Special-Status Plant Impact Avoidance and Minimization Plan

for the

Rice Solar Energy Project

Riverside County, CA

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5 August 2011

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I. INTRODUCTION

The Rice Solar Energy Project (RSEP, Project) is located in northeastern Riverside County, CA, approximately 30 mi northwest of Blythe, CA and 29 mi west-southwest of Parker, AZ. The Project consists of two areas, the Plant Site and the Transmission line (T-line) corridor. The T-line corridor includes the proposed substation at the eastern terminus of the T-line. Construction of the Plant Site is anticipated to begin in September 2011. Construction of the T-line corridor area is anticipated to begin in 2013.

As a condition of certification by the California Energy Commission (CEC), the RSEP is required to comply with Mitigation Measure BIO-12 (Appendix A). Mitigation Measure BIO-12 requires the preparation of a special-status plant impact avoidance and minimization plan. As required by BIO-12, the Project owner will submit this Plan to the Compliance Project Manager (CPM) for review and approval no less than 30 days prior to ground-disturbing activities. This Plan will be incorporated into the Biological Resources Mitigation and Monitoring Plan (BRMIMP). A draft version of this Plan was reviewed by the CEC and their comments have been incorporated.

Botanical surveys conducted in March 2009 documented a special-status species on the RSEP site (Sycamore Environmental 2009, 2010a, 2010b). As determined in the final decision document (CEC 2010), Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*) requires avoidance. In the Project area, this annual species is known to occur only in the T-line corridor (Appendix B). Preconstruction surveys for this species will be conducted prior to construction of the T-line. If Harwood's milk-vetch plants are detected, they will be protected by Environmentally Sensitive Areas (ESAs). Surveys are not required in the Plant Site (pers. comm., CEC).

The purpose of this Plan is to describe measures that will avoid direct and indirect effects of Project construction and decommissioning to special-status plants, specifically to California Native Plant Society (CNPS) List 1 and List 2 species (excluding *Abronia villosa* var. *aurita*, chaparral sand-verbena) within 250 ft of Project Disturbance Areas (PDAs).

Mitigation Measure BIO-12 defines PDAs as "all areas to be temporarily and permanently disturbed by the Project, including the solar generator 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."

Bureau of Land Management (BLM) policy requires the salvage of cacti prior to construction, excluding cholla (i.e., the genus *Cylindropuntia*). The cacti species requiring salvage for the RSEP Project are not CNPS List 1 or 2 species and thus are not described in this Plan. In accordance with Mitigation Measure BIO-12, Section B, a Protected Plant Salvage Plan will be prepared that describes cacti salvage methods.

The CEC (2010) uses the following terms and definitions to establish when Conditions of Certification are implemented:

- **PRE-CONSTRUCTION SITE MOBILIZATION**

Site mobilization is limited preconstruction activities at the site to allow for the installation of fencing, construction trailers, construction trailer utilities, and construction trailer parking at the site. Limited ground disturbance, grading, and trenching associated with pre-construction activities is considered part of site mobilization. Walking, driving or parking a passenger vehicle, pickup truck and/or light vehicles is allowable during site mobilization.

- **CONSTRUCTION**

On-site work to install permanent equipment or structures for any facility.

II. DESIGNATED BOTANIST

Section A of Mitigation Measure BIO-12 (Appendix A) requires the Project owner to appoint a Designated Botanist, approved by the CEC, to oversee compliance with all special-status plant avoidance and minimization measures described in BIO-12. The Designated Botanist shall be a qualified botanist knowledgeable in the complex biology of the local flora and consistent with California Department of Fish and Game (CDFG; 2009) and BLM (2009, 2010) protocols. The Designated Botanist will oversee and train biological monitors responsible for conducting botanical surveys and monitoring.

III. HARWOOD'S MILK-VETCH

A. Biology and Habitat

Harwood's milk-vetch is an annual plant that reproduces exclusively by seed and dies in late spring. Individual plants will not occur in the same exact location from year to year, but will typically be found in similar habitat, close to locations where parent plants grew in previous years. During years in which there is little or no rain, seeds may not germinate at all.

