

DRAFT

TLRR: Control-Silver Peak Project

Attachment H.15 Invasive Plant Management Plan

Prepared for
Southern California Edison

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Applicable Agencies

Bureau of Land Management
United States Forest Service
California Public Utilities Commission

Applies to the following Project Work Packages:

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Substations
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Applicant Proposed Measures and/or Conservation and Management Actions Addressed:

APM WEAP
APM BIO-GEN-1 Pre-construction Biological Clearance Surveys and Monitoring
APM BIO-RES-1 Develop and Implement Habitat Restoration Plan
APM BIO-RES-2 Invasive Plant Management Plan

Invasive Plant Management Plan Checklist

Applicable Agencies

- California Public Utilities Commission
- California Department of Fish and Wildlife
- Bureau of Land Management
- United States Forest Service

Applicable in the Following Areas

- Inyo County
- Mono County

Applicable Project Components

- 55 kV Subtransmission line
- Construction Areas

Applicant Proposed and Mitigation Measures Covered

- WEAP
- BIO-GEN-1
- BIO-RES-1
- BIO-RES-2

Applicable Project Phases

- Pre-construction
- Construction
- Restoration

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Acronyms and Abbreviations

ACCC	Aluminum Conductor Composite Core
ACSR	aluminum conductor steel reinforced
ADSS	all-dielectric self-supporting
APM	Applicant Proposed Measure
BLM	Bureau of Land Management
Cal-IPC	California Invasive Plant Council
CAISO	California Independent System Operator
CCH	Consortium of California Herbaria
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
CPUC	California Public Utilities Commission
CSP	Control-Silver Peak
EA	Environmental Assessment
ESA	environmentally sensitive area
FRED	Field Reporting Environmental Database
GO	General Order
GPS	global positioning system
HRP	Habitat Restoration Plan
IPMP	Invasive Plant Management Plan
kV	kilovolt
LiDAR	Light Detection and Ranging
MEER	Mechanical electrical equipment room
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
O&M	Operations and Maintenance
OHGW	overhead groundwire
OPGW	optical groundwire
PEA	Proponent's Environmental Assessment
PPE	personal protective equipment
PUP	Pesticide Use Proposal
ROW	right-of-way
SCE	Southern California Edison Company
TBD	to be developed
TLRR	Transmission Line Rating Remediation
TSP	tubular steel pole
USEPA	U.S. Environmental Protection Agency

USFS U.S. Forest Service
UTV utility terrain vehicle
WEAP Worker Environmental Awareness Program
WECC Western Electricity Coordinating Council

1.0 Introduction

The purpose of this Invasive Plant Management Plan (IPMP) is to prescribe methods and control procedures to prevent the spread of invasive plants by construction of the Control-Silver Peak (CSP) Project. Southern California Edison Company (SCE) and its contractors will be responsible for carrying out the methods and procedures described in this IPMP. The scope of this plan is geographically limited to the area within the temporary impact areas planned for construction of the Project.

1.1 Project Description

The design of electric lines in California is governed by the California Public Utility Commission's (CPUC's) General Order (GO) 95, Rules For Overhead Electric Line Construction. The purpose of the Rules contained within GO 95 is to "formulate, for the State of California, requirements for overhead line design, construction, and maintenance, the application of which would ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation or use of overhead lines and to the public in general."

The CSP Project is proposed to meet the following objective: Ensure compliance with standards contained in CPUC GO 95 and North American Electric Reliability Corporation (NERC) Facility Ratings while also maintaining reliable service to customers served by the subject lines, substations, and metering stations.

Compliance would be attained through the remediation of discrepancies along two existing 55 kV subtransmission lines.¹ Remediating the discrepancies will

- Ensure compliance with standards contained in CPUC GO 95—specifically the standards contained in Rule 37, Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, Etc., Table 1; Rule 38, Minimum Clearances of Wires from Other Wires, Table 2; and Rule 39, Minimum Clearance of Wires from Signs, Table 2-A.
- Bring the lines into operational compliance with SCE's published facility rating, which requires a review of actual field conditions as recommended by NERC.²

Remediating the identified discrepancies will also comply with applicable Western Electricity Coordinating Council (WECC) reliability planning criteria: the work will be completed as detailed in the mitigation plan filed in 2007 by SCE and accepted by WECC.

1.1.1 Project Overview

The CSP Project will potentially affect approximately 110.6 acres of vegetation and other land uses. Of these impacts, 100.2 acres of native vegetation and 10.4 acres of other land uses (developed, active agriculture, open water, disturbed, etc.) will be impacted temporarily. Permanent impacts will affect 6.9 acres of vegetation and other land uses, with permanent impacts to 6.85 acres of native vegetation. The exact acreage of impacts will be recalculated once construction activities have been completed. During the CSP Project, SCE will rebuild some portions of two existing subtransmission lines and will replace or modify existing

¹ An individual instance of non-compliance with GO 95 is referred to as a discrepancy. Discrepancies are defined as potential clearance problems between an energized conductor and its surroundings, such as the structure, another energized conductor on the same structure, a different line, or the ground, among others.

² The year 2008 line ratings for the subtransmission lines included under the CSP Project are as follows: Control- Silver Peak 'A' – 39 mega volt ampere (MVA) (405 A); Control- Silver Peak 'C' – 27 MVA (280 A).

subtransmission structures along other portions of these existing subtransmission lines. The CSP Project includes the following components to remediate the identified discrepancies:

Subtransmission

The CSP Project will rebuild infrastructure along two existing 55 kV subtransmission circuits by:

- Removing existing subtransmission wood poles and wood pole H-frames and replacing them with tubular steel poles (TSPs), TSP H-frames, and wood pole-equivalents.
- Removing existing conductor and installing new Aluminum Conductor Composite Core (ACCC) or Aluminum Conductor Steel Reinforced (ACSR) subtransmission conductor on replacement structures.
- Installing optical ground wire (OPGW), All-Dielectric Self-Supporting (ADSS) fiber optic cable, and overhead groundwire (OHGW) for system protection.

Distribution

Distribution circuits are installed on existing poles in Segments 3, 4, and 5. This infrastructure will be transferred from existing structures to replacement structures or the existing infrastructure will be left in-place and the poles on which the infrastructure is installed would be topped above the distribution circuit and appurtenances, or the poles will be left at their existing height.

Substations

The CSP Project would include the following substation-related work:

- Disconnect existing conductor from existing positions at the White Mountain Substation and connect new conductor to existing positions.
- Install new OPGW and OHGW and make minor modifications to the existing terminal racks at White Mountain substation to accommodate the new OPGW and OHGW.
- Install telecommunication equipment on existing rack structures, install cable in new or existing underground cable raceways, and install new or replacement telecommunications infrastructure within existing cabinets, control buildings, or Mechanical and Electrical Equipment Rooms (MEERs) within the Control Substation and at the Fish Lake Valley Metering Station.
- Update relay settings at Control, Deep Springs, White Mountain, and Zack substations.
- Install a capacitor bank and circuit breaker at Fish Lake Valley Metering Station.

1.1.2 Project Location

The CSP Project is located in unincorporated Inyo County and unincorporated Mono County (Figure 1). The existing subtransmission facilities that would be rebuilt or replaced under the CSP Project are located on or span lands administered by the United States Bureau of Land Management (BLM), land managed by the United States Forest Service (USFS), as well as on State Lands and lands owned by the Los Angeles Department of Water and Power, and private property.

1.2 Applicable Regulatory Measures

As part of the CSP Project Proponent's Environmental Assessment (PEA, SCE 2021), SCE has identified Applicant Proposed Measures (APMs) that it proposes to implement during construction to reduce or avoid impacts. The CSP Project is not likely to result in significant

impacts to any resource area after implementation of the APMs. SCE would conduct the design and construction in accordance with its APMs.

Table 1-1 presents the APMS at each phase of implementation and Table 1-2 presents the APMs applicable to the APM.

