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Applicant's Supplemental Response to Data Request Set 1A (#72): Draft Integrated Weed Management Plan for the APPLICATION FOR CERTIFICATION for the Rio Mesa Solar Electric Generating Facility (Rio Mesa SEGF)

(11-AFC-04)




Submitted to:

CALIFORNIA ENERGY COMMISSION
1516 9th Street, MS15
Sacramento, CA 95814-5504

Submitted by:

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JUNE 7, 2012

URS

June 7, 2012

Pierre Martinez
Project Manager
Systems Assessment & Facility Siting Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Subject: Applicant's Supplemental Data Response, Set 1A (#72)
Rio Mesa Solar Electric Generating Facility (11-AFC-04)

Dear Mr. Martinez:

On behalf of Rio Mesa Solar I, LLC and Rio Mesa Solar II, LLC, collectively the "Applicant" for the Rio Mesa Solar Electric Generating Facility project ("Rio Mesa SEGF"), we submit this Supplemental Data Response to CEC Staff Data Request Set 1A (#72), Draft Integrated Weed Management Plan. This data response supplements the information provided in the response to Data Request #72 in the Applicant's Response to Data Requests, Set 1A (#1-84), which was docketed on March 8, 2012.

Sincerely,

Angela Leiba, Vice President
Senior Project Manager/ Environmental Department Manager

Enclosure

cc: POS List
Project File

D R A F T

INTEGRATED WEED MANAGEMENT PLAN
for the
RIO MESA SOLAR ELECTRIC GENERATING SYSTEM
RIVERSIDE COUNTY, CALIFORNIA

Prepared for

BrightSource Energy, Inc.

URS Project No. 27652105.00504

June 7, 2012

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TABLE OF CONTENTS

Tables

Figures

ACEC	Area of Critical Environmental Concern
BLM	Bureau of Land Management
BMPs	Best Management Practices
BRMIMP	Biological Resources Mitigation Implementation and Monitoring Plan
Cal-IPC	California Invasive Plant Council
CDCA	California Desert Conservation Area
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CLA	Construction logistics area
CPM	Compliance Project Manager
DB	Designated Biologist
DWMA	Desert Wildlife Management Area
ECM	Environmental Compliance Manager
EPA	U.S. Environmental Protection Agency
FLPMA	Federal Land Policy Management Act
^{o}F	Degrees Fahrenheit
kv	Kilovolt
LDWMA	Low Desert Weed Management Area
MOU	Memorandum of Understanding
mph	Miles per hour
MW	Megawatt
NECO Plan	Northern and Eastern Colorado Desert Coordinated Management Plan
NPPA	Native Plant Protection Act
PAR	Pesticide application records
PCA	Pest Control Advisor
PEIS	Programmatic Environmental Impact Statement
PPA	Federal Plant Protection Act of 2000
PUP	Pesticide Use Proposal
QAL	Qualified Applicator's License
RMSEGF	Rio Mesa Solar Electric Generating Facility
SCE	Southern California Edison
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WEAP	Worker Environmental Awareness Program
WHMA	Wildlife Habitat Management Area

SECTION 1 INTRODUCTION

1.1 PURPOSE

This Plan provides the following:

1. Monitoring, preventative, and management strategies for weed control during construction activities at the Rio Mesa Solar Electric Generating Facility (RMSEGF);

2. Control and management of invasive and noxious weeds in areas temporarily disturbed during construction where native seed will aid in site revegetation; and

3. A long-term strategy for invasive and noxious weed control and management during the operation of the Project.

1.2 PROJECT DESCRIPTION

The project site is located approximately 13 miles southwest of the city of Blythe in Riverside County, California. The Rio Mesa Solar Electric Generating Facility (RMSEGF, or Project) will consist of two solar plants: the southernmost plant will be known as Rio Mesa I and the northernmost plant will be known as Rio Mesa II. The plants will be constructed in separate phases. Rio Mesa Solar I, LLC and Rio Mesa Solar II, LLC, the owners of the two separate solar plants, are jointly known as the "Applicant."

Each plant will include a power block area surrounded by an array of approximately 85,000 heliostats, and will require approximately 1,850 acres (or 2.9 square miles) of land to operate. The nominal capacity of each solar plant will be 250 megawatts (MW), for a total Project nominal output of 500 MW. Certain facilities for the Project will be shared by the two plants and located in a common area. These facilities will include a combined administration, control, maintenance, and warehouse building, and mobile equipment maintenance facilities for the maintenance crew and operators. A common switchyard will be installed on site where both plant's underground 230 kilovolt (kv) transmission lines will terminate. The total area required for both plants, including the common area, is approximately 3,805 acres of privately owned land.

Electricity will be transmitted on a common overhead generator tie line (gen-tie line) and tower system from the Project switchyard to the new Southern California Edison (SCE) Colorado River Substation (CRS), located approximately 9.7 miles to the northwest of the project site. Other project components include a plant construction and emergency power line, two access road corridors to be improved, and a construction laydown area. The gen-tie line, plant construction and emergency power 33kv power line, and access road corridors to be improved are located on both privately owned lands and public lands administered by the Bureau of Land Management (BLM).

1.3 DEFINITION OF NOXIOUS WEEDS

For purposes of this Plan a weed is defined as a non-native plant species (both individuals and populations) that interfere with management goals and objectives for the preservation and continued functionality of natural areas (Bossard, Randall, and Hoshovsky 2000). These non-native plant species

include weeds defined as noxious, as well as species that are considered invasive. The Federal Plant Protection Act of 2000 (PPA) (7 United States Code [U.S.C.] 7701 et seq.) defines a "noxious" weed as any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products); livestock, poultry, or other interests of agriculture; irrigation; navigation; natural resources of the United States; the public health; or the environment.

Noxious (invasive) weeds are non-native plants that aggressively colonize new areas and can grow to displace native species and dominate native plant communities if left uncontrolled. Weeds can also preempt ground and surface water resources, compromise agricultural operations, conflict with recreational values, create fire hazards, and compromise aesthetic values of native or urban landscapes. Weeds are often quick to colonize disturbed areas, including construction sites, roadsides, irrigated sites, or any other area with altered hydrology, soil structure, or soil chemistry. Weeds described in this Plan are those known to alter physical or chemical soil conditions, out-compete native vegetation, and dominate the landscape to the detriment of native plants and wildlife. Targeted weed species are primarily based on those discussed in BLM guidelines and those not currently listed in BLM guidelines but recommended for targeting by specialists.

1.4 OBJECTIVES OF THIS PLAN

This Plan includes a list and assessment of weeds that occur, or could potentially occur in the Project vicinity; a target list of weeds that will be controlled; survey methods for weed presence during construction and operation; weed control methods; and reporting requirements. Vegetation within the Project boundary is shown on Figure 3. In evaluating weed infestations at the Project site, the appropriate objectives will be defined on a case-by-case basis.

It is important to specify weed management objectives prior to Project initiation. The objectives need to be consistent with existing and proposed future site conditions, biology of the identified weed species, and environmental context of the Project. Weed management objectives for the Project include the following:

- Prevention – This objective is aimed at preventing the spread of weeds in new areas by educating workers on site and implementing preventative measures to prevent seeds from being transferred into weed-free areas. Prevention also includes quickly moving to eradicate new populations of weeds discovered in previously unknown locations to prevent the initial infestation. Prevention is an integral part of this Plan's overall success.
- Monitoring – Along with prevention, monitoring the Project site on a regular basis is crucial to the other objectives of this Plan. This objective is aimed at providing information on the status of existing weeds on site, as well as the discovery of new weeds that do not currently occur on site, in a timely manner. The information collected while monitoring will determine the need for weed control and gauge the effectiveness of this Plan.
- Eradication – This control objective is aimed at the elimination of individuals of a particular species within a specified area. This will be the goal for most weed species at the Project site and is appropriate where the weed is of considerable economic and environmental concern and the population size is manageable.

- Suppression – This objective is aimed at reducing current infestation density, but not necessarily directed at reducing the infestation's total area or boundary. This applies to many widely-distributed, high-density weeds where eradication is not feasible.
- Containment – This objective is aimed at preventing the infestation, expansion, and spread of weeds and may be conducted with or without attempts to reduce infestation density. Containment focuses on halting the spread until suppression or eradication can be implemented and is practical only to the extent that the spread of seeds or vegetative propagules can be prevented.

1.5 PLAN MANAGEMENT

The Applicant is ultimately responsible for implementing this Plan. It is anticipated that the Applicant's contractors and other designees responsible for implementing components of this Plan will include the following:

- Contractor(s) – Applicant will ensure that contractors, subcontractors, vendors, maintenance personnel, and other parties performing either construction or ongoing maintenance or repairs at the Project site are obligated to abide by, and to the extent relevant, implement the provisions of this Plan. Implementing the construction provisions of this Plan will be a part of construction contracts for the Project. Restoration contractors, landscape contractors, and other specialists will implement specific provisions of this Plan. Contractor compliance with the provisions of this Plan will be overseen by the Construction Manager, with input from the Environmental Compliance Manager (ECM) and Designated Biologist (DB).
- Construction Manager – The Construction Manager will have ultimate oversight of the construction contractor to ensure compliance with the provisions of this Plan. The Construction Manager will work with the ECM and DB to coordinate the successful implementation of this Plan.
- Designated Biologist – The Applicant will assign a DB to fulfill specific biological resources Conditions of Certification that may be set forth by the California Energy Commission (CEC). The DB will be the point of contact for the CEC, BLM, and Applicant with respect to such biological resources Conditions of Certification. The DB will advise the Applicant on the implementation of biological resources Conditions of Certification, including providing input on the creation of the Worker Environmental Awareness Program (WEAP) and Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) as they pertain to the Plan.

  Specifically, the DB must possess the following:

  - a Bachelor's degree in the biological sciences, zoology, botany, ecology, or a closely related field;
  - at least 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;
  - at least one year of field experience with biological resources found in or near the Project area.

Additionally, the DB must:

- be approved by CEC and BLM;
- complete a U.S. Fish and Wildlife Service (USFWS) Desert Tortoise Authorized Biologist Request Form that is reviewed and approved by the USFWS, CEC, California Department of Fish and Game (CDFG), and BLM.

- Environmental Compliance Manager – The Applicant will designate an ECM to provide oversight of construction practices and ensure compliance with the provisions of this Plan. The ECM (including support staff as needed) will be contracted directly by the Applicant and will coordinate with the Construction Manager and DB to ensure contractor compliance with environmental requirements of the Plan for construction.
- Bureau of Land Management Wildlife Biologist – As the administering land management agency, the BLM Wildlife Biologist will provide approval of this Plan's contents and compliance oversight of the Plan's provisions as they relate to the portions of the Project linears which occur on BLM-administered land). BLM will provide timely review of work products, including this Plan, modifications or amendments to this Plan, and any subsequent reports required by this Plan.
- California Energy Commission – The CEC will assign a Compliance Project Manager (CPM) to ensure compliance with the provisions outlined in this Plan. CEC will provide approval of this Plan's contents and compliance oversight of the Plan's provisions. CEC will provide timely review of work products, including this Plan, modifications or amendments to this Plan, and subsequent reports as required by this Plan.

