F I N A L

Integrated Weed Management Plan

West of Devers Upgrade Project
Riverside and San Bernardino Counties, California

Prepared for

Southern California Edison

August 2017

Revised February 2018

Prepared by

ch2m

6 Hutton Centre Drive, Suite 700
Santa Ana, CA 92707

Integrated Weed Management Plan Checklist

Applicable Agencies:

- ☒ Bureau of Indian Affairs
- ☒ Bureau of Land Management
- ☒ California Department of Fish and Wildlife
- ☒ California Public Utilities Commission
- ☒ Coachella Valley Conservation Commission
- ☒ Morongo Band of Mission Indians
- ☒ Riverside County Regional Conservation Authority
- ☒ U.S. Fish and Wildlife Service

Applies in the Following Areas:

- ☒ BLM Lands
- ☒ Morongo Reservation
- ☒ San Bernardino County
- ☒ CV-MSHCP
- ☒ WR-MSHCP

Applies to the Following Project Components:

- ☒ Transmission Line
- ☒ Substations
- ☒ Construction Yards
- ☒ Subtransmission
- ☒ Distribution
- ☒ Telecom

Addresses the Following Measures:

FEIR/FEIS MM VEG-2a Prepare and implement an Integrated Weed Management Plan

Contents

Section Page

Acronyms and Abbreviations

ARL	Additional Reserve Lands
BLM	Bureau of Land Management
CAISO	California Independent System Operator
Cal-IPC	California Invasive Plant Council
CDFA	California Department of Food and Agriculture
cm	centimeter
CPUC	California Public Utilities Commission
CV-MSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	Clean Water Act
EA	Environmental Assessment
ESA	environmentally sensitive area
GPS	global positioning system
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
IWMP	Integrated Weed Management Plan
kV	kilovolt(s)
mm	millimeter
MM	mitigation measure
Morongo Reservation	Reservation Trust Lands of the Morongo Band of Mission Indians
MSHCP	Multiple Species Habitat Conservation Plan
MW	megawatt
NEPA	National Environmental Policy Act
NISC	National Invasive Species Council
PAR	Pesticide Application Record
PCA	Pesticide Control Advisor
PEIS	Environmental Impact Statement
Plan	Integrated Weed Management Plan
PPA	Plant Protection Act of 2000
PQP	Public Quasi Public
Project	West of Devers Upgrade Project
PSE	Participating Special Entity
PUP	Pesticide Use Proposal

ROW	right-of-way
SCE	Southern California Edison
SOP	Standard Operating Procedures
SR	State Route
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WEAP	worker environmental awareness program
WOD	West of Devers Upgrade Project
WR-MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan

SECTION 1

Introduction

Southern California Edison (SCE) proposes to construct the West of Devers (WOD) Upgrade Project (Project) to increase the power transfer capability of the WOD 220-kilovolt (kV) transmission lines between Devers, El Casco, Vista, and San Bernardino substations. The Proposed Project would facilitate the full deliverability[1] of new electric generation resources under development in eastern Riverside County, in an area designated by the California Independent System Operator (CAISO) for planning purposes as the Blythe and Desert Center areas. The Project would upgrade the existing WOD transmission line system by replacing the existing WOD 220-kV transmission lines and associated structures with new, higher-capacity transmission lines and structures, installing new and/or upgraded substation facilities, and making telecommunication improvements. The Project is planned to be operational by 2021.

This Integrated Weed Management Plan (IWMP or Plan) describes the weed control strategy and reporting procedures for the Project. The IWMP has been developed pursuant to Mitigation Measure (MM) VEG-2a from the Final Environmental Impact Report[2] (FEIR) and Final Environmental Impact Statement (FEIS) (Bureau of Land Management [BLM], 2016). The Plan is also intended to satisfy conservation measures, best management practices, and other terms and conditions included or anticipated to be included in Project permits and agreements such as the U.S. Fish and Wildlife Service (USFWS) Biological Opinion, California Fish and Game Code Section 2081 Incidental Take Permit, U.S. Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 permit, California Fish and Game Code Section 1600 Lakebed and Stream Alteration Agreement, State Water Resources Control Board (SWRCB) CWA Section 401 Water Quality Certification, and SCE's inclusion as a Participating Special Entity (PSE) in the Coachella Valley and Western Riverside County Multiple Species Habitat Conservation Plans (CV-MSHCP and WR-MSHCP, respectively). SCE and its contractors will be responsible for carrying out the methods and procedures to prevent and control the spread of weeds during the pre-construction, construction, and post-construction/restoration phases of the Project.

1.1 Project Summary

The existing WOD 220-kV system consists of two 220-kV circuits connecting Devers and Vista substations, one circuit connecting Devers Substation with the San Bernardino Substation, one circuit connecting Devers Substation with El Casco Substation, and one circuit connecting El Casco Substation with San Bernardino Substation. The transmission lines currently are supported on a combination of double-circuit and single-circuit structures. The Proposed Project would increase the system transfer capacity from approximately 1,600 megawatts (MW) to 4,800 MW.

The Project would upgrade the existing WOD system by replacing existing 220-kV transmission lines and associated structures with new, higher-capacity 220-kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66-kV) lines; removing and relocating existing distribution (12-kV) lines; and making various telecommunication improvements. In particular, the Project would:

[1] The terms "full deliverability" or "full capacity deliverability status" describe the condition whereby a large generating facility is interconnected with the electrical grid to allow the full delivery of electricity requested. CAISO Tariff, Appendix A, at footnote 2, http://www.caiso.com/2476/2476bc8114130.pdf.

[2] For the purpose of this Plan, "FEIR" refers to the FEIR (California Public Utilities Commission [CPUC], 2015), Addendum to the FEIR (CPUC, 2016a), and Certificate of Public Convenience and Necessity (CPUC, 2016b) and Mitigation Monitoring and Compliance Program therein, where each revision to the FEIR, as applicable, takes precedent over the preceding.

- Upgrade substation equipment within SCE's existing Devers, El Casco, Etiwanda, San Bernardino, and Vista substations in order to accommodate continuous and emergency power on the upgraded WOD 220-kV transmission lines. Activities related to substation upgrades will take place within the existing, disturbed fence lines of the substations and are not addressed further in this Plan.
- Remove and upgrade the existing 220-kV transmission lines and structures primarily within the existing WOD corridor as follows:
  - Segment 1 would be approximately 3.5 miles long and extend south from San Bernardino Substation to the San Bernardino Junction. It would include the following existing 220-kV transmission lines: Devers–San Bernardino, Etiwanda–San Bernardino, San Bernardino–Vista, and El Casco–San Bernardino.
    - Segment 2 would be approximately 5 miles long and extend west from the San Bernardino Junction to Vista Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1 and Devers–Vista No. 2.
    - Segment 3 would be approximately 10 miles long and extend east from the San Bernardino Junction to El Casco Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, El Casco–San Bernardino, and Devers–San Bernardino.
    - Segment 4 would be approximately 12 miles long and extend east from the El Casco Substation to San Gorgonio Avenue in the City of Banning. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.
    - Segment 5 would be approximately 9 miles long and extend east from San Gorgonio Avenue in the City of Banning to the eastern limit of the Reservation Trust Lands of the Morongo Band of Mission Indians (Morongo Reservation) at Rushmore Avenue. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.
    - Segment 6 would be approximately 8 miles long and extend east from the eastern boundary of the Morongo Reservation to Devers Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.
  - Remove a portion (approximately 2 miles) of the existing San Bernardino–Redlands–Timoteo and San Bernardino–Redlands–Tennessee 66-kV Subtransmission Lines from within the existing WOD right-of-way (ROW) and reconstruct as follows:
    - The relocated San Bernardino–Redlands–Timoteo 66-kV Subtransmission Line would be approximately 2 miles long and would reconnect to the San Bernardino–Redlands–Timoteo 66-kV Subtransmission Line inside Timoteo Substation.
    - The relocated San Bernardino–Redlands–Tennessee 66-kV Subtransmission Line would be approximately 3.5 miles long and would reconnect to the San Bernardino–Redlands–Tennessee 66-kV Subtransmission Line at Barton Road.
  - Remove a portion of the existing Dental and Intern 12-kV distribution circuits within the WOD ROW and relocate the circuits as follows:
    - The relocated Dental 12-kV Distribution Circuit would be approximately 1.5 miles long and would reconnect to the existing Dental 12-kV circuit.

- The relocated Intern 12-kV Distribution Circuit would be approximately 2.25 miles long and would reconnect to the Intern 12-kV circuit.
- Install telecommunication lines and equipment for the protection, monitoring, and control of transmission lines and substation equipment.

1.2 Project Location

The Project crosses the cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, Palm Springs, Rancho Cucamonga, Redlands, San Bernardino, and Yucaipa, and unincorporated areas of Riverside and San Bernardino counties. The transmission corridor passes over Interstate 215 in San Bernardino County, as well as State Route (SR)-60, SR-79, SR-243, and SR-62 in Riverside County, and runs approximately parallel for the majority of the Interstate 10 corridor in both San Bernardino and Riverside counties. The Project is divided into six segments for ease of discussion (Figure 1-1).

The Project is located largely within an existing utility corridor in incorporated and unincorporated areas of Riverside and San Bernardino counties, within the San Bernardino Valley and Coachella Valley. The San Bernardino Valley region is bounded by the San Gabriel Mountains and the San Bernardino Mountains to the north, by the San Jacinto Mountains to the east, and by the Santa Ana Mountains and Pomona Valley on the south and west. The terrain of the project area varies between gently sloping plains to steep ridges and drainages in the foothills. Elevations within the project area range from approximately 1,050 to 3,000 feet above mean sea level with mountainous topography, lowlands, and foothills, and relatively flat urban areas.

The Project is located in the South Coast Subregion and San Bernardino Mountains District of the Southwestern California Region of the California Floristic Province, as well as in the Sonoran Desert Region of the Desert Province, as described in *The Jepson Manual* (Baldwin et al., 2012). The South Coast Subregion extends along the Pacific Coast and expands inland to the San Gorgonio Pass at Banning. The region was dominated by coastal sage scrub and chaparral vegetation prior to urbanization. The San Bernardino Mountains District is characterized by a topographically well-defined mountain range. The Sonoran Desert Region occupies the southern one-third of the Desert Province and is known for being lower in elevation, warmer, and floristically distinct from the Mojave Desert Region.

The Project traverses lands of various uses and is subject to several federal, state, and local jurisdictions. Segment 1, Segment 2, and the western portion of Segment 3 are located in incorporated and unincorporated portions of San Bernardino County. The eastern portion of Segment 3, all of Segment 4, and very small areas of Segment 5 are located in the WR-MSHCP. Portions of Segment 5, excluding lands held in trust by the Bureau of Indian Affairs for the Morongo Band of Mission Indians (Morongo Reservation), and most of Segment 6, excluding small parcels of lands administrated by the BLM, are located in the CV-MSHCP. SCE is a PSE in each of the MSHCPs.

1.3 Relevant Laws, Regulations, Management Policies, and Project Requirements

1.3.1 Federal Laws and Regulations

1.3.1.1 National Environmental Policy Act

The FEIS was prepared by the BLM (2016a) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, Title 42 of the United States Code (U.S.C.) Sections 4321 to 4370d as implemented by the Council on Environmental Quality Regulations, Title 40 of the Code of Federal Regulations (CFR) Parts 1500 to 1508, and BLM's NEPA guidance handbook (H-1790-1) (BLM, 2008). The FEIS includes MM VEG-2a.

1.3.1.2 Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA), as amended (16 U.S.C. 1531 et seq.), provides guidance for the conservation of endangered and threatened species, and the ecosystems upon which they depend. FESA Section 9 lists activities that are prohibited by the act. For example, "take" of any listed species is prohibited. Take under FESA is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS may issue permits for incidental take, which may be obtained either through Section 7 consultations, or through a Section 10(a) permit in conjunction with an approved Habitat Conservation Plan. Under provisions of Section 7(a)(2) of FESA, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with USFWS to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify designated Critical Habitat.

The BLM engaged the USFWS in informal and formal consultation for the Project. The USFWS (2016) issued a Biological Opinion (BO) for the Project in accordance with Section 7 of FESA in December 2016. Among other conservation measures, the BO includes conservation measure 9, which states:

> *SCE will prepare and implement an Integrated Weed Management Plan (IWMP) identifying areas that require treatment and describing the proposed methods of preventing or controlling project-related spread of weeds or new weed infestations. The IWMP will meet BLM's requirements for NEPA disclosure and analysis if herbicide use is proposed for the project. For the purpose of the IWMP, "weeds" will include designated noxious weeds, as well as any other non-native weeds or pest plants identified on the weed lists of the California Department of Food and Agriculture, the California Invasive Plant Council, or identified by BLM as of special concern.*

1.3.1.3 BLM Programmatic Environmental Impact Statement

In response to threats of invasive vegetation and noxious weeds and the increased use of herbicides, the BLM prepared the Final Programmatic Environmental Impact Statement (PEIS) on Vegetation Treatments Using Herbicides on BLM Lands in 17 Western states, released on June 29, 2007 (BLM, 2007). The Programmatic PEIS analyzes and identifies the impacts on natural and human environment associated with herbicide use on public lands, and outlines the specific decisions, standard operating procedures, and MMs for the use of herbicides on BLM lands.

1.3.1.4 Federal Noxious Weed Act of 1974

The Federal Noxious Weed Act (Public Law 93-629; 7 United States Code [U.S.C.] 2801 et seq.; 88 Stat. 2148, January 3, 1975, as amended 1988 and 1994) provides for the control and management of non-native weeds that harm, or have the potential to harm, the interests of agriculture and commerce, wildlife resources, or public health. The Secretary of Agriculture was given the authority to designate non-native plants as noxious weeds and the ability to regulate the transactions and movement of noxious weeds. Prohibited under this law is the movement of any noxious weed identified by the Secretary of Agriculture into or through the United States, except for those that are in compliance and possess applicable permits. In addition, the law requires each federal agency to develop a management program to control noxious weeds on federal lands under the agency's jurisdiction. Some of the provisions of this act were repealed by the Plant Protection Act of 2000 (PPA), including U.S.C. 2802 through 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).

1.3.1.5 Plant Protection Act of 2000

The PPA of 2000, as amended (7 U.S.C. 7701-7786), prohibits unauthorized movement of plant pests. No person shall import, enter, export, or move in interstate commerce any plant pest unless movement actions have been authorized under general or specific permit and in accordance with such regulations. The PPA 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, the natural resources of the United States, the public health, or the environment. This act specifies that the Secretary of Agriculture may prohibit or restrict the movement of any plant, plant product, biological control organism, noxious weed, article, or means of conveyance, if the Secretary determines that the prohibition is necessary to prevent the introduction into the United States. Subsequent regulations implemented by the Noxious Weed Control and Eradication Act of 2004 amended the PPA.

1.3.1.6 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 public and private landowners for the control or eradication of noxious weeds. This act defines noxious weeds and removes references to statutes that were repealed upon enactment of the PPA. The 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. The 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.

1.3.2 State and Local Laws and Regulations

1.3.2.1 California Environmental Quality Act

The FEIR was prepared by the CPUC (2015) pursuant to the California Environmental Quality Act (CEQA) guidelines outlined in Title 14 of the California Code of Regulations Section 15000 et seq. as amended. The FEIR includes MM VEG-2a.

1.3.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) is administered by the CDFW and prohibits the take of plant and animal species identified as either threatened or endangered in the State of California by the Fish and Game Commission (California Fish and Game Code [FGC] Sections 2050–2089). Under CESA, take means to hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture or kill, and does not include the harm or harassment provisions in the FESA definition. However, Sections 2081 and 2080.1 of CESA allow CDFW to authorize exceptions to the prohibition of take of the state-listed threatened or endangered plant and animal species for purposes such as public and private development based on a determination that the project or action includes measures sufficient to "fully mitigate" impacts.