Table 1-1 Applicant Protection Measures and Phase of Implementation

Measures	Phase		
	Pre-construction	During Construction	Restoration
WEAP	☒	☒	☒
BIO-GEN-1	☒	☒	☒
BIO-RES-1	☒	☒	☒
BIO-RES-2	☒	☒	☒

1.2.1 APM WEAP: Worker’s Environmental Awareness Training Program

All activities, as determined appropriate on an activity-by-activity basis, will implement a worker education program that meets the approval of the BLM and USFS. The program will be carried out during all phases of the project (site mobilization, ground disturbance, grading, construction, operation, closure/decommissioning or project abandonment, and restoration/reclamation activities). The worker education program will provide interpretation for non-English speaking workers, and provide the same instruction for new workers prior to their working on site. As appropriate based on the activity, the program will contain information about:

- Site-specific biological and nonbiological resources.
- Information on the legal protection for protected resources and penalties for violation of federal and state laws and administrative sanctions for failure to comply with LUPA CMA requirements intended to protect site-specific biological and nonbiological resources.
- The required LUPA and project-specific measures for avoiding and minimizing effects during all project phases, including but not limited to resource setbacks, trash, speed limits, etc.
- Reporting requirements and measures to follow if protected resources are encountered, including potential work stoppage and requirements for notification of the designated biologist.
- Measures that personnel can take to promote the conservation of biological and nonbiological resources

1.2.2 APM BIO-GEN-1: Pre-construction Biological Clearance Surveys and Monitoring

Pre-construction clearance surveys will be performed by a qualified biologist (i.e., a biologist with the requisite education and experience to address specific resources), which may be chosen from a previously approved CPUC approved biologist, to avoid or minimize impacts on special status plants and wildlife species, habitat, nesting birds, and other sensitive biological resources in areas with the potential for resources to be present. Pre-construction clearance surveys are surveys of construction work areas at existing and new structure locations and other construction support areas (helicopter landing zones, staging areas, pull and tension sites,

etc.). These pre-construction clearance surveys are focused on identifying and delineating the location and extent of species or habitats identified during the baseline surveys that were performed to inform the Proponent's Environmental Assessment document. The baseline surveys, which included habitat assessments, waters/wetlands surveys, and special status species surveys (collectively referred to as pre-activity surveys), are presented in the Sensitive Species and Habitat Report and the Wetlands and Other Waters Jurisdictional Delineation Report.

Sensitive resources identified during the clearance survey will be either:

- Flagged for avoidance
- Moved to outside impact areas
- Avoided by implementing procedures to avoid impacts to individuals while impacting habitat (e.g., burrows, dens, etc.), or
- Documented based on permit authorizations.

Specific details on the pre-construction survey requirements may be found within measures for each individual species.

Where special-status species (e.g., reptiles, birds, mammals, and bat roosts), unique resources (defined by regulations and local conservation plans), or Inyo National Forest at-risk flora and fauna are known to occur and there is a potential for significant impacts, qualified biologists will monitor construction activities to ensure that impacts to special-status species, sensitive vegetation types, wildlife habitat, and unique resources are avoided and minimized.

1.2.3 APM BIO-RES-1: Develop and Implement Habitat Restoration Plan (HRP).

Temporary impacts to regulated species' habitats, plant species, and vegetation communities shall be restored or revegetated. Regulated species and vegetation communities include all species designated as threatened, endangered or rare, sensitive, or of concern by resource or land agencies. Species and vegetation communities that require restoration and revegetation will be determined in cooperation with the resource agencies and documented in the HRP; the HRP will be evolved and finalized during the NEPA process.

SCE will develop and implement a Habitat Restoration Plan (HRP). SCE will consult with appropriate agencies during development of the HRP and implement the HRP in conjunction with applicable permit conditions and mitigation measures. The HRP will be submitted to CPUC, BLM, and USFS for review and approval prior to the start of construction. Invasive plant management will be performed in conjunction with the HRP per the Invasive Plant Management Plan (BIO-RES-2).

Habitat Restoration Plan

For all revegetation or restoration sites, the HRP will include:

- Revegetation and restoration goals and objectives based on vegetation type and jurisdictional status of each site.
- Quantitative restoration success criteria.
- Implementation details as applicable. Details may include topsoil stockpiling and handling, postconstruction site preparation, soil decompaction and recontouring, planting

and seeding palettes to include only native, locally sourced materials with confirmed ability to produce from suppliers, fall or other suitable season-season planting or seeding dates.

- Maintenance details, which may include irrigation or hand-watering schedule and equipment, and erosion control.
- Monitoring and Reporting, specifying monitoring schedule and data collection methods throughout establishment of vegetation with key indicators of successful or unsuccessful progress, and quantitative criteria values to objectively determine success or failure at the conclusion of the monitoring period.
- Adaptive management procedures such as reseeding, re-planting, drainage repairs, adjustments to irrigation schedule, and repair or remediation of sites to meet success criteria on schedule.

For temporary disturbance in disturbed areas such as roads or agricultural lands, the goal of the HRP will be revegetation to minimize spread of invasive plants, dust generation, and soil erosion. For revegetation sites the goals, objectives, and success criteria specified in the HRP will be limited to requirements of the Storm Water Pollution Prevention Plan (SWPPP) and the Invasive Plant Management Plan (IPMP, APM BIO-RES-2). No additional goals, objectives, or success criteria regarding habitat condition are required for revegetation sites.

For species and vegetation communities with permit requirements including wetlands and riparian habitats, the goal of the HRP will be to restore plant species, habitat values, or vegetation communities. For restoration sites the goals, objectives, and success criteria specified in the HRP will include native species cover and species richness compatible with the specific vegetation and habitat type.

If an unforeseen catastrophic event (e.g., flood, fire, or other event beyond SCE control) damages a restoration site within the monitoring period, SCE will assess adjacent areas and adjust success standards accordingly in coordination with the agencies.

In all restoration (per the HRP) areas, seed and/or potted nursery stock of locally native species will be used. The list of plants observed during botanical surveys of the project area will be used as a guide to site-specific plant selection, additional appropriate species may be included.

Monitoring of the revegetation sites will be conducted according to requirements of the SWPPP, and the IPMP. Monitoring of the restoration sites will continue annually until HRP success criteria are achieved. SCE will be responsible for implementing adaptive management as needed.

Reporting of revegetation will be according to requirements of the SWPPP and the IPMP. For all restoration areas, SCE will provide annual reports to the CPUC, BLM, and USFS to verify the total vegetation acreage subject to restoration, areas that have been completed, and areas still outstanding. The annual reports will also include a summary of the restoration and adaptive management activities for the previous year, success criteria progress and completion, and any adjustments to planned activities, for the upcoming year.

1.2.4 APM BIO-RES-2: Develop Invasive Plant Management Plan

SCE shall prepare and implement an Invasive Plant Management Plan (IPMP). This plan shall include measures designed to avoid the introduction and spread of new nonnative invasive plant species (invasive plants) and minimize the spread of existing invasive plants resulting from project activities. The IPMP also must meet BLM's requirements for NEPA disclosure and

analysis if herbicide use is proposed for the project. The IPMP shall be submitted to the CPUC, BLM, and USFS for review and approval prior to the start of construction.

For the purpose of the IPMP, invasive plants shall include plants that (1) are invasive and rated high or moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006), or (2) aid and promote the spread of wildfires (such as *Bromus tectorum* (cheatgrass), *Brassica tournefortii* (Sahara mustard), and *Bromus madritensis* spp. *Rubens* (red brome)) or (3) identified by BLM or USFS as special concern. The IPMP will be implemented throughout project pre-construction, construction, and restoration phases.

Invasive Plant Management Plan

The IPMP will include the information defined in the following sections:

Assessment. An assessment of the Proposed Project's potential to cause spread or introduction of invasive plants into new areas, or to introduce new invasive plants into the ROW. This section will list known and potential invasive plants occurring on the ROW and in the project region and identify threat rankings and potential for project-related occurrence or spread for each species. This section will identify control goals (e.g., eradication, suppression, or containment) for invasive plants of concern with potential to occur on the ROW.

Pre-construction invasive plant inventory. SCE shall inventory of all invasive plants of concern in areas (both within and outside the ROW) subject to project-related vegetation removal/disturbance, "drive and crush," and ground-disturbing activity. The invasive plants inventory area shall also include vehicle and equipment access routes within the ROW and all project staging and storage yards. Invasive plants of concern shall be mapped by area of occurrence and percent cover. The map will be updated with new occurrences at least once a year. Inventory results will be provided to CPUC, BLM, and USFS upon request.

Pre-construction invasive plants treatment. Invasive plant infestations identified in the pre-construction invasive plants inventory shall be evaluated to identify potential for project-related spread and potential benefits (if any) of pre-construction treatment. Pre-construction treatment will consider the specific invasive plants, potential seed banks, or other issues. The IPMP will identify any infestations to be controlled or eradicated prior to project construction. Control and follow-up monitoring of pre-construction invasive plants treatment sites will follow methods identified in appropriate sections of the IPMP.