SECTION 2 LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

2.1 FEDERAL LAWS AND REGULATIONS

2.1.1 Federal Noxious Weed Act of 1974

The Federal Noxious Weed Act of 1974 (7 U.S.C. §§ 2801-2814, as amended) provides for the control and management of non-indigenous weeds that injure, or have the potential to injure, the interests of agriculture and commerce, wildlife resources, or the public health. It gives the Secretary of Agriculture broad powers in regulating trade and movement of noxious weeds. The Act states that no person may import or move any noxious weed identified by regulations of the Secretary of Agriculture into or through the United States, except in compliance with the regulations, which may require that permits be obtained. The Act also requires each Federal agency to develop a management program to control undesirable plants on Federal lands under the agency's jurisdiction and establish and adequately fund the program. Some of the provisions of this Act were repealed by the PPA, including U.S.C. §§ 2802-2813. However, Section 1 (findings and policy) and Section 15 (requirements of Federal land management agencies to develop management plans) were not repealed (7 U.S.C. § 2801 note; 7 U.S.C. § 2814).

2.1.2 Federal Plant Protection Act of 2000

The Federal Plant Protection Act of 2000 (7 U.S.C. 7701-7786, as amended) (the "PPA") states that the detection, control, eradication, suppression, prevention, or retardation of the spread of plant pests or noxious weeds is necessary for the protection of the agriculture, environment, and economy of the United States. The PPA defines the term ''noxious weed'' (7 U.S.C. 7702 § 403) to mean any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment. The PPA specifies that the Secretary of Agriculture may prohibit or restrict the importation, entry, exportation, or movement in interstate commerce of any noxious weed if it is determined "that the prohibition or restriction is necessary to prevent the introduction into the [United States] or the dissemination of a plant pest or noxious weed within the [United States]," and authorizes the issuance of implementing regulations. As described below, the PPA was later amended by the Noxious Weed Control and Eradication Act of 2004.

2.1.3 Noxious Weed Control and Eradication Act of 2004

The Noxious Weed Control and Eradication Act of 2004 (P.L. 108-412) amended the PPA by adding a new subtitle, "Subtitle E--Noxious Weed Control and Eradication" (7 U.S.C. 7781-7786), which authorizes the Secretary of Agriculture to establish a program to provide financial and technical assistance to control or eradicate noxious weeds to public and private landowners. This Act defines noxious weeds and removes references to statutes that were repealed upon enactment of the PPA. This Act prohibits the movement of a federally designated noxious weed into or through the United States unless a permit is obtained for such movement and the movement is consistent with the specific conditions contained in the permit. This Act specifies that such movement, under conditions specified in the permit, may not involve a danger of dissemination of the noxious weed in the United States; otherwise such a permit will not be issued.

Under this Act, grants are available to weed management entities for the control or eradication of noxious weeds, and agreements may be made with weed management entities to provide financial and technical assistance for the control or eradication of noxious weeds.

2.2 STATE AND LOCAL LAWS AND REGULATIONS

2.2.1 Native Plant Protection Act

The Native Plant Protection Act (NPPA) (California Fish and Game Code, §§ 1900-1913) directed the CDFG to implement the Legislature's intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission authority to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

2.2.2 California Food and Agricultural Code

Various portions of the California Food and Agricultural Code pertain to noxious weed management. Specifically, Section 403 states that the California Department of Food and Agriculture (CDFA) should prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds. Under Sections 7270 through 7224, the California Commissioner of Agriculture is granted the authority to investigate and control noxious weeds, and specifically to provide funding, research, and assistance to weed management entities, including eligible weed management areas or county agricultural commissioners, for the control and abatement of noxious weeds according to an approved integrated weed management plan.

Sections 5101 and 5205 provide for the certification of weed-free forage, hay, straw, and mulch. These sections recognize that many noxious weeds are spread through hay, straw, and mulch, used for both forage and ground covers. The code allows for in-field inspection and certification of crops to ensure that live roots, rhizomes, stolons, seeds, or other propagative plant parts of noxious weeds are not present in the crop to be harvested. Certified weed-free forage, hay, straw, and mulch are required on BLM land. Any mulch or hay bale materials used for erosion control at RMSEGF will be required to meet this certification.

2.2.3 Riverside County General Plan

The Land Use and Multipurpose Open Space Elements of the County General Plan (County of Riverside 2008) contain specific policies to preserve the character and function of open space that benefits biological resources. It also contains specific policies and goals for protecting areas of sensitive plant, soils and wildlife habitat and for assuring compatibility between natural areas and development. The RMSEGF area and most of eastern Riverside County is designated as Open Space Rural in the General Plan. The Project is located in the Palo Verde Valley within unincorporated Riverside County. The Project is within the planning area for the Palo Verde Valley Area Plan. The Palo Verde Valley Area Plan provides customized direction specifically for this easternmost reach of the County.

2.3 CONSERVATION AND MANAGEMENT PLANS

This section discusses the conservation and management plans that have been developed that are relevant to surface management and noxious weed control at RMSEGF. These plans were either in response to regulatory mandates, or internal agency guidance, and are summarized in this section.

2.3.1 Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement

The BLM's *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement* (USDI, 2007) addresses the use of chemical treatments in noxious weed control. This document is the result of extensive public involvement and outlines the specific decisions, standard operating procedures, and mitigation measures for the use of herbicides on BLM administered public lands. The selected alternative of the Programmatic Environmental Impact Statement (PEIS) identifies both active herbicidal ingredients approved for use on BLM administered public lands, as well as prohibited herbicidal ingredients. The Record of Decision for the PEIS defers the determination of areas to be treated through BLM's integrated pest management program to approved land use plans, and makes no land use or resource allocations in this regard.

Appendix B, Herbicide Treatment Standard Operating Procedures, of the PEIS specifies management of noxious weeds and application of pesticides on BLM administered public lands. Table B-1, Prevention Measures, specifies avoidance measures to limit noxious weed infestation, and Table B-2, Standard Operating Procedures for Applying Herbicides, provides details on herbicide application. The standard operating procedures of Appendix B of the PEIS, including the avoidance measures and procedures provided in Tables B-1 and B-2, are incorporated as requirements of this Plan.

2.3.2 California Desert Conservation Area Plan

The California Desert Conservation Area (CDCA) comprises one of two national conservation areas established by Congress at the time of the passage of the Federal Land and Policy Management Act (FLPMA). The FLPMA outlines how BLM will manage public lands. Congress specifically provided guidance for the management of the CDCA and directed the development of the 1980 CDCA Plan (BLM, 1980). The document provides no specifics about noxious weed management, but specifies management strategies for broad areas of the plan boundary.

2.3.3 Northern and Eastern Colorado Desert Coordinated Management Plan

The Northern and Eastern Colorado Desert Coordinated Management Plan (NECO Plan) is a landscape-scale, multi-agency planning effort that protects and conserves natural resources while balancing human uses of the California portion of the Sonoran Desert ecosystem (BLM 2002). It requires an ecosystem management approach to balancing human use and the conservation of biological resources. The NECO Plan established two Desert Wildlife Management Areas (DWMAs) encompassing approximately 1.75 million acres that are managed as Areas of Critical Environmental Concern (ACECs) for recovery of the desert tortoise; establish the Southern Mojave and Sonoran Wildlife Habitat Management Areas (WHMAs) for bighorn sheep totaling over one million acres and 13 multi-species WHMAs totaling over one half million acres.

The NECO Plan amended the CDCA Plan of 1980. The BLM administers the NECO Plan. The Project site is within the NECO Plan boundary, but not within a DWMA or ACEC. Portions of the gen-tie line, upgraded Bradshaw Trail and 33kV construction power line coincide with the Mule Wilderness WHMA, which is designated as a low risk WHMA by BLM. The Chuckwalla DWMA is approximately four miles west of the project site while the Mule Mountains ACEC is 0.8 miles west and southwest of the gen-tie line.

2.3.4 Memorandum of Understanding; Low Desert Weed Management Area

The purpose of the Memorandum of Understanding (MOU) is to promote and formalize cooperative relationships necessary for effective management, coordination, and implementation of noxious weed programs among the signatory parties within the described geographic area, which includes the desert portions of Riverside and San Diego Counties. The focus of the MOU is on the exclusion, detection, eradication, and suppression of weeds, with a priority placed on the species listed as noxious weeds by the CDFA and other species of local significance as they are identified. The signatory agencies and organizations will cooperate in developing coordinated work plans and seeking funds to support the activities of the Low Desert Weed Management Area (LDWMA). In addition, public education on weed identification, prevention, and control will be a primary goal of the LDWMA.

SECTION 3 ASSESSMENT OF NOXIOUS WEEDS

3.1 NOXIOUS WEED SPECIES

For purposes of this Plan, noxious weeds (also called invasive weeds) are defined as species of non-native plants that are included on the CDFA's weed lists (CDFA, 2007), the California Invasive Plant Council (Cal-IPC, 2006), or those weeds of special concern identified by BLM. While the Project site is not located within the Mojave Weed Management Area, the Mojave Weed Management Plan[1] also was consulted to assemble a list of target noxious weeds to include in surveys due to the close proximity of the Project site to the Mojave Weed Management Area. A list of invasive species that potentially could occur in the project site is provided in Table 1.

3.2 SURVEYS

Invasive weeds were identified during all protocol field surveys. During the early spring protocol botanical survey March 7 through 22, 2011 and March 28 to April 1, 2011, when all plants observed were initially identified, attention was given to detecting, identifying, and mapping non-native invasive plant species. During the late spring/early summer protocol survey from April 25 to May 7, 2011, very few additional non-native invasive species were found. The same procedure was employed in September 2011 during the limited fall protocol field survey.

3.3 KNOWN AND POTENTIAL NOXIOUS WEED OCCURRENCES

Invasive Saharan mustard (*Brassica tournefortii*) and Mediterranean grasses (*Schismus arabicus* and *S. barbatus*) are scattered throughout the Project area while Saharan mustard is particularly widespread along the existing transmission line. Additional non-native, invasive plant species were also detected during the early and late spring 2011 protocol surveys. These additional species were not widespread and typically included one to 10 individuals per location found.

