

## 5.1 BIOLOGICAL RESOURCES

---

This section describes differences in the potential impacts to biological resources that would be expected to occur in association with the Modified Project as a result of the change in technology and acreage, versus those of the Approved Project. As demonstrated below in all cases, the Modified Project's potential environmental impacts are equivalent to or less than those identified in the Commission Final Decision for the Approved Project.

### 5.1.1 Summary of Project Changes Related to Biology

#### 5.1.1.1 Change in Technology

As described in Section 2 of this Petition, PVSI is proposing to replace all of the solar thermal facilities with PV. The four power blocks including the cooling tower will be eliminated. The PV layout will be constructed in eight 125 MW phases instead of four solar thermal power plants generating 250 MW each. The change in technology to PV will engender no additional impacts to special-status wildlife, plants, and natural communities as compared to those for the Approved Project:

- Support facilities (natural gas pipeline, transmission line, telecommunications, new access road, upgraded Black Rock Road access, onsite water treatment system [including evaporation ponds], O&M building and parking area, internal access roads, groundwater wells), will occur for both projects and result in relatively the same impacts.
- Construction of the PV solar site and linear features will result in permanent and semi-permanent losses of habitat equivalent to or less than those for the Approved Project.
- As with the Approved Project, the solar site will be fenced with exclusionary fencing to exclude, at a minimum, desert tortoises. Fencing will also remove the solar site from use by most or all species currently using the site and will potentially disrupt movement patterns of wildlife outside the site in the same manner as contemplated for the Approved Project.
- Effects on desert tortoises, which will be sought during clearance surveys and translocated per the approved translocation plan, will be the same for both projects.

- No additional special-status species, including state or federally listed species, will be affected by the change in technology, as none are expected at the Modified Project.
- Impacts to other protected and/or special-status species or biological resources - including but not limited to plants, natural communities, jurisdictional state waters, desert kit foxes, American badgers, Mohave fringe-toed lizards, Couch's spadefoot toads, burrowing owls, and nesting birds - will be similar and minimized identically for both projects by a combination of surveying, monitoring, avoidance, removal, and/or compensatory mitigation.
- In addition to losses of habitat and some individuals of low-mobility species, behaviors of animals in the Project vicinity may be disturbed by activities and noise associated with construction of either project. Operations on the Modified Project will result in activity, lights, and ongoing maintenance activities that will affect wildlife similarly or identically to that for solar thermal technology.
- The potential for indirect impacts, including but not limited to, weed expansion, predator increases and dust deposition, will occur similarly for both projects.
- The potential for impacts to biological resources that may result from lowered groundwater levels (e.g., springs, seeps,) will be less with the Modified Project because of lower water use for PV. The Approved Project projected an annual use of 600 acre-feet per year (afy) while the Modified Project expects to use between 60 and 88 afy.
- Impacts to existing topography and hydrology will be equivalent to or less than that for solar trough technology because the PV structures do not have the same restrictive grading requirements as solar trough mirrors.

#### **5.1.1.2 Change in Acreage**

As detailed in Section 2 of this Petition, the Footprint for the Modified Project will be entirely within the footprint of the Approved Project, except for the possible addition of two private parcels that are either owned by PVSII or under purchase-option contract to PVSII. The first property encompasses approximately 160 acres located in the center of the BSPP Project Site and is known as the Strait/Murphy Properties. The second property is located in the southern portion of the site, encompasses approximately 120 acres and is known as the Porter Property. PVSII has a purchase-option agreement for the Porter Property.

Biological surveys on the Strait-Murphy Properties were conducted in 2010 as part of the overall project surveys. The Porter Property was partially surveyed during buffer

surveys for the Approved Project. However, lands completely surrounding this property were surveyed in 2009 and 2010 and those results, along with the buffer surveys on the Porter Property, provide ample information to assess biological conditions, impacts and the relevance of licensing and permit conditions developed for the Approved Project. The results of those surveys are summarized below and were previously submitted to the Commission as part of the BSPP's Compliance submittals.

All linear facilities will not change from the Final Decision, as modified by an Amendment approved by the Commission on August 30, 2011, as a result of the switch to PV technology. Within the original project footprint the originally proposed drainage structures which will not be installed because the BSPP site no longer needs the type of extensive grading that was necessary to accommodate the solar trough technology. As described in Section 5.2 of this Petition, the grading necessary to accommodate either the fixed tilt or single access tracking PV systems is considerably less than that required for the original BSPP, which will allow much of the storm water from runoff events to flow through the site with minimal drainage structures.

## **5.1.2 Summary of Surveys**

### **5.1.2.1 Summary of Strait-Murphy Properties Surveys**

Biological surveys for the BSPP took place in 2009 and 2010. The discussion below identifies the nature of those surveys as they pertained to the Strait-Murphy Properties.

#### **5.1.2.1.1 Vegetation Mapping**

The Strait-Murphy Properties were surveyed in 2010, from 8 March through 11 May (AECOM 2010a:10).