Prevention. The IPMP will specify methods to minimize potential transport of new invasive plant seeds onto the ROW, or from one section of the ROW to another. The ROW may be divided into "weed zones," based on invasive plants of concern in the ROW. The IPMP will specify inspection procedures for construction equipment entering the Proposed Project area. Vehicles and equipment may be inspected and cleaned at entry points to specified sections of the ROW, and before leaving work sites where invasive plants of concern must be contained locally. Construction equipment shall be inspected to ensure it is free of any dirt or mud that could contain invasive plant seeds, roots, or rhizomes, 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, on-site cleaning stations (including air washing) 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, USFS, and CPUC monitors on request.

Erosion control materials (e.g., straw bales) must be certified free of invasive plant seed (“weed-free”) before they are brought onto the site. The IPMP must prohibit on-site storage or disposal of mulch or green waste that may contain invasive plant 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 IPMP 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 invasive plants to or from the Proposed Project area. Monitoring. The IPMP shall specify methods to survey for invasive plants of concern during pre-construction, construction, and restoration phases; and shall specify qualifications of specialists responsible for invasive plant monitoring and identification. It must include a monitoring schedule to ensure timely detection and immediate control of new invasive plant infestations to prevent further spread. Surveying and monitoring for invasive plant infestations shall occur at least two times per year, to coincide with the early detection period for early season and late season invasive plants. 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 IPMP must specify manual and chemical invasive plant control methods to be employed. The IPMP shall include only invasive plant control measures with a demonstrated record of success for target invasive plants, based on the best available information. The plan shall describe proposed methods for promptly scheduling and implementing control activity when any project-related invasive plant infestation is located (e.g., located on a project disturbance site), to ensure effective and timely invasive plant control. Invasive plant infestations must be controlled or eradicated as soon as possible upon discovery, and before they go to seed, or when appropriate with the goal to prevent further spread. All proposed invasive plant control methods must minimize disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage to any environmentally sensitive areas (ESAs) identified within or adjacent to the ROW. New infestations by invasive plants of concern will be treated at a minimum of once annually until eradication, suppression, or containment goals are met. Invasive plant occurrences can be considered eradicated when no new seedlings or resprouts are observed for three consecutive years, or a single season where new seedlings or resprouts are observed in reference populations but not at the control site. Invasive plant control efforts may cease when eradication is complete.

Manual control shall specify well-timed removal of invasive plants or their seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the relevant 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 Aminopyralid, Fluroxypyr, and Rimsulfuron on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (BLM, 2016), BLM’s Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM, 2007), applicable and analogous USFS standards

and guidelines, and National Invasive Species Management Plan (NISC, 2008). 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. Only state and BLM-approved herbicides may be used. Herbicide treatment will be implemented by a Licensed Qualified Applicator. Herbicides shall be applied in accordance with product labels and applicator licenses. Herbicides shall not be applied during or within 24 hours of high confidence 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 in high wind conditions.

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

1.2.5 Agency Roles and Responsibilities

Per APM BIO-RES-2, the Plan will be submitted to the BLM, CPUC, and USFS for review and approval. The Draft IPMP will be provided to BLM, CPUC, and USFS for review at least 60 days prior to SCE's application for its initial Notice to Proceed. A final version of the Plan will be provided to the BLM, CPUC, and USFS with comments incorporated prior to issuance of the initial Notice to Proceed on the Project.

1.3 Goals and Objectives

The goal of this IPMP is to prevent introduction and establishment of new invasive plant species and noxious weeds not previously identified within the Project area and to minimize the spread of existing invasive plant populations resulting from construction of the Project. This goal will be achieved by the following objectives:

- Implementation of preventive measures to avoid introduction and spread of invasive plants and noxious weeds during Project construction activities
- Monitoring of the restoration areas for new or expanding invasive plant populations
- Treatment of invasive plants to reduce populations as needed to promote the establishment of native vegetation during the restoration program
- Eradication of any new invasive species not previously identified within the restoration areas that were introduced by Project construction activities.

2.0 Definitions

2.1 Invasive Plant and Noxious Weed Definitions

Based on APM BIO-RES-2 summarized in Table 1-2, “weeds” in this IPMP shall include designated invasive or noxious non-native 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 (CDFA), the California Invasive Plant Council (Cal-IPC) or identified by BLM and/or USFS as special concern. The IPMP will be implemented throughout Project pre-construction, construction, and post-construction restoration phases.

Because a variety of words are used to define “weeds”, “invasive species”, “invasive plants”, “noxious weeds”, and other such terms, the following summary of definitions provides a brief synopsis of several similar and related terms used in this IPMP.

Official U.S. definitions regarding invasive species are provided in Executive Order 13112, as follows:

- **Invasive Species:** Alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. "Alien species" means, with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.

For purposes of this Plan, the term non-native is synonymous with alien species.

The Cal-IPC also provides definitions for invasive plants:

- **Invasive Plants:** plants that are not native to an environment, and once introduced, they establish quickly, reproduce and spread, and cause harm to the environment, economy, or human health.

Weeds are typically characterized as non-native plants that aggressively colonize new areas and can grow to dominate native plant communities if uncontrolled. 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. Invasive plants and noxious weeds will be collectively referred to as “weeds” in this Plan.

2.1.1 Federal

The USDA maintains the official federal list of noxious weeds (7 CFR 360.200; USDA 2022). In addition to the federal list, the CDFA maintains the list of official noxious weeds requiring control under the Noxious Weed Act of 1989 (CDFA 2022). The official weed list was last updated in the California Code of Regulations (CCR; 3 CCR 4500) in 2015.

The term “noxious weed” is defined by the USDA under the Federal Plant Protection Act (7 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.”

The BLM recognizes noxious weeds as a legal designation that can be made by state or federal agencies, with definitions that may vary by jurisdiction. The BLM also defines an invasive plant as “a plant that interferes with management objectives for a given area of land at a given point in time.” The BLM Manual 9015 (Integrated Weed Management) provides methods for weed control on BLM lands.

2.1.2 California

In California, the CDFA defines noxious weeds under the Noxious Weed Act of 1989 (pursuant to CDFA 3 CCR § 4500) as “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.” The CDFA also designates ratings for weeds and other pests. These ratings are based on the impacts of the pest to agriculture within California.

- A – An organism of known economic importance subject to state (or commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action.
- B – An organism of known economic importance subject to eradication, containment, control, or other holding action at the discretion of the individual county agricultural commissioner, or an organism of known economic importance subject to state endorsed holding action and eradication only when found in a nursery.
- C – An organism subject to no state enforced action outside of nurseries except to retard spread at the discretion of the county agricultural commissioner, or an organism subject to no state enforced action except to provide for pest cleanliness in nurseries.
- Q – An organism or disorder requiring a temporary “A” action pending determination of a permanent rating. The organism is suspected to be of economic importance, but its status is uncertain because of incomplete identification or inadequate information. In the case of an established infestation, at the discretion of the Director, the Department may conduct surveys and may convene the Division Pest Study Team to determine a permanent rating.

The Cal-IPC maintains an inventory (Cal-IPC Inventory) of invasive plants and categorizes them according to the definitions below (Cal-IPC 2022). Plants are evaluated for the Cal-IPC Inventory only if they invade California wildlands with native habitat values. The Cal-IPC Inventory does not include plants found solely in areas of human-caused disturbance such as roadsides and cultivated agricultural fields.

- **Wildlands:** Public and private lands that support native ecosystems, including some working landscapes such as grazed rangeland and active timberland.
- **Non-native plants:** Species introduced to California after European contact and as a direct or indirect result of human activity.
- **Invasive non-native plants that threaten wildlands:** Plants that 1) are not native to, yet can spread into, wildland ecosystems, and that also 2) displace native species, hybridize with native species, alter biological communities, or alter ecosystem processes.

The Cal-IPC maintains a rating for risk of spread and consequence of spread into wildlands for non-natives that is based upon the best available published literature and knowledge of invasive plant experts from California. The ratings are as follows:

- **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.