[1] Available at: http://www.mojavewma.org/

Table 1 - Observed and Potentially Occurring Noxious Weeds at Rio Mesa Solar Electric Generating Facility

Scientific Name	Common Name	Habitats of Concern and Comments	Observed During Surveys and Anticipated Distribution in Project Area	CDFA Rank[1]	Cal-IPC Overall Rating[2]	Alert	Cal-IPC Rating[2] Impacts, Invasiveness, Distribution
Alhagi camelorum	camel thorn	Grassland, meadows, riparian and desert scrub, Sonoran thorn woodland; very invasive in southwestern states; limited distribution in California.	Not observed; edaphically constrained; only to be expected near playas	A	Moderate	No	B, B, B
Brassica tournefortii	Sahara mustard	Desert dunes, desert and coastal scrub	Observed; numerous locations, could occur throughout project site and will require monitoring	Not Listed	High	No	A, A, B
Bromus diandrus	ripgut brome	Dunes, scrub, grassland, woodland, forest; very widespread, but monotypic stands uncommon	Not observed; a facultative phreatophyte, but locally restricted to moist sandy soils; however, is recorded at a number of localities in the region and therefore included	Not Listed	Moderate	No	B, B, A
Bromus madritensis ssp. *rubens*	red brome	Scrub, grassland, desert washes, woodlands	Not observed; potentially occurring throughout the project area, mostly at the base of shrubs	Not Listed	High	No	A, B, A
Bromus tectorum	downy brome, cheatgrass	Interior scrub, woodlands, grasslands, pinon/Joshua tree woodland, chaparral	Not observed	Not Listed	High	No	A, B, A
Cynodon dactylon	bermuda grass	Riparian scrub in southern California; common landscape weed, but can be very invasive in desert washes	Observed; could become a problem in heliostat washing areas;	C	Moderate	No	B, B, B
Elaeagnus angustifolia	Russian olive	Interior riparian; impacts more severe in other western states; Current distribution limited in California	Not observed; low potential to occur in riparian habitats on project site	Not Listed	Moderate	No	B, A, B

Table 1 - Observed and Potentially Occurring Noxious Weeds at Rio Mesa Solar Electric Generating Facility

Scientific Name	Common Name	Habitats of Concern and Comments	Observed During Surveys and Anticipated Distribution in Project Area	CDFA Rank[1]	Cal-IPC Overall Rating[2]	Alert	Cal-IPC Rating[2] Impacts, Invasiveness, Distribution
Erodium cicutarium	redstem filaree	Many habitats; widespread; impacts minor in wildlands; high-density populations transient	Observed	Not Listed	Limited	No	C, C, A
Halogeton glomeratus	halogeton	Scrub, grasslands, pinon-juniper woodland; larger problem in Nevada; monotypic stands are rare	Not observed; edaphically constrained, only to be expected near playas	A	Moderate	No	B, A, B
Salsola paulsenii	barbed-wire Russian thistle	Desert and Great Basin scrub; limited distribution; impacts in desert appear to be minor	Observed; widespread but typically uncommon except in recently disturbed habitats	C	Limited	No	C, C, C
Salsola tragus; S. kali; S. pestifer	Russian thistle; tumble weed	Desert dunes and scrub, alkali playa; widespread; impacts minor in wildlands	Observed	C	Limited	No	C, B, B
Schismus arabicus, Schismus barbatus	Mediterranean grass	Scrub, thorn woodland; widespread in deserts; impacts can be more important locally	Observed; patchily distributed throughout the project area	Not Listed	Limited	No	B, C, A
Sisymbrium irio	London rocket	Scrub, grasslands; widespread; primarily in disturbed sites; impacts vary locally	Observed	Not Listed	Moderate	No	B, B, A
Solanum elaeagnifolium	white horsenettle	Primarily agricultural weed, but escaping to wildlands in other countries; may prove to be more important in future	Not observed; can be expected to occur in project area	B		No	D, B, C
Stipa capensis	Mediterranean steppegrass	Noted to be spreading rapidly in Coachella Valley, has potential to occur at RMSEGF	Not observed; potentially occurring throughout the project area	Not Listed	Moderate	Yes	B, B, D

Table 1 - Observed and Potentially Occurring Noxious Weeds at Rio Mesa Solar Electric Generating Facility

Scientific Name	Common Name	Habitats of Concern and Comments	Observed During Surveys and Anticipated Distribution in Project Area	CDFA Rank[1]	Cal-IPC Overall Rating[2]	Alert	Cal-IPC Rating[2] Impacts, Invasiveness, Distribution
Tamarix ramosissima	saltcedar	Desert washes, riparian areas, seeps and springs	Observed; few *Tamarix* sp. Individuals, edaphically constrained to old well sites, riparian areas, or other areas with available surface and/or ground water	B	High	No	A, A, A
Tribulus terrestris	puncture vine	Disturbed habitats and roadways	Observed;	C	Not Listed		

Notes:

[1] California Department of Food and Agriculture (CDFA) Rank

A – Eradication, containment, rejection, or other holding action at the state-county level. Quarantine interceptions to be rejected or treated at any point in the state.

B – Eradication, containment, control, or other holding action at the discretion of the commissioner.

C – State-endorsed holding action and eradication only when found in a nursery; action to retard spread outside of nurseries at the discretion of the commissioner; reject only when found in a cropseed for planting or at the discretion of the commissioner.

Q – Temporary "A" action outside of nurseries at the state-county level pending determination of a permanent rating. Species on List 2, "Federal Noxious Weed Regulation" are given an automatic "Q" rating when evaluated in California.

[2] Cal-IPC Rating

Overall Rating:

High – These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed.

Moderate – These species have substantial and apparent – but generally not severe – ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, although establishment is generally dependent on ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited – These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Impacts, Invasiveness, and Distribution Ratings:

Scores:

A = Severe; B = Moderate; C = Limited; D = None; U = Unknown

Sources:

CDFA, 2009

Cal-IPC, 2006Mojave Resource Conservation District, 2003

SECTION 4 WEED MANAGEMENT AREAS

On-site weed management techniques will vary for temporary disturbance areas and permanently developed areas as described in this section. Different areas of the site require different weed management approaches depending on the factors described in this section.

Construction activities will result in temporary disturbance of the Project site. Areas subject to temporary disturbance will include the gen-tie line ROW from the Project switchyard to the new SCE CRS, the underground transmission line from the plant substations to the Project switchyard (located in the common area), the primary access road to be improved, the SCE 33 kv construction and backup power line ROW, and the construction logistics area (CLA). In addition to temporary disturbance in these areas, there also will be some permanent disturbance due to installation of the gen-tie line towers, grading and other improvements (such as paving) of the access road, and pole installation for the SCE 33 kv construction and backup power line.

In addition to the areas of temporary disturbance described above, permanently developed areas of the Project site will include the two power block areas, roads within the fenceline (i.e., spoke roads, ring roads, perimeter roads), secondary access road, the common area, and the Project switchyard. Portions of the solar fields will be permanently developed with pylons for the heliostats (one 8-inch diameter hole for each of the approximately 85,000 heliostats per plant).

4.1 TEMPORARY DISTURBANCE AREAS

Weed management issues at all temporary construction areas include the fact that soil disturbance during construction and temporary use will create habitat well suited to disturbance-adapted invasive species and, therefore, measures to minimize the potential for weed introduction by personnel and equipment will be needed. Areas temporarily disturbed will be revegetated, focusing on native species according to the specifications of the RMSEGF Revegetation and Rehabilitation Plan. Revegetated areas will continue to be prone to weed invasion and establishment, and periodic monitoring and management will be required for up to 6 months.

Potential areas meeting these criteria are described below. Weed management measures for these areas, including monitoring frequency, target weed species, and control methods, are included in this Plan.

4.1.1.1 Common Generator Tie Line and Construction and Backup Power Line

Electricity will be transmitted on a common overhead generator tie line (gen-tie line) and tower system from the Project switchyard to the new SCE CRS, located approximately 9.7 miles to the northwest of the project site. Construction and backup power will be provided via a proposed SCE 33 kv service line. Regular weed monitoring and management during construction will be required. Some areas temporarily disturbed during construction may require revegetation, and weed management will be required in any revegetated areas. In addition, ongoing access for tower insulator cleaning will occur along the new gen-tie line. This has the potential for ongoing introduction of weed species through soil disturbance and equipment entrance, with appropriate weed management requirements.

4.1.1.2 Construction Logistics Area

The CLA will serve as the location for storing construction materials. Additional staging areas may be present at each unit. Although most portions of the site may be subjected to permanent development, once construction is completed, temporary use areas will be restored and revegetated, with the same weed monitoring and management requirements of other temporary disturbance and revegetation areas, pursuant to Closure, Decommissioning, and Rehabilitation Plan requirements.

4.2 PERMANENTLY DEVELOPED AREAS

While the areas described in this section would be permanently developed, they could support weedy species along peripheral disturbed areas and function as seed reservoirs to adjacent natural habitats if not managed.

4.2.1.1 Power Block Areas, Heliostat Arrays, and Service Tracks

The power block areas will be cut, filled, graded and permanently developed. Pylons for the heliostat arrays will be installed via a vibration insertion method that may require a pre-augering of the hole within existing soil surfaces. Surface preparation of curvilinear, concentric service tracks (referred to as “drive zones”) will consist of shallow (less than 6 inches deep) blading. The drive zones will be cleared, grubbed, smoothed and rolled to permit safe and efficient installation of the heliostats. Post-construction mirror cleaning and other routine maintenance activities will result in continuing disturbance of the drive zones.

Soil disturbance during construction will create habitat well suited to disturbance-adapted invasive species, and continual entrance to the area by personnel and heavy equipment could potentially introduce weed propagules. The area will require ongoing weed monitoring and maintenance during construction, and all equipment will require cleaning at wash stations as specified in Section 6.2.1. During operations, equipment and personnel will continue to access the area for heliostat cleaning and other maintenance. While wash water overflow from the ongoing cleaning of heliostat mirrors is expected to be minimal, it could provide a water source to support weed establishment and growth. These areas will require on-going weed management, and pre-emergent herbicides may be applied to inhibit weed germination and establishment. Monitoring and surveys of all permanent facilities will occur during the operation phase monthly during the growing season (March through August) as specified in Section 5.2.1. Weed management will be implemented as specified in Section 6.

4.2.1.2 Landscaped Areas

A minimal landscaped area utilizing native plants may be implemented at the common area,. There may be some irrigation application at landscaped areas which could contribute to weed germination or establishment. Monitoring and surveys of all permanent facilities will occur during the operation phase monthly during the growing season (March through August) as specified in Section 5.2.1. Weed management will be implemented as specified in Section 6.

4.2.1.3 Roads

Roadsides and the medians of unpaved service tracks are potentially vulnerable to weed invasion. Roads often alter local hydrology; are subject to initial and ongoing disturbance during construction, maintenance, and use; provide topographic variation that could capture windborne or waterborne seed; and may be subject to seed distribution from passing vehicles. Monitoring and surveys of all permanent facilities will occur during the operation phase monthly during the growing season (March through August) as specified in Section 5.2.1. Weed management will be implemented as specified in Section 6.

4.2.1.4 Other Permanent Facilities

There is potential for areas throughout the facility where conditions may be relatively elevated for weed establishment. These areas include soils that have been cleared, compacted, or otherwise disturbed; areas where hydrology is altered, such as from increased drainage from developed areas; or areas where continued vehicle or foot traffic persist. Monitoring and surveys of all permanent facilities will occur during the operation phase every other week during the growing season (March through August) as specified in Section 5.2.1. Weed management will be implemented as specified in Section 6.