SCE will submit a formal Section 2081 ITP application for the Project to CDFW in July 2017. It is anticipated that the issued ITP will include requirements for weed control similar to what is included in the BO.

1.3.2.3 California Food and Agricultural Code

The California Food and Agricultural Code Section 403 mandates that, "The Department of Food and Agriculture shall prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds." In accordance with Section 403, the California Commissioner of Agriculture has the authority to control noxious weeds, provide funding for research, and provide assistance to weed management entities for the control and abatement of noxious weeds in accordance with an approved integrated weed management plan.

California Food and Agriculture Code Section 5101 and 5205 provides for the certification of weed-free forage, hay, straw, and mulch. This portion of the code recognizes that many 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 weeds are not present in the crop to be harvested. Certified weed-free forage, hay, straw, and mulch are required on BLM land. Mulch and/or hay bale materials used for erosion control at the Project will be required to meet certification.

1.3.2.4 San Bernardino County General Plan

San Bernardino County has a General Plan that is the fundamental policy document for the unincorporated, privately owned lands of San Bernardino County (County of San Bernardino, 2007). It is adopted by the Board of Supervisors, and contains the goals, policies, and implementing actions for a variety of issues, including natural and human-made hazards and natural and human-made resources. The purpose of the General Plan is to set the framework for decision-making regarding the County's long-term development and use of resources, and provides the rules by which land can be developed. The General Plan includes goals and policies to preserve rare and endangered species and protect areas of special habitat value; and to establish plans for long-term preservation and conservation of biological resources (San Bernardino County Plan at II-C1-4). Proposed development projects must be compatible with policies set forth in the Biotic Resources and Resources Conservation overlays, which identify special management for the protection of habitat that supports important flora and fauna in the unincorporated areas of the County.

1.3.2.5 Riverside County General Plan

The Land Use and Multipurpose Open Space Elements of the County General Plan (County of Riverside, 2003) contains 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.

1.3.3 Regional Habitat Conservation Plans

The WR-MSHCP and CV-MSHCP serve as comprehensive, multijurisdictional habitat conservation plans pursuant to both Section 10(a)(1)(B) of FESA and the California Natural Communities Conservation Planning Act that focuses on the conservation of species and their associated habitats in their respective plan areas. According to their respective Implementing Agreements, any regional public facility provider (e.g., a utility company or a public district or agency) that operates and/or owns land within the plan areas, such as SCE, may request to participate in a Multiple Species Habitat Conservation Plan (MSHCP) as a PSE. The MSHCPs allows PSEs to obtain authorization for "take" of both federal and/or state-listed species for activities covered by the plans.

PSE activities must comply with the terms and requirements of each MSHCP and its Implementing Agreement and permits. The PSE application is reviewed by the Riverside County Regional Conservation Authority (RCA) for WR-MSHCP and the Coachella Valley Conservation Commission (CVCC) for the CV-MSHCP followed by a concurrence review by USFWS and CDFW, the latter two agencies collectively referred to as the "Wildlife Agencies." For regional utility projects, PSEs will pay a fee or take such other actions as may be agreed to by the RCA/CVCC and the Wildlife Agencies.

SCE applied for PSE status for each MSHCP. In doing so, documents demonstrating consistency with the MSHCPs were prepared for review by RCA and CVCC. The application materials included avoidance, minimization, and mitigation measures intended to ensure biologically equivalent or superior preservation of the MSHCP resources. Those measures were included in the PSE application materials and additional conditions are included in the COIs for the WR-MSHCP and for the CV-MSHCP. SCE committed to provide the IWMP to the RCA, CVCC, and Wildlife Agencies for review.

1.3.4 Mitigation Measure VEG-2a

Furthermore, the Plan was prepared to address FEIR/FEIS MM VEG-2a[3], which states:

> ***Prepare and implement an IWMP.*** *SCE shall prepare and implement an Integrated Weed Management Plan (IWMP) describing the proposed methods of preventing or controlling project-related spread of weeds or new weed infestations. The IWMP also must meet BLM's requirements for NEPA disclosure and analysis if herbicide use is proposed for the project. A draft IWMP shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to SCE's application for Notice to Proceed, and no pre-construction activities (e.g., for geotechnical borings, hazardous waste evaluations, etc.), construction, equipment or crew mobilization, or project-related ground-disturbing activity shall proceed until the IWMP is approved.*
>
> *For the purpose of the IWMP, "weeds" shall include designated noxious weeds, as well as any other non-native weeds or pest plants identified on the weed lists of the California Department of Food and Agriculture, the California Invasive Plant Council, or identified by BLM as special concern. The IWMP will include the contents listed below. The IWMP will be implemented throughout project preconstruction, construction, and post-construction restoration phases. The IWMP will include the information defined in the following paragraphs.*
>
> ***Background.*** *An assessment of the Proposed Project's potential to cause spread of invasive non-native weeds into new areas, or to introduce new non-native invasive weeds into the ROW. This section must list known and potential non-native and invasive weeds occurring on the ROW and in the project region, and identify threat rankings and potential consequences of project-related occurrence or spread for each species. This assessment will include, but is not limited to, weeds that (1) are rated high or moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006), and (2) aid and promote the spread of wildfires (such as cheatgrass, Saharan mustard, and medusa head). This section will identify control goals for each* ***Preconstruction weed inventory****. SCE shall inventory all areas (both within and outside the ROW) subject to project-related vegetation removal/disturbance, "drive and crush," and ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, tower removal sites, pulling and tensioning sites, assembly yards, and any potential new or improved access and spur roads. The weed inventory shall also include vehicle and equipment access routes within the ROW and all project staging and storage yards. Weed occurrences shall be mapped and described according to density and area covered. The map will be updated at least once a year.*
>
> Preconstruction weed treatment. *Weed infestations identified in the preconstruction weed inventory shall be evaluated to identify potential for project-related spread. The IWMP will identify any infestations to be controlled or eradicated prior to project construction, or other site-specific weed management requirements (e.g., avoidance of soil or transport and site-specific vehicle washing where threat or spread potential is high). Control and follow-up monitoring of pre-construction weed treatment sites will follow methods identified in appropriate sections of the IWMP.*
>
> ***Prevention.*** *The IWMP will specify methods to minimize potential transport of weed seeds onto the ROW, or from one section of the ROW to another. The ROW may be divided into "weed zones," based on known or likely invasive weeds in any portion of the ROW. The IWMP will specify inspection procedures for construction materials and equipment entering the Proposed Project area. Vehicles and equipment may be inspected and cleaned at entry points to specified*

[3] To avoid redundancy, the FEIR/FEIS MM language was copied from the CPCN (CPUC, 2016b). References for the citations in the requirement descriptions can be found in the source documents.

portions of the ROW, and before leaving work sites where weed occurrences must be contained locally. Construction equipment shall be cleaned of dirt and mud that could contain weed seeds, roots, or rhizomes. Equipment shall be inspected to ensure it is free of any dirt or mud that could contain weed seeds, and the tracks, outriggers, tires, and undercarriage will be carefully washed, with special attention being paid to axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies.

Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Tools such as chainsaws, hand clippers, pruners, etc., shall be cleaned of dirt and mud before entering project work areas. All vehicles will be washed off-site when possible. If off-site washing is infeasible, onsite cleaning stations will be set up at specified locations to clean equipment before it enters the work area. Wash stations will be located away from native habitat or special-status species occurrences. Wastewater from cleaning stations will not be allowed to run off the cleaning station site. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used, and personnel present. The log shall contain the signature of the responsible crewmember. Written or electronic logs shall be available to BLM and CPUC monitors on request.

Erosion control materials (e.g., hay bales) must be certified free of weed seed before they are brought onto the site. The IWMP must prohibit onsite storage or disposal of mulch or green waste that may contain weed material. Mulch or green waste will be removed from the site in a covered vehicle to prevent seed dispersal, and transported to a licensed landfill or composting facility.

The IWMP will specify guidelines for any soil, gravel, mulch, or fill material to be imported into the proposed project area, transported from site to site within the proposed Project area, or transported from the Proposed Project area to an off-site location, to prevent the introduction or spread of weeds to or from the Proposed Project area.

***Monitoring.** The IWMP shall specify methods to survey for weeds during preconstruction, construction, and restoration phases; and shall specify qualifications of botanists responsible for weed monitoring and identification. It must include a monitoring schedule to ensure timely detection and immediate control of weed infestations to prevent further spread. Surveying and monitoring for weed infestations shall occur at least two times per year, to coincide with the early detection period for early season and late season weeds (i.e., species germinating in winter and flowering in late winter or spring, and species germinating later in the season and flowering in summer or fall). It also must include methods for marking invasive weeds on the ROW, and recording and communicating these locations to weed control staff. The map of weed locations (discussed above) shall be updated at least once a year. The monitoring section shall also describe methods for post-eradication monitoring to evaluate success of control efforts and any need for follow-up control.*

***Control.** The IWMP must specify manual and chemical weed control methods to be employed. The IWMP shall include only weed control measures with a demonstrated record of success for target weeds, based on the best available information. The plan shall describe proposed methods for promptly scheduling and implementing control activity when any weed infestation is located, to ensure effective and timely weed control. Weed infestations must be controlled or eradicated as soon as possible upon discovery, and before they go to seed, to prevent further spread. All proposed weed control methods must minimize the extent of any disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage from herbicide use or other control methods to any environmentally sensitive areas identified within or adjacent to the ROW.*

Weed infestations will be treated at a minimum of once annually until eradication, suppression, or containment goals are met. For eradication, when no new seedlings or resprouts are observed for three consecutive, normal rainfall years, OR for five consecutive years regardless of rainfall, the weed occurrence can be considered eradicated, and weed control efforts may cease for the site.

Manual control shall specify well-timed removal of weeds or their seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the Riverside or San Bernardino County Agricultural Commissioners, if such guidelines are available.

The chemical control section must include specific and detailed plans for any herbicide use. It must indicate where herbicides will be used, which herbicides will be used, and specify techniques to be used to avoid drift or residual toxicity to native vegetation or special-status plants, consistent with BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM, 2007) and National Invasive Species Management Plan (NISC, 2008). Only state and BLM-approved herbicides may be used. Herbicide treatment will be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of predicted rain. Only water-safe herbicides shall be used in riparian areas or within channels (engineered or not) where they could run off into downstream areas. Herbicides shall not be applied when wind velocities exceed six (6) mph. All herbicide applications will follow U.S. Environmental Protection Agency label instructions and will be in accordance with federal, state, and local laws and regulations.

***Reporting schedule and contents**. The IWMP shall specify reporting schedule and contents of each report.*

Implementation locations: *San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).*

1.4 Lead Agencies

The lead agencies have discretionary approval over the Project and, in accordance with MM-VEG-2a, are responsible for reviewing this Plan. The California Public Utilities Commission (CPUC) is the lead state agency responsible for compliance with the California Environmental Quality Act for project areas on non-federal lands. The BLM is the lead federal agency responsible for compliance with National Environmental Policy Act (NEPA) for the project areas on federal lands.

Consulting agencies are public agencies, other than the lead agencies, that may provide guidance or information needed to satisfy the Project-specific requirements addressed by this Plan. Among the terms and conditions of SCE's inclusion in the MSHCPs as a PSE, SCE committed to provide the IWMP to the RCA, CVCC, and Wildlife Agencies for review. Additional consulting agencies may include the USACE and the SWRCB.

1.5 Plan Goal

The goal of the Plan is to minimize the introduction and spread of weeds during pre-construction, construction, and post-construction/restoration activities associated with the project, thereby minimizing potential impacts to wildlife habitat and vegetation communities.

Specified implementing procedures are intended to 1) prevent establishment of weeds not currently found within the project area, and 2) prevent weeds already present within the project area from spreading to other areas.

1.6 Implementation Locations and Timing

In accordance with MM VEG-2a, the IWMP applies in San Bernardino County, on BLM Lands, and within MSHCP areas. In accordance with BO Conservation Measure 9, the IWMP also applies on the Morongo Reservation. The Plan will also apply as described in the anticipated Section 2081 ITP.

The goal of the Plan is to prevent the establishment of weeds not currently found in the Project's temporary and permanent areas and to ensure that Project construction activities do not worsen existing conditions. The Plan establishes the methods that will be implemented during the pre-construction, construction, and post-construction restoration phases. Restoration sites will be subject to standards set forth in the Habitat Restoration and Revegetation Plan (HRRP) until the sites are successfully restored.

Therefore, the Plan applies to the pre-construction, construction, and post-construction/restoration phases of the Project.

SECTION 2

Weed Definitions and Inventory

Section 2 defines general methods of weed control, and terms and classifications that will be used in avoiding the introduction of weeds, as well as an inventory of current conditions relative to weed infestations. Measures will be implemented (Section 3) within temporary disturbance areas in San Bernardino County, on BLM lands, on the Morongo Reservation, and within the WR-MSHCP and CV-MSHCP areas in Riverside County during the pre-construction, construction, and post-construction/restoration phases of the Project (Figure 2-1). Weed control measures will be applied to mitigate temporary habitat impacts and will focus on prevention, containment, suppression, and control of the target weeds.

The following general weed-control elements will be applied as appropriate to each identified infestation:

- Prevention—Apply best practices to eliminate the transport of weed propagules and minimize conditions conducive to the establishment of new infestations. Prevention methods targeting one species would likely also prevent other species.
- Containment—Prevent infestation spread, but not necessarily reduce infestation density, until suppression or eradication can be implemented.
- Suppression—Reduce infestation density, but not necessarily infestation area, where eradication of widely distributed or high-density weeds is infeasible.
- Eradication—Eliminate newly introduced weed species within the Project disturbance areas. Applying complete eradication objectives for ubiquitous weed populations is infeasible.

2.1 Weed Definitions

Weeds are typically characterized as non-native plants that aggressively colonize new areas and can grow to dominate native plant communities if uncontrolled. Weeds have a competitive advantage over native species and can form an expansive monoculture. Weeds alter physical or chemical soil conditions, dominate the landscape to the detriment of native plants and wildlife, 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.

The following are the types of weeds addressed in this Plan:

- Noxious Weeds—Species identified by public law as exerting substantial negative environmental or economic impact. Noxious weeds are a subset of exotic plants. The term “noxious weeds” is a legal classification, not an ecological term.
- Other weedy plants– other organizations, such as the non-profit California Invasive Plant Council (Cal-IPC) and county agriculture commissioners, maintain other lists of weeds. The vast majority of these species were not indigenous to a given area before European settlement.

The U.S. Department of Agriculture (USDA) maintains the official federal list of noxious weeds (7 *Code of Federal Regulations* Ch. III [1–1–09 Edition] PART 360—Noxious Weed Regulations § 360.200 *Designation of noxious weeds*; USDA List).

In addition to the federal list, the California Department of Food and Agriculture (CDFA) maintains the list of official noxious weeds requiring control under the Noxious Weed Act of 1989 (CDFA, 2010). The

official weed list was last updated in the California Code of Regulations (3 California Administrative Code § 4500) in January 2009.

The term "noxious weed" is defined legally, through federal and California state laws, as follows:

> USDA Federal Plant Protection Act (7 *U.S. Code* [U.S.C.] 7701 et seq.)—*"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; the natural resources of the U.S.; the public health; or the environment."*
>
> CDFA Noxious Weed Act of 1989 pursuant to CDFA 3 California Administrative Code § 4500.—"*any species of plant that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate, which the director, by regulation, designates to be a noxious weed. In determining whether or not a species shall be designated a noxious weed for the purposes of protecting silviculture or important native plant species, the director shall not make that designation if the designation will be detrimental to agriculture."*

2.1.1 California Invasive Plant Council Ratings

The Cal-IPC maintains a rating for risk of spread and consequence of spread into wildlands for weeds that is based upon the best available published literature and knowledge of invasive plant experts from California.

