



MSCP Management Actions Report

JANUARY 1, 2019 — DECEMBER 31, 2019





TABLE OF CONTENTS

Introduction	5
Management Actions: At-A-Glance	7
Black Mountain, Mount Woodson & Clevenger Canyon	9
Crest Canyon & Gonzales Canyon Open Space	14
Los Peñasquitos Canyon Preserve	18
Del Mar Mesa & Carmel Mountain Preserves	24
Mission Trails Regional Park	28
Tri-Canyons and Mission Valley Preserve	35
Urban Canyons & San Diego River	40
Otay Valley Regional Park	48
List of Partners	54



Introduction

The **MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP)** can only be successful through informed management of conserved lands. Management in support of the City of San Diego's (City) MSCP Subarea Plan is performed by the City's Parks and Recreation, Public Utilities, and Environmental Services Departments. The City often partners with other public agencies, schools, environmental consultants, and non-profit groups to complete management tasks.

This report provides a summary of the management projects undertaken on conserved City-owned lands in 2019 including mitigation, habitat enhancement and restoration, invasive species removal, access control, trash and debris removal, enforcement, abatement of homeless encampments, and volunteer events. Environmental education is also a vital part of our natural resource stewardship and is included as management because positive experiences in nature encourage the local communities to protect and care for their local natural parks.

Park Rangers, Pesticide Applicators, Ground Maintenance Managers and Workers, Biologists, Planners and Nature Center Directors work together and are dedicated to management of the City's Open Space Parks and Preserves. Those staff not only protect the native species and habitats that occur within each Park, but also provide educational opportunities for Park visitors. Thousands of people visit our two nature centers each year and hundreds of children participate in environmental education through partnerships with local schools, nature programs, guided walks, and interpretive signs and kiosks.

We thank you for your interest in San Diego's conserved lands, and invite you to take a look at the projects that we worked on in 2019. And please take a moment to review our incredible list of partners on the last page!



City of San Diego Park Rangers work to protect native species and habitats that occur within each Park and provide educational opportunities for Park visitors.



Management Actions: At-A-Glance

Education

- ♦ An estimated 110,000 people visited Mission Trails Visitor Center and Tecolote Nature Center.
- ♦ At Mission Trails Regional Park alone, an estimated 3,714 adults and 2,640 children participated in Ranger-led walks and hikes. Additionally, over 6,473 students participated in curriculum based school programs at Mission Trails.
- ♦ San Diego River Senior Ranger initiated a new series of public interpretive programs and nature walks focused on the San Diego River Watershed.

Enforcement and Cleanups

- ♦ A total of 4,822 volunteers dedicated 27,243 hours to interpretive, cleanup, restoration, and park beautification activities.
- ♦ Over 714 tons of trash and debris were removed from City open space areas.
- ♦ Park Rangers worked with the San Diego Police Department, Environmental Services Department and Quality of Life teams to evict unsheltered individuals illegally camping in preserve areas and to clean up unoccupied encampments.

Invasive Weed Management

- ♦ City pesticide applicators assisted biologists in implementing VPHCP required weed management. A minimum of three weed management visits were performed at each of the 23 vernal pool complexes managed by the Parks and Recreation Department. Some visits required several days to complete.
- ♦ Rangers, volunteers and pesticide applicators performed invasive weed management (hand pulling, mowing, herbicide, etc.) targeting over 38 weed species.
- ♦ Over 142 tons of invasive plant material was removed from Open Space preserve areas.
- ♦ City staff coordinated with the San Diego County's Early Detection Rapid Response Program to prevent the spread of highly invasive species such as Wards Weed.

Habitat Restoration & Beautification

- ♦ Approximately 4,090 native container plants were installed to protect and restore habitat adjacent to trails.
- ♦ Closed/reclosed a total of xx unauthorized trails for restoration and protection of sensitive habitat and wildlife corridor area.
- ♦ Approximately 36,000 San Diego thornmint seeds were bulked by the San Diego Zoo Center for Plant Conservation Seed Bank and dispersed in the Mission Trails Regional Park San Diego thornmint restoration site in October as part of a SANDAG grant funded rare plant restoration project.
- ♦ Over 3,000 cactus cuttings were planted at Navajo Canyon and Chollas Radio Canyon in December as part of a SANDAG grant funded cactus wren habitat restoration project.