Habitat for Harwood's milk-vetch is described by CNPS (2011) as sandy or gravelly areas in desert dunes or Mojavean desert scrub below 2,300 ft. Habitat is described in the second edition of The Jepson Manual as sandy or gravelly areas below 1,600 ft (Wojciechowski, *in press*). Within the RSEP Project site, Harwood's milk-vetch was found only on the T-line portion of the site growing in loose sandy soils in narrow, ephemeral desert washes (Sycamore Environmental 2009).

Harwood's milk-vetch blooms from January through May (CNPS 2011; Wojciechowski, *in press*). Forty-eight (48) herbarium specimens of Harwood's milk-vetch are catalogued in the Consortium of California Herbaria (University of California 2011). The collection dates for these specimens are summarized in Table 1. All specimens were collected between January and May.

Table 1. Herbarium records for Harwood's milk-vetch.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Records	3	2	20	19	4	0	0	0	0	0	0	0

During botanical surveys conducted in March 2009, Harwood's milk-vetch plants were in flower and fruit (Sycamore Environmental 2009). During botanical surveys conducted in June, July, and October 2010 (Sycamore Environmental 2010a, 2010b), no Harwood's milk-vetch plants were observed. Harwood's milk-vetch is not anticipated to be growing and/or identifiable from July through December, during which time this annual species would be present only as seeds. Plants that bloom in May could produce seed pods that would be recognizable in June.