SECTION 5 MONITORING AND SURVEY METHODS

5.1 WEED IDENTIFICATION

Monitoring and removal of weeds requires skill and training in plant identification. Training in plant identification and field manuals with photographs of native desert plants and of common weeds will be provided to all field staff including biological monitors, weed abatement contractors, plant operators and staff, and construction workers. Online resources that are available include:

- The University of California digital library contains species information and an extensive photo collection. Available: www.calflora.org
- The California Invasive Plant Council (Cal-IPC) website contains an invasive plant database, plant profiles, and extensive other information on invasive plants and control. Available: www.cal-ipc.org
- The U.S. Department of Agriculture (USDA) National Invasive Species Information Center has information on invasive species and links to the USDA PLANTS database, with species profiles and photographs. Available: www.invasivespeciesinfo.gov and http://plants.usda.gov
- The Mojave Weed Management Area and Low Desert Weed Management Area have weed management goals to protect and enhance biodiversity, water resources, reduce fire hazards, and protect agricultural interests. Information and updates regarding these Weed Management Areas can be found at the Cal-IPC website provided above.
- The California Native Plant Society maintains information including a database on California vegetation including rare, threatened, and endangered plants. Available: www.cnps.org
- BLM also maintains a website with useful information on noxious weeds, including management strategies for weeds in California. Available: www.blm.gov/weeds
- The Center for Invasive Plant Management maintains a website with useful information and resources, including plant profiles. Available: www.weedcenter.org

5.2 SURVEYS AND MONITORING

5.2.1 Monitoring Methods

Surveys and monitoring promote timely detection and prompt eradication of weed infestations, which are essential to a long-term weed management strategy. Monitoring methods will consist of basic presence and abundance surveys conducted throughout all weed management areas in conjunction with other required biological monitoring. Areas of known or previously treated weed infestations will be visited to monitor re-emergence or spread of these known populations.

5.2.1.1 Construction Areas

The ECM will oversee biological monitors present during site clearing and construction activities. Biological monitors will be responsible for inspecting all construction areas, identifying the presence of noxious weeds, and inspecting equipment cleaning facilities for weed seed removal. The ECM will be responsible for prescribing management activities consistent with this Plan when weeds become established. Monitoring of all construction areas will be in conjunction with other required biological monitoring including access routes, construction areas and observing for seedlings of exotic species. Monitoring will continue on until ground-disturbing construction activities are completed.

5.2.1.2 Revegetation Areas

Monitoring of sites will occur following disturbance of areas for installation of off-site linears. On-site botanical monitoring will be required to determine the progress of revegetation following the distribution of native seed mixes, towards the ultimate goal of reestablishing natural vegetation communities. Monitoring of the revegetation areas with regard to reaching success criteria will be in accordance with the CEC and (BLM for BLM managed lands only) approved revegetation plan (separate from this document) for the Project. Monitoring and control of weeds in revegetation areas will be consistent with the revegetation plan once finalized. During the annual weed surveys detailed above, revegetation areas will be surveyed for weeds throughout the lifetime of Project operations during and after botanical monitoring of the revegetation areas. Annual surveys will identify areas of significant weed invasion or establishment, and the weed species detected.

5.2.1.3 General Operations Monitoring

Grounds personnel will monitor the operating facility site on an ongoing basis and conduct weed control, as needed, during the growing season (March through September) and as necessary and in conjunction with other biological monitoring activities during the remainder of the year. Grounds personnel will be trained to identify weed and native species.

5.2.1.4 Known Infestation Areas

Where weed infestation occurs, and treatment is implemented, the area will be targeted for ongoing monitoring to ensure that treatments are effective and that complete eradication has been achieved. Visits to known infestation areas will continue until noxious weeds in the area are controlled.

SECTION 6 NOXIOUS WEED MANAGEMENT

6.1 SPECIES DESCRIPTIONS AND MANAGEMENT STRATEGY

Descriptions of the more common or troublesome noxious weeds occurring or potentially occurring at RMSEGF are provided in this section, along with the basic weed management strategy applicable to each. Table 1 (see Section 3) provides a complete list of the weed species of concern in this area. Table 2 provides additional information on management strategy and control methods for all observed and potentially occurring noxious weed species. Management strategies must encompass not only eradication, but also identify the means of eradication and the plant species to be eradicated.

Not all invasive plant species can or should be eradicated. Certain ubiquitous exotic species (e.g., *Bromus rubens, Schismus* spp., *Erodium cicutarium*) will be monitored and not immediately subject to control because control of these aggressive colonizers is impractical, and it would also likely slow site rehabilitation by slowing the rate of secondary succession and surface stabilization. In addition, these species can play a beneficial role in accelerating surface stabilization and, therefore, reduce soil erosion caused by sheet flow or high winds. Complete eradication of large areas where infestations are already established would likely adversely affect other pioneer species, and is likely to be impractical because the area is likely to be re-invaded from adjacent lands in the absence of physical barriers that isolate the area.

The following list provides brief descriptions of the weed species of specific concern at the RMSEGF (additional weed species are listed in Table 1 [see Section 3]):

- Sahara mustard or African mustard (*Brassica tournefortii*) is a species of high concern that has been observed on the project site. Cal-IPC has declared this plant highly invasive (Cal-IPC, 2006). This species will be eradicated whenever encountered.
- Red brome (*Bromus madritensis* ssp. *rubens*) is an introduced Eurasian grass adapted to warmer habitats that can be frequently found at the base of desert shrubs. It can also form carpet cover on fine-grained microhabitats in rough terrain off the bajada after wet years. It is widespread in the Mojave and Colorado Deserts though was not noted on the RMSEGF site. Seeds from this species can disperse readily and across large distances. Cal-IPC has declared this plant highly invasive (Cal-IPC, 2006). Stands of red brome have played an important role in accelerating wildfires in desert scrub communities (Brooks, 1999), a deleterious effect partly because warm-desert plant communities are ill-adapted to fire (Brown and Minich, 1986). Because of its widespread distribution, red brome is not considered feasible for general control, and weed abatement measures for this species will not be required.
- Cheat grass (*Bromus tectorum*) is among the most widely distributed invasive plant species in the western United States. Closely related to red brome, it is adapted to colder steppe and woodland habitats. It is known to occur in the vicinity, but has not been observed on the project site. Cal-IPC has declared this plant highly invasive (Cal-IPC, 2006). Because of its widespread distribution, cheat grass is not considered feasible for general control, and weed abatement measures will not be required.

Table 2
Management Strategies and Control Methods for Observed and Potentially Occurring Noxious Weeds at the Project Site

Scientific Name	Common Name	Management Strategy	Control Method
Alhagi camelorum	camel thorn	Monitor for occurrence, and eradicate if found	***Individual Plants:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling
Brassica tournefortii	Sahara mustard	Monitor for occurrence in December-January prior to seed set, and eradicate if found; continue to monitor occurrence sites to ensure complete eradication	***Individual Plants:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling
Bromus diandrus	ripgut brome	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Stands:*** Spray with post-emergent, systemic, selective (monocot) herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Bromus madritensis ssp. rubens	red brome	No Action; allow colonization as pioneer species in revegetation areas	N/A
Bromus tectorum	downy brome, cheatgrass	No Action; allow colonization as pioneer species in revegetation areas	N/A
Cynodon dactylon	bermuda grass	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Stands:*** Spray with post-emergent, systemic, selective (monocot) herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Elaeagnus angustifolia	Russian olive	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Mature Trees/Shrubs:*** Cut trees and apply 100 percent herbicide to cut stem; spray new shoots - See Section 6.3.3, Chemical Methods for Weed Removal ***Saplings:*** Pull out entire plant and root - See Section 6.3.2, Physical Removal of Weeds
Erodium cicutarium	redstem filaree	No Action; allow colonization as pioneer species in revegetation areas	***N/A***
Halogeton glomeratus	halogeton	Monitor for occurrence, and eradicate if found	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Salsola paulsenii	barbed-wire Russian thistle	Monitor for occurrence, and eradicate if found	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal

Table 2
Management Strategies and Control Methods for Observed and Potentially Occurring Noxious Weeds at the Project Site

Scientific Name	Common Name	Management Strategy	Control Method
Salsola tragus; S. kali; S. pestifer	Russian thistle; tumble weed	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found.	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Schismus arabicus, Schismus barbatus	Mediterranean grass	No Action; allow colonization as pioneer species in revegetation areas	***N/A***
Sisymbrium irio	London rocket	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Solanum elaeagnifolium	white horsenettle	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Stipa capensis	Mediterranean steppegrass	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Stands:*** Spray with post-emergent, systemic, selective (monocot) herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal
Tamarix ramosissima	saltcedar	Monitor for occurrence at heliostat arrays or other sites with regular water, and eradicate if found	***Mature Trees:*** Cut trees and apply 100 percent herbicide to cut stem; spray new shoots - See Section 6.3.3, Chemical Methods for Weed Removal ***Saplings:*** Pull out entire plant and root - See Section 6.3.2, Physical Removal of Weeds
Tribulus terrestris	puncture vine	Monitor for occurrence, and eradicate if found	***Select Occurrences:*** Pull out entire plant and root and bag for disposal - see Section 6.3.2, Physical Removal of Weeds; Hand Pulling ***Monotypic Stands:*** Spray with post-emergent herbicide; after senescence, remove with flail mower and bag for disposal - See Section 6.3.3, Chemical Methods for Weed Removal

- Mediterranean grass (*Schismus* spp.) was observed patchily distributed throughout the project site. Cal-IPC has determined that this plant has a limited invasiveness rating in California (Cal-IPC, 2006). BLM and other agencies recognize that because of the widespread distribution of Mediterranean grass, this species is not considered feasible to control; therefore, weed abatement efforts for Mediterranean grass will not be required.

- Although all invasive plants share the trait of being adapted to disturbed habitat, Russian thistle or tumbleweed (*Salsola tragus*) particularly tends to be restricted to roadway shoulders and to sites where the soil has been recently disturbed. This species is a common invader on disturbed sites and has been observed on the project site, but. Cal-IPC has determined that this plant has a limited invasiveness rating in California (Cal-IPC, 2006). There is a high potential that Russian thistle could spread through the construction area, and this species should be eradicated if observed.

- London rocket (*Sisymbrium irio*) is widespread throughout the warm deserts of North America. It was identified on the project site. Cal-IPC has declared this plant moderately invasive (Cal-IPC, 2006). London rocket will be eradicated at RMSEGF wherever it is observed.

- Mediterranean tamarisk or saltcedar (*Tamarix ramosissima*) has been observed near the project site; however, it is a riparian plant and is, therefore, restricted to microhabitats where there is perennial groundwater saturation, such as springs and seeps, or runoff from poorly maintained water pipelines or well pumps. Cal-IPC has declared this plant highly invasive (Cal-IPC, 2006). This species will be eradicated wherever observed on the project site.

- Filaree or storksbill (*Erodium cicutarium*) is a widespread annual species common in disturbed habitats. It can form dense, transient populations when conditions are suitable. It has a limited overall rating by Cal-IPC, generally because the ecological impacts of the species are minor. Because of its widespread distribution, filaree is not considered feasible for general control, and weed abatement measures will not be required onsite.

6.1.1.1 New Weeds

Weeds not identified in the descriptions given earlier, or previously reported for the area or anticipated (as shown in Table 1 [see Section 3]), could colonize the site or invade site facilities, both during construction as well as during operation. During construction, the ECM will likely be required to regularly update the list of potential noxious weeds, and identify any new potential threats. This will include developing a management strategy and management methods appropriate to the plant species and the nature of any potential invasion. Similarly, the facility plant manager or appropriate designee during operations will be required to periodically update the potential noxious weed list and provide monitoring and management appropriate to any new species.

