be implemented according to the timing required by each condition.

BIO-28 Table 1. Impacts and Mitigation Required For Each Phase of The Project

	Desert Tortoise		MFTL		WBO	
Phase	**Impact (acres)**	**Mitigation (acres)**	**Impact (acres)**	**Mitigation (acres)**	**Impact (individuals/ pairs)**	**Mitigation (acres)**
Phase 1	1,074	1,074	25	76	2	39
Phase 2	942	942	0	0	0	0
Phase 3	1,051	1,051	0	0	0	0
Phase 4	908	908	0	0	0	0
Total	3,975	3,975	25	76	2	39

	Desert Dry Wash Woodland		Vegetated Ephemeral Swales and Unvegetated Ephemeral Dry Wash	
Phase	**Impact (acres)**	**Mitigation (acres)**	**Impact (acres)**	**Mitigation (acres)**
Phase 1	2	6	91	137
Phase 2	5	15	59	86
Phase 3	0	0	5	8
Phase 4	15	45	77	115
Total	22	66	232	346

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources	
CUL-1: Prehistoric Trails Network Cultural Landscape (PTNCL) Documentation and Possible NRHP Nomination. The project owner shall contribute to a special fund set up by the Energy Commission and/or BLM to finance the completion of the PTNCL Documentation and Possible NRHP Nomination program presented in the Blythe Solar Power Plant (BSPP) Revised Staff Assessment RSA). The amount of the contribution shall be $35 per acre that the project encloses or otherwise disturbs. Any additional contingency contribution is not to exceed an amount totaling 20 percent of the original contribution. The contribution to the special fund may be made in installments at the approval of the CPM, with the first installment to constitute one-third of the total original contribution amount. If a project is not certified, or if a project owner does not build the project, or, if for some other reason deemed acceptable by the CPM, a project owner does not participate in funding the PTNCL documentation and possible NRHP nomination program, the other project owner(s) may consult with the CPM to adjust the scale of the PTNCL documentation and possible NRHP nomination program research activities to match available funding. A project owner that funds the PTNCL documentation and possible NRHP nomination program, and then withdraws, will be able to reclaim their monetary contribution, to be refunded on a prorated basis.	No later than 10 days after receiving notice of the successful transfer of funds for any installment to the Energy Commission's and/or BLM's special PTNCL fund, the project owner shall submit a copy of the notice to the Energy Commission's Compliance Project Manager (CPM).
CUL-2: Desert Training Center California-Arizona Maneuver Area Cultural Landscape (DTCCL) Documentation and Possible NRHP Nomination. The project owner shall contribute to a special fund set up by the Energy Commission and/or BLM to finance the completion of the Documentation and Possible NRHP Nomination program presented in the BSPP RSA. The amount of the contribution shall be $25 per acre that the project encloses or otherwise disturbs. Any additional contingency contribution is not to exceed an amount totaling 20 percent of the original contribution. The contribution to the special fund may be made in installments at the approval of the CPM, with the first installment to constitute one-third of the total original contribution amount. If a project is not certified, or if a project owner does not build the project, or, if for some other reason deemed acceptable by the CPM, a project owner does not participate in funding the DTCCL documentation and possible NRHP nomination program, the other project owner(s) may consult with the CPM to adjust the scale of the DTCCL documentation and possible NRHP nomination program research activities to match available funding. A project owner that funds the DTCCL documentation and possible NRHP nomination program, and then withdraws, will be able to reclaim their monetary contribution, to be refunded on a prorated basis.	No later than 10 days after receiving notice of the successful transfer of funds for any installment to the Energy Commission's and/or BLM's special DTCCL fund, the project owner shall submit a copy of the notice to the CPM.
CUL-3: Cultural Resources Personnel. Prior to the start of ground disturbance (includes "preconstruction site mobilization", "ground disturbance," and "construction grading, boring, and trenching," as defined in the General Conditions for this project), the project owner shall obtain the services of a Cultural Resources Specialist (CRS), one or more alternate CRSs, if alternates are needed, and the two technical specialists identified below in this Condition. The CRS shall manage all cultural resources mitigation, monitoring, curation, and reporting activities in accordance with the Conditions of Certification (Conditions). The CRS shall have a primarily administrative and coordinative role for the BSPP. The project owner shall ensure that the CRS implements the cultural resources conditions, providing for data recovery from known historical resources, and shall ensure that the CRS makes recommendations regarding the eligibility for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be impacted in an unanticipated manner. The CRS may obtain the services of field crew members and cultural resources monitors (CRMs), if needed, to assist in mitigation, monitoring, and curation activities. No ground disturbance shall occur prior to CPM approval of the CRS and alternates, unless such activities are	Preferably at least 120 days, but in any event no less than 75 days prior to the start of ground disturbance, the project owner shall submit the resumes for the CRS, the alternate CRS(s) if desired, the PPA, and the PHA to the CPM for review and approval. At least 65 days prior to the start of data recovery on known archaeological sites, the project owner shall confirm in writing to the CPM that the approved CRS, the PPA, and the PHA will be available for on-site work and are prepared to implement the cultural resources Conditions **CUL-6** through **CUL-11**. Rationale: Proposed schedule change is in accordance with the project time-line.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
specifically approved by the CPM. Approval of a CRS may be denied or revoked for reasons including but not limited to noncompliance on this or other Energy Commission projects. ***Cultural resources specialist*.** The resumes for the CRS and alternate(s) shall include information demonstrating to the satisfaction of the CPM that their training and backgrounds conform to the U.S. Secretary of Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the CRS shall have the following qualifications: 1. A background in anthropology and prehistoric archaeology; 2. At least 10 years of archaeological resource mitigation and field experience, with at least three of those years in California; and 3. At least three years of experience in a decision-making capacity on cultural resources projects, with at least one of those years in California, and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources. ***Required Cultural Resources Technical Specialists*.** The project owner shall ensure that the CRS obtains the services of a qualified prehistoric archaeologist to conduct the research specified in **CUL-6** and **CUL-7**. The Project Prehistoric Archaeologist's (PPA) training and background must meet the U.S. Secretary of the Interior's Professional Qualifications Standards for prehistoric archaeology, as published in Title 36, Code of Federal Regulations, part 61, and the resume of the PPA must demonstrate familiarity with similar artifacts and environmental modifications (deliberate and incidental) to those associated with the prehistoric and protohistoric use of the Palo Verde Mesa. The PPA must meet OSHA standards as a "Competent Person" in trench safety. The project owner shall ensure that the CRS obtains the services of a qualified historical archaeologist to conduct the research specified in **CUL-8** through **CUL-11**. The Project Historical Archaeologist's (PHA) training and background must meet the U.S. Secretary of Interior's Professional Qualifications Standards for historical archaeology, as published in Title 36, Code of Federal Regulations, part 61. The resumes of the CRS, alternate CRS, the PPA, and the PHA shall include the names and telephone numbers of contacts familiar with the work of these persons on projects referenced in the resumes and demonstrate to the satisfaction of the CPM that these persons have the appropriate training and experience to undertake the required research. The project owner may name and hire the CRS, alternate CRS, the PPA, and the PHA prior to certification. **Optional specialist backhoe operator.** The project owner shall ensure that the CRS obtains the services of a specialist backhoe operator to conduct the activities specified in **CUL-6**, if needed. This backhoe operator shall have a resume that demonstrates previous experience using a backhoe in coordination with an archaeologist. In addition, the operator shall use a machine with a "stripping bucket" that is sensitive enough to remove even and consistent layers of sediment 5 centimeters thick. ***Field crew members and cultural resources monitors*.** CRMs and field crew members shall have the following qualifications: 1. A B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field, and one year experience monitoring in California; or 2. An A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years experience monitoring in California; or	At least 10 days prior to a termination or release of the CRS, or within 10 days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. At the same time, the project owner shall also provide to the proposed new CRS the AFC and all cultural resources documents, field notes, photographs, and other cultural resources materials generated by the project. If no alternate CRS is available to assume the duties of the CRS, a monitor may serve in place of a CRS so that ground disturbance may continue up to a maximum of three days without a CRS. If cultural resources are discovered then ground disturbance will remain halted until there is a CRS or alternate CRS to make a recommendation regarding significance. At least 20 days prior to data recovery on known archaeological sites, the CRS shall provide a letter naming anticipated field crew members for the project and attesting that the identified field crew members meet the minimum qualifications required by this Condition. At least 20 days prior to ground disturbance, the CRS shall provide a letter naming anticipated CRMs for the project and attesting that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition. At least five days prior to additional CRMs beginning on-site duties during the project, the CRS shall provide letters to the CPM identifying the new CRMs and attesting to their qualifications.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
3. Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of monitoring experience in California.	
CUL-4: Project Documents for Cultural Resources Personnel. Prior to the start of ground disturbance, the project owner shall provide the CRS, the PPA, and the PHA with copies of the AFC, data responses, confidential cultural resources documents, the Revised Staff Assessment (RSA), and the RSA Supplement/Errata, if any, and the 2013 Project Amendment SA for the project. The project owner shall also provide the CRS, the PPA, the PHA, and the CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all lay down areas. Maps shall include the appropriate USGS quadrangles and maps at an appropriate scale (e.g., 1:2400 or 1" = 200') for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. Staff shall review map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM. Release of cultural resources information will be pending BLM approval. If construction of the project would proceed in phases, maps and drawings not previously provided shall be provided to the CRS, the PPA, the PHA, and the CPM prior to the start of each phase. Written notice identifying the proposed schedule of each project phase shall be provided to the CRS and CPM. Weekly, until ground disturbance is completed, the project construction manager shall provide to the CRS and CPM a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur during that week. The project owner shall notify the CRS and the CPM of any changes to the scheduling of the construction phases.	Preferably at least 115 days, but in any event no less than 60 days prior to the start of ground disturbance, the project owner shall provide the AFC, data responses, confidential cultural resources documents, the Revised Staff Assessment (RSA), and RSA Supplement/Errata to the CRS, if needed, and to the PPA, and the PHA. The project owner shall also provide the subject maps and drawings to the CRS, PPA, PHA, and CPM. Staff, in consultation with the CRS, PPA, and PHA, will review and approve maps and drawings suitable for cultural resources monitoring and data recovery activities. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS, PPA, PHA, and CPM. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS, PPA, PHA, and CPM. Weekly, during ground disturbance, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax. Within five days of changing the scheduling of phases of a phased project, the project owner shall provide written notice of the changes to the CRS and CPM.
CUL-5: Cultural Resources Monitoring and Mitigation Plan. Prior to the start of ground disturbance, the project owner shall submit to the CPM for review and approval ~~the~~draft and final versions of a Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, with the contributions of the PPA, and the PHA. ~~The CPM shall facilitate review and comment by affected Indian tribes prior to approval.~~The CPM shall provide each draft of the CRMMP to affiliated Native American tribal entities[10] for review and comment. Subsequent iterations of the draft CRMMP and the final CRMMP shall evidence consideration of comments received from said tribal entities, where such comments have been received within 30 days for the initial draft and 7 days for each subsequent draft. The authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall specify the impact mitigation protocols for all known cultural resources and identify general and specific measures to minimize potential impacts to all other cultural resources, including those discovered during construction. Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, the PPA, and the PHA, each CRM, and the project owner's on-site construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM. Prior to certification, the project owner may have the CRS, alternate CRS, the PPA, and the PHA complete and submit to CEC for review the CRMMP, except for the portions to be contributed by the PTNCL and the DTCCL programs.	1. Preferably, at least 90 days but in any event no less than 30 days prior to the start of ground disturbance, the project owner shall submit the CRMMP to the CPM for review and approval. The CPM shall facilitate review and comment of the CRMMP with affected Native American tribes. 2. At least 20 days prior to the start of ground disturbance, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials generated or collected as a result of the archaeological investigations (survey, testing, data recovery). 3. At least 30 days prior to the initiation of ground disturbance, the project owner shall provide to the CPM a copy of a letter from a curation facility that meets the standards stated in the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, stating the facility's willingness and ability to receive the materials generated by BSPP cultural resources activities and requiring curation. Any agreements concerning curation will be retained and available for audit for the life of the project.

~~7~~10 "affiliated Native American tribal entities" means those tribal entities with which Energy Commission staff initiated consultation under the original siting case and under the consideration of all subsequent amendments to the September 2010 Final Decision for the present project. The list of tribal entities can be found on the project's webpage at http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-06C/TN200052_20130729T101117_Blythe_Amendment_CEC_Tribal_Consultation.pdf

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
The CRMMP shall include, but not be limited to, the elements and measures listed below. 1. The following statement shall be included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions of Certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The Conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Commission Decision are contained in Appendix A." 2. The duties of the CRS shall be fully discussed, including coordination duties with respect to the completion of the Prehistoric Trails Network Cultural Landscape (PTNCL) documentation and possible NRHP nomination program and the Desert Training Center California-Arizona Maneuver Area Cultural Landscape (DTCCL) documentation and possible NRHP nomination program, and oversight/management duties with respect to site evaluation, data collection, monitoring, and reporting at both known prehistoric and historic-period archaeological sites and any CRHR-eligible (as determined by the CPM) prehistoric and historic-period archaeological sites discovered during construction. 3. Explicitly takes into account the perspective of affiliated Native American tribal entities with respect to in-situ or onsite reburial, (unless otherwise prohibited) for the disposition of archaeological and ethnographic resources encountered as a result of the application review process and as a result of project construction and operation. 4. A general research design shall be developed that: a. Charts a timeline of all research activities, including those coordinated under the PTNCL and DTCCL documentation and possible NRHP nomination programs; b. Recapitulates the existing paleoenvironmental, prehistoric, ethnohistoric, ethnographic, and historic contexts developed in the PTNCL and DTCCL historic context and adds to these the additional context of the non-military, historic-period occupation and use of the Palo Verde Mesa, to create a comprehensive historic context for the BSPP vicinity; c. Poses archaeological research questions and testable hypotheses specifically applicable to the archaeological resource types known for the Palo Verde Mesa, based on the research questions developed under the PTNCL and DTCCL research and on the archaeological and historical literature pertinent to the Palo Verde Mesa, and taking into account potential data constraints that may occur as the result of in-situ or onsite reburial of resources under subsection 3. above; and d. Clearly articulates why it is in the public interest to address the research questions that it poses. ~~4~~5. Protocols, reflecting the guidance provided in **CUL-6** through **CUL-11** shall be specified for the data recovery from known prehistoric and historic-period archaeological resource types. ~~5~~6. Artifact collection, retention/disposal, ~~in-situ or onsite reburial (to the extent authorized by BLM),~~ and curation policies shall be discussed, as related to the research questions formulated in the research design. These policies shall apply to cultural resources materials and documentation resulting from evaluation and data recovery at both known prehistoric and historic-period archaeological sites and any CRHR-eligible (as determined by the CPM) prehistoric and historic-period archaeological sites discovered during construction. A prescriptive treatment plan may be included in the CRMMP for limited data types. ~~6~~7. The implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground–disturbance analysis phases of the project shall be specified.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
~~7~~8. Person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team shall be identified. ~~8~~9. The manner in which Native American observers or monitors will be included, in addition to their roles in the activities required under **CUL-1**~~, the~~. The procedures to be used to select them~~,~~ and their roles and responsibilities shall be described. ~~9. Notification of Native American Tribes After a Discovery. The CRMMP shall identify which Native American Tribes will be notified of events triggering notification requirements; and will include manner, type and timing of the notification.~~ ~~10. The CRMMP will also describe the steps and timing for addressing an unanticipated discovery.~~ ~~11.~~10. All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation shall be described. Any areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts. ~~12~~11. The commitment to record on Department of Parks and Recreation (DPR) 523 forms, to map, and to photograph all encountered cultural resources over 50 years of age shall be stated. In addition, the commitment to curate all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery), in accordance with the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository or museum shall be stated. ~~13~~12. The commitment of the project owner to pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project shall be stated. The project owner shall identify a curation facility that could accept cultural resources materials resulting from BSPP cultural resources investigations. ~~14~~13. The CRS shall attest to having access to equipment and supplies necessary for site mapping, photography, and recovery of all cultural resource materials (that cannot be treated prescriptively) from known CRHR-eligible archaeological sites and from CRHR-eligible sites that are encountered during ground disturbance. 14. A section that clearly and concisely sets out the flows of authority and work products for **CUL-16**, the Construction Monitoring Program, and sets out explicit communication protocols to facilitate the condition's implementation and notification of affiliated tribal entities. 15. A section that clearly and concisely sets out the flows of authority and work products for **CUL-17**, Authority to Halt Construction; Treatment of Discoveries, and sets out explicit communication protocols to facilitate the condition's implementation and notification of affiliated tribal entities. 16. The contents, format, and review and approval process of the final Cultural Resource Report (CRR) shall be described.	
CUL-6: Prehistoric Quarries Archaeological District (PQAD) Data Recovery and District Nomination. Prior to the start of ground disturbance, the project owner shall ensure that the CRMMP includes a PQAD evaluation and data recovery plan, to identify buried additional potential contributors to the district by geophysical or mechanical survey, to investigate and establish the relationships among all potential contributors by formulating research questions answerable with data from the contributors, conduct data recovery from a sample of the contributors, and write a report of investigations and possibly CRHR and NRHP nominations as well. The potential contributors include quarry site~~s~~	1. At least 15 days prior to the start of BSPP construction-related ground disturbance in the linear facilities corridor impacting site CA-RIV-3419, the project owner shall notify the CPM that the field recordation of the impacted southwestern portion of the site has ensued. 2. At least 90 days prior to the onset of BSPP construction-related ground

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
CA-RIV-3419 and thermal cobble feature SMB-P-434. This site list may be revised only with the agreement of the CRS and the CPM. The CRMMP shall also include a detailed data recovery plan for an isolated potential thermal cobble feature~~s~~ (not included in the PQAD) at multi-component site SMB-M-418.	disturbance in Unit 1 east of Historic Road SMB-H-601, the project owner shall ensure that the PPA completes the geophysical test and that the CRS and PPA consult with the CPM, via telephone, to arrive at an
Cultural Resources (cont.)	
The project owner shall ensure that the CRS and the PPA assess the NRHP and CRHR eligibility of the PQAD district. Additionally, if the PQAD is found to be ineligible for both registers, the thermal cobble features' eligibility as a separate archaeological district consisting of a thermal cobble feature cluster must also be considered. The evaluation and data recovery plan shall also specify in detail the location recordation equipment and methods to be used and describe any anticipated post-processing of the data. The project owner shall then ensure that the CRS, the PPA, the specialist backhoe operator, and archaeological team members implement the plan, with the permission of the BLM. The PQAD evaluation and data recovery plan shall provide, at a minimum, the details of each of the numbered elements below. 1. ***Research Design*** Based on the prehistoric and ethnohistoric contexts developed for the PTNCL under the research program funded through **CUL-1**, Tasks C and D, and the archaeological and ethnohistoric literature pertinent to the Palo Verde Mesa, the research design shall reflect archaeological themes that relate to the identity and the lifeways of Native American groups on the Palo Verde Mesa in the prehistoric and historic periods. The research design shall: a. Verify from the geological literature the Pleistocene age of the pebble terraces; b. Formulate archaeological research questions and testable hypotheses specifically applicable to the individual contributors (for example, hypotheses regarding the function of the thermal cobble features— cooking? lithic heat treatment? or both?) and to the PQAD overall; c. Define data sets needed to answer the formulated research questions; and d. Develop explicit CRHR-eligibility and NRHP-eligibility assessment criteria, correlated with the research questions and specifically referencing the data sets required to answer them, for the PQAD and for the thermal cobble features as a separate potential archaeological district. 2. ***Program for Evaluation, Data Recovery, and Possible Nomination*** The data recovery program shall: a. Explain how the data sets that are anticipated for the PQAD will contribute to knowledge of the prehistoric and historic-period Native American themes of the research design and answer particular research questions; b. Set out the purposes and methods of the several field phases of the PQAD evaluation and data recovery program (Geophysical Test, Geophysical Survey/Mechanical Survey, Evaluation and Data Recovery); c. Set out the purposes and methods of the concomitant material analyses; and d. Describe the required reports of investigations, the resource registrations (if appropriate), and the process of producing them. 3. ***PQAD Arbitrary Provisional Boundary Definition*** The CRS, PPA, and CPM shall derive and agree upon, in consultation, the precise location of an arbitrary provisional PQAD boundary on the surface of the plant site and in the vicinity of the linear facilities corridor.	agreement on the reliability of the use of magnetometry to locate buried PQAD thermal cobble features and how to proceed with the subsurface survey. The approved survey shall be conducted. The project owner shall also submit, for the review and approval of the CPM, the precise geographic coordinates of the provisional boundary of the PQAD and a stratified random sample for a broader magnetometry survey of 10 percent of the PQAD within the project boundaries (maximum two acres) or a stratified random sample for a mechanical subsurface survey of 2.5 percent of the PQAD located inside the project's boundaries. 3. At least 60 days prior to the onset of BSPP construction-related ground disturbance in Unit 3 east of Historic Road SMB-H-601, the project owner shall ensure that the PPA completes the preliminary report on the formal inventory of the PQAD prepared by or under the direction of the CRS. The project owner shall ensure that the preliminary report is a concise document that provides descriptions of the schedule and methods of the inventory field effort, a preliminary tally of the numbers and, where feasible, the types of archaeological deposits that were found, a discussion of the potential range of error in that tally, and a map of the locations of the found archaeological deposits that has topographic contours and the project site landform designations as overlays. The results of the formal inventory, as set out in the preliminary report, shall be the basis for the refinement of the provisional district boundary. 4. At least 30 days prior to the start of BSPP construction-related ground disturbance in Unit 3 east of Historic Road SMB-H-601, the project owner shall notify the CPM that the CRS has initiated the data recovery phases of the data recovery program. 5. At least 30 days prior to the start of ground disturbance within 30 meters of the site boundaries of the three isolated thermal cobble features, the project owner shall notify the CPM that the CRS has initiated data recovery on the three isolated thermal cobble features. 6. No longer than 90 days after the end of all construction-related ground disturbance, the project owner shall ensure that the CRS completes the preparation of the National Register of Historic Places and the California Register of Historical Resources nominations for the PQAD and submits the nominations to the State Historic Resources Commission for formal consideration. 7. No longer than 90 days after the end of all construction-related ground disturbance, the project owner shall ensure that the CRS completes the professional paper and provides the CPM with three copies of the final product of that effort, and prepares, and submits for the approval of the