Black Mountain, Mount Woodson and Clevenger Canyon

Park Management Highlights

- ◆ Park Rangers worked with American Conservation Experience Corps Members on restoring Clevenger Canyon South trail segments that were impacted by 2 wildfires and CalFire Dozer Line activities.
- ◆ Removed a large illegal dump on the fringe of Black Mountain consisting of thousands of pounds of concrete and other construction waste.
- ◆ The San Diego Zoo and San Diego Natural History Museum conducted a ringtail cat study at Mount Woodson.

BLACK MOUNTAIN PARK, CLEVINGER CANYON, and MOUNT WOODSON all harbor habitat for California gnatcatcher as well as several other sensitive plant and animal species. These areas also provide a natural experience for nearby residents with trails, viewpoints, and interpretive information. Black Mountain is well known for its trail system which is popular with the mountain biking community. Meanwhile Clevenger Canyon located in the San Pasqual Valley hosts one of the City's most remote and rugged hiking trails. The portion of Mount Woodson managed by the City of San Diego is well known for its large granite boulders and the iconic "Potato Chip Rock."

Stewardship Management Actions and Outreach

Year—round routine management:

- Performed weekly park-wide patrols to monitor trail conditions, conduct enforcement activities, and perform general maintenance (i.e. trash removal, fence and sign repairs, brush clearing, etc.)
- Conducted regular maintenance of trail systems as needed.

Winter 2019: January through March

- Park Ranger responded to a broken ankle injury on Black Mountain and coordinated a rescue with SDFD after providing first aid.
- Park Rangers worked with American Conservation Experience Corps in restoring Clevenger Canyon South trail segments that were impacted by 2 wildfires and CalFire dozer line activities. A total of 960 labor hours were invested.
- Trail construction of the Black Widow Trail on Black Mountain continued with Park Rangers assisted by volunteer trail workers coordinated through San Diego Mountain Bike Association. Trail will be .84 miles when completed and is being built with



Ranger working with ACE crew to restore sections of trail at Clevenger Canyon that were impacted by 2 wildfires.

reinforced corners for durability.

- Seasonal mowing of non-native weeds for vegetation management and trail maintenance was performed over 7 miles of trail corridor and a total of 5 acres.
- Mowing and restoration area prep work was performed for a 1-acre restoration area in Lusardi Grasslands.
- Maintenance of edge boards and walking path was completed on the Jas Arnold Trail for all people.
- A kick-off meeting and field visit were held for the Black Mountain Arsenic Mine site closure project.
- Closed illegal trails and completed remediation plantings of approximately 100 cactus in the Black Widow Trail area.
- Worked with the San Dieguito River Park Conservancy and 12 volunteers to remove graffiti in Clevenger Canyon North.
- Hosted an Allied Climbers mountain clean up event on Mt. Woodson with 40 volunteers. A total of 2 truckloads of trash and some larger debris were removed.
- New benches and enhanced signage were added to the Black Mountain trail system as part of two eagle scout projects.
- Rangers assisted with Kids to Canyon Library outreach programs.

Spring 2019: April through June

- Ranger Staff supported several outdoor recreational events including the Archipelago Ride, the Black Mountain 50K trail run, and the X-Terra Black Mountain 15K, 10K, 5K.



Volunteers from San Diego Mountain Biking Association helping to build Black Widow trail.



Volunteers getting a safety briefing before hitting the trail.

- Rangers worked with American Conservation Experience to repair damaged sections of trail in Clevenger Canyon South Open Space totaling approximately 1.5 miles.
- Seasonal brushing was performed for several trails within the open space parks including: Miners Ridge Loop Trail, Manzanita Trail, Little Black Loop, Glider Port area and landing zone, Lusardi Loop Trail, Lilac Canyon Trail, Clevenger South, Roadrunner Loop, the Saddle rest area, and the bike repair station junction. All trailhead areas were maintained and cleared of fire hazard grasses.
- Ranger staff provided for public safety while the Mt. Woodson Road repair was being planned and conducted.
- Eagle Scouts helped to rebuild / replace kiosk at the Clevenger North parking lot.
- Rangers and volunteers cleared out encroaching vegetation to maintain the Jas Arnold Trail for All People ADA trail.

Summer 2019: July through September

- Worked with Alpha Project to clear invasive species and native overgrowth from the Jas Arnold Trail for All People and Miners Ridge Loop Trail.
- Trash and weeds were removed from Clevenger Canyon North and South trailheads.
- Removed a large illegal dump on the fringe of Black Mountain consisting of thousands of pounds of concrete and other construction waste.
- Prepped Black Widow trail corridor for fencing installation and future trail work.
- Rangers provided oversight and emergency response presence for Black Mountain 50k trail run event.