- **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.

2.1.2 California Department of Food and Agriculture Rating

The CDFA recommend plants for listing as noxious weeds after consultation with outside experts and the County Agricultural Commissioners. The CDFA will designate a plant as a noxious weed if it is found to be "troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate."

At the time that CDFA lists a species, it also receives a rating of A, B, C, D, Q, or W. The ratings are defined as follows (CDFA, 2010):

- **Rating A.** A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment. A-rated pests are prohibited from entering the state because, by virtue of their rating, they have been placed on the of Plant Health and Pest Prevention Services Director's list of organisms "detrimental to agriculture" in accordance with the FAC Sections 5261 and 6461.

The only exception is for organisms accompanied by an approved CDFA or USDA live organism permit for contained exhibit or research purposes. If found entering or established in the state, A-rated pests are subject to state (or commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action.

- **Rating B.** A pest of known economic or environmental detriment and, if present in California, it is of limited distribution. B-rated pests are eligible to enter the state if the receiving county has agreed to accept them. If found in the state, they are subject to state endorsed holding action and eradication only to provide for containment, as when found in a nursery. At the discretion of the individual county agricultural commissioner, they are subject to eradication, containment, suppression, control, or other holding action.
- **Rating C.** A pest of known economic or environmental detriment and, if present in California, it is usually widespread. C-rated organisms are eligible to enter the state as long as the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness.
- **Rating Q.** An organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain because of incomplete identification or inadequate information.
- **Rating D:** An organism known to be of little or no economic or environmental detriment, to have an extremely low likelihood of weediness, or is known to be a parasite or predator. There is no state enforced action.
- **Rating W.** This notation indicates that a plant is included in the *California Code of Regulations* Section 4500 list of California State Noxious Weeds.

2.1.3 BLM Risk Assessment Classifications

The BLM Risk Assessment process includes the priority classification from the *Pest Ratings of Noxious Weed Species and Noxious Weed Seed* (CDFA, 2010), based on a pest (noxious weed) species ability to cause harm to agriculture and native ecosystems. Noxious weeds within this classification are separated into three classes:

- **Class A Weeds.** Those noxious weeds that are exotic (not native) to the state or area, and are of limited distribution or are unrecorded in the state or area and pose a serious threat to agricultural crops and rangelands in the state. Class A weeds receive highest priority. Management emphasis is complete control.
- **Class B Weeds.** Those noxious weeds that are non-native (exotic) plant species that are of limited distribution or unrecorded in a region of the state but are common in other regions of the state and have been identified by the BLM or state as potentially harmful. Class B Weeds receive second-highest priority. Management emphasis is to control the spread, decrease population size, and eventually eliminate the weed population when cost-effective technology is available.
- **Class C Weeds.** Consists of any other noxious weeds (exotic or native) or undesirable plants. This classification receives the lowest priority. Management emphasis is to contain spread to present population size or decrease population to a manageable size.

The Project will use the BLM risk ratings to assess the likelihood of weed species spreading to the project area (Factor 1), and the consequences of weed establishment in the project area (Factor 2) based on a low, moderate, or high rating after the implementation of the weed preventative and control measures. A final Risk Rating and Action score is obtained by multiplying the likelihood (Factor 1) score by the consequence (Factor 2) score.

Factor 1 – Likelihood of Weed Species Spreading to Project Area:

- None (0): Weed species not located within or adjacent to the project area. Project activity is not likely to result in the establishment of weed species in the project area.
- Low (1): Weed species present in areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of weeds into the project area.
- Moderate (5): Weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of weeds within the project area.
- High (10): Heavy infestations of weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to results in the establishment and spread of weeds on disturbed sites throughout much of the project area.

Factor 2 – Consequence of Weed Establishment in Project Area:

- Low to Nonexistent (1): None. No cumulative effects expected.
- Moderate (5): Possible adverse effects onsite and possible expansion of infestation within project area. Cumulative effects on native plant community are likely but limited.
- High (10): Obvious adverse effects within the project area and probable expansion of noxious weed infestations to areas outside the project area. Adverse cumulative effects on native plant community are probable.

2.2 Weed Inventory

Botanical surveys conducted in 2012 and 2013 (LSA Associates, Inc., 2013) and focused weed mapping in 2015 and 2017 (GANDA, 2018) identified 40 weed species within the project area that are on the State of California CDFA and/or Cal-IPC weed lists (Table 2-1). Verification of land cover and weed mapping was conducted in May 2015 (CH2M HILL Engineers, Inc. [CH2M], 2015). SCE and BLM recognize that certain ubiquitous weed species, such as red brome (*Bromus madritensis* spp. *rubens*), redstem filaree (*Erodium cicutarium*), wild oat (*Avena* spp.), and Saharan mustard (*Brassica tournefortii*), have such a widespread distribution that general control of these species is not considered feasible, and meaningful control of such ubiquitous species is beyond the scope of the Project. SCE's objective is to prevent or control the further spread of weeds as relates to SCE projects. Repeated control measures on a Project ROW and any ancillary project areas are generally not considered feasible where weed species are already established and abundant in the adjacent undisturbed areas.

Table 2-1. Non-native Weeds Identified within West of Devers Project Area

West of Devers Upgrade Project Integrated Weed Management Plan

Weed Zone(s)	Scientific Name	Common Name	Cal-IPC Weed Rating	CDFA Weed Rating	Preliminary BLM Risk Rating		Control Methods[b]	Control Goals
					Factor 1[a]	Factor 2[a]		
*	*Ailanthus altissima*	tree-of-heaven	Moderate	C	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Arundo donax*	giant reed	High	B	Moderate	Moderate	C	Suppression
A, B, C	*Avena barbata*	slender oat	Moderate	Not rated	High	Moderate	NT	Prevention
A, C	*Brassica tournefortii*	Saharan mustard	High	Not rated	High	Moderate	C	Suppression
A, B, C	*Bromus diandrus*	ripgut grass	Moderate	Not rated	High	Low	NT	Prevention
A, B	*Bromus hordeaceus*	soft chess	Limited	Not rated	Low	Moderate	NT	Prevention
A, B, C	*Bromus madritensis* ssp. *rubens*	red brome	High	Not rated	High	Moderate	NT	Prevention
A, B, C	*Bromus tectorum*	cheatgrass	High	Not rated	High	High	NT	Prevention
*	*Cardaria draba*	whitetop	Moderate	B	Moderate	Moderate	C	Eradication/ Suppression[c]
A	*Carduus pycnocephalus*	Italian thistle	Moderate	C	High	Moderate	C	Containment
*	*Carpobrotus chilensis*	iceplant	Moderate	Not rated	High	Low	C	Eradication/ Suppression[c]
A, B	*Centaurea melitensis*	tocalote	Moderate	C	Moderate	Moderate	C	Suppression
A	*Centaurea solstitialis*	Yellow star thistle	High	B	High	Moderate	C	Eradication
*	*Cirsium vulgare*	bull thistle	Moderate	C	Moderate	Low	C	Eradication/ Suppression[c]
*	*Conium maculatum*	poison hemlock	Moderate	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Cynodon dactylon*	Bermuda grass	Moderate	C	High	Low	C	Eradication/ Suppression[c]
A, B, C	*Erodium cicutarium*	redstem filaree	Limited	Not rated	Moderate	High	NT	Prevention
C	*Eucalyptus camaldulensis*	river red gum	Limited	Not rated	Moderate	Moderate	C	Suppression, Containment

Table 2-1. Non-native Weeds Identified within West of Devers Project Area
West of Devers Upgrade Project Integrated Weed Management Plan

Weed Zone(s)	Scientific Name	Common Name	Cal-IPC Weed Rating	CDFA Weed Rating	Preliminary BLM Risk Rating		Control Methods[b]	Control Goals
					Factor 1[a]	Factor 2[a]		
*	*Foeniculum vulgare*	sweet fennel	High	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Gazania linearis*	Gazania	Moderate	Not rated	High	Moderate	C	Eradication/ Suppression[c]
A, B	*Hirschfeldia incana*	Mediterranean mustard	Moderate	Not rated	High	Moderate	C	Suppression
A	*Hordeum murinum*	Mediterranean barley	Moderate	Not rated	Moderate	Low	C	Suppression
A	*Hypochaeris glabra*	smooth cat's-ear	Limited	Not rated	Moderate	Low	A	Suppression
A	*Lepidium latifolium*	Perennial pepperweed	High	B	High	Moderate	C	Eradication
A	*Marrubium vulgare*	white horehound	Limited	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
A	*Medicago polymorpha*	California burclover	Limited	Not rated	Moderate	High	C	Suppression
A, C	*Nicotiana glauca*	tree tobacco	Moderate	Not rated	Moderate	Moderate	C	Suppression
*	*Pennisetum setaceum*	crimson fountain grass	Moderate	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Polypogon monspeliensis*	annual beardgrass	Limited	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Raphanus sativus*	wild radish	Limited	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
A	*Ricinus communis*	castor bean	Limited	Not rated	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Rubus armeniacus*	Himalayan blackberry	High	Not rated	High	Moderate	C	Eradication/ Suppression[c]
A	*Salsola tragus*	Russian thistle	Limited	C	Moderate	Moderate	C	Suppression
*	*Schinus molle*	Peruvian pepper tree	Limited	Not rated	Moderate	Moderate	C	Containment, Suppression

Table 2-1. Non-native Weeds Identified within West of Devers Project Area

West of Devers Upgrade Project Integrated Weed Management Plan

Weed Zone(s)	Scientific Name	Common Name	Cal-IPC Weed Rating	CDFA Weed Rating	Preliminary BLM Risk Rating		Control Methods[b]	Control Goals
					Factor 1[a]	Factor 2[a]		
*	*Schinus terrebinthifolius*	Brazilian pepper tree	Limited	Not rated	High	High	C	Containment, Suppression
A, B	*Sisymbrium irio*	London rocket	Moderate	Not rated	Moderate	High	C	Eradication/ Suppression[c]
*	*Spartium junceum*	Spanish broom	High	C	Moderate	Moderate	C	Eradication/ Suppression[c]
*	*Tamarix ramosissima*	saltcedar	High	B	Moderate	Low	C	Eradication/ Suppression[c]
*	*Trifolium hirtum*	rose clover	Moderate	Not rated	Moderate	Moderate	A	Suppression
*	*Verbascum thapsus*	common mullein	Limited	Not rated	High	Moderate	C	Eradication/ Suppression[c]
A	*Vulpia myuros*	rat-tail fescue	Moderate	Not rated	Moderate	Low	NT	Prevention
*	*Washingtonia robusta*	Mexican fan palm	Moderate	Not rated	Moderate	Low	C	Containment, Suppression

Sources: Cal-IPC, 2006; CDFA, 2010

[a] Factors:

Factor 1 = Likelihood of weed species spreading to project area
Factor 2 = Consequence of weed establishment in project area

[b] Control Method:

C: Control (as new and existing infestations detected in Project disturbance areas)

A: Allow at low density (e.g., < 10% cover), species considered innocuous

NT: No Treatment (infeasible to control – species is naturalized and ubiquitous)

[C] The treatment goal for weeds already present in disturbance areas will be suppression. The treatment goals for weeds present in the project area that are not initially present in disturbance areas but are later found to have infested disturbance areas will be eradicated from the disturbance areas.

Note:

* Not currently mapped in the geographic information system, cannot assign weed zone

2.2.1 Target Weeds

The following are brief descriptions of each weed species known to occur within the WOD project area:

- **Tree-of-heaven** (*Ailanthus altissima*) is a multi-stemmed, small tree that grows to 66 feet (20 meters [m]) high. It is a member of the Quassia/Simarouba family (Simaroubaceae). The leaves are pinnately compound, 12 to 35 inches (30-90 centimeters [cm]) long. It spreads by rhizomes and trunk sprouts.
- **Giant reed** (*Arundo donax*) is a tall, dense, woody, bamboo-like clumping grass that grows 6 to 33 feet (2-10 m) high. It is a member of the Grass family (Poaceae). The leaves are up to 39 inches (100 cm) long. It spreads by rhizomes and culms.
- **Saharan mustard** (*Brassica tournefortii*) is an erect annual herb that grows 4 to 28 inches (10-70 cm) high. It is a member of the Mustard family (Brassicaceae). It spreads by seed.
- **Whitetop** (*Cardaria draba*) is a spreading perennial herb with white flowers growing 3 to 35 inches (8-90 cm) high. It is a member of the Mustard family (Brassicaceae). The leaves are 0.6 to 6 inches (1.5-15 cm) long. It spreads by seed and rhizomes.
- **Italian thistle** (*Carduus pycnocephalus*) is an erect annual herb that grows 8 to 79 inches (20-200 cm) high. It is a member of the Sunflower family (Asteraceae). The leaves are 4 to 6 inches (10-15 cm) long. It spreads by seed.
- **Iceplant** (*Carpobrotus chilensis*) is a prostrate perennial herb/shrub with triangular and fleshy leaves that grows 0.4 inches (1 cm) high and forms thick, broad mats several meters across. It is a member of the Ice Plant family (Aizoaceae). It spreads by seed and rhizomes.
- **Tocalote** (*Centaurea melitensis*) is an erect annual herb that grows 4 to 39 inches (10-100 cm) high. It is a member of the Sunflower family (Asteraceae). The leaves are 0.8 to 6 inches (2-15 cm) long. It spreads by seed.
- **Yellow star thistle** (*Centaurea solstitialis*) is an erect winter annual, sometimes biennial, herb that grows to 6.5 feet (2 m) high. It is a member of the Sunflower family (Asteraceae). The leaves are 2 to 8 inches (5-20 cm) long. It spreads by seed.
- **Bull thistle** (Cirsium vulgare) is an erect annual herb that grows 12 to 79 inches (30-200 cm) high. It is a member of the Sunflower family (Asteraceae). The leaves are 4 to 16 in (10-40 cm) long. It spreads by seed.
- **Poison hemlock** (*Conium maculatum*) is an erect annual herb that grows 19 to 118 inches (50-300 cm) high. It is a member of the Carrot family (Apiaceae). The leaves are 6 to 12 inches (15-30 cm) long. It spreads by seed.
- **Bermuda grass** (*Cynodon dactylon*) is a prostrate, turf-forming perennial grass that grows 4 to 16 inches (10-40 cm) high. It is a member of the Grass family (Poaceae). The leaves are less than 2.4 inches (6 cm) long. It spreads by rhizomes and stolons, and sometimes by seed.
- **Redstem filaree** (*Erodium cicutarium*) is an annual herb that grows 4 to 20 inches (10-50 cm) high. It is a member of the Geranium family (Geraniaceae). The leaves are twice-pinnately compound, 1 to 4 inches (3-10 cm) long. It spreads by seed.
- **River red gum** (*Eucalyptus camaldulensis*) is an erect evergreen tree up to 82 feet (25 m) high. It is a member of the Myrtle family (Myrtaceae). The leaves are 2 to 8 inches (6-20 cm) long. It spreads by seed.
- **Sweet fennel** (*Foeniculum vulgare*) is an erect perennial herb that grows 35 to 79 inches (90-200 cm) high. It is a member of the Carrot family (Apiaceae). It spreads by seed.