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
4. ***Evaluation and Data Recovery Methodology*** a. *Quarries*: The protocol for the quarry sites simultaneously recovers data from the parts of the quarry site, CA-RIV-3419, the project would impact and allows an assessment of the significance of the impacts of the project to the quarry site and an assessment of the validity of the PQAD concept. i. Conduct a 100 percent pedestrian survey of the parts of the quarry sites that the project activities would disturb; ii. Map and field-record finished tools, diagnostic artifacts, ceramics, artifact concentrations and features (and the material types of each) within the impacted portions of the quarry sites. Identify and quantify artifacts within a sample of no more than 1 percent of the impacted portions of the quarry sites using 2 by 2 meter surface units. Record any differential distribution of artifacts (with suggested explanations for the distribution), and assess the integrity of the site, providing evidence on which that opinion is based; iii Collect for dating and source analyses any obsidian artifacts; iv. With the approval of BLM, conduct a survey of a one percent sample of randomly selected 10 x 10- meter units on the unimpacted portions of the quarry sites; v. Gather the same data in the same way as for the impacted parts of the quarry sites; vi. Compare these data to those gathered in the project-impacted parts of the sites vii. With approval of BLM, conduct a sample survey of a zone 150 meters wide totaling one-half the length of the northwest boundary of CA-RIV-3419. viii. Draw conclusions from the collected data on whether the parts of the quarry sites that would be destroyed by the project contribute significantly to the CRHR- and NRHP eligibility of the sites; ix. Draw conclusions from the collected data, if possible, on whether the merging of the quarries and the lithic scatter in a district is valid. x. Draw conclusions from the collected data, if possible, on whether the merging of the quarries and the thermal cobble features in a district is valid. b. *Thermal Cobble Features* The protocol for the thermal cobble features shall include Phase I identification of possible additional subsurface contributors and compressed Phase II-Phase III evaluation and data recovery from a sample of intact sites or from all of the surface sites, whether intact or not. Phase I is geophysical and/or mechanical testing to determine the horizontal and vertical extent of the distribution of the thermal cobble features, to identify any buried intact examples of thermal cobble features out 100 meters, within the area subject to project impacts, from all surface examples, and to determine if morphological differences are present among the thermal cobble features. Phase II-Phase III (evaluation and data recovery) would reflect judgment that features only present on the surface would be register ineligible and the existing recordation, updated to reflect the test excavation, and would be adequate data recovery. Features with subsurface deposits would be register eligible, and data recovery would ensue.	CPM, a public outreach product. Upon the CPM's approval of the latter product, the project owner shall ensure, as appropriate, the product's installation, implementation, or display. 8. No longer than 90 days after the end of all construction-related ground disturbance, the project owner shall ensure that the CRS completes the requisite material analyses and prepares and submits, for the approval of the CPM, the final cultural resources report for the Blythe cultural resources data recovery and monitoring activities. The final report shall provide descriptions of the schedule and methods of the data recovery effort, technical descriptions of excavated archaeological features and buried land surfaces that present the highest resolution of technical data that can be derived from the data recovery field notes, plan and, as appropriate, profile drawings and photographs of excavated archaeological features and buried land surfaces, and technical descriptions and appropriate graphics of the stratigraphic contexts of excavated archaeological features and buried land surfaces.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
c. *Geophysical Test for Subsurface PQAD Contributing Thermal Cobble Features:* i. Test, in a one-acre parcel within 30 meters of known thermal cobble features, the efficacy of the use of magnetometry to locate buried examples of thermal cobble features; ii. Ground-truth by hand or mechanical excavation a minimum 25 percent sample (but no more than five individual anomalies) of the anomalies identified in the test survey; iii. Keep field notes and the forms for the survey areas sufficient to completely document the geophysical test; iv. Inform the CPM of the results of the magnetometry survey and groundtruthing and consult on the efficacy of continuing this survey method; d. *Geophysical Survey for Subsurface PQAD Contributing Thermal Cobble Features:* If the CRS and CPM agree, after *consultation*, that the geophysical test demonstrates that the use of magnetometry appears to be reasonably effective in locating buried thermal cobble features, the project owner shall ensure that the PPA proceeds to a broader magnetometry survey of a sample of the area within the PQAD provisional district boundary. The PPA shall: i. Develop a single stratified random sample for the PQAD that would result in a magnetometry survey of a minimum of 10 percent (a maximum of two acres) of the total district area on the plant site; ii. Use criteria to derive the sample that the CRS, the PPA, and the CPM shall agree upon and that reflect the spatial variability in the physical material character and in the chronology of the PQAD, as such variability is presently known from the field investigations; iii. Ground-truth by hand or mechanical excavation the lesser of 10 percent or 10 individual anomalies of those identified in the test survey; iv. Inform the CPM of the results of the survey; v. Keep field notes and the forms for the survey are sufficient to completely document the geophysical survey; e. *Mechanical Survey for Subsurface PQAD Contributing Thermal Cobble Features:* If the CRS and CPM agree, after consultation, that the geophysical test demonstrates that the use of magnetometry appears to be ineffective in locating buried thermal cobble features, the project owner shall ensure that the PPA submits, for CPM review and approval, the CRS's and PPA's plan and methods for a mechanical subsurface survey of the PQAD, using construction equipment, such as a road grader or a backhoe that can work in 5-centimeter lifts. The plan and methods shall include: i. Use of transects, the proposed width and length of which the CPM would approve ii. Removal of thin (no thicker than approximately 5 centimeters) layers to carefully expose target archaeological deposits iii. Survey of a minimum of 2.5 percent of the total PQAD area on the plant site; iv. Use criteria to derive the sample that the CRS, the PPA, and the CPM shall agree upon and that reflect the spatial variability in the physical and material character and in the chronology of the PQAD, as such variability is presently known from the field investigations;	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
v. Preservation of found archaeological deposits until the conclusion of the survey to facilitate the formulation of a representative data recovery sample; vi. Consideration of the PPA recovering a sample of the buried land surfaces that may surround individual features or groups of features and documenting the material culture assemblages that may be found on such surfaces; vii. Verbal report to the CPM on the results of the survey; viii. Retention of field notes and the forms for the survey areas sufficient to completely document the mechanical survey. f. *Data Recovery from Thermal Cobble Features:* Data shall be recovered from impacted thermal cobble features. The purpose of this documentation would be to describe the physical variability of the features, to identify and inventory the artifacts and ecofacts that are found in them, and to interpret the methods of construction and the potential uses of the features. The procedures below shall be used for data recovery at SMB-P-434 and the potential thermal cobble feature~~s~~ at multi-component site SMB-M-418. Data recovery activities shall include: i. Excavation would entail small (approximately 1–3 meters square) areal exposures by hand, where feasible, to remove the archaeological deposits in anthropogenic layers, if present; ii. Retention of samples of each layer sufficient to submit for radiocarbon assays, and macrobotanical, palynological, geochemical, or other analyses; iii. Screening of the balance of each layer through hardware cloth of no greater than 1/8-inch mesh; iv. Recordation of these small exposures in drawings and photographs; v. Retention of field notes and the forms for the excavated features sufficient to acquire the complete complement of data necessary for the description of each feature and the interpretation of the construction and use of each feature to the satisfaction of the CPM; vi. Completions by PPA or CRS and submission by project owner to CPM and BLM of draft DPR 523C site forms for sites where data recovery completed. g. *Data Recovery from Former Land Surfaces Surrounding Thermal Cobble Features:* Data shall be recovered from a sample of buried land surfaces assumed to be adjacent to buried thermal cobble features, if any, identified during the geophysical or mechanical subsurface survey, to document the material culture assemblages and other evidence of behavior that may be found on such surfaces. The project owner shall ensure that the PPA: i. Develops, in consultation with the CRS and the CPM a sample of the potential buried surfaces, if any, that would be subject to excavation; ii. Uses criteria to derive the sample that the CRS, the PPA, and the CPM shall agree upon and that reflect the spatial variability in the physical and material character and in the chronology of the PQAD, as such variability is presently known from the field investigations; iii. Excavates by hand three large (three meters square) block exposures,	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
iv. Successfully recovers data from at least four block exposures, but must make no more than eight attempts to find buried surfaces around thermal cobble features. v. Removes the archaeological deposits from the top of the surface in anthropogenic layers, if present. Excavates each block exposure as a single excavation unit rather than as nine separate, one-meter-square excavation units; the PPA may excavate three continuous, 1-metersquare excavation units together across the center of the feature to assess the presence of a surface and then excavate the other six units if a surface is present; vi. Retains samples of each layer sufficient to submit for radiocarbon assays, and macrobotanical, palynological, geochemical, or other analyses; vii. Screens the balance of each layer through hardware cloth of no greater than 1/8-inch mesh; viii. Keeps field notes and the forms for the excavated features sufficient to acquire the complete complement of data necessary for the description of the distributions of artifacts and ecofacts across each surface, and the interpretation of the use of each surface, to the satisfaction of the CPM; 5. ***Materials Analyses*** The project owner shall ensure that the PQAD evaluation and data recovery plan articulates the anticipated scope of the analyses of the artifact and ecofact collections that cumulatively result from the investigations of the PQAD, articulates the analytic methods to be used, and articulates how the data sets that such analyses will produce are relevant to the themes and questions in the research design for the PQAD. 6. ***Report of Investigations*** The project owner shall ensure that the PQAD evaluation and data recovery plan states that a final report for the PQAD evaluation and data recovery plan Data Recovery Program is required and describes the content, production schedule, and approval process for the report. 7. ***Provision of Results to the PTNCL PI*** The project owner shall ensure that the CRS provides the data and results of the PQAD evaluation and data recovery plan Data Recovery Program to the PTNCL PI for incorporation into the PTNCL NRHP nomination. 8. ***California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) Registrations if appropriate*** The project owner shall ensure that the PPA prepares a CRHR nomination and a NRHP nomination for the PQAD, including both the contributors located within the boundaries of the BSPP and such contributors, entire and partial, located beyond the boundaries of the BSPP, as are known or posited. The nomination should be the PPA's best estimate of a boundary for the district, a boundary that the PPA shall derive on the basis of the results of the PQAD evaluation and data recovery program and present in the final report for that program. The project owner shall ensure that the CRS: a. submits the CRHR nomination to the State Historical Resources Commission for formal consideration of CRHR eligibility, b. submits the NRHP nomination to the State Historical Resources Commission to initiate the process of formal consideration by the Keeper of the National Register, and c. tracks and facilitates the review of both nominations to acceptance or rejection.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
9. ***Outreach Initiatives If PQAD is not Eligible*** a. Professional Outreach. The project owner shall ensure that the CRS and/or PPA prepare a research paper and present it at a professional conference, to inform the professional archaeological community about the PQAD and to interpret its implications for our understanding of the prehistory and early history of Native American life in the region. b. Public Outreach. The project owner shall prepare and present materials that Interpret the PQAD for the public. Project owner shall propose at least one outreach project, examples may include one-time preparation of an instructional module or one-time preparation of a public interpretation brochure.	
CUL-7: Data Recovery For Small Prehistoric Sites (Lithic Scatters, Cairns, and Pot Drops). The project owner shall ensure the CRMMP includes a data recovery plan for the resource type "small prehistoric sites," consisting of sites SMB-M-214, SMB-H-234, SMB-H-CT-001, and SMB-H-WG-102. This site list may be revised only with the agreement of the CRS and the CPM. The data recovery plan shall include use of the CARIDAP protocol on qualifying sites, how to proceed if features or other buried deposits are encountered, and the materials analyses and laboratory artifact analyses that will be used. The plan shall also specify in detail the location, recordation equipment and methods used and describe any post-processing of the data. Prior to the start of ground disturbance within 30 meters of the sites boundaries of each of these sites, the project owner shall then ensure that the CRS, the PPA, and/or archaeological team members implement the plan, if allowed by the BLM, which, for sites where CARIDAP does not apply, shall include, but is not limited to the following tasks: 1. Use location recordation equipment that has the latest technology with sub-meter accuracy (such as UTM 11 North or California Teale Albers) to add to the original site maps the following features: seasonal drainages, site boundaries, location of each individual artifact, and the boundaries around individual artifact concentrations; 2. Request the PTNCL geoarchaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the PTNCL geoarchaeologist not be available, to identify the specific landform for each site; 3. Map and field-record all lithic artifacts (numbers of flakes, the reduction sequence stage each represents, cores, tool blanks, finished tools, hammerstones, and concentrations, and the material types of each) and the other types of prehistoric artifacts present 4. Map any differential distribution of artifacts and suggest explanations for the distribution 5. Assess the integrity of the site and provide the evidence substantiating that assessment; 6. Collect for dating and source analyses any obsidian artifacts; 7. Field record the surface location of all other artifacts and collect all ceramic artifacts and botanical and faunal remains for laboratory analysis and curation; 8. Surface scrape to a depth of 5 centimeters a 5-meter-by-5-meter area centered on the artifact concentration, field-record the lithic artifacts as to location, material type, and the reduction sequence stage each represents, record the location of all other artifacts, and retain the obsidian and ceramic artifacts and botanical and faunal remains for laboratory analysis and curation;	At least 15 days prior to ground disturbance, the project owner shall notify the CPM that data recovery for small sites has ensued. After the completion of the excavation of the first 1-meter-by-1-meter excavation unit at each of the subject sites, the CRS shall notify the CPM regarding the presence or absence of subsurface deposits and shall make a recommendation on the site's CRHR eligibility. Within one week of the completion of data recovery at a site, the project owner shall submit a letter report written by the PPA or CRS for review and approval of the CPM. When the CPM approves the letter report, ground disturbance may begin at this site location.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
9. Excavate one 1-meter-by-1-meter unit in 10-centimeter levels until the unit reaches a depth of 20 centimeters below any anthropogenic materials, placing the unit in the part of the site with the highest artifact density and recording its locations on the site map; 10. Place one 1-meter-by-1-meter excavation unit, as described above, in the center of each concentration if multiple artifact concentrations have been identified; 11. Notify the CPM by telephone or e-mail that subsurface deposits were or were not encountered and make a recommendation on the site's CRHR eligibility; 12. If no subsurface deposits were encountered, and the CPM agrees the site is not eligible for the CRHR, data recovery is complete; 13. If subsurface deposits are encountered, test the horizontal limits of the site by excavating additional 1-meter-by-1-meter excavation units in 10-centimeter levels until the unit reaches a depth of 20 centimeters below any anthropogenic materials, using a shovel or hand auger, or other similar technique, at four spots equally spread around the exterior edge of each site, recording the locations of these units on the site map; 14. Sample the encountered features or deposits, using the methods described in the CRMMP, record their locations on the site map, retain samples, such as flotation, pollen, and charcoal, for analysis, and retain all artifacts for professionally appropriate laboratory analyses and curation, until data recovery is complete; 15. Present the results of the **CUL-7** data recovery in a letter report by the PPA or CRS, which shall serve as a preliminary report. Letter reports may address one site, or multiple sites depending on the needs of the CRS. The letter report shall be a concise document the provides description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, a map showing the location of excavation units including topographic contours and the site landforms, and a discussion of the CRHR eligibility of each site and the justification for that determination; 16. Update the existing Department of Parks and Recreation (DPR) 523 site form for these sites, including new data on seasonal drainages, site boundaries, location of each individual artifact, the boundaries around individual artifact concentrations, the landform, and the eligibility determination; and 17. Present the final results of data recovery at these prehistoric sites in the CRR, as described in **CUL-18**.	
CUL-8: Data Recovery on Historic-Period Sites With Features. The project owner shall ensure the CRMMP includes a data recovery plan for the resource type "historic-period archaeological sites with features," consisting of sites SMB-H-143, SMB-H-411, SMB-H-416, and SMB-H-419. This site list may be revised only with the agreement of the CRS and the CPM. The data recovery plan shall include how to proceed if features or other buried deposits are encountered and the materials analyses and laboratory artifact analyses that will be used. The plan shall also specify in detail the location, recordation equipment and methods to be used and describe any anticipated post processing of the data. Prior to the start of ground disturbance within 30 meters of the sites boundaries of each of these sites, the project owner shall then ensure that the CRS, the PPA, and/or archaeological team members implement the plan, if allowed by the BLM, which shall include, but is not limited to the following tasks: 1. The project owner shall hire a PHA with the qualifications described in **CUL-3** to supervise the field work.	At least 15 days prior to ground disturbance, the project owner shall notify the CPM that mapping and in-field artifact analysis has ensued on historic-period sites with features. Within one week of completing data recovery at a site, the project owner shall submit to the CPM for review and approval a letter report written by the CRS, evidencing that the field portion of data recovery at each site has been completed. When the CPM approves the letter report, ground disturbance may begin at the site location(s) that are the subject of the letter report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
2. The project owner shall, ensure that, prior to beginning the field work, the PHA and crew chief are trained by the DTCCL Historical Archaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the DTCCL Historical Archaeologist not be available, in the identification, analysis and interpretation of the artifacts, environmental modifications, and trash disposal patterns associated with the early phases of WWII land-based U.S. army activities, as researched and detailed by the DTCCL PI-Historian and the DTCCL Historical Archaeologist. 3. The project owner shall ensure that, prior to beginning the field work, the field crew members are trained in the consistent and accurate identification of the full range of late nineteenth and early-to-mid-twentieth century can, bottle, and ceramic diagnostic traits. 4. The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any man-made features, the limits of any artifact concentrations and features (previously known and newly found in the metal detector survey), using location recordation equipment that has the latest technology with submeter accuracy (such as UTM 11 North or California Teale Albers). 5. The project owner shall ensure that a detailed in-field analysis of all artifacts shall be completed, if not done previously. Types of seams and closures for each bottle and all cans shall be documented. Photographs shall be taken of any text or designs. Unusual or unidentifiable artifacts may be collected for further analysis, but otherwise artifacts shall not be collected. 6. The project owner shall ensure a systematic metal detector survey is completed at each site, and that each hit is investigated. All artifacts and features thus found must be mapped, measured, photographed, and fully described in writing. 7. The project owner shall ensure that all features are recorded, and that any features having subsurface elements are excavated by a qualified historical archaeologist. All features and contents must be mapped, measured, photographed, and fully described in writing. 8. The project owner shall ensure that the details of what is found at each site shall be presented in a letter report from the CRS or PHA~~,~~ which shall serve as a preliminary report, that details what was found at each site, as follows: a. Letter reports may address one site, or multiple sites depending on the needs of the CRS; and b. The letter report shall be a concise document that provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms. 9. The project owner shall ensure that the data collected from the field work shall be provided to the DTCCL Historical Archaeologist to assist in the determination of which, if any, of the 12 historic-period sites are contributing elements to the DTCCL. 10. The project owner shall ensure that the PHA analyzes all recovered data and writes or supervises the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-1**8). Relevant portions of the information gathered shall be included in the possible NRHP nomination for the DTCCL (funded by **CUL-2**).	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
CUL-9: Data Recovery on Historic-Period Sites With Structures. The project owner shall ensure the CRMMP includes a data recovery plan for the resource type "historic-period archaeological sites with structures," consisting of site SMB-H-404. This site list may be revised only with the agreement of the CRS and the CPM. The data recovery plan shall include how to proceed if features or other buried deposits are encountered and the materials analyses and laboratory artifact analyses that will be used. The plan shall also specify in detail the location, recordation equipment and methods to be used and describe any anticipated post-processing of the data. Prior to the start of ground disturbance within 30 meters of the sites boundaries of each of these sites, the project owner shall then ensure that the CRS, the PPA, and/or archaeological team members implement the plan, if allowed by the BLM, which shall include, but is not limited to the following tasks: 1. The project owner shall hire a qualified historian to research the locations of these sites and attempt to determine their origins and functions from the historical record. 2. The project owner shall hire a PHA with the qualifications described in **CUL-3** to supervise the field work. 3. The project owner shall, ensure that, prior to beginning the field work, the PHA and crew chief are trained by the DTCCL Historical Archaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the DTCCL Historical Archaeologist not be available, in the identification, analysis and interpretation of the artifacts, environmental modifications, and trash disposal patterns associated with the early phases of WWII land-based U.S. army activities, as researched and detailed by the DTCCL PI-Historian and the DTCCL Historical Archaeologist. 4. The project owner shall ensure that, prior to beginning the field work, the field crew members are trained in the consistent and accurate identification of the full range of late nineteenth and early-to-mid-twentieth-century can, bottle, and ceramic diagnostic traits. 5. The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any manmade features, the limits of any artifact concentrations and features (previously known and newly found in the metal detector survey), using location recordation equipment that has the latest technology with sub-meter accuracy (such as UTM 11 North or California Teale Albers). 6. The project owner shall ensure that a detailed in-field analysis of all artifacts shall be completed, if not done previously. Types of seams and closures for each bottle and all cans shall be documented. Photographs shall be taken of any text or designs. Unusual or unidentifiable artifacts may be collected for further analysis, but otherwise artifacts shall not be collected. 7. The project owner shall ensure a systematic metal detector survey is completed at each site, and that each ""hit" is investigated. All artifacts and features thus found must be mapped, measured, photographed, and fully described in writing. 8. The project owner shall ensure that all structures are mapped, measured, photographed, and fully described in writing, and that all associated features having subsurface elements are excavated by a qualified historical archaeologist. All features and contents must be mapped, measured, photographed, and fully described in writing. 9. The project owner shall ensure that the details of what is found at each site shall be presented in a letter report from the CRS or PHA, which shall serve as a preliminary report, that details what was found at each site, as follows:	At least 15 days prior to ground disturbance, the project owner shall notify the CPM that mapping and in-field artifact analysis has ensued on historic-period sites with structures. Within one week of completing data recovery at a site, the project owner shall submit to the CPM for review and approval a letter report written by the CRS, evidencing that the field portion of data recovery at each site has been completed. When the CPM approves the letter report, ground disturbance may begin at the site location(s) that are the subject of the letter report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
a. Letter reports may address one site, or multiple sites depending on the needs of the CRS; and b. The letter report shall be a concise document the provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms. 10. The project owner shall ensure that the data collected from the field work shall be provided to the DTCCL Historical Archaeologist to assist in the determination of which, if any, of the three historic-period sites are contributing elements to the DTCCL. 11. The project owner shall ensure that the PHA analyzes all recovered data and writes or supervises the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-18**). Relevant portions of the information gathered shall be included in the possible NRHP nomination for the DTCCL (funded by **CUL-2**).	
CUL-10: Data Recovery on Historic-Period Dump Sites. The project owner shall ensure the CRMMP includes a data recovery plan for the resource type "historic-period dump sites," consisting of sites SMB-H-171, SMB-H-178, SMB-H- 403, and SMB-H-427 on the proposed plant site and SMB-H-522/525 along the linear facilities corridor if impacts to the latter cannot be avoided by spanning. This site list may be revised only with the agreement of the CRS and the CPM. The data recovery plan shall include how to proceed if features or other buried deposits are encountered, and the materials analyses and laboratory artifact analyses that will be used. The plan shall also specify in detail the location recordation equipment and methods to be used and describe any anticipated post-processing of the data. Prior to the start of ground disturbance within 30 meters of the sites boundaries of each of these sites, the project owner shall then ensure that the CRS, the PPA, and/or archaeological team members implement the plan, if allowed by the BLM, which shall include, but is not limited to the following tasks: 1. The project owner shall hire a PHA with the qualifications described in **CUL-3** to supervise the field work. 2. The project owner shall, ensure that, prior to beginning the field work, the PHA and crew chief are trained by the DTCCL Historical Archaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the DTCCL Historical Archaeologist not be available, in the identification, analysis and interpretation of the artifacts, environmental modifications, and trash disposal patterns associated with the early phases of WWII land-based U.S. army activities, as researched and detailed by the DTCCL PI-Historian and the DTCCL Historical Archaeologist. 3. The project owner shall ensure that, prior to beginning the field work, the field crew members are trained in the consistent and accurate identification of the full range of late nineteenth and early-to-mid-twentieth-century can, bottle, and ceramic diagnostic traits. 4. The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any manmade features, the limits of any artifact concentrations and features, using location recordation equipment that has the latest technology with sub-meter accuracy (such as UTM 11 North or California Teale Albers). 5. The project owner shall ensure that each dump is entirely mapped, measured, photographed, and fully described in writing. 6. The project owner shall ensure that 10 percent of the surface contents of each dump is recorded as follows:	At least 15 days prior to ground disturbance, the project owner shall notify the CPM that mapping and in-field artifact analysis has ensued on historic-period dump sites. Within one week of completing data recovery at a site, the project owner shall submit to the CPM for review and approval a letter report written by the CRS, evidencing that the field portion of data recovery at each site has been completed. When the CPM approves the letter report, ground disturbance may begin at the site location(s) that are the subject of the letter report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
a. Apply a 1-meter x 1-meter grid to the entire dump and randomly select 10 percent of the units. b. Do a detailed in-field analysis of all artifacts in each unit, documenting the measurements and the types of seams and closures for each bottle, and the measurements, seams, closure, and opening method for all cans. Photographs shall be taken of maker's marks on bottles, any text or designs on bottles and cans, and of decorative patterns and maker's marks on ceramics. Unusual or unidentifiable artifacts may be collected for further analysis, but otherwise artifacts shall not be collected. c. If any subsurface elements are found in the units, a qualified historical archaeologist shall excavate the part in the unit. All features and contents must be mapped, measured, photographed, and fully described in writing. 7. The project owner shall ensure that the details of what is found at each site shall be presented in a letter report from the CRS or PHA, which shall serve as a preliminary report, that details what was found at each site, as follows: a. Letter reports may address one site, or multiple sites depending on the needs of the CRS; and b. The letter report shall be a concise document the provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms. c. The letter report for each site shall present preliminary conclusions regarding the period(s) of use of the dump and suggest who the possible users were in each represented period. 8. The project owner shall ensure that the data collected from the field work shall be provided to the DTCCL Historical Archaeologist to assist in the determination of which, if any, of the five historic-period dump sites are contributing elements to the DTCCL. 9. The project owner shall ensure that the PHA analyzes all recovered data and writes or supervises the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-1**8). Relevant portions of the information gathered shall be included in the possible NRHP nomination for the DTCCL (funded by **CUL-2**).	
CUL-11: Data Recovery on Historic-Period Refuse Sites. The project owner shall ensure the CRMMP includes a data recovery plan for the resource type "historic-period refuse sites," consisting of sites SMB-H-164, SMB-H-166, SMB-H¬287, SMB-H-288, and SMB-H-423. The focus of the recordation upgrade is to determine if these sites can be attributed to the DTC/C-AMA use of the region and are therefore contributors to the DTCCL. This site list may be revised only with the agreement of the CRS and the CPM. The data recovery plan shall include how to proceed if features or other buried deposits are encountered and the materials analyses and laboratory artifact analyses that will be used. The plan shall also specify in detail the location recordation equipment and methods to be used and describe any anticipated post-processing of the data. Prior to the start of ground disturbance within 30 meters of the sites boundaries of each of these sites, the project owner shall then ensure that the CRS, the PPA, and/or archaeological team members implement the plan, if allowed by the BLM, which shall include, but is not limited to the following tasks: 1. The project owner shall hire a PHA with the qualifications described in **CUL-3** to supervise the fieldwork.	At least 15 days prior to ground disturbance, the project owner shall notify the CPM that mapping and upgraded in-field artifact analysis has ensued on six historic-period refuse scatter sites. Within one week of completing data recovery at a site, the project owner shall submit to the CPM for review and approval a letter report written by the CRS, evidencing that the field portion of data recovery at each site has been completed. When the CPM approves the letter report, ground disturbance may begin at the site location(s) that are the subject of the letter report.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
2. The project owner shall, ensure that, prior to beginning the field work, the PHA and crew chief are trained by the DTCCL Historical Archaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the DTCCL Historical Archaeologist not be available, in the identification, analysis and interpretation of the artifacts, environmental modifications, and trash disposal patterns associated with the early phases of WWII land-based U.S. army activities, as researched and detailed by the DTCCL PI-Historian and the DTCCL Historical Archaeologist. 3. The project owner shall ensure that, prior to beginning the field work, the field crew members are trained in the consistent and accurate identification of the full range of late nineteenth and early-to-mid-twentieth century can, bottle, and ceramic diagnostic traits. 4. The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any man-made features, the limits of any artifact concentrations and features (previously known and newly found in the metal detector survey), using location recordation equipment that has the latest technology with submeter accuracy (such as UTM 11 North or California Teale Albers). 5. The project owner shall ensure that a detailed in-field analysis of all artifacts types shall be completed, documenting the measurements and the types of seams and closures for each bottle, and the measurements, seams, closure, and opening method for all cans. Photographs shall be taken of maker's marks on bottles, any text or designs on bottles and cans, and of decorative patterns and maker's marks on ceramics. Artifacts shall not be collected. 6. The project owner shall ensure that the details of what is found at each site shall be presented in a letter report from the CRS or PHA, which shall serve as a preliminary report, that details what was found at each site, as follows: a. Letter reports may address one site, or multiple sites depending on the needs of the CRS; and b. The letter report shall be a concise document the provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms. c. The letter report shall make a recommendation on whether each site is a contributor to the DTTCL. 7. The project owner shall ensure that the data collected from the fieldwork shall be provided to the DTCCL Historical Archaeologist to assist in the determination of which, if any, of the six historic-period sites are contributing elements to the DTCCL. 8. The project owner shall ensure that the PHA analyzes all recovered data and writes or supervises the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-18**). Relevant portions of the information gathered shall be included in the possible NRHP nomination for the DTCCL (funded by **CUL-2**).	
CUL-12: Data Recovery On Historic-Period Roads. The project owner shall ensure that a qualified architectural historian (must meet the U.S. Secretary of the Interior's Professional Qualifications Standards for historian, as published in Title 36, Code of Federal Regulations, part 61) conducts research and writes a report on the age and use of two historic period, unimproved roads (SMB-H-600, SMB-H-601), with particular attention paid to their role during the use of the area by the U. S. Army in World War II training maneuvers (DTC/C-AMA). The project owner shall provide the historian's report to the DTCCL PI Historian for use in the possible DTCCL NRHP nomination. The project owner may undertake this task prior to Energy Commission certification of the project.	At least 15 days prior to ground disturbance, the project owner shall submit to the CPM the historian's report documenting the age and historical use of the two roads. Within 15 days after the CPM approves the report, the project owner shall forward it to the DTCCL PI-Historian.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
CUL-13: Archival Research on Blythe Army Air Base Reservoir Pipelines. The project owner shall ensure that a qualified architectural historian (must meet the U.S. Secretary of the Interior's Professional Qualifications Standards for historian, as published in Title 36, Code of Federal Regulations, part 61) conducts research to establish the current existence and locations of the water supply pipelines that connect the Blythe Army Air Base Reservoir pipelines to the former Blythe Army Air Base. The project owner shall ensure that the construction of the project's underground facilities that cross these old pipelines avoids impacting them. The project owner shall provide the historian's report to the DTCCL PI Historian for use in the possible DTCCL NRHP nomination. The project owner may undertake this task prior to Energy Commission certification of the project.	At least 15 days prior to excavating any trenches crossing the old Blythe Army Air Base Reservoir water pipelines, the project owner shall submit to the CPM the historian's report verifying the current presence or absence of the pipelines and, if they are present, a plan indicating how they will be avoided. Within 15 days after the CPM approves the report, the project owner shall forward it to the DTCCL PI-Historian
CUL-14: Archival Research on Radio Communications Facility. The project owner shall ensure that a qualified architectural historian (must meet the U.S. Secretary of the Interior's Professional Qualifications Standards for historian, as published in Title 36, Code of Federal Regulations, part 61) conducts research to evaluate the CRHR eligibility of the radio communications facility, considering all pertinent register criteria, as well as integrity. If the facility is recommended as CRHR-eligible, the project owner shall propose ways to avoid or mitigate, to a less than significant level, the project's impacts to the facility's integrity of setting and integrity of feeling. The project owner may undertake this task prior to Energy Commission certification of the project	At least 45 days prior to construction, the project owner shall submit to the CPM the historian's recommendation, with supporting evidence, on the eligibility of the radio communications facility and, if it is eligible, a plan indicating how the project's impacts to the facility's integrity of setting and integrity of feeling will be avoided or mitigated to a less than significant level. Rationale: Proposed schedule change is in accordance with the project time-line. At least 30 days prior to construction, the project owner shall implement those elements of the submitted avoidance/mitigation plan approved by the CRS.
CUL-15: Worker Environmental Awareness Program (WEAP). Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment at the project site, along the linear facilities routes, and at lay-down areas, roads, and other ancillary areas. The training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes. The training shall include: 1. A discussion of applicable laws and penalties under the law; 2. Samples or visuals of artifacts that might be found in the project vicinity; 3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed; 4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits; 5. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS; 6. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;	At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval. At least 15 days prior to the beginning of ground disturbance, the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP trained worker to sign. Monthly, until ground disturbance is completed, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
7. An informational brochure that identifies reporting procedures in the event of a discovery; 8. An acknowledgement form signed by each worker indicating that they have received the training; and 9. A sticker that shall be placed on hard hats indicating that environmental training has been completed. 10. No ground disturbance shall occur prior to implementation of the WEAP program, unless such activities are specifically approved by the CPM.	
CUL-16: Construction Monitoring Program. The ~~CPM, working with the~~ project owner~~,~~ shall ensure that the CRS, alternate CRS, or CRMs, ~~to~~ prevent construction impacts to undiscovered resources and ~~to~~shall further ensure that known resources are not impacted in an unanticipated manner, monitor full time all ground disturbances: 1. ~~for all project~~associated with construction-related grading~~;~~ and other earthwork; 2. for the trenches for underground communication lines and the natural gas pipeline; 3. for the holes for the transmission line support structures; 4. And for the jack-and-bore tunneling for underground conductor or cable lines or pipelines, that they monitor the excavation of the jack-and-bore entry and exit pits and examine, log, and screen auger ~~back dirt~~backdirt samples, as detailed in the CRMMP. Full-time archaeological monitoring for this project shall be the archaeological monitoring of the earth-removing activities in the areas specified in the previous paragraph, for as long as the activities are ongoing. Where excavation equipment is actively removing dirt and hauling the excavated material farther than fifty feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no farther than fifty feet from the location of active excavation, one monitor shall both observe the location of active excavation and inspect the dumped material. ~~\~~A Native American monitor shall be obtained to monitor all of the ground disturbance ~~in all areas~~ described above. Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either ~~will~~ identify potential monitors or will allow ground disturbance to proceed without a Native American monitor. The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered. On forms provided by the CPM, CRMs shall keep a daily log of any monitoring and other cultural resources activities and any instances of noncompliance with the Conditions and/or applicable LORS. Copies of the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM, and to any ~~affected Indian tribes~~affiliated Native American tribal entities that request such logs. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended. The CRS or alternate CRS shall report daily to the CPM on the status of the project's cultural resources-related activities, unless reducing or ending daily reporting is requested by the CRS and approved by the CPM.	At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log. Monthly, while monitoring is on going, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP. At least 48 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level. Daily, as long as no cultural resources are found, the CRS shall provide a statement that "no cultural resources over 50 years of age were discovered" to the CPM as an e-mail or in some other form of communication acceptable to the CPM, and any Indian tribes that request such statements. Weekly, during jack-and-bore tunneling for the underground transmission line, the project owner shall provide the CPM with copies of the soil and sediment descriptions and auger-back dirt screening logs kept by the CRS, alternate CRS, or CRMs, as detailed in the CRMMP. At least 24 hours prior to reducing or ending daily reporting, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for reducing or ending daily reporting. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit to the CPM copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information. The CPM shall provide a written response, or shall ensure the project owner provides a written response, to such comments within 5 business days.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
In the event that the CRS believes that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring~~. If the request involves a decrease in monitoring levels for NAMs, the CPM must notify affected Indian tribes~~ and concurrently notify affiliated Native American tribal entities. The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resources monitoring and mitigation activities with Energy Commission technical staff. Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these Conditions. Upon becoming aware of any incidents of non-compliance with the Conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.	
CUL-17: Authority to Halt Construction; Treatment Of Discoveries. The project owner shall grant authority to halt ground disturbance to the CRS, alternate CRS, PPA, PHA, and the CRMs in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS. In the event that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CPM), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. Monitoring and daily reporting, as provided in other Conditions, shall continue during the project's ground-disturbing activities elsewhere. The halting or redirection of ground disturbance shall remain in effect until the CRS has visited the discovery, and all of the following have occurred: 1. The CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of CRHR eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of CRHR eligibility has been made. 2. If the discovery would be of interest to affiliated Native ~~Americans~~American tribal entities, the CPM shall ensure the CRS has notified, within 48 hours, all affiliated Native American ~~groups~~tribal entities that expressed a desire to be notified in the event of such a discovery. The CRS shall inform the CPM if there are any barriers to performing the notification. 3. The CRS has completed field notes, measurements, and photography for a DPR 523 Primary form. Unless the find can be treated prescriptively, as specified in the CRMMP, the Description entry of the DPR 523 Primary form shall include a recommendation on the CRHR eligibility of the discovery. The project owner shall submit completed forms to the CPM. 4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.	At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, PPA, PHA, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Cultural Resources (cont.)	
CUL-18: Cultural Resources Report (CRR). The project owner shall submit the final Cultural Resources Report (CRR) to the CPM for review and comment and to the BLM Palm Springs archaeologist for review and approval. The final CRR shall be written by or under the direction of the CRS. The final CRR shall report on all field activities including dates, times and locations, results, samplings, and analyses. All survey reports, revised and final Department of Parks and Recreation (DPR) 523 forms, data recovery reports, and any additional research reports not previously submitted to the California Historical Resource Information System (CHRIS) and the State Historic Preservation Officer (SHPO) shall be included as appendices to the final CRR. If the project owner requests a suspension of ground disturbance and/or construction activities, then a draft CRR that covers all cultural resources activities associated with the project shall be prepared by the CRS and submitted to the CPM and to the BLM Palm Springs archaeologist for review and approval on the same day as the suspension/extension request. The draft CRR shall be retained at the project site in a secure facility until ground disturbance and/or construction resumes or the project is withdrawn. If the project is withdrawn, then a final CRR shall be submitted to the CPM for review and approval at the same time as the withdrawal request.	Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval. Within 180 days after completion of ground disturbance (including landscaping), the project owner shall submit the final CRR to the CPM for review and approval and to the BLM Palm Springs Field Office archaeologist for review and approval. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification: of receipt shall be included in an appendix. Within 10 days after the CPM and the BLM Palm Springs Field Office archaeologist approve the CRR, the project owner shall provide documentation to the CPM confirming that copies of the final CRR have been provided to the SHPO, the CHRIS, the curating institution, if archaeological materials were collected, and to the Tribal Chairpersons of any Native American groups requesting copies of project-related reports.
CUL-19 COMPLIANCE WITH BLM PROGRAMMATIC AGREEMENT. If provisions in the BLM Blythe Solar Power Plant Programmatic Agreement and associated implementation and monitoring programs conflict with or duplicate these Conditions of Certification, the BLM provisions shall take precedence. Provisions in these Conditions that are additional to or exceed BLM provisions and represent requirements under the Energy Commission's CEQA responsibilities shall continue to apply to the project's activities, contingent on BLM's approval.	
Hazardous Materials	
HAZ-1: The project owner shall not use any hazardous materials not listed in Appendix A, below, or in greater quantities or strengths than those identified by chemical name in Appendix A, below, unless approved in advance by the Compliance Project Manager (CPM).	The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility.
HAZ-2: The project owner shall concurrently provide a Hazardous Materials Business Plan (HMBP), and a Spill Prevention, Control, and Countermeasure Plan (SPCC) to the Riverside County Environmental Health Department (RCEHD), the Riverside County Fire Department (RCFD), and the CPM for review. After receiving comments from the RCEHD, the RCFD, and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final HMBP shall then be provided to the RCEHD for information and to the CPM for approval**.**	At least 60 days prior to receiving any hazardous material on the site for commissioning or operations, the project owner shall provide a copy of a final Hazardous Materials Business Plan, a Spill Prevention, Control, and Countermeasure Plan, and a Process Safety Management Plan to the CPM for approval.
HAZ-3: The project owner shall develop and implement a Safety Management Plan for the delivery and handling of liquid hazardous materials. The plan shall include procedures, protective equipment requirements, training and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials. This plan shall be applicable during construction, commissioning, and operation of the power plant.	At least 60 days prior to the delivery of any liquid hazardous material to the facility, the project owner shall provide a Safety Management Plan as described above to the CPM for review and approval.
HAZ-4 (Deleted)	
HAZ-5: Prior to commencing construction, a site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to the CPM for review and approval. The Construction Security Plan shall include the following: 1. perimeter security consisting of fencing enclosing the construction area;	At least 30 days prior to commencing construction, the project owner shall notify the CPM that a site-specific Construction Security Plan is available for review and approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Hazardous Materials (cont.)	
2. security guards; 3. site access control consisting of a check-in procedure or tag system for construction personnel and visitors; 4. written standard procedures for employees, contractors and vendors when encountering suspicious objects or packages on site or off site; 5. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and 6. evacuation procedures.	
HAZ-6: The project owner shall also prepare a site-specific security plan for the commissioning and operational phases that will be available to the CPM for review and approval. The project owner shall implement site security measures that address physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC 2002). The Operation Security Plan shall include the following: 1. Permanent full perimeter fence or wall, at least eight feet high around the ~~Power Block and~~ Solar Field; 2. Main entrance security gate, either hand operated or motorized; 3. Evacuation procedures; 4. Protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; 5. Written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on site or off site; 6. A. a statement (refer to sample, ATTACHMENT A), signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to determine the accuracy of employee identity and employment history and shall be conducted in accordance with state and federal laws regarding security and privacy; B. a statement(s) (refer to sample, ATTACHMENT B), signed by the contractor or authorized representative(s) for any permanent contractors or other technical contractors (as determined by the CPM after consultation with the project owner), that are present at any time on the site to repair, maintain, investigate, or conduct any other technical duties involving critical components (as determined by the CPM after consultation with the project owner) certifying that background investigations have been conducted on contractors who visit the project site; 7. Site access controls for employees, contractors, vendors, and visitors; 8. If required by law, a statement(s) (refer to sample, ATTACHMENT C), signed by the owners or authorized representative of hazardous materials transport vendors, certifying that they have prepared and implemented security plans in compliance with 49 CFR 172.802, and that they have conducted employee background investigations in accordance with 49 CFR Part 1572, subparts A and B;	At least 30 days prior to the initial receipt of operations-related hazardous materials on site, the project owner shall notify the CPM that a site-specific operations site security plan is available for review and approval. In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Hazardous Materials (cont.)	
9. Closed circuit TV (CCTV) monitoring system, recordable, and viewable in the O & M Building with cameras able to pan, tilt, and zoom, have low-light capability, and are able to view the outside entrance to the O & M Building, and the front gate. The project owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to those security plans. The CPM may authorize modifications to these measures, or may require additional measures such as protective barriers for critical power plant components depending upon circumstances unique to the facility or in response to industry-related standards, security concerns, cyber security, or additional guidance provided by the U.S. Department of Homeland Security, the U.S. Department of Energy, or the North American Electrical Reliability Corporation, after consultation with both appropriate law enforcement agencies and the applicant.	
Noise	
NOISE-1: Public Notification Process. At least 15 days prior to the start of ground disturbance, the project owner shall notify all residents within one mile of the project site and the linear facilities, by mail or by other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours a day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction where it is visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year.	Prior to ground disturbance, the project owner shall transmit to the compliance project manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed, and describing the method of that notification. This communication shall also verify that the telephone number has been established and posted at the site, and shall provide that telephone number.
NOISE-2: Noise Complaint Process. Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The project owner or authorized agent shall: • ~~1.~~use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint; • ~~2.~~attempt to contact the person(s) making the noise complaint within 24 hours; • ~~3.~~conduct an investigation to determine the source of noise in the complaint; • ~~4.~~if the noise is project related, take all feasible measures to reduce the source of the noise; and • ~~5.~~submit a report documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the complainant stating that the noise problem has been resolved to the complainant's satisfaction.	Within five days of receiving a noise complaint, the project owner shall file a Noise Complaint Resolution Form, shown below, with both the local jurisdiction and the CPM, that documents the resolution of the complaint. If mitigation is required to resolve the complaint, and the complaint is not resolved within a three-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is performed and complete.
NOISE-3: Employee Noise Control Program – Construction. The project owner shall submit to the CPM for review and approval a noise control program. The noise control program shall be used to reduce employee exposure to high (above permissible) noise levels during construction in accordance to the applicable OSHA and Cal-OSHA standards.	At least 30 days prior to the start of ground disturbance, the project owner shall submit the noise control program to the CPM. The project owner shall make the program available to Cal-OSHA upon request.
NOISE-4 (Deleted)	
NOISE-5 (Deleted)	
NOISE-6: Construction Restrictions. During project construction, heavy equipment operation and noisy construction work relating to any project features within ¼ mile of an existing residence shall be restricted to the times delineated below, unless a special permit has been issued by the County of Riverside:	Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Noise (cont.)	
Mondays through Fridays: June through September: 6 a.m. to 7 p.m. October through May: 6 a.m. to 6 p.m. *Saturdays*: 9 a.m. to 5 p.m. *Sundays and Federal holidays*: No Construction Allowed Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.	
NOISE-7 (Deleted)	
Paleontological Resources	
PAL-1: The project owner shall provide the CPM with the resume and qualifications of its PRS for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the Paleontologic Resources Report, the project owner shall obtain CPM approval of the replacement PRS. The project owner shall keep resumes on file for qualified paleontologic resource monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM. The PRS resume shall include the names and phone numbers of references. The resume shall also demonstrate to the satisfaction of the CPM the appropriate education and experience to accomplish the required paleontologic resource tasks. As determined by the CPM, the PRS shall meet the minimum qualifications for a vertebrate paleontologist as described in the Society of Vertebrate Paleontology (SVP) guidelines of 1995. The experience of the PRS shall include the following: 1. Institutional affiliations, appropriate credentials, and college degree; 2. Ability to recognize and collect fossils in the field; 3. Local geologic and biostratigraphic expertise; 4. Proficiency in identifying vertebrate and invertebrate fossils; and 5. At least three years of paleontologic resource mitigation and field experience in California and at least one year of experience leading paleontologic resource mitigation and field activities. The project owner shall ensure that the PRS obtains qualified paleontologic resource monitors to monitor as he or she deems necessary on the project. Paleontologic resource monitors (PRMs) shall have the equivalent of the following qualifications: • 1. BS or BA degree in geology or paleontology and one year of experience monitoring in California; or • 2. AS or AA in geology, paleontology, or biology and four years' experience monitoring in California; or • Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California.	(1) At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS for on-site work. (2) At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project, stating that the identified monitors meet the minimum qualifications for paleontologic resource monitoring required by the condition. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM no later than one week prior to the monitor's beginning on-site duties. (3) Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Paleontological Resources (cont.)	
PAL-2: The project owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction lay-down areas, and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the PRS and CPM. The site grading plan and plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings should show the location, depth, and extent of all ground disturbances and be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the project or its linear facilities changes, the project owner shall provide maps and drawings reflecting those changes to the PRS and CPM. If construction of the project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Before work commences on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes. At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked the following week and until ground disturbance is completed.	(1) At least 30 days prior to the start of ground disturbance, the project owner shall provide the maps and drawings to the PRS and CPM. (2) If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start of ground disturbance. (3) If there are changes to the scheduling of the construction phases, the project owner shall submit a letter to the CPM within 5 days of identifying the changes.
PAL-3: The project owner shall ensure that the PRS prepares, and the project owner submits to the CPM for review and approval, a paleontologic resources monitoring and mitigation plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontologic resources. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities and may be modified with CPM approval. This document shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall reside with the PRS, each monitor, the project owner's on-site manager, and the CPM. The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP 1995) and shall include, but not be limited, to the following: 1. Assurance that the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking, construction monitoring, mapping and data recovery, fossil preparation and collection, identification and inventory, preparation of final reports, and transmittal of materials for curation will be performed according to PRMMP procedures; 2. Identification of the person(s) expected to assist with each of the tasks identified within the PRMMP and the conditions of certification; 3. A thorough discussion of the anticipated geologic units expected to be encountered, the location and depth of the units relative to the project when known, and the known sensitivity of those units based on the occurrence of fossils either in that unit or in correlative units; 4. An explanation of why, how, and how much sampling is expected to take place and in what units. Include descriptions of different sampling procedures that shall be used for fine-grained and coarse-grained units; 5. A discussion of the locations of where the monitoring of project construction activities is deemed necessary, and a proposed plan for monitoring and sampling;	At least 30 days prior to ground disturbance, the project owner shall provide a copy of the PRMMP to the CPM. The PRMMP shall include an affidavit of authorship by the PRS and acceptance of the PRMMP by the project owner evidenced by a signature.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Paleontological Resources (cont.)	
6. A discussion of procedures to be followed in the event of a significant fossil discovery, halting construction, resuming construction, and how notifications will be performed; 7. A discussion of equipment and supplies necessary for collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits; 8. Procedures for inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum, which meet the Society of Vertebrate Paleontology's standards and requirements for the curation of paleontologic resources; 9. Identification of the institution that has agreed to receive data and fossil materials collected, requirements or specifications for materials delivered for curation and how they will be met, and the name and phone number of the contact person at the institution; and 10. A copy of the paleontologic conditions of certification.	
PAL-4: Prior to ground disturbance and for the duration of construction activities involving ground disturbance, the project owner and the PRS shall prepare and conduct weekly CPM-approved training for the following workers: project managers, construction supervisors, foremen, and general workers involved with or who operate ground-disturbing equipment or tools. Workers shall not excavate in sensitive units prior to receiving CPM-approved worker training. Worker training shall consist of an initial in-person PRS training or may utilize a CPM-approved video or other presentation format during the project kick off for those mentioned above. Following initial training, a CPM-approved video or other approved training presentation/materials, or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or other areas of interest or concern. No ground disturbance shall occur prior to CPM approval of the Worker Environmental Awareness Program (WEAP), unless specifically approved by the CPM. The WEAP shall address the possibility of encountering paleontologic resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources. The training shall include: 1. A discussion of applicable laws and penalties under the law; 2. Good quality photographs or physical examples of vertebrate fossils for project sites containing units of high paleontologic sensitivity; 3. Information that the PRS or PRM has the authority to halt or redirect construction in the event of a discovery or unanticipated impact to a paleontologic resource; 4. Instruction that employees are to halt or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM; 5. An informational brochure that identifies reporting procedures in the event of a discovery; 6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training; and 7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.	(1) At least 30 days prior to ground disturbance, the project owner shall submit the proposed WEAP, including the brochure, with the set of reporting procedures for workers to follow. (2) At least 30 days prior to ground disturbance, the project owner shall submit the training program presentation/materials to the CPM for approval if the project owner is planning to use a presentation format other than an in-person trainer for training. (3) If the owner requests an alternate paleontologic trainer, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct training prior to CPM authorization. (4) In the monthly compliance report (MCR), the project owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person or other approved format) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Paleontological Resources (cont.)	
PAL-5: The project owner shall ensure that the PRS and PRM(s) monitor consistent with the PRMMP all construction-related grading, excavation, trenching, and augering in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil bearing in the PRMMP, the project owner shall notify and seek the concurrence of the CPM. The project owner shall ensure that the PRS and PRM(s) have the authority to halt or redirect construction if paleontologic resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows: 1. Any change of monitoring from the accepted schedule in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM prior to the change in monitoring and will be included in the monthly compliance report. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval. 2. The project owner shall ensure that the PRM(s) keep a daily monitoring log of paleontologic resource activities. The PRS may informally discuss paleontologic resource monitoring and mitigation activities with the CPM at any time. 3. The project owner shall ensure that the PRS notifies the CPM within 24 hours of the occurrence of any incidents of non-compliance with any paleontologic resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification. 4. For any significant paleontologic resources encountered, either the project owner or the PRS shall notify the CPM within 24 hours, or Monday morning in the case of a weekend event, where construction has been halted because of a paleontologic find. The project owner shall ensure that the PRS prepares a summary of monitoring and other paleontologic activities placed in the monthly compliance reports. The summary will include the name(s) of PRS or PRM(s) active during the month; general descriptions of training and monitored construction activities; and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report will address any issues or concerns about the project relating to paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.	The project owner shall ensure that the PRS submits the summary of monitoring and paleontologic activities in the MCR. When feasible, the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from the plan identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change.
PAL-6: The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontologic resource materials encountered and collected during project construction.	The project owner shall maintain in his/her compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after project completion and approval of the CPM-approved paleontologic resource report (see Condition of Certification **PAL-7**). The project owner shall be responsible for paying any curation fees charged by the museum for fossils collected and curated as a result of paleontologic mitigation. A copy of the letter of transmittal submitting the fossils to the curating institution shall be provided to the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Paleontological Resources (cont.)	
PAL-7: The project owner shall ensure preparation of a Paleontologic Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information and submit it to the CPM for review and approval. The report shall include, but is not limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontologic resources encountered; determinations of sensitivity and significance; and a statement by the PRS that project impacts to paleontologic resources have been mitigated below the level of significance.	Within 90 days after completion of ground-disturbing activities, including landscaping, the project owner shall submit the PRR under confidential cover to the CPM**.**
Socioeconomics	
SOCIO-1: The project owner shall submit a "No Trespassing" letter to the satisfaction of the Colorado River Station of the Riverside County Sheriff's Department. The "No Trespassing" letter shall remain on file throughout construction and operation of the project.	At least 30 days prior to the start of construction, the project owner shall provide a copy of the letter to the Colorado River Station of the Riverside County Sheriff's Department for review and to the CPM for review and approval.
Soil and Water Resources	
GEO-1: The Soils Engineering Report required by Section 1803 of the 2010 CBC should specifically include laboratory test data, associated geotechnical engineering analyses, and a thorough discussion of corrosive soils, hydrocompaction or dynamic compaction; and the presence of expansive clay soils. The report should also include recommendations for ground improvement and/or foundation systems necessary to mitigate these potential geologic hazards, if present.	The project owner shall include in the application for a grading permit a copy of the Soils Engineering Report which addresses the potential for liquefaction; settlement due to compressible soils, ground water withdrawal, hydrocompaction, or dynamic compaction; and the possible presence of expansive clay soils, and a summary of how the results of the analyses were incorporated into the project foundation and grading plan design for review and comment by the Chief Building Official (CBO). A copy of the Soils Engineering Report, application for grading permit and any comments by the CBO are to be provided to the CPM at least 30 days prior to grading.
SOIL&WATER-1: Drainage Erosion and Sedimentation Control Plan. Prior to site mobilization, the project owner shall obtain the Compliance Project Manager (CPM) approval of the Drainage Erosion and Sedimentation Control Plan (DESCP) for managing stormwater during project construction and operations as normally administered by the County of Riverside. The DESCP must ensure proper protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, include provisions for sediment and stormwater retention from both the power block, solar fields and transmission right of way to meet any Riverside County requirements, address exposed soil treatments in the solar fields for both road and non-road surfaces, and identify all monitoring and maintenance activities. The DESCP shall contain, at minimum, the elements presented below that outline site management activities and erosion and sediment-control Best Management Practices (BMP) to be implemented during site mobilization, excavation, construction, and post construction (operating) activities. A. ***Vicinity Map*** – A map(s), at a minimum scale one- inch to 500 feet, shall be provided indicating the location of all project elements (construction sites, laydown area, pipelines) with depictions of all significant geographic features including swales, storm drains, and sensitive areas. B. ***Site Delineation*** – All areas subject to soil disturbance for the proposed project (project phases, laydown area, all linear facilities, landscaping areas, and any other project elements) shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.	No later than 30 days prior to start of site mobilization, the project owner shall submit a copy of the final DESCP to the CPM for review and comment and to the County of Riverside and the CRBWQCB if required. The CPM shall consider comments if received by the county and CRBRWQCB before approval of the DESCP. The DESCP shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1, and relevant portions of the DESCP shall clearly show approval by the chief building official. The project owner shall provide in the monthly compliance report a narrative on the effectiveness of the drainage, erosion, and sediment-control measures and the results of monitoring and maintenance activities. Once operational, the project owner shall update and maintain the DESCP for the life of the project and shall provide in the annual compliance report information on the results of monitoring and maintenance activities.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
C. ***Watercourses and Critical Areas*** – The DESCP shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches. It shall indicate the proximity of those features to the proposed project construction, laydown, and landscape areas and all transmission and pipeline construction corridors. Furthermore, earthwork and temporary construction related activities shall be conducted such that off-site resources are protected from impacts due to redirection of flood flows around and through the site. Construction activities shall proceed in a manner so as to minimize exposure of facilities to construction period flooding. Any temporary diversion channels shall be adequately designed for flood conveyance capable of protecting the construction site while not contributing to on-site or off-site erosion.	
D. ***Drainage Map*** – The DESCP shall provide a topographic site map(s), at a minimum scale of 1 inch to 200 feet, showing existing, interim, and proposed drainage swales and drainage systems and drainage-area boundaries. On the map, spot elevations are required where relatively flat conditions exist. The spot elevations and contours shall be extended off site for a minimum distance of 100 feet.	
E. ***Drainage of Project Site Narrative*** – The DESCP shall include a narrative of the drainage measures necessary to protect the site and potentially affected soil and water resources within the drainage downstream of the site. The narrative shall include the summary pages from the hydraulic analysis prepared by a professional engineer and erosion control specialist. The narrative shall state the watershed size(s) in acres that was used in the calculation of drainage features.	
F. ***Clearing and Grading Plans*** – The DESCP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections, or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Existing and proposed topography shall be illustrated by tying in proposed contours with existing topography.	
G. ***Clearing and Grading Narrative*** – The DESCP shall include a table with the estimated quantities of material excavated or filled for the site and all project elements (project site, laydown area, transmission and pipeline corridors, roadways, and bridges) whether such excavation or fill is temporary or permanent, and the amount of such material to be imported or exported.	
H. ***Soil Wind and Water Erosion Control*** – The plan shall address exposed soil treatments to be used during construction and operation of the proposed project for both road and non-road surfaces including specifically identifying all chemical based dust palliatives, soil bonding, and weighting agents appropriate for use at the proposed project site that would not cause adverse effects to vegetation. BMPs shall include measures designed to prevent wind and water erosion including application of chemical dust palliatives after rough grading to limit water use. All dust palliatives, soil binders, and weighting agents shall be approved by the CPM prior to use.	
I. ***Best Management Practices Plan*** – The DESCP shall identify on the topographic site map(s) the location of the site specific BMPs to be employed during each phase of construction (initial grading, project element excavation and construction, and final grading/stabilization). BMPs shall include measures designed to control dust, stabilize construction access roads and entrances, and control storm water runoff and sediment transport.	
J. ***Best Management Practices Narrative*** – The DESCP shall show the location (as identified in (I) above), timing, and maintenance schedule of all erosion- and sediment-control BMPs to be used prior to initial grading, during all	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
project element (site, pipelines) excavations and construction, final grading/stabilization, and operation. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule shall include post-construction maintenance of structural-control BMPs, or a statement provided about when such information would be available. K. ***Project Schedule*** – The DESCP shall identify on the topographic site map the location of the site-specific BMPs to be employed during each phase of construction (initial grading, project element construction, and final grading/stabilization). Separate BMP implementation schedules shall be provided for each Project element for each phase of construction. L. ***Erosion Control Drawings*** – The erosion-control drawings and narrative shall be designed, stamped and sealed by a professional engineer or erosion control specialist. M. ***Agency Comments*** – The DESCP shall include copies of recommendations, conditions, and provisions from the California Department of Fish and Game (CDFG) and Colorado River Basin Regional Water Quality Control Board (CRBWQCB). N. **Monitoring Plan** – Monitoring activities shall include routine measurement of the volume of accumulated sediment in the onsite drainage ditches.	
SOIL&WATER-2: To mitigate the impact from project pumping, the project owner shall identify and implement offset measures to mitigate the increase in discharge from surface water to groundwater that affects recharge from the Palo Verde Valley Groundwater Basin (USGS) to the Palo Verde Mesa Groundwater Basin (USGS). The project owner shall implement **SOIL&WATER-16** to evaluate the change in recharge over the life of the project including any latency effects from project pumping. The offset measures shall consider water conservation projects such as payment for irrigation improvements in Palo Verde Irrigation District, land fallowing, and/or BLM's Tamarisk Removal Program or other proposed mitigation activities acceptable to the CPM. The activities proposed for mitigation shall be outlined in a Water Supply Plan that shall be provided to the CPM for review and approval and which shall include the following at a minimum: A. Identification of the water offsets as determined in **SOIL&WATER-16**; B. Demonstration of the project owner's ability to conduct the activity; C. Whether any governmental approval of the identified offset will be needed, and if so, whether additional approval will require compliance with CEQA or NEPA; D. Demonstration of how much water is provided by each of the offset measures; E. An estimated schedule for completion of the activities; F. Performance measures that would be used to evaluate the amount of water replaced by the proposed offset measures; and G. A Monitoring and Reporting Plan outlining the steps necessary and proposed frequency of reporting to show the activities are achieving the intended benefits of the water supply offsets;	The project owner shall submit a Water Supply Plan to the CPM for review and approval 30 days before the start of extraction of groundwater for construction or operation. The project owner shall implement the activities reviewed and approved in the Water Supply Plan in accordance with the agreed upon schedule in the Water Supply Plan. If agreement with the CPM on identification or implementation of offset activities cannot be achieved the project owner shall immediately halt construction or operation until the agreed upon activities can be identified and implemented.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
SOIL&WATER-3: Project Groundwater Wells, Pre-Well Installation. The project owner proposes to construct and operate up to three (3) onsite groundwater supply wells that produce water from the Palo Verde Mesa Groundwater Basin (PVMGB). The project owner shall ensure that the wells are completed in accordance with all applicable state and local water well construction permits and requirements. Prior to initiation of well construction activities, the project owner shall submit for review and comment a well construction packet to the County of Riverside and fees normally required for the county's well permit, with copies to the CPM. The project shall not construct a well or extract and use groundwater until an approval has been issued by the CPM to construct and operate the well. Wells permitted and installed as part of pre-construction field investigations that subsequently are planned for use as project water supply wells require CPM approval prior to their use to supply water to the project. ***Post-Well Installation*.** The project owner shall provide documentation as required under County permit conditions to the CPM that the well has been properly completed. In accordance with California's Water Code section 13754, the driller of the well shall submit to the DWR a Well Completion Report for each well installed. The project owner shall ensure the Well Completion reports are submitted. The project owner shall ensure compliance with all county water well standards and County requirements for the life of the wells and shall provide the CPM with two copies each of all monitoring or other reports required for compliance with the County of Riverside water well standards and operation requirements, as well as any changes made to the operation of the well.	The project owner shall do all of the following: a. No later than 60 days prior to the construction of the onsite groundwater production wells, the project owner shall submit to the CPM a copy of the water well construction packet submitted to the County of Riverside. b. No later than 30 days prior to the construction of the onsite groundwater production wells, the project owner shall submit a copy of written concurrence received from the County of Riverside that the proposed well construction activities comply with all county well requirements and meet the requirements established by the county's water well permit program. The CPM shall provide approval to the project owner of the well location and operation within 10 days of receipt of the County of Riverside's concurrence with the proposed well construction activities. c. No later than 60 days after installation of each well at the project site, the project owner shall ensure that the well driller submits a Well Completion Report to the DWR with a copy provided to the CPM. The project owner shall submit to the CPM together with the Well Completion Report a copy of well drilling logs, water quality analyses, and any inspection reports. Additionally no later than 60 days after installation of each well the project owner shall submit documentation to the CPM and the CRBRWQCB that well drilling activities were conducted in compliance with Title 23, California Code of Regulations, Chapter 15, Discharges of Hazardous Wastes to Land, (23 CCR, sections 2510 et seq.) and that any onsite drilling sumps used for Project drilling activities were removed in compliance with 23 CCR section 2511(c) During well construction and for the operational life of the well, the project owner shall submit two copies to the CPM of any proposed well construction or operation changes.
SOIL&WATER-4: Construction and Operation Water Use. The proposed project's use of groundwater during construction shall not exceed 1,200 af during the 48 months of construction and an annual average of 40 afy during operation. Prior to the use of groundwater for construction, the project owner shall install and maintain metering devices as part of the water supply and distribution system to document project water use and to monitor and record, in gallons per day, the total volume(s) of water supplied to the project from ~~all~~ this water source~~s~~. The metering devices shall be operational for the life of the project.	At least 10 days prior to the start of groundwater pumping for construction of the proposed project, the project owner shall submit to the CPM a copy of evidence that metering devices have been installed and are operational. Beginning six months after the start of construction, the project owner shall prepare a semi-annual summary of amount of water used for construction purposes. The summary shall include the monthly range and monthly average of daily water usage in gallons per day. The project owner shall prepare an annual summary, which shall include daily usage, monthly range and monthly average of daily water usage in gallons per day, and total water used on a monthly and annual basis in acre-feet. For years subsequent to the initial year of operation, the annual summary shall also include the yearly range and yearly average water use by source. For calculating the total water use, the term "year" will correspond to the date established for the annual compliance report submittal.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
SOIL&WATER-5: Groundwater Level Monitoring, Mitigation, and Reporting Plan. The project owner shall submit a Groundwater Level Monitoring, Mitigation, and Reporting Plan to the CPM for review and approval in advance of using onsite wells to supply groundwater for construction activities. The Groundwater Level Monitoring, Mitigation, and Reporting Plan shall provide detailed methodology for monitoring background and site groundwater levels. Monitoring shall include pre-construction, construction, and operational water use. The plan shall establish pre-construction groundwater level trends from available data that can be quantitatively used as a baseline to establish pre-Project water level trends and to subsequently compare to operational Project pumping water level data. A. ***Prior to Project Construction:*** 1. A well reconnaissance shall be conducted to investigate and document the condition of existing water supply wells as established by the groundwater model and Condition A.2 below, provided that access is granted by the well owners. The reconnaissance shall include sending notices by registered mail to all property owners for wells identified under Condition A.2 below. 2. The monitoring network for offsite wells shall be defined by the groundwater model developed for the AFC, using the lower transmissivity value derived from aquifer testing on the site, so as to provide a conservative estimate of the potential impact, and to identify the area predicted to show a water level change of one ~~foot~~ feet or more at the end of construction and at the end of operation. 3. Monitor to establish preconstruction conditions. The network of monitoring wells shall make use of existing wells in the basin that are accessible and would satisfy the requirements for the monitoring program. The monitoring network shall also include any monitoring wells that are installed to comply with Waste Discharge Requirements (see SOIL&WATER-7). Provided access is granted, additional wells located outside of the area defined by the model and Condition A.2 above will be located to serve as background monitoring wells. Abandoned wells, or wells no longer in use, that are accessible and provide reliable water level data within the potentially impacted area may also be included as part of the monitoring network. A site reconnaissance will be performed to identify wells that could be accessible for monitoring. As access to these wells is available, historic water level, water quality, well construction and well performance information shall be obtained for both pumping and non-pumping conditions. 4. As access allows, in advance of using onsite wells to supply groundwater for construction activities, groundwater levels will be measured from the off-site and on-site wells within the network and background wells to provide initial groundwater levels for pre-project trend analysis. The installation and monitoring of water levels using pressure transducers shall be done in selected wells to provide an assessment of seasonal trends. 5. Construct water level maps within the PVMGB within the area encompassed by all monitoring wells in A.1, 2, 3 and 4 above prior to construction. As data is available, the Project owner shall prepare trend plots, perform statistical analyses using the Mann-Kendall test (or other CEC-approved statistical analysis method) for trend to assess pre-project water level trends. B. ***During Construction*:** 1. Collect water levels on a quarterly basis throughout the construction period and at the end of the construction period. Perform statistical trend analysis for water levels using the Mann-Kendall test (or other CEC-approved statistical analysis method). Assess the significance of an apparent trend and estimate the magnitude of that trend.	The project owner shall do all of the following: At least 30 days in advance of using onsite wells to supply groundwater for Project construction, a Groundwater Monitoring and Reporting Plan shall be submitted to the CPM for review and approval before completion of Condition of Certification **SOIL&WATER-3** (Well Installation). The Groundwater Monitoring and Reporting Plan shall provide the methodology for monitoring background and site groundwater levels. At least 15 days in advance of using onsite wells to supply groundwater for project construction activities, the project owner shall submit to the CPM, a comprehensive report presenting all the data and information required in item A above. The CPM will provide comments to the plan following submittal. CPM approval of the plan is required prior to operation of the site groundwater supply wells. The project owner shall also submit to the CPM all calculations and assumptions made in development of the report data and interpretations. During project operation, the project owner shall submit to the CPM, applicable quarterly, semi-annual and annual reports presenting all the data and information required in item C above. Quarterly reports shall be submitted to the CPM 30 days following the end of the quarter. The fourth quarter report shall serve as the annual report and will be provided on January 31 in the following year. During project construction, the project owner shall submit to the CPM quarterly reports presenting all the data and information required in item B above. The quarterly reports shall be provided 30 days following the end of the quarter. The project owner shall also submit to the CPM all calculations and assumptions made in development of the report data and interpretations. No later than March 31 of each year of construction or 60 days prior to project operation, the project owner shall provide to the CPM for review and approval, documentation showing that any mitigation to private well owners during project construction was satisfied, based on the requirements of the property owner as determined by the CPM. During project operation, the project owner shall submit to the CPM applicable quarterly, semi-annual and annual reports presenting all the data and information required in item C above. Quarterly reports shall be submitted to the CPM 30 days following the end of the quarter. The fourth quarter report shall serve as the annual report and will be provided on January 31 in the following year. The project owner shall submit to the CPM all calculations and assumptions made in development of report data and interpretations, calculations, and assumptions used in development of any reports.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
C. ***During Operation*:** 1. On a quarterly basis for the first year of operation and semi-annually thereafter for the following four years, collect water level measurements from any wells identified in the groundwater monitoring program to evaluate operational influence from the project. Quarterly operational parameters (i.e., pumping rate) of the water supply wells shall be monitored as access allows for those wells within the monitoring network. Wells outside the network and their influence on pumping within the network shall be evaluated on a quarterly basis to understand well interference from sources of pumping outside the Project area. 2. On an annual basis, perform statistical trend analysis for water levels data and comparison to predicted water level declines due to project pumping. Analysis of the significance of an apparent trend shall be determined and the magnitude of that trend estimated. Pressure transducer data from groundwater level measuring devices will be used to assess seasonality and diurnal trends in the water level data. Based on the results of the statistical trend analyses and comparison to predicted water level declines due to project pumping, the project owner shall determine the area where the project pumping has induced a drawdown in the water supply at a level of five feet or more below the baseline trend. 3. If water levels have been lowered more than five feet below pre-site operational trends, and monitoring data provided by the project owner show these water level changes are different from background trends or other groundwater pumping and are caused by project pumping, then the project owner shall provide mitigation to the impacted well owner(s). Mitigation shall be provided to the impacted well owners that experience 5 feet or more of project-induced drawdown if the CPM's inspection of the well monitoring data confirms changes to water levels and water level trends relative to measured pre-project water levels, and the well (private owner's well in question) yield or performance has been significantly affected by project pumping. The type and extent of mitigation shall be determined by the amount of water level decline induced by the project, the type of impact, and site specific well construction and water use characteristics. If an impact is determined to be caused by drawdown from more than one source, the level of mitigation provided shall be proportional to the amount of drawdown induced by the project relative to other sources. In order to be eligible, a well owner must provide documentation of the well location and construction, including pump intake depth, and that the well was constructed and usable before project pumping was initiated. The mitigation of impacts shall be determined as follows: a. If project pumping has lowered water levels by five feet or more and increased pumping lifts, increased energy costs shall be calculated. Payment or reimbursement for the increased costs shall be provided on an annual basis. In the absence of specific electrical use data supplied by the well owner, the project owner shall use **SOIL&WATER-6** to calculate increased energy costs. b. If groundwater monitoring data indicate project pumping has lowered water levels below the top of the well screen, and the well yield is shown to have decreased by 10 percent or more of the pre-project average seasonal yield, compensation shall be provided for the diagnosis and maintenance to treat and remove encrustation from the well screen. Reimbursement shall be provided at an amount equal to the customary local cost of performing the necessary diagnosis and maintenance for well screen encrustation. Should the well yield reductions be recurring, the project owner shall provide payment or reimbursement for periodic maintenance throughout the life of the project. If with treatment the well yield is incapable of meeting 110 percent of the well owner's historic operational maximum daily demand, dry season demand, or annual demand, or the wells sustainable maximum yield demonstrated through well testing, the well owner should be compensated by reimbursement or well replacement as described under 3.c. below.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
c. If project pumping has lowered water levels to significantly impact well yield so that it can no longer meet its intended purpose, causes the well to go dry, or cause casing collapse, payment or reimbursement of an amount equal to the cost of deepening or replacing the well shall be provided to accommodate these effects. Payment or reimbursement shall be at an amount equal to the customary local cost of deepening the existing well or constructing a new well of comparable design and yield (only deeper). The demand for water, which determines the required well yield, shall be determined on a per well basis using well owner interviews, historic well operational records and well testing data, field verification of property conditions and water requirements that are compiled as part of the pre-project well reconnaissance. Well yield shall be considered significantly impacted if it is incapable of meeting 110 percent of the well owner's historical operational maximum daily demand, dry-season demand, or annual demand as documented by the pre-project historical operational records or 100 percent of the maximum sustainable well yield as provided in historic well testing data. If historic well testing data indicates the capacity of the well is higher than the operational data suggests, the well shall be operated for a sufficient period of time acceptable to the CPM, project owner and well owner to demonstrate that its maximum sustainable yield has been impacted solely by the project pumping. If by comparison the well is incapable of meeting 100 percent of the historic maximum sustainable yield demonstrated by the testing, and the reduction in capacity is solely related to the project pumping, the well owner shall be compensated for the lost capacity. Compensation for lost capacity in lieu of well replacement shall be in the form of a lump sum payment equal to the cost of deepening the well to a depth sufficient to return the well yield to its maximum sustainable yield. d. The project owner shall notify any owners of the impacted wells within one month of the CPM approval of the compensation analysis for increased energy costs. e. Pump lowering – In the event that groundwater is lowered as a result of project pumping to an extent where pumps are exposed but well screens remain submerged the pumps shall be lowered to maintain production in the well. The project shall reimburse the impacted well owner for the costs associated with lowering pumping in proportion to the project contribution to the impact. f. Deepening of wells – If the groundwater is lowered enough as a result of project pumping that well screens and/or pump intakes are exposed, and pump lowering is not an option, such affected wells shall be deepened or new wells constructed. The project shall reimburse the impacted well owner for all costs associated with deepening existing wells or construction of a new well in proportion to the project contribution to the impact. 4. After the first five-year operational and monitoring period the CPM shall evaluate the data and determine if the monitoring program for water level measurements should be revised or eliminated. Revision or elimination of any monitoring program elements shall be based on the statistically verifiable datasets and trend analysis. The determination of whether the monitoring program should be revised or eliminated shall be made by the CPM. 5. If mitigation includes monetary compensation, the project owner shall provide documentation to the CPM that compensation payments have been made by March 31 of each year of project operation. Within 30 days after compensation is paid, the project owner shall submit to the CPM a compliance report describing compensation for increased energy costs necessary to comply with the provisions of this Condition.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
6. At the end of every subsequent five-year monitoring period, the collected data shall be evaluated by the CPM and they shall determine if the sampling frequency should be revised or eliminated. 7. During the life of the project, the project owner shall provide to the CPM all monitoring reports, complaints, studies and other relevant data within 10 days of being received by the project owner.	
SOIL&WATER-6 Where it is determined that the project owner shall reimburse a private well owner for increased energy costs identified as a result of analysis performed in Condition of Certification **SOIL&WATER-5,** the project owner shall calculate the compensation owed to any owner of an impacted well as described below. *Increased cost for energy* = change in lift/total system head x total energy consumption x costs/unit of energy Where: change in lift (ft) = calculated change in water level in the well resulting from project total system head (ft) = elevation head + discharge pressure head elevation head (ft) = difference in elevation between wellhead discharge pressure gauge and water level in well during pumping. discharge pressure head (ft) = pressure at wellhead discharge gauge (psi) X 2.31 The project owner shall submit to the CPM for review and approval the documentation showing which well owners must be compensated for increased energy costs and that the proposed amount is sufficient compensation to comply with the provisions of this Condition. •1. Any reimbursements to impacted well owners shall be only to those well owners whose wells were in service within six months of the Energy Commission Decision and within the monitoring area predicted by the groundwater modeling Condition A.2. •2. The project owner shall notify all owners of the impacted wells within one month of the CPM approval of the compensation analysis for increase energy costs. •3. Compensation shall be provided on an annual basis, as described below. 4. Compensation provided on an annual basis shall be calculated prospectively for each year by estimating energy costs that will be incurred to provide the additional lift required as a result of the project. With the permission of the impacted well owner, the project owner shall provide energy meters for each well or well field affected by the project. The impacted well owner to receive compensation must provide documentation of energy consumption in the form of meter readings or other verification of fuel consumption. For each year after the first year of operation, the project owner shall include an adjustment for any deviations between projected and actual energy costs for the previous calendar year.	The project owner shall do all of the following: No later than 30 days after CPM approval of the well drawdown analysis, the project owner shall submit to the CPM for review and approval all documentation and calculations describing necessary compensation for energy costs associated with additional lift requirements. The project owner shall submit to the CPM all calculations, along with any letters signed by the well owners indicating agreement with the calculations, and the name and phone numbers of those well owners that do not agree with the calculations. Compensation payments shall be made by March 31 of each year of project operation. Within 30 days after compensation is paid, the project owner shall submit to the CPM a compliance report describing compensation for increased energy costs necessary to comply with the provisions of this Condition.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
SOIL&WATER-7: Waste Discharge Requirements. The project owner shall comply with the requirements specified in ~~**Appendix**~~ **Appendices B, C, and D**. These requirements relate to discharges, or potential discharges, of waste that could affect the quality of waters of the state, and were developed in consultation with staff of the State Water Resources Control Board and/or the applicable California Regional Water Quality Control Board (hereafter "Water Boards"). It is the Commission's intent that these requirements be enforceable by both the Commission and the Water Boards. In furtherance of that objective, the Commission hereby delegates the enforcement of these requirements, and associated monitoring, inspection and annual fee collection authority, to the Water Boards. Accordingly, the Commission and the Water Board shall confer with each other and coordinate, as needed, in the enforcement of the requirements. The project owner shall pay the annual waste discharge permit fee associated with this facility to the Water Boards. In addition, the Water Boards may "prescribe" these requirements as waste discharge requirements pursuant to Water Code Section 13263 solely for the purposes of enforcement, monitoring, inspection, and the assessment of annual fees, consistent with Public Resources Code Section 25531, subdivision (c)	No later than 60 days prior to any wastewater or storm water discharge or use of land treatment units, the project owner shall provide documentation to the CPM, with copies to the CRBRWQCB, demonstrating compliance with the WDRs established in **Appendices B, C, and D**. Any changes to the design, construction, or operation of the evaporation basins, land treatment units, or storm water system shall be requested in writing to the CPM, with copies to the CRBRWQCB, and approved by the CPM, in consultation with the CRBRWQCB, prior to initiation of any changes. The project owner shall provide to the CPM, with copies to the CRBRWQCB, all monitoring reports required by the WDRs, and fully explain any violations, exceedances, enforcement actions, or corrective actions related to construction or operation of the evaporation basins, treatment units, or storm water system.
SOIL&WATER-8: Septic System and Leach Field Requirements. The project owner shall comply with the requirements of the County of Riverside Ordinance Code Title 8, Chapter 8.124 and the California Plumbing Code (California Code of Regulations Title 24, Part 5) regarding sanitary waste disposal facilities such as septic systems and leach fields. The septic system and leach fields shall be designed, operated, and maintained in a manner that ensures no deleterious impact to groundwater or surface water. Compliance shall include an engineering report on the septic system and leach field design, operation, maintenance, and loading impact to groundwater. If it is determined based on the engineering report that groundwater may be impacted, the project owner shall include a groundwater quality monitoring program. This program can utilize monitoring wells (if appropriate) used as part of groundwater monitoring in Condition of Certification **SOIL&WATER-7**. The engineering report will specify the proposed groundwater monitoring program (if required), constituents of concern, monitoring frequency and other elements as needed as part of any groundwater monitoring program.	The project owner shall submit all necessary information and the appropriate fee to the County of Riverside and the CRBRWQCB to ensure that the project has complied with county and state sanitary waste disposal facilities requirements. Written assessments prepared by the County of Riverside and the CRBRWQCB regarding the project's compliance with these requirements must be submitted to the CPM for review and approval 30 days prior to the start of power plant operation.
SOIL&WATER-9: Groundwater Production Reporting. The project is subject to the requirement of Water Code Sections 4999 et. seq. for reporting of groundwater production in excess of 25 acre feet per year.	The project owner shall file an annual "Notice of Extraction and Diversion of Water" with the SWRCB in accordance with Water Code Sections 4999 et. seq. The project Owner shall include a copy of the filing in the annual compliance report.
SOIL&WATER-10: The project owner will prepare both a Provisional Closure Plan and a Final Closure Plan that will meet the requirements of the BLM. The project owner shall identify likely closure scenarios and develop facility closure plans in accordance with **COM-15** "Facility Closure Plans" of the General Conditions. Actions to be taken to avoid or mitigate long-term impacts related to water and wind erosion after the facility's closure need to be identified. Actions may include such measures as a facility closure SWPPP, revegetation and restoration of disturbed areas, post-closure maintenance, collection and disposal of project materials and chemicals, and access restrictions.	One (1) year after initiating commercial operation, the project owner must submit a Provisional Closure Plan and cost estimate for permanent closure to the CPM for review and approval. Three (3) years prior to closing, the owner must submit a Final Closure Plan to the CPM for review and approval. The project owner shall amend these documents as necessary, with approval from the CPM, should the facility closure scenario change in the future.
SOIL&WATER-11: Revised Project Drainage Report and Plans. The project owner shall provide a revised Drainage Report which includes the following additional information: A. A detailed explanation of the large differences in pre- and post-project peak discharges and flood volumes along the downstream (east) project boundary. B. Pre- and post development drainage maps which include the following information: 1. All topographic data used to establish the overall watershed boundaries as well as the sub-basin boundaries.	The project owner shall submit a Revised Project Drainage Report with the 30 percent Grading and Drainage Plans to the CPM for their review and comments sixty (60) days before project mobilization. The project owner will address comments provided by the CPM until approval of the report is issued. All comments and concepts presented in the approved Revised Project Drainage Report with the 30 percent Grading and Drainage Plans will be included in the final Grading and Drainage Plans. The Revised Project Drainage Report and 30 percent Grading and Drainage Plans shall be approved by the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
2. A specific discussion of how the proposed onsite drainage design will protect the facility from erosion. 3. Peak flow values at all downstream points of discharge from the Project. Any other information needed to allow a correlation between the FLO-2D model and the proposed drainage design.	
SOIL&WATER-12: Detailed FLO-2D Analysis. The project owner shall provide a detailed hydraulic analysis utilizing FLO-2D which models pre- and post-development flood conditions for the 10-, 25- and 100-year storm events. The methods and results of the analysis shall be fully documented in a Technical Memorandum or in the revised Project Drainage Report. Graphical output must include depth and velocity mapping as well as mapping which graphically shows the changes in both of these parameters between the pre- and post development conditions. Color shading schemes used for the mapping must be consistent between all maps as well as clear and easily differentiated between designated intervals for hydraulic parameters. Intervals to be used in the mapping are as follows: 1. Flow Depth: at 0.20 ft intervals up to 1 ft, and 0.40 ft intervals thereafter. 2. Velocity: 0.5 ft/s intervals Digital input and output files associated with the FLO-2D analysis must be included with all submittals. The results of this analysis will be used for design of the 30 percent project grading and drainage plans.	The project owner shall submit a detailed FLO-2D analysis to the CPM for review and comments with the 30 percent plan Grading and Drainage Plans and revised Project Drainage Report required in **SOIL&WATER-11**. The project owner will address comments provided by the CPM until approval of the analysis is issued.
SOIL&WATER-13 through SOIL&WATER-15 (deleted)	
SOIL&WATER-16: Estimation Of Surface Water Impacts. To further assess the impacts from project pumping, the project owner shall estimate the increase in discharge from surface water to groundwater that affects recharge from the Palo Verde Valley Groundwater Basin (USGS) to the Palo Verde Mesa Groundwater Basin (USGS). This estimate may be used for determining the appropriate offset volume in accordance with **SOIL&WATER-2**. The project owner shall do the following to provide an estimate for review and approval by the CPM: 1. The project owner shall conduct a detailed analysis of the contribution of surface water to the PVMGB from the project's groundwater extraction activities at the end of the 30 year operational period. The detailed analysis shall include: a. The conceptual model developed in the AFC and the Staff Assessment, and any changes resultant from further analysis in support of numerical modeling; b. The use of an appropriately calibrated and constructed groundwater flow model of the Palo Verde Valley and Palo Verde Mesa Groundwater Basin, inclusive of the Mesa and floodplain shall include: i. Horizontal and vertical geometry information gained through on- and offsite investigations conducted as part of the hydrogeological field investigations for the AFC, and any subsequently documented investigation performed as part of the model development ; ii. Aquifer properties developed as part of the AFC and any subsequently documented investigations performed as part of the model development, and an assessment of aquifer properties available from other published sources. The properties used shall be representative of the available data, and will be used in calibration of the flow model under ASTM standards and methods.; and	At least 90 days prior to initiation of groundwater pumping for grading activities, the project owner shall submit to the CPM for their review and approval a report detailing the results of the modeling effort. The report shall include the estimated amount of subsurface water flowing from the surface water due to project pumping. This estimate shall be used for determining the appropriate volume of water for mitigation in accordance with **SOIL&WATER-2**.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
iii. The modeling effort shall include a sensitivity analysis where in the most sensitive variables will be identified and varied within a reasonable range outside of the calibration value to provide an assessment of the range of potential impacts from the project pumping on the recharge from the Palo Verde Valley Groundwater Basin to the Palo Verde Mesa Groundwater Basin. c. Reporting of the results of the modeling effort. d. Estimation of the increased contribution of surface water discharge to groundwater and the change in recharge to the Palo Verde Mesa Groundwater Basin attributable to project groundwater pumping. 2. The analysis shall include the following elements: a. The change in groundwater flux to the regional aquifer from surface water sources attributable to project pumping in afy for the life of the project (30 years) until pre-project (within 95 percent) conditions are achieved; b. A sensitivity analysis that would provide a range in the potential changes in flux relative to variation in the key model variables as a result of project pumping for life of the project until pre-project (within 95 percent) conditions are achieved; 3. The project owner shall present the results of the conceptual model, numerical model, transient runs and sensitivity analysis in a report for review and approval by the CPM. The report shall include all pertinent information regarding the development of the numerical models. The report shall include: a. Introduction b. Previous Investigations c. Conceptual Model d. Numerical Model and Input Parameters e. Sensitivity Analysis f. Transient Modeling Runs g. Conclusions	
SOIL&WATER-17 and SOIL&WATER-18 (deleted)	
SOIL&WATER-19: The project owner shall reduce impacts caused by large storms by ensuring solar panels, drainage washes that will have solar panels, and perimeter fencing are designed to accommodate the 100-year storm event, establishing ongoing maintenance and inspection of storm water controls, and implementing a response plan to clean up damage and address ongoing issues. The project owner shall ensure that the solar panels, drainage washes that will have solar panels are designed and installed to accommodate storm water scour that may occur as a result of a 100-year, 24-hour storm event. The analysis of the storm event and resulting pylon stability shall be provided within a Pylon Insertion Depth and Solar Panel Stability Report to be completed by the project owner. This analysis shall incorporate results from site-specific geotechnical stability testing, as well as hydrologic and hydraulic storm water modeling performed by the project owner. The modeling shall be completed using methodology and assumptions approved by the CPM.	At least sixty (60) days prior to installation of the first pylon, the project owner shall submit to the CPM a copy of the Pylon Insertion Depth and Solar Panel Stability Report for review and approval prior to construction. At least sixty (60) days prior to commercial operation, the project owner shall submit to the CPM a copy of the Storm Water Damage Monitoring and Response Plan for review and approval prior to commercial operation. The project owner shall retain a copy of this plan onsite at all times. The project owner shall prepare an annual summary of the number of solar panels that fail due to damage, cause and extent of the damage, and cleanup and mitigation performed for each damaged solar panel. The annual summary shall also