6.2 PREVENTATIVE MEASURES

General measures to prevent the spread of weed propagules and inhibit their germination include:

- Limiting disturbance areas during construction to the minimal required to perform work and limiting ingress and egress to defined routes;

- Maintaining vehicle wash and inspection stations, and closely monitoring the types of materials brought onto the site to minimize the potential for weed introduction;

- Reestablishing vegetation as quickly as practicable on disturbed sites as the most effective long-term strategy to avoid weed invasions; and
- Monitoring and rapid implementation of control measures to ensure early detection and eradication for weed invasions.

6.2.1 Construction

6.2.1.1 Worker Environmental Awareness Program

Noxious weed management will be incorporated as a part of the mandatory WEAP for all contractors or related personnel entering the site during construction. This will typically include all contractors, subcontractors, inspection personnel, construction managers, and construction personnel. Training will include weed identification and a training module on the impacts of noxious weeds on agriculture, livestock, wildlife, and fire hazard. Impacts of noxious weeds on native vegetation, wildlife, and fire activity will be discussed including an explanation of how invasive grasses provide a fine fuel understory that can spread fire from shrub to shrub and how this has historically been absent in the native desert ecosystem. The measures to prevent the spread of noxious weeds in areas currently uninfested, and controls on their proliferation when already present, also will be explained.

The WEAP will be required upon first entry of any construction personnel onto the site. This includes contractors, subcontractors, inspection personnel, construction managers, construction personnel, and individuals bringing vehicles or equipment onto the site. It may also include general delivery personnel if delivery requires accessing any roads beyond immediate construction office locations. Personnel having completed WEAP training will be required to visibly show evidence of WEAP completion on their person at all times while on the construction site (e.g., through a hardhat sticker).

6.2.1.2 Wash Stations

Wash stations will be set up to remove mud and dirt primarily from construction vehicles wheels. This will prevent the spread of weed seeds into new habitats as trucks with mud and dirt containing seeds is one of the most common ways weed seeds are spread to new environments. Vehicles entering from off-site locations will be required to stop for inspection and potential cleaning. Heavy equipment entering the site on trailers shall be required to be clean prior to arriving at the site. Vehicles that are moderately to heavily soiled or contain excessive dirt and mud will be turned away and required to be washed off site prior to receiving authorization to proceed onto the site. The contractor, with ECM oversight, will ensure that vehicles and equipment are free of soil and debris capable of transporting weed seeds, roots, or rhizomes before the vehicles and equipment are allowed to use access roads. Some weeds, such as Sahara mustard, require water for germination; therefore, vehicles wash station use will be limited, since wet vehicles could promote recruitment of Sahara mustard along access roads. Regular monitoring and weed control for weeds along access roads is anticipated to prevent establishment of Sahara mustard and other weeds.

Wash stations will be located to avoid sensitive biological resources and will be constructed with either a concrete wash pad or a gravel pad. Silt fencing, weed-free certified hay bales, or other means of trapping wash water sediment and seeds will be installed around the perimeter of wash stations.

Prior to arriving at the site, vehicles or heavy equipment will be requested to remove caked-on mud and debris cabs will be swept out, and refuse will be disposed of in waste receptacles. If necessary, vehicles requiring light cleaning will be washed with high-pressure water equipment before entering the construction site. The wash down will concentrate on tracks, feet, or tires and on the undercarriage, with special emphasis on axles, frame, cross members, motor mounts, and on underneath steps, running boards, and front bumper/brush guard assemblies. Sediment accumulated from the washing will be shoveled out daily and placed in a sealed container for disposal in an approved landfill. If removal requirements exceed the wash stations' capability, equipment will be washed elsewhere before being allowed on the site.

Project workers will also inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment. These items will be bagged and disposed of in a dumpster for deposit in an approved landfill. Vehicle inspection will be performed when:

1. Necessary to ensure that vehicles and equipment are free of noxious weed seeds, roots, or rhizomes or soils and debris capable of transporting noxious weed seeds, roots, or rhizomes.
2. Any construction equipment enters the site, including grader, excavator, dump truck, back-hoe, cranes (mobile and stationary), forklift, stake bed truck, man-lifts, water truck, fuel truck, all-terrain-vehicles or gator four-wheel drive cart, flat bed trailers, tractor (prim trailer mover), auger/drill excavator, boom truck, vibratory roller, paving equipment, or similar construction equipment. The only exception will be when water or fuel trucks having previously entered the site and having been washed reenter the site after filling at an urban, developed offsite location, and/or where inspection by the biological monitor determines washing is not necessary.
3. The following vehicles will be subjected to inspection and/or washing under certain circumstances as described below: company pickup truck, company personnel vehicle (car), visitor vehicle (car), craft worker personnel vehicle (pick-up or car), delivery vehicle (e.g., UPS or FedEx), fuel delivery vehicle, bottled water delivery, offsite water trucks for dust control, miscellaneous office operating material deliveries (local deliveries from suppliers), and transport van or flatbed delivery vehicle.
    a. When vehicles are traveling to active construction locations (i.e., locations involving active land clearing, grading, excavating, drilling, trenching, mowing, revegetation, facility construction, or any other similar activities involving soil disturbance or where soil disturbance was conducted in preparation for the activity); they will be washed prior to the first time entering the site and inspected when reentering the site after an overnight departure. The vehicle must be rewashed prior to returning to the site every time it visits another construction site or off-highway location.
    b. When vehicles are traveling to established parking lots or office facilities within the site, they will not require cleaning but may be subject to inspection and require off site cleaning at the direction of the inspector.

6.2.1.3 Infestation Containment and Control

During construction, areas of concern will be identified and flagged in the field by biological monitors. The flagging will alert construction personnel that weeds are present and will prevent access into these areas until noxious weed management control measures have been implemented. Contractors will avoid or minimize all types of travel through weed-infested areas. Immediate control measures will be implemented as described in the sections below. The contractor will begin project operations in weed-free areas whenever feasible before operating in weed-infested areas, until the ECM has verified completion of weed treatments in weed-infested areas.

6.2.1.4 Site Soil Management

The contractor will limit the size of ground disturbance to the minimum necessary to perform the activity safely and as designed. The contractor will also avoid unnecessarily creating soil conditions that promote weed germination and establishment. Soil conditions that promote weed germination and establishment include soil excavation/disturbance, vegetation removal, soil compaction, loss or removal of topsoil and introduction of chemical compounds (including fertilizer), and soil stockpiling.

6.2.1.5 Weed-free Products

The contractor will ensure that straw or hay bales used for sediment barrier installations are obtained from certified sources that are free of primary noxious weeds. Products such as mulch also may carry weeds. Such products should be obtained from suppliers who can provide weed-free certified materials, as practicable.

6.2.1.6 Weed-free Seed

Seed purchased from commercial vendors for site restoration and revegetation will be labeled in compliance with the relevant provisions of the California Agriculture Code. In addition to having the correct label, the seed should be required to be free of noxious weeds and the label should so state. Preferably, seed should be collected as a part of the restoration contract from adjacent areas, which provides the additional benefit of ensuring local genetic stock.

6.2.2 Operations

6.2.2.1 Facility Staff Training

Noxious weed management will be incorporated as a part of mandatory site training for operations and maintenance personnel. Training will include weed identification and the impacts on agriculture, livestock, wildlife, and fire frequencies. The importance of preventing the spread of noxious weeds in areas currently uninfested, and controlling the proliferation of weeds already present, will be explained.

6.2.2.2 Infestation Containment and Control

During operations, areas of concern will be identified and flagged by plant staff. The flagging will alert personnel that weeds are present and will prevent access into these areas until noxious weed management control measures have been implemented. Immediate control measures will be implemented as described in Section 6.3.

6.2.3 Site Closure

Site decommissioning and closure will occur in accordance with the Closure, Decommissioning, and Rehabilitation Plan for the Project. The Closure, Decommissioning, and Rehabilitation Plan will include measures to avoid weed establishment throughout the site and to implement long-term site rehabilitation and revegetation of all decommissioned facilities. Control of noxious weed establishment will be a central goal of long-term site rehabilitation.

6.3 ERADICATION AND CONTROL METHODS

6.3.1 Unacceptable Weed Removal Methods

6.3.1.1 Tilling

Tilling is a weed-control practice used on agricultural lands that is inappropriate in this area for weed control purposes. Tilling is ineffective in desert landscapes, and tilled weeds are likely to set seed, even after burial. In addition, tilling is likely to disturb native cover stock and will also disrupt the soil's natural structure and chemistry, allowing weed seeds to proliferate from soil disturbance. Fragmentation of weeds resulting from tilling will also lead to more widespread growth of non-native plants.

6.3.1.2 Mowing

Mowing is sometimes used to reduce weed cover late in the growing season, typically after annuals have matured. The solar field will be mowed to 12-18 inches to permit proper operation of the heliostats.

6.3.2 Physical Removal of Weeds

The type of physical control method employed will depend upon the size and extent of weed species targeted for removal as well as the root structures of these plants. Removed seed heads and plants must be disposed of in accordance with the Riverside County Agricultural Commissioner guidelines. All green waste will be disposed of at an approved off-site facility. Physical control methods range from manual hand-pulling of weeds to the use of hand tools to provide enough leverage to pull out the entire plant and associated root systems. Hand or power tools can also be employed to uproot, girdle, or cut plants. The Root Talon and Weed Wrench are handheld tools designed to grip the plant stems and provide enough leverage to remove roots. They may be used to pull out woody shrubs, such as tamarisk or Russian olive. This effort should be focused on weed species that have a single-root mass, facilitating easy removal. Hand removal by pulling is appropriate when the plants are large enough that they will not break and leave the root structures behind to re-sprout. For localized weed control, this is the most effective method. Hand-pulling is less effective in large areas and with weed species that spread through an underground root system (e.g., Bermuda grass).

In small areas, hoeing and weed whipping can be employed to control weeds. However, care must be employed when using these methods adjacent to native plants to prevent damage to native plants. Hoeing or weed whipping must only be employed prior to a plant setting seed; otherwise, this disturbance would only serve to further disperse and promote the establishment of the weed species. Pertinent considerations for hoeing and weed whipping include the following:

- Hoeing works best on patches of small weeds and with weeds that have a single-root mass. It is less effective on larger weeds that can regenerate from cut roots. It will not be used on weeds approaching maturity because seeds can mature and be released on cut plants. Hoed plant material will be bagged and removed off site.

- Weed whipping can be used for weed removal in limited upland areas with herbaceous plant covers; however, it will not be used on weeds approaching maturity because seeds can mature and be released on cut plants and care must be employed when weed whipping adjacent to native plants. Cut plant material will be bagged and removed off site.

6.3.3 Chemical Methods for Weed Removal

Herbicide application is a widely employed, effective control method for removing invasive weed species. One consideration is the possible inadvertent application of herbicide to adjacent native plants. In addition, herbicide application can become a challenge when weeds are interspersed with native cover. To minimize potential negative effects of herbicide on the federally threatened desert tortoise (*Gopherus agassizii*), only herbicides with empirically proven low toxicity to test animals in the Pesticide Use Proposal (PUP) stage will be considered for approval by the BLM. This includes pre-emergent herbicides containing the active ingredients bormacil and/or diuron and post-emergent herbicides containing the active ingredient glyphosate. Additionally, herbicides will not be used in or around environmentally sensitive areas to avoid potential herbicide drift which might negatively impact rare plant populations contained within them.