- **Gazania** (*Gazania linearis*) is a perennial herb that grows 1.5 to 2 inches (4-5 cm) high. It is a member of the Sunflower family (Asteraceae). The leaves are 4 to 15 inches (10-38 cm) long. The ray flowers are yellow to orange. It spreads by seed and rhizomes.
- **Smooth cat's-ear** (*Hypochaeris glabra*) is an erect, slender annual herb that grows 4 to 24 inches (10-60 cm) high. It is a member of the Sunflower family (Asteraceae). The leaves are 0.8 to 4 inches (2-10 cm) long. It spreads by seed.
- **Perennial pepperweed** (*Lepidium latifolium*) is an erect perennial herb that grows to 6.5 feet (2 m) high. It is a member of the Mustard family (Brassicaceae). Basal leaves grow to 12 inches (30 cm) long. It spreads by creeping roots, root fragments, and seed.
- **White horehound** (*Marrubium vulgare*) is a mounding perennial herb that grows 4 to 24 inches (10-60 cm) high. It is a member of the Mint family (Lamiaceae). The leaves are 0.6 to 2 inches (1.5-5.5 cm) long. It spreads by seed.
- **Common Burclover** (*Medicago polymorpha*) is a prostrate annual herb that grows 4 to 20 inches (10-50 cm) high. It is a member of the Pea family (Fabaceae). The leaves are 0.4 to 0.8 inches (1-2 cm) long. It spreads by seed.
- **Tree tobacco** (*Nicotiana glauca*) is a shrub or small tree 6 to 20 feet (2-6 m) high, with yellow tubular flowers. It is a member of the Tomato family (Solanaceae). The leaves are broadly ovate, 2 to 8 inches (5-21 cm) long. It spreads by seed.
- **African fountain grass** (*Pennisetum setaceum*) is a clumping perennial grass that grows 16 to 59 inches (40-150 cm) high. It is a member of the Grass family (Poaceae). The leaves are 1.5 to 3 inches (4-8 cm) long. It spreads by seed and rhizomes.
- **Annual beardgrass** (*Polypogon monspeliensis*) is an erect annual grass that grows 8 to 39 inches (20-100 cm) high. It is a member of the Grass family (Poaceae). The leaves are 0.4 to 8 inches (1-20.5 cm) long. It spreads by seed.
- **Castor bean** (*Ricinus communis*) is an erect evergreen shrub that grows 3 to 10 feet (1-3 m) high. It is a member of the Euphorb family (Euphorbiaceae). The leaves are palmately lobed, 4 to 20 inches (10-50 cm) long. It spreads by seed.
- **Himalayan blackberry** (*Rubus armeniacus*) is a perennial vine that grows up to 10 feet (3 m) high. It is a member of the Rose family (Rosaceae). The leaves are palmately compound usually with 5 leaflets each, 5 to 11 cm long. It spreads by vegetative means.
- **Russian thistle** (*Salsola tragus*) is a rounded annual herb, less than 5 feet (1.5 m) high. It is a member of the Chenopod family (Chenopodiaceae). The leaves are 0.3 to 2 inches (0.8-5.2 cm) long. It spreads by seed.
- **Peruvian peppertree** (Schinus molle) is an evergreen tree that grows (5-18 m) high. It is a member of the Sumac family (Anacardiaceae). The leaves are pinnately compound, 10 to 30 cm long. It spreads by seed.
- **Brazilian peppertree** (*Schinus terebinthifolius*) is an evergreen tree that grows 16 to 33 feet (5-10 m) high. It is a member of the Sumac family (Anacardiaceae). The leaves are pinnately compound, 3 to 6 inches (8-15 cm) long. It spreads by seed.
- **Spanish broom** (*Spartium junceum*) is a large, erect shrub that grows up to 10 feet (3 m) high. It is a member of the Pea family (Fabaceae). The leaves are less than 1 inch (2.5 cm) long. It spreads by seed.

- **Saltcedar** (*Tamarix ramosissima*) is a multi-trunked tree or large shrub with scale-like leaves that grows up to 26 feet (8 m) high. It is a member of the Tamarisk family (Tamaricaceae). The leaves are scalelike, stems green and smooth. It spreads by seed and root sprouts.
- **Mexican Fan Palm** (*Washingtonia robusta*) is a tree that grows up to 98 feet (30 m) high. It is a member of the Palm family (Arecaceae). The leaves are up to 39 inches (100 cm) long. It spreads by seed.

2.2.2 Weeds with a Potential to Occur in the Project Area

A list of weed species included on the State of California CDFA and/or Cal-IPC weed lists that have the potential to occur within the project area, but as yet have not been reported as occurring in the project area, can be found in Table 2-2. Occurrences of new weed infestations will be documented using a standardized Weed Occurrence Form, mapped by global positioning system (GPS), and identified on an aerial photograph or other base map. Photographs will be taken when appropriate. In the event that weeds included in Table 2-2 are identified within the project area, SCE will update this document by adding information on the species to Table 2-1, Section 2.2, and Table 3-2.

Table 2-2. Non-native Weeds with Potential to Occur within West of Devers Project Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Names	Cal-IPC Weed Rating	CDFA Weed Rating	Control Methods[a]	Control Goals[b]
Acacia dealbata	silver wattle	Moderate	Not rated	C	Prevention
Acroptilon repens	Russian knapweed	Moderate	A	C	Prevention
Ageratina adenophora	Eupatory	Moderate	Not rated	C	Prevention
Agrostis stolonifera	carpet bent	Limited	Not rated	A	Prevention
Alhagi maurorum	camelthorn	Moderate	A	C	Prevention
Alternanthera philoxeroides	alligatorweed	High	Not rated	C	Prevention
Asparagus asparagoides	bridal creeper	Moderate	Not rated	C	Prevention
Atriplex semibaccata	Australian saltbush	Moderate	Not rated	A	Prevention
Avena fatua	wild oats	Moderate	Not rated	A	Prevention
Bassia hyssopifolia	five-horn smotherweed	Limited	Not rated	A	Prevention
Brachypodium distachyon	annual false-brome	Moderate	Not rated	C	Prevention
Brassica nigra	black mustard	Moderate	Not rated	C	Prevention
Brassica rapa	Turnip	Limited	Not rated	A	Prevention
Bromus japonicus	Japanese brome	Limited	Not rated	A	Prevention
Carduus nutans	musk thistle	Moderate	A	C	Prevention

Table 2-2. Non-native Weeds with Potential to Occur within West of Devers Project Area

West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Names	Cal-IPC Weed Rating	CDFA Weed Rating	Control Methods[a]	Control Goals[b]
Carduus tenuiflorus	slenderflower thistle	Limited	A	C	Prevention
Centaurea diffusa	diffuse knapweed	Moderate	A	C	Prevention
Cortaderia jubata	Jubatagrass	High	Not rated	C	Prevention
Cortaderia selloana	Pampasgrass	High	Not rated	C	Prevention
Cotoneaster pannosus	silverleaf cotoneaster	Moderate	Not rated	C	Prevention
Cotula coronopifolia	common brassbuttons	Limited	Not rated	A	Prevention
Cynara cardunculus	artichoke thistle	Moderate	B	C	Prevention
Cynosurus echinatus	annual dogtail	Moderate	Not rated	A	Prevention
Cytisus scoparius	Scotch broom	High	C	C	Prevention
Cytisus striatus	Portugese broom	Moderate	Not rated	C	Prevention
Dactylis glomerata	orchard grass	Limited	Not rated	A	Prevention
Delairea odorata	Cape-ivy	High	Q	C	Prevention
Descurainia sophia	Flixweed	Limited	Not rated	A	Prevention
Dipsacus sativus	Fullers teasel	Moderate	Not rated	A	Prevention
Dittrichia graveolens	Stinkwort	Moderate	Q	C	Prevention
Ehrharta erecta	panic veldtgrass	Moderate	Not rated	C	Prevention
Eichhornia crassipes	water hyacinth	High	Not rated	C	Prevention
Elaeagnus angustifolia	Russian olive	Moderate	Not rated	C	Prevention
Festuca arundinacea	alta fescue	Moderate	Not rated	C	Prevention
Ficus carica	edible fig	Moderate	Not rated	C	Prevention
Genista monspessulana	French broom	High	C	C	Prevention
Geranium dissectum	cutleaf geranium	Limited	Not rated	A	Prevention
Glyceria declinata	Mannagrass	Moderate	Not rated	C	Prevention

Table 2-2. Non-native Weeds with Potential to Occur within West of Devers Project Area

West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Names	Cal-IPC Weed Rating	CDFA Weed Rating	Control Methods[a]	Control Goals[b]
Hedera helix, H. canariensis	English ivy	High	Not rated	C	Prevention
Helminthotheca echioides	bristly ox-tongue	Limited	Not rated	C	Prevention
Holcus lanatus	common velvet grass	Moderate	Not rated	A	Prevention
Hypericum perforatum	St. John's Wort	Moderate	C	C	Prevention
Hypochaeris radicata	common cat's-ear	Moderate	Not rated	A	Prevention
Iris pseudacorus	yellowflag iris	Limited	Not rated	C	Prevention
Kochia scoparia	Kochia	Limited	Not rated	C	Prevention
Leucanthemum vulgare	ox-eye daisy	Moderate	Not rated	C	Prevention
Lobularia maritima	sweet alyssum	Limited	Not rated	A	Prevention
Mentha pulegium	pennyroyal	Moderate	Not rated	C	Prevention
Myoporum laetum	ngaio tree	Moderate	Not rated	C	Prevention
Myriophyllum aquaticum	parrotfeather	High	Not rated	C	Prevention
Myriophyllum spicatum	spike watermilfoil	High	Not rated	C	Prevention
Olea europaea	olive	Limited	Not rated	C	Prevention
Onopordum acanthium	scotch thistle	High	Not rated	C	Prevention
**Oncosiphon piluliferum*	stinknet	Not rated	Not rated	C	Prevention
Oxalis pes-caprae	buttercup oxalis	Moderate	Not rated	C	Prevention
Pennisetum clandestinum	kikuyugrass	Limited	C	C	Prevention
Phalaris aquatica	harding grass	Moderate	Not rated	C	Prevention
Phoenix canariensis	Canary Island date palm	Limited	Not rated	C	Prevention
Phytolacca americana	common pokeweed	Limited	Not rated	C	Prevention
Plantago lanceolata	buckhorn plantain	Limited	Not rated	A	Prevention
Poa pratensis	Kentucky bluegrass	Limited	Not rated	A	Prevention

Table 2-2. Non-native Weeds with Potential to Occur within West of Devers Project Area

West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Names	Cal-IPC Weed Rating	CDFA Weed Rating	Control Methods[a]	Control Goals[b]
Potamogeton crispus	curly-leaved pondweed	Moderate	Not rated	C	Prevention
Prunus cerasifera	cherry plum	Limited	Not rated	C	Prevention
Pyracantha angustifolia	narrowleaf firethorn	Limited	Not rated	C	Prevention
Robinia pseudoacacia	black locust	Limited	Not rated	C	Prevention
Rumex acetosella	sheep sorrel	Moderate	Not rated	NT	Prevention
Rumex crispus	curly dock	Limited	Not rated	NT	Prevention
Salsola paulsenii	barbwire Russian thistle	Limited	C	C	Prevention
Schismus arabicus	Mediterranean grass	Limited	Not rated	NT	Prevention
Silybum marianum	milk thistle	Limited	Not rated	C	Prevention
Sinapis arvensis	wild mustard	Limited	Not rated	C	Prevention
Stipa capensis	cape ricegrass	Moderate	Not rated	C	Prevention
Tamarix parviflora	smallflower tamarisk	High	Q	C	Prevention
Tanacetum vulgare	common tansy	Moderate	Not rated	C	Prevention
Torilis arvensis	hedgeparsley	Moderate	Not rated	A	Prevention
Vinca major	periwinkle	Moderate	Not rated	C	Prevention
Volutaria tubuliflora	desert knapweed	Moderate	Not rated	C	Prevention
Zantedeschia aethiopica	calla lily	Limited	Not rated	C	Prevention

[a] Control Method:

C: Control (as new and existing infestations detected in Project disturbance areas)

A: Allow at low density (e.g., < 10% cover), species considered innocuous

NT: No Treatment (infeasible to control – species is naturalized and ubiquitous)

[b] Since these species have not been observed in the project area, the current goal is prevention. If these species are later observed, this Plan will be revised to identify a new control goal, based on Cal-IPC and CDFA Weed Ratings, ecological threats posed by the species, prevalence of the species in the region, feasibility of control, and potential control methods. Any revisions to the Plan will be provided to the CPUC, BLM, USFWS, and CDFW for review and approval.

Note:

* *Oncosiphon piluliferum* does not meet the MM-VEG-2a definition of a weed required for inclusion in this IWMP; however, it has been included per request from the USFWS.

2.2.3 Weed Zones

The following three weed zones are used to delineate weed boundaries and management requirements for the Project:

- Weed Zone A: Segments 1, 2, 3 and 4 up to the intersection of Fraser Street and Moore Street
- Weed Zone B: Intersection of Fraser and Moore Street to the west side of the Sunnyslope Cemetery in Banning
- Weed Zone C: Segments 5 and 6

Weed Zones were delineated by analyzing the Herbaceous Alliances and Stands dominated by weeds (weed alliances) from the Manual of California Vegetation (MCV; Sawyer et al. 2009) and weed species that were observed in each segment, along with vegetation communities.

Segments 1, 2, 3, and part of Segment 4 compose Weed Zone A. Weed Zone A includes large infestations of the following weed alliances: *Avena barbata* Semi-Natural Herbaceous Stands, *Brassica* and Other Mustards Semi-Natural Herbaceous Stands, *Bromus diandrus* Semi-Natural Herbaceous Stands, and small infestations of *Centaurea melitensis* Semi-Natural Herbaceous Stands. Occurrences of Bermuda grass, blessed thistle, bull thistle, California burclover, castor bean, gazania, giant reed, Himalayan blackberry, iceplant, Italian thistle, London rocket, Mexican fan palm, perennial pepperweed, Peruvian peppertree, poison hemlock, red river gum, Russian thistle, saltcedar, Spanish broom, tree tobacco, tree of heaven, tumble mustard, white horehound and yellow star thistle were also observed in Weed Zone A.

The west side at the intersection of Fraser and Moore Streets to the west side of the Sunnyslope Cemetery in Banning encompasses Weed Zone B. Only two small infestations of *Bromus diandrus* Semi-Natural Herbaceous Stands exist in Weed Zone B to the north and west of this segment. This segment also includes areas that were burned during the Summit Fire, therefore making this area susceptible to weed growth. In addition to the *Bromus* alliance, Russian thistle, Saharan mustard, saltcedar, tocalote, tree tobacco, and tree of heaven were observed in this area.

Segments 5 and 6 do not have any weed-dominated vegetation alliances, however Saharan mustard is ubiquitous throughout the desert scrub communities in this area. Crimson fountain grass, red river gum, Russian thistle, tree tobacco, and tree of heaven were also observed.. Due to the lower diversity of weeds, Segments 5 and 6 were given a separate weed zone, Zone C.

SECTION 3

IWMP Implementation

3.1 Update Weed Mapping

Although discussed in Section 2, implementation of measures to control or manage weed populations begins with determining where weed populations occur in the project area. Therefore, mapping of the weed populations in the project area must be up to date. If baseline surveys are outdated, or if the Project has been reconfigured or additional disturbance areas have been added since mapping of weed infested areas was originally completed, then new surveys may need to be conducted or new areas surveyed to identify current weed populations and potential problem areas. Weed mapping will be updated at least once a year. The weed inventory shall include all areas (both within and outside the ROW) subject to project-related vegetation removal/disturbance, "drive and crush," and ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, tower removal sites, pulling and tensioning sites, assembly yards, and any potential new or improved access and spur roads. The weed inventory shall also include vehicle and equipment access routes within the ROW and all project staging and storage yards. Weed occurrences shall be mapped and described according to density and area covered.