A large group of volunteers preparing to help with trail maintenance and repairs at Black Mountain.

Management Actions Related to MSCP and VPHCP Covered Species

Year—round:

- The San Diego Zoo and San Diego Natural History Museum continued to monitor the ringtail population at Mount Woodson.

Spring 2019: April through June

- Biologists performed annual MSCP required monitoring of rare plant occurrences of San Diego thornmint, thread-leaf brodiaea, and variegated dudleya using the SDMMP IMG protocol.
- Biologists performed VPHCP required qualitative maintenance monitoring and quantitative covered species monitoring at the Greystone Torrey Highlands vernal pool complex.
- Biologists completed VPHCP required weed maintenance at the Greystone Torrey Highlands vernal pool complex.

Summer 2019: July through September

- Rangers assisted Biologist and maintenance crews with invasive species removal and dethatching to enhance habitat for a thread-leaf brodiaea (*Brodiaea filifolia*) occurrence in Black Mountain Open Space near Sun Devil Way.



The San Diego Zoo and San Diego Natural History Museum continued to monitor the ringtail population at Mount Woodson. Ringtails are not an MSCP covered species; however, little is known about the species biology and population status.

Crest Canyon & Gonzales Canyon Open Space



Park Management Highlights

- ♦ Park Rangers provided for public safety at Crest Canyon where a sink hole appeared near 2 popular hiking trails by established temporary fencing and signage before more permanent fencing could be installed.
- ♦ Park Rangers oversaw volunteer habitat restoration events in Gonzales Canyon at the Sword Way trailhead.

CREST CANYON and **GONZALES CANYON** are located in coastal North County and are home to numerous sensitive species. Crest Canyon connects to the San Dieguito Lagoon and offers trails through native scrub habitat dotted with the rare Torrey pine.

Stewardship Management Actions and Outreach

Year—round routine management:

- Performed park-wide patrols to monitor trail conditions, conduct enforcement activities, and perform general maintenance (i.e. trash removal, fence and sign repairs, brush clearing, etc.)
- Conducted regular maintenance of trail systems, park-wide.

Spring 2019: April through June

- Rangers re-routed a section of the Torrey Pines Loop Trail in Gonzales Canyon that was impacted by flooding and erosion.
- Provided for public safety at Crest Canyon where a sink hole appeared near 2 popular hiking trails. Closed trails and established temporary fencing and signage before more permanent fencing could be installed.
- Worked with a large volunteer group on National Trails Day to improve the access to Sword Way Trail. Repaired the washed out approaches on both ends of the puncheon at Sword Way. Volunteers helped to water and maintain a restoration site.
- Worked with an Eagle Scouts to rebuild / replace kiosk at Sword Way.
- Coordinated with the San Diego County Weed Management Area (WMA) Early Detection Rapid Response Program (EDRR) to control a newly detected Ward's Weed infestation along the edge of Crest Canyon.
- Management Interns created an Invasive Species Alert flyer for Ward's Weed to distribute to all Ranger Districts, other City Departments and partner organizations.



Senior Ranger Ed Christensen poses next to a kiosk at the Gonzales Canyon Sword Way trailhead.

- Seasonal brushing was performed for several trails within the open space parks including: Sword Way Trail, Lagoon Trail, Lagoon Trail extension, and Torrey Pines Loop Trail.

Summer 2019: July through September

- Wildlife monitoring cameras were installed in the Gonzales Canyon corridor; unfortunately, the cameras were stolen soon after being installed.
- Hosted a volunteer event to remove invasive thistle species from Crest Canyon.
- Rangers responded to Get it Done app submission to clear vegetation from walking path along Old El Camino Rd. near Gonzales Canyon.
- Rangers added additional signage and fencing to Crest Canyon sink hole surrounding area.
- Rangers responded to Get it Done app submission to block open storm drains in Crest Canyon that posed a safety risk.
- Applied herbicide to Poison Oak that was impeding a large segment of the Lagoon Trail in Gonzales Canyon.
- Responded to Get it Done app submission to mow a public access trail along Crest Canyon and clear vegetation along the fringe and road way.
- Maintained vegetation at the Cathedral Catholic staircase access to Gonzales Canyon and improved accessibility to trailhead kiosk.



A restoration site maintained by volunteers in Gonzales Canyon.