6.3.3.1 Permitting and Regulatory Requirements

Prior to application of herbicide, contractors will be required to obtain required permits from Federal, state, and local authorities, as appropriate. Application of herbicide on public land would require specific approval from the BLM prior to the application of any herbicide. Permits may contain additional terms and conditions that go beyond the scope of this Plan. Only a State of California and federally approved (including the BLM) contractor will be permitted to perform herbicide applications. The contractor will also be a certified Pest Control Advisor (PCA) in possession of a Qualified Applicator's License (QAL) who has demonstrated experience working with native vegetation. Herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations, including U.S. Environmental Protection Agency (EPA) and BLM guidelines (BLM's Herbicide Treatment Standard Operating Procedures). Only herbicides and adjuvants approved by the State of California and Federal agency for use on public lands will be used within or adjacent to the Project site.

The *Final Environmental Impact Statement on Vegetation Treatment on BLM-administered Public Lands in Seventeen Western States* lists 10 herbicides acceptable for use on BLM-administered public lands (USDI 2007). Guidelines for the use of chemical control of vegetation on BLM-administered public lands are presented in the *Chemical Pest Control Manual* (BLM, n.d.). These guidelines require submittal of a PUP and pesticide application records (PAR) for the use of herbicides on BLM-administered public lands. A sample form required for the submittal of a PUP is included in Appendix C.

The Applicant will submit PARs for each use of herbicides on BLM-administered public lands to the BLM Palm Springs-South Coast field office within 24 hours of application. The occurrence of weeds within the Project footprint, or where the weeds occur, will be reported to the BLM field office. The appropriate weed control procedures, including target species, timing of control, and method of control, will be determined in consultation with BLM personnel. The Applicant will be responsible for providing the necessary trained personnel or hiring a contractor to implement the required weed control procedures.

6.3.3.2 Types of Herbicides

Herbicides are characterized by the way in which they inhibit plant growth. Herbicides are characterized as pre-emergent, post-emergent, selective, and nonselective. A pre-emergent herbicide controls ungerminated seeds by inhibiting germination, whereas a post-emergent herbicide is lethal to emerged plants. Some herbicides have both pre- and post-emergent activity. A selective herbicide will be active on some species of plants and not on others, usually distinguishing between grasses (monocots) and broadleaf plants (dicots). A nonselective herbicide is one that is lethal to any plant species to which it is applied.

Herbicides kill plants through either contact or systemic action. Contact herbicides are most effective against annual weeds and kill only the plant parts on which the chemical is deposited. Systemic herbicides are absorbed either by roots or foliar parts of a plant and are then translocated within the plant system to tissues that might be remote from the point of application. Although systemic herbicides can be effective against annual and perennial weeds, they are particularly effective against established perennial weeds.

Pre-emergent herbicides inhibit germination of annuals from seed, but generally they do not control perennial plants that germinate from bulbs, corms, rhizomes, stolens, or other vegetative structures. Pre-emergent herbicide will not be used in areas with native vegetation. Common pre-emergent herbicide classes include the following:

- Dinitroaniline Type: Examples of this class are pendimethalin (Weedgrass™), trifluralin (Treflan™), benefin (Balan™), and combinations of these. These herbicides provide for pre-emergence control of annual grasses and other annuals. They are mitotic (cell division) inhibitors and are primarily effective in inhibiting root growth of germinating seeds. Selectivity is physiological or chemical in nature. Some of these herbicides could be lost by volatilization and will not be applied in temperatures above 90 degrees Fahrenheit (°F). These herbicides need to be watered into the soil for proper activation. Some can persist for several months.
- Dithiopyr (Dimension™) belongs to a new class of herbicide known as pyridines. It is a selective herbicide primarily used for pre-emergence annual grass control in established turfgrass. However, it can be used for post-emergence control of young grass seedlings. It inhibits cell division and cell growth of meristematic regions (growing points of roots and shoots). Dithiopyr is lost from soil by chemical and microbial degradation.

The most commonly used post-emergent, nonselective herbicides contain a family of chemicals called glyphosates (N-[phosphonomethyl] glycine). Glyphosate (Rodeo™, Roundup™, and Accord™) is a nonselective systemic herbicide that is effective on many annual and perennial plants. It works by blocking an enzyme pathway that is important for plant protein synthesis, which is most effective if full coverage over the plant's leaf is accomplished. However, because of systemic action, even partial coverage can result in plant mortality. The herbicide is typically used in conjunction with linseed oil or another surfactant, which aids in spreading an even layer across the surface of the leaves. Because glyphosate can also be lost to volatilization, these herbicides will not be applied when the temperature exceeds 90°F.

The EPA (EPA 1993) has deemed glyphosate to have a relatively low degree of oral and dermal acute toxicity. It is considered to be immobile in soil and readily degraded by soil microbes to the metabolite aminomethyl phosphonic acid and then to carbon dioxide. The EPA states that it is minimally toxic to birds, fish, aquatic invertebrates, and honeybees (EPA 1993).

6.3.3.3 Application and Handling

The following general precautions will be implemented for pesticide application:

- It is the responsibility of the pesticide user to observe the directions, restrictions, and precautions on pesticide labels.
- Keep pesticides out of the reach of children.
- Use pesticides at correct label dosage and intervals to avoid injury to plants and animals.
- Use pesticides carefully to avoid drift or contamination of nontarget areas.
- Surplus pesticides and containers shall be disposed of in accordance with label instructions to prevent contamination of water and other hazards.
- Follow directions on the pesticide label regarding restrictions as required by state or Federal laws and regulations.
- Avoid action that may threaten a rare, threatened, or endangered species or its habitat.
- Application shall occur via wicking, inner bark injection, cut stump, frill or hack and squirt, basal bark girdling, or foliar spot spraying from backpack or pump sprayers. If sprayers are used, they will be low pressure and contain a shield attachment to control drift or with a squeeze bottle for small infestations. Sprayers will be minimized on days of high wind.
- Only the minimum amount of herbicides necessary to control weeds will be used in order to prevent the contamination of groundwater.

6.3.3.4 Limitations

Herbicide applications must follow EPA label instructions. Application of herbicides will be suspended when any of the following conditions exists:

- Wind velocity exceeds 6 miles per hour (mph) during application of liquids or 15 mph during application of granular herbicides.
- Snow or ice covers the foliage of weeds.
- Precipitation is occurring or is imminent.
- Air temperatures exceed 90°F.

6.3.3.5 Transport and Mixing

During the construction phase, herbicides will be transported to the Project site daily with the following provisions:

- Only the needed quantity for that day's work will be transported.
- Concentrate will be transported in approved containers only, in a manner that will prevent tipping or spilling, and in a location that is isolated from the vehicle's driving compartment, food, clothing, and safety equipment.
- Mixing will be done over a drip-catching device, and at a distance greater than 200 feet from open or flowing water, wetlands, or other sensitive resources. No herbicides will be applied at these areas unless authorized by appropriate regulatory agencies.
- Herbicide equipment and containers will be inspected for leaks daily. Disposal of spent containers will be in accordance with the herbicide label.
- During the operations phase of the Project, herbicides will be stored only in cabinets of approved design and will be under lock and key.

6.3.3.6 Worker Safety

The use of small quantities of chemical herbicides will be required at the Project site. Site workers have the potential to come into contact with herbicides during application and during heliostat servicing in areas where herbicides have been used to control weeds.

The following Best Management Practices (BMPs) will be followed to ensure worker safety at the Project site:

- The Project site will follow all appropriate California Department of Pesticide Regulation and BLM requirements regarding the use of herbicides.
- All workers will receive pesticide safety training, including training on how to use application equipment and specific safety precautions for each herbicide being applied.
- Personal protective equipment will be supplied for every worker.
- Decontamination supplies will be available to workers who face exposure to herbicides, including showers, soap, and towels.
- Emergency information will be posted, including the location of the nearest medical facility and instructions on what to do in the event of an emergency.
- Emergency transportation will be provided in the event of accidental exposure.
- Project site communication during and following herbicide application will occur so that herbicides do not contact anyone through drift.
- Required application equipment checks will occur.

- The recommended time before entering an area where herbicides have been applied will be observed so that trucks and workers checking heliostats or other facilities are not exposed to herbicides.

6.3.3.7 Herbicide Spills and Cleanup

Reasonable precautions will be taken to avoid herbicide spills. In the event of a spill, immediate cleanup will be initiated. Contractors transporting herbicides will keep spill kits in their vehicles and in herbicide storage areas to allow for quick and effective responses to spills.

The following items are to be included in the spill kit:

- Protective clothing and gloves
- Absorptive clay, "kitty litter," or other commercial absorbent
- Plastic bags and bucket
- Shovel
- Fiber brush and screw-in handle
- Dust pan
- Caution tape
- Highway flares (use on established roads only)
- Detergent

Response to herbicide spills will vary with spill size and location, but general procedures include:

- BLM notification (if spill occurs on BLM managed land or can spread to BLM land.)
- Traffic control
- Dressing the cleanup team in protective clothing
- Stopping the leaks
- Containing the spilled material
- Cleaning up and removing the spilled herbicide or contaminated adsorptive material and soil
- Transporting the spilled pesticide and contaminated material to an authorized disposal site

6.3.3.8 Spray Methods

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) will be used mainly in open areas that are readily accessible by vehicle. Hand-application methods (e.g., backpack spraying) that target individual plants will be used to treat small or scattered weed populations in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically throughout treatment to ensure that proper application rates are achieved.

6.3.3.9 Controlling Post-emergent Herbaceous Vegetation

Final determination on the specific herbicides used and specific rates of application will be determined by the BLM and CEC. The following measures are typically used to control herbaceous weedy vegetation:

- Apply a foliar application of herbicide, such as Rodeo™, on each plant at a prescribed rate.
- Provide applications on a spray-to-wet basis with coverage uniform and complete.
- Avoid contact with established native shrub and grass species.
- Temporarily discontinue work in the event of gusty winds or winds in excess of 6 miles per hour.
- Temporarily discontinue in the event of rainfall.
- Ensure applicators possess a current QAL valid in California and wear gloves, masks, and long sleeves as protection from chemical injuries.
- Leave sprayed vegetation undisturbed for 7 days until visible effects of herbicide application are present, consisting of wilted and brown foliage and disintegration of root material. The PCA will determine when adequate time has been allowed for this.
- Remove treated plant materials using an appropriate means and dispose them off site at an appropriate landfill site.
- Cover loads while removing vegetation using a tarpaulin.

6.3.3.10 Controlling Woody Vegetation

Woody vegetation can be controlled effectively using the cut and paint method of removal. Final determination on the specific herbicides used and specific rates of application will be determined by the BLM. The following measures are typically implemented to control woody vegetation:

- Cut sprouts or woody stems to a height of 12 inches or less above ground and remove aboveground debris for disposal at a suitable landfill.
- Apply an approved herbicide at a 100 percent rate to the cut stem within 2 minutes of cutting the stem. If more than 2 minutes elapse, the cut stem shall be re-cut a few inches below the original cut and herbicide can then be applied.
- For the portions of the Project linears occurring on BLM-administered land, the BLM will determine whether herbicide use is allowed and the appropriate herbicide to use in any potentially riparian areas.
- Cover loads while removing vegetation using a tarpaulin.
- Apply follow-up foliar applications as described in the previous section to stem re-growth that occurs after initial control effort.
- Continue monitoring and treating cut stems for as long as necessary to ensure complete mortality.