3.2 Preventive Measures

Two important goals of the Plan are to prevent spreading weeds into areas that are not already infested, and to prevent material from areas containing weeds to be spread to non-infested sites both on a Project site and elsewhere. To accomplish the goals, weed control efforts will be implemented during all three Project phases: 1) preconstruction, 2) during construction, and 3) post-construction/restoration. The scope of weed treatment activities associated with the three phases is described in the following subsections.

3.2.1 Preconstruction

Prior to construction, baseline surveys will be conducted to identify and record weed species along the Project ROW within 250 feet of construction areas and within 100 feet of access roads. Baseline surveys will be conducted in April and October to ensure early detection for early season and late season weeds. The results of these surveys will be used to augment data from previous years. Prior to beginning construction (within 2 weeks of initial ground-disturbance), the temporary disturbance areas plus a 200-foot buffer will be resurveyed for target weeds. During these preconstruction clearance surveys, discreet weed infestations will be flagged for avoidance or control within the temporary impacts areas plus a 200-foot buffers. These preconstruction clearance surveys will include species found in Tables 2-1 and 2-2. Should conditions in the field determine that avoidance or control is not practical, these populations will be controlled to the extent feasible.

Areas with target weed species present will be identified for management purposes. Each discrete infestation will be identified to species, documented, and mapped. All data will be collected using GPS units equipped with data files for navigation and data dictionaries for data collection.

During preconstruction, the following measures will be implemented as applicable and feasible, to prevent the spread of target weed species:

- Ground-disturbing construction equipment, such as geotechnical boring equipment, will be cleaned prior to arrival at the work site and when traveling between weed zones. Monitoring personnel, will ensure that equipment is free of soil and debris capable of transporting weed seeds, roots, or

rhizomes before the equipment is allowed use of access roads. SCE or its designated agents shall refuse entry to equipment that is not in compliance.

- Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Personal vehicles will be inspected and washed on an as-needed basis. Delivery vehicles will be exempt from this requirement.
- Tools associated with ground-disturbing activities and/or vegetation trimming/removal activities will be cleaned prior to use in areas containing natural vegetation. Chainsaws and other tools and equipment will be cleaned with compressed air, water, cloth, and/or wire brush as appropriate.

3.2.2 During Construction

A list of preventive measures to be implemented during construction is provided in the following paragraphs. In general, such measures are intended to control the spread of weeds during Project construction when soil-disturbing activities can introduce new weed seed and result in proliferation of new infestations. SCE will provide information and training to all Project personnel regarding weed management, identification, and potential impacts during the worker environmental awareness program (WEAP) training. The WEAP will include a map of the weed zones and construction management personnel will be responsible for communicating requirements of the IWMP to construction personnel. Biological monitors will be provided the IWMP. In addition to the WEAP, biological monitors will attend training prior to the start of construction.

During construction, the following measures will be implemented as applicable and feasible, to prevent the spread of target weed species:

- Ground-disturbing construction equipment will be cleaned prior to arrival at the work site and when traveling between weed zones. Monitoring personnel, will ensure that equipment is free of soil and debris capable of transporting weed seeds, roots, or rhizomes before the equipment is allowed use of access roads. SCE or its designated agents shall refuse entry to equipment that is not in compliance.
- Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Personal vehicles will be inspected and washed on an as-needed basis. Delivery vehicles will be exempt from this requirement.
- Concrete trucks are dispatched from local concrete batch plants, where they are regularly washed to remove concrete splash from the vehicle. Concrete trucks travel to the sites via public paved streets and established, non-vegetated project access roads. Like delivery vehicles, concrete trucks are rubber-tired, not involved in ground-disturbing activities, and spend relatively limited periods of time on the project sites. For concrete pouring activities, concrete trucks are typically positioned on the established project access roads or site locations cleared of vegetation and, in some cases, graded to accommodate construction (e.g., crane pads, areas that become the O&M work area). For these reasons, concrete trucks would be exempt.
- Tools associated with ground-disturbing activities and/or vegetation trimming/removal activities will be cleaned prior to use in areas containing natural vegetation. Chainsaws and other tools and equipment will be cleaned with compressed air, water, cloth, and/or wire brush as appropriate.
- After conducting work with tools involving ground-disturbing activities and/or vegetation trimming/removal activities in areas infested with weeds, tools must be cleaned before they are removed from the infested area.
- “Flag and Avoid.” New target weed infestations identified after construction commences will be flagged in the field by biological monitors and reported to construction supervisor(s). The flagging

will alert construction personnel and is intended to prevent access into areas slated for disturbance until weed control measures have been implemented.

- Straw or hay bales, straw wattles, mats, and other plant materials used for erosion control or other purposes must be obtained from certified sources that are free of weed seeds. Additional products such as gravel, mulch, and soil, may also carry weed seeds. Such products will be obtained from suppliers who can provide weed-free certified materials.
- To prevent contamination of construction supplies such as "weed-free" sediment barriers, weeds will be treated in construction yards quarterly as needed, preventing weeds from setting seed within the yards.
- On-site storage or disposal of mulch or green waste that may contain weed material will be prohibited. Mulch or green waste will be removed from project areas in a covered vehicle to prevent seed dispersal, and transported to a licensed landfill or composting facility.
- Stockpiles of gravel and soil will be kept in a weed-free state. During storage, they will be inspected for weeds on a regular basis (twice a year during the growing season). If stockpiles are found to be infested, treatment may be required, including herbicide treatment. Once treated, this material will be considered a source of weed seeds. The stockpile can be monitored in place until weeds are considered eradicated (see definition in Section 4.4). If the stockpile material must be used prior to eradication, then both the location of the stockpile, and the area where the material is deposited will be monitored for weeds and treated as necessary until eradication is achieved.
  If the stockpile material is used in a place where it is capped (e.g., under pavement or roadbase) the monitoring window for weeds may be shortened.
- If local weed-free topsoil is salvaged, it may be stored in shallow stockpiles, in weed free-locations, and over a short as time as possible, before it is used locally or in another segment of the Project. These stockpiles would be subject to inspection for weeds twice a year during the growing season.
- Disturbance to vegetation will be limited to the minimum necessary to perform the activity safely and as designed.
- Vehicles and equipment will be delivered or arrive onsite free of weed seeds, roots, or rhizomes. Equipment will be inspected by monitors or other designated personnel upon arrival on Project sites. Vehicles and equipment subject to washing requirements as described above and/or determined to require washing upon inspection, especially when traveling between weed zones, will require washing at offsite commercial car washes (see Figure 3-1) after leaving a weed zone and before entering a different weed zone. As currently planned, no onsite wash stations will be constructed. Washing will not occur at material yards or staging areas. SCE monitors and designated staff will have the authority to turn away equipment observed with weed seeds, roots, or rhizomes. Rubber tired vehicles (e.g., small cars and pickups) that are operated on paved roads and not used off-road are not subject to the washing requirements unless obvious visible mud or debris is present.

3.2.3 Post-construction

Weed control measures will be implemented during post-construction restoration where necessary in accordance with the 2008-2012 *National Invasive Species Management Plan* (NISC, 2008) regulations. Control measures may include various treatment methods. Physical removal and chemical control of weedy species will be employed as required and are described in the following subsections. Biological control methods are not prescribed under this Plan but may be considered and implemented if determined to be safe and approved by the CPUC and BLM in consultation with USFWS and CDFW. Treatment methods will be based on species-specific and area-specific conditions. Any use of herbicides

on BLM land will be consistent with BLM's *Final Programmatic Environmental Impact Statement* on *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (2007).

Post-construction weed monitoring will include the temporary and permanent impact areas. Weed control measures should generally follow the guidelines presented in Table 2-1; however, these recommendations can be adapted should local conditions in the field warrant a different treatment method. Weed control measures should be employed generally for Cal-IPC high/moderate weeds and CDFA A/B rated weeds if new discreet weed populations that were not observed prior to construction are discovered. Ubiquitous weeds that are present within the impact areas (see Table 2-1), as well as adjacent areas, will not be treated due to the infeasibility of keeping impact areas free of such weeds.

3.3 Control Methods

This section describes the manual and chemical weed control methods that will be used, as deemed necessary, on the Project. All weed control methods will minimize the extent of any disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage from herbicide use or other control methods to any environmentally sensitive areas (ESAs) identified within or adjacent to the Project ROW. The most recent version of Project maps depicting ESAs and biological constraints will be reviewed by SCE prior to implementing any physical or chemical weed control measures, to ensure that sensitive resources are avoided as necessary. In addition, a qualified biological monitor will thoroughly sweep the vicinity immediately prior to any vegetation treatments to ensure avoidance of impacts to sensitive biological resources, such as desert tortoise burrows, active bird nests and burrowing owl burrows, or special-status plants.

Weed infestations will be treated for control or eradication as soon as possible upon discovery and before they go to seed, to prevent further spread. Weed infestations will be treated at a minimum of once annually until eradication, suppression, or containment goals are met.

3.3.1 Weed Control Matrix

For the purposes of this Plan, weed control methods have been organized into two categories: physical control and chemical control. Physical control methods include manual removal using hand tools and mechanical removal using motorized tools. Chemical control methods include herbicide application. These methods are described further in the following sections and in Table 3-1. Weed control should be based on the weed species, location of weeds, and the time of year that weed control operations occur, and may include more than one treatment method. Table 3-2 describes the control methods applicable for treating specific species. Some treatment methods, such as flooding, steaming, soil solarization, and biological control, are not included because they are either not practical to implement at this scale or are not appropriate for the particular area.

Table 3-1. Post-Construction Weed Control Methods
West of Devers Upgrade Project Integrated Weed Management Plan

Control Method	Description	Appropriate Target	Key Considerations
Physical Control			
Manual Removal			
Pulling	Removing the plant from the ground by hand or using hand tools (e.g., weeder, pry bar, Weed Wrench).	Taprooted and shallow rooted plants (annuals and some perennials) unable to re-sprout from roots or other vegetative organs.	Plants need to be large enough to be grasped, and soils should be damp or loose enough to release roots. Labor intensive, may need to be repeated.

Table 3-1. Post-Construction Weed Control Methods
West of Devers Upgrade Project Integrated Weed Management Plan

Control Method	Description	Appropriate Target	Key Considerations
			Minimal disturbance.
Hoeing	Scraping seedlings at the soil line or cutting off small plants just below the ground surface.	Annual and perennial plants (seedlings and small plants) unable to re-sprout from roots or other vegetative organs.	Applicable for seedlings and small plants. Labor intensive, may need to be repeated. Moderate disturbance.
Digging	Removing a plant from the ground using trowels, spades, picks, or other tools to loosen the plant's roots from the soil. Often combined with pulling.	Taprooted and shallow rooted plants (annuals and some perennials) unable to re-sprout from roots or other vegetative organs.	Labor intensive, may need to be repeated. Moderate disturbance.
Mechanical Removal			
Trimming/Brush Cutting	Using handheld string trimmers or other motorized tools to cut off plants at the ground surface.	Plants that reproduce primarily by seed. Effective on plants less than two inches in stem diameter.	Conduct during the bolting/budding stage of target plants, before seed development. Labor intensive. Can also effect interspersed native individuals.
Chemical Control			
Herbicide Application			
Foliar Treatment	Applying herbicide to the leaves of plants using a spray bottle or backpack applicator (spot application); by wiping using a hand, trail, or vehicle mounted wick.	Low-growing annual and perennial plants, shrubs, and saplings where little non-target vegetation exists.	Apply when plants are actively growing, and after full leaf expansion. Requires complete coverage to be effective. Ineffective on plants with waxy cuticles. May require several applications. Overspray /wind drift may affect adjacent desirable plants. Spot spraying and hand wicking are labor intensive.
Basal Bark	Applying herbicide in a band encircling the base of the trunk.	Woody vines, shrubs, and trees.	Can be conducted at any time of year. Little chance of impacting adjacent desirable plants. Labor intensive.
Hack and Squirt	Cutting the bark using an axe, or similar tool, at selected points around the base of the stem/trunk. Cuts should angle downward, be less than 1 inch apart, and extend into the	Woody vines, shrubs, and trees.	Can be conducted at any time of year. Little chance of impacting adjacent desirable plants. Labor intensive.

Table 3-1. Post-Construction Weed Control Methods
West of Devers Upgrade Project Integrated Weed Management Plan

Control Method	Description	Appropriate Target	Key Considerations
	sapwood. Apply herbicide to each cut.		
Cut Stump	Painting herbicide on the stump immediately after a tree or shrub has been cut. Herbicide must be applied within 5 minutes of being cut.	Woody vines, shrubs, and trees.	Delayed treatment may reduce effectiveness. Labor intensive.

Sources: Bell & Lehman, 2005, Cal-IPC, 2006

3.3.2 Physical Control

Physical removal of weeds is employed for localized, discrete weed control. Typically, physical control methods uproot, girdle, or cut plants through manual hand-pulling or use of power tools. Several types of physical removal techniques are recommended, including the following: hand-pulling, lever arms, weed whipping, hoeing, and mowing.

Hand-pulling should be focused on discrete populations of weed species that have a single-root mass. Hand-pulling is particularly effective to remove annual species after germination and prior to seed set, when the stems are not as easily broken, so that root mass is left behind. Broken root pieces and other fragments of weedy species are able to resprout and recolonize cleared areas. Hand-pulling is less effective in large areas and with weed species that spread through an underground root system (for example, tamarisk).

The Weed Wrench and Root Jack are types of lever arm devices that secure stems. They are readily procured at plant nurseries and can be used to pull out and remove woody shrubs such as saltcedar. This effort should be focused on weed species that have a single-root mass.

Hoeing and weed whipping may be used to control herbaceous weeds in limited discrete areas before seed has set. Care must be taken not to damage adjacent native plants. Hoeing and weed whipping are most effective on small weeds with single root masses. Larger weeds are more likely to regenerate from cut roots.

- Cover all loads while removing vegetation using a tarpaulin. Caution must be taken to contain all plant stem and root fragments because they may recolonize cleared areas and can invade new areas if not disposed of properly.
- Avoid contact with established native shrub and grass species.
- Temporarily discontinue weed abatement work in the event of rainfall.
- Cut plant material will be bagged and removed to prevent resprout and seed maturation. Seed heads and plants will be removed from the site in a covered vehicle to prevent seed dispersal, and transported to a licensed landfill or composting facility.
- Soil and spoils may not be transported offsite from any project work site infested with weeds not considered ubiquitous in the region.

3.3.3 Chemical Control

Herbicide applications are widely used to control or eradicate infestations of weed species. Herbicides may be used selectively to control discrete but significant infestations where manual and mechanical control methods are deemed ineffective. Herbicide application will be conducted per the BLM's

Standard Operating Procedures (SOPs) within the *Final Environmental Impact Statement on Vegetation Treatment on BLM Lands in 17 Western States* (BLM, 2007) and the *National Invasive Species Management Plan* (NISC, 2008). Section 3.4 provides specific SOPs dictated by the BLM SOP within the *Final Environmental Impact Statement on Vegetation Treatment on BLM Lands in 17 Western States* (BLM, 2007). Prior to herbicide use, BLM requires submission and approval of a Pesticide Use Proposal (PUP). The PUP(s) must be developed by a State-licensed and registered Pesticide Control Advisor (PCA), and provided to BLM on a current approved form. The PUP(s) detail plans for herbicide use on a project, including which herbicides and associated adjuvants (e.g., surfactants, spreaders, marking dyes, etc.) will be used for treatment, location of applications, responsible parties, timeline(s) for treatment, application methods, application rates and maximum annual amounts, target species, and precautions for humans, sensitive resources, and non-target vegetation. These PUPs are then approved by BLM personnel at the local field office and State level.