Management Actions Related to MSCP and VPHCP Covered Species

Winter 2019: January through March

- Biologists conducted MSCP required annual rare plant monitoring of Coast wallflower populations at Crest Canyon, Gonzales Canyon and Overlook Park.
- Conservation Biology Institute biologist Jessie Vinje conducted monitoring of Orcutt's spineflower (*Chorizanthe orcuttiana*) in Crest Canyon and Gonzales Canyon with funding from SANDAG.

Spring 2019: April through June

- Park Rangers assisted Biologists and Management Interns with annual MSCP monitoring of short-leaved dudleya (*Dudleya brevifolia*) at Crest Canyon.

Fall 2019: October through December

- Senior Planner and Biologist met with homeowners of the residence adjacent to a population of short-leaved dudleya (*Dudleya brevifolia*) at Crest Canyon to discuss protecting the site from unauthorized access. The homeowner was very receptive and expressed an interest in assisting with monitoring and conservation efforts.



Coast wallflower in Crest Canyon.

Los Peñasquitos Canyon Preserve

Park Management Highlights

- ◆ Rangers worked with volunteers to prepare a new shaded native plant nursery area at the Ranger Station.
- ◆ Recovered and repaired several sections of bridges that were washed and damaged during winter storms.
- ◆ Hosted a variety of interpretive walks and other outreach events including the Kids to Canyons Program at the Carmel Ranch Library.

LOS PEÑASQUITOS CANYON PRESERVE is an urban natural resource based park that functions as an east-west wildlife corridor through the heart of San Diego. This area is visited frequently by recreationalists and makes nature accessible to local residents. Citizen interest in the preserve led to the development of the well-known Friends of Los Peñasquitos Preserve and the San Diego Tracking Team.

Stewardship Management Actions and Outreach

Year—round routine management:

- Performed park-wide patrols to monitor trail conditions, conduct enforcement activities, and perform general maintenance (i.e. trash removal, fence and sign repairs, brush clearing, etc.)
- Conducted regular maintenance of trail systems, park-wide.
- Saturday volunteer weeding group met monthly to perform manual removal of invasive species along trail margins and adjacent slopes throughout the preserve.
- Led interpretive walks and other outreach events including the Kids to Canyons Program at the Carmel Ranch Library.

Winter 2019: January through March

- Rangers performed trail maintenance and removed hazardous downed metal rail fence with help from volunteers.
- Ranger patrolled Trans-County Trail off Cara Way, manually removed invasive species along 300 yards of the trail and removed dumped lumber and a couch.
- A total of 9 volunteers with Boy Team Charity conducted manual invasive species removal and improved diversions/water bars on trail.
- Volunteers helped remove a fallen tree and hazardous branches from single-track trail near Peñasquitos Creek Park Crossing and Carson Crossing. The cuttings were used to obscure an illegal trail.
- Recovered approximately 40 feet of bridge sections that had been washed out in major rain. Secured on bank for replacement after winter season.



Rangers and volunteers removed a fallen tree and hazardous branches near Peñasquitos Creek Park Crossing and Carson Crossing.

- Repaired and braced chain link fence at West Staging Area with 1 volunteer after people drove cars over it to use trails during rain closures.
- Rangers worked with two volunteers to remove storm debris from trails.
- Rangers and volunteers repaired a damaged bridge at Carson's Crossing.

Spring 2019: April through June

- Repaired small footbridge for cyclists and hikers with 1 volunteer. Drove 4 telspar to secure bridge.
- Rangers and three volunteers conducted trail maintenance and installed directional signage at Peñasquitos Creek Crossing.
- Worked with volunteers including 3 Girl Scout troops to remove invasive species. Approximately 25-30 fifty gallon bags were filled and disposed of offsite.
- Ranger removed eight 50-gallon sized bags of weeds from Park Village Rd trailhead with 1 volunteer.
- Ranger led an interpretive hike for a group of three mothers and their children. Covered native and invasive species, hydrology, local birds and common insects.



Small footbridge that was repaired after being damaged in during Winter storms.



Senior Ranger Gina and a volunteer install a post for temporary trail closed signage at Carson's Crossing.

- Removed fallen sycamore tree measuring approximately 3-foot diameter at breast height.
- Worked with volunteer to improve Sycamore Crossing: built rock ramp to bridge, trimmed overgrowth, replaced broken treads.