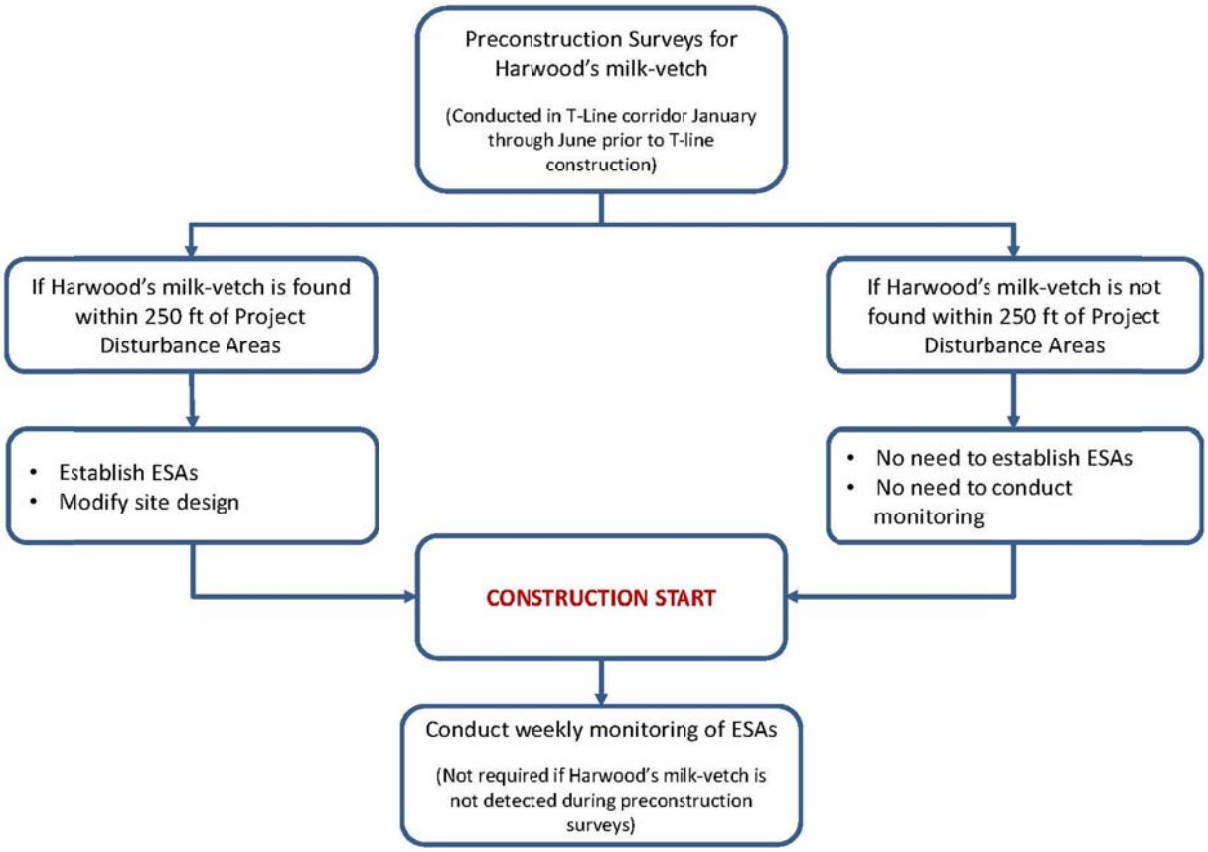
B. Known Occurrences in Project Area

A total of 30-40 individuals of Harwood's milk-vetch were found at 5 locations in the proposed T-line corridor during botanical surveys conducted in March 2009. The locations are shown on the map in Appendix B. No other records for this species have been documented on the Project site.

C. Avoidance and Minimization Measures

The general strategy for avoidance and minimization of impacts to Harwood's milk-vetch is shown in Figure 1. Implementation of the measures outlined in the following sections will avoid and minimize direct and indirect adverse effects to Harwood's milk-vetch within 250 ft of the PDAs.

Figure 1. Harwood's milk-vetch contingency diagram.



1. Preconstruction Surveys

Section A of mitigation measure BIO-12 describes the area of concern for Harwood's milk-vetch as, "the generator tie-line alignment within 250 ft of project activities (including access roads, staging areas, laydown areas, parking and storage areas)."

Because Harwood's milk-vetch is an annual, precise location information is valid only for the year in which plant locations are documented. It is not anticipated that preconstruction surveys would be able to detect plants after July. By this time of year, plants will have set seed for the year and died.

Construction of the T-line is currently scheduled to begin in 2013. Preconstruction surveys will be conducted for Harwood's milk-vetch in the T-line corridor. Preconstruction surveys on the Plant Site for this or other species are not required.

Preconstruction surveys for Harwood's milk-vetch in the T-line alignment will be conducted as follows:

- Surveys will be conducted by qualified botanists familiar with Harwood's milk-vetch. Botanists will be approved by the CEC.
- Survey areas will include PDAs and 250-ft buffers around them. The Project owner will provide a map that shows the boundaries of the T-line alignment, access roads, staging areas, laydown areas, and parking and storage areas associated with the T-line alignment.
- Botanists will walk transects spaced approximately 50 ft apart while surveying the T-line for Harwood's milk-vetch. Representative digital photos will be taken and locations mapped with a GPS. The photographs will be geo-referenced with the GPS.
- Notes regarding the condition and life-stage of Harwood's milk-vetch plants will be recorded.
- Particular attention will be paid to desert washes in which all Harwood's milk-vetch were previously documented in the T-line corridor (Appendix B).
- A map showing the locations of all Harwood's milk-vetch detected during preconstruction surveys will be prepared. The map will be provided to Project engineers and the CPM so that site design modifications can be evaluated and ESAs established.

2. Site Design Modification

Based on the map of Harwood's milk-vetch plants generated from preconstruction surveys, site design modifications may be needed to avoid impacts to Harwood's milk-vetch. Evaluation of site design is required only if preconstruction surveys document the presence of Harwood's milk-vetch plants in areas that will be affected by construction activities.

To the extent feasible based on project design and survey schedules, conceptual site design modifications will be clearly depicted on grading and construction plans, and incorporated into the BRMIMP as they are finalized.

Site design modifications may include:

- 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.
- Adjusting alignments of roads and access points.

3. Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) will be established around all Harwood's milk-vetch plants documented during preconstruction surveys along the T-line within 250 ft of PDAs. Section A of Mitigation Measure BIO-12 requires the Project owner to submit grading plans and construction drawings to the CPM depicting the locations of ESAs and the avoidance and minimization measures associated with ESAs, no less than 30 days prior to the start of ground-disturbing activities. Construction personnel will receive instruction on 1) how to recognize and avoid Harwood's milk-vetch, 2) how to recognize ESAs, and 3) the consequences for disturbing ESAs and destroying protected plants.

