February 2025

SDG&E

Wildfire Fuels Modification Program

2024 ANNUAL REPORT

SAN DIEGO COUNTY, CALIFORNIA

Prepared for:
SAN DIEGO GAS & ELECTRIC
8315 Century Park Court
San Diego, California 92123

Prepared by:
AECOM
401 W A Street, Suite 1200
San Diego, California 92101

SDGE™

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San Diego Gas & Electric
8315 Century Park Court
San Diego, California 92123

Prepared by:

AECOM Technical Services, Inc.
401 West A Street, Suite 1200
San Diego, California 92101
Phone: (619) 610-7600

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LIST OF ACRONYMS

%	percent
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CRI	Circuit Risk Index
ERA	Environmental Resource Assessment
GIS	geographic information systems
HCPA	Habitat Conservation Plan Amendment
HFTD	High Fire Threat District
LEHCP	Low-Effect Habitat Conservation Plan
MSCP	Multiple Species Conservation Plan
NCCP	Natural Community Conservation Plan
O&M	operations and maintenance
Pala	Pala Band of Mission Indians
PRC	Public Resources Code
QCB	Quino checkerspot butterfly
ROWs	rights-of-way
SCIC	South Coastal Information Center
SDG&E	San Diego Gas & Electric Company
SUG	Strategic Undergrounding
UCCE	University of California Cooperative Extension
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UTS	Utility Tree Service
WMP	Wildfire Mitigation Plan
WFM Program	Wildfire Fuels Modification Program
WRRM	Wildfire Risk Reduction Model

1.0 INTRODUCTION

This 2024 annual report for the San Diego Gas & Electric Company (SDG&E) Wildfire Fuels Modification Program (WFM Program)[1] summarizes observations of wildfire fuels modification and associated monitoring activities conducted by SDG&E during calendar year 2024. Fuels modification activities were conducted by SDG&E from January 29, 2024 through October 10, 2024. Associated biological surveys, feasibility assessments (pre-modification), and quality audits (post-modification) were conducted by AECOM prior to and following fuels modification activities between January 29, 2024 and April 30, 2024.

This report summarizes all 2024 WFM Program activities across all land ownerships. It provides a description of fuels modification methodology, dates of activities, treatment and re-treatment locations, treatment and re-treatment acreage, best management practices, and biological survey data. It also provides representative site photographs and site maps showing completed treatment and re-treatment areas.

1.1 Program Background

In response to California State Senate Bill 901, which was approved in September 2018, SDG&E launched the WFM Program in June 2019 to reduce wildfire risk along select transmission and distribution lines. The purpose of SDG&E's WFM Program is to support SDG&E's Wildfire Fuels Management Program by providing planning, scheduling, field coordination, environmental compliance, and data management services for fuel reduction efforts along SDG&E's rights-of-way (ROWs).

The WFM Program has been active from 2019 through 2024. WFM Program cycles follow calendar years, with annual reporting provided for each program year. The comprehensive report on 2019 WFM Program activities was provided in April 2020 (AECOM 2020c), the comprehensive report for the 2020 WFM Program was provided in March 2021 (AECOM 2021b), the comprehensive report for the 2021 WFM Program was provided in March 2022 (AECOM 2022), the comprehensive report for the 2022 WFM Program was provided in February 2023 (AECOM 2023b), and the comprehensive report for the 2023 WFM Program was provided in February 2024 (AECOM 2024a). A draft Mitigation Report detailing habitat-specific impacts for project activities in 2024 (AECOM 2024c) was submitted in June of 2024.

This WFM Program report includes information about the component of SDG&E's WFM Program that was conducted by the Pala Band of Mission Indians (Pala) on their land, but the activities were conducted independently by a separate team using a variation of the methodology. This report includes the poles where activities were conducted as part of overall completion numbers

[1] The WFM program was referred to as the Wildfire Fuels Management Program until 2021 when SDG&E renamed it to the Wildfire Fuels Modification Program.

and acreage, but specific information and details about this effort is unknown to AECOM and therefore is outside the scope of this report.

Agency-specific reports were provided to the Bureau of Land Management (BLM) and United States Forest Service (USFS) for all years where fuels modification took place on their lands (AECOM 2020a, 2020b, 2021a, 2023a). In 2024, WFM Program activities were conducted by SDG&E on privately owned lands; no activities occurred on lands managed by USFS or BLM.

1.2 Program Objectives

As stated in SDG&E's Wildfire Mitigation Plan (WMP), SDG&E will construct, maintain, and operate its electric system in a manner that minimizes the risk of catastrophic wildfire posed by its electric power lines and equipment (SDG&E 2023a). As a component of the WMP, the WFM Program implements vegetation management around SDG&E infrastructure in high-risk areas of the service territory, in line with the WMP wildfire risk minimization strategy. Structures that are subject to the pole clearing (brushing) (WMP.501) requirements of California Code of Regulations Public Resources Code (PRC) § 4292 are targeted for vegetation management treatment in the WFM Program (California Code of Regulations 1965). SDG&E prioritizes treatment of structures where the risk of ignition is relatively high due to the presence of hardware that makes them subject to pole clearing, and because they are located within elevated fire risk (Tier 2) and extreme fire risk (Tier 3) areas that are identified in the California Public Utilities Commission's Fire Threat Map and High Fire District maps.

The overall goal of SDG&E's fuels modification activities is to establish target conditions at each work area. Specifically, vegetation is thinned in a 50-foot radius from the outside circumference of the structures down to an approximate 30 percent (%) vegetation cover where achievable. Non-native vegetation is prioritized for thinning. SDG&E's target conditions are defined as less than 30% total vegetation cover that contains little or no dry herbaceous vegetation and dead/down material.

The methods used to achieve target conditions are:

1. Removal of herbaceous vegetation, especially nonnative species;
2. Removal of dead/down woody vegetation; and
3. Thinning of woody vegetation, with a focus on reducing lateral and vertical connectivity while preserving habitat value.

1.2.1 Vegetation Modification

SDG&E's approach to modification has two primary components: reducing vegetation density by decreasing lateral (horizontal) connectivity between shrubs to slow the rate at which wildfire can spread and provide greater opportunity for a fire to burn itself out before moving to adjacent vegetation; and reduction of ladder fuels (i.e., vertical connectivity) to limit the ability for a fire burning low to the ground to spread upward into tall woody vegetation.

SDG&E seeks to achieve reduction by targeting species based on various factors, including but not limited to their ecological value (i.e., high-value species are avoided) and their wildland fire risk (i.e., high-risk species are targeted). A list of species commonly encountered and targeted for thinning or removal is provided in Table 1.

Table 1
Highly Flammable (Native) and Fire-Promoting (Nonnative) Species

Status in California	Common Name	Scientific Name
Native Species	chamise	*Adenostoma fasciculatum*
	redshank	*Adenostoma sparsifolium*
	coastal sagebrush	*Artemisia californica*
	California buckwheat	*Eriogonum fasciculatum*
	pine species	*Pinus* spp.
	sage species	*Salvia* spp.
Nonnative Species	wild oats	*Avena* spp.
	brome grasses	*Bromus* spp.
	mustard	*Brassica* spp.; *Hirschfeldia incana; Sisymbrium* spp.
	tocalote	*Centaurea melitensis*
	fountain grass	*Pennisetum setaceum*
	Russian thistle	*Salsola* spp.
	pine species	*Pinus* spp.

2.0 PROGRAM WORK AREAS

2.1 Site Selection

Sites were selected and prioritized by SDG&E for inclusion in the WFM Program based on SDG&E's assessment to identify the highest-risk structures in SDG&E's service territory and determine their suitability for inclusion in the WFM Program. SDG&E's assessment included, but was not limited to, identifying whether a structure is located within a High Fire Threat District (HFTD), its Circuit Risk Index (CRI), and results of the Wildfire Risk Reduction Model (WRRM). All priority structures identified by SDG&E were part of SDG&E's Operations and Maintenance (O&M) Vegetation Management Program, which maintains a 10-foot radius of bare mineral soil around each structure (i.e., pole brushing radius) per California PRC 4292 (California Code of Regulations 1965). This O&M vegetation management program is separate from SDG&E's Wildfire Fuels Management Program, of which the WFM Program is a component.