3.0 Invasive Plants and Noxious Weeds Inventory

3.1 Invasive Plants and Noxious Weeds with Potential to Occur in the Project Area

A desktop analysis and literature review were performed to develop a preliminary list of invasive nonnative species with potential to occur in the CSP Project area. The following sources were used:

- Consortium of California Herbaria (CCH 2022)
- Cal-IPC Inventory (Cal-IPC 2022)
- The federal noxious weed list available at <https://plants.usda.gov/java/noxious>
- The California noxious weed list available at: https://www.cdfa.ca.gov/plant/IPC/encycloweedia/weedinfo/winfo_table-sciname.html#
- SCE CSP Project PEA (SCE 2021)

A preliminary list of 56 nonnative species with potential to occur in the Project area was developed from these sources and field surveys. Of these, 31 species are rated by the Cal-IPC as High, Moderate, or Limited and the species that are also listed as noxious weeds in California or in the United States all have a rating by Cal-IPC. Refer to Table 3-1 Invasive Nonnative Plant Species with the Potential to Occur in the CSP Project Area, below. The 25 remaining nonnative species with potential to occur in the CSP Project are Not Rated or are on Watch by Cal-IPC. They are listed at the end of the table for informational purposes only. These species are not considered target invasive plants or noxious weeds for this Plan and do not have recommended control methods or goals at this time.

Table 3-1 Invasive and Noxious Nonnative Plant Species with Potential to Occur in the CSP Project Area

Scientific Name	Common Name	Cal-IPC Rating	Federal ¹ / California (CCR 4500) ² Noxious Weed
Rated Invasive Nonnative Plant Species with Potential to Occur in the Project Area			
Trees			
<i>Ailanthus altissima</i>	tree of heaven	Moderate	California Noxious
<i>Elaeagnus angustifolia</i>	Russian-olive	Moderate	--
<i>Robinia pseudoacacia</i>	black locust	Limited	--
<i>Tamarix aphylla</i>	athel tamarisk	Limited	California Noxious
Shrubs			
<i>Tamarix ramosissima</i>	saltcedar	High	California Noxious
Herbaceous Species (annuals, biannuals, perennials, graminoids)			
<i>Agrostis stolonifera</i>	creeping bentgrass, red top	Limited	--
<i>Arundo donax</i>	giant reed	High	California Noxious
<i>Bassia hyssopifolia</i>	five-horned bassia	Limited	--
<i>Bromus rubens</i>	red brome	High	--
<i>Bromus tectorum</i>	cheatgrass	High	--
<i>Cirsium arvense</i>	Canada thistle	Moderate	California Noxious
<i>Cirsium vulgare</i>	bull thistle	Moderate	California Noxious
<i>Cynodon dactylon</i>	Bermudagrass	Moderate	--
<i>Descurainia sophia</i>	flix weed	Limited	--
<i>Erodium cicutarium</i>	red-stemmed filaree	Limited	--

Table 3-1 Invasive and Noxious Nonnative Plant Species with Potential to Occur in the CSP Project Area

Scientific Name	Common Name	Cal-IPC Rating	Federal ¹ / California (CCR 4500) ² Noxious Weed
<i>Festuca arundinacea</i>	tall fescue	Moderate	--
<i>Festuca myuros</i>	rattail fescue	Moderate	--
<i>Halogeton glomeratus</i>	Halogeton, saltlover	Moderate	California Noxious
<i>Hirschfeldia incana</i>	summer mustard, short-pod mustard	Moderate	--
<i>Hordeum murinum</i>	foxtail barley, hare barley	Moderate	--
<i>Lepidium latifolium</i>	perennial pepperweed	High	California Noxious
<i>Plantago lanceolata</i>	English plantain	Limited	--
<i>Poa pratensis</i>	Kentucky blue grass	Limited	--
<i>Polypogon monspeliensis</i>	rabbits foot grass	Limited	--
<i>Rhaponticum repens</i>	Russian knapweed	Moderate	California Noxious
<i>Rumex crispus</i>	curly dock	Limited	--
<i>Salsola tragus</i>	Russian-thistle	Limited	California Noxious
<i>Schismus arabicus</i>	Arabian schismus, Mediterranean grass	Limited	--
<i>Schismus barbatus</i>	Mediterranean grass	Limited	--
<i>Sisymbrium irio</i>	London rocket	Limited	--
<i>Tribulus terrestris</i>	puncturevine	Limited	California Noxious
Unrated Nonnative Plant Species with Potential to Occur in the Project Area			
Trees			
<i>Ulmus sp.</i>	elm	Not Rated	--
Herbaceous Species (annuals, biannuals, perennials, graminoids)			
<i>Amaranthus albus</i>	pigweed amaranth	Not Rated	--
<i>Bromus catharticus</i>	rescue grass	Not Rated	--
<i>Bromus madritensis</i>	foxtail brome	Not Rated	--
<i>Capsella bursa-pastoris</i>	shepherd's purse	Not Rated	--
<i>Chenopodium album</i>	lambsquarters	Not Rated	--
<i>Convolvulus arvensis</i>	bindweed	Not Rated	--
<i>Hornungia procumbens</i>	prostrate hutchinsia	Not Rated	--
<i>Lactuca serriola</i>	prickly lettuce	Not Rated	--
<i>Lotus corniculatus</i>	bird's foot trefoil	Not Rated	--
<i>Malva neglecta</i>	common mallow	Not Rated	--
<i>Malva parviflora</i>	cheeseweed	Not Rated	--
<i>Medicago sativa</i>	alfalfa	Not Rated	--
<i>Melilotus albus</i>	white sweet-clover	Not Rated	--
<i>Melilotus officinalis</i>	yellow sweet-clover	Not Rated	--
<i>Persicaria maculosa</i>	spotted ladythumb	Not Rated	--
<i>Plantago major</i>	common plantain	Not Rated	--
<i>Polygonum aviculare</i>	prostrate knotweed	Not Rated	--
<i>Polypogon viridis</i>	water beard grass	Not Rated	--
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	Not Rated	--
<i>Sisymbrium altissimum</i>	tall tumbleweed	Not Rated	--
<i>Tragopogon dubius</i>	yellow salsify	Not Rated	--
<i>Trifolium repens</i>	white clover	Not Rated	--
<i>Triticum aestivum</i>	common wheat	Not Rated	--
<i>Veronica anagallis-aquatica</i>	water speedwell	Not Rated	--

Notes:

1 Federal Noxious Weed List. https://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/weedlist.pdf

2 California Noxious Weed List, CCR 4500. <https://www.cdфа.ca.gov/plant/іpc/encycloweedia/pdf/CaliforniaNoxiousWeeds.pdf>

3.1.1 Invasive Plants and Noxious Weeds Occurring within CSP Project Areas

Biological surveys of the CSP Project alignment were conducted in 2017 and 2018, followed by surveys conducted in 2022 of native trees within the alignment and vegetation, as well as vegetation characterization and tree and special-status species surveys within potential laydown yards (Arcadis 2019a,b, 2022). The survey area covered approximately 1,980.8 acres. A comprehensive list of incidentally-observed plant species was compiled during these surveys and was the basis for inclusion of non-native species in Table 3-1.

Focused weed surveys to document the occurrence of invasive and noxious nonnative species have not yet been conducted for the CSP Project, nor have points and polygons of observed invasive plants been mapped.

Results from the field surveys inform Table 3-1 Invasive and Noxious Nonnative Plant Species Identified in the CSP Project Area, below, which includes all the invasive nonnative plants rated by Cal-IPC and federal- or state-designated noxious weeds that were identified in the CSP Project area. If any additional invasive plants or noxious weeds are identified during invasive plant and noxious weed surveys (to be scheduled) or during pre-construction surveys within the Project area, SCE will update this document by adding information on the species to Table 3-2, and Table 4-2 (Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in the CSP Project Area) in Section 4 (IPMP Implementation) of this IPMP.

3.1.2 Invasive Plant Zones

For ease of managing data along the subtransmission corridor, mapping corresponds to SCE’s Project “Segments” to delineate invasive plant boundaries for management requirements for the Project. Therefore, Invasive Plant Zones 1 through 5 will correspond to Project Segments 1 through 5.

Table 3-2 lists the invasive and noxious nonnative plant species observed in the CSP Project area and includes the corresponding Invasive Plant Zones documented to date along with Cal-IPC and state and federal ratings.