ESAs will be established:

- To provide a minimum 250 ft buffer area between plant locations and any ground-disturbing project activity, where feasible.
- To the extent feasible based on project design and survey schedules, the locations of ESAs will be clearly depicted on construction drawings and plans.
- The Project owner will coordinate with the CPM to revise and finalize the boundaries of ESAs.
- ESAs will be delineated with temporary, plastic orange fencing. Signs placed on the fences will state that moving the fence without authorization may result in penalties of work stoppages or compensatory mitigation.
- ESA fences will be securely anchored above ground level to allow for passage of wildlife.
- The Designated Botanist will be contacted if an ESA fence needs to be moved to facilitate construction. The phone number will be clearly posted in on-site construction offices and provided to construction personnel. The Designated Botanist will be present to supervise any movement or replacement of ESA fences.
- After construction of the T-line is completed, the ESA fences will be removed within 8 weeks.

4. Special-Status Plant Worker Environmental Awareness Program

Mitigation Measure BIO-6 requires the Project owner to develop and implement a Worker Environmental Awareness Program (WEAP). As described in BIO-6, the WEAP will contain photographs of protected species in the Project area. Appendix C includes photos of Harwood's milk-vetch plants and diagnostic features that may be referred to in the WEAP. The WEAP will provide instructions specific to the protection of special-status plants, including how to recognize an ESA and the consequences for disturbing an ESA without the approval of the Designated Botanist.

5. Herbicide and Soil Stabilizer Drift Control Measures

Harwood's milk-vetch plants located within 250 ft of PDAs will be protected from potential herbicide and soil stabilizer drift. Mitigation Measure BIO-11 requires the Project owner to develop and implement a Weed Management Plan (WMP). As described in BIO-11, the final WMP will require that herbicide use or other control methods be avoided in or around ESAs and that herbicide drift into ESAs be prevented. Mitigation Measure AQ-SC7 requires that soil stabilizers or soil weighting agents be non-toxic and not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied.

6. Erosion and Sediment Control Measures

The Drainage, Erosion, and Sedimentation Control Plan required under Mitigation Measure SOIL&WATER-1 stipulates that erosion and sediment control measures shall avoid adverse impacts to ESAs and shall not use invasive or nonnative plants in seed mixes, or introduce pest plants through contaminated seed or straw, etc.

7. Staging Areas

Mitigation Measure BIO-12 requires that staging, storage, wash, and parking areas be placed at least 100 ft from the boundaries of any ESA. In addition, all spoils, material storage areas, and vehicle maintenance areas will also be placed at least 100 ft from the boundaries of any ESAs. The location of Harwood's milk-vetch ESAs, if any, will not be known until preconstruction surveys have been completed. Staging will be avoided in the T-line corridor shown in Appendix B, where Harwood's milk-vetch was found in 2009.

8. Monitoring of ESAs and Reporting Requirements

Weekly monitoring of Harwood's milk-vetch ESAs is required during construction. If no Harwood's milk-vetch plants are documented during preconstruction surveys then, if approved by the CPM, monitoring for Harwood's milk-vetch will not be required.

Monitoring for Harwood's milk-vetch will be performed as follows:

- The Designated Botanist (or alternate, such as the CPM-approved designated biologist, biological monitor, or other CPM-approved designee) will conduct weekly monitoring of Harwood's milk-vetch ESAs.
- Monitoring will initially consist of verifying that ESAs have been established. Subsequent monitoring will ensure that ESAs are being maintained according to Section III.C.3 of this Plan. The Designated Botanist (or alternate approved by CPM) may stop construction until ESAs have been properly established and/or maintained.
- During the weekly monitoring, the Designated Botanist (or alternate approved by CPM) will note the conditions of the ESAs, describe any work conducted near ESAs, and provide photographs that show the condition of Harwood's milk-vetch plants and their ESAs.
- Data recorded during monitoring will be summarized in monthly and annual monitoring reports (Table 2).