WFM Program work in 2024 continued to use SDG&E's 2021 site selection assessment that identified 2,435 priority structures for potential WFM Program work. Of these 2,435 priority structures identified by SDG&E, all were poles located along distribution lines. In previous program years, a total of 644 of these priority structures identified by SDG&E were treated as part

of the WFM Program. The remaining 1,733 priority structures identified by SDG&E were new potential treatment poles.

As part of the assessment, SDG&E conducted an environmental review (i.e., release) to provide compliance constraints for all structures identified for the 2024 WFM Program. The review process removed structures with known state or federally listed plant or animal species, including designated critical habitat, and minimized work near regionally sensitive plant and wildlife species through public databases such as the California Natural Diversity Database (CNDDB) (CDFW 2022) and the United States Fish and Wildlife Service's (USFWS's) Threatened and Endangered species database (USFWS 2022). It also identified sites that require cultural resource monitoring and avoided specific cultural resource areas of high significance. Reporting on cultural resources will be provided under separate cover.

As an additional review, an analysis was performed to determine any overlap between the priority structures and structures identified as part of SDG&E's Strategic Undergrounding (SUG) Project. Any poles that were planned for undergrounding prior to or during the 2024 calendar year were removed from consideration for the WFM Program. Furthermore, any structures no longer subject to California PRC 4292 were excluded from consideration for the WFM Program.

2.1.1 Treatment Areas

Additional observations were made by AECOM to help identify the target list of 2024 WFM Program treatment areas from the priority structures identified by SDG&E. Each potential treatment area associated with the 2,435 priority structures identified by SDG&E consists of a circle with a 50-foot radius around the priority structure, which corresponds to a work area of 0.18 acres (7,854 square feet). Property ownership was determined by conducting an overlay in geographic information systems (GIS) of the 2,435 potential treatment areas with San Diego County Assessor parcel boundaries. Developed roads, driveways, and permanent structures were removed from the proposed treatment areas in GIS. The pole brushing circle (10-foot radius) was included in the treatment area for purposes of modification activities but removed prior to final acreage and mitigation calculations, as this pole brushing radius area is mitigated under SDG&E's O&M Vegetation Management Program.

In 2022, AECOM evaluated the vegetation density of each new proposed treatment area using desktop analysis of publicly available aerial imagery. The purpose of this evaluation was to identify sites with low or negligible vegetation density and eliminate them from program activities based on information known at that time. Sites with very low or nonexistent vegetative cover were assigned a value of "no work needed." Examples of sites determined to not need work included developed areas with little or no vegetation (e.g., roadways, parking areas, and driveways); well-maintained and landscaped areas adjacent to residences and buildings; agricultural areas such as active grazing pastures, crop fields, and orchards; woodlands with sparse herbaceous understory; and minimally vegetated areas of any kind not prone to wildfire. The desktop review determined that approximately half of the priority structures (1,194) identified by SDG&E do not require wildfire fuels modification as part of this Program. This analysis was used by SDG&E to

determine the poles to prioritize for the 2023 and 2024 Program and no further desktop evaluation was performed in 2023 nor 2024.

The final selection of priority treatment poles was made by SDG&E based on geographic proximity in order to minimize drive times between sites. A total of 75 target treatment areas were selected as the final list of potential treatment areas for the 2024 WFM Program. These sites were submitted for Public Outreach (Section 2.2) to obtain permission for treatment.

High priority treatment areas (or portions of treatment areas) with restricted or unsafe access were not considered and are on hold until SDG&E develops a suitable approach on a site-by-site basis. Suitable approaches may include site-specific safety equipment, specialized vehicles, and/or transportation by helicopter.

2.1.2 Maintenance Areas

A total of 644 priority structures identified by SDG&E were treated as part of the WFM Program in previous program years; of these, 434 were available and identified as workable sites for maintenance in 2024. A subset of these structures was selected for potential maintenance based on data collected during initial treatment such as observed fuel load at each site, estimated vegetation cover and type documented at each site, and maintenance needs. However, standard maintenance was not included in the 2024 Program.

2.2 Public Outreach

An extensive public outreach process was required for success of the WFM Program because participation is entirely elective; therefore, property owners must provide explicit permission to participate. The public outreach process was entirely managed by KP Environmental.

To begin the public outreach process for 2024, property ownership was assessed by KP Environmental for the selected work areas, and ownership changes or expired permission for maintenance work areas were checked, resulting in approximately 22 separate owners that needed to be contacted. Most proposed work areas are located entirely or partially on private land, with some additional proposed work areas located on BLM-managed land. For the 2024 effort, landowners were initially contacted in early April 2024 by sending a mailer directly to the mailing address provided in the San Diego County Assessor parcel data. The mailer provided information on the WFM Program and requested permission to conduct activities on each landowner's property. The mailer included a personalized permission form, a fact sheet about the WFM Program, a FAQ form, a Community Resource form, and a stamped return envelope for the owner to provide their signed permission form. Follow-up discussions with property owners occurred by telephone and email starting after the first mailer went out and continued throughout the year.

Permission for WFM Program activities was obtained from each property owner prior to conducting activities. In 2024, approximately 340 new landowners were contacted to participate in the WFM Program, with approximately 70 providing permission in 2024. This corresponded to

29 poles authorized for treatment and 18 poles for maintenance. Where proposed work areas corresponded with multiple landowners, the site would be considered partially approved until all landowners agreed. Exceptions were made in some cases where permission from a significant portion of a proposed work area was obtained (e.g., at least 50% of the proposed work area received landowner permission), and a determination was made that WFM Program activities could occur only within the approved portion of the work area. For previously treated sites identified for maintenance (434 poles), most landowner permissions had already been acquired during previous WFM Program years and landowners were notified of scheduled work as requested.

3.0 PROGRAM METHODOLOGY

This section outlines how the WFM Program was implemented in 2024 using constraints analysis for biological and cultural resources (provided by SDG&E in an Environmental Release), pre-modification surveys, a selective fuels modification approach that maintains habitat value, and post-modification audits to provide quality assurance.

3.1 Feasibility Assessments

Feasibility assessments were conducted on all sites prior to modification. These assessments served multiple purposes to support the WFM Program, including providing notes on site access, staging areas, hazards present, presence of sensitive species, landowner interactions and special instructions, whether the site required treatment, and the projected level of effort required.

Feasibility assessments were an important component of planning because up to seven off-road capable vehicles could be associated with each treatment location (two crew trucks, biological monitor, potential cultural and tribal monitors, and safety vehicles), resulting in significant logistical planning to maintain a safe and compliant work area. Site safety and access data collected included the ability to drive up to the site, specific access protocols, traffic control requirements, and photographs of the general area.

Some biological data were collected as part of feasibility assessments, including the presence of listed species, sensitive habitat, woodrat middens, and arborescent species of oak (*Quercus* spp.). If an oak species was present, the biologist would note if a goldspotted oak borer (*Agrilus auroguttatus*) infestation was also observed.

Feasibility assessment data were recorded using electronic forms, which were accessible in the field for all biologists to reference during modification and quality audit activities. The feasibility forms were part of the standard methodology for scheduling purposes and for the biologist and/or logistics personnel to plan and prepare the crew for the day’s work.

3.2 Pre-activity Surveys

Starting in 2023, SDG&E began to track mitigation for impacts from the WFM Program under the Natural Community Conservation Plan (NCCP) Bridge Amendment (SDG&E 2022). To meet the needs of this Amendment, pre-activity habitat assessments were conducted at 33 new treatment poles. The pre-activity habitat assessment identified all habitat types within the 50-foot radius that would potentially be impacted by project activities. The biologist determined if sensitive species had the potential to be present in the work area and identified other sensitive resources for avoidance such as aquatic features and woodrat middens. Data from the survey was used to draft an Environmental Resource Assessment (ERA) that describes habitat impacts and calculates mitigation by habitat type at each pole.

The WFM Program was active during the avian nesting season (February 15 through August 31) for the first time in 2024. To avoid interrupting nesting behaviors or disturbing active nests, bird surveys were conducted within three days prior to treatment or re-treatment activities. If an active nest was observed within the treatment circle or directly adjacent to the work area, fuels modification treatments would be delayed until the nest was determined by a biologist to have fledged or naturally failed. If an active nest was observed within 500 feet of the work area, biologists determined if work could proceed based on environmental factors (e.g. presence of barriers between the nest and work area) and the observed disturbance tolerance of the nesting species (e.g. the nest is next to a busy road). When feasible, pre-activity habitat assessments were paired with pre-activity nesting bird surveys.