Table 3-2 Invasive and Noxious Nonnative Plant Species Observed in the CSP Project Area

Scientific Name	Common Name	Invasive Plant Zone(s)	Cal-IPC Rating	California Department of Food and Agriculture Pest Rating ¹	Federal/California Noxious Weed
Trees					
<i>Ailanthus altissima</i>	tree of heaven	1,3, 4	Moderate	--	California Noxious
<i>Elaeagnus angustifolia</i>	Russian-olive	1,3, 4	Moderate	--	--
<i>Robinia pseudoacacia</i>	black locust	1, 3, 4, 5	Limited	--	--
<i>Ulmus sp.</i>	elm	3	Not Rated	--	--
<i>Tamarix aphylla</i>	athel tamarisk	4	Limited	B	California Noxious
Shrubs					
<i>Tamarix ramosissima</i>	saltcedar	1, 2, 3, 4, 5	High	--	California Noxious
Herbaceous Species (annuals, biannuals, perennials, graminoids)					
<i>Amaranthus albus</i>	pigweed amaranth	3	Not Rated	--	--

Table 3-2 Invasive and Noxious Nonnative Plant Species Observed in the CSP Project Area

Scientific Name	Common Name	Invasive Plant Zone(s)	Cal-IPC Rating	California Department of Food and Agriculture Pest Rating ¹	Federal/California Noxious Weed
<i>Agrostis stolonifera</i>	creeping bentgrass, red top	3, 4	Limited	--	--
<i>Arundo donax</i>	giant reed	3, 4	High	--	California Noxious
<i>Bassia hyssopifolia</i>	five-horned bassia	1, 2, 3, 4, 5	Limited	--	
<i>Bromus catharticus</i>	rescue grass	1, 2, 3, 4, 5	Not Rated	--	--
<i>Bromus madritensis</i>	foxtail brome	1, 2, 3, 4, 5	Not Rated	--	--
<i>Bromus rubens</i>	red brome	1, 2, 3, 4, 5	High	--	--
<i>Bromus tectorum</i>	cheatgrass	1, 2, 3, 4, 5	High	--	--
<i>Capsella bursa-pastoris</i>	shepherd's purse	3	Not Rated	--	--
<i>Chenopodium album</i>	lambsquarters	3, 4	Not Rated	--	--
<i>Cirsium arvense</i>	Canada thistle	1, 2, 3, 4	Moderate	--	
<i>Cirsium vulgare</i>	bull thistle	1, 2, 3, 4, 5	Moderate	--	California Noxious
<i>Convolvulus arvensis</i>	bindweed	1, 2, 3, 4	Not Rated	--	--
<i>Cynodon dactylon</i>	Bermudagrass	1, 2, 3, 4	Moderate	--	--
<i>Descurainia sophia</i>	flix weed	1, 2, 3, 4, 5	Limited	--	--
<i>Erodium cicutarium</i>	red-stemmed filaree	1, 2, 3, 4, 5	Limited	--	--
<i>Festuca arundinacea</i>	tall fescue	1, 2, 3, 4	Moderate	--	--
<i>Festuca myuros</i>	rattail fescue	1, 2, 3	Moderate	--	--
<i>Halogeton glomeratus</i>	Halogeton, saltlover	1, 2, 3, 4, 5	Moderate	--	California Noxious
<i>Hirschfeldia incana</i>	summer mustard, short-pod mustard	1, 2, 3	Moderate	--	--
<i>Hordeum murinum</i>	foxtail barley, hare barley	1, 2, 3, 4, 5	Moderate	--	--
<i>Hornungia procumbens</i>	prostrate hutchinsia	1, 2, 3	Not Rated	--	--
<i>Lactuca serriola</i>	prickly lettuce	1, 2, 3, 4, 5	Not Rated	--	--
<i>Lepidium latifolium</i>	perennial pepperweed	1, 2, 3	High	--	--
<i>Lotus corniculatus</i>	bird's foot trefoil	1, 2, 3	Not Rated	--	--
<i>Malva neglecta</i>	common mallow	3, 4	Not Rated	--	--
<i>Malva parviflora</i>	cheeseweed	2, 3	Not Rated	--	--
<i>Medicago sativa</i>	alfalfa	1, 2, 3	Not Rated	--	--
<i>Mellilotus albus</i>	white sweet-clover	3	Not Rated	--	--
<i>Mellilotus officinalis</i>	Yellow sweet- clover	1, 2, 3, 4, 5	Not Rated	--	--
<i>Persicaria maculosa</i>	spotted ladythumb	1, 3, 4	Not Rated	--	--
<i>Plantago lanceolata</i>	English plantain	1, 2, 3	Limited	--	--
<i>Plantago major</i>	common plantain	1, 2, 3	Not Rated	--	--
<i>Poa pratensis</i>	Kentucky blue grass	1, 2, 3, 4, 5	Limited	--	--
<i>Polygonum aviculare</i>	prostrate knotweed	3	Not Rated	--	--
<i>Polypogon monspeliensis</i>	rabbitsfoot grass	1, 2, 3, 4, 5	Limited	--	--
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	1, 2, 3, 4, 5	Not Rated	--	--
<i>Rhaponticum repens</i>	Russian knapweed	1, 2, 3, 4	Moderate	--	--
<i>Rumex crispus</i>	curly dock	1, 2, 3, 4, 5	Limited	--	--
<i>Salsola tragus</i>	Russian-thistle	1, 2, 3, 4, 5	Limited	--	California Noxious
<i>Schismus arabicus</i>	Arabian schismus, Mediterranean grass	1, 2, 3, 4, 5	Limited	--	--
<i>Schismus barbatus</i>	Mediterranean grass	1, 2, 3, 4, 5	Limited	--	--

Table 3-2 Invasive and Noxious Nonnative Plant Species Observed in the CSP Project Area

Scientific Name	Common Name	Invasive Plant Zone(s)	Cal-IPC Rating	California Department of Food and Agriculture Pest Rating ¹	Federal/California Noxious Weed
<i>Sisymbrium altissimum</i>	tall tumbled mustard	1, 2, 3, 5	Not Rated	--	--
<i>Sisymbrium irio</i>	London rocket	3	Limited	--	--
<i>Tragopogon dubius</i>	yellow salsify	1, 2, 3, 5	Not Rated	--	--
<i>Tribulus terrestris</i>	puncturevine	1, 2, 3, 5	Limited	--	--
<i>Trifolium repens</i>	white clover	3, 4	Not Rated	--	--
<i>Triticum aestivum</i>	common wheat	3	Not Rated	--	--
<i>Veronica anagallis-aquatica</i>	water speedwell	1, 2, 3	Not Rated	--	--

Notes:

- 1 California Department of Food and Agriculture Pest Rating.
<https://www.cdfa.ca.gov/plant/ipc/encycloweedia/pdf/CaliforniaNoxiousWeeds.pdf>.
- 2 Federal Noxious Weed List. https://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/weedlist.pdf.
- 3 California Noxious Weed List, CCR 4500.
<https://www.cdfa.ca.gov/plant/ipc/encycloweedia/pdf/CaliforniaNoxiousWeeds.pdf>.

SCE recognizes that certain ubiquitous weed species, such as short-pod mustard (*Hirschfeldia incana*), slender oat (*Avena barbata*), and Mediterranean grass (*Schismus arabicus* and *S. barbatus*) have such widespread distributions in the region that control of these species is not feasible (Cal-IPC 2022, DiTomaso et al. 2013), and meaningful control of such ubiquitous species is beyond the scope of the Plan. For such species, this Plan relies on measures such as those prescribed in BIO-RES-2 (e.g., cleaning vehicles and equipment and sourcing weed-free materials in sediment barrier installations or mulch distribution) to prevent existing infestations from worsening or spreading. Discrete populations of these weed species can be controlled within targeted CSP Project restoration areas during the early phases of the restoration program when native seedlings and/or small container plants are becoming established to prevent damage to the restoration plantings during weed removal events.

Brief descriptions of each invasive plant species observed within the CSP Project area will be adopted from Cal-IPC Inventory (Cal-IPC 2022) and will be included in Appendix A along with representative photos, after invasive plant and noxious weed surveys (to be scheduled) have been completed.

4.0 Invasive Plant Management Implementation

This section describes the methods of invasive plant and noxious weed control and avoidance of their introduction within temporary impact areas of the Project. The following general control measures will be applied as appropriate during construction and post-construction restoration program:

Prevention: Apply best practices to minimize the transport of propagules and conditions conducive to the establishment of new infestations. Prevention methods targeting one species would likely also prevent other species.

Containment: Minimize 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 cannot be achieved.

Eradication: Eliminate invasive plant species newly introduced within the Project disturbance areas and otherwise not widespread. Eradication of ubiquitous invasive plant populations cannot be achieved.