A draft environmental assessment (EA) is currently being prepared and will address herbicide use for the Project, including details regarding where herbicides will be used, which herbicides will be used, and techniques that will be used to avoid drift or residual toxicity to native vegetation or special-status plants within the project area. The EA will be included as an attachment to this Plan once it is finalized and prior to the application of herbicides.

Where herbicides are applied, all treated areas must be identified and mapped to record treatment type and extent and to allow future monitors to compare or verify treatment effectiveness.

Prior to application of herbicide, contractors must demonstrate that they possess required permits from state and local authorities. All herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations and U.S. Environmental Protection Agency label instructions. Only herbicides and adjuvants approved by the State of California and BLM for use on public lands will be used within or adjacent to the project area.

3.4 Herbicide Use and Regulations

Control of some weeds may be most effectively accomplished through herbicide application. An environmental assessment will be submitted for review by the BLM for herbicide use approval. The application of these general use herbicides will be in compliance with all federal, state, and local laws and regulations. Within the CV-MSHCP Plan area, “pesticide use on non-Covered Species is an Allowable Use, but any Take of Covered Species resulting from toxicological effects of the use of pesticides pursuant to applicable requirements is not a Covered Activity.” (CV-MSHCP, Section 7.3.2.2). USFWS also does not exempt take of listed species resulting from pesticide use. The BLM’s Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (2007) and the National Invasive Species Management Plan (NISC, 2008) documents will be used as guidance for herbicide use methods.

Most chemical weed treatment would take place with glyphosate-based herbicides. Glyphosate is a polar compound that works to kill target plant material by disrupting a plant enzyme, which is not present in humans or animals. This nonselective herbicide provides effective control of many species, including grasses, forbs, vines, shrubs, and trees.

The following four other herbicides would be used in a limited fashion for control of weeds in specific cases, as follows:

- Chlorsulfuron has a specific mode of action: the inhibition of the amino acid acetolactate synthase. This herbicide is broad-leaved selective and has little effect on grasses and other monocots.
- Clopyralid is an auxin-mimicking herbicide that stimulates rapid cell elongation, which destroys cell walls by rupturing them. It is a selective post-emergent herbicide that is often used to control members of the sunflower family (for example, thistles).

- Imazapyr works by inhibiting the synthesis of branched-chain amino acids. Imazapyr is generally used for the control of terrestrial annual and perennial grasses and woody species. It also has limited activity on some broad-leaved herbs. Triclopyr is a selective systemic herbicide used to control woody and herbaceous broad-leaf plants, but does not harm monocots (grasses).
- Triclopyr works by mimicking the plant hormone auxin, causing uncontrollable growth in targeted weeds. It is typically used to control annual and perennial broadleaf plants, particularly woody species (i.e., shrubs and trees).

Each herbicide proposed for use is registered with the U.S. Environmental Protection Agency (EPA) for weed control.

Herbicide treatment would be implemented by a Licensed Qualified Applicator. Weed treatment crews would be familiar with the detailed requirements for weed control as specified in the WOD IWMP (CH2M, 2017). All herbicide applications would follow EPA label instructions and be in accordance with federal, state, and local laws and regulations. Herbicides would be applied using backpack sprayers to treat weed species. A backpack sprayer is typically a 5-gallon backpack worn by the applicator and used for spot application of herbicides to allow for an accurate application process. This method would be used to target individual weed occurrences, or to apply herbicide to small or scattered weed populations. Truck-mounted spray rigs would not be used.

3.4.1 Herbicide Use Guidelines

Only approved herbicides will be used as needed to control weed infestations. SCE will implement the following environmental protection measures to minimize the adverse impacts to biological resources:

- Herbicide treatments would be conducted under the direction of a Licensed Qualified Applicator to minimize both environmental and personal risk. The applicator should be familiar with all safety and environmental regulations, as well as be able to identify target plant species.
- A biological monitor would be used to minimize impact to sensitive resources such as special-status plant species and jurisdictional waters. The biological monitor will flag avoidance areas ahead of personnel applying herbicide.
- Only aquatic approved herbicide and associated adjuvants will be used in riparian areas or within channels where they could run off into downstream areas. The biological monitor also determines when to choose manual treatment methods (such as hand pulling) in areas with abundant sensitive native vegetation.
- Use drift reduction agents, as appropriate, to reduce the drift hazard to non-target species.
- SCE would obtain all necessary CWA approvals prior to herbicide applications in dry jurisdictional desert washes.
- Use spot applications where possible to limit the probability of contaminating non-target food and water sources, especially non-target vegetation over areas larger than the treatment area.
- Use timing restrictions (for example, do not treat during critical wildlife breeding or staging periods) to minimize impacts to wildlife.
- In desert tortoise habitat, conduct herbicide treatments during the period when desert tortoises are less active, generally from November 1 through February 15.
- Avoid desert tortoise burrows during herbicide treatments.
- A biological monitor will conduct pre-treatment surveys for sensitive habitat and special status species within or adjacent to proposed treatment areas.

- Crews that conduct invasive plant treatment will have experience working on sensitive habitats and species. Crews would be trained in the identification of non-native and native species. Methods of chemical treatment utilize spot application of herbicide on individual plants. This approach avoids broad chemical application to avoid any non-target species. These activities would be supervised by a qualified biologist or experienced monitor.
- High winds or precipitation events occurring during application of herbicide could result in drift or runoff and chemical contact with non-target vegetation. Herbicide applications would be suspended if any of the following conditions occur:
  - Sustained wind in excess of 6 miles per hour
  - Precipitation is occurring or predicted within 72 hours
  - Any other weather requirements as stated on the label
- Crews would use spray bottles with water to immediately douse non-target vegetation or immediately clip/remove the affected leaves in the case of drift or mistaken chemical application. Systemic absorption of herbicide typically takes a few hours depending on the properties of the chemical and the plants being treated, thus an application of water only would dilute the herbicide and minimize the damage from accidental non-target application. Immediate removal of the affected plant material would prevent herbicide from moving into other non-affected parts of the plant, thus preventing accidental mortality.

3.4.2 Herbicide Use Documentation

Herbicide treatment of weeds shall be tracked in the Weed Control Herbicide Tracking Table (Appendix A). The purpose of the table is to track the amount and efficacy of herbicide applied in each treatment area. As such, an entry shall be made for each treatment area. For each entry, the date of treatment, amount and type of chemical applied, target species and estimated number of individuals treated, weather conditions, number of applicators, method of application and other vital information shall be provided. There shall be a minimum of one entry for each day herbicide is applied, although multiple entries for a single day may be provided if herbicide is applied at multiple sites or multiple target species. Documentation of herbicide use is the responsibility of the Contractor and shall be submitted to SCE on a monthly basis. The tracking table may be used to support the annual reporting requirements.

SCE will prepare a Pesticide Application Record (PAR) for each use of herbicide on BLM land, on CV-MSHCP Conservation Area land, or WR-MSHCP Additional Reserve Lands (ARL) and Public Quasi Public (PQP) land within 24 hours of application. PARs will be submitted to the BLM, RCA, and CVCC annually. The occurrence of weeds within the Project footprint will be reported to the BLM district office, RCA, and CVCC. The appropriate weed control procedures, including target species, timing of control, and method of control, will be determined in consultation with BLM, RCA, and CVCC personnel. The restoration contractor will be responsible for providing the necessary trained personnel or hiring a contractor to implement the required weed control procedures. The PARs will be completed by the Licensed Qualified Applicator, and the construction contractor will submit the document to SCE for review and approval.

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
Ailanthus altissima	tree-of-heaven	Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as	Pulling, Cut Stump: Pull small saplings; cut stems of mature trees as low to the ground as possible early in the Spring and a second time at the end

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
		required. May provide important habitat feature. Consult with biologist prior to removal.	of the growing season around June or July. Apply herbicide on the stump immediately after cutting.
Arundo donax	giant reed	Suppression. Monitor for occurrence, and control during fall months. If not considered ubiquitous in the region, soil and spoils may not be transported offsite from any project work site infested with this species.	Pulling, Digging, Foliar Treatment, Cut Stump: Pull or dig plants after heavy rains loosen the soil; cut the stems and dig up the roots using hand tools or heavy equipment (only works on seedling/sapling sprouts in isolated conditions); apply herbicide (foliar spray) after the plant has flowered but before summer dormancy; cut and treat the cut stems with herbicide.
Avena barbata	slender oat	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Brassica tournefortii	Saharan mustard	Suppression. Monitor for occurrence December – April prior to seed set. Eradicate localized populations if feasible.	Pulling: Non-ubiquitous: pull out entire plant and root before seed is set and bag for proper disposal. Prevention Only: Ubiquitous: Control infeasible; prevention is optimal control method
Bromus diandrus	ripgut grass	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Bromus hordeaceus	soft chess	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Bromus madritensis ssp. rubens	red brome	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Bromus tectorum	cheatgrass	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Cardaria draba	whitetop	Eradication/Suppression. Monitor for occurrence between February and August and treat for eradication/suppression as required.	Foliar Treatment: Control with repeated applications of foliar herbicides during the flowering stage.
Carduus pycnocephalus	Italian thistle	Containment. Treat known occurrences so that sizes do not increase. Monitor for occurrence and eradicate new populations if found.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and dig out roots. Bag for proper disposal. For stands, spray with post-emergent herbicide in the spring during the early bloom phase.
Carpobrotus chilensis	iceplant	Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required..	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root and bag for proper disposal. For stands, spray with post-emergent herbicide. Remove and bag for disposal after senescence.
Centaurea melitensis	tocalote	Suppression. Monitor for occurrence between February and April and treat as feasible.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root and bag for proper disposal. For stands, spray with post-emergent herbicide. Remove and bag for disposal after senescence.

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
Centaurea solstitialis	yellow star thistle	Eradication. Monitor for occurrence between February and August and eradicate if found.	Pulling, Foliar Treatment: Pulling is the preferred method of control for this species. Pull out entire plant and root after bolting and prior to early flowering, and bag for proper disposal. For foliar treatment, use a post-emergent herbicide during the seedling stage and prior to bolting.
Cirsium vulgare	bull thistle	Eradication/Suppression. Monitor for occurrence between March and August and treat as required.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root prior to flowering and bag for proper disposal. For stands, apply herbicide during the bolting phase or at the onset of flowering.
Conium maculatum	poison hemlock	Eradication/Suppression. Monitor between February and August and treat as feasible.	Pulling, Trimming, Foliar Treatment: For select occurrences, pull out entire plant and root prior to flowering and bag for proper disposal. Mowing or slashing of the plants prior to flowering is also effective. For stands, spray with post-emergent herbicide in late spring.
Cynodon dactylon	Bermuda grass	Eradication/Suppression. Monitor year-round and treat as required.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root and bag for proper disposal. For stands, spray with post-emergent, systemic, selective (monocot) herbicide. After senescence, remove plants and bag for disposal.
Erodium cicutarium	redstem filaree	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Eucalyptus camaldulensis	river red gum	Suppression, Containment. Monitor for occurrence. May provide important habitat feature. Consult with biologist prior to removal. Remove occurrences without habitat value. Remove new saplings.	Pulling, Digging, Cut Stump: Pull/dig out seedlings and young trees. Cut mature trees and treat stump with herbicide.
Foeniculum vulgare	sweet fennel	Eradication/Suppression. Monitor between February and August and treat as required.	Pulling, Trimming, Foliar Treatment: For select occurrences, pull entire plant and root by hand or with weed wrench and bag for proper disposal. For stands, cut as low to the ground as possible and spray with post-emergent herbicide.
Gazania linearis	gazania	Eradication/Suppression. Monitor year-round and treat as required.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root prior to flowering and bag for proper disposal. For stands, apply post-emergent herbicide.
Hirschfeldia incana	Mediterranean mustard	Suppression. Monitor for occurrence and treat in areas where habitat value is impacted.	Pulling, Foliar Treatment: For select occurrences, pull entire plant and root before seed pods develop and bag for proper disposal. For stands, apply post-emergent herbicide to leaves before flowering.

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
Hordeum murinum	Mediterranean barley	Suppression. Monitor for occurrence and treat in areas where habitat value is impacted.	Pulling, Foliar Treatment: For select occurrences, pull entire plant and root before flowering and bag for proper disposal. For stands, spray with post-emergent herbicide.
Hypochaeris glabra	smooth cat's-ear	Suppression. Monitor for occurrence and treat in areas where habitat value is impacted.	Pulling, Foliar Treatment: For select occurrences, pull entire plant and root before and bag for proper disposal. For stands, spray with post-emergent herbicide.
Lepidium latifolium	perennial pepper weed	Eradication. Monitor between March and July for occurrence and treat as required.	Mechanical, Foliar, Cut Stump: Herbicide treatment is the preferred method for this species because it easily resprouts from roots. Foliar can be used on young plants. Use cut stump on large or mature stands. Broad-leaf specific herbicides are more successful. Mechanical removal may be used in small, isolated population by ensuring that all plant material, especially roots, are dug up and removed.
Marrubium vulgare	white horehound	Eradication/Suppression. Monitor for occurrence between February and July and treat as required.	Pulling, Hoeing, Foliar Treatment: For select occurrences, hand pull or hand hoe entire plant and root before seed set and bag for proper disposal. For stands, spray with post-emergent herbicide when plant is actively growing.
Medicago polymorpha	California burclover	Suppression. Monitor for occurrence and treat in areas where habitat value is impacted.	Pulling, Foliar Treatment: For select occurrences, pull entire plant and root before and bag for proper disposal. For stands, spray with either pre-emergent or post-emergent herbicide.
Nicotiana glauca	tree tobacco	Suppression, Containment. Monitor for occurrence and treat in areas where habitat value is impacted. Eradicate new small populations.	Pulling, Digging, Cut Stump: For seedling/smaller trees, pull, dig, or weed wrench by hand and bag for proper disposal. For larger trees, cut stems close to the ground surface and apply herbicide to cut stems.
Pennisetum setaceum	South African fountain grass	Eradication/Suppression. Monitor for occurrence year-round and treat as required.	Digging, Foliar Treatment: For select occurrences, cut close to the ground and dig up tufts using hand tools or heavy equipment and bag for proper disposal. For stands; spray with foliar herbicide.
Polypogon monspeliensis	annual beardgrass	Eradication/Suppression. Monitor for occurrence between Marchand June and treat as required.	Pulling, Digging, Foliar Treatment: For select occurrences, pull/dig up entire plant and root when soils are moist/loose. For stands, spray with post-emergent herbicide.
Raphanus sativus	wild radish	Eradication/Suppression. Monitor for occurrence between January and June and treat as required.	Pulling, Foliar Treatment: For select occurrences, pull up entire plant and root prior to flowering and bag for proper disposal. For stands, spray with post-emergent herbicide.