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
The project owner shall also develop a Storm Water Damage Monitoring and Response Plan to evaluate potential impacts from storm water, including damage to drainage washes, perimeter fencing, and solar panel supports that fail due to storm water flow or otherwise break and scatter panel debris or other potential pollutants on to the ground surface. The basis for determination of pylon embedment depths shall employ a step-by-step process as identified below and approved by the CPM: A. Determination of peak storm water flow within each sub-watershed from a 100-year event: ~~1.~~ • Use of *Riverside County Flood Control and Water Conservation District Hydrology Manual (Riverside County Manual) or other methodologies approved by the CPM* to specify hydrologic parameters to use in calculations; and ~~2.~~ • Flo-2D model (or other approved models) must be developed to calculate storm flows from the mountain watersheds upstream of the project site, and flood flows at the project site, based upon hydrologic parameters from Riverside County. B. Determination of potential total pylon scour depth: • ~~1.~~ Potential channel erosion depths must be determined using the calculated design flows, as determined in A above, combined with Flo-2D to model onsite sediment transport. ~~2.~~ • Potential local scour must be determined using the calculated design flows, as determined in A above, combined with the Federal Highway Administration (FHWA) equation for local bridge pier scour from the FHWA 2001 report, "Evaluating Scour at Bridges" or other similar methodologies approved by the CPM. C. The results of the scour depth calculations and pylon stability testing must be used to determine the minimum necessary pylon embedment depth within the active channels. In the inactive portions of the alluvial fans that are not subject to channel erosion and local scour, the minimum pylon embedment depths must be based on the results of the pylon stability testing. D. The results of the calculated peak storm water flows and channel erosion and pylon scour analysis together with the recommended pylon installation depths shall be submitted to the CPM for review and approval sixty (60) days prior to the start of solar panel installation. The Storm Water Damage Monitoring and Response Plan shall be submitted to the CPM for review and approval and shall include the following: • ~~1.~~ Detailed maps showing the installed location of all solar panels within each project phase; • ~~2.~~ Description of the method of removing all soil spoils should any be generated; • ~~3.~~ Each solar panel should be identified by a unique ID number marked to show initial ground surface at its base, and the depth of the pylon below ground; ~~4.~~ • Minimum Depth Stability Threshold to be maintained ~~of~~ at pylons to ensure long-term stability under applicable wind, water (flowing and static), and debris loading effects;	report on the effectiveness of the modified drainage washes against storms, including information on the damage and repair work or associated erosion control elements. The project owner shall submit proposed changes or revisions to the Storm Water Damage Monitoring and Response Plan to the CPM for review and approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Soil and Water Resources (cont.)	
•~~5.~~ Above and below ground construction details of a typical installed solar panel; •~~6.~~ BMPs to be employed to minimize the potential impact of broken panels to soil resources; •~~7.~~ Methods and response time of panel cleanup and measures that may be used to mitigate further impact to soil resources from broken fragments; and •~~8.~~ Monitoring, documenting, and restoring the adjacent offsite downstream property when impacted by sedimentation or broken panel shards. A plan to monitor and inspect periodically, before first seasonal and after every storm event: •~~1~~. Security and Tortoise Exclusion Fence: Inspect for damage and buildup of sediment or debris •~~2~~. Solar panels within drainages or subject to drainage overflow or flooding: Inspect for tilting, mirror damage, depth of scour compared to pylon depth below ground and the Minimum Depth Stability Threshold, collapse, and downstream transport. •~~3~~. Drainage washes: Inspect for substantial migration or changes in depth, and transport of broken panels. •~~4~~. Adjacent offsite downstream property: Inspect for changes in the surface texture and quality from sediment buildup, erosion, or broken panels. Short-Term Incident-Based Response: •~~1~~. Security and Tortoise Exclusion Fence: repair damage, and remove built-up sediment and debris. •~~2~~. Solar panels: Remove broken panels, damaged structure, and damaged wiring from the ground, and for pylons no longer meeting the Minimum Depth Stability Threshold, either replace/reinforce or remove the panels to avoid exposure to broken glass. •~~3~~. Drainage washes: no short-term response necessary unless changes indicate risk to facility structures. Long-Term Design-Based Response: •~~1~~. Propose operation/BMP modifications to address ongoing issues. Include proposed changes to monitoring and response procedures, frequency, or standards. •~~2~~. Replace/reinforce pylons no longer meeting the Minimum Depth Stability Threshold or remove the panels to avoid impacts from broken panels. •~~3~~. Propose design modifications to address ongoing issues. This may include construction of active storm water management diversion channels and/or detention ponds. Inspection, short-term incident response, and long-term design based response may include activities both inside and outside of the project boundaries. For activities outside of the project boundaries the owner shall ensure all appropriate environmental review and approval has been completed before field activities begin.	