Control measures will be applied to mitigate spread of invasive plants and will focus on prevention first and foremost through implementing the preventive measures detailed in Section 4.1. If evidence of introduction of invasive plants or noxious weed species is found in the Project disturbance areas, SCE will implement treatment methods to eradicate the occurrence(s) with the goal of containment, suppression, or eradication, as detailed in Section 4.2.

4.1 Preventive Measures

Prevention of the spread of invasive plants is the most effective management approach.

SCE will provide information and training to all Project personnel regarding invasive plant management in terms of regulatory drivers, preventive measures, and weed zones during the worker environmental awareness plan (WEAP) training. Biological monitors are responsible for ensuring the preventive measures are implemented by construction personnel.

If, during pre-construction surveys, new populations or species of invasive plants have become established or the spread of existing invasive plant populations is observed prior to construction, invasive plant areas will be flagged. The flagging will alert construction personnel and prevent access until invasive plant management control measures have been implemented by the construction contractor or SCE designated contractor.

During construction and the 5-year restoration program, the following preventive measures will be implemented as applicable and feasible, to prevent the spread of target invasive plant and noxious weed species (collectively referred to as weeds in this Plan). Monitors will perform inspections to track compliance with these measures as described in Section 4.4:

- All vehicles and equipment will be cleaned prior to arrival at the Project site and when traveling between invasive plant zones. Cleaning will concentrate on tracks, feet, or tires and on the undercarriage. Interiors will be swept out and refuse will be disposed of in waste receptacles. Vehicles and equipment will be maintained free of soil and debris capable of transporting invasive plant and noxious weed seeds, roots, or rhizomes. Vehicles and equipment that are not in compliance shall be refused entry.

- Ground-disturbing equipment will be cleaned and washed at designated material yards or off-site commercial wash facilities. Vehicles and equipment washing will be completed outside the boundaries of BLM and USFS lands to the maximum extent feasible. Any invasive plant establishment resulting from washing vehicles/equipment on site will be controlled per treatment methods and management goals in Table 4-2.
- Other vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed at designated material yards or off-site commercial wash facilities. Non-SCE delivery vehicles may 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 Operations and Maintenance [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 invasive plants and noxious weeds, tools must be cleaned before they are removed from the infested area.
- “Flag and Avoid.” New target 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 control measures have been implemented.
- Straw 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 materials.
- To prevent contamination of construction supplies such as “weed-free” sediment barriers, weeds will be treated in construction yards, 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.
- Weeds will be controlled in stockpiles of gravel and soil. During storage, they will be inspected for invasive plants and noxious weeds on a regular basis (twice a year during the growing season). If stockpiles are found to be infested, control will be per treatment methods and management goals in Table 4-2.
- Locally salvaged topsoil may be stored in shallow stockpiles in locations free of weed infestations, over a short as time as possible. It may be used locally or in another

segment of the Project, as needed. Stockpiles would be subject to inspection for weeds twice a year during the growing season and prior to use. If stockpiles are found to be infested, control will be per treatment methods and management goals in Table 4-2.

- Ground disturbance to vegetation will be limited to the minimum necessary to safely perform construction activities. Activities that will create invasive plant-promoting soil conditions will be minimized.

4.2 Treatment Methods

If new populations of invasive plants become established or the spread of existing invasive plant populations are observed within the Project temporary impact areas during implementation of construction activities and the restoration program, SCE will implement invasive plant control measures. On federal lands, invasive plant control measures will be in accordance with existing BLM and USFS regulations.

Treatment methods will be based on species-specific and area-specific conditions. All treatment methods are designed to minimize the extent of disturbance to native vegetation, limit ingress and egress to defined access routes, and avoid damage from herbicide use or other control methods to ESAs identified within or adjacent to the Project ROW. The most recent maps of ESAs and biological constraints will be reviewed by SCE prior to implementing any treatment methods, to ensure that sensitive resources are avoided, as necessary.

For the purposes of this Plan, treatment methods have been organized into two categories: physical and chemical. Physical treatment methods include manual removal using hand tools and mechanical removal using motorized tools. Chemical treatment methods include herbicide application.

4.2.1 Physical Treatment

Physical removal of invasive plants or noxious weeds is employed for localized, discrete weed treatment. Typically, physical treatment 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 can 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, giant reed).

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 treat 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. Additional practices to minimize spread include the following:

- 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 an SCE-approved landfill or composting facility.
- Soil and spoils will be transported offsite from any Project work site infested with weeds not considered ubiquitous in the region to an SCE-approved landfill.

4.2.2 Chemical Treatment

Herbicide application is a widely used method to treat and eradicate infestations of invasive plants and noxious weed species. Herbicides, when applied with wands or wicks, may be used to remove weeds with minimal disturbance native seedlings and the surrounding soils.

When carefully and appropriately applied, herbicides can be used to selectively treat discrete but significant infestations where manual and mechanical (physical) treatment methods are ineffective. Herbicide drift will be minimized by accounting for winds.

Prior to application of herbicide, contractors must demonstrate that they possess required permits from state and local authorities. Herbicides will be applied by a Licensed Qualified Applicator. All herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations and U.S. Environmental Protection Agency (USEPA) label instructions. Only herbicides and adjuvants approved by the State of California, the BLM California State Office, or Inyo National Forest, depending on jurisdiction, will be used within or adjacent to the Project area. On BLM administered-lands, only BLM-approved herbicides/adjuvants will be used according to the BLM Vegetation Treatments using Herbicide documents (2007) and (2016), including stipulations and mitigations. On USFS lands, only USFS-approved herbicides/adjuvants will be used according to the Land Management Plan for the Inyo National Forest (USFS 2018).

SCE will submit to the BLM and the USFS a Pesticide Use Proposal (PUP) and an Environmental Assessment (EA) for applications of herbicides in the Project restoration program areas. Herbicide use may promote the success of the restoration program through more efficient and less impactful weed management (compared to hand weeding alone). Any use of herbicides will be predicated on compliance with all applicable regulations and securing any required authorizations from the BLM and/or USFS. Herbicide use is currently not permitted for the Project.

4.2.3 Recommended Treatment Methods by Species

The treatment methods are summarized in Table 4-1. Treatment 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. 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 area. All herbicide treated areas will be identified and mapped to record treatment type and extent to assess effectiveness.

Weed infestations must be controlled or eradicated as soon as possible upon discovery, and before they go to seed, or when appropriate with the goal to prevent further spread. All proposed weed

control methods must minimize disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage to any ESAs identified within or adjacent to the ROW. New infestations by weed species of concern 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 years, but are observed in reference populations, the weed occurrence can be considered eradicated and weed control efforts may cease for the site.

Table 4-1 Invasive Plant and Noxious Weed Treatment Methods

Treatment 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. Appropriate where weeds are interspersed with native plants 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. Can also affect interspersed native individuals. 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. Can also affect interspersed native individuals. Moderate disturbance.
Mechanical Removal			
Trimming/Brush Cutting	Using handheld string trimmers or other motorized handheld 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 affect 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

Table 4-1 Invasive Plant and Noxious Weed Treatment Methods

Treatment Method	Description	Appropriate Target	Key Considerations
			affect adjacent native 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 sapwood. Apply herbicide to each cut.	Woody vines, shrubs, and trees.	Can be conducted at any time of year. Little chance of impacting adjacent native plants. Labor intensive.
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 2022, DiTomaso et al. 2013.

Table 4-2 identifies the recommended Treatment Method and Management Goals for weed (invasive plant and noxious weed) species identified in the CSP Project area. If evidence of introduction of invasive plants is found in the Project disturbance areas, SCE will implement treatment methods to eradicate the occurrence with the understanding that achieving the management goal of eradication may not be feasible for all species.

Weed zones will be updated in Table 4-2 after invasive plant and noxious weed surveys (to be scheduled) have been completed.

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
Trees				
<i>Ailanthus altissima</i>	tree-of-heaven	1,3, 4	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.
<i>Elaeagnus angustifolia</i>	Russian-olive	1,3, 4	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.
<i>Robinia pseudoacacia</i>	black locust	1, 3, 4, 5	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.
<i>Ulmus</i> sp.	elm	3	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.
<i>Tamarix aphylla</i>	athel tamarisk	4	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.
Shrubs				
<i>Tamarix ramosissima</i>	saltcedar	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Pulling: Pull to remove saplings. • Cut Stump: Cut stems of mature trees as low to the ground early in the spring and again at the end of the growing season (late spring or early summer). Apply herbicide on the stump immediately after cutting. 	<ul style="list-style-type: none"> • Eradication/Suppression. Monitor for occurrence year-round and treat for eradication/suppression as required. May provide important habitat feature. Consult with biologist prior to removal.