6.3.3.11 Controlling Pre-emergent Vegetation

Generally, it is anticipated that few areas will require pre-emergent vegetation control. Use of pre-emergent herbicide will only in disturbed areas that no longer contain native vegetation, and only if requested for use by the DB and approved by the CEC and BLM (for those portions of the Project linears which occur on BLM-administered land). Pre-emergent herbicides work only on vegetation reproducing from seed and are not effective on other types of propagules, such as re-sprouts from root crowns that have been cut, rhizomes, or other material. The following situations may require use of pre-emergent herbicides:

- Previously disturbed areas that have repeated weed problems with annual plants with evidence of a robust weed seed crop in the seed bank will be sprayed with pre-emergent herbicides during appropriate pre-germination periods.
- Areas surrounding the developed plant facilities where vegetation is not planted could benefit from pre-emergent treatments if weed problems are persistent.

Generally, pre-emergent herbicides would not be appropriate for revegetation areas or other native habitats because they are likely to inhibit the germination and growth of desirable native plant seed being used for restoration. Final determination on the specific herbicides used and specific rates of application will be determined by the CEC and BLM (for those portions of the Project linears which occur on BLM-administered land).

6.3.4 Competitive Vegetation

The use of native plants to out-compete invasive weed species is an effective long-term weed control strategy incorporated for this Project site. Following BMP measures laid out for the Project, a seed mix of native plant species will be distributed within temporary disturbance areas and in other disturbed areas following completion of the Project. Establishment of these species has the potential to exclude weed invasion and, over time, weed control will require less effort.

SECTION 7 REPORTING REQUIREMENTS

7.1 REPORT CONTENT

Implementation of the noxious weed management plan will include the following data collection and reporting.

7.1.1 Construction Reports

During the project construction phases, ongoing reporting on noxious weed management will be included in all monitoring reports. Construction weed monitoring reports will include:

- Survey findings on location, type, extent, and density of noxious weeds. These data will include mapping and photographs, as appropriate, as well as textual and tabular data content to fully describe conditions on the project site.
- Management efforts, including date, location, type of treatment implemented, and results. Ongoing evaluation of success of treatment will be included.
- Information on implementation and success of preventative measures, including status of equipment wash facilities and summary data of use. Data on the WEAP, including participants, will be included.
- Summary description of rehabilitation and revegetation efforts undertaken and their status.

7.1.2 Long-term Monitoring Reports

After implementation of site revegetation, long-term monitoring reports will be focused on success of revegetation sites. These reports will include:

- Survey findings on location, type, extent, and density of noxious weeds. These data will include mapping and photographs, as appropriate, as well as textual and tabular data content to fully describe conditions on the project site.
- Management efforts, including date of efforts, location, types of treatment implemented, and results. Ongoing evaluation of success of treatment will be included.
- The reports will also include a complete description of restoration efforts and status with regard to performance criteria.

7.2 REPORTING PERIODS

7.2.1 Construction Period

It is anticipated that daily records will be kept by the ECM and the monitoring team. These daily records will be summarized into weekly summary reports describing information relevant to noxious weed management. Monthly or quarterly summary reports also may be produced.

A single post-construction report will be produced after each phase of construction is completed, with a section summarizing the overall results of noxious weed management and weed status at the site. Construction reports will be made available to agency personnel. Agency personnel and contact information will be identified and would include the CEC and the BLM, as necessary.

7.2.2 Long-term Monitoring Reports

Annual monitoring reports will be produced for the duration of the monitoring period. The site surveys conducted to support this are described as follows:

- Monthly surveys of revegetation sites will be conducted for the first year after installation. The data and results of these surveys will be compiled into the first year annual report, which include information on noxious weed management activities during that year.
- Quarterly visits will be implemented in year two. Results of quarterly visits will be summarized and reported in the second year annual report.
- Thereafter, semi-annual site visits will be conducted, summarized, and reported in an annual report through the completion of the monitoring period.
- At the end of the monitoring period, or if success criteria are met before that, a final monitoring report will be produced to describe the outcome to date of proposed restoration, including status of noxious weed management on the project site.
- All annual monitoring reports will be made available to agency personnel. Agency personnel and contact information will be identified and would include the BLM and the CEC, as appropriate.

SECTION 8 REFERENCES

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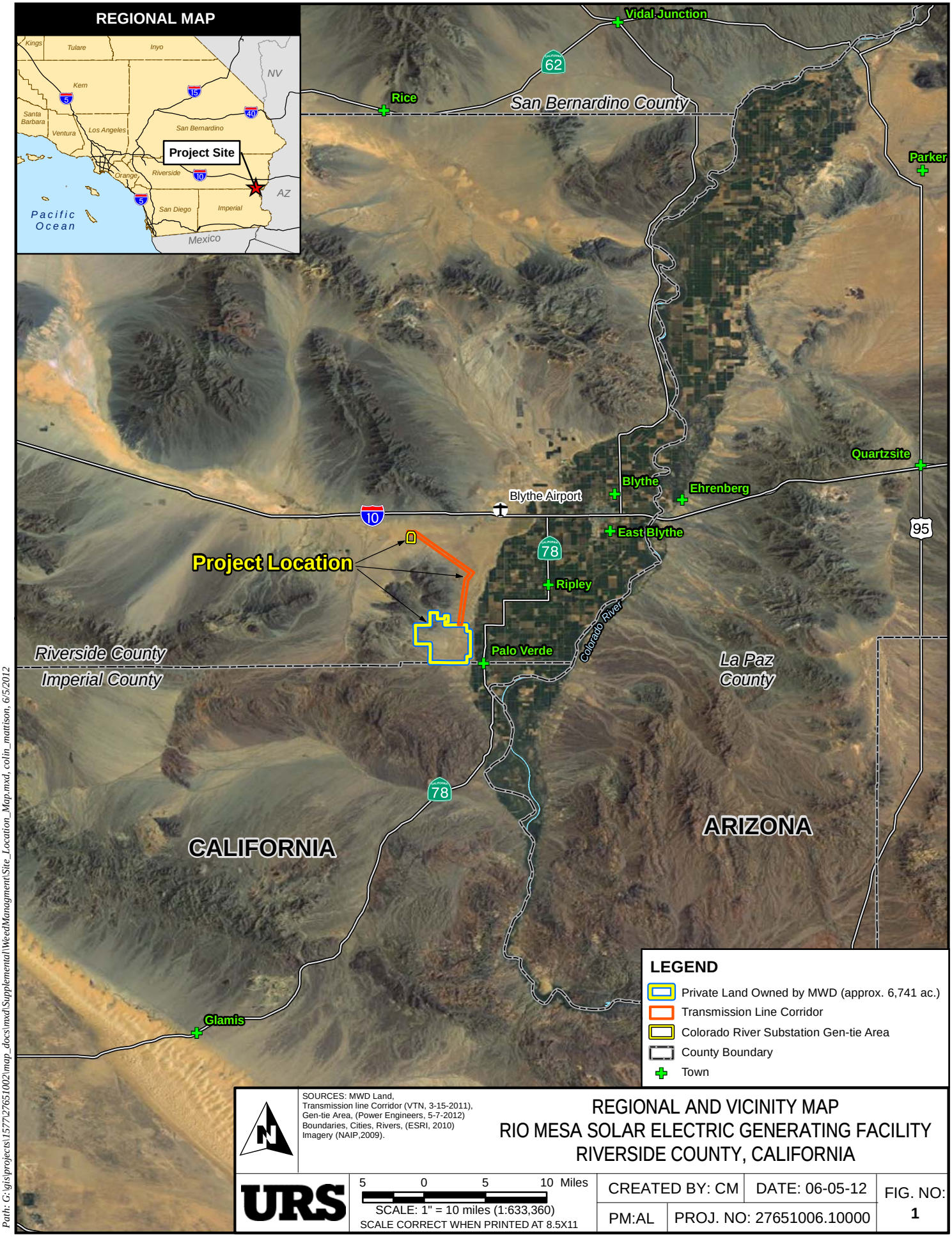
REGIONAL MAP
Project Site
Pacific Ocean
Mexico
NV
AZ
Kings
Tulare
Inyo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Orange
Riverside
San Diego
Imperial
Vidal Junction
Rice
San Bernardino County
Parker
Quartzsite
Blythe
Ehrenberg
Blythe Airport
East Blythe
Project Location
Ripley
Palo Verde
Colorado River
Riverside County
Imperial County
La Paz County
CALIFORNIA
ARIZONA
Glamis
62
78
10
95
LEGEND
Private Land Owned by MWD (approx. 6,741 ac.)
Transmission Line Corridor
Colorado River Substation Gen-tie Area
County Boundary
Town
SOURCES: MWD Land, Transmission line Corridor (VTN, 3-15-2011), Gen-tie Area, (Power Engineers, 5-7-2012) Boundaries, Cities, Rivers, (ESRI, 2010) Imagery (NAIP,2009).
REGIONAL AND VICINITY MAP
RIO MESA SOLAR ELECTRIC GENERATING FACILITY
RIVERSIDE COUNTY, CALIFORNIA
URS
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SCALE: 1" = 10 miles (1:633,360)
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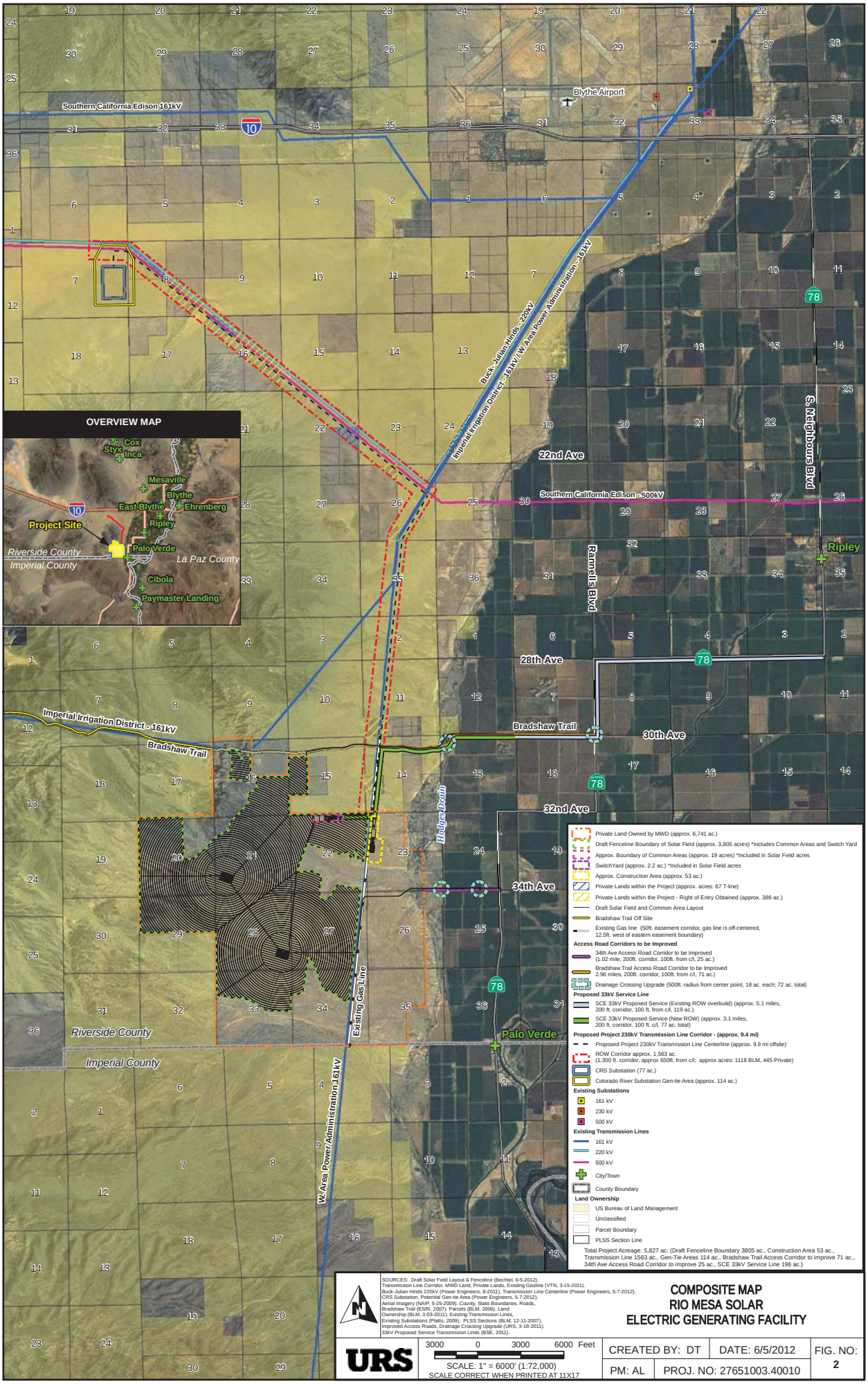