3.3 Fuels Modification Treatment

Wildfire fuels modification activities were conducted by Utility Tree Service (UTS), an SDG&E contractor with experience in vegetation management. WFM Program biologists with experience in ecological restoration and identification of sensitive species worked in conjunction with UTS crew leads and foremen and provided environmental oversight of treatment activities to ensure avoidance and minimization measures were met. WFM biologists conducted vegetation surveys while on site with the field modification team. They collected pre- and post-treatment vegetation cover data, including percent cover for total, native, shrub, and nonnative vegetation at each site. The dominant plant species within the site (e.g., a single species with at least 20% relative cover) were recorded pre-treatment. The pre- and post-treatment photographs were recorded from the same vantage point.

The size of field crews and types of equipment were selected to address the needs of the treatment area. In general, fuels modification treatment was conducted by teams of 6 to 10 people that included a biologist to monitor activities and guide environmental compliance, vegetation maintenance personnel, vegetation maintenance foreman, and cultural resource monitors (as needed). Emergency and wildfire safety monitoring was covered by foremen from the vegetation maintenance crew.

At the onset of treatment for each site, the biological monitor surveyed the area for sensitive species listed in SDG&E's Habitat Conservation Plan Amendment (HCPA) (SDG&E 2023b) and NCCP (SDG&E 2022) that require avoidance or potential buffering. The work limits, as well as sensitive resources (e.g., woodrat middens, aquatic features) and/or hazardous areas, were flagged with a standardized color schematic. Where applicable, cultural and tribal monitors also surveyed the proposed treatment area for any artifacts that would require documentation, temporary relocation, or buffering.

Adjustments to the treatment area boundaries were made during vegetation modification activities to protect sensitive resources, as needed. Adjustments were made by the biologist overseeing the work crew to avoid impacts to sensitive wildlife, sensitive vegetation, ephemeral drainages, or other highly erodible features. All adjustments resulting in a reduction in treatment area within the 50-foot boundary were mapped in situ by the biological field monitor. Following the completion of vegetation removal efforts, the biologist mapped the final treated area in ArcGIS Field Maps before removing all flagging from the site for disposal.

Since the 2024 WFM Program focused on private land, aesthetics and landowners' requests were taken into account while modifying the vegetation at the site. Often, treatment sites dominated by native vegetation were adjacent to landscaped areas. Landscaped areas were typically excluded from the final treatment area, and naturally occurring vegetation was separated from landscaping by introducing a minimum 6-foot-wide open space.

3.3.1 Native Vegetation

Native vegetation within the treatment areas was selectively thinned by SDG&E to achieve project objectives while preserving habitat function and value. Approaches to native vegetation removal varied by vegetation community but followed the same general principles. Modification focused on reduction in total vegetation cover, removal of highly flammable and fire-promoting species, and preservation of biodiversity and species that provide habitat value. To preserve biodiversity, selective thinning focused on the most common species present in the work area, such that species richness within the work area remained unaltered by treatment.

Treatment was conducted using chain saws, line trimmers, and hand tools. Habitat islands were created with a minimum 6-foot-wide break between patches of vegetation and ladder fuels were removed from the entire site to limit the spread of fire into the surrounding tree canopy. All native woody vegetation (including dead and down) was chipped on site using a chipper (Vermeer 1000 or similar) and loaded into a dumping box truck (or similar). Woody vegetation was cut using chain saws or hand tools above grade to avoid disturbing surface soils. Grubbing or disturbance of soil did not occur. Removal of herbaceous vegetation was done using line trimmers or hand tools. Native tree species were trimmed as part of the 2024 WFM Program methodology, including arborescent oak species, as detailed in Table 2. Extensive tree removal or canopy alteration is not required by SDG&E's WFM Program and ornamental trees were typically left untreated unless approved by landowners. Oak trees were treated similarly to non-oak species, such that small lower limbs (less than 1 inch in diameter) were removed as necessary to provide 2 to 4 feet of

clearance from the ground. All dead and down material, including dry leafy debris, was removed from the work area.

Table 2
Oak Species (*Quercus* spp.) Included in 2024 WFM Program

2024 WFM Program Approach	Common Name	Scientific Name
Excluded from the WFM Program prior to 2023, trimming only	coast live oak	*Quercus agrifolia*
	canyon live oak	*Quercus chrysolepis*
	oracle oak	*Quercus* x *morehus*
	Engelmann oak	*Quercus englemannii*
	black oak	*Quercus kelloggii*
	interior live oak	*Quercus wislizeni*
Consistently included within the WFM Program	scrub oak	*Quercus* x *acutidens* *Quercus berberidifolia*

Selection of individuals to be thinned favored the dominant shrub and nonnative species within a given treatment area, with the focus on highly flammable species (e.g., chamise and buckwheat), while maximizing function and biodiversity (i.e., thinning dominant species first). Another factor of selection was an individual plant's condition; partially dead individuals were selected for thinning instead of healthy individuals where feasible. For individual shrubs, dead branches were prioritized for trimming by SDG&E instead of living branches.

Dead and down vegetation within the treatment area was removed to the extent possible, including but not limited to dead wood, standing dead shrubs, senescent sections within shrubs, thatch, and small mulch piles left on site from other SDG&E activities. Dead/down oak material that could contain goldspotted oak borer and woodrat middens encountered in the treatment sites were handled following the specifications in Sections 3.5.1.1 and 3.5.1.2, respectively.

3.3.2 Nonnative Vegetation

Nonnative vegetation within the treatment areas was removed, to the extent possible. Removal was conducted using manual methods (e.g., mowing, line trimming, hand tools). Methods of nonnative vegetation removal were determined based on timing of treatment, species phenology, and vicinity to sensitive resources. All cut biomass was removed from the treatment area. Removal of nonnative vegetation within the treatment areas achieved project objectives by reducing flash fuels and improving habitat quality for native plant and wildlife species.

3.4 Fuels Modification Maintenance

Each year, fuels modification maintenance is conducted by SDG&E at a select number of previously treated work areas. The primary objective of maintenance is to maintain low fuel levels at sites that were previously treated over a longer time scale. During the 2024 Program, two

distinct categories of maintenance were considered based on the type of vegetation and percent cover recorded in previous years: standard maintenance and re-treatment.

Wildfire fuels maintenance activities were conducted by SDG&E contractor UTS. The size of field crews and types of equipment were selected to best meet the specific needs of the maintenance area. In general, fuels modification maintenance was conducted by teams of 5 to 10 people that included, but were not limited to, a biological monitor, vegetation maintenance personnel, vegetation maintenance foreman, and cultural resource monitors (as needed). Emergency and wildfire safety monitoring was covered by the vegetation maintenance crew.

3.4.1 Standard Maintenance

The primary objective of standard maintenance is removal of nonnative herbaceous vegetation, dry native annual biomass that often colonizes open or more sparsely vegetated areas, and any new dead and down material. All dead and down vegetation within the maintenance area is removed, including dead wood, standing dead shrubs, senescent sections within shrubs, and thatch. Dead/down oak material that could contain goldspotted oak borer is handled following the specifications in Section 3.5.1.1 to minimize risk of spread. Woodrat middens encountered during maintenance are handled following specifications in Section 3.5.1.2. Grubbing or disturbance of soil do not occur.

3.4.2 Re-treatment

The goal of re-treatment was to bring the site back to treatment condition (i.e., target condition), which is defined as less than 30% total vegetation cover, little or no dry herbaceous vegetation, and little or no dead/down material (as described in Section 1.2). The general approach and field crew composition for re-treatment were similar to initial treatment (as described in Section 3.2). During re-treatment, native woody vegetation was selectively thinned to achieve project objectives while preserving habitat function and value; nonnative herbaceous vegetation and dry native annual biomass were removed; and all dead and down vegetation within the maintenance area was removed, including dead wood, standing dead shrubs, thatch, and mulch piles left on site from other SDG&E activities. Dead/down oak material that could contain goldspotted oak borer was handled following the specifications in Section 3.5.1.1 to minimize risk of spread. Woodrat middens encountered during maintenance were handled following specifications in Section 3.5.1.2.