Reporting will be performed as follows:

- A **Monthly Compliance Report** describing implementation of the special-status plant impact avoidance and minimization measures will be prepared by the Designated Botanist. This report will contain dates and attendees of WEAP training, a map showing all known populations of Harwood's milk-vetch at the Project site, and a table describing the condition of Harwood's milk-vetch plants. The Monthly Compliance Report will be submitted to the CPM by the last calendar day of each month during construction and decommissioning.
- A **Construction Termination Report** describing how avoidance measures have been completed will be prepared by the Designated Botanist. The Construction Termination Report will be submitted to the CPM for review and approval within 30 days after Project construction has been completed.
- An **Annual Monitoring Report** will be prepared by the Designated Botanist. This report will describe how protection measures have been implemented and evaluate the effectiveness of protection measures for all avoided special-status plants. The Annual Monitoring Report will include dates and attendees of WEAP training, a map showing all known populations of Harwood's milk-vetch plants at the Project site, a table with habitat conditions and information regarding Harwood's milk-vetch plant population and habitat quality trends, and a description of any recommendations or remedial actions planned for the next year. Annual Monitoring Reports will be submitted to the CPM for review and approval by 31 January following each year in which construction occurs.
- During the first year of construction, if no Harwood's milk-vetch plants are known to be growing within 250 ft of PDAs, Monthly Compliance Reports, Construction Termination Reports, and Annual Monitoring Reports for Harwood's milk-vetch will consist of an email from the Designated Botanist to the CPM stating this fact and the basis for this finding.
- Monitoring reports will describe any difficulties in meeting the protection goals (i.e., avoidance) and cooperatively develop adaptive measures as needed.

Table 2. Summary of reporting requirements for special-status plant monitoring.

Special-Status Plants Monitoring Report Type [1]	Due Date During Construction	Responsible Party/ Preparer	Submitted To	Content Summary
Monthly Compliance Report	Last day of each calendar month	Project owner/ Designated Botanist	CPM	Discuss avoidance and minimization measures implemented; results of weekly monitoring.
Construction Termination Report	Within 30 days of construction end	Project owner/ Designated Botanist	CPM	Discuss avoidance and minimization measures implemented; evaluation of success.
Annual Monitoring Report [2]	31 January following each calendar yr in which construction occurs	Project owner/ Designated Botanist	CPM	Discuss avoidance and minimization measures implemented; evaluation of protective measure effectiveness; future recommendations.

[1] May consist of an email from the Designated Botanist to the CPM stating that no Harwood's milk-vetch is known within 250 ft of PDAs, with basis for this finding.

[2] Activities along the T-line corridor are not expected to affect HMV during the Operation Phase (activities will consist of road travel and road maintenance). Therefore, during the Operation Phase, it is anticipated that no surveys for HMV will be conducted and no annual monitoring report will be prepared for HMV. At the discretion of the CPM, annual monitoring reports may be required during any non-routine, ground-disturbing construction conducted during the Operational Phase.

IV. OTHER SPECIAL-STATUS PLANT SPECIES

Chaparral sand verbena (*Abronia villosa* var. *aurita*; CNPS List 1B.1) and Utah cynanchum (*Cynanchum utahense*; CNPS List 4.2) were documented on the RSEP Project site during botanical surveys conducted in March 2009 and October 2010, respectively (Sycamore Environmental 2009, 2010b), but do not require avoidance or mitigation (CEC 2010).

V. SUMMARY OF AVOIDANCE MEASURES BY PROJECT PHASE

A. Pre-construction Phase

The Project owner will seek approval from CEC for the appointment of a Designated Botanist (see Section II). Preconstruction surveys for Harwood's milk-vetch are required in and around PDAs in the T-line corridor (see Section III.C.1). A preconstruction survey will be conducted between January and June to detect Harwood's milk-vetch. If preconstruction surveys document Harwood's milk-vetch, site design will be modified to avoid plants (see Section III.D) and ESAs will be established to protect plants (see Section III.C). No less than 30 days prior to the start of ground-disturbing activities, the Project owner will submit grading plans and construction drawings to the CPM that show the locations of ESAs and the avoidance and minimization measures associated with ESAs.