SOURCES: Draft Solar Field Layout & Fenceline (Bechtel, 6-5-2012).
Transmission Line Corridor, MWD Land, Private Lands, Existing Gasline (VTN, 3-15-2011).
Buck-Julian Hinds 220kV (Power Engineers, 8-2011). Transmission Line Centerline (Power Engineers, 5-7-2012).
CRS Substation, Potential Gen-tie Area (Power Engineers, 5-7-2012).
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Existing Substations (Platts, 2009). PLSS Sections (BLM, 12-11-2007).
Improved Access Roads, Drainage Crossing Upgrade (URS, 3-18-2011).
33kV Proposed Service Transmission Lines (BSE, 2011).

COMPOSITE MAP
RIO MESA SOLAR
ELECTRIC GENERATING FACILITY

URS

3000 0 3000 6000 Feet

SCALE: 1" = 6000' (1:72,000)
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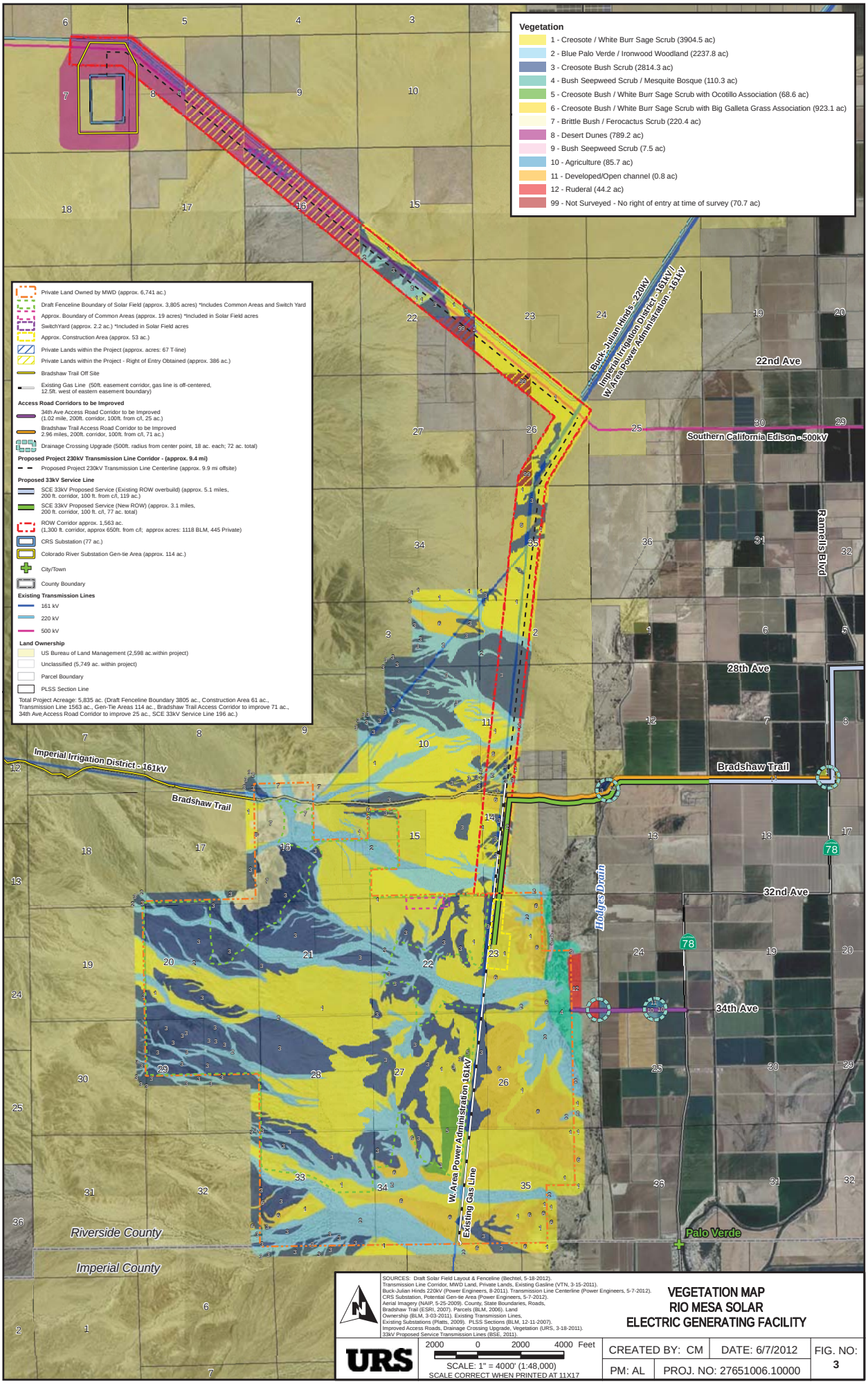

SOURCES: Draft Solar Field Layout & Fenceline (Bechtel, 5-18-2012). Transmission Line Corridor, MWD Land, Private Lands, Existing Gasline (VTN, 3-15-2011). Buck-Julian Hinds 220kV (Power Engineers, 8-2011). Transmission Line Centerline (Power Engineers, 5-7-2012). CRS Substation, Potential Gen-tie Area (Power Engineers, 5-7-2012). Aerial Imagery (NAIP, 5-25-2009). County, State Boundaries, Roads, Bradshaw Trail (ESRI, 2007). Parcels (BLM, 2006). Land Ownership (BLM, 3-03-2011). Existing Transmission Lines, Existing Substations (Platts, 2009). PLSS Sections (BLM, 12-11-2007). Improved Access Roads, Drainage Crossing Upgrade, Vegetation (URS, 3-18-2011). 33kV Proposed Service Transmission Lines (BSE, 2011).

VEGETATION MAP
RIO MESA SOLAR
ELECTRIC GENERATING FACILITY

URS

2000 0 2000 4000 Feet

SCALE: 1" = 4000' (1:48,000)

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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE *RIO MESA SOLAR*
ELECTRIC GENERATING FACILITY

DOCKET NO. 11-AFC-04
PROOF OF SERVICE
(Revised 6/4/12)

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*indicates change

DECLARATION OF SERVICE

I, Andrew Martin, declare that on June 7, 2012, I served and filed a copy of the attached document Draft Weed Mgmt Plan, dated June 7, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: http://www.energy.ca.gov/sitingcases/riomesa/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(*Check all that Apply*)

For service to all other parties:

X Served electronically to all e-mail addresses on the Proof of Service list;

X Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

X by sending electronic copies to the e-mail address below (preferred method); *OR*

___ by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 11-AFC-4
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

___ Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
Sacramento, CA 95814
michael.levy@energy.ca.gov

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signed by Andrew Martin

*indicates change

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

TO: *All Parties* *Date: June 5, 2012*

RE: ***RIO MESA SOLAR ELECTRIC GENERATING FACILITY***
Proof of Service List
Docket No. 11-AFC-04

Attached is the ***newly revised*** Proof of Service List for the above-mentioned project, current as of June 4, 2012. Please pay particular attention to the ***new*** filing instructions.

Energy Commission regulations (Cal. Code Regs., tit. 20, § 1210) require, in addition to any electronic service, that a paper copy be served in person or by first class mail except where a party requests to receive an electronic copy when one is available. Individuals and groups on the Proof of Service list who prefer to receive filings by e-mail and do not require a paper copy shall inform the Hearing Adviser assigned to the proceeding.

The Proof of Service list for this matter will delineate those individuals and groups and it is sufficient to serve those individuals with an e-mailed copy only. Those not so delineated must be served with a paper copy in addition to any e-mailed copy that the filing party chooses to provide. Signatures may be indicated on the electronic copy by **"*Original Signed By*"** or similar words. The original signed copy or an electronic copy shall be filed with the Energy Commission's Dockets Unit.

Unless otherwise specified in a regulation, all materials filed with the Commission must also be filed with the Docket Unit. (Cal. Code Regs., tit. 20, § 1209(d).) Some regulations require filing with the Commission's Chief Counsel instead of the Docket Unit. For example, Section 1720 requires a petition for reconsideration to be filed with the Chief Counsel and served on the parties. Service on the attorney representing Commission staff does not satisfy this requirement. This Proof of Service form is not appropriate for use when filing a document with the Chief Counsel under Title 20, sections 1231 (Complaint and Request for Investigation) or 2506 (Petition for Inspection or Copying of Confidential Records). The Public Advisor can answer any questions related to filing under these sections.

New addition(s) to the Proof of Service are indicated in **bold font** and marked with an asterisk (*). Additionally, if two or more persons are listed on a Proof of Service List with a single address, only one physical copy of a document need be mailed to the address.

Use this newly revised list for all future filings and submittals. This Proof of Service List will also be available on the Commission's Project Web Site at:

[http://www.energy.ca.gov/sitingcases/riomesa/index.html]

Please review the information and contact me at maggie.read@energy.ca.gov or (916) 654-3893, if you would like to be removed from the Proof of Service or if there are any changes to your contact information.

Maggie Read
Hearing Adviser's Office