3.5 Resource Protection

An environmental review was conducted for all sites prior to modification activities. The environmental review removed sites with sensitive species, habitat, and cultural resources from the WFM Program. In addition, specific avoidance and minimization measures were identified for a subset of sites. During modification activities, AECOM implemented these measures and others given site observations and condition. A detailed description of these measures is provided in this section.

3.5.1 Biological Resources

A non-exclusive list of best practices (i.e., avoidance and minimization measures) for the protection of biological resources was developed in previous program years and modified for the 2024 WFM Program. The best practices reference document provides species-specific measures for each sensitive plant and animal species with potential to occur within Program modification areas within San Diego County. Attachment 1 provides the best practices used in the 2024 WFM Program as well as additional details on the development of these measures. In addition, specific HCPA and NCCP-listed species avoidance measures were detailed for each site and made available to the biological monitor present during fuels modification treatment activities to implement these measures.

Sensitive species observed within the treatment and maintenance areas were noted when a biological monitor was present, and biologists assessed each treatment site within mapped Quino checkerspot butterfly (QCB) potential habitat for suitability. Notable wildlife sightings within 500 feet and/or within the proposed modification area during a survey were recorded. Any sensitive wildlife species observed were noted on the data collection form, and appropriate avoidance and impact minimization measures were deployed (Attachment 1). Woodrat middens were the most common sensitive biological resource noted during modification activities. Details about the approach for woodrat middens are provided in Section 3.5.1.2.

3.5.1.1 Oak Disposal Best Practices

To limit the potential spread of goldspotted oak borer around San Diego County, sites with dead/down oak branches and material that could potentially transport goldspotted oak borer were identified during the WFM Program feasibility assessment and pre-treatment surveys.

Following procedures established in 2022, sites where potentially infected oak material was identified were noted in the feasibility assessment, and oak material was directed to be chipped to a diameter of 3 inches or less, per the University of California Cooperative Extension (UCCE 2021) or left in place if chipping was not feasible.

3.5.1.2 Woodrat Middens

Woodrat middens are associated with a number of species within the *Neotoma* genus; of these, the desert woodrat (*Neotoma lepida*) is an NCCP- and state-listed special-status species. Because subtle morphological variations are used to determine species, all woodrat middens encountered are assumed to potentially be occupied by the desert woodrat. During the 2024 Program, a total of 130 woodrat middens were removed from 45 sites over the course of 13 field days. Woodrat middens are composed of stacked sticks of approximately equal dimensions and therefore represent a significant fuel source. Consistent with the goal of further reducing dead/down fuel load, woodrat middens were relocated outside of the treatment area during the 2024 Program.

To facilitate removal of woodrat middens, an assessment protocol was developed to determine the current state of a midden, either active or inactive. Biologists and specialized crew members were trained to identify signs associated with an active midden and procedures for encountering

potential co-occurring species. Work generally avoided the bulk of the neonatal pupping season (November through February), to minimize disturbance to neonates and minimize stress on adults tending to young. Middens were carefully disassembled, and sticks were relocated outside of the 50-foot treatment radius. When woodrats or other rodents were encountered while a midden was being deconstructed, a 10-to-15-minute pause was taken to allow any animals present an opportunity to escape. Any additional middens within the project area were worked on while the active midden was left alone during the break. If woodrat activity continued to be observed after the pause, midden removal efforts were put on hold and the site was rescheduled for completion at a different date.

To mitigate the potential for crew exposure to Hantavirus, associated with co-occurring North American deer mouse (*Peromyscus maniculatus*), negative pressure filters (e.g., N95 mask) were required for midden removal efforts. Crew members were certified for mask fit and for general respiratory health before being certified to relocate middens.

During the 2024 WFM Program, a midden removal team consisting of a biologist and two woodrat removal certified AECOM crew members were scheduled to remove middens from treatment sites prior to their prescribed activity. This allowed UTS crews access to areas of the site that had previously been excluded from work due to midden presence. This helped to reduce the volume of stacked sticks associated with woodrat midden architecture, as well as additional removal of biomass (specifically dead/down) that was previously avoided when found in proximity to a midden.

3.5.2 Cultural Resources

Avoidance and minimization measures for cultural resources were determined based on standard SDG&E O&M protocols regarding culturally restricted areas. SDG&E's Principal Cultural Resources Specialist conducted a records and literature search at the South Coastal Information Center (SCIC) for the priority structures identified for treatment by SDG&E in 2024. SDG&E maintains a contract with the SCIC for the records search information for San Diego and Imperial Counties; records searches are conducted on a quarterly basis to identify any newly recorded sites within SDG&E's ROW. In addition, information from previous WFM Program years or other sources was reviewed to identify any areas lacking previous survey coverage.

An archaeological monitor was present for all vegetation removal activities that fell within identified culturally sensitive areas, as required by SDG&E. The type of monitor was determined by the best information available regarding the origin, type, and era of artifacts known to exist within (or near) the planned treatment areas. Native American representatives were engaged where appropriate. Fuels modification activities only proceeded with the concurrence of the cultural resource monitors on site, the designated Principal Investigator, and SDG&E's Principal Cultural Resources Specialist.

Archaeological monitors reviewed the SDG&E consultant survey coverage prior to any work to ensure the activities were in an area that has up-to-date coverage and, if not, visual inspections were made to ensure crews could safely conduct the prescribed work. Archaeological monitors

advised the fuels modification activities to avoid negatively impacting cultural resources or leaving them exposed to future impacts. If something sensitive was identified, crews were diverted away from the sensitive area or work continued with extensive documentation to capture the observation for future avoidance and planning needs. All reports were submitted to SDG&E and relevant agencies within 30 days of completion of the fieldwork.

3.6 Quality Audits

During 2024, AECOM biologists conducted audits at a subset of modification sites in light of SDG&E's WFM Program goals for vegetative cover and provided feedback to biologists and vegetation crews. During site audits, each site was given an evaluation rating of "good," "fair," or "poor" for quality of dead/down removal, thatch removal, woody thinning, and overall cleanliness. Additionally, crews were evaluated on their ability to work thoroughly across but exclusively within the 50-foot radius around the pole. This approach allowed for quality evaluation, provided immediate feedback to the vegetation crews, and provided a mechanism to capture post-modification vegetation cover data in the absence of a biological monitor.

Overall, audits were conducted at 11 treatment sites (33% of total treatment sites) and 21 re-treatment sites (31% of total maintenance sites). The overall results are provided in

Table 3. One hundred percent of sites received a passing audit score under the SDG&E program requirements (i.e., no rework was required). No sites (0%) received a failing score.

Table 3
Summary of 2024 Quality Audit Results

Category	Site Ratings			Final Evaluation	
	Poor	Fair	Good	Pass	Fail
Dead/Down Removal	0 (0%)	2 (6.3%)	30 (93.7%)	32 (100%)	0 (0%)
Thatch Removal	0 (0%)	0 (0%)	32 (100%)		
Woody Thinning[1]	0 (0%)	2 (6.3%)	30 (93.7%)		
Overall Cleanliness	0 (0%)	1 (3.1%)	31 (96.9%)		

[1] The quality of native thinning was only evaluated at treatment and re-treatment sites.

4.0 2024 WFM PROGRAM ACTIVITIES

The goal of the 2024 WFM Program was to conduct fuels modification at 500 structures. Overall, modification activities were completed at a total of 147 poles, consisting of 101 poles that are detailed within the scope of this report and 46 poles located on Pala land that are not detailed within the scope of this report. WFM Program activities in 2024 focused on fuels modification treatment of new sites and fuels modification maintenance of select 2019, 2020, 2021, 2022 and 2023 sites. Modification activities were conducted in winter to spring (January through April) of 2024. Feasibility assessments generally took place within 1 month prior to treatment activities;

however, in some cases, feasibility surveys from previous years were used for maintenance sites, and therefore, are subject to limitations based on the passage of time.

During the 2024 WFM Program, fuels modification treatment was conducted at 33 sites (0 of which were on Pala land) and fuels modification maintenance was conducted at 114 sites (46 of which were on Pala land). Sites were located on private, school district, and Bureau of Indian Affairs (BIA)-managed (i.e., Pala) land. The locations of these sites are shown in Figure 1. The 2024 WFM Program activities are summarized in Table 4. A detailed list of WFM Program activities conducted at each site (and dates they were conducted) is provided in Attachment 2.