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
Herbaceous Species (annuals, biannuals, perennials, graminoids)				
<i>Amaranthus albus</i>	pigweed amaranth	3	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Agrostis stolonifera</i>	creeping bentgrass, red top	3, 4	<ul style="list-style-type: none"> • Pulling & Digging: Pull or dig to remove plants after rains loosen the soil; cut the stems and, being careful not to disperse fragments, dig up the roots using hand tools or heavy equipment (only successful on seedling and sapling sprouts in isolated conditions). • Foliar Treatment: Apply foliar spray herbicide after the plant flowers and before summer or winter dormancies. • Cut Stump: Cut and treat the cut stems with herbicide. 	<ul style="list-style-type: none"> • Suppression. Monitor for occurrence, and control during late-spring or fall. If not considered ubiquitous in the region, soil and spoils may not be transported offsite from any Project work site infested with this species.
<i>Arundo donax</i>	giant reed	3, 4	<ul style="list-style-type: none"> • Pulling & Digging: Pull or dig to remove plants after rains loosen the soil; cut the stems and, being careful not to disperse fragments, dig up the roots using hand tools or heavy equipment (only successful on seedling and sapling sprouts in isolated conditions). • Foliar Treatment: Apply foliar spray herbicide after the plant flowers and before summer or winter dormancies. • Cut Stump: Cut and treat the cut stems with herbicide. 	<ul style="list-style-type: none"> • Suppression. Monitor for occurrence, and control during late-spring or fall. If not considered ubiquitous in the region, soil and spoils may not be transported offsite from any Project work site infested with this species.
<i>Bassia hyssopifolia</i>	five-horned bassia	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Bromus catharticus</i>	rescue grass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> • Prevention
<i>Bromus madritensis</i>	foxtail brome	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> • Prevention

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
<i>Bromus rubens</i>	red brome	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Bromus tectorum</i>	cheatgrass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Capsella bursa-pastoris</i>	shepherd's purse	3	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Chenopodium album</i>	lambsquarters	3, 4	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Cirsium arvense</i>	Canada thistle	1, 2, 3, 4	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Cirsium vulgare</i>	bull thistle	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Convolvulus arvensis</i>	bindweed	1, 2, 3, 4	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
<i>Cynodon dactylon</i>	Bermudagrass	1, 2, 3, 4	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Descurainia sophia</i>	flix weed	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Erodium cicutarium</i>	red-stemmed filaree	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Festuca arundinacea</i>	tall fescue	1, 2, 3, 4	<ul style="list-style-type: none"> Pulling & Digging: Pull or dig to remove plants after rains loosen the soil; cut the stems and, being careful not to disperse fragments, dig up the roots using hand tools or heavy equipment (only successful on seedling and sapling sprouts in isolated conditions). Foliar Treatment: Apply foliar spray herbicide after the plant flowers and before summer or winter dormancies. Cut Stump: Cut and treat the cut stems with herbicide. 	<ul style="list-style-type: none"> Suppression. Monitor for occurrence, and control during late-spring or fall. If not considered ubiquitous in the region, soil and spoils may not be transported offsite from any Project work site infested with this species.
<i>Festuca myuros</i>	rattail fescue	1, 2, 3	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Halogeton glomeratus</i>	Halogeton, saltlover	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Hirschfeldia incana</i>	summer mustard, short-pod mustard	1, 2, 3	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
<i>Hordeum murinum</i>	foxtail barley, hare barley	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Hornungia procumbens</i>	prostrate hutchinsia	1, 2, 3	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Lactuca serriola</i>	prickly lettuce	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Lepidium latifolium</i>	perennial pepperweed	1, 2, 3	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Lotus corniculatus</i>	bird's foot trefoil	1, 2, 3	<ul style="list-style-type: none"> Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Malva neglecta</i>	common mallow	3, 4	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Malva parviflora</i>	cheeseweed	2, 3	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
<i>Medicago sativa</i>	alfalfa	1, 2, 3	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Melilotus albus</i>	white sweet-clover	3	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Melilotus officinalis</i>	yellow sweet-clover	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Persicaria maculosa</i>	spotted ladythumb	1, 3, 4	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Plantago lanceolata</i>	English plantain	1, 2, 3	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Plantago major</i>	common plantain	1, 2, 3	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Poa pratensis</i>	Kentucky blue grass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Polygonum aviculare</i>	prostrate knotweed	3	<ul style="list-style-type: none"> • Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Polypogon monspeliensis</i>	rabbitsfoot grass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. 	<ul style="list-style-type: none"> • Prevention/Containment

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
			<ul style="list-style-type: none"> Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Hoeing & Trimming: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Rhaponticum repens</i>	Russian knapweed	1, 2, 3, 4	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Rumex crispus</i>	curly dock	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Salsola tragus</i>	Russian-thistle	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Pulling: pull out entire plant and root before seed is set and bag for proper disposal. Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> Prevention/Containment
<i>Schismus arabicus</i>	Arabian schismus, Mediterranean grass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention
<i>Schismus barbatus</i>	Mediterranean grass	1, 2, 3, 4, 5	<ul style="list-style-type: none"> Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> Prevention

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
<i>Sisymbrium altissimum</i>	tall tumbled mustard	1, 2, 3, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Sisymbrium irio</i>	London rocket	3	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Tragopogon dubius</i>	yellow salsify	1, 2, 3, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Tribulus terrestris</i>	puncturevine	1, 2, 3, 5	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	<ul style="list-style-type: none"> • Prevention/Containment
<i>Trifolium repens</i>	white clover	3, 4	<ul style="list-style-type: none"> • Pulling: pull out entire plant and root before seed is set and bag for proper disposal. • Hoeing & Trimming/Brush Cutting: Mow, scrape, cut, or trim seedlings and mature plants at or just below ground surface prior to seed dispersal. 	<ul style="list-style-type: none"> • Prevention/Containment

Table 4-2 Treatment Methods and Goals for Invasive and Noxious Nonnative Plants Identified in Treatment Zones

Scientific Name	Common Name	Invasive Plant Zone(s)	Treatment Methods	Management Goals
			<ul style="list-style-type: none"> • Foliar Treatment: Control with various herbicides during vegetative growth stage. 	
<i>Triticum aestivum</i>	common wheat	3	<ul style="list-style-type: none"> • Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> • Prevention
<i>Veronica anagallis-aquatica</i>	water speedwell	1, 2, 3	<ul style="list-style-type: none"> • Prevention Only: Ubiquitous. Control infeasible; prevention is optimal control method. 	<ul style="list-style-type: none"> • Prevention

4.3 Monitoring

SCE will conduct monitoring for invasive plant and noxious weeds and effectiveness of treatment options in conjunction with pre-construction sweeps by environmental compliance monitors as required by BIO-GEN-1 and BIO-RES-2 (Table 1-2) in temporary impact areas. Monitors will note the presence of invasive plants and noxious weeds listed in this Plan compared to the results of the baseline surveys to determine if infestations are occurring.

During construction, monitoring of infestations will be performed by the biological monitor, who will be on site daily throughout construction. The monitor should have specific knowledge of the weeds on the Project site and be able to distinguish weeds from native plants in all developmental stages. Monitoring will consist of performing visual inspections of construction activities and equipment to determine if preventive measures identified in Section 4.1 are needed and being followed. If the preventive measures in Section 4.1 are insufficient, monitors will determine whether treatment methods identified in Section 4.2 would be necessary. Monitoring will also consist of visual assessments and will focus on identifying the location and species composition of invasive plants or noxious weeds and any new or repeated infestations and the need for treatment. Occurrences of new discreet infestations of target species in this Plan will be documented, mapped by global positioning system (GPS), and identified on an aerial photograph or other base map in SCE's Field Reporting Environmental Database (FRED). Photographs may also be taken when appropriate. Monitoring personnel will notify the Lead Biological Monitor to review the infestation and plan for removal or treatment of the infested area. Monitors will immediately notify SCE of any new weed discoveries so that treatment can be scheduled as soon as possible. Infestations will be included in the monitor's daily biological monitoring report entered in FRED. Monitoring during the restoration program as defined in the Project's Habitat Restoration Plan (HRP, SCE 2022) will identify any areas of localized infestation on and adjacent to the Project temporary impact areas that need to be treated to promote the success of the restoration program. Treatment will occur as needed per the guidance in Section 4.2. In addition to monitoring during construction activities, Project-wide invasive plant and noxious weed annual surveys will be conducted. The data will be used to update the invasive plants map. During the construction phase Project-wide invasive plants map will be updated annually. The map will include the extent and location of baseline and new infestations of target species.

