3.0 NOXIOUS WEED INVENTORY AND BASELINE CONDITIONS

3.1 Noxious Weed Definitions

The term "weed" has many different definitions. In the broadest sense, it is any plant growing where it is not wanted. Weeds can be native or non-native, invasive or non-invasive, and noxious or not noxious. A noxious weed is any plant designated by a federal, state or county government as injurious to public health, agriculture, recreation, wildlife, or property (Sheley et al. 1999). A noxious weed is "competitive, persistent, and pernicious" (James et al. 1991). Invasive weeds are any non-native plant species that are injurious to the public health, agriculture, recreation, wildlife habitat, or the biodiversity of native habitats. New invasive weeds are discovered in California every year. Any weed new to the site or new to the region will be handled through prevention and monitoring strategies as outlined in Sections 6 and 7 of this WMP.

Various regulatory agencies maintain definitions of "noxious weeds" and how they affect the environment. The California Department of Food and Agriculture (CDFA) Code Section 5004 maintains the most relevant definition to this WMP and defines noxious weeds as, "any species of plant which is, or is liable to be, detrimental or destructive and difficult to control or eradicate" (CDFA 2009). Noxious weeds are typically characterized as non-native plants that aggressively colonize new areas and can grow to dominate native plant communities, if uncontrolled. Noxious weeds can out-compete native vegetation, alter physical or chemical soil conditions, and dominate the landscape to the detriment of native plants and wildlife. Noxious 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.

Many invasive plant species share the trait of being adapted to disturbance and also out-compete some native species in these environments. The California Invasive Plant Council (Cal-IPC) categorizes invasive plants as high, moderate, or limited according to the severity of their ecological impact (Cal-IPC 2006):

- **High** – Invasive plants classified as high consist of species that have severe ecological impacts on physical processes, plant and animal communities and vegetation structure, and have a moderate to high rate of dispersal and establishment.

- **Moderate** – These species consist of species that have substantial and apparent (but not severe) ecological impacts and have a moderate to high rate of dispersal and establishment, although establishment is generally dependent upon a disturbance regime such as soil disruption or fire.

- **Limited** – These consist of species that are invasive, but their ecological impacts are minor on a state-wide level. Dispersal and establishment of species classified as limited are generally low to moderate.

These classifications are based on cumulative state-wide trends and can vary at local scales. As a result, a species classified as limited may be more invasive on a local scale than a species classified as high, depending on local conditions (Cal-IPC 2006). For this reason, all plants Cal-IPC classified invasive, even those classified as limited, can potentially impact a local ecosystem.

3.2 Noxious Weed Species of Concern

A list of noxious weeds of concern within the Project vicinity was compiled based on a review of a list of noxious weeds ranked by CDFA (CDFA 2009), the California Invasive Plant Council (Cal-IPC) (Cal-IPC 2009), the U.S. Department of Agriculture (USDA) California list (USDA 2009), weeds of special concern identified by the BLM, and field surveys of the Project disturbance area were conducted in support of the original AFC (AECOM 2009a).

An initial field assessment was followed by focused special-status plant surveys in April 2009. No invasive species on the Cal-IPC List (High, Moderate, and Limited [Cal-IPC 2009]) were noted as occurring in high concentrations (107.64 square feet) or nearly monotypic stands (AECOM 2009b). Table 3.2-1 lists the four non-native species detected during Project surveys in 2009 and 2010.

TABLE 3.2-1
WEED SPECIES OBSERVED WITHIN PROJECT BOUNDARIES

Scientific Name	Common Name	CDFA Rank*	Cal-IPC Rating*	USDA CA Rating*
Brassica tournefortii	Sahara mustard	-	High	-
Salsola tragus	Russian thistle	C	Limited	CW
Schismus barbatus	Mediterranean grass	-	Limited	-
Tamarix sp.	tamarisk	B	High	-

*** Ranks/Ratings**

CDFA

- B – More wide spread. Eradication, containment, control or other holding action at the discretion of the commissioner. State endorsed holding action and eradication only when found in a nursery.
- C – Generally widespread throughout the state. Action to retard spread outside of nurseries at the discretion of the commissioner. Reject only when found in a crop seed for planting or at the discretion of the commissioner.

Cal-IPC

- 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 ecologically.
- 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, though establishment is generally dependent upon 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.

USDA CA

- CW – C list (noxious weeds)

Source: AECOM 2009b. Palen Solar Power Project Botanical Survey Report, Riverside County, California.