#### **5.1.2.1.2 Special-Status Plants**

The Strait-Murphy Properties were surveyed in 2010, during surveys of the reconfigured Project Disturbance Area (PDA). Although these properties were not part of the reconfigured PDA, they were included in the 2010 survey, presumably because surveys were not permitted there in 2009 (AECOM 2010a:17; AECOM 2010b: Attachment 8). The 2010 surveys occurred from 8 March through 11 May (AECOM 2010:17).

#### **5.1.2.1.3 Jurisdictional Waters**

State Waters were not initially surveyed in Spring 2009 (AECOM 2009a:20 and Figure 7). They were subsequently surveyed on one or all of the following dates: 7 October 2009, 5-6 November 2009 and 5-8 and 10 April 2010 (AECOM 2010d:19 and Figures 12 and 13).

#### **5.1.2.1.4 Wildlife**

Desert tortoise and other wildlife were surveyed in 2010 from 15 March through 14 May (AECOM 2010a:24). Surveys were not conducted in 2009.

Focused surveys for burrowing owl were conducted in 2010, during which a Phase I habitat assessment was completed and Phase II burrow surveys were conducted between 15 March and 14 May (AECOM 2010a:24 and Figures 18 and 19). No Phase III surveys were done on the Strait-Murphy Properties because of lack of sign during the Phase II survey. No burrowing owl surveys were conducted in 2009 (AECOM 2009a:32 and Figure 6).

#### **5.1.2.2 Summary of Porter Property Surveys**

Biological surveys for the BSPP took place in 2009 and 2010. The discussion below identifies the nature of those surveys as they pertained to the Porter Property.

##### **5.1.2.2.1 Vegetation Mapping**

The Porter Property is part of the Biological Resources Survey Area (BRSA) and was included in the “buffer area” outside the Project Disturbance Area. Vegetation mapping for the entire BRSA, including the Porter Property, was completed in 2009, between 11 February and 21 April (AECOM 2009a: 19 and Figure 6).

##### **5.1.2.2.2 Special-Status Plants**

The Porter Property is included in the BRSA as part of the “buffer area” outside the Project Disturbance Area. For special-status plants, the reports (EDAW AECOM 2009a, AECOM 2010a) stated that surveys were conducted in the PDA and buffer area, but were unclear relative to the intensity and specific locations of the survey in the buffer. However, the Project Applicant’s response to the December 2009 CEC Data Request showed that the Porter Property was not part of the buffer that was surveyed for special-status plants in 2009 (AECOM 2010c: Figure DR-BIO-76). The Porter Property also was not part of the 2010 survey for the reconfigured PDA (AECOM 2010a:17; AECOM 2010b: Attachment 8).

Despite the lack of surveys on the Porter Property, surveys for the Approved Project in 2009 and 2010 completely surrounded the Porter Property (AECOM 2010a). Also, the habitat on the Porter Property was mapped (AECOM 2010a: Figures 8 and 9) and is the same as that in the adjacent portions of the Approved Project. Accordingly, it is reasonably expected that the species that might be present are those found in the adjacent Approved Project, specifically Harwood’s milkvetch, Utah milkvine and desert

unicorn (AECOM 2010a: Figures 10 and 11). None of these plants is a state or federally listed species.

#### 5.1.2.2.3 Jurisdictional Waters

State Waters were surveyed on the Porter Property in 2010 (AECOM 2010d: Figures 12 and 13) and Fall 2009 (AECOM 2010d:19). A 250-foot survey buffer extended into from the PDA into the Porter property on all sides (AECOM 2010d:v and Figures 12 and 13). But, delineation was also completed on the Porter Property as part of the delineation of hydrologically connected areas outside the PDA that was completed to facilitate impacts analysis (AECOM 2010d:9). Survey dates were 7 October 2009, 5-6 November 2009 and 5-8 and 10 April 2010 (AECOM 2010d:19). State Waters were not initially surveyed in March 2009 (AECOM 2009b:20 and Figure 7).

#### 5.1.2.2.4 Wildlife

**Desert Tortoise** – No surveys were conducted for desert tortoise (AECOM 2009a:29 and Figures 5 and 9; AECOM 2010a:22 and Figures 6 and 7).

**Kit Fox, American Badger and other Special-Status Wildlife** – No surveys were conducted (AECOM 2009a:28 and Figure 11; AECOM 2010a:20 and Figure 13).

**Burrowing Owl** – No surveys were conducted in 2009 (AECOM 2009a:32 and Figure 10). Surveys in 2010 extended into the Porter Property via the PDA buffer surveys that extended 492 feet into the Porter Property along all of that property's borders (AECOM 2010a:23 and Figures 6 and 7).

Although wildlife surveys were not conducted or only marginally conducted for wildlife, surveys for the Approved Project in 2009 and 2010 completely surrounded the Porter Property (AECOM 2010a). Also, the habitat on the Porter Property was mapped (AECOM 2010a: Figures 8 and 9) and is the same as that in the adjacent portions of the Approved Project. Accordingly, it is reasonably expected that the species that might be present are those found in the adjacent Approved Project in similar concentrations:

**Desert Tortoise** - No tortoises are expected, although they are possible in very low numbers. Surrounding sign consisted of bone fragments and questionable burrows and pallets (see AECOM 2010a: Figures 16 and 17). The more incised topography along the western edge of the Approved Project was where tortoises and definitive evidence of tortoise use were found in BSPP surveys, rather than in the flatter, more open terrain that is present on the Porter Property.