Summer 2019: July through September

- Removed stinkwort from around equipment yard to prevent spread of seeds into natural areas. A total of four weeding passes were conducted over the season.
- Worked with volunteers to design and build a shade structure for a small scale nursery to propagate seeds and grow native plants for restoration activities in Preserves.
- A one-acre fire off of Sabre Springs Parkway occurred on July 16th. Rangers responded to Incident Command Center and assisted with closing adjacent streets and trails.
- Rangers and volunteers manually removed Stinkwort from approximately 1 mile of trail east of I-15 on the Trans-County Trail.
- Rangers performed summer safety patrols, providing water to those hiking without on hot days.
- Worked with 2 volunteers to remove stinkwort from trail margins near Sabre Springs.
- Educated mountain bikers on designated trail use and replaced signage to better indicate no bikes on trail.
- Removed fallen willow branch blocking equestrian crossing and trimmed back problem branches. The trimmings were used to barricade a nearby illegal trail.
- Worked with two volunteers to repair fencing along Camino Del Sur Blvd. Strengthened standing posts with wedges and replaced missing posts and rails.

Fall 2019: October through December



Repaired fencing along Camino Del Sur Blvd.



Several large trash bags of invasive Stinkwort removed from near Sabre Springs.

- Educated mountain bikers on designated trail use and replaced signage to better indicate no bikes on trail.
- Removed palm trees causing creek back up with assistance from City pesticide applicators and large volunteer group.
- During a routine patrols, rangers issued verbal warnings to several people for using trails during rain closures.
- Secured bridges on Trans-County Trail for storm with assistance from three volunteers.
- Cleared several large palms and dozens of baby palms and other debris from drainage channel to reduce flooding and damage potential with three volunteers.
- Improved narrow equestrian pass near eastern concrete bridge, cleaned storm deposited dirt from bridge and used it to make a water bar and diversion on the trail above.
- Used illegally dumped dirt pile (clean upon inspection) at trail head to repair a low mud hole in access road.
- Ranger performed a Christmas patrol checking for storm damage to Trans-County Trail, equipment area and restoration sites.



Debris from several palms was removed from drainage channel.



Construction of a new native plant nursery is underway.

Management Actions Related to MSCP Covered Species

Winter 2019: January through March

- Rangers worked with Biologist and Pesticide Applicators to perform mowing and dethatching to manage non-native grasses and forbs at the San Diego thornmint site.

Spring 2019: April through June

- Biologists performed annual MSCP monitoring of San Diego thornmint and variegated dudleya in Los Peñasquitos Canyon; willowy monardella in Lopez Canyon; and San Diego goldenstar, and Orcutt's brodiaea at Lopez Ridge.
- Biologists performed VPHCP required monitoring and maintenance at the Lopez Ridge vernal pool complex.
- Rangers noted multiple Mountain Lion tracks and sign around Carson's Crossing in May. They installed cameras to capture an image of the mountain lion and reported findings to CA Dept of Fish & Wildlife. A mountain lion attacked 4 year old on May 27th and CDFW Wardens shot and killed the mountain lion the same day.

Summer 2019: July through September

- USGS performed Western Pond turtle survey/trapping July 17th through 19th. Several species of non-native turtles were removed from the creek. No native Western pond turtles were found.

Fall 2019: October through December

- Ranger staff and volunteers performed a night-time deer survey of Los Peñasquitos Canyon. A total of 11 deer were observed during the survey.



A dry vernal pool at the Lope Ridge vernal pool complex.

Del Mar Mesa & Carmel Mountain Preserves

Park Management Highlights

- ◆ Approximately 65 feet of post and wire fence was installed, and 335 feet of fence repaired by rangers and volunteers to close the illegal Rim and T5 trails at Del Mar Mesa Preserve.
- ◆ Started a weekly volunteer event with Intuit employees to help remove non-native plants and trash.
- ◆ With permission from SDG&E, a motion sensing camera was installed on a wood power pole 12 feet high on the north end of the closed rim trail at Del Mar Mesa Preserve. Since camera installation the fences have not been cut nor has any vegetation.

DEL MAR MESA and **CARMEL MOUNTAIN** are MSCP core biological areas north of Los Peñasquitos Preserve. Known for their vernal pool habitat, the areas also support migratory birds and large mammals such as mule deer.