Table 4
Summary of 2024 WFM Program Activities

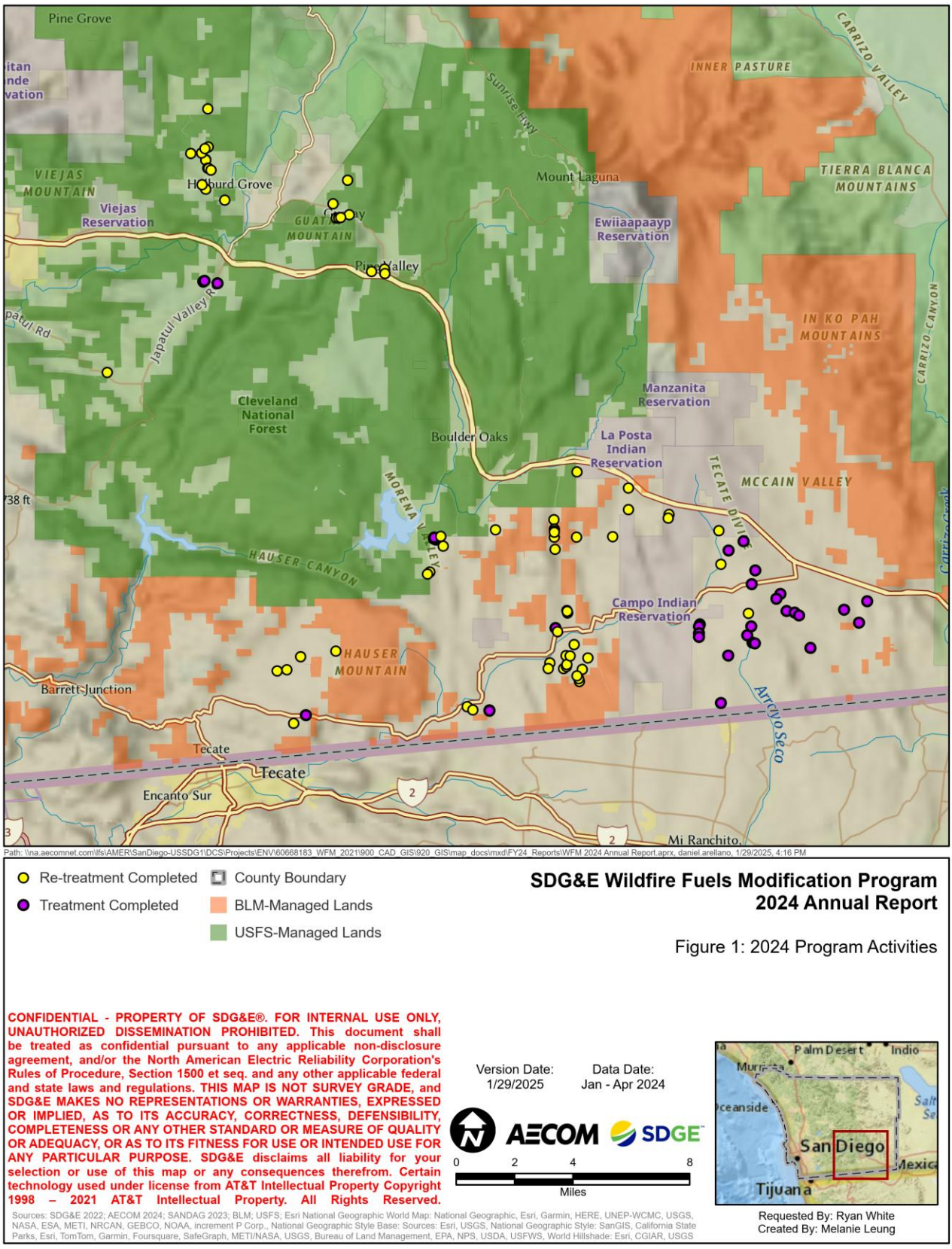
2024 Project Activity		Number of Sites[3]
Fuels Modification Treatment[1]	Feasibility Assessments	22
	Treatment Completed	33
	Audit Completed	11
Fuels Modification Standard Maintenance	Feasibility Assessments[2]	0
	Maintenance Completed	0
	Audit Completed	0
Fuels Modification Re-treatment[1]	Feasibility Assessments[2]	53
	Re-treatment Completed	114
	Audit Completed	21
Totals	**Feasibility Assessments**	**75**
	Modification Completed	**147**
	Audit Completed	**32**

[1] Pre- and post-modification surveys were conducted by the biologist immediately before and after modification activities, so feasibility and audit surveys were only conducted as needed.

[2] Due to the timing of consecutive WFM Programs, some feasibility assessments were conducted in 2023. In some cases, data from previously conducted feasibility assessments were used for maintenance sites and therefore are subject to limitations based on the passage of time.

[3] Numbers include treatment and re-treatment conducted on Pala land. No feasibility assessments or audit surveys were conducted on Pala land.

Figure 1 2024 Program Activities



4.1 Feasibility Assessments

Feasibility assessments were conducted January 31 through April 16, 2024. Due to the timing of consecutive WFM Programs, feasibility assessments for 22 of the 2024 treatment sites were conducted in fall of 2023. These assessments screened for sites that did not need treatment prior to mobilization and provided safety and access information to the treatment and maintenance crews for each site. Feasibility surveys were conducted prior to fuels modification treatment at all sites where treatment was planned. During the 2024 calendar year, feasibility assessments were conducted at a total of 22 proposed treatment sites and 53 proposed re-treatment sites. Not all sites where a feasibility survey was conducted received modification during the 2024 WFM Program due to landowner and time constraints. Fuels Modification Treatment

Fuels modification treatment was conducted at 33 sites between January 29 and April 12, 2024. Total area treated during the 2024 WFM Program was 4.51 acres. Sites treated were along five circuits. Treatment acreage by geographic area and landowner type is summarized in Table 5 (details provided in Attachment 2).

Table 5
Summary of Acreage Treated During 2024

Landowner	Area	Acreage Treated	
Private	Alpine	0.337	4.287
	Boulevard	3.058	
	Descanso	0.125	
	Lake Morena/Campo	0.595	
	Potrero	0.172	
School District	Lake Morena/Campo	0.225	0.225
Total Acreage Treated:			**4.512**

Boundaries of each treatment area were mapped in the field by the biological field monitor immediately after completion of treatment activities. Figures showing the actual treatment area perimeter and location of all treated areas are provided in Attachment 3. Treatment area maps are organized by geographic location with circuit labels provided for each site. Representative before and after photographs of treatment sites are provided in Attachment 5.

4.2 Fuels Modification Maintenance

Fuels modification maintenance was conducted by SDG&E's contractor at 114 sites between February 8 and October 10, 2024. Total area maintained during the 2024 WFM Program was 14.96 acres. All 114 maintenance sites were re-treatment sites where native re-thinning was the primary activity in addition to weed control and dead/down removal. Of the 68 maintenance sites

that are part of the scope of this Annual Report (i.e., not on Pala land), three sites were originally treated in 2019, 11 sites were originally treated in 2020, 13 sites were originally treated in 2021, 26 sites were originally treated in 2022, and 15 sites were originally treated in 2023. The 68 maintenance sites occurred along 9 circuits. Table 6 summarizes the acreage maintained by geographic location and landowner type (details provided in Attachment 2). Figures showing the actual maintenance area perimeter and location of all maintained areas are provided in Attachment 4. Representative before and after photographs of the maintenance sites are provided in Attachment 5.

Table 6
Summary of Acreage Maintained During 2024

Landowner	Area	Acreage Maintained				
		Standard Maintenance Sites	Re-treatment Sites	Standard Maintenance Subtotals	Re-treatment Subtotals	Totals
BIA[1]	Pala - Pauma	0.000	5.811	0.000	5.811	**5.811**
Private[2]	Alpine	0.000	0.125	0.000	9.145	**9.145**
	Boulevard	0.000	0.718			
	Descanso	0.000	1.752			
	Lake Morena / Campo	0.000	4.364			
	Pine Valley	0.000	1.439			
	Potrero	0.000	0.748			
Total Acreage Maintained:				**0.000**	**14.957**	**14.957**

[1] Sites located on Pala land.
[2] Includes ROW land.