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Traffic and Transportation	
TRANS-1: Parking and Staging. Prior to start of construction of the BSPP and all related facilities, the project owner shall develop and implement a parking and staging plan for all phases of project construction to ensure that all project-related parking occurs on-site or in designated off-site parking areas.	At least 60 days prior to start of site mobilization, the project owner shall submit the plan to the County of Riverside, City of Blythe, and BLM Operations Manager for review and comment, and to the CPM for review and approval. The requirements outlined in this Condition of Certification shall be coordinated with requirements outlined in Condition of Certification **TRANS-3**.
TRANS-2: Traffic Control Plan. Prior to start of construction of the Blythe Solar Power Project (BSPP) the project owner shall prepare and implement a Traffic Control Plan (TCP) for the Blythe Solar Power Project construction and operation traffic. The TCP shall address the movement of workers, vehicles, and materials, including arrival and departure schedules, and designated workforce and delivery routes. The project owner shall consult with the County of Riverside and the Department of Transportation (Caltrans) District 8 office in the preparation and implementation of the Traffic Control Plan and shall submit the proposed Traffic Control Plan to the County of Riverside and the Department of Transportation (Caltrans) District 8 office in sufficient time for review and comment and to the Energy Commission Compliance Project Manager (CPM) for review and approval prior to the proposed start of construction and implementation of the plan. The project owner shall provide a copy of any written comments from the County of Riverside and the Department of Transportation (Caltrans) District 8 office and any changes to the Traffic Control Plan to the CPM prior to the proposed start of construction. The Traffic Control Plan shall include: • ~~1.~~ A work schedule and end-of-shift departure plan designed to ensure that stacking does not occur on intersections necessary to enter and exit the project sites. The project owner shall consider using one or more of the following measures designed to prevent stacking: staggered work shifts, off-peak work schedules as well as restricting travel to and departures from each project site to 10 or fewer vehicles every three minutes during peak travel hours on Interstate 10. The project owner may use any of the above traffic measures or any other measures if the project owner can demonstrate that the implemented measures would ensure that Interstate 10 operates at a Level of Service (LOS) C or higher during the peak travel hours. • ~~2.~~ Provisions for an incentive program such as an employer-sponsored Commuter Check Program to encourage construction workers to carpool and/or use van or bus service. • ~~3.~~ Limitation on truck deliveries to the project sites to only off-peak hours to ensure adequate exit and entry at appropriate intersections. • ~~4.~~ Provisions for redirection of construction traffic with a flag person as necessary to ensure traffic safety and minimize interruptions to non-construction-related traffic flow. • ~~5.~~ Placement of signage, lighting, and traffic control device at the project construction site and laydown areas.	At least 60 calendar days prior to the start of construction, including any grading or site remediation on the power plant site or its associated easements, the project owner shall submit the proposed traffic control plan to the County of Riverside and the Department of Transportation (Caltrans) District 8 office for review and comment and to the CPM for review and approval. The project owner shall also provide the CPM with a copy of the transmittal letter to the County of Riverside and the Department of Transportation (Caltrans) District 8 office requesting review and comment. At least 30 calendar days prior to the start of construction, the project owner shall provide copies of any comment letters received from either the County of Riverside and the Department of Transportation (Caltrans) District 8 office, along with any changes to the proposed traffic control plan to the CPM for review and approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Traffic and Transportation (cont.)	
•~~6.~~ Signage along eastbound and westbound appropriate roads and at the entrance of each of the I-10 northbound and southbound off-ramps at appropriate roads notifying drivers of construction traffic throughout the duration of the construction period. •~~7.~~ A heavy-haul plan designed to address the transport and delivery of heavy and oversized loads requiring permits from Department of Transportation (Caltrans) or other state and federal agencies. •~~8.~~ Parking for workforce and construction vehicles. •~~9.~~ Emergency vehicle access to the project site.	
TRANS-3: Limitations on Vehicle Size and Weight. The project owner shall comply with limitations imposed by Caltrans District 8 office and other relevant jurisdictions including County of Riverside and City of Blythe on vehicle sizes and weights. In addition, the project owner or its contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for use of roadways.	At least 30 calendar days prior to the start of construction, the project owner shall provide copies of permits obtained from either the County of Riverside or the Caltrans District 8 office to the CPM. In the Monthly Compliance Reports (MCRs), the project owner shall submit copies of any permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.
TRANS-4: Encroachment into Public Rights of Way. The project owner or its contractor shall comply with Caltrans and other relevant jurisdictions' limitations for encroachment into public rights-of-way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.	In the monthly compliance reports (MCRs), the project owner shall submit copies of permits received during the reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.
TRANS-5: Restoration of All Public Roads, Easements, and Rights-of-Way. The project owner shall restore all public roads, easements, and rights-of-way that have been damaged due to project-related construction activities to original or near-original condition in a timely manner, as directed by the CPM, in consultation with the County of Riverside. Repairs and restoration of access roads may be required at any time during the construction phase of the project to assure ~~safe ingress and egress~~public safety. Prior to the start of site mobilization, the project owner shall consult with the County of Riverside and Caltrans District 8 and notify them of the proposed schedule for project construction. The purpose of this notification is to request that the County of Riverside and Caltrans consider postponement of public right-of-way repair or improvement activities in areas affected by project construction until construction is completed and to coordinate with the project owner regarding any concurrent construction-related activities that are planned or in progress and cannot be postponed.	At least 30 days prior to the start of mobilization, the project owner shall photograph or videotape all affected public roads, easements, and right-of-way segments and/or intersections and shall provide the CPM, the affected local jurisdictions and Caltrans (if applicable) with a copy of these images. The project owner shall rebuild, repair and maintain all public roads, easements, rights-of-way in a usable condition throughout the construction phase of the project. Within 60 calendar days after completion of construction, the project owner shall meet with the CPM, the County of Riverside and Caltrans District 8 to identify sections of public right-of-way to be repaired. At that time, the project owner shall establish a schedule to complete the repairs and to receive approval for the action(s). Following completion of any public right-of-way repairs, the project owner shall provide a letter signed by the County of Riverside and Caltrans District 8 stating their satisfaction with the repairs to the CPM.
TRANS-6: Securing Permits/Licenses to Transport Hazardous Materials. The project owner shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of hazardous materials.	The project owner shall include in its Monthly Compliance Reports, copies of all permits/licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous substances.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Traffic and Transportation (cont.)	
TRANS-7 (Deleted)	
TRANS-8 : Prior to the start of operation of any phase of the project, the project owner shall prepare an Avigation Easement in accordance with Appendix D of the California Airport Land Use Planning Handbook and have it signed by the Bureau of Land Management.	At least 60 days prior to the start of construction, the project owner shall submit a BLM-signed avigation easement to the CPM for review and approval. Once approved by the CPM, applicant shall send the Avigation Easement to the Riverside County Land Use Commission staff for review and recording purposes. Once recorded, applicant shall send a copy of the recorded document to the CPM.
TRANS-9 (Deleted)	
TRANS-10: Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related glare complaints. The project owner or authorized agent shall: •1. Use the Complaint Resolution Form (below), or functionally equivalent procedure acceptable to the CPM, to document and respond to each complaint. •2. Attempt to contact the person or persons making the complaint within 24 hours. If not contacted within 24 hours, attempt to contact the person or persons for a reasonable time period, to be determined by the CPM. •3. Conduct an investigation to determine the source of glare related to the complaint. •4. If the glare is project related, take all feasible measures to reduce the glare at its source. As soon as the complaint has been resolved to the complainant's satisfaction, submit to the CPM a report in which the complaint as well as the actions taken to resolve the complaint are documented. The report shall include (1) a complaint summary, including the name and address of the complainant; (2) final results of glare reduction efforts; and (3) a signed statement by the complainant, if obtainable, in which complainant states that the glare problem is resolved to his or her satisfaction.	Within five business days of receiving a glare complaint, the project owner shall file with the City of Blythe Development Services Department, the Riverside County Planning Department, and the CPM a copy of the Glare Complaint Resolution Form, documenting the resolution of the complaint. If mitigation is required to resolve a complaint and the complaint is not resolved within three business days, the project owner shall submit an updated Glare Complaint Resolution Form when the mitigation is implemented.
TRANS-11: Prior to the start of construction of the transmission line, the project owner shall submit a plan identifying measures to be taken to mark and light the lines and poles beneath runway approaches, typical pattern entry corridors, and typical departure routes pursuant to criteria included in FAAC 70/7460-1K. The plan shall identify the number and location of poles that are subject to the criteria and the exact measures to be taken to properly mark and light the poles in conformance with FAAC 70/7460.	At least 30 days prior to the start of transmission line mobilization, the project owner shall provide a construction plan for review and approval. Once the plan has been approved and implemented, the project owner shall provide documentation showing completion of the transmission line, including the required marking and lighting measures.
TRANS-12: The project owner shall use textured glass or anti-reflective coating on all photovoltaic (PV) solar panels.	At least 30 days prior to construction of PV panels, the project owner shall provide documentation that textured glass or anti-reflective coating will be used on all PV solar panels.
TRANS-13: The project owner shall construct all exposed PV panel support structures with matte or non-reflective surfaces.	At least 30 days prior to installation of PV panel supports, the project owner shall provide documentation showing that matte or non-reflective surfaces will be used on all PV panel support structures. matt or burnished surfaces on all PV solar panels.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Visual Resources	
VIS-1: Surface Treatment of Project Structures and Buildings: The project owner shall treat the surfaces of all project structures and buildings visible to the public such that: a) their colors minimize visual intrusion and contrast by blending with (matching) the existing characteristic landscape colors; b) their colors and finishes do not create excessive glare; and (c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non- specular and non-reflective, and the insulators shall be non-reflective and non-refractive. Following in-field consultation with the Energy Commission/BLM Visual Resources specialist and other representatives as deemed necessary, the project owner shall submit for Compliance Project Manager (CPM) review and approval, a specific Surface Treatment Plan that will satisfy these requirements. The treatment plan shall include: A A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes based on the characteristic landscape. Colors will be field tested using the actual distances from the KOPs to the proposed structures, using the proposed colors painted on representative surfaces; B A list of each major project structure, building, tank, pipe, and wall; the transmission line towers and/or poles; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and pantone number; or according to a universal designation system; C One set of color brochures or color chips showing each proposed color and finish; D A specific schedule for completion of the treatment; and E A procedure to ensure proper treatment maintenance for the life of the project. The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated in the field, until the project owner receives notification of approval of the treatment plan by the CPM. Subsequent modifications to the treatment plan are prohibited without CPM approval.	At least 90 days prior to specifying to the vendor the colors and finishes of the first structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to the CPM for review and approval and simultaneously to Riverside County for review and comment. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a plan with the specified revision(s) for review and approval by the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to the CPM for approval. Prior to the start of commercial operation, the project owner shall notify the CPM that surface treatment of all listed structures and buildings has been completed and they are ready for inspection and shall submit to each one set of electronic color photographs from the project KOPs. The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify a): the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of major maintenance activities for the next year.
VIS-2: Revegetation of Disturbed Soil Areas. The project owner shall revegetate disturbed soil areas to the greatest practical extent, as described in Condition of Certification **BIO-8**. In order to address specifically visual concerns, the required closure, Revegetation and Rehabilitation Plan shall include reclamation of the area of disturbed soils used for laydown, project construction, and siting of the other ancillary operation and support structures.	Refer to Condition of Certification **BIO-8**.
VIS-3: Temporary and Permanent Exterior Lighting. To the extent feasible, consistent with safety and security considerations, the project owner shall design and install all permanent exterior lighting and all temporary construction lighting such that a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; b) lighting does not cause excessive reflected glare; c) direct lighting does not illuminate the nighttime sky, except for required FAA aircraft safety lighting d) illumination of the project and its immediate vicinity is minimized, and e) the plan complies with local policies and ordinances. The project owner shall submit to the CPM for review and approval and simultaneously to the County of Riverside for review and comment a lighting mitigation plan that includes the following: A. Location and direction of light fixtures shall take the lighting mitigation requirements into account;	At least 90 days prior to ordering any permanent exterior lighting or temporary construction lighting, the project owner shall contact the CPM to discuss the documentation required in the lighting mitigation plan. At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and simultaneously to the County of Riverside for review and comment a lighting mitigation plan. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a revised plan for review and approval by the CPM. The project owner shall not order any exterior lighting until receiving CPM approval of the lighting mitigation plan.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Visual Resources (cont.)	
B. Lighting design shall consider setbacks of project features from the site boundary to aid in satisfying the lighting mitigation requirements; C. Lighting shall incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated; D. Light fixtures that are visible from beyond the project boundary shall have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security; E. All lighting shall be of minimum necessary brightness consistent with operational safety and security; and F. Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied.	Prior to commercial operation, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection. If after inspection, the CPM notifies the project owner that modifications to the lighting are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify the CPM that the modifications have been completed and are ready for inspection. Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation. The project owner shall notify the CPM within 48 hours after completing implementation of the proposal. A copy of the complaint resolution form report shall be submitted to the CPM within 30 days.
VIS-4: Project Design. To the extent possible, the project owner will use proper design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and location; reduction of visibility; repetition of form, line, color (see **VIS-1**) and texture of the landscape; and reduction of unnecessary disturbance. Design strategies to address these fundamentals will be based on the following factors: **Earthwork:** Select locations and alignments that fit into the landforms to minimize the size of cuts and fills. Avoid hauling in or hauling out of excess earth cut or fill. Avoid rounding and/or warping slopes. Retain existing rock formations, vegetation, and drainage. Tone down freshly broken rock faces with emulsions or stains. Use retaining walls to reduce the amount and extent of earthwork. Retain existing vegetation by using retaining walls or fill slopes, reducing surface disturbance, and protecting roots from damage during excavations. Avoid soil types that generate strong color contrasts. Reduce dumping or sloughing of excess earth and rock on downhill slopes. **Vegetation Manipulation:** Retain as much of the existing vegetation as possible. Use existing vegetation to screen the development from public viewing. Use scalloped, irregular cleared edges to reduce line contrast. Use irregular clearing shapes to reduce form contrast. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes. **Structures:** Minimize the number of structures and combine different activities in one structure. Use natural, self-weathering materials and chemical treatments on surfaces to reduce color contrast. Bury all or part of the structure. Use natural appearing forms to complement the characteristic landscape. Screen the structure from view by using natural land forms and vegetation. Reduce the line contrast created by straight edges. **Linear Alignments:** Use existing topography to hide induced changes associated with roads, lines, and other linear features. Select alignments that follow landscape contours. Avoid fall-line cuts and bisecting ridge tops. Hug vegetation lines and avoid open areas such as valley bottoms. Cross highway corridors at less sharp angles. **Reclamation and Restoration:** Reduce the amount of disturbed area and blend the disturbed areas into the characteristic landscape. Replace soil, brush, rocks, and natural debris over disturbed area. Newly introduced plant species should be of a form, color, and texture that blends with the landscape.	As early as possible in the site and facility design, the project owner shall meet with BLM's Authorized Office and the CPM to discuss incorporation of these above factors into the design plans. At least 90 days prior to final site and facility design, the project owner shall contact the CPM to review the incorporation of the above factors into the final facility and site design plans. If the CPM determines that the site and facility plans require revision, the project owner shall provide to the CPM a revised plan for review and approval by the CPM.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Waste Management	
WASTE-1: The project owner shall prepare a UXO Identification, Training and Reporting Plan to properly train all site workers in the recognition, avoidance and reporting of military waste debris and ordnance. The project owner shall submit the plan to the CPM for review and approval prior to the start of construction. The plan shall contain, at a minimum, the following: 1. A description of the training program outline and materials, and the qualifications of the trainers; and 2. Identification of available trained experts that will respond to notification of discovery of any ordnance (unexploded or not); and 3. Work plan to recover and remove discovered ordnance, and complete additional field screening, possibly including geophysical surveys to investigate adjacent areas for surface, near surface or buried ordnance in all proposed land disturbance areas. The project owner shall provide documentation of the plan and provide survey results to the CPM.	The project owner shall submit the UXO Identification, Training and Reporting Plan to the CPM for approval no less than 30 days prior to the initiation of construction activities at the site. The results of geophysical surveys shall be submitted to the CPM within 30 days of completion of the surveys.
WASTE-2: The project owner shall provide the résumé of an experienced and qualified Professional Engineer or Professional Geologist to the CPM for review and approval. The résumé shall show experience in remedial investigation and feasibility studies. This Professional Engineer or Professional Geologist shall be available during site characterization (if needed), excavation, grading, and demolition activities. The Professional Engineer or Professional Geologist shall be given authority by the project owner to oversee any earth-moving activities that have the potential to disturb contaminated soil and impact public health, safety, and the environment.	At least 30 days prior to the start of site mobilization the project owner shall submit the resume to the CPM for review and approval.
WASTE-3: If potentially contaminated soil is identified during site characterization, excavation, grading, or demolition at either the proposed site or linear facilities—as evidenced by discoloration, odor, detection by handheld instruments, or other signs—the Professional Engineer or Professional Geologist shall inspect the site; determine the need for sampling to confirm the nature and extent of contamination; and provide a written report to the project owner, representatives of Department of Toxic Substances Control (DTSC) or Regional Water Quality Control Board (RWQCB), the ~~Compliance Project Manager (~~CPM~~)~~ stating the recommended course of action. Depending on the nature and extent of contamination, the Professional Engineer or Professional Geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If in the opinion of the Professional Engineer or Professional Geologist significant remediation may be required, the project owner shall contact the CPM, and representatives of the DTSC or RWQCB for guidance and possible oversight.	The project owner shall submit any reports filed by the Professional Engineer or Professional Geologist to the CPM within 5 days of their receipt. The project owner shall notify the CPM within 24 hours of any orders issued to halt construction.
WASTE-4: The project owner shall submit a Construction Waste Management Plan to the CPM for review and approval prior to the start of construction. The plan shall contain, at a minimum, the following: • ~~1.~~ a description of all construction waste streams, including projections of frequency, amounts generated and hazard classifications; • ~~2.~~ a survey of structures to be demolished that identifies the types of waste to be managed; and • ~~3.~~ management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods, and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.	The project owner shall submit the Construction Waste Management Plan to the CPM for approval no less than 30 days prior to the initiation of construction activities at the site.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Waste Management (cont.)	
WASTE-5: The project owner shall obtain a hazardous waste generator identification number from the United States Environmental Protection Agency (USEPA) prior to generating any hazardous waste during project construction and operations.	The project owner shall keep a copy of the identification number on file at the project site and provide documentation of the hazardous waste generation and notification and receipt of the number to the CPM in the next scheduled Monthly Compliance Report after receipt of the number. Submittal of the notification and issued number documentation to the CPM is only needed once unless there is a change in ownership, operation, waste generation, or waste characteristics that requires a new notification to USEPA. Documentation of any new or revised hazardous waste generation notifications or changes in identification number shall be provided to the CPM in the next scheduled compliance report.
WASTE-6: Upon notification of any impending waste management-related enforcement action related to project site activities by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts for the project, and describe the owner's response to the impending action or if a violation has been found, how the violation will be corrected.	The project owner shall notify the CPM in writing within 10 days of receiving written notice from authorities of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed as a result of a finalized action against the project.
WASTE-7: The project owner shall submit the Operation Waste Management Plan to the CPM for review and approval. The plan shall contain, at a minimum, the following: •~~1.~~ a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications; •~~2.~~ management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to ensure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans; •~~3.~~ information and summary records of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary; •~~4.~~ a detailed description of how facility wastes will be managed and any contingency plans to be employed, in the event of an unplanned closure or planned temporary facility closure; and •~~5.~~ a detailed description of how facility wastes will be managed and disposed upon closure of the facility.	The project owner shall submit the Operation Waste Management Plan to the CPM for approval no fewer than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary. The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year, provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan, and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.
WASTE-8 (Deleted)	
WASTE-9: The project owner shall ensure that all accidental spills or unauthorized releases of hazardous substances, hazardous materials, and hazardous waste are documented and remediated, and that wastes generated from accidental spills and unauthorized releases are properly managed and disposed of in accordance with all applicable federal, state, and local requirements. For the purpose of this Condition of Certification, “release” shall have the definition in Title 40 of the Code of Federal Regulations, Part 302.3.	A copy of the accidental spill or unauthorized release documentation shall be provided to the CPM within 30 days of the date the release was discovered.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Waste Management (cont.)	
The project owner shall document management of all accidental spills and unauthorized releases of hazardous substances, hazardous materials, and hazardous wastes that occur on the project property or related linear facilities. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; how release was managed and material cleaned up; amount of contaminated soil and/or cleanup wastes generated; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release.	
WASTE-10: The project owner shall ensure that all non-hazardous, non-recyclable, and non-reusable construction and operation waste is not diverted to Desert Center Landfill or Mecca II~~Oasis Sanitary~~ Landfill.	The project owner shall document all project-related solid waste disposal actions to the Compliance Project Manager annually.
Worker Safety	
WORKER SAFETY-1: The project owner shall submit to the Compliance Project Manager (CPM) a copy of the Project Construction Safety and Health Program containing the following: ●~~1.~~ A Construction Personal Protective Equipment Program; ●~~2.~~ A Construction Exposure Monitoring Program; ●~~3.~~ A Construction Injury and Illness Prevention Program; ●~~4.~~ A Construction heat stress protection plan that implements and expands on existing Cal OSHA regulations as found in 8 CCR 3395; ●~~5.~~ A Construction Emergency Action Plan; ●~~6.~~ A Construction Flood Safety Plan; and ●~~7.~~ A Construction Fire Prevention Plan. The Personal Protective Equipment Program, the Exposure Monitoring Program, the Injury and Illness Prevention Program, the Construction Flood Safety Plan, and the Heat Stress Protection Plan shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable safety orders. The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the Riverside County Fire Department for review and comment prior to submittal to the CPM for approval.	At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program.
WORKER SAFETY-2: The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following: ●~~1.~~ An Operation Injury and Illness Prevention Plan; ●~~2.~~ An Operation heat stress protection plan that implements and expands on existing Cal OSHA regulations (8 CCR 3395); ●~~3.~~ A Best Management Practices (BMP) for the storage and application of herbicides;	At least 30 days prior to the start of first-fire or commissioning, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Worker Safety (cont.)	
●~~4.~~ An Emergency Action Plan that includes safety measures, engineering controls, and BMPs to address potential electrical shock hazards in the event of fire; ●~~5.~~ Hazardous Materials Management Program; ●~~6.~~ Fire Prevention Plan ●~~7.~~ An Operations Flood Safety Plan; and ●~~8.~~ Personal Protective Equipment Program (8 Cal Code Regs, §§ 3401-3411). ● The Operation Injury and Illness Prevention Plan, Emergency Action Plan, Heat Stress Protection Plan, BMP for Herbicides, and Personal Protective Equipment, an Operations Flood Safety Plan, and Personal Protective Equipment Program shall be submitted to the CPM for review and comment concerning compliance of the programs with all applicable safety orders. The Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Riverside County Fire Department for review and comment.	
WORKER SAFETY-3: The project owner shall provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall: ●~~1.~~ Have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs; ●~~2.~~ Assure that the safety program for the project complies with Cal/OSHA and federal regulations related to power plant projects; ●~~3.~~ Assure that all construction and commissioning workers and supervisors receive adequate safety training; ●~~4.~~ Complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; and ●~~5.~~ Assure that all the plans identified in Conditions of Certification **Worker Safety-1** and **-2** are implemented. ~~6.~~ The CSS shall submit in the Monthly Compliance Report a monthly safety inspection report to include: ●~~7.~~ Record of all employees trained for that month (all records shall be kept on site for the duration of the project); ●~~8.~~ Summary report of safety management actions and safety-related incidents that occurred during the month; ●~~9.~~ Report of any continuing or unresolved situations and incidents that may pose danger to life or health; and ●~~10.~~ Report of accidents and injuries that occurred during the month.	At least 60 days prior to the start of site mobilization, the project owner shall submit to the CPM the name and contact information for the Construction Safety Supervisor (CSS). The contact information of any replacement CSS shall be submitted to the CPM within one business day.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Worker Safety (cont.)	
WORKER SAFETY-4: The project owner shall make payments to the Chief Building Official (CBO) for the services of a Safety Monitor based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. Those services shall be in addition to other work performed by the CBO. The Safety Monitor shall be selected by and report directly to the CBO and will be responsible for verifying that the Construction Safety Supervisor, as required in Condition of Certification **Worker Safety-3**, implements all appropriate Cal/OSHA and Energy Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities.	At least 60 days prior to the start of construction, the project owner shall provide proof of its agreement to fund the Safety Monitor services to the CPM for review and approval.
WORKER SAFETY-5: The project owner shall ensure that a portable automatic external defibrillator (AED) is located on site during construction and operations and shall implement a program to ensure that workers are properly trained in its use and that the equipment is properly maintained and functioning at all times. During construction and commissioning, the following persons shall be trained in its use and shall be on site whenever the workers that they supervise are on site: the Construction Project Manager or delegate, the Construction Safety Supervisor or delegate, and all shift foremen. During operations, all power plant employees shall be trained in its use. The training program shall be submitted to the CPM for review and approval.	At least 60 days prior to the start of site mobilization, the project owner shall submit to the CPM proof that a portable automatic external defibrillator (AED) exists on site and a copy of the training and maintenance program for review and approval.
WORKER SAFETY-6 The project owner shall: a. Provide a second access gate for emergency personnel to enter the site. This secondary access gate shall be at least one-quarter mile from the main gate. b. Maintain the main access road and provide a plan for implementation. Plans for the secondary access gate, the method of gate operation, and to maintain the road shall be submitted to the Riverside County Fire Department for review and comment and to the CPM for review and approval.	At least sixty (60) days prior to the start of site mobilization, the project owner shall submit to the Riverside County Fire Department and the CPM preliminary plans showing the location of a second access gate to the site, a description of how the gate will be opened by the fire department, and a description and map showing the location, dimensions, and composition of the main road. At least thirty (30) days prior to the start of site mobilization, the project owner shall submit final plans plus the road maintenance plan to the CPM review and approval. The final plan submittal shall also include a letter containing comments from the Riverside County Fire Department or a statement that no comments were received.
WORKER SAFETY-7: The project owner shall fund its share of capital costs in the amount of $250,000 and provide an annual payment of $100,000 to the RCFD for the support of construction, operations and maintenance commencing with the start of site mobilization and continuing annually thereafter. All annual payments after the initial payment shall be subject to an annual escalator of 2% on the anniversary until the final date of power plant non-operation and facility closure.	Not less than fifteen (15) days after the start of site mobilization, the project owner shall provide to the CPM documentation that the amount of $250,000 has been paid to the RCFD, documentation that the first annual payment of $100,000 has been paid to the RCFD, and shall also provide evidence in each January Monthly Compliance Report during construction and the Annual Compliance Report during operation that subsequent annual payments plus the annual escalator have been made.
WORKER SAFETY-8: The project owner shall develop and implement an enhanced Dust Control Plan that includes the requirements described in **AQ-SC3** and additionally requires: i. Site worker use of dust masks (NIOSH N-95 or better) whenever visible dust is present; ~~ii. Implementation of methods equivalent to Rule 402 of the Kern County Air Pollution Control District (as amended Nov. 3, 2004); and~~ ~~iii.~~ii. Implementation of enhanced dust control methods (increased frequency of watering, use of dust suppression chemicals, etc. consistent with **AQ-SC4**) immediately whenever visible dust comes from or onto the site.~~persists in the breathing zone of the workers, or when PM10 measurements obtained when implementing ii (above) indicate an increase in PM10 concentrations due to project activities of 50 µg/m^3 or mor~~.	At least 60 days prior to the commencement of site mobilization, the enhanced Dust control Plan shall be provided to the CPM for review and approval.

TABLE 2-6 (Continued)
PROPOSED DESIGN FEATURES FOR THE MODIFIED BLYTHE PROJECT

Design Feature	Verification
Worker Safety (cont.)	
WORKER SAFETY-9: The project owner shall submit to the Riverside County Fire Department (RCFD) all plans and schematic diagrams that show the details of all fire detection and suppression systems and shall pay the RCFD its usual and customary fee for the review of those plans and inspection of the site to ensure compliance with those plans. The project owner shall provide proof to the CPM that the plans have been submitted to the RCFD on a timely basis and a copy of the comments received from the RCFD.	In each Monthly Compliance Report during construction, the project owner shall include any and all comments received from the RCFD on fire detection and suppression systems and proof that the required plan review and inspection fees have been paid to the fire department. During operation, the project owner shall provide proof in the Annual Compliance Report that the required inspection fees have been paid to the fire department.
WORKER SAFETY-10: The project owner shall report to the CPM within 24 hours of any incidence of heat illness (heat stress, exhaustion, stroke, or prostration) occurring in any worker on-site and shall report to the CPM the incidence of any confirmed case of Valley Fever in any worker on the site within 24 hours of receipt of medical diagnosis.	The project owner shall provide reports of heat-related and Valley Fever incidences in any worker on the site via telephone call or e-mail to the CPM within 24 hours of a heat-related occurrence or confirmed diagnosis of a case of Valley Fever, and shall include such reports in the Monthly Compliance Report during construction and the Annual Compliance Report during operation.

Louis B. Davis
Local Public Affairs
24487 Prielipp Drive
Wildomar, CA 92595

March 24, 2014

Frank McMenimen, Project Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262
CAPSSolarBlythe@blm.gov

Re: Modified Blythe Solar Power Project

Mr. McMenimen:

Southern California Edison (SCE) appreciates the opportunity to review and provide comments on the Draft Environmental Impact Statement (EIS) for the Modified Blythe Solar Power Project (BSPP). The Modified BSPP is 485 MW photovoltaic solar facility on 4,138 acres within the approved site and would interconnect to SCE's Colorado River Substation. The solar plant site would be reconfigured to allow transmission and access road corridors through the BSPP site for shared use with other approved and proposed projects (McCoy Solar Energy Project and McCoy Soleil project).

SCE is the electrical service provider for the County of Riverside and maintains an electrical system that consists of a network of electrical facilities (transmission, distribution, and supporting appurtenances) within the County. SCE has transmission lines within the project area, which may be impacted by the proposed project. Should the construction of SCE's facilities result in significant environmental impacts, such impacts should be thoroughly described and evaluated in the Final EIS. If the proposed project results in the need to relocate or build new SCE electrical facilities that operate at or above 200 kV, the California Public Utilities Commission's (CPUC) General Order 131-D (GO 131-D), Section III.A requires SCE to obtain a Certificate of Public Convenience and Necessity (CPCN), unless certain exemptions apply. SCE would need to consult with the CPUC on a case-by-case basis for such projects to determine if the CPUC would allow the project to proceed "exempt" or instead allow SCE to proceed under an "expedited" CPCN application by attaching the Final EIS document for this project in lieu of a Proponent's Environmental Assessment prepared by SCE.

Impacts to SCE's facilities will need to be consented to and addressed prior to finalizing the Plan of Development. Please forward five (5) sets of plans depicting SCE's facilities and associated land rights to the following location:

Real Properties Department
Southern California Edison Company
2131 Walnut Grove Avenue
G.O.3 – Second Floor
Rosemead, CA 91770

If you have any questions regarding this letter, do not hesitate to contact me at Louis.Davis@sce.com or (951) 249-8468.

Regards,

Louis Davis
Local Public Affairs Region Manager
Southern California Edison Company

cc: Karen Cadavona, SCE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MAR 2 4 2014

Frank McMenimen
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

Subject: Draft Environmental Impact Statement for the proposed Modified Blythe Solar Power Project, Riverside County, California (CEQ #20140029)

Dear Mr. McMenimen:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the proposed Modified Blythe Solar Power Project. Our review and comments are provided pursuant to the National Environmental Policy Act, the Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

Previously, the EPA prepared scoping comments on the Blythe Solar Power Project (BSPP) on December 23, 2009. The EPA also reviewed and prepared comments on the Draft Environmental Impact Statement and the Final Environmental Impact Statement for the BSPP July 12, 2010 and September 20, 2010, respectively. The EPA rated the DEIS as EC-2 – Environmental Concerns - Insufficient Information due to potential impacts to aquatic and biological resources, and the need for additional information on these impacts and measures to avoid or mitigate them. On November 4, 2010, the Bureau of Land Management issued a right-of-way (ROW) grant for the BSPP (Approved Project). On July 12, 2012, NextEra Blythe Energy Center, LLC purchased the un-built assets of the Approved Project from the original applicant, Palo Verde Solar I, LLC, as part of a bankruptcy proceeding.

NextEra Blythe Solar Energy Center, LLC has applied to the BLM to amend the approved ROW grant to reduce the overall acreage of the project; change the authorized technology from concentrating solar trough to solar photovoltaic; reconfigure the solar plant site to allow transmission and access road corridors through the BSPP site for two projects proposed to the north; and reduce the authorized capacity from 1,000 MW to 485 MW (Modified Project). The DEIS analyzes the grant holder's proposal to construct, operate, maintain, and decommission the Modified Project (Alternative 1), as well as BLM's denial of the variance request which would maintain the current ROW grant approvals on the site within the approximately 4,433-acre area now currently controlled by the grant holder (Alternative 2). The Agency Preferred Alternative is to approve the Modified Project (Alternative 1).

On September 19, 2013, the EPA submitted scoping comments on the Modified Project. We provided extensive formal scoping comments for the project, including detailed recommendations regarding purpose and need, range of alternatives, cumulative impacts, biological and water resources, and other resource areas of concern. We appreciate the efforts of BLM, the grant holder and its consultants to discuss and respond to our previous comments. We are pleased that the Modified Project has been reduced in size, and that grading will be limited and existing drainage patterns will be maintained where possible. Of note, there will be a substantial decrease in water use, including a reduction in the number of

evaporation ponds, as well as additional mitigation measures to limit air quality impacts. Per our previous recommendations, the DEIS presents additional information on the following topics: valley fever; effects of the Modified Project on groundwater levels; subsurface connectivity between the Colorado River and the Palo Verde Mesa Groundwater Basin; and impacts to biological resources.

We note that the grant holder has proposed to incorporate facility design and other measures into the Modified Project as design features (DFs) to reduce or avoid potential environmental impacts that could result from the Modified Project. These DFs are substantially the same as the Conditions of Certification included in the California Energy Commission's Final Commission Decision (2014). These DFs would be implemented as features of project design, and are not considered "mitigation measures" as the term is frequently used within the context of NEPA (pg. 2-34). We also understand that BLM would monitor activities described in the DFs throughout the life of the Modified Project to ensure that decisions are implemented in accordance with the approved Record of Decision and ROW grant (pg. 4-5). We support that adaptive management is included as a component in various DFs, which will minimize the possibility of mitigation failure.

Based on our review of the DEIS, we have rated the preferred alternative as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed "Summary of EPA Rating Definitions." EPA is most concerned about the potential impacts to site hydrology, air quality, and biological and cultural resources. In addition, we are also concerned about the cumulative impacts associated with the rapid development of energy and transportation projects in this area. Because Eastern Riverside County provides rich habitat and supports a diversity of mammals, birds, and reptiles, we recommend that the grant holder and BLM continue to work with the U.S. Fish and Wildlife Service to protect habitat connectivity for the desert tortoise and other sensitive species and identify appropriate lands for habitat compensation.

In the enclosed detailed comments, we provide specific recommendations regarding the analysis of impacts to environmental resources and measures to avoid and minimize those impacts. We are available to further discuss all recommendations provided.

We appreciate the opportunity to review this DEIS and are available to discuss our comments and recommendations provided. Please send a hard copy of the FEIS to this office when it is officially filed with EPA's new electronic EIS submittal tool: *e*-NEPA. If you have any questions, please contact me at (415) 972-3521 or contact Anne Ardillo, the lead reviewer for this project. Anne can be reached at (415) 947-4257 or ardillo.anne@epa.gov.

Sincerely,

For Connell Dunning

Kathleen Martyn Goforth, Manager
Environmental Review Section (ENF-4-2)

Enclosures: Summary of EPA Rating Definitions
EPA's Detailed Comments

Cc: Jessica Rempel, U.S. Fish and Wildlife Service

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED MODIFIED BLYTHE SOLAR POWER PROJECT, RIVERSIDE COUNTY, CALIFORNIA, MARCH 24, 2014

Aquatic Resources

Drainages, Ephemeral Washes and Site Hydrology

The Draft Environmental Impact Statement indicates that the Modified Project would eliminate three major drainage structures designed to reroute surface water through and around the original Blythe Solar Power Project, but may require smaller drainage features to maintain existing natural drainage patterns through the project site. Site preparation techniques and protective measures will be used that allow sheet flow across the site, while maintaining existing drainage patterns at both the project site and in off-site downstream areas. In addition, vegetation would be cleared for construction of any required drainage controls (pgs. 2-13, 14, 18).

According to the DEIS, storm water will be managed through implementation of several key design features including: a) SOIL&WATER-1: Drainage Erosion and Sedimentation Control Plan; b) SOIL&WATER-11: Revised Project Drainage Report and Plans; and c) SOIL&WATER-12: Detailed FLO-2D Analysis. The U.S. Environmental Protection Agency supports the proposed drainage improvements and encourages the use of natural features for site drainage and limited vegetation removal.

> *Recommendation:*
> Utilize existing natural drainage channels on site and use natural features, such as earthen berms or channels, for site drainage rather than rip-rap or concrete-lined channels, when feasible.
>
> Drainage reports and plans should include designs to minimize disruption of natural flows as well as minimize erosion, sedimentation, and impacts to habitat downstream as much as possible.
>
> Include the finalized the revised Project Drainage Report and Plan, and Drainage Erosion and Sedimentation Control Plan for the construction and operational phases of the project in the Final Environmental Impact Statement to facilitate assessment of impacts and effectiveness of the incorporated mitigation measures
>
> Page 2-13 states "the Modified Project would eliminate the major drainage channels, but may require smaller drainage features". EPA suggests that action to " eliminate the major drainage channels" be changed to "eliminate the *engineered* major drainage channels" since the former implies that the natural major drainage channels will be changed which we believe is not the grant holder's intent.

A Storm Water Damage Monitoring and Response Plan will be developed as part of design feature SOIL&WATER-19. The verification portion of this design features states "at least sixty (60) days prior to commercial operation, the project owner shall submit to the Compliance Project Manager (CPM) a copy of the Storm Water Damage Monitoring and Response Plan for review and approval prior to commercial operation." EPA is concerned that there is no plan that deals with storms that may take place during the construction phase. The proposed Project is located on an alluvial fan where flash flooding and mass erosion could cause significant impacts. As demonstrated by severe damage from storm flows during construction at other nearby solar projects under construction, it is important that the proposed design features address this issue and are incorporated into the FEIS.

Recommendations:
Include a copy of the Storm Water Damage Monitoring and Response Plan in the FEIS.

Describe the design features that will be employed, during both construction and operation phases, to ensure that storm events will not result in damage or alteration of the hydrology at the site and to downstream areas.

Describe the maintenance program necessary to prevent significant offsite erosion and offsite damage.

According to the DEIS, the amount of grading required for the Modified Project would be considerably less than the previously Approved Project (pg. 2-14). For the Modified Project, construction will include multiple types of grading in areas of highly variable terrain, as the existing grade cannot accommodate fencing, road, equipment or structures. Grading methods proposed include cut and fill with trenching, disc and roll, and micrograding (isolated cut and fill). The final site plan will be based on a detailed topographic survey of the site, as well as detailed hydrologic and topographic studies that would be performed as a part of the permitting and engineering design process (pgs. 2-19, 3.18-6).

Recommendations:
Quantify the acreage that will be graded and demonstrate that downstream flows will not be adversely impacted as a result of each of the grading methods.

The FEIS should include the response to be taken by the Bureau of Land Management if a substantial design feature failure is detected. This could include conditioning the right-of-way approval to require the applicant to restore any severely impacted watersheds that may result from mitigation failure.

The grant holder plans to use either a fixed-tilt ground mount or a single-axis tracking system for the structures that support the PV modules. A fixed-tilt system can generally follow the slope of the terrain, which reduces grading requirements. The support posts may vary in height above the ground surface to accommodate the variations in terrain (pg. 2-9). To further minimize disruption of the site's hydrology, we recommend consideration of the solar PV technology that allow PV panels to be mounted on sloping terrain and at sufficient height above ground to maintain natural vegetation. It is our understanding that other PV solar companies have proposed such designs which can reduce the need for site clearing and grading and potential fugitive dust air quality impacts

Recommendations:
Consider PV technology that allow PV panels to be mounted on sloping and variable terrain which may limit the need for grading.

The FEIS should evaluate mounting PV panels at sufficient height above ground to maintain natural vegetation and minimize drainage disturbance. Quantify the amount of acreage that would not require clearing and grading in the event that PV panels were elevated. Compare these results to existing alternatives, and incorporate project design changes into site design and conditions of certification.

The DEIS estimates that construction of the Modified Project would have direct impacts to 26 acres of desert dry wash woodlands, 265 acres of vegetated ephemeral streams supporting the big galleta grass association, and 3.3 acres of unvegetated ephemeral dry washes (pgs 3.3-5, 8). While not federally jurisdictional, such resources are important features of the desert ecosystem. We strongly recommend that

avoidance of these drainages and the desert wash woodlands on the site be maximized through design modifications to the photovoltaic array layout. EPA supports limiting disturbance and implementing erosion control measures for sensitive resources, such as waters of the State, as stated in design feature BIO-8.

As described in the 2010 ROD (Appendix B, p. 30), the BLM coordinated with California Department of Fish and Wildlife pursuant to CDFW's jurisdiction over impacts to waters of the State within the previously Approved site footprint (Fish and Game Code §1602). The BLM has reinitiated coordination with CDFW regarding impacts of the Modified Project to waters of the State (pg. 4-2). It is unclear whether a Streambed Alteration Agreement was needed for the previously Approved Project and whether that agreement needs to be amended for the proposed Modified Project.

Recommendations:
Maximize avoidance of ephemeral drainages and desert wash woodlands on site through design modifications to the photovoltaic array layout. Configure the project, including placement of support structures, roads and ancillary facilities, to avoid ephemeral washes and dry wash woodlands to the maximum extent possible.

Provide an update on the status of the Streambed Alteration Agreement.

Include the final requirements for BIO-22 (Mitigation for Impacts to State Waters) in the FEIS.

Characterize the functions of any aquatic features that could be affected by the Modified Project.

In addition to the proposed design features that would avoid and minimize direct and indirect impacts to desert washes, EPA recommends that the FEIS evaluate and commit to the following actions:

- Implement all practicable opportunities to further reduce the footprint of project elements (parking, buildings, roads, etc.);

- Minimize the number of road crossings over washes and design necessary crossings to provide adequate flow-through during storm events.

Fencing
Design feature SOIL&WATER-19 ensures that perimeter fencing will be designed to accommodate the 100-year storm event (pg. 2-137). However the DEIS does not provide information about the effects of security fencing and desert tortoise fencing on drainage systems. Fencing can interfere with natural flow patterns by entraining debris and sediment. Fence design should address hydrologic criteria, as well as security performance criteria.

Recommendation:
Describe, in the FEIS, where permanent fencing will be used and describe the potential effects of fencing on drainage systems. Ensure that the fencing proposed for this project will meet appropriate hydrologic performance standards.

Compensatory Mitigation
We are pleased that the DEIS includes design features that will be implemented to minimize and mitigate for direct and indirect impacts to aquatic resources and biological resources, including compensatory mitigation land acquisition. The DEIS does not, however, indicate that specific compensation lands are

available. In light of the numerous energy and transportation projects under construction or proposed, the availability of land to adequately compensate for environmental impacts to resources such as state jurisdictional waters, vegetative communities, and desert tortoise habitat, may not be easily identifiable and may serve as a limiting factor for development. EPA understands that the grant holder has proposed other forms of compensatory mitigation such as habitat enhancement/restoration, in-lieu fee mitigation, and funding research studies.

Recommendations:
Identify compensatory mitigation lands or quantify, in the FEIS, available lands for compensatory habitat mitigation for this project.

Consider stringent mitigation measures, when identified, to ensure appropriate compensation for direct and indirect impacts from the Modified Project.

Describe, in the FEIS, how these compensatory mitigation measures will be made an enforceable part of the project's implementation schedule. The FEIS and Record of Decision should discuss mechanisms and incorporate proposed conditions for certification

Air Quality

As disclosed in Section 3.2 of the 2010 PA/FEIS (Appendix A, p. 3.2-1 et seq.), the study area currently is designated as a non-attainment area for the state ozone standards and the state PM_{10} 24-hour standard. Air dispersion modeling conducted for the previously Approved Project found that when added to conservatively estimated ambient air quality concentrations, the pollutant concentrations were found to be below California Ambient Air Quality Standards and would not create new exceedances or contribute to existing exceedances for any of the modeled air pollutants with the exception of PM_{10} for both construction and operation phases (pg. 3.2-7). The DEIS discloses that the emissions of the Modified Project are projected to be 61 percent of the previously Approved Project, therefore the residual impacts on air resources would be substantially reduced, but not eliminated, by the Modified Project or Alternative 2 (pg. 3.2-9).

The EPA is pleased to see the incorporation of air quality design features which would minimize impacts on air resources. In particular, we are pleased to see design features AQ-SC2 (Air Quality Construction Mitigation Plan), AQ-SC-3 (Construction Dust Control Plan), and AQ-SC-7 (Operations Dust Control Plan) with mitigation measures that address construction fugitive dust. We appreciate the wind and water erosion modeling information for the various soil units; however, we remain concerned that fugitive dust may persist given the moderate wind susceptibility of the soil units and the anticipated disturbance of desert pavement. In addition, peak roundtrip construction traffic is estimated up to 1,000 worker commute trips, 2,000 worker trips and 150 construction trucks during the 48-month construction phase. In light of the nonattainment status, vehicular traffic, the close proximity of a federal Class I area, and the numerous projects proposed in the area, all feasible measures should be implemented to reduce and mitigate anavoidable air quality impacts to the greatest extent possible including more stringent emission controls for PM.

Recommendations:
Ensure that design features in the DEIS are implemented on a schedule that will reduce construction emissions to the maximum extent feasible. Consider additional mitigation measures as described below.

Include, in the FEIS and ROD, any additional measures adopted.

Describe, in the FEIS, how these design features will be made an enforceable part of the project's implementation schedule. We recommend implementation of applicable design features prior to, or concurrent with the commencement of construction of the project.

Additional Mitigation Measures for Non-road and On-road Engines

We recommend that the applicant and BLM commit to implementing best available emission control technologies for construction, ahead of the California Air Resources Board's in-use off-road diesel vehicle regulations, regardless of fleet size.[1] EPA began phasing-in Tier 4 standards for non-road engines in 2008;[2] however, the DEIS does not mention the availability of Tier 4 non-road engines. The use of such engines would result in an approximately 90% reduction in NO_x and PM emissions as compared to Tier 3.

Recommendations:

The FEIS should discuss, and include emission tables for, various classifications of on-road and non-road engines, highlighting emission levels for PM_{10}, $PM_{2.5}$ and NO_x.

The FEIS should indicate the expected availability of Tier 4 engines for the construction equipment.

The FEIS and ROD should commit to using non-road construction equipment that meets Tier 4 emission standards, when available, and best available emission control technology, for construction that occurs prior to Tier 4 standards availability.

All applicable state and local requirements, and the additional and/or revised measures listed below, should be included in the FEIS. The FEIS and ROD should include a condition that the grant holder incorporates the following measures into construction contracts:

Mobile Source Controls:

- Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.

Administrative controls:

- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.[3] Where appropriate, use alternative fuels.
- Develop a construction, traffic and parking management plan that minimizes traffic interference and maintains traffic flow.

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[1] See CARB's Factsheet at: http://www.arb.ca.gov/msprog/ordiesel/faq/overview_fact_sheet_dec_2010-final.pdf

[2] See EPA website: http://www.epa.gov/nonroad-diesel/2004fr/420f04032.htm#standards

[3] Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

Climate Change

Scientific evidence supports the concern that continued increases in greenhouse gas emissions resulting from human activities will contribute to climate change. Effects on weather patterns, sea level, ocean acidification, chemical reaction rates, and precipitation rates can be expected. These changes may affect the Modified Project as well as the scope and intensity of impacts resulting from the Modified Project. Although the DEIS contains a substantive discussion on greenhouse gases, as well as estimates of carbon dioxide emissions from the construction of the Modified Project, it does not discuss measures to avoid, minimize, or mitigate for the effects of climate change on the Modified Project. In addition, the DEIS states that the impacts of climate change on the Modified Project and Alternative 2 are located in Sections 3.5.4.2 and 3.5.4.4 (pg. 3.5-1); however, these sections were not found in the DEIS.