Stewardship Management Actions and Outreach

Year—round routine management:

- Performed park-wide patrols to monitor trail conditions, conduct enforcement activities, and perform general maintenance (i.e. trash removal, fence and sign repairs, brush clearing, etc.)
- Conducted regular maintenance of trail systems, park-wide
- Led interpretive walks and other outreach events

Winter 2019: January through March

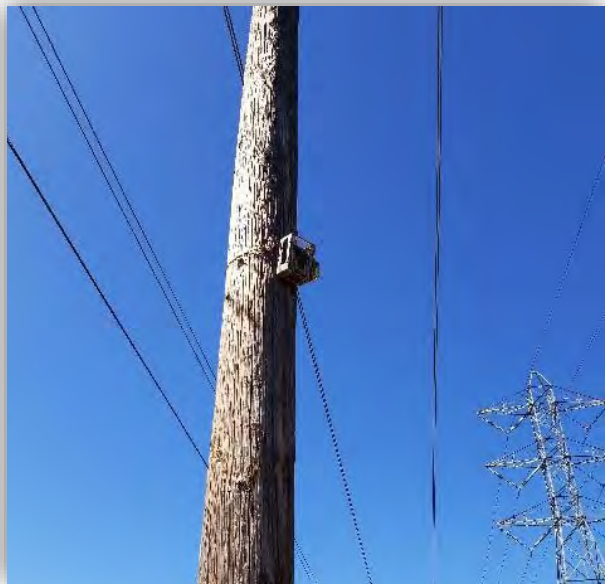
- Rangers repaired fences and removed invasive species during regular patrols at Del Mar Mesa Preserve.
- Presented a school tour Carmel Mountain Preserve with 20 students from Ocean Air Elementary.
- Performed trail maintenance and invasive species removal at Carmel Mountain Preserve.

Spring 2019: April through June

- Prepared a map of temporary trail closures at DMMP as per Caltrans' request due to



Orcutt's birdsbeak was identified by a Park Ranger during a routine patrol of Carmel Mountain Preserve.



With permission from SDG&E, a motion sensing camera was installed on a wood power pole at the north end of the closed Rim Trail to deter vandalism and illegal access.

restoration project on old Barcheski property. Map was sent out to trail user lists and Next Door with explanation.

- Approximately 65 feet of post and wire fence was installed, and 335 feet of fence repaired by rangers and volunteers to close the illegal Rim and T5 trails at Del Mar Mesa Preserve.
- Several verbal warnings were issued for illegal trail use at Del Mar Mesa Preserve.
- Rangers worked with volunteers to remove nonnative vegetation at Mel Mar Mesa and Carmel Mountain Preserves.
- Rangers worked with Chaparral Lands Conservancy to weed vernal pools at Carmel Mountain Preserve.

Summer 2019: July through September

- Repaired broken fences, pulled non-native plants and removed trash during regular patrols at Carmel Mountain Preserve.
- Rangers and volunteers repaired vandalized signs on the South Rim Trail at Del Mar Mesa.
- Ranger and SD Police Officer performed joint evening enforcement patrols, during which they made many contacts to educate trail users of official trails and issue verbal warnings.
- Started a weekly volunteer event with Intuit employees to help remove non-native plants and trash. Goal to train volunteers in non-native identification and trail repairs.
- With permission from SDG&E, a motion sensing camera was installed on a wood power pole 12 feet high on the north end of the closed rim trail. Since camera installation the fences have not been cut nor has any vegetation. It appears that end of the trail has not been used.
- Rangers continued patrols for illegal trail construction and invasive plants Carmel Mountain Ranch Open Space. Several regular trail users have begun to aid in keeping an eye on the area and informing Rangers of when there are new issues.

Fall 2019: October through December

- Final trail in Del Mar Mesa Preserve opened through CalTrans property, completing the Natural Resource Management Plan trail component.
- Trail reclamation was conducted in Del Mar Mesa Preserve per Natural Resource Management Plan, using cut brush left behind



Volunteers helped repair fences protecting sensitive species at Carmel Mountain Preserve.

by SDG&E contractors trimming access paths across mesa.

- Partnership with Intuit volunteers to perform non-native plant removal in Del Mar Mesa Preserve
- Erosion control BMPs were implemented on trails in Carmel Mountain Preserve after rain and in preparation for continued rain.
- Increased patrols and provided education in response to illegal trail construction in Carmel Mountain Ranch Open Space

Management Actions Related to MSCP and VPHCP Covered Species

Spring 2019: April through June

- Rangers worked with Chaparral Lands Conservancy to weed vernal pools at Carmel Mountain Preserve.
- Repaired approximately 24 feet of fence to protect short-leaved dudleya (*Dudleya bevilfolia*) populations at Carmel Mountain Preserve.
- Park Rangers assisted Biologists and Management Interns with annual MSCP monitoring of short-leaved dudleya (*Dudleya bevilfolia*) at Carmel Mountain Preserve
- Biologists and Management Interns conducted VPHCP required monitoring of the vernal pool complexes at Del Mar Mesa and Carmel Mountain Preserve.