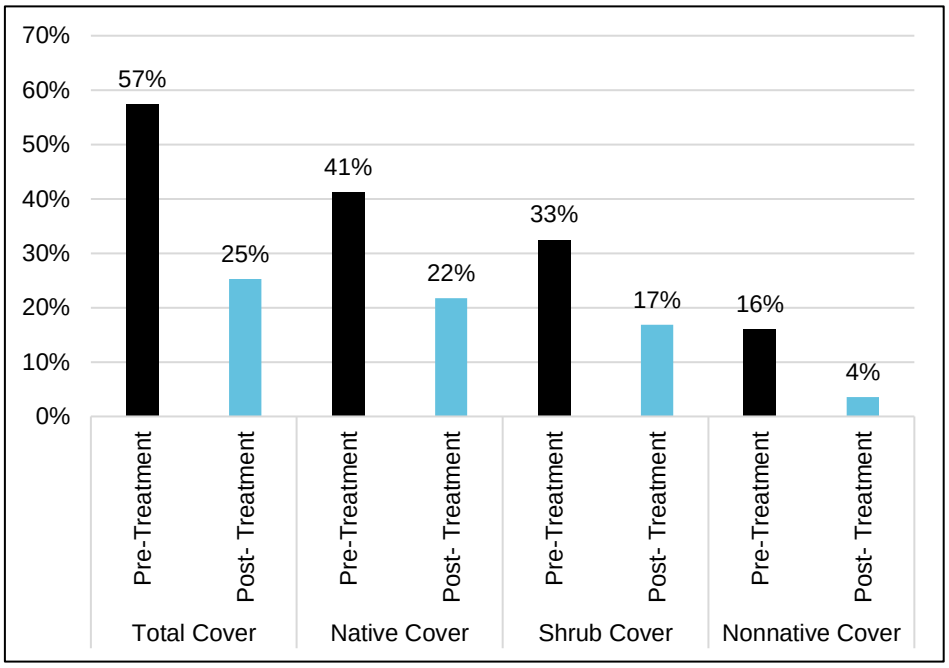
5.0 RESULTS

The results of pre- and post-treatment biological surveys from all sites worked at during 2024 were assessed to determine compliance with SDG&E's WFM Program. The primary metric used in the analysis was vegetation cover.

5.1 Changes in Vegetation Cover for Treatment Sites

The goal of fuels modification treatment is to reduce overall vegetation cover to create areas of woody vegetation separated by sparse herbaceous vegetation and open space. To evaluate the fuels modification activities, pre-treatment vegetation cover values were compared to post-treatment vegetation cover values for each site treated in 2024. Each type of cover (total, native, shrub, and nonnative) was assessed individually for change in cover, using exact percent covers. These results are provided in Attachment 6 and displayed in Figure 2.

Figure 2
Average Vegetation Cover Before and After Treatment

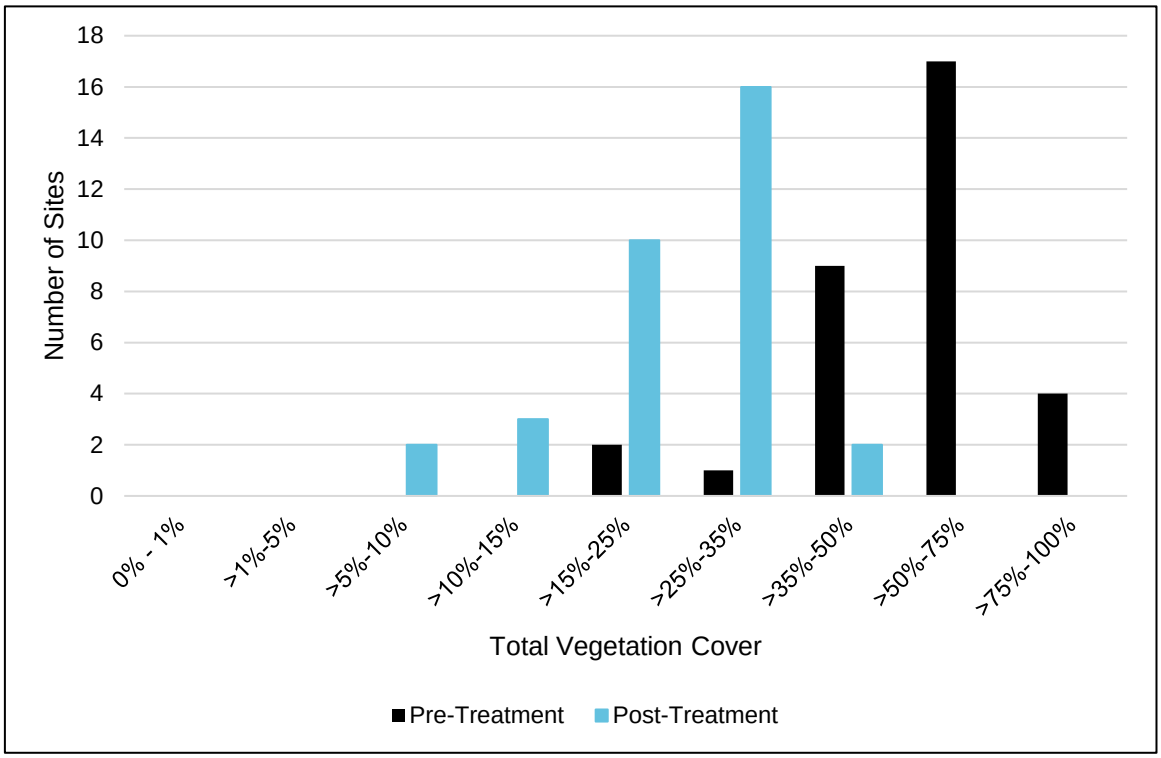


Note: This analysis includes the 33 treatment poles completed in 2024.

Results of the data analysis show that, on average, fuels modification treatment reduced total vegetation cover by approximately 32.2% across all sites (Attachment 6). The mean pre-treatment total vegetation cover observed was 57.5%; following fuels modification activities, the mean total vegetation cover decreased to 25.3%. Mean native vegetation cover decreased from 41.3% pre-treatment to 21.8% post-treatment, showing an average decrease of 19.6% across all sites. Average shrub cover decreased from 32.5% pre-treatment to 16.8% post-treatment, showing an average decrease of 15.7% across all sites. Lastly, mean nonnative vegetation cover decreased from 16.1% pre-treatment to 3.5% post-treatment, showing an average decrease of 12.6% across all sites. Shrub and nonnative species were the primary targets for treatment activities. The majority of the sites treated in 2024 (that are included in this analysis) were located within chaparral (21 sites), followed by disturbed habitat (four sites), Buckwheat scrub (three sites), coast live oak forest (one site), coast live oak riparian forest (one site), coastal sage scrub/chaparral mix (one site), landscape/ornamental (one site) and big sagebrush scrub (one site) habitats.

Figure 3 shows a comparison of the distribution of cover classes recorded for total vegetation cover during the pre- and post-treatment surveys. The chart demonstrates the shift in distribution from highly vegetated sites pre-treatment to much lower vegetation cover post-treatment. The data show that, for the majority of sites, total vegetation cover was recorded at less than 35% post-treatment, while the majority of pre-treatment sites had total vegetation cover greater than 50%.

Figure 3
Distribution of Total Vegetation Cover by Site Before and After Treatment



Note: This analysis includes the 33 treatment poles completed in 2024.

Analysis of the biological survey data shows that wildfire fuels were reduced in line with WFM Program goals. The majority of sites recorded total vegetation cover values of less than 35% following fuels modification activities (Figure 3), in line with the WFM Program goals of less than 30% total vegetation cover. This target condition of less than 30% total vegetation cover could not be reached at all sites because some treatment areas were dominated by tree cover. Within these treatment areas, cover remained high because no trees were removed and only some trees were thinned.

Data collected in 2024 included dominant plant species present within each treatment site. The most common dominant plant species observed were California buckwheat (*Eriogonum fasciculatum*), chamise (*Adenostoma fasciculata*), oak species (*Quercus* spp.), manzanita species (*Arctostaphylos* spp.), big sagebrush (*Artemisia tridentata*), and sugar bush (*Rhus ovata*).