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
Ricinus communis	castor bean	Eradication/Suppression. Monitor for occurrence year-round and eradicate if found.	Pulling, Digging, Cut Stump: For select occurrences, pull or dig up entire plant and root when soils are moist/loose and bag for proper disposal. For stands, cut near the crown and treat cut stems with foliar herbicide.
Rubus armeniacus	Himalayan blackberry	Eradication/Suppression. Monitor between January and July for occurrence and treat as required.	Digging, Cut Stump: For select occurrences, cut stems close to the ground just after commencement of flowering, and dig up rootball. For stands, cut stems close to the ground surface and apply herbicide to cut stems.
Salsola tragus	Russian thistle	Suppression. Monitor for occurrence, especially at sites with regular water, and treat where feasible. If not considered ubiquitous in the region, soil and spoils may not be transported offsite from any project work site infested with this species.	Pulling, Digging, Foliar Treatment: For select occurrences, pull out entire plant and root and bag for proper disposal. For monotypic stands, apply herbicide while plant is in its early growth stages, preferably the early seedling stage.
Schinus molle	Peruvian peppertree	Suppression, Containment. Monitor for occurrence and eradicate if found. May provide important habitat feature. Consult with biologist prior to removal. Remove new small saplings.	Pulling, Digging, Cut Stump: For small saplings, pull/dig up entire plant and root and bag for proper disposal. For larger trees, cut as low to the ground as possible and apply herbicide to cut stumps.
Schinus terebinthifolius	Brazilian peppertree	Suppression, Containment. Monitor for occurrence and eradicate if found. May provide important habitat feature. Consult with biologist prior to removal. Remove new small saplings.	Pulling, Digging, Cut Stump: For small saplings, pull/dig up entire plant and root and bag for proper disposal. For larger trees, cut as low to the ground as possible and apply herbicide to cut stumps.
Sisymbrium irio	London rocket	Eradication/Suppression. Monitor for occurrence between November and May and treat as required.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root prior to seed set and bag for proper disposal. For monotypic stands, spray with post-emergent herbicide and remove plants after senescence.
Spartium junceum	Spanish broom	Eradication/Suppression. Monitor for occurrence between March and September and treat as required.	Pulling, Cut Stump: For seedlings, pull out entire plant and root when soils are moist/loose and bag for proper disposal. For larger plants, cut stems close to the ground, and weed wrench rootball. For stands, cut stems to 1-foot above ground surface and apply herbicide to cut stems.
Tamarix ramosissima	saltcedar[a]	Eradication/Suppression. Monitor for occurrence between August and February and treat as required. May provide important habitat feature. Consult with biologist prior to removal.	Pulling, Cut Stump: For saplings, pull out entire plant and root. For mature trees, cut and apply herbicide to cut stem and spray new shoots.

Table 3-2. Control Methods for Weeds Identified in the Weed Treatment Area
West of Devers Upgrade Project Integrated Weed Management Plan

Scientific Name	Common Name	Control/Avoidance Strategy	Control Methods
Trifolium hirtum	rose clover	Suppression. Monitor for occurrence and treat in areas where habitat value is impacted.	Pulling, Foliar Treatment: For select occurrences, pull out entire plant and root prior to seed set and bag for proper disposal. For stands, spray with herbicide.
Verbascum thapsus	common mullein	Eradication/Suppression. Monitor for occurrence between March and July and treat as required.	Pulling, Digging, Cut Stump: Pull /dig up plants as low to the ground as possible and apply herbicide to cut stumps.
Vulpia myuros	rattail fescue	Prevention	Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method
Washingtonia robusta	Mexican fan palm	Suppression, Containment. May provide valuable habitat for roosting bats and nesting birds. Consult with biologist prior to removal. Remove new small saplings.	Pulling, Digging, Cut Stump: For saplings, pull/ dig up entire plant and root and bag for proper disposal. For larger trees, cut as low to the ground as possible and apply herbicide to cut stumps.

SECTION 4

Monitoring and Documentation

The following section provides a description of monitoring methods, schedule, success criteria, and reporting requirements.

4.1 Monitoring Schedule

SCE will conduct monitoring of non- ubiquitous weed infestations and effectiveness of controls twice per year in conjunction with biological monitoring of construction activities and post-construction monitoring of restoration areas. Monitoring will begin 1 year after pre-construction treatment of weeds has begun, and will continue for a period of no less than 3 consecutive years or normal rainfall or 5 consecutive years regardless of rainfall following completion of Project construction, and until success criteria are met or as agreed upon between SCE and the BLM, CPUC, USFWS, and CDFW.

4.2 Monitoring Methods

Monitoring activities will be conducted by qualified biologists or ecologists. The minimum qualifications for biologists/ecologists conducting weed monitoring will include: 1) a 4-year baccalaureate degree in botany or a related biological discipline from an accredited post-secondary educational institution or equivalent experience; 2) training in plant identification, plant ecology, and surveying techniques; and 3) experience locating local weed species.

4.2.1 Construction Phase Monitoring

Monitoring will be conducted at all sites temporarily or permanently impacted by construction activities (e.g., structure work areas, wire sites, shoo-flys, stub roads, etc.). Additional monitoring and reporting will be conducted as part of the daily preconstruction sweep. Monitoring will consist of a qualitative evaluation of treatment success and will focus on identifying the location, extent, and species composition of any new or repeated infestations, the success of control efforts, and the need for treatment. Visual surveys will be performed by walking over the entire acreage of disturbance areas. Visual surveys will be performed while driving and by stopping at intervals to view all affected or treated areas and access roads (excluding all state highways) used by the Project. All areas that were treated during preconstruction weed control efforts will be monitored by walking each site. Occurrences of new discreet infestations of target weed species will be documented, mapped by GPS, and identified on an aerial photograph or other base map. Observers, such as qualified biologists or ecologists and biological monitors/surveyors will immediately notify SCE of any new weed discoveries so that treatment can be scheduled as soon as possible. Photographs will be taken when appropriate. Annual monitoring reports will be prepared by the biological monitoring firm, contractor, or Restoration Contractor and submitted to SCE, CPUC, and BLM, as described in the following section.

4.2.2 Post-construction/Restoration Phase Monitoring

Post-construction monitoring of all disturbed areas will be required for previously controlled weeds, new weeds, and new invaders within the footprint of temporary and permanent disturbance. Surveys will be conducted in April and October to ensure early detection for early season and late season weeds. No monitoring is required outside of the Project's disturbance footprint, and no monitoring of ubiquitous weeds will be conducted. During these surveys, discreet weed infestations will be flagged for control within the disturbance areas. Post-construction monitoring will occur for no less than 3 consecutive years of normal rainfall, or 5 years regardless of rainfall, and until success criteria are met or as agreed upon between SCE and the BLM, CPUC, USFWS, and CDFW.

4.3 Success Criteria

Weed infestations will be treated at a minimum of once annually until eradication, suppression, or containment goals are met.

4.3.1 Success Criteria for Eradication

For eradication, when no new seedlings or resprouts are observed for 3 consecutive, normal rainfall years, or for 5 consecutive years, the weed occurrence can be considered eradicated and weed control efforts may cease for the site.

4.3.2 Success Criteria for Suppression

In compliance with the success criteria in the Project HRRP, a target weed species within Project disturbance areas will be considered suppressed when:

1. In Agriculture, Develop/Disturbed, Grassland/Forbland (not suitable SKR habitat and less than 10 percent of relative cover of native perennial grass species), and sites subject to offsite compensation: target weed species cover is at or below that observed in adjacent areas.
2. In Grassland/Forbland (suitable SKR habitat or 10 percent or greater relative cover of native perennial grass species), Alluvial Scrub, Coast Live Oak Woodland, Coastal Sage Scrub, Chaparral, Desert Scrub, and Riparian Woodland: target weed species cover does not exceed pre-project levels.

With woody weed species (i.e., trees), when the population has been reduced to include only the individuals designated as habitat features by the biologist for 3 consecutive years in a segment, the woody weed species can be considered suppressed, and weed control efforts may cease for that species in that segment.

Table 4-1 presents the success criteria for restoration/revegetation of temporary disturbance areas within the monitoring period. An explanation of the success criteria follows Table 4-2.

Table 4-1. Success Criteria for Restored/Revegetated Project Temporary Disturbance Areas
WOD Integrated Weed Management Plan

Vegetation Type[b]	Success Criteria[a]			
	Native Vegetation	Absolute Native Plant Cover	Native Shrub/ Tree Density	Maintenance
Agriculture	Minimize weed invasion through implementation of the methods and success criteria in the IWMP, and control dust generation and soil erosion according to the standards in the project SWPPP.			
Developed/Disturbed				
Grassland/Forbland (not suitable SKR habitat and less than 10 percent of relative cover of native perennial grass species)				
Temporary disturbance areas that cannot be effectively revegetated				
Grassland/Forbland (suitable SKR habitat or 10 percent or greater relative cover of native perennial grass species)	80 percent of vegetation cover shall be native species that occur naturally in local native habitats. Criteria will be adjusted to account for pre-disturbance non-native grass cover.	60 percent of pre-disturbance or reference vegetation.	60 percent of pre-disturbance or reference vegetation.	The site shall have persisted successfully without irrigation or remedial planting for a minimum of 2 years prior to completion of monitoring.
Alluvial Scrub	80 percent of vegetation cover or equivalent to pre-disturbance or reference cover, whichever is greater, shall be native species that occur naturally in local native habitats.			
Coast Live Oak Woodland				
Coastal Sage Scrub				
Chaparral				
Desert Scrub				
Riparian Woodland				

[a] MM VEG-1d, Part B

[b] Impacts to habitats subject to Clean Water Act Sections 404 and 401 permitting and/or permitting pursuant to California Fish and Game Code Section 1602 will be addressed in the project Habitat Mitigation and Monitoring Plan (HMMP). For areas subject to both the HRRP and HMMP, the stricter requirements and success criteria will be applied.

The intent of the success criteria is to (1) prevent the sites from becoming overrun by invasive non-natives, and (2) set meaningful and feasible criteria for replacement of native plant species (and the associated habitat values). Both criteria are based on aerial cover estimates where the sum of native plant cover, non-native plant cover, and bare ground is 100 percent (However, it should be noted that some vegetation sampling methods can produce total cover values greater than 100 percent).

The first criterion refers to relative amounts of native and non-native cover within a given revegetation area. The criterion requires that native species make up the majority (80 percent) of vegetation cover, while recognizing the fact that non-native species will invade the site and will realistically comprise a portion (limited to 20 percent or less) of the total cover. This criterion compares native and non-native cover within a site but it does not compare a revegetation site to reference sites or pre-disturbance condition. However, it allows for adjustment in grassland/forbland, where the pre-disturbance condition is dominated by non-native species.

For example, if a 10,000 square foot revegetation site has total (i.e., absolute) vegetation cover of 60 percent (i.e., 6,000 square feet of the site covered by plants), comprising 4,800 square feet of native plants and 1,200 square feet of non-native plants, this criterion would be met.

The second criterion refers to absolute native plant cover and density within the site as compared to reference sites or pre-disturbance conditions. It requires that native plant cover in revegetation sites reach 60 percent of the pre-disturbance or reference native plant cover, and that the density (i.e., number per acre) of native shrubs and trees reach 60 percent. This criterion requires that revegetated sites provide meaningful native habitat values and native species cover (compared to the reference or pre-disturbance condition), while recognizing that more stringent requirements (e.g., 80 percent or higher) may not be feasible.

For example, if the pre-disturbance or reference condition is 80 percent native plant cover, with the remaining 20 percent comprised of non-natives or bare ground, the example above would apply. The revegetation site must achieve 60 percent of 80 percent (i.e., 48 percent) cover of native plants. Using the example above, a 10,000 square foot revegetation site should have 4,800 square feet covered by native plants. Additionally, if the reference site supports 1,000 native shrubs per acre, then the revegetation site must support 60 percent of that density (i.e., 600 native shrubs/acre). The site may also include some cover of non-native plants, per the first criterion, but the non-natives do not count toward the native plant cover and must not exceed 1,200 square feet of the site.

Together the two criteria ensure that revegetation is deemed successful when sites have (1) at least 60 percent native species cover and density compared to pre-disturbance or reference vegetation, and (2) no more than 20 percent relative cover of non-native plants within the site.

Table 4-2 includes example scenarios of the success criteria calculations.

Table 4-2. Success Criteria Scenarios

WOD Integrated Weed Management Plan

Reference Site Absolute Native Cover	**Revegetation site absolute cover**		
	Required Minimum Native Cover (60% x Reference Native Cover)	**Maximum Non-Native Cover[a]**	**Total Absolute Cover[b]**
100%	60%	15%	75%
90%	54%	13.5%	67.5%
80%	48%	12%	60%
70%	42%	10.5%	52.5%
60%	36%	9%	45%
50%	30%	7.5%	37.5%
40%	24%	6%	30%
30%	18%	4.5%	22.5%
20%	12%	3%	15%
10%	6%	1.5%	7.5%

[a] Assumes minimum required native cover from column 2

[b] Assumes minimum native cover + 20% max non-native relative cover. For all rows, the ratio of native to non-native cover is 80:20

4.3.3 Success Criteria for Containment

For containment, with herbaceous weed species, when the number of occurrences and number of acres occupied has been limited to baseline locations and levels, for 3 consecutive years in a segment, the herbaceous species can be considered contained, and weed control efforts may cease for that species in that segment. With woody weed species, when the population has been reduced to include only pre-existing individuals (no new saplings from baseline levels), for 3 consecutive years in a segment, the woody weed species can be considered contained, and weed control efforts may cease for that species in that segment.

4.4 Reporting

Areas containing or being treated for weed infestations will be identified, mapped and referenced in annual reports. Restoration areas that are anticipated to require remediation activities to control new or repeated infestations of weeds will be identified. General recommendations and lessons learned will be provided. Progress toward weed control objectives on BLM land, WRIV reserve or PQP land, or on CVCC Conservation Area land will be reported annually after each late winter/early spring monitoring event. Monitoring reports will be submitted to CPUC, and BLM, RCA, and CVCC by the end of each calendar year following construction for the duration of the monitoring effort. Annual monitoring reports describing weed infestations and control efforts implemented, and their effectiveness, will be submitted annually to the CPUC and BLM and made available to the RCA, CVCC, and Wildlife Agencies upon request.

Annual monitoring reports will specifically document the following information as relevant during the reporting period:

- An executive summary discussing the monitoring results and a summary regarding the progress toward meeting the weed control objectives
- Maps identifying treatment areas
- A qualitative analysis and photo documentation for treatment areas
- Description of supplemental or remedial/corrective actions (for example, additional weeding or herbicide application)
- Pesticide Use Plan and PAR data sheets as an appendix

SECTION 5

References

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.). 2012. *The Jepson Manual: Vascular Plants of California.* Second Edition. University of California Press, Berkeley.

Bell, Carl and Dean Lehman (Bell and Lehman). 2005. *Best Management Practices for Vegetation Management*. Ellen Mackey, editor. Los Angeles County Weed Management Area. Los Angeles, California. http://acwm.co.la.ca.us/scripts/wma_2.htm.

Bureau of Land Management (BLM). 2007. *Final Programmatic Environmental Impact Statement on Vegetation Treatments using Herbicides on Bureau of Land Management Lands in 17 Western States*. Washington, D.C. http://www.blm.gov/wo/st/en/prog/more/veg_eis.html.

Bureau of Land Management (BLM). 2016. *Final Environmental Impact Statement*. West of Devers Upgrade Project. http://www.blm.gov/ca/st/en/fo/palmsprings/transmission/WestOfDeversProject.html.

California Department of Food and Agriculture (CDFA). 2010. Section 4500 *List of Noxious Weeds*. http://www.cdfa.ca.gov/phpps/ipc/noxweedinfo/noxweedinfo_hp.htm.

The California Invasive Plant Council (Cal-IPC). 2006. *California Invasive Plant Inventory.* Cal-IPC Publication 2006-02. California Invasive Plant Council, Berkeley, CA. http://www.cal-ipc.org/ip/inventory/pdf/Inventory2006.pdf.

California Public Utilities Commission (CPUC). 2015. FINAL Environmental Impact Report. Southern California Edison's West of Devers Upgrade Project**.** SCH #201405104. December 2015. FEIR: http://www.cpuc.ca.gov/environment/info/aspen/westofdevers/toc-feir.htm.

California Public Utilities Commission (CPUC). 2016a. Addendum to Final Environmental Impact Report. Southern California Edison's West of Devers Upgrade Project. SCH #2014051041. April 2016. http://www.cpuc.ca.gov/environment/info/aspen/westofdevers/feir_addendum.pdf.