Large short-leaved dudleya plants at Carmel Mountain Preserve.

Mission Trails Regional Park

Park Management Highlights

- ◆ A total of 6,473 students participated in curriculum based school programs presented by Park Ranger staff.
- ◆ RECON Environmental continued to implement weed maintenance at the San Diego thornmint restoration site and dispersed additional thornmint seed that was bulked by the San Diego Zoo Global Seed Bank into the site in Fall 2019. Successful seedling germination was observed as early as December 2019.
- ◆ Qualified City staff performed mowing and herbicide treatments to control invasive plant species at the Kumeyaay Lake San Diego ambrosia site.

MISSION TRAILS REGIONAL PARK is the largest and most well-known open space park in San Diego. The park provides ample space for wildlife, including large mammals, and also harbors a diverse cultural history.

Stewardship Management Actions and Outreach

Year—round routine management:

- Performed park-wide patrols to monitor trail conditions, conduct enforcement activities, and perform general maintenance (i.e. trash removal, fence and sign repairs, brush clearing, graffiti removal, etc.)
- Scheduled, coordinated and led a variety of outreach events including curriculum based school programs, self-guided school trips, Foundation programs, Mountain Bike with a Ranger, and Trail Guide walks.
- Performed ongoing treatment of invasive and non-native plants covering over 22 different species throughout the park utilizing herbicide, mechanical and hand pulling methods as appropriate.
- Responded to a variety of enforcement and emergency incidents including dogs off-leash, illegally parked vehicles, drug use, injured hikers and/or lost hikers, heat related illness, etc.
- Rangers led monthly Park Beautification, Habitat Restoration, and Trail Maintenance volunteer crews.

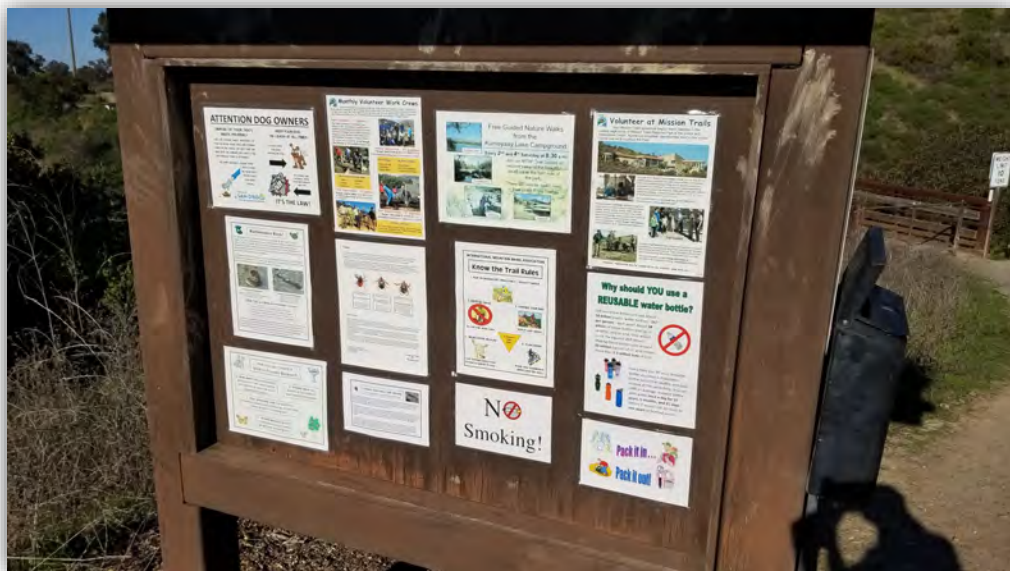
Winter 2019: January through March

- Parks rangers and volunteers closed or reclosed a total of 23 of undesignated trails throughout the park.
- Non-Native plant removal and targeted herbicide applications were performed at the Visitor Center, West Sycamore, East Fortuna Staging Area, Kumeyaay Lake Campground, Visitor Center Loop Trail, Grasslands, West Fortuna Staging Area, and Oak Grove.
- A total of 17 sections of fencing repaired/replaced park-wide.
- Park Rangers cleaned 12 incidents of vandalism and graffiti and removed a total of 9 illegal dumps.
- A total of 2,323 students participated in curriculum based school programs at