**Kit Fox, American Badger and Other Special-Status Wildlife** – Probably present (see AECOM 2010a: Figures 12 and 13).

**Burrowing Owl** - Possibly present (see AECOM 2010a: Figures 18 and 19).

Pre-construction clearance surveys (required for the Approved Project) would verify this conclusion, but there is a negligible chance that there would be unexpected results (e.g., a higher tortoise density or a listed species not observed on the Approved Project).

### 5.1.3 Changes in Environmental Impacts

Table 5.1-1 provides the acres that will be disturbed and require habitat compensation mitigation for addition of the Strait-Murphy and Porter Properties as well as the reduction of the Project footprint due to relocation of the eastern boundary.

**TABLE 5.1-1  
REVISED BIOLOGICAL RESOURCES COMPENSATION ACRES**

Special-Status Biological Resource	Strait-Murphy Property (acres)	Porter Property (acres)	Comments
Desert Tortoise	160	160	AECOM (2010a: Figures 14 and 15)
Burrowing Owl	Unknown	Unknown	If compensation is necessary due to occupied burrows, it can be included in desert tortoise mitigation lands under specific conditions in BIO-18 (4)(a).
State Waters	Approximately 1.3 acres of Jurisdictional Ephemeral Channels	0	AECOM (2010d: Figure 12, Table 7)
Mohave Fringe-toed Lizard/Sand Dunes	0	0	There is no MFTL habitat on the site; all impacts are within the transmission line corridor which remains unchanged.

#### **5.1.4 Compliance With LORS**

In the Commission Decision, the Commission concluded that, with the implementation of the Conditions, the Approved Project would comply with all applicable LORS. Finding 2 at page 247 of the Final Decision states:

With implementation of mitigation measures as appropriate, construction and operation of the planned substation and associated gen-tie connection area project would be expected to comply with all applicable LORS, and would not be expected to result in any significant adverse direct, indirect, or cumulative impacts to biological resources.

There are no new LORS that would affect the Commission's finding. However, since the project includes the addition of the Strait-Murphy and Porter Properties, an amendment to the Commission's Final Decision would also amend the Incidental Take Permit and a Lake and Streambed Alteration Agreement from the CDFG.

Additionally, since the issuance of the Final Decision the BSPP obtained a Jurisdictional Determination from the United States Army Corps of Engineers that there are no waters of the United States on the BSPP site, included in Appendix E.

#### **5.1.5 Conditions of Certification**

The conforming changes to the Conditions for the Modified Project related to biological resources are necessary only to adjust the compensation acreages by the new project phases and to adjust for the amount of habitat that will be impacted within the addition of the two private properties. In addition, the Commission will need to correct the security requirements associated with the new compensation acreages and any recent information supplied by the REAT agencies.

#### **CONDITION OF CERTIFICATION BIO-12**

**BIO-12** 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 ~~6,957~~ **7277** acres, 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 Project, including all linears, as well as undeveloped areas inside the project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. ...

## **CONDITION OF CERTIFICATION BIO-22**

**BIO-22** 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 ~~1,384~~ **1386** 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 ~~1,384~~ **1386** acres of ephemeral washes shall include at least 639 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 **BIO12** 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.

## **CONDITION OF CERTIFICATION BIO-25**

PVSI requests that Condition of Certification BIO-25 be deleted because it applies solely to the use of evaporation ponds and the Modified Project has eliminated the use of evaporation ponds.

## **CONDITION OF CERTIFICATION BIO-28**

Condition of Certification BIO-28 which allows the habitat compensation lands to be acquired in phases. Once the full impact areas have been evaluated by Staff by each Phase of construction, PVSI proposes to revise this condition accordingly.

## **LITERATURE CITED**

California Energy Commission. 2010. Blythe Solar Power Project Commission Decision. CEC-800-2010-009-CMF. 629 pp.

EDAW AECOM 2009a. Blythe Solar Power Project Biological Technical Report. Prepared for Solar Millennium, LLC. 1213 pp.

EDAW AECOM 2009b. Blythe Solar Power Project Jurisdictional Delineation Report for Regulated Waters of the United States and State. Prepared for Solar Millennium, LLC. 95 pp.

AECOM 2010a. Blythe Solar Power Project Biological Resources Technical Report. Prepared for Palo Verde Solar I, LLC. 983 pp.

AECOM 2010b. Blythe Solar Power Project Botanical Survey Report. Prepared for Palo Verde Solar I, LLC. 309 pp.

AECOM 2010c. Blythe Solar Power Project (09-AFC-6) Responses to CEC Staff Data Requests 45-97. 990 pp.

AECOM 2010d. Blythe Solar Power Project Jurisdictional Delineation Report for Regulated Waters of the United States and State. Prepared for Palo Verde Solar I, LLC. 126 pp.