California Public Utilities Commission (CPUC). 2016b. Decision Granting Certificate of Public Convenience and Necessity for the West of Devers Upgrade Project and Related Matter. August. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M166/K441/166441910.pdf.

CH2M HILL Engineers, Inc. 2015. *May 2015 Land Cover Mapping and Noxious Weeds Survey Results – West of Devers Upgrade Project*. June.

County of Riverside. 2003. *Riverside County General Plan*. http://planning.rctlma.org/ZoningInformation/GeneralPlan/RiversideCountyGeneralPlan2003.aspx.

County of San Bernardino. 2007. *County of San Bernardino 2007 General Plan*. http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf.

Garcia and Associates (GANDA). 2018. *Fall 2017 West of Devers Upgrade Project Weed Mapping*. Memo Report prepared January 23 for CH2M.

LSA Associates, Inc. 2013. *Proponent's Environmental Assessment. West of Devers Upgrade Project*. http://www.cpuc.ca.gov/environment/info/aspen/westofdevers/toc-pea.htm.

National Invasive Species Council (NISC). 2008. 2008-2012 *National Invasive Species Management Plan*. August. https://www.invasivespeciesinfo.gov/council/mp2008.pdf.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society Press.

U.S. Fish and Wildlife Service (USFWS). 2016. *Formal and Informal Section 7 Consultation on the West of Devers Upgrade Project, San Bernardino County and Riverside County, California* (Biological Opinion). FWS-SB-RIV-14B0011-16F0668. December 23.

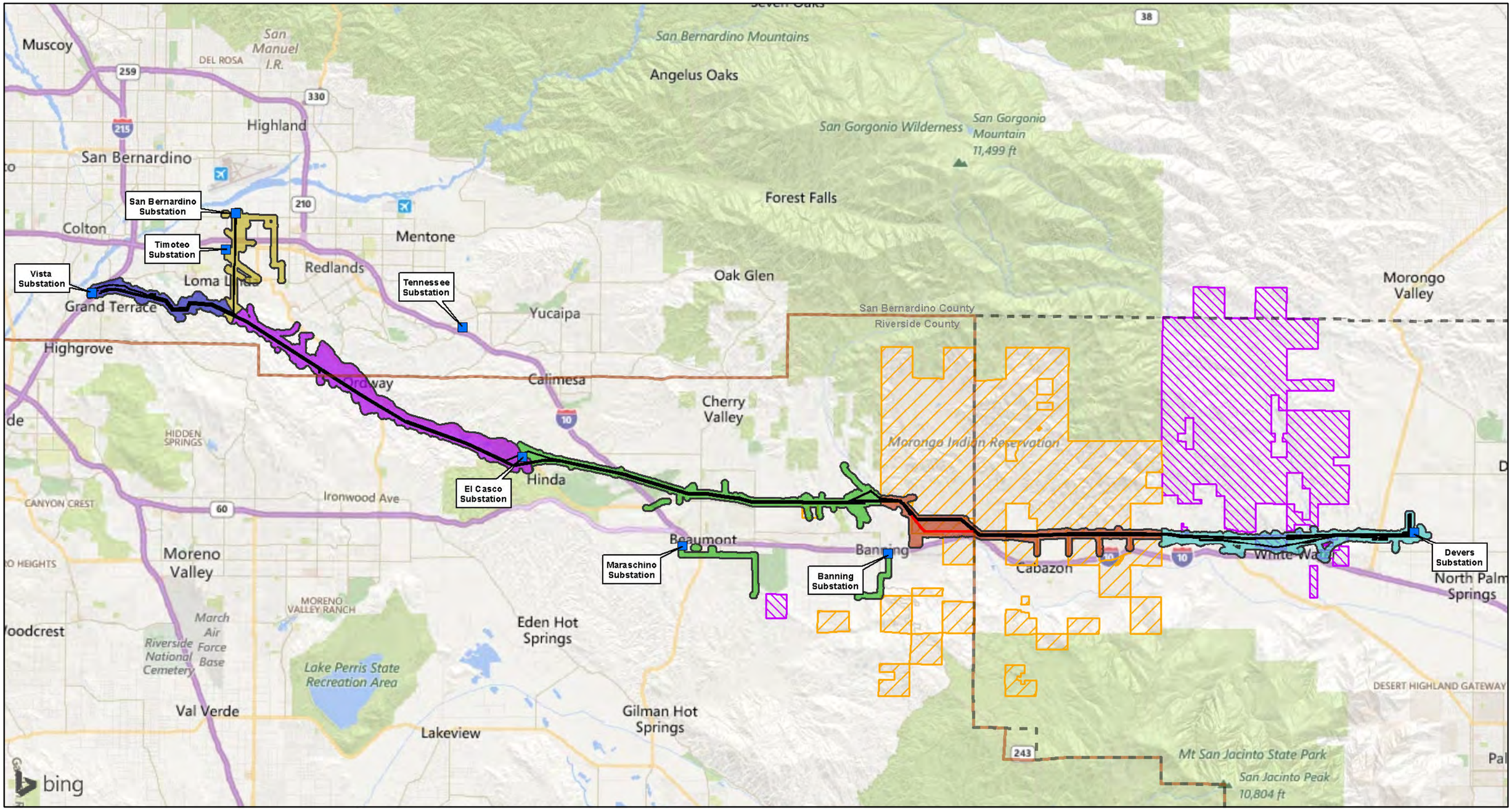
SECTION 6

Revisions

Revisions made to standard text (black ink) should be noted below to document changes in requirements or SCE's approach to this IWMP.

Date	Description of Revision	Contact
01/30/2018	Updated to include 2017 weed survey data and clarification of success criteria as coordinated with Aspen.	Susan Dewar, GANDA Matt Kelahan, CH2M

Figures



SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL™ Company

LEGEND

- Project Study Area
- Existing Transmission Line Right of Way
- Proposed Right of Way
- Substation
- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- U.S. Bureau of Land Management
- Morongo Reservation
- Western Riverside County MSHCP
- Coachella Valley MSHCP

0 1 2 3
Miles

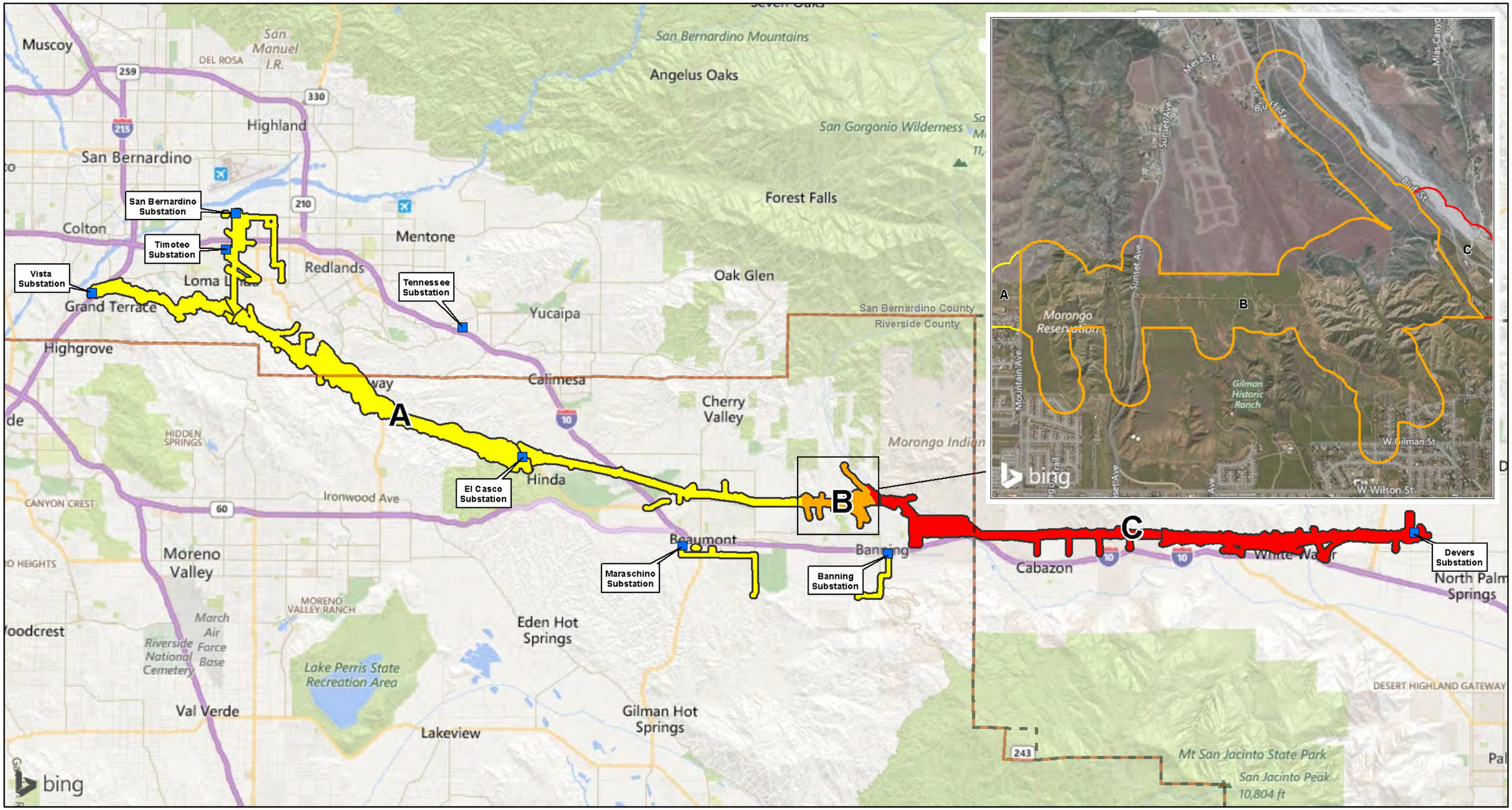
Source: SCE, Bing Maps

FIGURE 1-1

Southern California Edison
West of Devers Upgrade Project
Project Overview and Study Area

\\galt\proj\SoCalEDISON\493461\MapFiles\Plans\Weeds\WeedPlan_Figures_2016-07-07\Fig1-1_WOD_TransLineRoute.mxd (4/11/2017)

ch2m:



SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL™ Company

LEGEND

- Project Study Area
- Western Riverside County MSHCP
- Coachella Valley MSHCP
- Substation

Weed Zone

- A
- B
- C

0 1 2 3
Miles

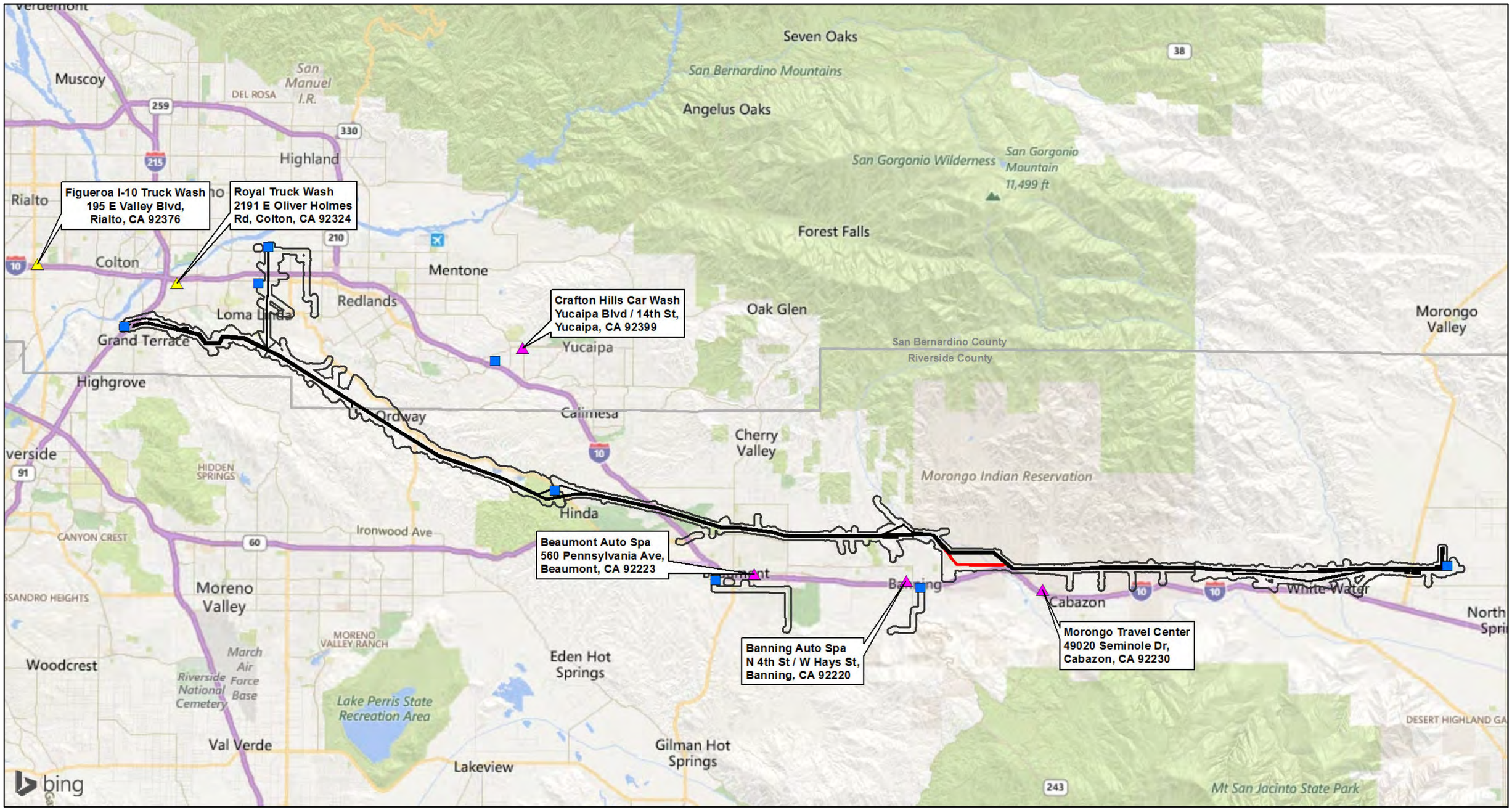
Source: SCE, Bing Maps

FIGURE 2-1

Southern California Edison
West of Devers Upgrade Project
Weed Zone Delineation

\\galt\proj\SoCalEDISON\493461\MapFiles\Plans\Weeds\WeedPlan_Figures_2016-07-07\Fig2-1_WeedZones_Overview.mxd (1/6/2017)

ch2m:



SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

LEGEND

- Project Area
- Existing Transmission Line Right of Way
- Proposed Right of Way
- Substation
- Commercial Car Wash Location
- Truck Wash Location

0 1.5 3
Miles

Source: SCE, Bing Maps

FIGURE 3-1

Southern California Edison
West of Devers Upgrade Project
Project Overview and Study Area
Integrated Weed Management Plan
Truck Wash Locations

\\galt\proj\SoCalEDISON\493461\MapFiles\Plans\Truck_Wash_Locations_2017-04-04\Fig3-1_WOD_TruckWash_Overview_2017-04-17.mxd (4/19/2017)

ch2m

Appendix A
Example Weed Control Herbicide Tracking Table

Appendix A. Example Weed Control Herbicide Tracking Table

Date:

Weather:

Names of Applicator(s):

Treatment Location	Herbicide Used	Amount of Herbicide Applied	Method of Herbicide Application	Target Species	Approx. # of Individuals treated
1.					
Notes:					
2.					
Notes:					
3.					
Notes:					

Page ____ of ___