B. Construction Phase

If Harwood's milk-vetch plants are found in the T-line corridor during preconstruction surveys, construction of the T-line will not begin until ESAs have been established around individual or groups of plants. Weekly monitoring of Harwood's milk-vetch ESAs is required during construction and decommissioning along the T-line and will be supervised by the Designated Botanist (see Section III.C.9). Monthly and annual monitoring reports must be submitted to the CPM according to the schedule in Table 2. A Construction Termination Report will be completed within 30 days of the end of construction. Construction activities on the Plant Site do not require avoidance or minimization measures for Harwood's milk-vetch.

C. Operation Phase

Operation of the RSEP Project is not expected to affect Harwood's milk-vetch. No avoidance or minimization measures are proposed for Harwood's milk-vetch during operation of the Project. At the discretion of the CPM, surveys, avoidance measures, and/or monitoring for Harwood's milk-vetch may be required for any non-routine, ground-disturbing activities planned during the Operational Phase.

D. Closure/Decommissioning

The CEC decision document for the RSEP Project requires the preparation of a Closure Plan and an Unplanned Temporary Closure/ On-site Contingency Plan. The Closure Plan identifies impacts and mitigation to address proposed closure activities, which include impacts to special-status plants. The Unplanned Temporary Closure/ On-site Contingency Plan will be continuously updated by the CPM as new information is made available and requires notification of responsible agencies (such as DFG and BLM) in the event of unplanned closure.

In the event of facility closure and decommissioning a Closure Plan and Unplanned Temporary Closure/ On-site Contingency Plan will discuss rare plant protection. These plans will require surveys for rare plants prior to any ground-disturbing closure or decommissioning activities, identify potential impacts to rare plants, and determine appropriate avoidance, minimization, and mitigation measures, including weekly monitoring, in consultation with the CEC.

VI. LITERATURE CITED

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APPENDIX A.

Mitigation Measure BIO-12

Rice Solar Energy Project
Riverside County, CA

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SPECIAL-STATUS PLANT IMPACT AVOIDANCE, MINIMIZATION AND COMPENSATORY MITIGATION

BIO-12 This Condition contains the following five sections:

- **Section A: Avoidance and Minimization Measures** describes measures to avoid and protect Harwood's milk-vetch locations on the generator tie-line alignment within 250 feet of project activities (including access roads, staging areas, laydown areas, parking and storage areas) from accidental and indirect impacts during construction, operation, and closure.
- **Section B: Conformance with BLM Plant Protection Policies** describes measures to salvage and transplant certain cacti, yucca, and other species in conformance with BLM policies.

"Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the Project, including the solar generator 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. Nothing in this condition requires the project owner to conduct botanical surveys on private lands adjacent to the project site when the project owner has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission

The Project owner shall implement the following measures in Section A and B to avoid, minimize, and compensate for impacts to special-status plant species:

Section A: Special Status Plant Impact Avoidance and Minimization Measures

To protect Harwood's milk-vetch or other CNPS List 1 or List 2 plants (excluding chaparral sand-verbena) located within the project area or within 250 feet of its boundaries (including access roads, staging areas, laydown areas, parking and storage areas) from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

1. Designated Botanist. An experienced botanist shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this condition throughout construction, operation, and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. The Designated Botanist shall be a qualified botanist knowledgeable in the complex biology of the local flora and consistent with CDFG (2009) and BLM (2009b) protocols.

2. Special Status Plant Impact Avoidance and Minimization Plan. The Project owner shall prepare and implement a Special Status Plant Impact Avoidance and Minimization Plan and shall incorporate the Plan into the BRMIMP (**BIO-7**). The Plan shall be designed to prevent direct or indirect effects of project construction and operation to CNPS List 1 and List 2 plants (excluding chaparral sand-verbena) within or within 250 feet of the project disturbance area. The Plan shall include the following elements:

    a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the Project linears, as follows: limit the width of the work area; adjust the location of staging areas, lay downs, spur roads and poles or towers; drive and crush vegetation as an alternative to blading temporary roads to preserve soil integrity and seed banks, and adjust the alignments of roads and access points within the constraints of the ROW. These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP.