Recommendations:
Considering that the project may be in operation for between 30 - 50 years, the FEIS should discuss how climate change may affect the proposed Project, particularly with respect to groundwater, increased storm flows, impacts to sensitive species such as the desert tortoise, and reclamation and restoration efforts.

The FEIS should also discuss measures to avoid, minimize, and mitigate for the anticpated impacts of climate change on the Modified Project.

Greenhouse Gas Emissions - Construction and Operation Bid Specifications
In soliciting future contracts for project construction and operations, consider including in the FEIS, and adopting in the ROD, the following additional requirements:

a) Soliciting bids that include use of energy- and fuel-efficient fleets;
b) Requiring that contractors ensure, to the extent possible, that construction activities utilize grid-based electricity and/or onsite renewable electricity generation rather than diesel and/or gasoline powered generators;
c) Employing the use of zero emission or alternative fueled vehicles;
d) Using lighting systems that are energy efficient, such as LED technology;
e) Using the minimum amount of GHG-emitting construction materials that is feasible;
f) Using cement blended with the maximum feasible amount of fly ash or other supplemental cementitious materials that reduce GHG emissions from cement production;
g) Using lighter-colored pavement where feasible; and,
h) Recycling construction debris to the maximum extent feasible.

Biological Resources

Endangered Species and Other Species of Concern
The proposed site supports a diversity of plants, mammals, birds, bats, and reptiles, including special status species. In addition to desert tortoise, the project site provides suitable habitat for Mojave fringe-toed lizards, couch's spadefoot toads, golden eagles, migratory birds, bats, western burrowing owls, American badgers, and desert kit fox. Analysis conducted for the Modified Project identified additional special-status plant and wildlife species not identified during the analysis of the Approved Project including: Abrams' spurge, desert unicorn plant, long-eared owl, brown pelican, Yuma clapper rail, and yellow-headed blackbird (pg 3.4-1). Project construction and operation would result in direct and indirect impacts to 4,070 acres, including permanent impacts to wildlife by eliminating habitat used for breeding, nesting, migration and foraging (pgs. 3.4-10).

The DEIS notes the BLM has consulted for the Modified Project consistent with the provisions of the BO (Appendix B2, p. 39) (pg. 4-3). Based on personal communication with the U.S. Fish and Wildlife Service (USFWS) we are aware that the USFWS expects a re-initiation of an Endangered Species Act Section 7 formal consultation by the BLM. The Biological Opinion will play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

According to design feature BIO-12 (Desert Tortoise Compensatory Mitigation), the project owner proposes to fully mitigate for habitat loss and potential take of desert tortoise by providing compensatory mitigation at a 1:1 ratio for impacts to 3,976 acres (pg. 2-64). However, it is unclear how this ratio was determined since other projects have incorporated higher mitigation ratios.

Recommendations:
The FEIS should provide an update on the ESA Section 7 consultation process. Any relevant documents associated with this process, including Biological Assessments and Biological Opinions, should be summarized and included in an appendix.

Mitigation and monitoring measures that result from consultation with the USFWS to protect sensitive biological resources, including desert tortoise and golden eagles, should be incorporated in the FEIS and, ultimately, the ROD.

Include, in the FEIS, results of discussions with the USFWS on whether adequate desert tortoise movement corridors would remain pending the development of each action alternative. Discuss, in the FEIS, how resulting habitat connectivity corridors would be preserved in light of reasonably foreseeable projects.

Discuss, in the FEIS, potential impacts to wildlife movement under future climate change scenarios.

Clarify how the desert tortoise mitigation ration of 1:1 was derived.

Avian impacts
As noted in the DEIS, potential for direct and indirect impacts to bats and migratory and nesting birds will continue though the operation and maintenance phase of the Modified Project. Monitoring data from other Mojave Desert solar projects under construction suggest that there have been collisions with the solar panels by avian species, water birds in particular, that were not found during baseline studies which include Brown Pelican, Grebe, and Yuma clapper rail (pg. 3.4-8). Preliminary information suggests that the large-scale solar reflective panel fields may appear as bodies of water to migrating birds and may be attracting birds to the site. We understand that this issue is currently being investigated by the USFWS.

Therefore, we strongly support the development of a Bird and Bat Conservation Strategy, as detailed in BIO-15 (pgs. 2-70 to 72). We encourage the incorporation of avoidance and minimization measures, and ideally adaptive management, if appropriate, based on the results of avian mortality monitoring. Information obtained from monitoring and surveys should provide state and federal agencies with a better understanding of potential impacts from solar PV technology, and could potentially reduce future impacts for the Modified Project and other similar projects.

We understand that as part of the avian mortality monitoring, USFWS may request that the grant holder apply for a SPUT permit (special purpose utility permit) that will allow the grant holder to collect dead bird carcasses on the site for the purposes of data collection and research. We recommend consulting with

USFWS on this issue to determine whether obtaining a SPUT permit is appropriate to include as a mitigation measure.

Compliance reports from other solar projects have documented bird entanglements in the netting that covers the evaporation ponds on the project sites.

In addition to the proposed design features to lessen the biological impacts from the Modified Project listed in the DEIS, we provide the following recommendations:

- Review project monthly compliance reports for other nearby solar projects that are currently under construction or in operation, particularly the descriptions of wildlife and avian impacts. This information may be useful in developing adaptive management strategies that are effective in preventing similar occurrences at the Modified Blythe Solar Power Project.

- The netting over evaporative ponds should be installed correctly with an appropriate-sized mesh to prevent bird entanglements and keep them out of the ponds. Regular maintenance and inspection should be required during construction. Frequency of operation monitoring should be based on when avian species presence is highest (i.e. migration, breeding) as indicated by pre-construction baseline surveys.
- Research and implement additional deterrence methods if the current measures are deemed to be ineffective.

Consultation with Tribal Governments

According to the DEIS, BLM invited the Indian tribes who had participated in government-to-government consultation for the previously Approved Project to consult on the Modified Project. Government-to-government consultation meetings were held with Colorado River Indian Tribes and Quechan Tribes. Consultation with tribes to identify any additional resources of tribal, cultural, or religious significance is ongoing. In addition, the draft Programmatic Agreement Amendment was sent to all Consulting Parties to the Agreement, including the tribes (pg. 3.6-4).

The DEIS indicates that a vast array of cultural resources are present in the vicinity of the Modified Project, including 99 archeological sites, and several potential cultural landscapes. Of these, only 15 have been evaluated and were determined not eligible for listing in the National Register of Historic Places and 84 remain unevaluated (pg. 3.6-8). The evaluations were done in phases that coincided with the construction schedule of the previously Approved Project which reflected the conditions of the Programmatic Agreement. In addition, the ethnographic assessment resulted in the identification of 12 places of traditional cultural and religious importance (pgs. 3.6 1-3).

According to the DEIS, any adverse effects that the Modified Project or Alternative 2 may have on cultural resources would be resolved through compliance with the terms of the BLM's Programmatic Agreement, as amended, under the National Historic Preservation Act Section 106 (pg 3.6-8).

Recommendations:
Describe, in the FEIS, the process and outcome of government-to-government consultation between the BLM and the tribal governments listed on page 4-4.

Discuss issues that were raised, how those issues were addressed in relation to the Modified Project, and how impacts to tribal or cultural resources will be avoided or mitigated, consistent

with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, Section 106 of the NHPA, and EO 13007, *Indian Sacred Sites*.

Provide an update on the status of the Programmatic Agreement. The FEIS should indicate whether the Tribes are in agreement that the Programmatic Agreement will reduce impacts to prehistoric and sacred sites to less than significant. We recommend that these measures be adopted in the FEIS.

Develop a schedule for evaluations of the remaining archeological sites, cultural landscapes and places of traditional cultural and religious importance.

Consistency with the California Desert Renewable Energy Conservation Plan and the Solar PEIS

The California DRECP, scheduled for completion in 2014, is intended to advance state and federal conservation goals in the desert regions while also facilitating the timely permitting of renewable energy projects in California. The DRECP will include a strategy that identifies and maps areas for renewable energy development and areas for long-term natural resource conservation. The Solar Programmatic EIS ROD was signed in October 2012 and is intended to apply to all pending and future solar energy development ROW applications. The Modified Blythe Solar Power Project is located in the DRECP boundary area and in the Riverside East Solar Energy Zone identified in the Solar PEIS.

Recommendation:
EPA encourages BLM to ensure that the Modified Project demonstrates consistency with the DRECP and the Solar PEIS, even though it is not subject to decisions made through these regional planning efforts.

Studies and Plans

The DEIS indicates that numerous plans will be developed and submitted to the appropriate agencies. Some of these include: Groundwater Level Monitoring Plan; Mitigation and Reporting Plan; Emergency Action Plan; Broken PVModule Detection and Handling Plan; Construction Waste Management Plan; and various biological resource plans.

Recommendation:
To assist in better-informed decision making and successful implementation of Best Management Practices included in additional planning documents, key measures and commitments from the referenced plans should be included in the FEIS and ROD.

March 24, 2014

Frank McMenimen, Project Manager,
BLM Palm Springs – South Coast Field Office,
1201 Bird Center Drive,
Palm Springs, CA 92262
capssolarblythe@blm.gov

Re: Comments on the Draft Environmental Impact Statement for the Proposed Blythe Solar Power Project

Dear Mr. McMenimen,

Please accept and fully consider these comments on behalf of The Wilderness Society (TWS), the Natural Resources Defense Council (NRDC) and Defenders of Wildlife (DOW). TWS, NRDC and DOW protested the Final Environmental Impact Statement (FEIS) for the Blythe Solar Power Project (BSPP). Meetings with the BLM and the project applicant led to an agreement regarding mitigation measures and a withdrawal of our protest, as described on p. 50 of the original Record of Decision (ROD)(Attachment 1) for BSPP:

> As a result of these meetings, a number of the protesting organizations and the project Applicant agreed to certain project conditions which were reduced to writing and presented to the BLM for inclusion in the BLM Preferred Alternative and as modifications to the Plan of the Development (see Appendix 6 to this ROD). These terms and conditions further describe and refine the mitigation measures identified in the FEIS and require (i) the acquisition of habitat for bighorn sheep in lieu of the option to construct a guzzler as compensation for habitat impacted by the project; (ii) the habitat acquisition attributes for bighorn sheep, desert tortoise and desert wash microphyll woodlands and the requirements for permanent protection for itigation/compensatory lands and (iii) the creation of a fund for the implementation of certain conservation enhancement activities. According to the agreement between and among the project applicant and the organizations, these and other agreed-upon terms have been incorporated into a modified Plan of Development for the project. The BLM has analyzed these revised terms and conditions and determined that the terms and conditions fall within the alternatives analyzed in the PA/FEIS, and therefore do not require the BLM to supplement the PA/FEIS prior to issuance of the ROD. The BLM has accepted these agreed upon terms as part of the amended Plan of Development, and has incorporated into and will administer these terms as part of the ROW grant in accordance with 43 CFR 2805.12(i)(5), 2807.16, and 2807.17. The agreed upon terms are not subject to amendment without the agreement of the Applicant and the organizations and only if approved by the BLM in accordance with 43 CFR 2807.20. The organizations have withdrawn their protests.
>
> In addition to the mitigation provided for in this Record of Decision, the Applicant, through the protest negotiation process, has agreed to continue to work with the BLM on

providing additional funding for enhanced resource management within the Chuckwalla DWMA and adjacent environs. Such enhancements include but are not limited to:

Enhanced Desert Wildlife Management Opportunities

- The Applicant in coordination with BLM will work to identify specific fencing strategies along the I-10 Corridor or other heavily used access/recreation areas within the Chuckwalla DWMA to maximize protection of Desert tortoise by reduce direct or indirect mortality associated with recreational vehicle use;
- The Applicant in coordination with BLM will work to ensure enhanced funding is available to maintain certain existing infrastructure that is currently used to enhance protection of desert tortoise including but not limited to: road underpasses, fencing, gates, barrier crossings etc.;
- The Applicant in coordination with BLM will work to identify specific habitat enhancements within the DWMA that could be used to increase habitat values for Desert tortoise and other sensitive species;
- The Applicant in coordination with BLM will provide enhance funding that may facilitate BLM to restore illegal routes or closed routes. Illegal routes are those that have been created via unauthorized use of recreational off-highway vehicles in areas that are closed to such use.

These measures were further detailed in Appendix 6A of the original ROD (Attachment 2).

As described in the original ROD, "The agreed upon terms are not subject to amendment without the agreement of the Applicant and the organizations and only if approved by the BLM in accordance with 43 CFR 2807.20." (ROD p. 50)TWS and NRDC have not been contacted to request amendment of the agreed upon terms, so it is our understanding that all of the agreed upon terms – save the one discussed immediately below -- are being carried forward in the new Draft Environmental Impact Statement (DEIS).

Recommendation: BLM must ensure that all mitigation measures from the original ROD are included in the new DEIS, FEIS, Plan of Development and ROD.

The one measure that is clearly not being carried forward involves mitigation for impacts to Bighorn Sheep habitat. This change is understandable since the reduced footprint no longer impacts Bighorn Sheep habitat. Nonetheless, BLM should have contacted us about this change in advance per the terms of the original ROD. It is our expectation that BLM will comply with such requirements going forward.

The DEIS does not make it clear whether the "Conservation Enhancements" mitigation measure is being carried forward. This measure is described on p.4 of Appendix 6A of the original ROD:

> 2.6. Conservation Enhancements. Palo Verde shall send the sum of One Million and 00 Dollars ($1,000,000) dollars to the National Fish and Wildlife Foundation for deposit in the Renewable Energy Action Team Mitigation Account, which was established pursuant to the Memorandum of Agreement between the Renewable Energy Action Team

Agencies and the National Fish and Wildlife Foundation, dated April 19, 2010, to be used exclusively by the BLM for the implementation of the following conservation enhancements in the NECO Plan area and, to the extent appropriate, in the vicinity of Blythe Solar Project: (i) the installation of fencing for desert tortoise, (ii) the installation of wildlife underpasses under lawfully existing public or private roads, and/or (iii) the restoration of unlawful off-road vehicle routes. Palo Verde shall include with the One Million ($1,000,000) dollars a deposit document describing in detail the activities, as set fmih in this section to be funded. The Sien'a Club shall be given an oppmiunity to review the deposit document prior to Palo Verde sending the funds and deposit document to the National Fish and Wildlife Foundation. Palo Verde shall provide the document for review no less than 7 days prior to sending the document and shall consider any changes recommended by the Sierra Club. Payment of $500,000 shall be upon Financial Close for Units 1 and 2 of the Project. The remaining payment of $500,000 shall be prior to ground disturbance for Unit 3 of the Project.

The new DEIS does include requirements for funding for the National Fish and Wildlife Foundation (NFWF) to fund mitigation actions on p. 2-67, but these requirements are described differently than in the original ROD:

h. ***Mitigation Security.*** The project owner shall provide financial assurances in accordance with **BIO-28** (phasing) to the CPM and CDFW with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this Condition. These funds shall be used solely for implementation of the measures associated with the project in the event the project owner fails to comply with the requirements specified in this Condition, or shall be returned to the project owner upon successful compliance with the requirements in this Condition. The CPM's or CDFW's use of the security to implement measures in this Condition may not fully satisfy the project owner's obligations under this condition. Financial assurance can be provided to the CPM and CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFW, BLM and the USFWS, of the form of the Security. Security shall be provided in the amounts of $3,681,687 for Phase 1; $3,234,921 for Phase 2, $3,613,250 for Phase 3, and $3,115,754 for Phase 4. These Security estimates are based on the most current guidance from the REAT agencies (Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010) and may be revised with updated information. This Security estimate reflects the amount that would be required for Security if the project owner acquired the 3976 acres of mitigation lands itself. The actual costs to comply with this condition will vary depending on the final footprint of the project and its four phases, and the actual costs of acquiring, improving and managing the compensation lands.

i. ***NFWF REAT Account.*** The project owner may elect to fund the acquisition and initial improvement of compensation lands through NFWF by depositing funds for that purpose into NFWF's REAT Account. Initial deposits for this purpose, which includes a NFWF

administrative fee, must be made in the amounts of $3,802,991 for Phase 1, $3,304,650 for Phase 2, $3,691,169 for Phase 3, and $3,182,894 for Phase 4 as the security required in section 3h., above and may be provided in lieu of security**.** If this option is used for the acquisition and initial improvement, the project owner shall make an additional deposit into the REAT Account if necessary to cover the actual acquisition costs and administrative costs and fees of the compensation land purchase once land is identified and the actual costs are known. If the actual costs for acquisition and administrative costs and fees are less than that estimated based on the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, July 23, 2010*, or more current guidance from the REAT agencies, the excess money deposited in the REAT Account shall be returned to the project owner. Money deposited for the initial protection and improvement of the compensation lands shall not be returned to the project owner.

Recommendation: BLM should clarify whether the funding for NFWF required in the original ROD is included in the new DEIS. If it is not, BLM must include it in the FEIS.

We appreciate the opportunity to comment.

Sincerely,

Alex Daue, Assistant Director, Renewable Energy
The Wilderness Society
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Attachments

- Attachment 1: the original Record of Decision for the Blythe Solar Power Project
- Attachment 2: Appendix 6A of the original Record of Decision for the Blythe Solar Power Project

ATTACHMENT 1

RECORD OF DECISION

Blythe Solar Power Project
and
Amendment to the California Desert Conservation Area Plan

Riverside County, California

Lead Agency:

United States Department of the Interior
Bureau of Land Management

Environmental Impact Statement FES 10-41
Case File Number: CACA 048811

Blythe Solar Power Project Decision to Amend the CDCA Plan and to Grant

United States Department of the Interior, Bureau of Land Management
Palm Springs South Coast Field Office (PSSCFO)
1201 Bird Center Drive
Palm Springs, CA 92262

October 2010

Cooperating Federal Agency:
Department of Energy (DOE)

DOI Control Number: FES-10-41

BLM Publication Index Number: BLM/CA/ES-2010-015+1793

NEPA Tracking Number: DOI-BLM-CA-060-0010-0013-EIS

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Appendices

Please Visit the Blythe Solar Web Page for the Appendices

http://www.blm.gov/ca/st/en/prog/energy/fasttrack/blythe/fedstatus.html

List of Abbreviations

AFC	application for certification
AO	authorized officer
ARRA	American Recovery and Reinvestment Act
BA	biological assessment
BLM	Bureau of Land Management
BO	biological opinion
BRSA	biological resources survey area
CDCA	California Desert Conservation Area
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
CTTM	Comprehensive Travel and Transportation Management
DNA	Determination of NEPA Adequacy
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
ECCMP	Environmental and Construction Compliance Monitoring Program
EO	Executive Order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Endangered Species Act
FEIS	final environmental impact statement
FLPMA	Federal Land Policy Management Act of 1976
I-10	Interstate 10
kV	kilovolt
LLC	limited liability company
MDAPMD	Mojave Desert Air Pollution Management District
MOU	memorandum of understanding
MW	megawatt
NAHC	Native American Heritage Commission

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	notice of availability
NOI	notice of intent
NTP	notice to proceed
PA	programmatic agreement
PA/FEIS	plan amendment and final environmental impact statement
PMPD	presiding member's proposed decision
POD	plan of development
PPA	power purchase agreement
ROD	record of decision
ROW	right-of-way
RSA	Revised Staff Assessment
RWQCB	Regional Water Quality Control Board
SA/DEIS	staff assessment/draft environmental impact statement
SCE	Southern California Edison
SF	Standard Form
SHPO	California State Historic Preservation Office
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service

Executive Summary

This document constitutes the Record of Decision (ROD) of the United States Department of the Interior (DOI) and the Bureau of Land Management (BLM) for the Blythe Solar Power Project and Amendment to the *California Desert Conservation Area Land Use Management Plan* (1980, as amended) (CDCA Plan). This ROD approves the construction, operation and maintenance, and termination of the proposed Blythe Solar Power Project on approximately 7,025 acres of public lands in Riverside County, California, and amends the CDCA Plan to identify the Blythe Solar Project as a recognized power generation facility. These decisions were analyzed in the Plan Amendment/Final Environmental Impact Statement (PA/FEIS), issued on August 20, 2010 through the Environmental Protection Agency's Notice of Availability published in the Federal Register.

This ROD has two decisions: (1) a CDCA Plan Amendment; and (2) a right-of-way (ROW) grant decision under Title V of the Federal Land Policy and Management Act (FLPMA). The ROW will be granted to Palo Verde Solar I, LLC, and will allow the construction, operation and maintenance, and termination of the Blythe Solar Power Project that was analyzed in the PA/FEIS as the BLM's Agency Preferred Alternative, and which also is referred to as the Selected Alternative in this ROD. Amendment of the CDCA Plan is required to allow a solar energy generation project on this site because the site was not already identified as a site for power generation in the current Plan. The proposed CDCA Plan Amendment was reviewed by the Governor's Office of Planning and Research and was found to be consistent with state and local plans.

This decision reflects careful consideration of the information generated from the Blythe Solar Power Project environmental review process, and further reflects resolution of the issues brought to the BLM and the DOI through such process.

This ROD applies only to BLM-administered lands, and to the BLM's decisions on the Blythe Solar Power Project. Other agencies, including the California Energy Commission (CEC) and the U.S. Department of Energy (DOE), are responsible for issuing their own decisions and applicable authorizations for the Blythe Solar Power Project.

ES.1 Decision Rationale

These decisions fulfill legal requirements for managing public lands. Granting the ROW contributes to the public interest in developing renewable power to meet state and federal renewable energy goals. The stipulations in the grant ensure that authorization of the Blythe Solar Power Project will protect environmental resources and comply with environmental standards. These decisions reflect careful balancing of many competing public interests in managing public lands. These decisions are based on comprehensive environmental analysis and full public involvement. The BLM engaged highly qualified

technical experts to analyze the environmental effects of the Blythe Solar Power Project. During the scoping process and following the publication of the Staff Assessment/Draft Environmental Impact Statement (SA/DEIS), members of the public submitted comments that enhanced the BLM's consideration of many environmental issues relevant to this project. The BLM, CEC, DOE, U.S. Fish and Wildlife Service, and other consulted agencies used their expertise and existing technology to address the important issues of environmental resource protection. The BLM and DOI have determined that all practicable mitigation measures contained in the PA/FEIS and the Biological Opinion which avoid or minimize environmental harm have been adopted.

1.0 Decisions

1.1 Background

This Record of Decision (ROD) for the Blythe Solar Power Project and Associated Amendment to the *California Desert Conservation Area Plan* (CDCA Plan) approves the construction, operation, maintenance, and termination (which includes decommissioning) of the proposed 1,000-MW Blythe Solar Power Project on approximately 7,025 acres of BLM-administered public lands in Riverside County, California, as analyzed in the *Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Blythe Solar Power Project* (PA/FEIS) and as noticed in the August 20, 2010, *Federal Register* (75 Fed. Reg. 51,479). This decision approves the Blythe Solar Power Project Agency Preferred Alternative as analyzed in the PA/FEIS, with some post-PA/FEIS modifications and clarifications. The Agency Preferred Alternative is also referred to as the Selected Alternative in the ROD.

This approval will take the form of a Federal Land Policy and Management Act (FLPMA) right-of-way (ROW) grant, issued in conformance with Title V of FLPMA and implementing regulations found at 43 Code of Federal Regulations (CFR) Part 2800. In order to approve the site location for the Blythe Solar Power Project, the BLM also approves a land use plan amendment to the CDCA Plan, with the resultant closure of three Open Off-Highway Vehicle Routes that traverse the approved project site.

The decisions contained herein apply only to the BLM-administered public lands within the Selected Alternative.

One ROW grant will be issued to Palo Verde Solar I, LLC for a term of 30 years with a right of renewal so long as the lands are being used for the purposes specified in the grant. The ROW grant will allow Palo Verde Solar I, LLC, the right to use, occupy and develop the described public lands to construct, operate, maintain, and terminate a concentrated solar thermal electric generating facility with four adjacent, independent solar plants of 250 megawatt (MW) nominal capacity each (for a total capacity of about 1,000 MW nominal capacity) in eastern Riverside County, as the BLM identified and evaluated in the PA/FEIS. The project site is located approximately two miles north of the I-10 freeway, and eight miles west of the city of Blythe, California, within Township 6 South, Ranges 21 and 22 East and Township 5 South, Range 22 East. Figure 1, provided in Appendix 5, Location Maps, shows the location of the project site.

Palo Verde Solar I, LLC may, on approval from the BLM, assign the ROW grant to another party in conformance with the Part 2800 ROW regulations. Construction of the project may be phased; however, the BLM typically requires the initiation of project construction within two years of the issuance of a ROW grant. In addition, initiation of construction will be conditioned on final approval by BLM of the construction plans. This

approval will take the form of an official Notice to Proceed (NTP) for each phase or partial phase of construction. If the approved project does not progress to construction, operation, or is proposed to be changed to the extent that it appears to the BLM to be a new project proposal on the approved project site, that proposal is subject to additional NEPA review.

The ROW is conditioned on implementation of mitigation measures and monitoring programs as identified in the PA/FEIS, the Biological Opinion issued by the United States Fish and Wildlife Service (USFWS), The National Historic Preservation Act (NHPA) Section 106 Programmatic Agreement (PA), the California Energy Commission (CEC) Conditions of Certification, and the issuance of all other necessary local, state, and federal approvals, authorizations and permits.

In addition to the commercial solar parabolic trough generating station, the other main features of the project include an administration building, parking area, maintenance building, switchyard, bioremediation areas, wastewater treatment facilities, access and maintenance roads, perimeter fencing, central gas pipeline, a distribution line, fiber optics line, and water wells; offsite project features include access to the site, a distribution line gas pipeline, fiber optics lines, and a double circuit 230 kilovolt (kV) gen-tie line that would connect into the power grid at the planned Southern California Edison Colorado River Substation approximately five miles southwest of the site.

Surveys and ground clearance are expected to begin in November 2010, and construction for Phase I A is planned to begin December 2010. Project construction will occur in three phases and total build-out is expected to take 69 months to complete. Commercial operation of Unit One is anticipated in May 2013, with subsequent units coming online in 6- to 12-month intervals.

The Blythe Solar Power Project is one of the first large-scale solar energy generation projects approved on public lands. The BLM worked closely with state and federal partners and the public in an unprecedented collaborative effort. Through this process, the BLM has gained insights into the complexity of permitting utility-scale renewable energy projects on diverse public lands, and the need for flexibility throughout the process. The BLM will continue to engage agency partners and the public in this constantly evolving environment.

1.1.1 Application/Applicant

Pursuant to an agreement with Solar Millennium jointly to develop the Blythe Solar Power Project, Chevron Energy Solutions submitted a Standard Form 299–"Application for Transportation and Utility Systems and Facilities on Federal Lands" with the BLM Palm Springs/South Coast Field Office for a ROW grant to Palo Verde Solar I, LLC. Palo Verde Solar I, LLC is a wholly-owned subsidiary of Solar Millennium and is the single applicant (Applicant) for the Blythe Solar Power Project. Solar Millennium is part of an international company in the renewable energy sector and a global leader in the

field of solar-thermal (parabolic trough) power plants. Together with the company's other subsidiaries and associates, the company covers all important business sectors along the value chain for solar-thermal power plants, including: financing, project development, technology development, and the turnkey construction and operation of power plants. The Applicant is seeking approval to construct, operate, and decommission the Blythe Solar Power Project and related facilities and infrastructure. The Applicant has demonstrated technical and financial capabilities as part of the ROW grant application process.

Parallel to the Federal ROW grant application process, an Application for Certification (AFC) for the project was filed with the CEC. Since filing its original ROW application with the BLM, the Applicant's development plans have been updated several times through submittals to the CEC project docket. The CEC project docket can be accessed online at
http://www.energy.ca.gov/sitingcases/solar_millennium_blythe/index.html.

The Applicant and Southern California Edison (SCE) have entered into a 20-year Power Purchase Agreement (PPA) for the provision of renewable electricity. The California Public Utilities Commission (CPUC) approved the PPA on July 8, 2010. The Applicant submitted a Large Generator Interconnection Application to the California Independent System Operator (CAISO) in January 2008. The CAISO Phase I Interconnection Study was released in July 2009, and the CAISO Phase II Interconnection Study was released in July 2010. The Applicant is currently negotiating the final terms for a Large Generator Interconnection Agreement (LGIA) with SCE, and expects to sign a LGIA in November 2010.

1.1.2 Purpose and Need

BLM's Purpose and Need

The BLM's purpose and need for the Blythe Solar Power Project is to respond to the Applicant's application under Title V of FLPMA for a ROW grant to construct, operate, maintain and terminate a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws.

1.1.3 EIS Availability, 30-Day Review, Protests

Pursuant to a July 2007 Memorandum of Understanding (MOU) between the BLM and CEC for the joint environmental review of solar energy projects, the BLM and CEC jointly prepared the SA/DEIS for the Blythe Solar Power Project, which included analysis of no action/no construction alternatives, and several construction alternatives, in addition to the proposed project. The SA/DEIS was circulated for agency and public comment between March 19, 2010, and June 17, 2010; those comments and BLM's responses are provided in the PA/FEIS. Comments on the SA/DEIS were used to develop the PA/FEIS.

Copies of the PA/FEIS (DOI Control No. FES 10-41), dated August 2010, are available at the BLM Palms Springs / South Coast Field Office (1201 Bird Center Drive, Palm Springs, California 92262) and the BLM California Desert District Office (22835 Calle San Juan de Los Lagos, Moreno Valley, California 92553). The PA/FEIS also is available online at the BLM website at: http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/Blythe_Solar_Power_Project.html.

Although not part of its normal EIS process, because of the unique nature of these projects and information gathered after the SA/DEIS had been published, the BLM made the PA/FEIS available for an additional 30-day public review/comment period. This comment period ran concurrently with the standard land use plan protest period from August 20, 2010, to September 20, 2010. Sixteen comment letters were submitted on the PA/FEIS. All substantive comments received during the 30-day protest period were reviewed and responded to by the BLM in this ROD. The BLM's responses to these comments are included in Appendix 1 to this ROD, *Response to Comments on the Final Environmental Impact Statement*. Six protests were filed; all have been resolved by the Director or withdrawn.

After issuing this ROD for the Blythe Solar Power Project, the BLM will publish a Notice of Availability of the ROD in the Federal Register.

1.1.4 BLM Authority under FLPMA and NEPA

Federal Land Policy and Management Act of 1976

FLPMA establishes policies and procedures for the management of public lands. In Section 102(a)(8), Congress declared that it is the policy of the United States that:

> ". . . the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use (43 U.S.C.1701(a)(8))."

FLPMA Section 202 and the regulations implementing FLPMA's land use planning provisions (43 CFR subparts 1601 and 1610) provide a process and direction to guide the development, amendment, and revision of land use plans for the use of the public lands.

Title V of FLPMA (43 United States Code (USC) 1761-1771) authorizes the BLM, acting on behalf of the Secretary of the Interior, to authorize a ROW grant on, over, under, and through the public lands for systems for generation, transmission, and distribution of electric energy. The BLM's implementation of its statutory direction for ROW authorizations is detailed in 43 CFR Part 2800. The BLM Authorized Officer administers

the ROW authorization and ensures compliance with the terms and conditions of the ROW lease. "Authorized Officer" means any employee of the Department of the Interior to whom the agency has delegated the authority to perform the duties described in 43 CFR Part 2800. This authority is derived from the authority of the Secretary of the Interior, and may be revoked at any time. The authority to approve all actions pertaining to the granting and management of Title V ROWs on public lands is delegated to the respective BLM State Directors (BLM Manual 1203, Appendix 1, p.33). In California, the authority of the BLM State Director to approve actions pertaining to the granting and management of Title V ROWs has been further delegated to the Field Managers. In respect to this specific ROW grant, this authority has been delegated to the Field Manager of the BLM Palm Springs-South Coast Field Office, who will be responsible for managing the ROW grant for the Blythe Solar Power Project.

National Environmental Policy Act

Section 102(c) of the National Environmental Policy Act (NEPA) (42 USC 4321 et seq.) and the Council on Environmental Quality (CEQ) and DOI implementing regulations (40 CFR Parts 1500–1508 and 43 CFR Part 46) provide for the integration of NEPA directives into agency planning to ensure appropriate consideration of NEPA's policies and to eliminate delay.

When taking actions such as approving CDCA Plan Amendments and ROW grants, the BLM must comply with NEPA and the CEQ's regulations implementing NEPA. Compliance with the NEPA process is intended to assist federal officials in making decisions about projects and planning that are based on an understanding of the environmental consequences of the decision, and identifying actions that protect, restore, and enhance the environment. The SA/DEIS, PA/FEIS, and this ROD document the BLM's compliance with the requirements of NEPA for the Blythe Solar Power Project.

CDCA Plan

In furtherance of its authority under the FLPMA, the BLM manages public lands in the California Desert District pursuant to the CDCA Plan, and its amendments. The Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not specifically identified in the CDCA Plan for a specific project site be considered through the Plan amendment process. Because the CDCA Plan has not previously identified the Blythe Solar Power Project site for power generation, the Plan must be further amended to allow a solar energy generation project on that site. The planning criteria for considering an amendment to the CDCA Plan are discussed in CDCA Plan Chapter 4.10, *Land Use and Corridor Analysis*.

Guidance and Regulations

The BLM processes ROW grant applications for solar development in accordance with 43 CFR 2804.25 and the BLM's 2008 "Guidance for Processing Applications for Solar

Power Generation Facilities on BLM Administered Public Lands in the California Desert District," which states:

> When all or part of a proposed renewable energy project is located in a designated utility corridor, the impacts of occupying the utility corridor must be analyzed, along with alternatives that would help mitigate the impacts to the utility corridor. The EIS prepared for a proposed solar energy project should analyze the impact that the project would have on the ability of the utility corridor to serve its intended purpose, i.e., would the corridor continue to retain the capacity to site additional utilities in the corridor or would the project so constrain the available land within the corridor that it would limit the corridor's ability to locate additional linear facilities, e.g. transmission lines, pipelines, etc.

As discussed in PA/FEIS Section 3.6.3, *Existing Situation*, Blythe Solar Power Project solar generating facilities would not be within designated corridors; however, ancillary facilities associated with the project would be within a Section 368 Designated Corridor as defined by the Energy Policy Act (identified as Corridor 30-52, 2 miles in width), as well as a locally-designated Corridor K.

The potential project impacts related to occupying a utility corridor are evaluated in PA/FEIS Section 4.6, *Impacts on Lands and Realty*. In the immediate vicinity of the project site and within affected utility corridors, additional capacity is available for future projects. Joint use of the corridor is adequate to accommodate the Blythe Solar Power Project and its ancillary facilities, as well as currently authorized but yet unbuilt and pending projects.

1.1.5 Other Authorities and Policies

In conjunction with the FLPMA, applicable BLM authorities and policies also include:

- Energy Policy Act (119 Statutes 594, 600), Section 211, which states "It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on public lands with a generation capacity of at least 10,000 megawatts of electricity."

- BLM's Solar Energy Development Policy (April 4, 2007), which states the BLM's general policy is issued under Instruction Memorandum 2007-097 Solar Energy Development Policy to facilitate environmentally responsible commercial development of solar energy projects on public lands and to use solar energy systems on BLM facilities where feasible. Applications for commercial solar energy facilities will be processed as ROW authorizations under Title V of FLPMA and 43 CFR, Part 2800. Commercial concentrating solar power (CSP) or photovoltaic electric generating facilities must comply with BLM's planning,

environmental, and ROW application requirements, as do other similar commercial uses.

- Executive Order 13212 (May 18, 2001), which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the "production and transmission of energy in a safe and environmentally sound manner."

- Secretarial Order 3285 (March 11, 2009), which "establishes the development of renewable energy as a priority for the Department of the Interior."

DOE Authority under EPAct

The DOE is a cooperating agency with the BLM on the PA/FEIS for the Blythe Solar Power Project. The Energy Policy Act of 2005 (EPAct), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, established a Federal loan guarantee program for eligible energy projects. Title XVII of the EPAct authorizes the Secretary of Energy to make loan guarantees for a variety of types of projects, including those that "avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases, and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." The purposes of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. The DOE's purpose and need for action is to comply with its mandate under Title XVII of the EPAct by selecting eligible projects that meet the goals of the Act.

The Applicant applied to the DOE for a loan guarantee under Title XVII of the Act, as amended, for Solar Power Units 1 and 2 of the Blythe Solar Power Project.

1.2 Information Developed Since the PA/FEIS

Since the preparation and publication of the PA/FEIS, new information has become available. This new information, described below, did not result in any significant modifications to the Selected Alternative or require any additional NEPA analysis.

Some minor clarifications, however, have been made to the Plan of Development (POD) and to the Environmental Construction Compliance and Monitoring Program (ECCMP) (Appendix 4 of this ROD) for the Blythe Solar Power Project. The POD will govern any inconsistency of fact relating to the project description.

- The PA/FEIS states that the routing of communications lines would be adjacent to the Black Rock Road, and the site access road. This is incorrect. Instead, voice and data communications for the Blythe Solar Power Project would be provided by a new twisted pair telecommunications (telecom) cable. The routing for this cable would

end at the existing infra-structure near Mesa Drive. The Blythe Solar Power Project also would have two other telecom lines required by the California Independent System Operator to provide operational data to the Colorado River Substation. The primary transmission-related telecom line would be strung overhead along the same poles as the 230 kV gen-tie line to the Colorado River Substation. Both of the buried telecom cables will be adjacent to the site access road for the portion north of I-10. The redundant telecom line will continue south of I-10 to the Colorado River Substation following the route of the gen-tie line, while the Blythe Solar Power Project telecom cable will follow Black Rock Road to Mesa Drive.

- Surveys of the gen-tie route for cultural and biological resources were completed during the spring of 2010, prior to publication of the PA/FEIS. The preliminary results of these surveys were provided to the BLM in a letter report dated May 11, 2010, with a final addendum submitted to BLM on July 23, 2010. The final report, however, was not submitted to the BLM until August 25, 2010, after publication of the PA/FEIS.

  Biological surveys were conducted in spring 2010 for the disturbance area of the Reconfigured Alternative, in order to survey areas not surveyed in 2009, such as the re-routed gen-tie line. The major focus of the biological investigation was to assess potential impacts to special status plant and wildlife species that may occur within the proposed project biological resources survey area (BRSA) and the Reconfigured Alternative BRSA. Surveys were conducted to map vegetation communities and waters of the State and to determine the presence or absence of special status plant and wildlife species. These surveys were conducted in accordance with applicable regulations and established survey protocols for various special status species. The fieldwork focused on rare plant surveys, delineation of jurisdictional areas, protocol surveys for desert tortoise and western burrowing owl, avian point count surveys, and a general wildlife inventory.

- Since the publication of the PA/FEIS, fall surveys for botanical resources have been completed for the project site. The surveys did not encounter any plant species not previously identified during other botanical surveys and documented in the PA/FEIS.

- The PA/FEIS did not explicitly discuss the salvage of cactus and yucca plants as part of botanical resource mitigation. The salvaging of cactus and yucca prior to ground disturbing activities is consistent with BLM regulations and policy. The Applicant must implement the Decommissioning Plan dated October 4, 2010, as revised to include the salvage of cactus and yucca plants.

- The PA/FEIS did not discuss the Applicant-proposed mitigation measures for the evaporation ponds. PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, correctly reports the results of a 1986 study, which showed that much of the risk of bird collisions came from their attraction to “adjacent evaporation ponds and agricultural fields.” The section should have discussed, however, the measures the Applicant proposed (as part of the project) to take to prevent the ponds from being an

attractant for birds. As noted in PA/FEIS Appendix G, Condition of Certification BIO-25 requires: (1) netting of all evaporation ponds to exclude birds and other wildlife; (2) additional visual bird deterrents and a rigorous monitoring program to verify that the netting is effective in excluding birds and other wildlife; and (3) adaptive management and remedial action to discourage wildlife use, if monitoring detects bird use at the ponds. The ECCMP applicable to the Blythe Solar Power Project (Appendix 4 to this ROD), includes clarifications to the PA/FEIS relating to mitigation measures in the following ways:

- One of the biological mitigation measures referenced in the PA/FEIS, BLM-BIO-21, has been superseded and is no longer required. This mitigation measure initially required the Applicant to create a new water source or acquire compensatory habitat to mitigate potential impacts to the spring foraging habitat for Nelson's bighorn sheep. The PA/FEIS refers to California Energy Commission Conditions of Certification throughout Chapter 4, *Environmental Consequences*, and in Appendix G, as such COCs were set forth in the August 11, 2010 Presiding Members' Proposed Decision. Since the COCs may change in the final license or as a result of amendments to the license, however, the PA/FEIS should have referred to the COCs as set forth in the license, as amended.

- To clarify the method and means that the Applicant shall use to communicate with the public and affected jurisdictions about the Blythe Solar Power Project (see, e.g., BLM-REC-2, BLM-REC-4 and OHV-1), the Applicant shall prepare a one-page fact sheet and submit it to the BLM's Palm Springs South Coast Field Office for appropriate distribution.