4.4 Reporting

All restoration monitoring and reporting will be done according to the Project's HRP. The report will also include the treatments applied and their effectiveness.

5.0 Herbicide Application, Handling, Spills, and Cleanup

5.1 Herbicide Application and Handling

Treatment of some weeds may be most effectively accomplished through herbicide application. Any adjuvants, dyes, and surfactants used in tandem with the herbicide will be least toxic to the environment. All adjuvants, dyes, and surfactants will be added to the correct herbicide following instructions and proportions specified on the herbicide label. The application of general use herbicides will follow all federal, state, and local laws and regulations. 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 non-selective herbicide provides effective control of many species, including grasses, forbs, vines, shrubs, and trees.

The following five other herbicides would be used in a limited fashion for treatment 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).
- Fusilade II/DX (Active ingredient: Fluazifop-P-butyl) is a selective herbicide which controls grasses and select broadleaves. Local agencies have found this herbicide to be very effective at controlling *Bromus tectorum*, *Schismus barbatus*, and *Erodium cicutarium*.

Herbicide use is currently not permitted for the Project; however, if needed, SCE or its contractor will coordinate with the BLM and/or USFS and develop a PUP as well as any necessary environmental compliance documentation that will be submitted to BLM and/or USFS for approval.

Application of herbicides would be suspended when any of the following conditions exists:

- Wind velocity exceeds 10 miles per hour; or
- Precipitation is occurring or is imminent.

Calibration checks of equipment would be conducted at the beginning of spraying and periodically to ensure that proper application rates are achieved. Herbicides would be transported to the Project area daily with the following provisions:

- Only the quantity needed for that day's work would be transported.
- Concentrate would be transported in approved containers only and in a manner that would prevent tipping or spilling and in a compartment that is isolated from food, clothing, and safety equipment.
- Mixing would be done off-site and at a distance greater than 200 feet from open or flowing water, wetlands, or other sensitive resources.
- All herbicide equipment and containers would be inspected on a regular basis for leaks.
- All labels on herbicide equipment will be legible to avoid misidentification.

All herbicide applications would follow USEPA label instructions.

Herbicide treatment would be implemented by a Licensed Qualified Applicator. Weed treatment crews must be familiar with the detailed requirements for weed control as specified in this Plan. All herbicide applications would follow USEPA label instructions and be in accordance with federal, state, and local laws and regulations. Herbicides would be applied using backpack sprayers, or possibly utility terrain vehicle (UTV)-mounted boom 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. UTV-mounted sprayers can carry a larger capacity of herbicide (up to 50 gallons) and may be used to treat larger areas of infestation.

5.2 Herbicide Spills and Cleanup

All reasonable precautions would be taken to avoid herbicide spills. In the event of a spill, cleanup would be immediate. Contractors would keep spill kits in their vehicles and in herbicide storage areas to allow for quick and effective response to spills. Response to an herbicide spill would vary with the size and location of the spill, but general procedures include:

- Traffic control
- Dressing the cleanup team in protective clothing
- Stopping the leaks and containing the spilled material
- Cleaning up and removing the spilled herbicide and contaminated adsorptive material and soil, and
- Transporting the spilled herbicide and contaminated material to an authorized disposal site.

5.3 Worker Safety and Spill Reporting

All herbicide contractors will obtain and have readily available copies of the appropriate safety data sheets for the herbicides used. All personnel who apply herbicides will wear appropriate personal protective equipment (PPE) at all times when working with herbicides. All herbicide spills will be reported in accordance with applicable laws and requirements.

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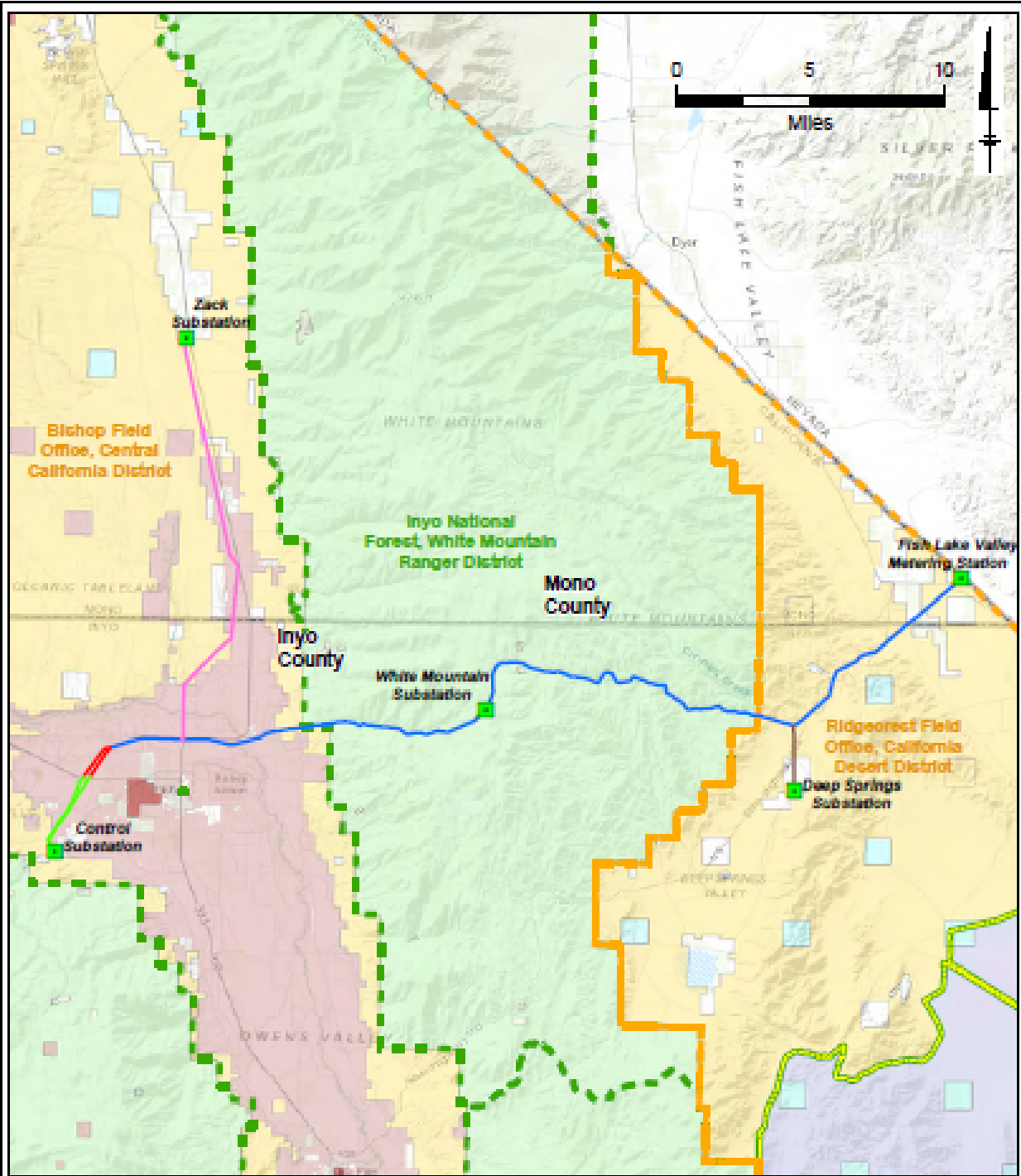
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
7.0 Revisions

Date	Description of Revision	Contact

FIGURES



Legend

- | | | |
|---|---|---|
|  Substation |  Counties |  U.S. Forest Service |
|  Segment 1/Weed Zone 1 |  California State Lands Commission |  National Park Service |
|  Segment 2/Weed Zone 2 |  Bureau of Land Management |  Los Angeles Department of Water and Power |
|  Segment 3/Weed Zone 3 |  Bureau of Indian Affairs |  BLM Administrative Units |
|  Segment 4/Weed Zone 4 | | |
|  Segment 5/Weed Zone 5 | | |

**CONTROL-SILVER
PEAK PROJECT**

**PROJECT SEGMENTS/
INVASIVE PLANT ZONES**



**FIGURE
1**