    b. Designate Environmentally Sensitive Areas (ESAs). Before construction, designate ESAs to protect all known CNPS List 1 or List 2 plant locations (excluding chaparral sand-verbena) within the project disturbance area or within 250 feet of disturbance area. 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 provide a minimum of 250 feet buffer area between plant locations and any ground-disturbing project activity. The ESAs shall be clearly delineated in the field with fencing and signs prohibiting movement of the fence under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be marked (with signage or other markers) to ensure that avoided plants are not inadvertently harmed during construction.

    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. **S**pecial-status plant occurrences within 250 feet of the Project Disturbance Area shall be protected from any potential herbicide and soil stabilizer drift. The Weed Control Program (**BIO-11**) shall include measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by Hillmer and Liedtke (2003) and Kegley et al. (2010).

e. Erosion and Sediment Control Measures. Erosion and sediment control measures shall avoid adverse impacts to ESAs and shall not use invasive or non-native plants in seed mixes, introduce 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 the boundaries of 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.

Section B: Conformance with BLM Plant Protection Policies

It is BLM policy to salvage yucca and cactus plants (excluding cholla species, genus *Cylindropuntia*) and transplant them to undisturbed sites within project Rights of Way. Staff recommends conformance with policy, as follows:

a. The project owner shall inventory all plants subject to BLM policies on all NLM lands within the Project Disturbance Area that would be removed or damaged by proposed project construction.

b. The project owner shall prepare a Protected Plant Salvage Plan in conformance with BLM standards for review and approval by the CPM in consultation with BLM. The plan shall include detailed descriptions of proposed methods to salvage plants; transport them; store them temporarily (as needed); maintain them in temporary storage (i.e., irrigation, shade protection, etc.); proposed transplantation locations and methods for permanent relocation; proposed irrigation and maintenance methods at transplantation sites; and a monitoring plan to verify survivorship and establishment of translocated plants for a minimum of five years.

c. Prior to initiating any ground-disturbing activities on the project site, the project owner shall implement the Protected Plant Replacement measures as approved by the CPM, in consultation with BLM's State Botanist.

The Special-Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification **BIO-7**.

Verification: 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.

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, an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends, and description of the remedial action, if warranted and planned for the upcoming year.

Section A. No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit grading plans and construction drawings depicting the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition. The project owner shall coordinate with the CPM and BLM's Wildlife Biologist to revise and finalize boundaries of the ESAs.

No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit to the CPM for review and approval, in consultation with the BLM State Botanist, the name and resume of the project's Designated Botanist. If a Designated Botanist needs to be replaced, the specified information of the proposed replacement must be submitted to BLM's Wildlife Biologist and the CPM as soon as possible prior to the termination or release of the Designated Biologist. In an emergency, the project owner shall immediately notify the BLM's Wildlife Biologist and the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Botanist is proposed to BLM's Wildlife Biologist and the CPM and for consideration.

No less than 30 days prior to ground-disturbing activities the Project owner shall submit a Special Status Plant Impact Avoidance and Minimization Plan to the CPM for review and approval, in consultation with the BLM State Botanist. Implementation of the 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.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all ESAs to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends, and description of the remedial action, if warranted and planned for the upcoming year. The project owner shall coordinate with the CPM and BLM to revise and finalize monitoring reports and all reports described in this section, and shall specifically report any difficulties in

meeting the protection goals and cooperatively develop adaptive measures as needed.

Section B. The project owner shall coordinate with the CPM and BLM's Wildlife Biologist to revise and finalize all plans and reports named in this section. Verification and reporting shall be as described in **BIO-10** and shall be included in reports described therein. Within 90 days after completion of each year of project construction, the project owner shall provide to the CPM verification of the numbers or acreage of plants covered in this Condition (i.e., species named in BLM and County policies) which have been removed or salvaged over the course of the year. Annual revegetation reports described in **BIO-10** verification shall include summaries of salvage and planting operations and monitoring results. Compliance reports shall include summaries of written and photographic records of the plan implementation described above. Compliance reports shall be submitted annually for a period not less than 5 years to document irrigation, maintenance, and monitoring results, including plant survival.