- The BLM's understanding of potential impacts to Colorado River Water from groundwater pumping associated with the project, and the potential need for an entitlement for Colorado River Water, has changed since the publication of the PA/FEIS. In the SA/DEIS for the project, the CEC and BLM did not determine whether groundwater pumping would result in impacts to Colorado River Water. Instead, the SA/DEIS stated, "[i]f new wells [for the Blythe Solar Power Project] will draw water from mainstream of the lower Colorado River," mitigation requirement SOIL&WATER-3 would require the Applicant to acquire an entitlement of offset to lower Colorado River water.

  The PA/FEIS Section 4.19.5, *Residual Impacts after Mitigation Measures are Implemented*, implies, however, that groundwater basins are hydrologically connected to the Colorado River, and therefore the Applicant must obtain an allocation from the Colorado River. The PA/FEIS states "all or a portion of the groundwater production at the site will be considered Colorado River water. Consequently, the [project] has the potential to divert Colorado River water and that part, if not all of the water, would come from the Colorado River Basin." The PA/FEIS analyzed potential impacts to the Colorado River accordingly.

Since the publication of the PA/FEIS, it is the BLM's decision not to make a determination as to whether the groundwater for the Blythe Solar Power Project is Colorado River water. The California Energy Commission suggests in its Final Decision for the Blythe Solar Power Project that implementation of the Conditions for Certification and updated modeling may show that groundwater pumping will not draw down from the Colorado River. As a term and condition of the BLM authorized ROW for the project, the Applicant must comply with all CEC Conditions of Certification, which include water mitigation, modeling, and monitoring measures.

Moreover, the BLM has thoroughly reviewed the regulatory framework regarding the use of the accounting surface methodology of determining impacts to the Colorado River, and determined that no formal regulation exists that requires the Applicant to acquire an allocation at this time. The Bureau of Reclamation has not finalized its rule on the accounting surface methodology for the Colorado River. This ROD recognizes that, should a rulemaking ever be finalized on the currently proposed accounting surface, the BLM will work with the Applicant to ensure that appropriate processes are followed to obtain such an allocation.

- The BLM did not intend the visual resource mitigation measure BLM-VIS-1 to be imposed where views of the backs of solar troughs could not be visible outside the facility due to fences and other intervening structures or obstructions. As such, the Applicant will not be required to utilize this measure when it is unnecessary and ineffective.

- In instances where the mitigation measures (see Appendix 4 to this ROD) require the Applicant to submit compliance-related reporting to the CEC and to the BLM, the BLM and CEC will work together to avoid duplicative submissions where possible.

1.3 Decisions Being Made

1.3.1 Bureau of Land Management ROW Grant

Under federal law, the BLM is responsible for processing requests for ROW grant applications to determine whether and to what extent to authorize proposed projects, such as renewable energy projects and other appurtenant facilities, on land it manages. Because the project is a privately-initiated venture and would be sited on lands managed by the BLM, the Applicant applied for a ROW grant from the BLM pursuant to federal law and regulations. . In addition, BLM has limited the grant to those lands necessary for constructing, operating, maintaining, and terminating the authorized facilities on public lands. In addition, the grant includes conditions based on the PA/FEIS, the Biological Opinion, the Programmatic Agreement, and other applicable federal rules and regulations to protect public health and safety, and to ensure the project will not result in unnecessary or undue degradation of the public lands. On approval of the ROW grant, the Applicant will be authorized to construct and operate the 7,025 acre, 1,000-MW solar project if it meets the requirements specified in the ROD. The ROD requires the

Applicant to secure all necessary local, state and federal permits, authorizations and approvals before the BLM will issue an NTP for the first phase of the project. On receipt of the NTP, and by remaining consistent with it, the Applicant will be able to construct and operate the Blythe Solar Power Project on the proposed site.

1.3.2 Land Use Plan Amendment

Under the CDCA Plan, the Blythe Solar Power Project site is currently classified as Multiple-Use Class (MUC) L (Limited Use). The CDCA Plan provides guidance concerning the management and use of BLM lands in the California Desert while balancing other public needs and protecting resources. The CDCA Plan contemplates industrial uses analogous to the solar use analyzed by the proposed plan amendment, including utility rights-of-way outside of existing corridors, power plants, and solar energy development and transmission (CDCA Plan, p.95). The CDCA Plan provides in its guidelines that solar development in Class L areas "may be allowed after NEPA requirements are met" (CDCA Plan, p. 15). In the CDCA Plan ROD, the Assistant Secretary for Land and Water Resources discussed remaining major issues in the final CDCA Plan before he approved the same (CDCA ROD, p.10 et seq.). One of the remaining major issues was the allowance of wind, solar, and geothermal power plants within designated Class L lands (CDCA ROD, p. 15). That ROD recognized that:

> These facilities are different from conventional power plants and must be located where the energy resource conditions are available. An EIS will be prepared for individual projects.

The recommended decision, which was ultimately approved, noted:

> Keep guidelines as they are to allow these power plants if environmentally acceptable. Appropriate environmental safeguards can be applied to individual project proposals which clearly must be situated where the particular energy resources are favorable.

This issue, the allowance of wind, solar, and geothermal power plants on designated Class L lands in the CDCA, was approved by the Assistant Secretary for Land and Water Resources, and concurred in by the Secretary of the Interior on December 19, 1980. According to its terms, the BLM must amend the CDCA Plan to allow siting of a solar power generating facility within in the CDCA on MUC L lands.

Based on the MUC Guidelines provided in Table 1 in the CDCA Plan, solar uses are conditionally allowed in the MUC L designation contingent on NEPA requirements being met for the proposed use. The PA/FEIS and ROD for the Blythe Solar Power Project meet NEPA requirements for consideration of the project and for consideration of the project site as suitable for development. The CDCA Plan is specifically amended by this ROD to identify this site as suitable for the proposed type of solar energy development.

1.3.3 Revisions to Open Routes

In 2002, the BLM updated access plans and routes in the eastern Colorado Desert through the Northern & Eastern Colorado Desert Coordinated Management Plan (NECO) Amendment to the CDCA Plan. The NECO Amendment assigned access for off-highway vehicle (OHV) routes in the eastern Colorado Desert. Currently, there are five open routes traversing the project site. Open Route access is defined in the CDCA Plan as:

> "Access on route by motorized vehicles is allowed. Special uses with potential for resource damage or significant conflict with other use may require specific authorization."

The five open routes on the site are shown on Table 4.16-1 and on Figures 10 and 10a in the PA/FEIS. In order to accommodate the Selected Alternative, three open routes identified in the PA/FEIS (Routes 661085, 66113, and 66115) will be closed. These routes are comprised of approximately 4.5 miles of public access. With approval of the ROW grant, the BLM will designate these three open routes as closed. The perimeter of the project site will be fenced, which will prevent public access within the project site, except for access to holders of valid existing rights. The other routes in the project vicinity will remain open and are outside the ROW boundary for the Blythe Solar Power Project. (See additional discussion in Section 6.0, *Errata*, of this ROD.) There are at least five other designated routes under the NECO plan located east and northwest of the project boundary, as well as dozens of smaller and ancillary routes. These routes will remain available to public use and enjoyment and, as a result, extensive connectivity to public lands north of this project will continue to exist.

Additionally, since this project is located in Multiple Use Class L (Limited), OHV travel is allowed in open washes. In the original project design, the McCoy Wash would have been transected by the project, which would have resulted in the closure of the wash to OHV users. The footprint of the Selected Alternative as approved in this ROD, however, does not transect McCoy Wash, and user access to the Wash will not be affected. (See additional discussion in Section 6.0, *Errata*, of this ROD.)

The administrative process for revising designated routes, given the evolving and changing priorities for public lands, is described in the CDCA Plan Motorized Vehicle Access Element and in BLM guidance, *Clarification of Guidance and Integration of Comprehensive Travel and Transportation Management Planning into the Land Use Planning Process* (CTTM) (Instruction Memorandum 2008-014, Oct. 27, 2007). These revision processes recognize the changing contexts and need for flexibility in allowing OHV public access on BLM-managed lands. The Motorized Vehicle Access Element of the CDCA Plan (page 82) describes the process for changing the designations of vehicle access routes as:

> "Decisions affecting vehicle access, such as area designations and specific route limitations, are intended to meet present access needs and protect sensitive resources. Future access needs or protection requirements may require changes in these designations or limitations, or the construction of new routes…Access needs for other uses, such as roads to private lands, grazing developments, competitive events, or communication sites, will be reviewed on an individual basis under the authority outlined in Title V of FLPMA and other appropriate regulations. Each proposal would be evaluated for environmental effects and subjected to public review and comment. As present access needs become obsolete or as considerable adverse impacts are identified through the monitoring program, area designations or route limitations will be revised. In all instances, new routes for permanent or temporary use would be selected to minimize resource damage and use conflicts, in keeping with the criteria of 43 CFR 8342.1."

The BLM processes for revising route designations are further provided for in the CTTM policy. According to that policy, changes to a travel network in a limited area may be made through activity-level planning or with site-specific NEPA analysis. While changes to area designations (e.g., limited to open) require a plan amendment, changes to route designation (e.g., open to closed, closed to open) do not require a Land Use Plan amendment. This administrative process, along with the administrative process described in the CDCA Plan, is implemented to change the affected open routes on the project site to closed routes. The closure of these routes was described and analyzed in the PA/FEIS for the Blythe Solar Power Project, consistent with the CTTM policy.

1.3.4 What is not Being Approved

During pre-application, the Applicant contacted the BLM to evaluate a number of project site locations in which the 1,000-MW solar power project site was considered potentially feasible. The BLM discouraged the Applicant from including in its application alternate BLM locations with significant environmental concerns, such as critical habitat, Areas of Critical Environmental Concern, Desert Wildlife Management Areas (DWMAs), designated OHV areas, wilderness study areas, and designated wilderness areas or other sensitive resources. The BLM encouraged the Applicant to design a project with the fewest potential conflicts.

A total of 24 alternatives were developed for consideration in the joint CEC-BLM Staff Assessment and Draft Environmental Impact Statement (SA/DEIS). After the release of the SA/DEIS for public review, the BLM continued to consult and coordinate with Federal and State regulatory agencies regarding the project to avoid impacts to desert tortoise habitats, rare plants, and cultural resource sites eligible for National Register of Historic Places listing. As a result of these discussions, the terms conditions and requirements of the Biological Opinion and Programmatic Agreement will govern implementation of the Proposed Action.

As discussed in PA/FEIS 2.5.6, *Alternatives Considered but Eliminated from Detailed Analysis*, other alternative sites, technologies and methods were considered but eliminated from detailed analysis in the PA/FEIS for the Blythe Solar Power Project. Six alternatives (including the proposed action) were developed for full consideration in the PA/FEIS: no action alternative, a no project alternative with an amendment to identify the site as suitable for solar development, a no project alternative with an amendment to identify the site as unsuitable for solar development, the applicant's proposal, a reconfigured alternative, and a reduced acreage alternative

After consideration of the impact analysis in the PA/FEIS and comments from the public, federal and state agencies, and local groups and individuals, the Selected Alternative was identified as the Agency Preferred Alternative in the PA/FEIS. The rationale for this decision is discussed below in Section 3.1.

1.4 Right-of-Way Requirements

The BLM uses SF 2800-14 (ROW Lease/Grant) as the instrument to authorize the ROW grant for the project; it includes the Plan of Development (POD) and all other terms, conditions, stipulations, and measures required as part of the grant authorization. Consistent with BLM policy, the Blythe Solar Power Project ROW grant will include a diligence development and performance bonding requirement for installation of facilities consistent with the approved POD. Construction of the initial phase of development must commence within 12 months after issuance of the Notice to Proceed but no later than 24 months after the effective date of the issuance of the ROW grant. The holder shall complete construction within the timeframes approved in the Plan of Development, but no later than 24 months after start of construction or as otherwise approved by the BLM for phased construction.

1.4.1 Post-approval Siting Conformance Process

Surface disturbance locations and acreages identified in the PA/FEIS are anticipated to be sufficient for the construction and operation (including maintenance) of the project and all ancillary improvements. However, specific linear route alignments and other project engineering refinements often continue past the project approval phase and into the construction and operation phases. As a result, facility locations, work area locations and disturbed acreages locations documented in the PA/FEIS often have minor location shifts after project approval. The project applicant has conducted resource surveys beyond the extent of the facility descriptions identified in the document in anticipation of the need to make such adjustments in the construction and operation phase to minimize impacts to resources and facilitate minor changes in facility design.

The following describes the procedures to be used for addressing minor modifications to facility alignment and location. This procedure will be identified as a term and condition of the ROW grant.

Subsequent to issuance of the ROW grant, when work areas outside those identified in the ROW are found to be needed (whether on federal or non-federal lands), additional inventory and evaluation will be performed if necessary to ensure the impact on biological, cultural, and other resources are avoided or minimized to the maximum extent practicable. Revised facility locations and survey results would be documented and forwarded to the BLM in the form of a Conformance Request. BLM consultations will be required as necessary prior to approval of the Conformance Request. At the conclusion of project construction or as project phases are completed, as-built drawings must be provided to the BLM for the purpose of conforming the ROW to the as-built locations. All Conformance Requests will be documented and tracked to ensure the acreages of disturbance affected by post-authorization conformance changes remain within the limits of impacts analyzed in the PA/FEIS and approved in the ROD and ROW grant.

1.5 Summary of Conclusions

The Selected Alternative for the Blythe Solar Power Project is the action alternative that provides the most public benefits and avoids the most cultural, biological and hydrological resources for the following reasons:

- As a result of consultation with Tribal governments and representatives and the Programmatic Agreement, many cultural resources in the area are avoided by the Selected Alternative, or the impacts are substantially mitigated.

- Based on the conditions in the Biological Opinion/Conference Opinion and the ongoing consultation with the USFWS during project construction and operations, many biological resources in the area are avoided by the Selected Alternative, or the impacts are substantially mitigated.

- The applicant agreed to adopt the dry-cooling alternative as the proposed action in order to further reduce groundwater impacts within the sub-basin.

- In addition to the mitigation provided for in this ROD, the Applicant through the protest negotiation process has agreed to continue to work with the BLM on providing additional funding for the following enhanced desert wildlife management opportunities:

    - The Applicant, in coordination with the BLM, will work to identify specific fencing strategies along the I-10 Corridor or other heavily used access/recreation areas within the Chuckwalla DWMA to maximize protection of Desert tortoise by reduce direct or indirect mortality associated with recreational vehicle use;

    - The Applicant, in coordination with the BLM, will work to ensure enhanced funding is available to maintain certain existing infrastructure that is

currently used to enhance protection of Desert tortoise, including, but not limited to: road underpasses, fencing, gates, and barrier crossings;

- The Applicant in, coordination with the BLM, will work to identify specific habitat enhancements within the DWMA that could be used to increase habitat values for Desert tortoise and other sensitive species;

- The Applicant, in coordination with the BLM, will provide enhanced funding that may facilitate the BLM's restoration of illegal routes or closed routes. Illegal routes are those that have been created via unauthorized use of recreational off-highway vehicles in areas that are closed to such use.

As a result, the 1,000-MW Selected Alternative would result in less than or similar impacts to the other action alternatives related to cultural resources and biological resources.

Additionally, the Blythe Solar Power Project is expected to provide climate, employment, and energy security benefits to California and the nation. The project takes a major step toward meeting state and federal climate change goals. It will provide clean electricity for homes and businesses, and bring much-needed jobs to the area; Eastern Riverside County has a high unemployment rate: 12.7 percent (PA/FEIS, p. 4.13-3). The project is expected to create 1,004 jobs during peak construction, as well as 221 permanent, full-time jobs during the plant's operation (PA/FEIS, p. 4.13-12).

2.0 Mitigation and Monitoring

2.1 Required Mitigation

The Blythe Solar Power Project includes the following measures, terms, and conditions:

- Avoidance, Minimization, and Mitigation Measures provided in PA/FEIS Chapter 4, *Environmental Consequences*, and Appendix G, *Conditions of Certification,* as amended by the errata (Section 6.0 of this ROD)*;*

- Terms and Conditions in the United States Fish and Wildlife Service Biological Opinion provided in Appendix 2, *Biological Opinion,* of this ROD, as such may be amended over time; and

- Terms and Conditions in the Programmatic Agreement provided in Appendix 3, *Programmatic Agreement*, of this ROD, supersede the mitigation measures identified in the PA/FEIS as BLM-CUL-1 through and including BLM-CUL-9.

The complete language of these measures, terms, and conditions is provided in the Plan of Development for the Blythe Solar Power Project as stipulated in the ROW grant for

compliance purposes. These measures, terms, and conditions are determined to be in the public interest pursuant to 43 CFR 2805.10(a)(1).

2.2 Monitoring, Mitigation, and Enforcement

Federal Regulations require the BLM, or other appropriate consenting agency, to adopt mitigation (40 CFR 1505.2(c)) and other conditions as established in the Final EIS or during its review and committed as part of the decision, unless such agency explains why such measures were not adopted. The agency may also provide for monitoring to assure that its decisions are carried out and should do so in important cases. The BLM must adopt a monitoring and enforcement program where applicable for any identified mitigation (40 CFR 1505.2(c)). The BLM shall:

a. Include appropriate conditions in grants, permits or other approvals;

b. Condition funding of actions on mitigation;

c. Upon request, inform cooperating or commenting agencies on progress in carrying out mitigation measures they have proposed and that were adopted by the agency making the decision; and

d. Upon request, make available to the public the results of relevant monitoring (40 CFR 1505.3).

The ECCMP for the Blythe Solar Power Project is provided in Appendix 4 of this ROD. It is also available on the following BLM website: http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/Blythe_Solar_Power_Project.html.

As the federal lead agency for the Blythe Solar Power Project under NEPA, the BLM is responsible for ensuring compliance with all adopted mitigation measures for the Blythe Solar Power Project in the PA/FEIS. The complete language of all the mitigation and compliance measures terms, conditions, stipulations, including those found in the Biological Opinion, Programmatic Agreement, and ROW grant, is provided in the POD. The BLM also has incorporated this mitigation into the ROW grant as terms and conditions. Failure on the part of Palo Verde Solar I, LLC, as the grant holder, to adhere to these terms and conditions could result in various administrative actions up to and including a termination of the ROW grant and requirements to remove the facility and rehabilitate disturbances. All practicable means to avoid or minimize environmental harm have been adopted under this decision.

2.3 Mitigation Measures Not Adopted

Consistent with 40 CFR 1505.2(c), all practicable means to avoid or minimize environmental harm from the Blythe Solar Power Project have been adopted as discussed in the previous section. Also as discussed above, a ECCMP for the project

has been adopted and is provided in Appendix 4 of this ROD. There are no BLM identified mitigation measures that have not been adopted in this ROD or developed through the protest resolution process.

2.4 Statement of All Practicable Mitigation Adopted

As required in the BLM *NEPA Handbook H-1790-1* and 40 CFR 1505.2(c), all practicable mitigation measures have been adopted for the Blythe Solar Power Project. The complete language of those measures is provided in Appendix 4.

2.5 Coordination with Other BLM Monitoring Activities

In 2007, the BLM and the CEC formalized a Memorandum of Understanding (MOU) for the joint environmental review of solar thermal power plant projects to be located on public lands. In September 2010, that MOU was amended to ensure that jointly reviewed and approved solar thermal power plant projects, located on public lands, are constructed, operated, maintained, and terminated in conformity with the decisions issued by the BLM and the CEC.

That MOU Amendment specifically indicates that it is in the interest of the BLM and CEC

> . . . to share in construction compliance, environmental compliance, design review, plan check, and construction, maintenance, operation and termination inspection (collectively 'compliance review') of solar thermal power plant projects on public lands, to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the state and federal levels, to develop a more efficient compliance review process, and to meet state and federal requirements.

As documented in the MOU Amendment, BLM will provide primary compliance oversight for the ROW terms and conditions that are required by the BLM and that are separate and apart from those for which the primary oversight is being administered by the CEC.

As part of the MOU Amendment, the BLM and CEC agree to communicate and cooperate in a manner in order to avoid duplication of efforts and to assist each other in effective implementation of compliance efforts for the construction, maintenance, operation, and termination of the Blythe Solar Power Project.

The MOU Amendment is an attachment to the ECCMP provided in Appendix 4.

The BLM recognizes that the CEC conditions of certification (COCs) are not generally within the enforcement authority of the BLM because those COCs are requirements originating in state law and regulations. While the Applicant must comply with those

measures, they are not directly enforceable by the BLM. For those COCs that are also within the enforcement authority of the BLM because of overlapping authorities, the BLM has incorporated provisions of those COCs into its ROW grant as its own terms and conditions subject to its enforcement authority.

In some instances, the BLM identified potential mitigation measures for impacts to public land resources that would not be, and have not been, identified as mitigation measures required by other agencies. In those instances, individual mitigation measures were developed by the BLM that will be incorporated in the ROW grant, and will be monitored and managed solely by the BLM. In addition, standard terms and conditions for approval of the use of public land will be incorporated in the ROW grant and, therefore, will be enforced by the BLM as part of any ROW grant approved for the Blythe Solar Power Project.

The BLM also is developing a protocol for long-term monitoring of solar energy development with Argonne National Laboratories, and the U.S. Department of Energy. The draft protocol recommends the development of a comprehensive monitoring program covering a broad list of resources. The draft protocol also recommends the involvement of other federal and state agencies with a likely interest in long-term monitoring, as well as stakeholder engagement. As the protocols are finalized for this monitoring program, the BLM expects to participate fully in these endeavors and to engage solar energy applicants. As long term monitoring plans evolve, the BLM and its assigns may exercise the United States' retained right to access the lands covered by the grant, and conduct long-term monitoring activities.

3.0 Management Considerations

3.1 Decision Rationale

This decision approves a ROW grant and associated plan amendment for the Blythe Solar Power Project in accordance with the Agency Preferred Alternative (Selected Alternative) as analyzed in the PA/FEIS. The BLM's decision to authorize this activity and to amend the CDCA Plan is based on the rationale described throughout the ROD and as detailed in the following sections.

3.1.1 Respond to Purpose and Need

Approval of the ROW grant for the Selected Alternative responds to the BLM's purpose and need for the Blythe Solar Power Project, by responding to the Applicant's application under Title V of FLPMA for a ROW grant to construct, operate, maintain and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. The BLM's decision to amend the CDCA Plan is also necessary for meeting the agency's purpose and need for the action. The CDCA Plan, while recognizing the potential compatibility of solar generation facilities

on public lands, requires that all sites associated with power generation or transmission not already identified in that plan be considered through the plan amendment process. Therefore, prior to issuance of a ROW grant for the Blythe Solar Power Project, the BLM will amend the CDCA Plan as required to allow for solar use on the project site.

Under the Energy Policy Act of 2005, federal agencies are directed to encourage the development of renewable energy. By entering into an MOU with the CEC, National Park Service (NPS), U.S. Department of Energy (DOE), and the U.S. Army Corps of Engineers (USACE), the BLM has committed to work with state and federal agencies to achieve California's Renewable Portfolio Standards energy goals and greenhouse gas emission reduction standards in a manner that is both timely and in compliance with federal and state environmental laws. The purpose of the MOU is to assist with the implementation of applicable state and federal laws, regulations, and policies.

The construction, operation, maintenance, and termination activities associated with the Selected Alternative, either singularly or with mitigation, are in conformance with the following land use plans and policies:

- BLM policy and guidance for issuing ROW grants, including BLM Manual 2801.11;
- California Desert Conservation Area Plan of 1980, as amended; and
- Northern & Eastern Colorado Desert Coordinated Management Plan, 2002.

The Selected Alternative meets the BLM purpose and need for the Blythe Solar Power Project.

3.1.2 Achieve Goals and Objectives

Selection of the 1,000-MW Selected Alternative would accomplish the objectives of the purpose and need, including meeting power demand, as well as federal and state objectives for renewable energy development. The project complies with CDCA Plan objectives for the Multiple Use Class L – Limited, land use designation. Additionally, the BLM consulted extensively with several parties to identify project modifications that would minimize impacts to natural and cultural resources. The Selected Alternative provides the best balance between maximizing renewable energy capacity while reducing adverse impacts as compared to other action alternatives.

3.2 Required Actions

The following federal statutes require that specific actions be completed prior to issuance of a ROD and project approval:

3.2.1 Endangered Species Act of 1973

Under Section 7 of the Endangered Species Act, as amended (ESA, 16 U.S.C. 1531 et seq.) a federal agency that authorizes, funds, or carries out a project that “may affect” a

listed species or its critical habitat must consult with the United States Fish and Wildlife Service (USFWS). The Applicant submitted a draft Biological Assessment in March 2010 and a revised draft Biological Assessment in July 2010 in accordance with Section 7 of the ESA for potential effects to Desert tortoise (*Gopherus agassizii*). The USFWS issued a Biological Opinion for the Blythe Solar Power Project on October 8, 2010 which is provided in Appendix 2. The Biological Opinion concluded that the Blythe Solar Power Project would not adversely modify Desert tortoise critical habitat and would not be likely to jeopardize the continued existence of the Desert tortoise. Measures included in the Biological Opinion would reduce any anticipated adverse impacts, and the BLM's issuance of an NTP will require the Applicant to comply with the Biological Opinion. Furthermore, the ROW grant contains a standard stipulation that requires compliance with the Biological Opinion.

3.2.2 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668a-d) provides for the protection of bald and golden eagles by prohibiting, except under certain specified conditions, disturbance or harm of these species. To comply with the Act and based on the USFWS's recommendation (memo dated September 15, 2010, available as part of the project record), and in accordance with BLM's Instruction Memorandum (IM) 2010-156, the BLM will require the Applicant to develop an Avian Protection Plan (APP) within six months of initiating facility construction. This APP will identify steps the Applicant will take to ensure eagle impacts are mitigated to the extent possible including, but not limited to, on-going surveys, impact monitoring, and facility design.

3.2.3 National Historic Preservation Act of 1966

Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470) requires federal agencies to take into account the effects that their approvals and federally funded activities and programs have on significant historic properties. "Significant historic properties" are those properties that are included in, or eligible for, the National Register of Historic Places. The BLM initiated consultation for the Blythe Solar Power Project under Section 106 of the NHPA, and the requisite process has been completed. A Programmatic Agreement for this project was executed by signature between the BLM and the California State Historical Preservation Officer (SHPO) , Advisory Council for Historic Preservation, on October 7, 2010,pursuant to 36 CFR 800.14(b). The Programmatic Agreement is provided in Appendix 3 of this ROD, *Programmatic Agreement*. The terms and conditions of the Programmatic Agreement supersede the mitigation measures identified in the PA/FEIS as BLM-CUL-1 through and including BLM-CUL-9.

3.2.4 Clean Air Act, as Amended in 1990

Title 40 CFR Section 51 (Subpart W - Determining Conformity of General Federal Actions to State or Federal Implementation Plans), Title 40 CFR Section 93 (Subpart B -

Determining Conformity of General Federal Actions to State or Federal Implementation Plans) and 42 U.S.C. Section 7606(c) require federal actions to comply with the requirements of the 1990 amendments to the Clean Air Act (CAA, 42 U.S.C 7401Ch. 85). The Blythe Solar Power Project is expected to meet the requirements of the CAA based on compliance with the project mitigation, terms, conditions, and stipulations related to emission controls and reductions during project construction, maintenance, operation, and termination.

3.2.5 Incorporate CDCA Plan Management Considerations

The CDCA Plan Amendment is warranted. The record indicates that the Selected Alternative for the Blythe Solar Power Project can be constructed on BLM-administered lands, and that project construction will result in fewer significant, unmitigable impacts to biological resources, and produce a more economically feasible project, than would occur with the other build alternatives with comparable energy production analyzed in the PA/FEIS. The approval of the site location based upon NEPA satisfies the requirements of the CDCA Plan.

3.2.6 Identify Site Location per the California Desert Conservation Area Land Use Plan

The BLM has found that 7,025 acres in the Selected Alternative, as described in the PA/FEIS for the Blythe Solar Power Project, is suitable and can be designated for solar energy development based on compliance with the requirements of NEPA. The CDCA Plan amendment applies the public lands within the boundary of the project site for the Selected Alternative as shown in Appendix 5, Location Maps. The legal description of the project site is described in the ROW for this project to be granted by the BLM.

3.2.7 Statement of No Unnecessary or Undue Degradation

Congress declared that the public lands be managed for multiple use and sustained yield, in a manner to protect certain land values, to provide food and habitat for species, and to provide for outdoor recreation and human occupancy and use (43 USC 1701 (a)(7), (8)). Multiple use management means that public land resources are to be managed to best meet the present and future needs of the American public, balanced to take into consideration the long term needs of future generations without permanent impairment of the lands (43 USC 1702(c)). The BLM manages public land through land use planning, acquisition, and disposition, and through regulation of use, occupancy, and development of the public lands (Subchapters II and III, respectively, 43 USC 1711 to 1722, and 1731 to 1748).

The FLPMA specifically provides that in managing the use, occupancy, and development of the public lands, the Secretary shall take any action necessary to prevent unnecessary or undue degradation of the lands (43 USC 1732(b)). The process for siting and evaluating the Blythe Solar Power Project has included extensive efforts on

the part of BLM, the applicant, CEC, public commentors, and other agencies in order to identify a project that accomplishes the purpose and need and other project objectives, while preventing, to the extent possible, any unnecessary or undue degradation of the lands. These efforts have included:

- Siting of the proposed facility in a location in which solar power development can be authorized (following NEPA review), and which has not been specifically designated for the protection of any resources.
- Modification of the proposed boundaries of the facility to minimize impacts to mineral, biological, and other resources.
- Evaluation of project location alternatives which could meet the purpose and need for the proposed project, but result in the avoidance and/or minimization of impacts.
- The development of mitigation measures, including compensation requirements for the displacement of desert tortoise habitat, to further avoid or minimize impacts.

In addition, BLM ROW regulations at 2805.11(a)(1) to (5) require determinations for the following:

> BLM will limit the grant to those lands which BLM determines:
>
> (1) You will occupy with authorized facilities;
>
> (2) Are necessary for constructing, operating, maintaining, and terminating the authorized facilities;
>
> (3) Are necessary to protect the public health and safety;
>
> (4) Will not unnecessarily damage the environment; and
>
> (5) Will not result in unnecessary or undue degradation.

The lands described in Section 3.2.6 of this ROD are the minimum necessary to accommodate the 7,025-acre project. All areas under the Selected Alternative that were not necessary for the construction, operation, and maintenance of the facilities were removed from the project description. The applicant has consolidated activities within the construction staging area to minimize the amount of additional temporary workspace needed to construct and assemble facility components. All temporary disturbances associated with underground utilities will be immediately restored to minimize erosion in accordance with approved restoration plans. Public health and safety will not be compromised by the project as construction work areas will be posted and public access to those areas controlled to prevent possible injury to the public. During operations site security will be maintained with perimeter control fencing and security personnel.

The Selected Alternative will achieve all of the beneficial impacts including socioeconomic benefits of increases in employment and fiscal resources, and displacement of greenhouse gas and air pollutant emissions associated with fossil-fueled power plants. Based on the comparative analysis of the ability of each alternative to meet the purpose and need, and the environmental impacts that would be associated

with each alternative as discussed in the PA/FEIS and as summarized above, the Selected Alternative was identified by BLM as the alternative that does not unnecessarily damage the environment or create unnecessary or undue degradation of the lands.

As noted above, Congress specifically recognized multiple use and sustained yield management for the CDCA, through the CDCA Plan, providing for present and future use and enjoyment of the public lands, The CDCA Plan identifies allowable uses of the public lands in the CDCA. In particular, it authorizes the location of solar power generating facilities in MUC L and other land classifications upon NEPA review. BLM has conducted that review, and as indicated in the PA/FEIS and portions of this ROD, has adjusted the project to meet public land management needs and concerns. In particular, the BLM has determined that the Selected Alternative meets national renewable energy policy goals and objectives and falls within the guidelines of the CDCA Plan.

In addition, the project meets the requirements of applicable ROW regulations inasmuch as it includes terms, conditions, and stipulations that are in the public interest; prevents surface disturbance unless and until an NTP is secured; is issued for a period of 30 years, subject to renewal and periodic review; and contains diligence and bonding requirements to further protect public land resources. This approval provides that public land will be occupied only with authorized facilities and only to the extent necessary to construct, operate, maintain, and terminate the project. BLM conditions of approval provide for public health and safety and protect the environment and public lands at issue. These conditions of approval include compliance with this ROD, the PA/FEIS, the Biological Opinion, NHPA Section 106 requirements and the Programmatic Agreement. All of these federal requirements provide the basis for BLM's determination that the project will not unnecessarily and unduly degrade these public lands.

3.2.8 Statement of Technical and Financial Capability

The FLPMA and its implementing regulations provide the BLM the authority to require a project application to include information on an applicant's technical capability to construct, operate, and maintain the solar energy facilities applied for (43 CFR 2804.12(a)(5)). This technical capability can be demonstrated by international or domestic experience with solar energy projects or other types of electric energy-related projects on either federal or non-federal lands. The Applicant has provided information on the availability of sufficient capitalization to carry out development, including the preliminary study phase of the project, as well as site testing and monitoring activities.

Palo Verde Solar I, LLC's statement of technical and financial capability is provided in the POD and the application for a ROW. Palo Verde Solar I, LLC is a private enterprise that is a wholly owned subsidiary of Solar Millennium, LLC. In turn, Solar Millennium, LLC, Berkeley, California, is the wholly owned subsidiary of Solar Millennium AG, Erlangen, Germany. Solar Millennium AG is an international company in the renewable energy

sector, with its main emphasis on solar-thermal power plants. The Solar Millennium Group specializes in parabolic trough power plants, a proven and reliable technology, and has achieved a leading position worldwide. The company covers all important business sectors along the value chain for solar-thermal power plants - from project development and technology to turn-key construction, as well as plant operation and investments in power plants. Based upon the information provided by the Applicant in its POD, the BLM has determined that it has the technical and financial capability required to construct, operate, and maintain the approved facility.

3.3 Relationship to BLM and Other Plans, Programs, and Policies

3.3.1 Tribal Consultation

The BLM conducted government-to-government consultation with a number of Tribal governments. The consultation and discussions revealed concerns about the importance and sensitivity of cultural resources on and near the Blythe Solar Power Project site, concerns about cumulative effects to cultural resources, and, further, that they attach significance to the broader cultural landscape. As a result of the Native American Consultation process, many important cultural resources were identified in the project area, and subsequently avoided in the Selected Alternative.

As described in Section 3.2.3, *NHPA Section 106 Programmatic Agreement*, the BLM also consulted with Native American Tribes and interested tribal members on the development and execution of a Programmatic Agreement for the Blythe Solar Power Project. In accordance with 36 CFR Part 800.14(b), programmatic agreements are used for the resolution of adverse effects for complex project situations and when effects on historic properties (resources eligible for or listed in the National Register of Historic Places [National Register]) cannot be fully determined prior to approval of an undertaking.

Based on the ongoing consultation with Tribal governments and representatives and the Programmatic Agreement, many cultural resources in the area are avoided by the Selected Alternative and unavoidable impacts are substantially mitigated. As a result, the Selected Alternative would result in impacts less than or similar to the other build alternatives related to cultural resources.

3.3.2 United States Fish and Wildlife Section 7 Consultation

The BLM permit, consultation, and coordination with the USFWS required for the Blythe Solar Power Project complies with the federal Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) regarding potential take of the Desert tortoise.

The USFWS has jurisdiction over threatened and endangered species listed under the ESA. Formal consultation with the USFWS under Section 7 of the ESA is required for any federal action that may adversely affect a federally-listed species. This consultation was initiated through the preparation and submittal of a Biological Assessment (BA), which described the proposed action to the USFWS. Following review of the BA, the USFWS issued a Biological Opinion, which is attached as Appendix 2 of this ROD, specifying the mitigation measures that must be implemented for any protected species. The Biological Opinion concluded that the Blythe Solar Power Project is likely to adversely affect Desert tortoise but not jeopardize the species or result in adverse modification of critical habitat for that species. Measures included in the Biological Opinion would reduce any anticipated adverse impacts. These measures are mandatory and are conditions of approval of this ROD.

Based on the conditions in the Biological Opinion and the ongoing consultation with the USFWS during project construction and operations, many biological resources in the area are avoided by the Selected Alternative or the impacts are substantially mitigated. As a result, the Selected Alternative would result in impacts less than or similar to the other build alternatives related to biological resources.

3.3.3 NHPA Section 106 Programmatic Agreement

Under Section 106 of the NHPA, the BLM consults with Indian tribes as part of its responsibilities to identify, evaluate, and resolve adverse effects on cultural resources affected by BLM undertakings. Adverse effects that the Selected Alternative could have on cultural resources will be resolved through compliance with the terms of a Programmatic Agreement under NHPA Section 106 (16 USC 470; 36 CFR 800.14).

The BLM prepared a Programmatic Agreement for the Blythe Solar Power Project in consultation with the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, CEC, interested Native American Tribes (including tribal governments as part of government-to-government consultation described earlier), and other interested parties. The executed Final Programmatic Agreement, provided in Appendix 3 of this ROD, will govern the continued identification and evaluation of historic properties (eligible for the National Register) and historical resources (eligible for the California Register of Historic Places), as well as the resolution of any effects that may result from the Blythe Solar Power Project. Historic properties and historical resources are significant prehistoric and historic cultural resources as determined by the BLM.

3.4 Consultation with Other Agencies

3.4.1 Consultation with Other Federal Agencies

United States Department of Energy

The DOE is the agency responsible for implementing key parts of the Energy Policy Act of 2005, including the federal loan guarantee program for eligible energy projects that employ innovative technologies. Title XVII of the Energy Policy Act authorizes the Secretary of Energy to make loan guarantees for a variety of types of energy related projects. The two purposes of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits.

The DOE was a cooperating agency with the BLM on the PA/FEIS. The purpose and need for action by the DOE is to comply with its mandate under the Energy Policy Act by selecting eligible projects that meet the goals of that Act. As such, the BLM provided the DOE with copies of the preliminary Draft EIS, the Draft EIS, the preliminary PA/FEIS, and the PA/FEIS for review. Except to define its purpose and need for the action, the DOE did not provide any comments to the BLM on the NEPA documents for the Blythe Solar Power Project.

United States Environmental Protection Agency

The EPA provided written comments on the proposed project and the EIS preparation during the scoping process, and written comments during the review period for the SA/DEIS as documented in PA/FEIS Section 5.5, *Public Comment Process*. The EPA also submitted comments on the PA/FEIS. The responses to EPA's comments on the PA/FEIS are provided in Appendix 1, *Response to Comments*, in this ROD.

United States Army Corps of Engineers

Project-related impacts to Waters of the U.S. require authorization by the USACE pursuant to Section 404 of the Federal CWA under a Standard Individual Permit subject to the CWA Section 404(b)(1) Guidelines. On August 2, 2010, the USACE determined that the project site does not support water resources meeting the definition of Waters of the U.S. and that a CWA permit will not be required.

3.4.2 Consultation with State, Regional, and Local Agencies

Section 5.5, below, lists other federal, state, regional and local agencies with which the BLM and/or the Applicant have consulted, as part of one or more of the following project phases: planning, scoping, public review of the SA/DEIS, and public review of the PA/FEIS. In addition to the NEPA coordination process, the Applicant may have to obtain permits and other approvals from other agencies or comply with requirements of

other agencies that did not provide written input on the project and/or the EIS. Those agencies include, but may not be limited to:

State Water Resources Control Board/Regional Water Quality Control Board

The State Water Board works in coordination with nine Regional Water Quality Control Boards (RWQCBs) to preserve, protect, enhance and restore water quality. The RWQCBs have authority to protect surface water and groundwater. Throughout the NEPA process, the BLM, CEC, and the Applicant have invited the RWQCBs to participate in public scoping and workshops and have provided information to assist them in evaluating the potential impacts and permitting requirements of the proposed project. The USACE determined that the project site does not support water resources meeting the definition of Waters of the U.S. and that a CWA permit will not be required. In the absence of Waters of the U.S., a CWA Section 401 Certification from the Lahontan Regional Water Quality Control Board (RWQCB) will not be required.

California Department of Fish and Game

The CDFG has the authority to protect water resources through regulation of modifications to streambeds, under Section 1602 of the Fish and Game Code. The BLM, CEC, and the Applicant have provided information to the CDFG to assist in their determination of the impacts to streambeds, and identification of permit and mitigation requirements. The CDFG also has the authority to regulate potential impacts to species that are protected under the California Endangered Species Act. The desert tortoise is listed under the California Endangered Species Act. The CDFG has asserted its jurisdiction over 593 acres of streambeds for direct impacts to jurisdictional waters to the State, and 183 acres for indirect impacts, within the Proposed Action project site. In November 2010, the Applicant submitted a Notification of Lake or Streambed Alteration for the Blythe Solar Power Project to the CDFG.

Riverside County

The 7,025-acre Selected Alternative contains no land under the jurisdiction of Riverside County. The BLM and CEC provided opportunities during scoping for the County to provide input to the environmental technical studies for the project. The County did not submit comments to the BLM on the DEIS or the FEIS.