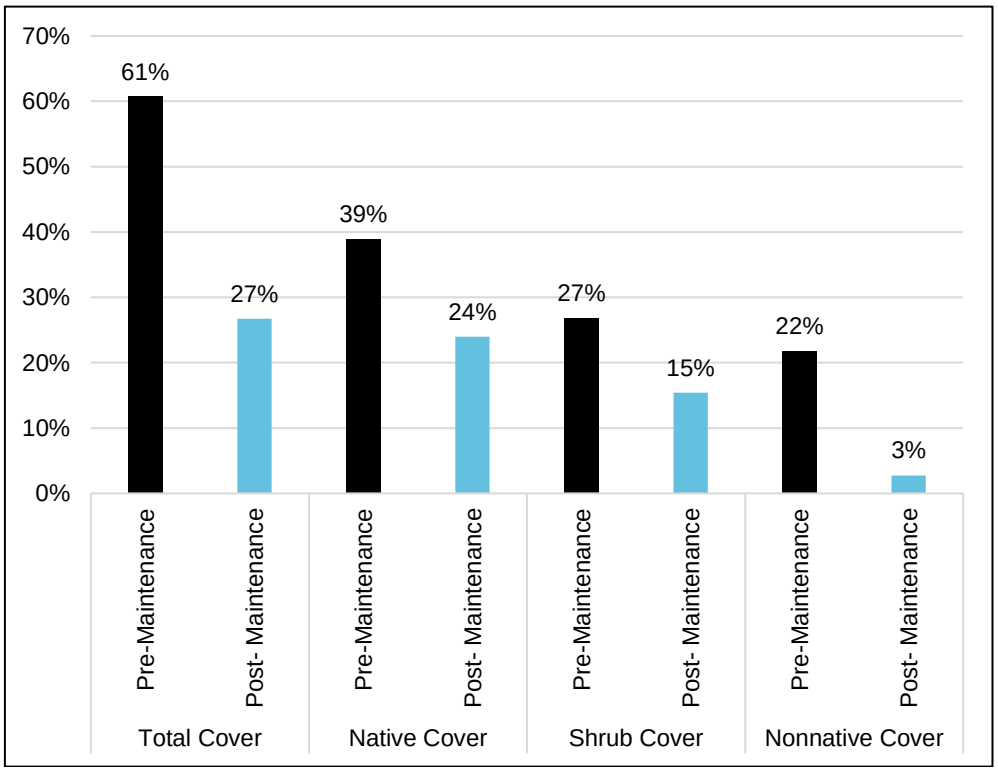
5.2 Changes in Vegetation Cover for Re-treatment Sites

The goal of fuels modification re-treatment is to bring the site back to treatment condition (i.e., target condition), which is defined as less than 30% total vegetation cover, little or no dry herbaceous vegetation, and little or no dead/down material to promote the WFM Program over a longer time scale. Change in vegetation cover pre- and post-modification was documented. Pre-

and post-modification vegetation cover (total, native, shrub, and nonnative) was collected by the biological monitor on the day of modification.

As shown in Figure 4, the mean total vegetation cover observed on re-treatment sites prior to modification was 60.7%. Following fuels modification activities, the mean total vegetation cover decreased to 26.7%, showing an average decrease of 34% in total cover across all re-treatment sites. Mean native vegetation cover decreased from 38.9% pre-modification to 24.0% post-modification, showing an average decrease of 14.9% in native cover across all sites. Average shrub cover decreased from 26.8% pre-modification to 15.4% post-modification, showing an average decrease of 11.4% in shrub cover across all sites. Lastly, mean nonnative vegetation cover decreased from 21.8% pre-modification to 2.8% post-modification, showing an average decrease of 19.1% in nonnative cover across all sites. Shrub and nonnative species were the primary targets for re-treatment activities, and these re-treatment sites were specifically selected due to high existing shrub cover.

Figure 4
Average Vegetation Cover before and after Re-treatment

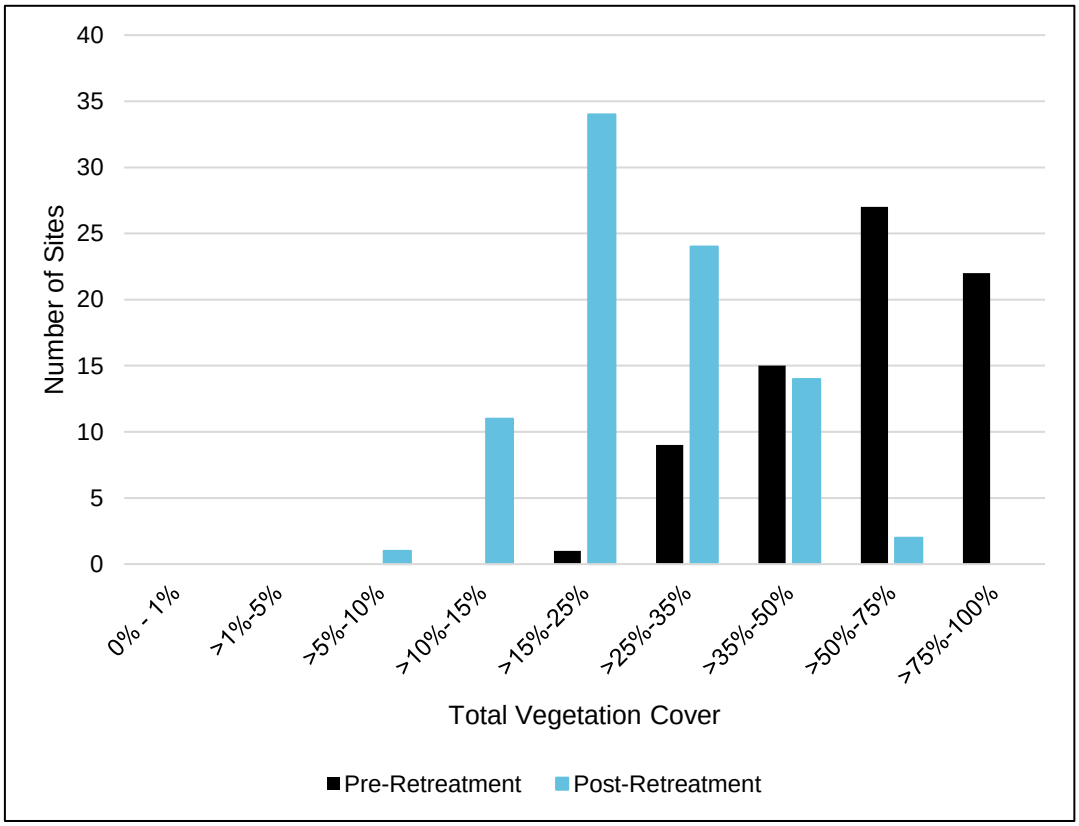


Note: Data for re-treatment completed on BIA land (within the Pala Reservation) are not included in this analysis as pre- and post-vegetation data were not collected. This analysis includes the 68 remaining re-treatment poles completed in 2024.

Figure 5 shows a comparison of the distribution of cover classes recorded for total vegetation cover during the pre- and post-modification surveys for re-treatment sites. The chart demonstrates the shift in distribution from highly vegetated sites pre-modification

to lower vegetation cover post-modification. As demonstrated in the figure, even though these sites were previously treated, total vegetation cover at the time of re-treatment had largely recovered and significant work was needed to bring the sites back to target conditions. Post-modification results show that re-treatment activities promoted Program goals of lowering the shrub and nonnative cover within previously treated sites back to target condition.

Figure 5
Distribution of Total Vegetation Cover by Site Before and After Re-treatment



Note: Data for re-treatment completed on BIA land (within the Pala Reservation) are not included in this analysis as pre- and post-vegetation data were not collected. This analysis includes the 68 remaining re-treatment poles completed in 2024.