PRE-CONSTRUCTION NEST SURVEYS AND IMPACT AVOIDANCE MEASURES FOR MIGRATORY BIRDS

BIO-13 Pre-construction nest surveys for bird species other than burrowing owls shall be conducted if construction activities will occur during the breeding period (from February 1 through August 31). Burrowing owl surveys are addressed in **BIO-19**. The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). Surveys shall be conducted in accordance with the following guidelines. Nothing in this condition requires the project owner to conduct nesting bird surveys by entering private lands adjacent to the project site when the project owner has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission. In this situation only, the project owner may substitute binocular surveys for protocol field surveys.

1. Surveys shall cover all potential nesting habitat in the project site and within 500 feet of the boundaries of the plant site and linear facilities;
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 the 10 days preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed one week in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation;
3. If active nests are detected during the survey, a 500-foot no-disturbance buffer zone shall be implemented. If active raptor nests or bat maternity roosts are detected during the survey, a 1200-foot

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APPENDIX B.

Special-Status Plant Map

Rice Solar Energy Project
Riverside County, CA

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Colorado River Aqueduct
State Route 62
San Bernardino County
Riverside County
PROPOSED PLANT SITE
Rice Valley Dunes Road (Dirt)
Rice Valley Road (Dirt)
PRIVATE PROPERTY
PROPOSED TRANSMISSION LINE CORRIDOR
Rice Valley Road (Dirt)
PRIVATE PROPERTY
Proposed Location of Substation/ Switching Station
Parker - Blythe 230kV WAPA/ Midland - Vidal Road

Rice Solar Energy Project
Riverside County, CA
5 August 2011

Harwood's Milk-Vetch Location Map 2009

Harwood's milk-vetch *(Astragalus insularis* var. *harwoodii)*
(each circle represents the location of 5 to 7 plants documented March 2009)
Project Boundary (including buffer)
Area where preconstruction surveys are required for Harwood's milk-vetch
Bureau of Land Management Land

SYCAMORE Environmental Consultants, Inc.

Aerial Photo:
January 1999

3,500 1,750 0 3,500 Feet
N
Scale: 1 inch = 3,500 feet

11074RiceBotanicalAssist_Special-status.mxd

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APPENDIX C.

Special-Status Plant WEAP Training Materials

Rice Solar Energy Project
Riverside County, CA

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Photographs of Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*)

Photo 1. Ephemeral desert wash in which Harwood's milk was found in T-line corridor in March 2009.

Photo 2. Harwood's milk-vetch habitat in T-line corridor.

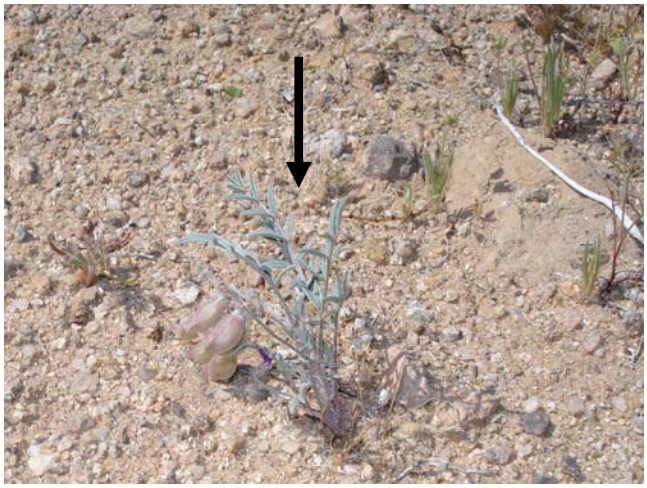

Photo 3. A Harwood's milk-vetch plant.

Photo 4. Harwood's milk-vetch plant. Note purple flowers and small, hairy leaflets.

Photo 5. Harwood's milk-vetch flowers.

Photo 6. The bladdery (inflated) fruits of Harwood's milk-vetch.

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