3.5 Land Use Plan Conformance and Consistency

3.5.1 Conformance with the CDCA Plan

The California Desert Conservation Area Plan

The FLPMA (43 USC 1761; 43 CFR 1600, Section 501) establishes public land policy; guidelines for administration; and provides for the management, protection, development, and enhancement of public lands. The FLPMA specifically establishes BLM's authority to grant rights-of-way for the generation, transmission, and distribution of electrical energy as follows:

(a) The Secretary, with respect to the public lands … are authorized to grant, issue, or renew rights-of-way over, upon, under, or through such lands for:

(4) systems for generation, transmission, and distribution of electric energy

The FLPMA is relevant to the Blythe Solar Power Project because it establishes BLM's authority to grant a ROW on public lands for the generation, transmission, and distribution of electrical energy. Because the FLPMA authorizes the issuance of a ROW grant for electrical generation facilities and transmission lines, the Blythe Solar Power Project would be consistent with the FLPMA.

The CDCA Plan was developed as mandated by the FLPMA. Specifically, the CDCA Plan is the Resource Management Plan (RMP) for the Blythe Solar Power Project site and the surrounding area as required under the FLPMA. The CDCA Plan is a comprehensive, long-range plan that was adopted in 1980; it since has been amended many times. The CDCA is a 25-million-acre area that contains over 12 million acres of BLM-administered public lands in the California Desert, which includes the Mojave Desert, the Sonoran Desert, and a small part of the Great Basin Desert. Those 12 million acres of public lands are approximately half of the total land area in the CDCA. The site proposed for the Blythe Solar Power Project includes approximately 7,025 acres of BLM-administered land in the CDCA.

Goals and actions for each resource managed by the BLM are established in the 12 Elements in the CDCA Plan. Each Plan Element provides a Desert-wide perspective of the planning decisions for one major resource or issue of public concern, as well as more specific interpretation of multiple-use class guidelines for a given resource and its associated activities.

The Blythe Solar Power Project site is classified in the CDCA Plan as Multiple-Use Class (MUC) L (Limited Use). MUC L "…protects sensitive, natural, scenic, ecological, and cultural resource values." Public lands designated Class L are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. The CDCA Plan states, "… electrical generation plants may be allowed …" within the Limited Use designation. Specifically, wind and solar electrical generating facilities "… may be allowed after NEPA

requirements are met." Electrical generating facilities using nuclear and/or fossil fuels, however, are not allowed within the Limited Use designation. Approval of the Selected Alternative amends the CDCA Plan following the process anticipated in the CDCA Plan to identify the site as suitable for solar energy development. As stated in the PA/FEIS, the CDCA Plan Amendment would only apply to the BLM-administered land being evaluated for the Blythe Solar Power Project. Accordingly, the CDCA Plan Amendment and the overall amendment process are consistent with the CDCA Plan.

Need for a CDCA Plan Amendment

To accommodate the Blythe Solar Power Project, the CDCA Plan is being amended because "[s]ites associated with power generation of transmission not identified in the Plan will be considered through the Plan Amendment process." As specified in CDCA Plan Chapter 7, *Plan Amendment Process*, there are three categories of Plan Amendments. Approval of the Blythe Solar Power Project would require a Category 3 amendment to the CDCA Plan to accommodate a request for a specific use or activity that will require analysis beyond the Plan Amendment Decision.

The CDCA Plan Amendment to designate (identify) the site of the Selected Alternative for solar energy generation is provided in the ROD through the following Land Use Plan amendment analysis.

Land Use Plan Amendment Analysis

The proposed Land Use Plan Amendment to be made by the BLM is a site identification decision only. Because the proposed solar project and its alternatives are located within MUC L, the classification designations govern the type and degree of land use action allowed within each classified area. All land use actions and resource management activities on public lands within an MUC designation must meet the guidelines for that class. MUC L allows electric generation plants for solar facilities after NEPA requirements are met. These guidelines are listed in Table 1, Multiple Use Class Guidelines, in the CDCA Plan. The specific application of the MUC designations and resource management guidelines for a specific resource or activity are further discussed in the plan elements section of the CDCA Plan. In Class L designations, the BLM Authorized Officer (AO) is directed to use his/her judgment in allowing for consumptive uses by taking into consideration the sensitive natural and cultural values that might be degraded.

The site for the Blythe Solar Power Project meets the MUC Guidelines (as applicable to this project and site) for the following reasons:

Air Quality: Class L lands, including the project site, are to be managed to protect their air quality and visibility in accordance with Class II objectives of the federal CAA. The worst-case emissions that would be associated with the Blythe Solar Power Project are provided in PA/FEIS Section 4.2, *Impacts on Air Quality*. Those values were compared to emissions objectives for air quality and visibility associated with Class II areas in 40

CFR 52.51, and are all well below the limitations required for Class II areas. Therefore, the Selected Alternative conforms to the Class II objectives referenced in the CDCA Plan guidelines.

Water Quality: Class L designations will be managed to provide for the protection and enhancement of surface and groundwater resources, and best management practices (BMPs) will be used to avoid degradation and to comply with Executive Order (EO) 12088. PA/FEIS Section 4.19, *Impacts on Water Resources*, evaluated the alternatives for the potential to impact groundwater and surface water resources. Development and operation of the Blythe Solar Power Project raised concerns about concentrated drainage and ensuing soil erosion and sediment transport offsite, as well as water quality. The incorporation of CEC Conditions of Certification WATER-1 through WATER-17 will reduce these potential impacts. Although the BLM has not established BMPs for solar projects, it has reviewed, and agrees with the implementation of, the BMPs that would be associated with the project and its alternatives. Those BMPs were derived from a variety of sources. Implementation of these BMPs, and BLM's standard terms and conditions requiring compliance with other federal, state, and local regulations, would constitute compliance with EO 12088. Those measures are applicable to all project alternatives, and would therefore conform to the Guidelines in Table 1 of the CDCA Plan.

Cultural and Paleontological Resources: Archaeological and paleontological values will be preserved and protected as described in PA/FEIS Section 4.4, *Impacts on Cultural Resources*. The Programmatic Agreement, provided in Appendix 3 to this ROD, specifically addresses compliance with 36 CFR 800 in project construction, operation, maintenance, and decommissioning, including identification of properties listed or eligible for listing on the National Register of Historic Properties. The identification of the project site was subject to the MUC Guidelines for cultural and paleontological resource protection as is evidenced by the applicability of the Guidelines to the specific facility proposal. As such, the project and the project site are within the MUC Guidelines for cultural and paleontological resource protection established by the CDCA Plan based on implementation of the PA.

Native American Values: Native American cultural and religious values will be protected and preserved on MUC L lands with appropriate Native American groups consulted. Repeated efforts and opportunities were provided to allow tribal entities to raise concerns regarding the project and, as a result, the cultural guidelines with respect to requirements for consultation were met. The concerns raised are addressed in the Programmatic Agreement in Appendix 3 to this ROD. The protection of cultural resources, as addressed in the Programmatic Agreement, ensures that preservation and protection of cultural and religious values is accomplished in accordance with the CDCA Plan MUC Guidelines.

Electrical Generation Facilities: Solar generation may be allowed on the project site after NEPA requirements are met. The analysis in the PA/FEIS, which addresses each

of the project alternatives, comprises the NEPA compliance required for this MUC guideline.

Transmission Facilities: Class L guidelines allow electric transmission to occur in designated ROW corridors. The Blythe Solar Power Project meets this guideline for the build alternatives by locating new transmission facilities in existing ROW corridors to the extent feasible.

Fire Management: Fire suppression measures in Class L areas will be taken in accordance with specific fire management plans, subject to such conditions as the BLM AO deems necessary. The project site is within the area covered by the BLM California Desert District and the Palm Springs South Coast Field Office and their relevant fire management and suppression policies, as well as by the Riverside County Fire Department.

Vegetation: Table 1 of the CDCA Plan includes a variety of guidelines associated with vegetation. These are addressed in the PA/FEIS as follows:

- *Native Plants*: Removal of native plants in Class L areas is only allowed by permit after NEPA requirements are met, and after development of necessary stipulations. Approval of the ROW grant for the Selected Alternative would constitute the permit for such removal. The mitigation measures in the PA/FEIS and conditions of approval described elsewhere in this ROD constitute the stipulations to avoid or minimize impacts from the removal.

- *Harvesting of Plants by Mechanical Means*: Harvesting by mechanical means also is allowed by permit only. Although the build alternatives would include the collection of succulents and seeds to assist with reclamation, the removal of these items would not be done for distribution to the public. Also, the guidelines for vegetation harvesting include encouragement of such harvesting in areas where the vegetation would be destroyed by other actions, which would be the case with the Selected Alternative. Because plants would not be distributed to the public, and harvesting would conform to the guidelines, , the Selected Alternative conforms to this MUC guideline.

- *Rare, Threatened, and Endangered Species, State and Federal*: In all MUC areas, all state and federally listed species will be fully protected. In addition, actions which may jeopardize the continued existence of federally listed species will require consultation with the USFWS. As evaluated in PA/FEIS Section 4.17, *Impacts on Vegetation Resources*, no federally or state listed plants would be impacted by the build alternatives. The Selected Alternative will result in impacts to an area supporting Sonoran Creosote Bush Scrub through fragmentation or permanent loss, but is not a sensitive plant group, and therefore the selected alternative conforms to the MUC guidelines.

- *Sensitive Plant Species*: Identified sensitive plant species will be given protection in management decisions consistent with BLM's policy for sensitive species management (BLM Manual 6840). The objective of that policy is to conserve and/or recover listed species, and to initiate conservation measures to reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing. As described in PA/FEIS Section 4.17, *Impacts on Vegetation Resources*, the Selected Alternative may impact land supporting California Native Plant Society-identified sensitive plants, including Harwood's Milk-vetch, Las Animas Colubrina, Harwood's Woollystar (Eriastrum), Ribbed cryptantha, Winged cryptantha, Utah milkvine, and Desert uniicorn. With the exception of Harwood's Woollystar (Eriastrum), these plants are not BLM sensitive species and, moreover, the implementation of mitigation measures, including BIO-1 through BIO-8, BIO-14, BIO-19, BIO-22, BIO-23, and BIO-28, would avoid or minimize impacts on vegetation resources.

- *Unusual Plant Assemblages (UPAs)*: No UPAs were identified on the project site.

- *Vegetation Manipulation*: Manipulation of vegetation in Class L areas by mechanical control or aerial broadcasting is not permitted. Vegetation manipulation is defined in the CDCA Plan as removing noxious or poisonous plants from rangelands; increasing forage production; creating open areas within dense brush communities to favor certain wildlife species; or eliminating introduced plant species. None of these actions would be conducted as part of the Selected Alternative. Therefore, action would conform to the guidelines.

Motorized Vehicle Access/Transportation: Pursuant to the CDCA Plan guidelines in Class L areas, new roads may be developed under ROW grants or approved plans of operations. In areas designated as limited use area for OHV use, such as the site locations under consideration for the project, changes to the transportation network (new routes, re-routes, or closures) in Limited areas may be made through activity-level planning or with site-specific NEPA analysis (BLM Instructional Memorandum 2008-014). Three of the five existing open OHV routes on the Blythe Solar Power Project site will be closed. These changes are made with the site-specific NEPA analysis provided in Section 4.16, Impacts on Transportation and Public Access, in the Final EIS, and therefore conform to the Plan guidelines.

Wildlife Species and Habitat: Table 1 of the CDCA Plan includes a variety of guidelines associated with wildlife. These are addressed PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, as follows:

- *Rare, Threatened, and Endangered Species, State and Federal*: In all MUC areas, the CDCA Plan guidelines for wildlife require that state and federally listed species and their critical habitat be fully protected. Actions that may jeopardize the continued existence of federally listed species require consultation with the USFWS. As discussed in Section 4.21, *Impacts on Wildlife Resources*, the

Desert tortoise is federally listed. As specified in the guidelines, BLM conducted formal consultation with the USFWS in accordance with Section 7 of the Endangered Species Act. As a result of the consultation, the USFWS issued a Biological Opinion (See Appendix 2 to this ROD). As a term and condition of the ROW grant and consistent with the CDCA Plan guidelines, the Applicant is required to conform to all measures outlined in the Biological Opinion to minimize and mitigate impacts to desert tortoise.

- *Sensitive Species*: Identified species would be given protection in management decisions consistent with BLM's policy for sensitive species management (BLM Manual 6840). The objective of this policy is to conserve and/or recovered listed species, and to initiate conservation measures to reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing. Sensitive wildlife species, including special-status wildlife, evaluated in PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, and PA/FEIS Appendix H, *Biological Cumulative Impacts Analysis,* include Desert tortoise, Nelson's bighorn sheep, Mojave fringe-toed lizard, golden eagle, American badger, desert kit fox, Western burrowing owl, Le Conte's thrasher, burro deer, and Couch's spadefoot toad. Impacts to these species were described in the PA/FEIS and all necessary consultation with the FWS was completed. Specific mitigation measures are included to prevent impacts to these species and therefore the selected alternative conforms to the MUC L guidelines.

- The Selected Alternative includes extensive mitigation to avoid and reduce adverse impacts to wildlife species. Introduction of native species is permitted in Class L areas, and habitat manipulation is allowed subject to environmental assessment, as is done within the PA/FEIS for the Blythe Solar Power Project. Therefore, the Selected Alternative conforms to these guidelines.

- The Selected Alternative does not involve the control of depredation wildlife and pests. Therefore, this guideline is not applicable to these actions.

- The implementation of mitigation measures, including BIO-1 through BIO-28, avoids or minimizes impacts of the project on wildlife resources.

The project and the site location do not impact the following public land resources or uses: Agriculture, Communication Sites, Environmental Justice, Livestock Grazing, Land Tenure Adjustment, Minerals, National Scenic or Historic Trails, Recreation (other than route closure), Waste Disposal, Wetland/Riparian Areas, Wild and Scenic Rivers, or Wild Horses and Burros. Therefore, these guidelines are inapplicable to the land use plan decision being made in this ROD.

Required CDCA Plan Determinations

As discussed in CDCA Plan Chapter 7, the BLM must make certain required determinations in amendments to the CDCA Plan. The required determinations and how

they were made for the CDCA Plan Amendment for the Blythe Solar Power Project are provided below.

> **Required Determination:** Determine if the request has been properly submitted and if any law or regulation prohibits granting the requested amendment.

The Applicant's request for a ROW grant was properly submitted; the PA/FEIS was the mechanism for evaluating and disclosing environmental impacts associated with that application. No law or regulation prohibits granting the CDCA Plan Amendment.

> **Required Determination:** Determine if alternative locations within the CDCA are available which would meet the applicant's needs without requiring a change in the Plan's classification, or an amendment to any Plan element.

The CDCA Plan does not currently identify any sites as solar generating facilities. Therefore, there is no other location within the CDCA that could serve as an alternative location without requiring an amendment similar to the one required for the Selected Alternative on the Blythe Solar Power Project site. The Selected Alternative does not require a change in the Multiple-Use Class classification for any area within the CDCA.

> **Required Determination:** Determine the environmental effects of granting and/or implementing the applicant's request.

The PA/FEIS evaluated the environmental effects of approving the CDCA Plan Amendment and the ROW grant application for the Blythe Solar Power Project.

> **Required Determination:** Consider the economic and social impacts of granting and/or implementing the applicant's request.

The PA/FEIS evaluated the economic and social impacts of the Plan Amendment and the ROW grant.

> **Required Determination:** Provide opportunities for and consideration of public comment on the proposed amendment, including input from the public and from federal, state, and local government agencies.

A Notice of Intent (NOI) to amend the CDCA Plan was published in the Federal Register on November 23, 2009 (Volume 74, No. 224). Fourteen comment letters were received within the 30-day scoping period, which ended on December 23, 2009. In accordance with the NOI, issues identified during the scoping period are placed in the comment categories below.

- Issues to be resolved in the Plan Amendment: Comments were received regarding the purpose and need for the project; as well as concerns about the impacts to air, soils, water, biological, cultural and other resources that could occur if the CDCA Plan was amended to allow the proposed use. These comments were considered in the PA/FEIS.

- Issues to be resolved through policy or administrative action: Comments requesting that specific environmental impacts and mitigation measures be analyzed in the Final EIS were considered in the PA/FEIS.

- Issues beyond the scope of the Plan Amendment: Issues raised in comments that were determined to be beyond the scope of the EIS related to independent analysis of resource values of various renewable energy zones, the adequacy of "end of project life" planning and the relative balance among renewable energy generation options to meet the forecasted demand for 2020.

  Required Determination: Evaluate the effect of the proposed amendment on BLM management's desert-wide obligation to achieve and maintain a balance between resource use and resource protection.

The balance between resource use and resource protection is evaluated in the PA/FEIS. The FLPMA Title VI, as addressed in the CDCA Plan, provides for the immediate and future protection and administration of the public lands in the California Desert within the framework of a program of multiple use and sustained yield, and maintenance of environmental quality. Multiple use includes the use of renewable energy resources, and, through Title V of FLPMA, the BLM is authorized to grant rights-of-way for the generation and transmission of electric energy. The acceptability of use of public lands within the CDCA for this purpose is recognized through the CDCA Plan's approval of solar generating facilities within Multiple-Use Class L. The PA/FEIS identifies resources that may be adversely impacted by approval of the Blythe Solar Power Project, evaluates alternative actions which may accomplish the purpose and need with a lesser degree of resource impacts, and identifies mitigation measures that, when implemented, would reduce the extent and magnitude of the impacts and provide a greater degree of resource protection.

CDCA Plan Decision Criteria

The CDCA Plan defines specific Decision Criteria to be used by the BLM in evaluating applications in the Energy Production and Utility Corridors Element of Chapter 3. The consideration of these Decision Criteria for the Blythe Solar Power Project is described below.

> **Decision Criterion:** Minimize the number of separate rights-of-way by utilizing existing rights-of-way as a basis for planning corridors.

The Blythe Solar Power project helps minimize the number of separate rights-of-way by being proposed largely within existing utility corridors as described later in this section. Electrical transmission associated with the project around and south of I-10 will occur within these existing corridors.

> **Decision Criterion:** Encourage joint-use of corridors for transmission lines, canals, pipelines, and cables.

The Blythe Solar Power Project solar generating facilities would not be within designated corridors; ancillary facilities associated with the project would, however, be located within designated corridors around and south of I-10. Placement of Blythe Solar Power project within existing designated corridors maximizes the joint-use of these corridors for electrical transmission.

Decision Criterion: Provide alternative corridors to be considered during processing of applications.

This decision criterion is not applicable to the Blythe Solar Power project. Placement of the proposed facility adjacent to existing corridors does not require designation of alternative corridors to support the project.

Decision Criterion: Avoid sensitive resources wherever possible.

The extent to which the Blythe Solar Power project has been located and designed to avoid sensitive resources is addressed throughout the PA/FEIS. The BLM and other federal regulations that restrict the placement of proposed facilities, such as the presence of designated Wilderness Areas or Desert Wildlife Management Areas, were considered in the original siting process used by the Applicant to identify potential sites for the project locations. The alternatives analysis considered whether the purpose and need of the project could be achieved with a different build alternative, but with a lesser effect on sensitive resources. That analysis indicated that the alternatives would likely result in generally similar impacts as the project.

Decision Criterion: Conform to local plans whenever possible.

The extent to which the Blythe Solar Power Project conforms to local plans is addressed in Section 5 of the PA/FEIS. Some comments on the SA/DEIS suggested that compliance with local land use plans (including the Riverside County General Plan; Palo Verde Valley Area Plan, which is an extension of the Riverside County General Plan; and Blythe Airport Land Use Plan) is required. However, these plans pertain to non-federal land in the vicinity of the site and do not control federal actions on federal land. Accordingly, decision criterion is not applicable to the Blythe Solar Power Project.

Decision Criterion: Consider wilderness values and be consistent with final wilderness recommendations.

The Blythe Solar Power project site is not in a designated Wilderness Area or Wilderness Study Area.

Decision Criterion: Complete the delivery systems network.

This decision criterion is not applicable to the Blythe Solar Power Project.

Decision Criterion: Consider ongoing projects for which decisions have been made.

This decision criterion is not applicable to the Blythe Solar Power Project. Approval of the project would not affect any other projects for which decisions have been made.

> **Decision Criterion:** Consider corridor networks that take into account power needs and alternative fuel resources.

This decision criterion is not applicable to the Blythe Solar Power Project. The project does not involve the consideration of an addition to or modification of the corridor network.

3.5.2 BLM's Northern and Eastern Colorado Desert Coordinated Management Plan Amendment to the CDCA Plan

Various federal regulations, Executive Orders, and the CDCA Plan require the BLM to designate routes of travel as Open, Limited, or Closed to vehicular travel and to assure that resources are properly managed in a multiple use context.

In 2002, in an amendment to the CDCA Plan, the BLM identified and designated many routes of travel in the Northern & Eastern Colorado Desert Coordinated Management Plan (NECO) amendment. This amendment to the CDCA Plan clarified, updated, and assigned designations (Open, Closed, or Limited) to all travel routes within the NECO amendment area.

The project site is within the NECO amendment area. There are five open routes within the ROW grant boundary of the project site. The five open routes on the project site follow established dirt roads/trails on the site and are described in PA/FEIS Section 4.16, *Impacts on Transportation and Public Access – Off Highway Vehicle Resources*, and identified in Table 4.16-1, *Designated Routes within Blythe Project Area*.

The designated open routes on the project site will be affected by the project, which requires closure of three open routes. Specifically, three open routes located within the project footprint will be closed to public access. The closure of these routes is an administrative action by the BLM taken in conformance with current BLM policy.

Under the policy provisions of the BLM Washington Office Instruction Memorandum No. 2008-014, *Clarification of Guidance and Integration of Comprehensive Travel and Transportation Management Planning into the Land Use Planning*, selection and designation of individual routes within a Limited area is an implementation decision but is not a land use plan decision. All of the open routes affected by the Blythe Solar Power Project footprint will be closed to public access, except valid existing rights. The changes to the travel network (routes) in the Multiple Use Class L (Limited) (MUC-L) area within the Blythe Solar Power Project site are being closed upon the approval of the ROW authorization for the project. Those routes are described in Table 4.16-1 in the PA/FEIS.

The other routes in the project vicinity will remain open and are outside the ROW boundary for the Blythe Solar Power Project. (See additional discussion in Section 6.0, *Errata*, of this ROD.) There are at least five other designated routes under the NECO plan located east and northwest of the project boundary, as well as dozens of smaller and ancillary routes. These routes will remain available to public use and enjoyment and, as a result, extensive connectivity to public lands north of this project will continue to exist.

Additionally, since the project is located is located in MUC-L, OHV travel is allowed in open washes with the NECO planning area. In the original project design, the McCoy Wash would have been transected by the project, which would have resulted in the closure of the wash to OHV users. The footprint of the Selected Alternative as approved in this ROD, however, does not transect McCoy Wash, and user access to the Wash will not be affected. (See additional discussion in Section 6.0, *Errata*, of this ROD.)

3.5.3 Utility Corridors

The Blythe Solar Power Project site would not be within designated corridors; however, ancillary facilities associated with the project would. Locating parts of the proposed project within these utility corridors is consistent with the designation of those corridors by the BLM as utility corridors and would not adversely impact other uses in these corridors.

3.6 Adequacy of NEPA Analysis

Section 1.2 above discusses the modifications to the Selected Alternative that have occurred since the publication of the PA/FEIS due to necessary clarifications and/or new information (e.g., completion of biological surveys). None of the modifications discussed above alters the level of information provided to the public through the NEPA process, the description of the project, or the BLM's overall analysis of potential impacts by the BLM. Because these clarifications and modifications do not result in a change of impacts beyond those evaluated during the NEPA process, and are well within the Selected Alternative analyzed in the FEIS, additional or supplemental NEPA analysis is not required. (40 CFR 1502.9(c)).

The BLM provides the following rationale for the changes addressed in Section 1.2:

- **Routing of Communication Lines:** The impacts associated with the transmission-related telecommunications (telecom) cables were not fully analyzed in the PA/FEIS. The primary transmission-related telecom line would be strung overhead along the same poles as the 230 kV gen-tie line to the Colorado River Substation. Impacts from this line are redundant to those already analyzed in the PA/FEIS for the 230 kV gen-tie line. Additionally, the redundant transmission-related telecom will be buried similar to Blythe Solar Power Project telecom cable, and therefore will result in

impacts redundant to those analyzed for the project-related telecom cable in the PA/FEIS.

- **Cultural and Biological Survey Report for Gen-Tie Route:** The preliminary results of these surveys were provided to the BLM in a letter report dated May 11, 2010, with a final addendum submitted to BLM on July 23, 2010. The final report, however, was submitted to the BLM on August 25, 2010, after publication of the PA/FEIS. The final report reflected only minor comments submitted by the BLM, and did not reflect new or substantially different information than was understood from the preliminary report. As such, this information does not alter the analysis as provided in the PA/FEIS.

- **Fall Botanical Surveys:** The botanical surveys conducted in fall 2010, after publication of the PA/FEIS, did not encounter any species not already discussed and analyzed in the PA/FEIS.

- **Cactus and Yucca Salvage Plan:** The salvaging of cactus and yucca prior to ground disturbing activities does not change the impacts to those plants on the project site as analyzed in the PA/FEIS.

- **Mitigation Measures for Evaporation Ponds:** The PA/FEIS failed to address the Applicant-proposed mitigation measures for avian species around the evaporation ponds, which reduce the likelihood of impacts to avian species. Through imposition of the mitigation measures, even if resident or migratory birds initially were attracted to the evaporation ponds, the netting would preclude use of the ponds for drinking, foraging, resting or nesting, and birds would be unlikely to linger in an area that provides no habitat or foraging opportunities. Accordingly, the aviation assessment in the PA/FEIS correctly concluded that, with the implementation of BIO-25, the Blythe Solar Power Project would not increase in the number of birds in the vicinity of the Blythe Airport.

- **Water Source Mitigation Option for Bighorn Sheep:** This mitigation measure initially required the Applicant to create a new water source or acquire compensatory habitat to mitigate potential impacts to the spring foraging habitat for Nelson's bighorn sheep. In light of amendments by the CEC to the license for the Blythe Solar Power Project, the mitigation for bighorn sheep includes acquisition of habitat only, and no longer includes the creation of a new water source. This change does not alter the analysis of the PA/FEIS because the Applicant will still mitigate impacts to bighorn sheep through the habitat acquisition option, as analyzed.

- **Communication with the Public:** The requirement that the Applicant develop a one-page fact sheet is ministerial and does not involve impacts to any resource areas.

- **Colorado River Water Permit:** Since the publication of the PA/FEIS, the BLM has refined its understanding of the proposed accounting surface methodology for the

Colorado River, and its potential applicability to the Blythe Solar Power Project. Due to the uncertainty of the current methodology, which the BLM relied upon in the PA/FEIS, the BLM is not making a determination as to whether the groundwater for the Blythe Solar Power Project is hydrologically connected to the Colorado River. The BLM fully analyzed in the PA/FEIS potential impacts of groundwater pumping on the Colorado River, if it is later determined that the groundwater basins are hydrologically connected to the Colorado River. As such, should the law ever require the Applicant to obtain an allocation of Colorado River Water, the PA/FEIS already analyzed those potential impacts.

- **Visual Resource Mitigation Measure:** The BLM has clarified that the Applicant will not be required to utilize mitigation BLM-VIS-1 on structures that are not otherwise visible to the public. This clarification does not alter the visual resource impacts as analyzed, because the visual experience of the public will remain the same.

- **Compliance-Related Reporting:** The BLM has clarified that the Applicant should avoid duplication between the CEC and BLM in compliance-related reporting on mitigation measures. Because this change is ministerial it does not involve impacts to any resource areas.

4.0 Alternatives

The Selected Alternative was chosen from among a total of 24 alternatives considered by the BLM, five of which were carried forward, in addition to the Proposed Action, for more detailed review; the remaining 19 alternatives were considered but eliminated from detailed analysis.

4.1 Alternatives Fully Analyzed

The Proposed Action and five alternatives were fully analyzed in the Blythe Solar Power Project PA/FEIS, Section 2.5.4. Each is described in detail in the PA/FEIS and summarized below.

4.1.1 The Proposed Action – Blythe Solar Power Project

The Proposed Action includes a solar thermal facility and double-circuit 230 kV power transmission line (gen-tie) on BLM-administered public land in eastern Riverside County. The Blythe Solar Power Project consists of four adjacent, independent power block units of 250 MW nominal capacity, each for a total nominal capacity of 1,000 MW commercial solar parabolic trough generating station and ancillary facilities. The project also includes onsite facilities, such as an administration building, parking area, maintenance building, switchyard, bioremediation areas, wastewater treatment facilities, access and maintenance roads (either dirt, gravel or paved), perimeter fencing, central gas pipeline, a distribution line, fiber optics line, and water wells. Offsite project facilities include

access to the site, a distribution line gas pipeline, and fiber optics lines. The double circuit 230 kV gen-tie line will connect into the power grid at the planned Southern California Edison Colorado River Substation approximately 5 miles southwest of the Blythe Solar Power Project. The total permanent footprint of the proposed on-site facilities will be fenced and, including rerouting drainage channels, will be approximately 6,840 acres. The proposed off-site linear facilities will be approximately 185 acres. The total estimated permanent footprint is approximately 7,025 acres.

4.1.2 Reconfigured Alternative

The Reconfigured Alternative would be a 1,000 MW solar facility like the Proposed Action and also would require a CDCA Plan amendment, the details of which are discussed in Section 2.5.4 of the PA/FEIS. The Reconfigured Alternative was developed by the Applicant in response to a data request submitted by the CEC. The alternative was developed to reduce impacts related to a major unnamed dry wash that flows through the proposed site along the southwestern side. Three of the proposed solar fields would remain at their proposed locations. Unit 3, i.e., the southwestern solar field would be relocated approximately 0.8 mile south of its proposed location, on approximately 1,350 acres of land (approximately 150 acres larger than Unit 3 as proposed, which was proposed at 1,200 acres). Of the total acreage of the Reconfigured Alternative, approximately 480 acres (a portion of Unit 3) would be outside of the ROW application area, but the alternative would remain entirely within BLM-administered lands. A modified ROW application would be required to incorporate these lands into the action area.

While the Reconfigured Alternative would reduce potential impacts to the dry wash, the project would require the ground disturbance and development of an additional 150 acres in order to reconfigure the solar parabolic troughs and related infrastructure. The overall disturbance for the Reconfigured Alternative is less consolidated than for the Agency Preferred Alternative, and would spread the impacts over a larger expanse of public land. Moreover, the Reconfigured Alternative would impact an additional 1.5 miles of designated off-highway vehicle routes of travel within the project area. Allowing for off-highway vehicle access is an important objective of the CDCA Plan. Therefore, the BLM did not select this alternative as the Agency Preferred Alternative.

4.1.3 Reduced Acreage Alternative

The Reduced Acreage Alternative would retain only Units 1, 2 and 4 of the Proposed Action, with the ability to generate 750 MW. Unit 3 (250 MW) would not be constructed. This alternative would require a CDCA Plan amendment. The details of this alternative are discussed in Section 2.5.4 of the PA/FEIS. This alternative would be located entirely within the Applicant's ROW grant application area as defined by the Applicant, and its footprint would occupy approximately 4,750 acres of land. Units 3 and 4, as proposed for the Proposed Action, were designed to share water treatment systems and water

storage tanks for dust control; the shared facilities are proposed to be located in Unit 3. As such, the shared facilities would need to be relocated to Unit 4.

This alternative was analyzed for two major reasons:

- It would eliminate approximately 25 percent of the Proposed Action, thereby reducing the degree of impacts for many resources areas; and
- It would eliminate the 1,200-acre southwestern solar field, which is located on flowing desert washes and, thereby, would reduce impacts to state waters and to desert dry wash woodlands, a vegetation community classified as sensitive by the BLM and CDFG, and to wildlife movement corridors.

Following detailed analysis in the PA/FEIS, the BLM did not select the Reduced Acreage Alternative as the Agency Preferred Alternative because the resulting project would produce 25% less electricity, and although this alternative may have slightly less impacts to a few resource areas, the slight reduction of impacts did not represent the best balance of uses for the public lands especially when considered with the Congressional, Presidential, and Departmental directives supporting renewable energy development on public lands (PA/FEIS Section 1.1) and the use of applicable mitigation to offset impacts.

4.1.4 No Action/No Project Alternative A

Under this No Action alternative, the ROW grant application would be denied, and the ROW grant would not be authorized. The CDCA Plan (1980, as amended) would not be amended.

4.1.5 CDCA Plan Amendment/No Action Alternative B

Under this No Action alternative, the ROW grant application would be denied, and the ROW grant would not be authorized. The CDCA Plan (1980, as amended) would be amended to identify the application area as unsuitable for any type of solar energy development.

4.1.6 CDCA Plan Amendment/No Action Alternative C

Under this No Action alternative, the ROW grant application would be denied, and the ROW grant would not be authorized. The CDCA Plan (1980, as amended) would be amended to identify the application area as suitable for any type of solar energy development.

4.2 Alternatives Not Fully Analyzed

The SA/DEIS considered a private lands alternative in detail consistent with the requirements of the California Environmental Quality Act (CEQA). This Private Lands Alternative is described in Section 2.5.6 of the PA/FEIS. The BLM considers the private

lands alternative as essentially equivalent to the No Action Alternative for the purposes of the NEPA analysis, and an unreasonable alternative to the BLM for a number of reasons as explained in the PA/FEIS. Generally, use of multiple private parcels would have presented too much uncertainty in the company's ability to obtain all the necessary leases, permits and approvals. Furthermore the BLM's NEPA Handbook (H 1790-1) states that "an action alternative may be eliminated from detailed analysis if it is ineffective (would not meet the purpose and need)." The Handbook further states:

> For most actions, we recommend that the purpose and need statement be constructed to reflect the discretion available to the BLM, consistent with existing decisions and statutory and regulatory requirements; thus, alternatives not within BLM jurisdiction would not be "reasonable."

In addition, the private land alternative also was eliminated because it is economically infeasible, due to the conformation of the alternative site consisting of three unconnected areas. Although it theoretically would be possible to develop the solar units in non-contiguous areas, the cost of the project would increase due to the need for additional infrastructure (transmission, water, etc.) and expanded need for site security. Finally, approval of any specific private land alternative would remote and speculative, because site control for the proposed site would require the willing participation of 23 separate landowners. For these reasons, the private land alternative was eliminated from detailed study in the PA/FEIS.

In addition to the Private Lands Alternative, several other sites and a number of technologies for renewable energy were also considered but not carried forward for detailed analysis in the NEPA analysis. Generally, the alternative site locations were eliminated from further analysis because they would have substantially similar effects to the proposed Blythe Solar Power Project and other analyzed alternatives, or because they do not meet project objectives. The following alternative sites were evaluated in this analysis: i) East of Lancaster Alternative; ii) El Centro Alternative; iii) Johnson Valley Alternative; and iv) Chuckwalla Valley Alternative. Those alternatives are described in Section 2.5.6 in the PA/FEIS, including the rationale for why they were eliminated from detailed analysis in the environmental document. Generally, the BLM eliminated the alternative site locations from further analysis for the following reasons: site is too remote and speculative for the Applicant to gain site control of private site comprised of dozens to hundreds of separate parcels; development of the alternative site would not avoid or substantially reduce the adverse impacts of the proposed project; site is infeasible due to distance to transmission interconnection; development of the site would be inconsistent with objectives of the CDCA Plan because of impacts to recreation or special status species,

For purposes of comparison, several alternative solar generation technologies were evaluated as potential alternatives to the Blythe Solar Power Project, which would use the solar trough technology. The BLM considers the alternative technologies to solar, such wind and geothermal, as essentially equivalent to the No Action Alternative for the purposes of the NEPA analysis, and an unreasonable alternative to the BLM for a number of reasons as explained in the PA/FEIS; as such, those alternatives were eliminated from further analysis. The following solar generation technologies, however, were considered in this analysis: i) Stirling energy systems technology; ii) solar power tower technology; iii) linear Fresnel technology; and iv) photovoltaic technology. Each of the alternative solar generation technologies is discussed in detail in Section 2.5.6 of the PA/FEIS, including the rationale for why they were eliminated from detailed analysis in the environmental document. Generally, alternative solar technologies were eliminated from further analysis because they would have substantially similar effects to the proposed project and other analyzed alternatives, and because this technology is not within the area of expertise of the Applicant, and therefore would not likely be technically or economically feasible for the Applicant to implement.

Finally, the BLM eliminated from further analysis the alternative of conservation and demand-side management, as discussed in detail in Section 2.5.6 of the PA/FEIS. Briefly, this consists of a variety of approaches to reduce electricity use, including energy efficiency and conservation, building and appliance standards, and load management and fuel substitution. This approach does not respond to the BLM's purpose and need to respond to Palo Verde Solar I's application, and is remote or speculative because it is not sufficient to address all of California's energy needs.

4.3 Environmentally Preferred Alternative

The environmentally preferred alternative would be either the No Action Alternative or the CDCA Plan Amendment/No Action Alternative B. Neither of these alternatives would allow development of the energy generating project and neither would have impacts on the ground. However neither of these alternatives would allow the development of renewable energy, which is a national priority.

4.4 Agency Preferred Alternative / Selected Alternative

As identified in PA/FEIS Section 2.5.5, *Preferred Alternative*, the BLM's preferred alternative (also referred to as the Selected Alternative in this ROD) is the proposed Blythe Solar Power Project. After the release of the SA/DEIS for public review in March 2010, the BLM continued to consult and coordinate with Federal and State regulatory agencies regarding possible refinements to the Proposed Action to further avoid impacts to resources on the project site. Through this collaborative process, the BLM and its consulting and cooperating agencies developed various mitigation and monitoring measures for incorporation into the Blythe Solar Power Project. The Selected Alternative includes all of the mitigation measures and Conditions of Certification

included in Appendix 4 to this ROD. This alternative provides the least environmental impacts to resources while allowing the development of a renewable energy project at the full capacity requested by the Applicant.

5.0 Agency and Public Involvement

5.1 Scoping

Scoping activities for the Blythe Solar Power Project were conducted by the BLM in compliance with the requirements of NEPA. While many of the scoping activities were conducted jointly with the CEC workshops, the BLM held a public scoping meeting on December 11, 2009 at the University of Riverside Palm Desert Campus The Applicant, BLM, and CEC provided presentations describing the environmental review process. The BLM's scoping activities are described in detail in the Final Scoping Report Blythe Solar Power Project (January 2010).

Public notice regarding the proposed joint SA/DEIS and the scoping and public information meetings was provided in the "Notice of Intent To Prepare Two Environmental Impact Statements/Staff Assessments for the Proposed Chevron Energy Solutions/Solar Millennium Palen and Blythe Solar Power Plants, Riverside County, CA and Possible Land Use Plan Amendments" (74 Fed. Reg. 224, pp. 61169-61171, Nov. 23, 2009); the CEC "Notice of Informational Hearing and Public Site Visit and Bureau of Land Management Scoping Meeting" on January 12, 2010 and February 24, 2010; and the CEC "Notice of BLM and Energy Commission Staff Data Response and Issues Resolution/Scoping Meeting for the Blythe Solar Power Project" on March 24, 2010.

Public notice regarding the proposed joint SA/DEIS and the scoping and public information meetings was provided in the "Notice of Intent To Prepare Two Environmental Impact Statements/Staff Assessments for the Proposed Chevron Energy Solutions/Solar Millennium Palen and Blythe Solar Power Plants, Riverside County, CA and Possible Land Use Plan Amendments" (74 Fed. Reg. 224, pp. 61169-61171, Nov. 23, 2009); the CEC "Notice of Informational Hearing and Public Site Visit and Bureau of Land Management Scoping Meeting" on October 10, 2008; and the CEC "Notice of BLM and Energy Commission Staff Data Response and Issues Resolution/Scoping Meeting for the Blythe Solar Power Project " on December 2, 2008.

Written comment cards were received from attendees at the December 11, 2009, meeting and in response to the NOI, and a total of 14 comment letters were received during the scoping process. Many of the comments covered similar issues pertaining to the effects analysis of purpose and need, air, soils, water resources, biology, vegetation,

cultural resources, land use, public health and safety, noise vibration, recreation, socioeconomics, cumulative impacts, and the development of alternatives. These issues were described in the BLM Scoping Report, dated January, 2010.

5.2 Draft EIS Comment Period

The BLM and CEC jointly prepared the SA/DEIS for the proposed project incorporating information received during scoping. The SA/DEIS review period was initiated by publication of the Notice of Availability (NOA) in the Federal Register on March 19, 2010 (73 Fed. Reg. 61,902). Interested parties identified in the EIS mailing list were notified of the publication of the SA/DEIS. The comment period ended June 17, 2010.

The BLM received ten comment letters on the SA/DEIS. A number of the comments received on the SA/DEIS discussed the same issues or environmental concerns, including, among others, the adequacy of the data relied upon by the BLM, the purpose and need for the Blythe Solar Power Project, alternatives, biological resources, climate change and greenhouse gases, water rights, water quality, and cultural resources. Rather than repeat responses to these common comments, the BLM provided Common Responses. All public comments received were carefully analyzed and agency responses were included in Section 5.5 of the PA/FEIS.