5.3 Program Mitigation

An impact and mitigation assessment for the 2024 WFM Program treatment sites was conducted under the SDG&E NCCP Bridge Amendment (SDG&E 2022), which includes sensitive species and habitat mitigation standards from SDG&E's HCPA (SDG&E 2023b) and SDG&E's QCB Low-Effect Habitat Conservation Plan (LEHCP) (SDG&E 2007) to provide SDG&E with the information to evaluate mitigation requirements for the 2024 WFM Program. Relevant data collected during pre-treatment surveys included HCPA/NCCP habitat type, habitat quality, and QCB suitability (for sites within mapped QCB habitat). Preserve boundary data were provided

through a GIS analysis. A separate Mitigation Report was submitted for 2024 (AECOM 2024c) and is under review by SDG&E. Based on reviewer feedback, mitigation for impacts to Tracked Habitat for HCPA Covered Species may be included in 2024 mitigation totals for the WFM Program. Impacts to Tracked Habitat are discussed further in the 2024 Mitigation Report. For the purpose of this report, only mitigation for impacts to sensitive habitat and QCB LEHCP habitat are discussed.

Results of the mitigation analysis are provided in Table 7. Of the 33 new sites treated in 2024, 31 sites required mitigation as follows: six require mitigation at a 1:1 ratio due to impacts occurring in low quality sensitive habitat; 24 require mitigation at a 2:1 ratio because impacts occurred in sensitive habitat within the East County Multiple Species Conservation Plan (MSCP) and were characterized as moderate-, high-, or very high-quality habitat; and one requires mitigation at a 3:1 ratio because in addition to meeting the 2:1 ratio requirements, the site is also within a riparian/wetland vegetation group. Mitigation may not be required for previously treated areas where WFM Program impacts were mitigated in their original treatment year (2019, 2020, 2021, 2022, or 2023). However, re-treatment sites were evaluated for new impacts that could require mitigation, such as those where new acreage was treated due to new landowner approvals. Of the 68 re-treatment sites, three had new portions of the work area undergoing initial treatment.

Table 7
NCCP and LEHCP Impact and Mitigation Estimates

Mitigation Type	Total Number of Treatment Sites	Number of Treatment Sites in NCCP/ LEHCP Qualified Habitat[1]	Total Acreage of Treatment Areas in NCCP/ LEHCP Qualified Habitat[1]	Total Impact (Acres)	NCCP/ LEHCP Mitigation Ratio	NCCP/ LEHCP Mitigation Acres
NCCP	36	25	5.39	0.402	1:1 / 2:1 / 3:1	**0.745**
LEHCP (QCB)	28	11	0.17	0.070	2:1	**0.130**
					Total:	**0.875**

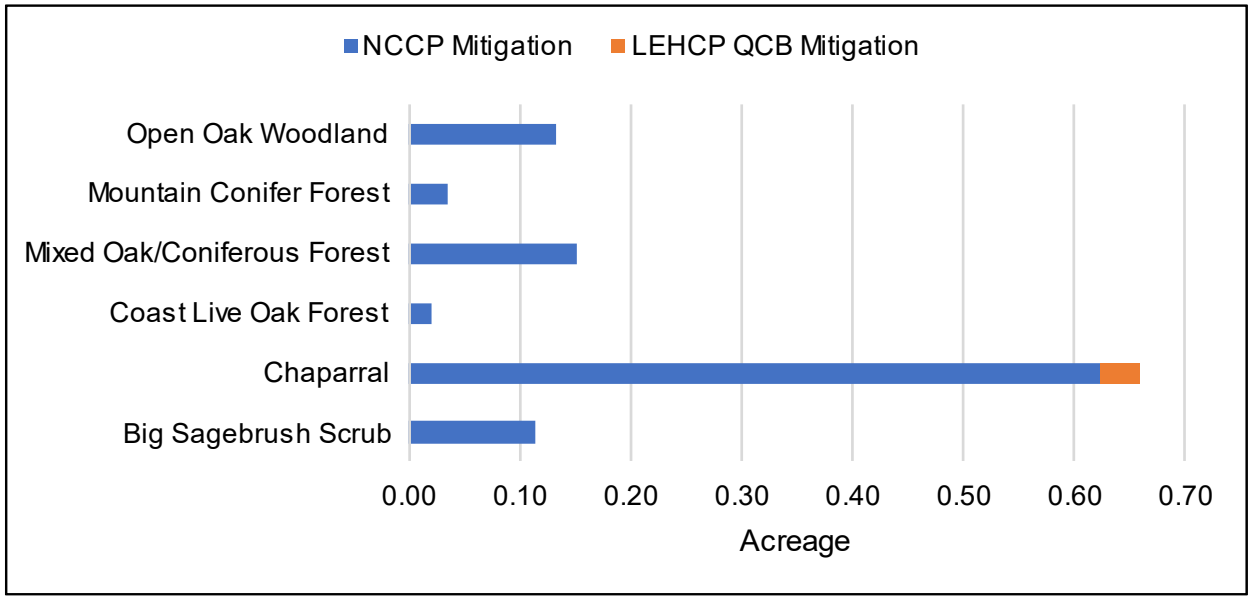
[1] To be considered NCCP qualified habitat, a site must be within the East County MSCP or a Defined Preserve, within NCCP sensitive habitat, and characterized as Moderate or High habitat quality. To be considered LEHCP qualified habitat, a site must be within mapped QCB habitat and characterized as suitable habitat during the pre-treatment survey.

Mitigation was previously calculated through the reduction of native vegetation minus the reduction of nonnative vegetation averaged across all sites. Starting in the 2024 Program year, mitigation calculations will be quantified on a per-site basis and are reported as an aggregate number in this report. Pre- and post-treatment (and re-treatment) vegetation covers were estimated on the day fuel modification activities occurred. A total of 0.39 acre of impacts in preserve quality habitat were accrued from activities associated with the new treatment and re-treatment poles in 2024. Applying the mitigation ratios listed above, a total of 0.73 acres of mitigation are required for impacts to preserve quality sensitive habitat. A total of 0.02 acres of

impacts outside of preserve quality habitat were accrued from activities associated with the project during first quarter and second quarter of 2024. Applying the 1:1 mitigation ratio, 0.016 acres of mitigation are required. A total of 0.75 acre of mitigation is required due to program-related impacts.

For the LEHCP analysis, 28 of the 36 treatment and re-treatment sites were within mapped QCB habitat and, of these, one re-treatment site and 11 treatment sites were identified as being within QCB suitable habitat. The LEHCP mitigation acreage for the site within QCB suitable habitat is 0.13 acres. The combined mitigation acreage from the NCCP and LEHCP analyses is 0.88 acres. The NCCP and LEHCP mitigation acreage by habitat type is shown in Figure 6.

Figure 6
Mitigation Acreage by Habitat Type



5.4 Limitations and Conditions

This report is prepared in accordance with the degree of professional skill, quality, and care ordinarily exercised by members of the same profession practicing in the same location at the same time under comparable circumstances and providing services of a similar nature. AECOM's conclusions are based on information available to AECOM at the time of their preparation. Because the conclusions and opinions will be based on limited information, including data limited to the specific areas investigated by AECOM, and given the difficulty in predicting conditions in other areas based on such data, actual conditions may vary from those encountered at the times and locations where the data are obtained despite the exercise of reasonable professional care.

The information in this report is time-dependent, and the passage of time may result in changes in site conditions that would render the report inaccurate or incomplete. Reliance on the findings

of the report after the date of the report as an accurate representation of current conditions any properties or areas to which the report relates shall be at the SDG&E's sole risk. The information in this report also is subject to change based on events and circumstances beyond the reasonable control of AECOM that occur following the date on which the report is prepared, including acts of God, fire, flood, extraordinary weather conditions, natural catastrophes, explosion, war, civil unrest, terrorism, sabotage, changes in law or regulations, requests, acts, or intervention of governmental agencies or authorities, and court orders. The report, including the accuracy and completeness of information in the report, are subject to this inherent risk.

AECOM is not responsible or liable for the acts or omissions of SDG&E, any consultants, contractors, suppliers, vendors, or other parties engaged by SDG&E, or any third party in connection with implementation of SDG&E's WMP, WFM Program, or performance of work intended to prevent or reduce the risk of wildfire. AECOM also is not responsible or liable for any acts or omissions by such persons or entities that create or contribute to any wildfires. AECOM makes no guarantee or warranty, express, implied, or otherwise, regarding the effectiveness of or the results to be obtained from the WMP, WFM Program, or mitigation measures implemented by SDG&E or its contractors.

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