5.3 Final EIS Comment Period

The EPA Notice of Availability of the PA/FEIS was published in the Federal Register on August 20, 2010 (75 Fed. Reg. 51479). As part of the environmental review process, the BLM provided an additional opportunity for agencies and the members of the public to review and comment on the PA/FEIS. This additional comment period lasted 30 days, began on August 20, 2010 and closed on September 20, 2010. During this additional review period, 16 comment letters were received. The BLM's responses to these comments are provided in Appendix 1, *Responses to Comments on the PA/FEIS*. The BLM reviewed the comments on the PA/FEIS and determined that they did not raise any significant new circumstances or information relevant to environmental concerns associated with the Blythe Solar Power Project. Therefore, no changes to the proposed decision were determined to be warranted.

5.4 Protest Period

As noted above, the EPA Notice of Availability of the PA/FEIS was issued on August 13, 2010. Release of the PA/FEIS initiated the 30-day protest period, which closed on September 20, 2010. During that period, any person who participated in the planning process and believed they would be adversely affected by the CDCA Plan Amendment had the opportunity to protest the proposed amendment to the Director of the BLM. Detailed information on protests may be found on the BLM Washington Office website:

http://www.blm.gov/wo/st/en/prog/planning/protest_resolu
tion.html.

Six protests have been resolved by the Director or, as noted below, have been withdrawn by the protesting party. In general, protesters were not in support of the proposed amendment and raised the following issues, among others: range of alternatives, cumulative impacts analysis, appropriate use of Class "L" lands, and conformance with the CDCA Plan. At the request of various interested organizations, the BLM met, in accordance with its policy (BLM Land Use Planning Handbook, Appendix E, p. 6 (2005)) in an effort to resolve the protest issues raised by these organizations.

As a result of these meetings, a number of the protesting organizations and the project Applicant agreed to certain project conditions which were reduced to writing and presented to the BLM for inclusion in the BLM Preferred Alternative and as modifications to the Plan of the Development (see Appendix 6 to this ROD). These terms and conditions further describe and refine the mitigation measures identified in the FEIS and require (i) the acquisition of habitat for bighorn sheep in lieu of the option to construct a guzzler as compensation for habitat impacted by the project; (ii) the habitat acquisition attributes for bighorn sheep, desert tortoise and desert wash microphyll woodlands and the requirements for permanent protection for mitigation/compensatory lands and (iii) the creation of a fund for the implementation of certain conservation enhancement activities. According to the agreement between and among the project applicant and the organizations, these and other agreed-upon terms have been incorporated into a modified Plan of Development for the project. The BLM has analyzed these revised terms and conditions and determined that the terms and conditions fall within the alternatives analyzed in the PA/FEIS, and therefore do not require the BLM to supplement the PA/FEIS prior to issuance of the ROD. The BLM has accepted these agreed upon terms as part of the amended Plan of Development, and has incorporated into and will administer these terms as part of the ROW grant in accordance with 43 CFR 2805.12(i)(5), 2807.16, and 2807.17. The agreed upon terms are not subject to amendment without the agreement of the Applicant and the organizations and only if approved by the BLM in accordance with 43 CFR 2807.20. The organizations have withdrawn their protests.

In addition to the mitigation provided for in this Record of Decision, the Applicant, through the protest negotiation process, has agreed to continue to work with the BLM on providing additional funding for enhanced resource management within the Chuckwalla DWMA and adjacent environs. Such enhancements include but are not limited to:

Enhanced Desert Wildlife Management Opportunities

- The Applicant in coordination with BLM will work to identify specific fencing strategies along the I-10 Corridor or other heavily used access/recreation areas within the Chuckwalla DWMA to maximize protection of Desert tortoise by reduce direct or indirect mortality associated with recreational vehicle use;

- The Applicant in coordination with BLM will work to ensure enhanced funding is available to maintain certain existing infrastructure that is currently used to enhance protection of desert tortoise including but not limited to: road underpasses, fencing, gates, barrier crossings etc.;

- The Applicant in coordination with BLM will work to identify specific habitat enhancements within the DWMA that could be used to increase habitat values for Desert tortoise and other sensitive species;

- The Applicant in coordination with BLM will provide enhance funding that may facilitate BLM to restore illegal routes or closed routes. Illegal routes are those that have been created via unauthorized use of recreational off-highway vehicles in areas that are closed to such use.

5.5 Consultation/Coordination with Other Agencies and Entities

5.5.1 Governor's Consistency Review

The proposed CDCA Plan Amendment was reviewed by the Governor's Office of Planning and Research following the issuance of the PA/FEIS, and was found to be consistent with state and local plans.

5.5.2 United States Fish and Wildlife Consultation

Pursuant to the Endangered Species Act Section 7 consultation requirements (16 U.S.C. Section 1531 et seq.), the USFWS issued a Biological Opinion for the project, which is provided in Appendix 2, *Biological Opinion*, to this ROD.

5.5.3 National Historic Preservation Act

The BLM coordinated and consulted with potentially affected Native American Tribes pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. Section 470). NHPA Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. For the Blythe Solar Power Project, adverse effects that the proposed or alternative actions may have on cultural resources will be resolved through compliance with the terms of a

Programmatic Agreement (PA) reached in accordance with 36 C.F.R. Section 800.14(b). The PA governs the conclusion of the identification and evaluation of historic properties eligible for the NRHP, as well as the resolution of any adverse effects that may result from the proposed or alternative actions. The PA is attached to this ROD as Appendix 3.

5.5.4 Tribal Consultation

Tribal consultation occurs on a government-to-government level in accordance with several authorities, such as NEPA; the NHPA; the American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996), as amended; and Executive Order 13007 (May 24, 1996), concerning Indian Sacred Sites. For the Blythe Solar Power Project, the BLM conducted government-to-government consultation with a number of Tribal governments. The consultation and discussions revealed concerns about the importance and sensitivity of cultural resources on and near the Blythe Solar Power Project site, concerns about cumulative effects to cultural resources, and, further, that they attach significance to the broader cultural landscape. As a result of the Native American Consultation process, many important cultural resources were identified in the project area, and subsequently avoided in the Selected Alternative.

5.5.5 Department of Energy

The DOE provided language for the EIS that would allow the DOE to use the PA/FEIS to meet its NEPA requirements for purposes of making a funding decision pursuant to DOE programs.

5.5.6 United States Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) has jurisdiction to protect water quality and wetland resources under Section 404 of the Clean Water Act. Under this authority, the USACE reviews proposed projects to determine whether they may impact such resources, and/or be subject to a Section 404 permit. Throughout the Draft SA/EIS process, the CEC, BLM, and the Applicant provided information to the USACE to assist the agency in making a determination regarding its jurisdiction and need for a Section 404 permit. The USACE rendered a final opinion on August 2, 2010 concluding that the Blythe Solar Power Project does not affect waters of the U.S. and, thus, does not require such a permit.

5.5.7 United States Environmental Protection Agency

The EPA provided comments on the Blythe Solar Power Project during the scoping process, on the SA/DEIS and on PA/FEIS. These comments enhanced the BLM's consideration of many environmental issues relevant to this project.

5.5.8 Summary of State, Regional and Local Agency Consultation

In addition to coordinating with the California Energy Commission to prepare the join Draft SA/EIS for the Blythe Solar Power Project as described above, the BLM also coordinated with a number of state, regional, and local agencies..

California Department of Fish and Game

The CDFG has the authority to protect water resources of the State through regulation of modifications to streambeds, under Section 1602 of the California Fish and Game Code. The CEC, the BLM, and the Applicant have provided information to the CDFG to assist in its determination of the impacts of the Blythe Solar Power Project to streambeds, and identification of permit and mitigation requirements. The Applicant filed a Streambed Alteration Agreement with CDFG on November 25, 2009. The requirements of the Streambed Alteration Agreement are included as a recommended Mitigation Measure. The CDFG also has the authority to regulate potential impacts to species that are protected under the California Endangered Species Act (CESA, California Fish and Game Code Section 2050, et seq.). On January 12, 2010, the Applicant filed an application for authorization for incidental take of the desert tortoise under CESA Section 2081(b). The requirements of the Incidental Take Permit are included as a recommended Mitigation Measure.

Mojave Desert Air Pollution Management District

The Mojave Desert Air Pollution Management District (MDAPMD) has authority to implement within its jurisdiction the requirements of the New Source Review (NSR) permitting program that was adopted as part of the 1977 Clean Air Act Amendments. NSR is a preconstruction permitting program that ensures that air quality is not significantly degraded from the addition of new and modified facilities and assures people that large new or modified industrial sources of air pollutants will be as clean as possible. Pursuant to this authority, the MDAPMD reviewed the proposed Blythe Solar Power Project, evaluated worst-case or maximum air quality impacts, and established control technology requirements and related air quality permit conditions. The MDAPMD issued a Final Determination of Compliance for the Blythe Solar Power Project on July 8, 2010.

Riverside County Fire Department

The Riverside County Fire Department provided comments on the PA/FEIS for the Blythe Solar Power Project. These comments enhanced the BLM's consideration of emergency and public service responders and response times.

Metropolitan Water District of Southern California

The District, a public agency and wholesale water retailer, provided comments on the SA/DEIS and the PA/FEIS for the Blythe Solar Power Project. These comments enhanced the BLM's consideration of issues related to water resources, including groundwater.

Additional State, Regional, and Local Agency Coordination

As noted above the state, regional, and local agencies consulted or communicated with include:

- Metropolitan Water District of Southern California
- Native American Heritage Commission
- Riverside County
- Riverside County Fire Department
- United States Environmental Protection Agency

The following non-governmental organizations also provided comments:

- Basin and Range Watch
- Center for Biological Diversity
- Defenders of Wildlife
- Greenaction
- La Cuna de Aztlan Sacred Sites Protection Circle
- Natural Resources Defense Council
- Sierra Club, California/Nevada Desert Energy Committee of the Sierra Club
- Wilderness Society
- The Wildlife Society

6.0 Errata

The purpose of these errata is to correct factual inaccuracies or typographical errors in the PA/FEIS for the Blythe Solar Power Project.

The Blythe Solar Power Project Plan of Development (POD) will govern in the event of any factual discrepancies between it and the PA/FEIS. To the extent that the clarifications below affect the project description, the POD will incorporate these clarifications. To the extent that such clarifications affect a mitigation measure, Appendix 4, *ECCMP*, contains the final language.

- Table ES-2 inadvertently omitted summaries of impacts related to cultural resources impacts for the Reconfigured and Reduced Acreage alternatives. Readers may refer

directly to the analysis of such impacts that was provided in PA/FEIS Section 4.4.3, *Differences Among Alternatives*.

- As corrected (with changes shown in redline/strikeout) Table ES-17 should have read as follows: "Transport large equipment in accordance with a permit from ~~complaint with~~ CalTrans."

- PA/FEIS Chapter 2 incorrectly stated that the solar mirror washing for the Blythe Solar Power Project would require approximately 30 acre feet (af) per year of water. The correct amount is approximately 230 ac-ft/yr of water for mirror washing, and the PA/FEIS properly analyzed the impacts for 230 af per year. The total water demand during operation, including these 230 ac-ft, would be approximately 600af per year.

- PA/FEIS Section 4.2, *Air Quality*, incorrectly stated that there would be a total of four HTF ullage systems. The Blythe Solar Power Project would employ only one HTF ullage system, which would vent continuously at a low rate. Daily emission rates would be limited by CEC Condition of Certification (COC) AQ-21.

- The PA/FEIS incorrectly states that the gen-tie route "include[s] areas not previously surveyed for biological and cultural resources" (see, common response to comments concerning suggested supplementation/recirculation, PA/FEIS Section 5.5.4.7). In fact, the gen-tie re-route cultural resources survey was completed by AECOM between April 30 and May 28, 2010, and surveys for biological were also conducted during the spring of 2010, prior to publication of the PA/FEIS.

- PA/FEIS Section 4.8, *Impacts on Multiple Use Classes*, incorrectly stated that "[a]ll of the action alternatives would affect a small portion of critical habitat." In fact, the Blythe Solar Power Project site (including the linear facilities) contains *no designated critical habitat for any listed species*, and the project would not affect any designated critical habitat. The sentence should have read "[a]ll of the action alternatives would affect a small portion of suitable habitat."

- PA/FEIS Section 4.11, *Impacts on Public Health and Safety*, incorrectly stated that each unit of the Blythe Solar Power Project would store 1.3 million gallons of HTF. In fact, the project would use 2.2 million gallons of HTF (Therminol VP-1 Biphenyl (26.5 percent); Diphenyl Ether (73.5 percent)) per unit. This correct amount was identified in the CEC's Presiding Member's Proposed Decision (PMPD) and was used to develop COC HAZ-MAT-1. COC HAZ-MAT-1 refers to an Appendix A (Table 5.6-3R) that inadvertently was omitted from PA/FEIS Appendix G. Additionally, PA/FEIS Section 4.11 should have indicated that the Blythe Solar Power Project would use hydrogen for turbine cooling. The project would use hydrogen in the generator cooling loop and "tube trailer." The cumulative (i.e., all 4 units) piping system inventory would be 1,400 pounds with 2,600 pounds in storage. The Blythe Solar Power Project would employ a pressure safety tank, crash posts, and pressure relief valves to ensure that the hydrogen is used and stored safely (see, HAZ-MAT-1 Appendix A (Table 5.6-3R)).

- PA/FEIS Section 4.16, *Impacts on Transportation and Public Access – Off Highway Vehicle Resources*, incorrectly states that the Blythe Solar Power Project would result in the loss of legal access to two inholdings. This is not the case. Legal access will be maintained. Also in PA/FEIS Section 4.16, the PA/FEIS incorrectly states,

"[t]he McCoy Wash, a navigable wash, would be transected by the project site which would result in closure of the wash to OHV users." This is not the case. In fact, the McCoy Wash does not run through the site and the ROW grant authorized in this ROD does not include the McCoy Wash.

- PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, discusses the proposed evaporation ponds. The section is inconsistent as to whether the project would use evaporation ponds; the PA/FEIS should have stated consistently that the project would use evaporation ponds. The PA/FEIS correctly reports the results of a 1986 study, which showed that much of the risk of bird collisions came from their attraction to "adjacent evaporation ponds and agricultural fields."

- Table 4.21-2, *Comparison of Compensatory Mitigation Requirements for Proposed Action, Reconfigured Alternative, and Reduced Acreage Alternatives*, incorrectly reported the total desert tortoise compensatory mitigation as 7,02 acres. The correct amount is 7,027 acres.

- PA/FEIS *Glossary of Terms*, incorrectly defines the Secretary of the Interior. The correct definition is: The United States Secretary of the Interior is the head of the United States Department of the Interior. The Department of the Interior oversees such agencies as the Bureau of Land Management, the United States Geological Survey, and the National Park Service. The Secretary is a member of the President's Cabinet. The Secretary of the Interior is eighth in the United States presidential line of succession. The current Secretary of the Interior is former Senator Ken Salazar of Colorado.

- The PA/FEIS refers to California Energy Commission Conditions of Certification (COCs) throughout Chapter 4, *Environmental Consequences*, and in Appendix G, as such COCs were set forth in the August 11, 2010 Presiding Members' Proposed Decision; however, because the COCs may change in the final license or as a result of amendments to the license, the PA/FEIS should have referred to the COCs as set forth in the license, as amended. In light of such amendments, BLM-BIO-21 has been superseded and no longer is required.

- Compliance-13 requires the Applicant to petition the California Energy Commission pursuant to 20 CFR 1769 to modify the project (including linear facilities) design, operation or performance requirements, and to transfer ownership or operational control of the facility. The last paragraph of this measure inadvertently was excluded from PA/FEIS Appendix G, *Conditions of Certification*. That paragraph should read: "Verification Change: A verification may be modified by the CPM without requesting an amendment to the decision if the change does not conflict with the conditions of certification and provides an effective alternate means of verification."

- AQ-SC7, concerning an Operations Dust Control Plan for the project site, was included in PA/FEIS Appendix G, *Conditions of Certification*; identification of this measure inadvertently was omitted from PA/FEIS Section 4.2, *Impacts on Air Resources*. The mitigation measure is included in Appendix 4 to this ROD, *ECCMP*.

- BLM-BIO-10, concerning the development and implementation of a final Desert Tortoise Relocation/Translocation Plan, was identified in PA/FEIS Section 5.5, *Public Comment Process*, but inadvertently excluded from Section 4.21, *Impacts on Wildlife*

Resources. However, BLM-BIO-10 has been superseded by revisions to the COCs and no longer is required.

- Concerning the "start of construction" as used in BLM-REC-4, -REC-5 and OHV-1, the BLM did not intend to extend the pre-construction schedule by imposing 60 days' advance notice and, instead, is amenable to the correction to a 15-day requirement as proposed by the Applicant in its September 10, 2010, comment letter on the PA/FEIS.

- BLM-SOIL&WATER-11, -12 and -14, relate to climate change and flooding. The Applicant has submitted detailed designs for the first phase of drainage (for Units 1 and 2) to the California Energy Commission's Chief Building Officer (CBO). The BLM has determined that compliance with such designs, with the approval of CBO for Units 1 and 2 and ultimately for Units 3 and 4, would be sufficient to address the concerns that are the focus of BLM-SOIL&WATER-11, -12 and -14. Thus, these measures have been superseded and no longer are required.

- Mitigation Measures in PA/FEIS Section 4.19 labeled as "WATER" should have been labeled "SOIL&WATER" as they are in PA/FEIS Appendix G, *Conditions of Certification*. Mitigation measures applicable to the project are set forth in full in the ECCMP included as Appendix 4 to this ROD. As corrected (with changes shown in redline/strikeout) the statement in Section 4.19.2, Discussion of Direct and Indirect Impacts [of operations on Water Resources], concerning rip-rap should have read as follows: "The Applicant has prepared a Draft Channel Maintenance Plan, which addresses some of the potential issues associated with long term operation of the channels. However, the plan does not adequately address the issue of the collection of offsite flows or the use of soil cement along areas subject to inflows from offsite watersheds. The document also references the use of riprap for erosion mitigation; however, riprap would not be allowed on the site where incompatible due to its incompatibility with biological resources in the area."

7.0 Final Agency Action

7.1 Land Use Plan Amendment

It is the decision of the Bureau of Land Management to approve the Proposed Plan Amendment to the California Desert Conservation Area Land Use Management Plan (CDCA Plan,1980, as amended) to identify the project site as available for solar energy development. The Proposed Plan Amendment and related Environmental Impact Statement (EIS) was published on August 20, 2010 in the Federal Register (75 Fed. Reg. 51479). I have resolved all protests on the Proposed Plan Amendment and, in accordance with BLM regulations, 43 CFR 1610.5-2, my decision on the protests is the final decision of the Department of the Interior.

Based on the recommendation of the State Director, California, I hereby approve the Proposed Plan Amendment. This approval is effective on the date this Record of Decision is signed.

Approved by:

/ Robert V. Abbey

Robert V. Abbey
Director
Bureau of Land Management

10-21-10
Date

7.2 Right-of-Way and Route Closure Authorization

It is my decision to approve a solar energy right-of-way lease/grant to Palo Verde Solar I, LLC, subject to the terms, conditions, stipulations, Plan of Development, and environmental protection measures developed by the Department of the Interior and reflected in this Record of Decision. It is my further decision to close routes within the solar energy power facility site as described in this Record of Decision and its Final EIS. These decisions are effective on the date this Record of Decision is signed.

Approved by:

/ Robert V. Abbey

Robert V. Abbey
Director
Bureau of Land Management

10-21-10
Date

7.3 Secretarial Approval

I hereby approve these decisions. My approval of these decisions constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to these decisions, including the BLM Authorized Officer's issuance of the right-of-way as approved by this decision, must be brought in federal district court.

Approved by:

Ken Salazar

OCT 22 2010

Ken Salazar
Secretary
U.S. Department of the Interior

Date

ATTACHMENT 2

October 20, 2010

James Abbott
Acting State Director
Bureau of Land Management
2800 Cottage Way
Sacramento, CA

Dear Mr. Abbott:

Solar Millennium, LLC, on behalf of Palo Verde Solar I, LLC, (PVSI) informs you that we have reached agreements with Natural Resources Defense Council ("NRDC"), Defenders of Wildlife ("DOW"), and The Wilderness Society as well as with the Sierra Club to resolve their protests to the CDCA land use plan amendments related to the Blythe Solar Power Project (BSPP). PVSI will agree to certain specified conditions on the development of BSPP and the environmental organizations will, among other things, withdraw their protests. The conditions to which PVSI agrees will be incorporated into the POD. Those conditions are attached hereto as Attachment A.

Attachment B will be incorporated into the ROD.

Sincerely,

Alice L. Harron
Senior Director, Development

CC: Holly Roberts
Bureau of Land Management
Palm Springs - South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262-8001

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Attachment A

Language to be included in Plan of Development for Blythe Solar Power Project

2.1 Desert Tortoise. In accordance with BIO-12 and BIO-28 of the Final CEC Decision, Palo Verde shall acquire and permanently protect six thousand nine hundred fifty-eight (6,958) acres of desert tortoise habitat as compensation for the Blythe Solar Project's impacts to existing desert tortoise habitat within the project area. Such permanent protection of tortoise lands shall be accomplished on the terms and conditions set forth in BIO-12 and BIO-28, which are fully incorporated herein by reference.

2.2 Desert Bighorn Sheep.

A. Palo Verde shall forego, and hereby waives, the option to create or fund the creation of a new water source for bighorn sheep in the McCoy Mountains or other mountain ranges in the vicinity of the Blythe Solar Project as such option is described in BIO-21of the Final CEC Decision.

B. Palo Verde shall acquire and permanently protect nine hundred twenty-nine (929) acres of Spring foraging habitat for desert bighorn sheep as compensation for what the CEC determined were the Blythe Solar Project's impacts to bighorn sheep Spring foraging habitat within the project area. Such permanent protection of the bighorn sheep Spring foraging habitat shall be accomplished on the terms and conditions set forth in BIO-21 and BIO-28 of the Final CEC Decision which are fully incorporated herein by reference. In addition to the terms and conditions in BIO-21, Palo Verde shall use reasonable efforts to incorporate the following selection criteria to ensure that compensatory lands contain high quality bighorn sheep habitat:

(1) the acquisition of compensatory lands shall be prioritized to acquire within that portion of the Southern Mojave Metapopulation area that is bounded by Interstate 10 and State Highways 62 and 177;

(2) Compensatory lands shall be prioritized to be contiguous with lands already protected for the conservation of wildlife or identified for landscape-scale conservation.

2.3 Desert Wash Microphyll Woodlands. In accordance with BIO-22 and BIO-28 of the Final CEC Decision, Palo Verde shall acquire and permanently protect six hundred thirty-nine (639) acres of desert wash microphyll woodlands as compensation for the acreage of desert wash microphyll woodlands impacted by the Blythe Solar Project at a ratio of 3:1. Such permanent protection of desert wash microphyll woodlands shall be accomplished on the terms and conditions set forth in BIO-22 of the Final CEC Decision, which are fully incorporated herein by reference. In addition to the terms and conditions in BIO-22 of the Final CEC

Decision, Palo Verde shall take reasonable efforts to incorporate the following criteria in its selection of compensatory desert wash microphyll woodland habitat:

(1) Lands acquired and protected for conservation of desert wash microphyll woodlands shall be located within the NECO planning area. More specifically, first priority acquisitions shall be located within that portion of the NECO planning area bound by Interstate 10, and State Highways 62 and 177;

(2) Lands to be acquired and protected for conservation of desert wash microphyll woodlands shall not be located on land: (a) that already has an application with the Bureau of Land Management for a solar thermal energy facility, unless such land can be withdrawn from solar impactful use; or (b) that (1) is downstream from any lands identified in any applications with the BLM or the CEC for renewable energy facilities that were included in the cumulative analysis for the Final Environmental Impact Statement and (2) could reasonably foreseeably be adversely affected by upstream development of those renewable energy facilities as of the Effective Date.

(3) Compensatory microphyll woodlands shall contain approximately the same species composition as the woodland habitat impacted by the Blythe Solar Project;

(4) Absolute percent cover in the compensatory microphyll woodlands shall be equal to or greater than the absolute percent cover of woodland habitat impact by the Blythe Solar Project;

(5) Any measurement of the acreage of microphyll woodland habitat shall be determined based on the actual acreage from edge to edge of the arboreal cover;

(6) In accordance with the Holland (1986) definition of a Desert Dry Wash Woodland community, the overall height of woodland trees present in the compensatory woodlands shall be generally comparable to the overall height of the woodlands impacted by the Blythe Solar Project; and

(7) Compensatory microphyll woodlands shall be prioritized to be adjacent or contiguous with areas already protected for wildlife conservation or areas identified for landscape-level conservation..

2.4. Compensatory iisition and permanent protection of (2.1, shall be accomplished through (a) fee or other acquisition (including conservation easements) by Palo Verde or an entity on behalf of Palo Verde of target lands ("Ownership Interests") and (b) transfer of such Ownership Interests to the United States, the State of California, or an appropriate governmental or non-governmental organization for the permanent management and conservation of wildlife and natural resources. Conservation easements will satisfy Palo Verde's obligations to acquire

and permanently protect compensatory lands provided that the easements: (i) are recorded in the appropriate office for recording real property documents in the county where the easement lands are located, (ii) run with the land in perpetuity, (iii) expressly authorize third party monitoring and enforcement of the terms of the easement, (iv) expressly authorize specific performance as an available remedy for violation of the easement terms, and (v) specify financial penalties to be incurred by the violator resulting from violations of the easement terms, which penalties must be used to mitigate the impacts of the Blythe Solar Project.

2.5. Conservation Covenants. Palo Verde shall require and ensure that each parcel of the compensatory lands acquired pursuant to this Agreement is encumbered by valid and enforceable restrictive covenants as approved by the resource agencies (defined to mean the California Department of Fish and Game and/or the U.S. Fish and Wildlife Service) that require that the lands shall be managed and maintained in their natural state for the conservation of wildlife and natural resources in perpetuity, free from development, agriculture, off-highway vehicle use or other uses not compatible with the mitigation goals. Palo Verde shall provide funding for property enhancement and for conservation management in perpetuity regardless of whether the land is transferred to the United States or the State of California or any other organization to manage the conservation lands unless such transferee expressly provides such funding. Palo Verde shall bear the cost, if any, of preparing, executing and recording the conservation covenants contemplated in this section.

2.6. Conservation Enhancements. Palo Verde shall send the sum of One Million and 00/100 Dollars ($1,000,000) dollars to the National Fish and Wildlife Foundation for deposit in the Renewable Energy Action Team Mitigation Account, which was established pursuant to the Memorandum of Agreement between the Renewable Energy Action Team Agencies and the National Fish and Wildlife Foundation, dated April 19, 2010, to be used exclusively by the BLM for the implementation of the following conservation enhancements in the NECO Plan area and, to the extent appropriate, in the vicinity of Blythe Solar Project: (i) the installation of fencing for desert tortoise, (ii) the installation of wildlife underpasses under lawfully existing public or private roads, and/or (iii) the restoration of unlawful off-road vehicle routes. Palo Verde shall include with the One Million ($1,000,000) dollars a deposit document describing in detail the activities, as set forth in this section to be funded. The Sierra Club shall be given an opportunity to review the deposit document prior to Palo Verde sending the funds and deposit document to the National Fish and Wildlife Foundation. Palo Verde shall provide the document for review no less than 7 days prior to sending the document and shall consider any changes recommended by the Sierra Club. Payment of $500,000 shall be upon Financial Close for Units 1 and 2 of the Project. The remaining payment of $500,000 shall be prior to ground disturbance for Unit 3 of the Project.

2.7. Plan of Development; Record of Decision. Palo Verde agrees that it shall incorporate the conditions set forth in **Section 2** into a revised plan of development for the

Blythe Solar Project, which will be submitted to the BLM for inclusion into its Record of Decision regarding the Blythe Solar Project and attached to its Record of Decision as an exhibit. The Parties agree and acknowledge that BLM shall incorporate the conditions set forth in **Section 2** in its Record of Decision regarding the Proposed Amendment and the Blythe Solar Project and that the BLM shall include the revised Plan of Development as an exhibit to the Record of Decision on the Blythe Solar Project.

2.8. Water. Palo Verde agrees that it will not assert any claim to or interest in any water right, provided, however, that Palo Verde may use groundwater at the Blythe Solar Project site consistent with the terms and conditions of Palo Verde's ROW grant.

2.9 In Lieu Fee Program. Nothing in this Agreement shall prohibit the use of the mitigation option identified in BIO-27 of the Final CEC Decision to satisfy some or all of Palo Verde's habitat compensation obligations. Provided, however, that Palo Verde shall enter into an agreement with the California Department of Fish and Game which conditions the expenditure of funds for this mitigation option in accordance with all of the terms and conditions of Section 2 of this Agreement, pursuant to the terms set forth in the letter of October 19, 2010 from the Department of Fish and Game to Solar Millennium regarding this subject, which is attached hereto as Exhibit B.

These conditions are subject to limitations agreed upon by the parties.

Attachment B

Form of Language to be included in the BLM Record of Decision for Blythe Solar Power Project

The FEIS was available for a 30-day public review and protest period. The 30-day public comment and protest period closed on _____. The comments that were submitted on the FEIS and the Bureau's responses thereto are included in Appendix ____. The protests have been resolved by the Director or, as noted below, have been withdrawn by the protesting party. At the request of various interested organizations, the BLM met, in accordance with its policy (BLM Land Use Planning Handbook, Appendix E, p.6 (2005)) in an effort to resolve the protest issues raised by these groups.

As a result of these meetings, the organizations and the project applicant agreed to certain project conditions which were reduced to writing and presented to the BLM for inclusion in the BLM Preferred Alternative (Appendix _____). These conditions require (i) the acquisition and permanent protection of habitat for desert tortoise and desert bighorn sheep as compensation for habitat impacted by the project;(ii) the acquisition and permanent protection of desert wash microphyll woodlands as compensation for woodlands impacted by the project; (iii) permanent conservation covenants on acquired lands; and (iv) the creation of a $1,000,000 fund for the implementation of specified conservation enhancements. Conditions (i), (ii) and (iii) may be satisfied by acquiring lands through fee title, permanent conservation easements and/or in-lieu fee option. These conditions are subject to limitations agreed upon by the parties.

According to the agreement between and among the project applicant and the organizations, these and other agreed-upon terms have been incorporated into a modified Plan of Development for the project. The BLM has analyzed these terms and has determined that they do not require BLM to supplement the FEIS prior to issuance of the ROD (Appendix [D1] _____).

The BLM has determined that the terms fall within the alternatives analyzed in FEIS, has accepted these agreed upon terms as part of the amended plan of development, and has incorporated into and will administer these terms as part of the right-of-way grant in accordance with 43 CFR 2805.12(i)(5), 2807.16, and 2807.17. The agreed upon conditions are not subject to amendment without the agreement of the applicant and the organizations and only if approved by the BLM in accordance with 43 CFR 2807.20. The organizations have withdrawn their protests.

Natural Resources Defense Council
The Wilderness Society

October 20, 2010

James Abbott, Acting State Director
Bureau of Land Management
2800 Cottage Way
Sacramento, CA

Via email

Dear Director Abbott:

The Wilderness Society and Natural Resources Defense Council have today signed an agreement with Palo Verde Solar, LLC with regard to their proposed Blythe Solar Project. As you know, the company has filed a right of way application with the Bureau of Land Management (BLM) for this project which would be located on approximately 7,025 acres of BLM-managed public land in the California Desert Conservation Area some eight miles west of Blythe, CA. The project would generate 1000 MW of electricity using parabolic trough technology.

In this agreement, the company consents to develop the Blythe Solar Project pursuant to certain specified conditions, to include those conditions in its Plan of Development (POD) for the project, and to submit the revised POD to the BLM for approval. The agreement also provides that BLM will incorporate the conditions in its Record of Decision (ROD) and shall include the revised POD as an exhibit in the ROD.

By signing this document in the space below, you agree on behalf of the BLM to enforce the terms of the revised POD, including the specified development conditions referred to above, through your ROD and the Right of Way grant for the project.

Accordingly, we withdraw our groups' protest of the Blythe Solar Project which was filed on September 8, 2010.

Sincerely,

Johanna H. Wald
Senior Attorney
Natural Resources Defense Council

Alice Bond
California Public Lands Policy Analyst
The Wilderness Society

Jim Abbott, Acting State Director, BLM Date

STATE OF CALIFORNIA - THE NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., Governor

COLORADO RIVER BOARD OF CALIFORNIA
770 FAIRMONT AVENUE, SUITE 100
GLENDALE, CA 91203-1068
(818) 500-1625
(818) 543-4685 FAX

March 20, 2014

Mr. Frank McMenimen
Project Manager
U.S. Bureau of Land Management
Palm Springs-South Coastal Field Office
1201 Bird Center Drive
Palm Springs, CA 92262

Regarding: Comments on the U.S. Bureau of Land Management's Draft Environmental Impact Statement (Draft EIS) for the Proposed Amendment to Right-of-Way Grant CACA-048811 for the Modified Blythe Solar Power Project, Riverside County, California

Dear Mr. McMenimen:

The Colorado River Board of California (Board) has reviewed the Draft EIS, released by the U.S. Bureau of Land Management (BLM) on February 2014, for the Proposed Amendment to Right-of-Way (ROW) Grant CACA-048811 for the Modified Blythe Solar Power Project (Modified BSPP) in Riverside County, California.

Based upon the Board's review of the Draft EIS, the project's water use has been estimated to be a maximum of 2,665 acre-feet of groundwater that will be used during project construction and approximately 390 acre-feet per year of groundwater would be used for operation, maintenance, and decommissioning activities.

In the Board's comment letter of October 21, 2013, the footprints of each of the two project alternatives overlie the "Accounting Surface" area described by the U.S. Geological Survey's Scientific Investigations Report 2008-5113. This report indicates that the aquifer underlying such lands is currently considered to be hydraulically connected to the Colorado River and that groundwater withdrawn from wells located on site would eventually be replaced, at least in part, by Colorado River water. And the use of this water would need to be accounted for as a consumptive use of Colorado River water by the Secretary of the Interior as required by the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v. California, et al.*, 547 U.S. 150 (2006). Currently, there is no additional Colorado River water available for any new water uses, except through an agreement with an existing 1928 Boulder Canyon Project Act (P.L. 70-462) Section 5 contract holder.

Specifically, the Board supports the mitigation measures, Soil & Water-2 and -16 described in Draft EIS Table G-1 Conditions of Certification for Soil and Water Resources, and the mitigation measures for Colorado River Effects (Water-1 and Water-15) in Section 4.19.5, for both of the alternatives. In addition, the Board would like to receive a copy of Water Supply

Plan specified in Soil & Water-2 (Table G-1) when it has been submitted for review and approval to the CEC.

Thank you for the opportunity to provide these comments on the Draft EIS. If you have any questions or require further information, please feel free to contact me, or Dr. Jay Chen of my staff, at (818) 500-1625.

Sincerely,

Tanya M. Trujillo
Executive Director

Attachment

cc: Dr. Terry Fulp, Regional Director, Lower Colorado Region, U.S. Bureau of Reclamation
Ms. Mary Dyas, Compliance Project Manager, California Energy Commission
Mr. William J. Hasencamp, Manager of Colorado River Resources,
The Metropolitan Water District of Southern California

STATE OF CALIFORNIA - THE NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., Governor
COLORADO RIVER BOARD OF CALIFORNIA
770 FAIRMONT AVENUE, SUITE 100
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October 21, 2013

California Energy Commission
Dockets Unit. MS-14
Docket No. 09-AFC-7C
1516 Ninth Street
Sacramento, CA 95814-5512

Regarding: Request for Comments on the California Energy Commission's Staff Assessment - Part A for the Proposed Blythe Solar Power Project (Docket No. 09-AFC-6C) in Riverside County, California

To Whom It May Concern:

The Colorado River Board of California (Board) has reviewed the California Energy Commission's (CEC) Staff Assessment - Part A (SA-Part A) for the Amendment to the Blythe Solar Power Project (BSPP).

The CEC issued its Final Decision for the original BSPP on September 15, 2010. On April 12, 2013, the current owner of the BSPP, NextEra Blythe Solar Energy Center, LLC (NextEra Blythe Solar), filed a Revised Petition to Amend requesting to modify the approved BSPP to change the solar thermal power-generating technology from parabolic trough technology to photovoltaic (PV) technology.

The modified BSPP includes replacing the solar thermal technology with PV generating technology and reducing the physical project site from 7,043 acres to approximately 4,070 acres. The project would be located entirely on public land within BLM Right of Way Grant No. CACA-048811, that was approved on November 4, 2010. NextEra Blythe Solar proposes to utilize up to 1,200 acre-feet of water during a 48-month construction period, and up to 40 acre-feet of water per year during a 30-year operational life for the project. The water would be supplied by 3 wells on the project site.

As the Staff Assessment notes and as the Board has mentioned in its prior comment letters respectively on March 22, 2010 and September 14, 2010, which are attached, the BSPP site overlies the "Accounting Surface" area described by the U.S. Geological Survey's (USGS) Scientific Investigations Report 2008-5113 (and earlier USGS Water-Resources Investigations Report 94-4005). The USGS reports indicate that the aquifer underlying such lands is currently considered to be hydraulically connected to the Colorado River and that groundwater withdrawn from wells located on site would be eventually replaced, at least in part, by Colorado River water. If it is determined that these wells are, in fact, pumping groundwater which would be replaced by Colorado River water, the use of such water would need to be accounted for as a consumptive use of Colorado River water by the Secretary of the Interior as required by the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v.*

Attachments

cc: Terry Fulp, Bureau of Reclamation
Mr. Frank McMenimen, Project Manager,
Bureau of Land Management, Palm Springs South Coastal Field Office
Ms. Mary Dyas, Energy Commission Compliance Project Manager, CEC
Mr. William J. Hasencamp, Manager of Colorado River Resources
The Metropolitan Water District of Southern California

ESA Energy

550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900 phone
415.896.0332 fax

www.esassoc.com

transmittal

date 2/5/2014

_____ attached __x__ via regular mail

_____ via messenger _____ via overnight mail

to Colorado River Board of California
Christopher S. Harris
770 Fairmont Ave., Suite 100
Glendale, CA 91203-1035

project Modified Blythe Solar Power Project Proposed Amendment to ROW Grant CACA-048811

items One copy of the Draft EIS; Notice of Public Comment Meeting

comments On behalf of the BLM Palm Springs South Coast Field Office, please find enclosed the Draft Environmental Impact Statement for the Modified Blythe Solar Power Project.

Also enclosed is a notice regarding the Public Comment Meeting scheduled for March 5, 2014 in Blythe, California.

If you need additional copies of these documents please contact Janna Scott at 415-896-5900.

sent by ESA/ARK

cc BLM State Office, ESA Project File

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

March 25, 2014

Frank McMenimen
U.S. Department of Interior, Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Subject: Blythe Solar Power Project
SCH#: 2010084005

Dear Frank McMenimen:

The State Clearinghouse submitted the above named Draft EIS to selected state agencies for review. The review period closed on March 24, 2014, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010084005
Project Title Blythe Solar Power Project
Lead Agency Bureau of Land Management

Type EIS Draft EIS

Description The Blythe Solar Power Project (BSPP) was fully permitted and approved as a 1,000 megawatt solar thermal generating plant in 2010. NextEra Blythe Solar Energy Center, LLC (Grant Holder) purchased the fully permitted (un-built) project assets in mid-2012 and now proposes to modify the technology and reduce the size of the project entirely within the approved BSPP footprint. The Grant Holder is proposing to construct, operate, maintain, and decommission the BSPP using photovoltaic technology with a 485 MW capacity on 4,138 acres of BLM-administered public land. An amendment to the existing ROW authorization has been submitted to reduce the acreage of the project, change the technology from concentrating solar trough to photovoltaic, adjust the project layout per the new technology, and reduce the capacity from 1,000 to 485 MW.

Lead Agency Contact

Name Frank McMenimen
Agency U.S. Department of Interior, Bureau of Land Management
Phone 760-833-7150 **Fax**
email fmcmenimen@ca.blm.gov
Address 1201 Bird Center Drive
City Palm Springs **State** CA **Zip** 92262

Project Location

County Riverside
City Blythe
Region
Lat / Long 33° 40' 5" N / 114° 45' 14" W
Cross Streets I-10 and Black Rock Road
Parcel No.
Township 6S **Range** 21E **Section** 11 **Base** SBB&M

Proximity to:

Highways
Airports Blythe
Railways
Waterways McCoy Wash
Schools
Land Use vacant / California Desert Conservation Area Plan Multiple Use Class L

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Recreation/Parks; Septic System; Soil Erosion/Compaction/Grading; Other Issues; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 6; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Air Resources Board; Regional Water Quality Control Board, Region 7; California Energy Commission; Native American Heritage Commission; Public Utilities Commission

Date Received 02/07/2014 **Start of Review** 02/07/2014 **End of Review** 03/24/2014