Mission Trails including:

- * K-2 Habitat programs: 211 students
- * 3rd grade Kumeyaay Programs: 1,346 students
- * 4th grade Old Mission Dam programs: 350 students
- * 4th grade Ecosystem programs: 208 students
- * 4th Grade Geology programs: 158 students
- * 6th grade Ecosystem Programs: 50 students
- A Park Ranger led a nature walk at West Sycamore with 3 participants.
- Rangers presented to a group of 25 participants at the Santee Boys and Girls Club.
- Rangers provided as needed enforcement and emergency response to a variety of situations including:
 - * Assisted the SDFD with 6 reports of injured parks users.
 - * Responded to a report of an off-roading motorcycle in the park.
 - * Responded to a report of a naked male East Elliott (unable to locate subject).
 - * Assisted with the search and recovery of a missing juvenile who was found and reunited with family.
 - * Park rangers executed enforcement actions in response to the following incidents:
 - ⇒ Dog off leash: 62
 - ⇒ Smoking: 10
 - ⇒ Illegal vegetation collection: 1
 - ⇒ Hiking off trail: 63
 - ⇒ Reckless driving: 1



Kiosk at the Mission Trails Regional Park Claremont Mesa trailhead.

Spring 2019: April through June

- Parks rangers and volunteers closed or reclosed a total of 35 of undesignated trails throughout the park.
- Non-Native plant removal and targeted herbicide applications were performed at the SD River Crossing, East Fortuna Staging Area, Kumeyaay Lake, Climber Loop Trail, VC Loop Trail, West Sycamore Staging Area, Deerfield Loop Trail, Saddle Trail West, Oak Canyon Trail, Cowles Mtn. Trail, Grasslands Loop Trail, Sycott Valley Trail, Spring Canyon, Father Serra Trail
- A total of 26 sections of fencing repaired/replaced park-wide.
- Park Rangers cleaned 54 incidents of vandalism and graffiti and removed a total of 5 illegal dumps.
- Park Ranger staff and volunteers conducted two Wildlife Transect Surveys.
- A total of 2,304 students participated in curriculum based school programs at Mission Trails including:
 - K-2 Habitat programs: 848 students
 - 3rd grade Kumeyaay Programs: 1,080 students
 - 4th grade Old Mission Dam programs: 47 students
 - 4-6th Grade Geology programs: 117 students
 - 5-8th grade Earth Science Programs: 212 students
- Rangers provided as needed enforcement and emergency response to a variety of situations including:
 - * Assisted the San Diego Fire Rescue Department with 12 reports of injured parks users.
 - * Responded to a report of dog bit by rattlesnake and provided info for nearest vet to



A hillside of San Diego goldenstar in bloom at East Elliott.

owners.

- * Responded to a report of a dog fight KLC dump station. Assisted w/ breaking up fight and notified SD Humane Society.
- * Responded to a report of transient illegal lodging in the Barker Way drainage ditch. Assisted SDPD with contacting the occupant.
- * Park rangers executed enforcement actions in response to the following incidents:
 - ⇒ Dog off leash: 70
 - ⇒ Smoking: 7
 - ⇒ Illegal vegetation collection: 25
 - ⇒ Hiking off trail: 47
 - ⇒ Alcohol: 82
 - ⇒ Amplified Music: 13
 - ⇒ Disturbing Wildlife: 1

Fall 2019: October through December

- Parks rangers and volunteers closed or reclosed a total of 50 of undesignated trails throughout the park.
- Non-Native plant removal and targeted herbicide applications were performed at the San Diego River Crossing, East Fortuna Staging Area, Kumeyaay Lake, West Sycamore, Oak Canyon Trail, Grasslands Loop Trail, Sycott Valley Trail, Kwaay Paay, N. Fortuna Perimeter Trail, Quarry Loop Trail, Old Mission Dam, Corte Playa Catalina, Mesa Trail, Shepherd's pond Loop.
- A total of 12 sections of fencing repaired/replaced park-wide.
- Park Rangers cleaned 62 incidents of vandalism and graffiti and removed a total of 7 illegal dumps.



New fencing was installed along the trail adjacent to the San Diego thornmint restoration site to help protect the site from unauthorized access.

- Park Rangers and volunteers conducted two Wildlife Transect Surveys.
- Park Rangers repaired or replaced signs at 13 locations throughout the park.
- A total of 1,846 students participated in curriculum based school programs at Mission Trails including:
 - K-2 Habitat programs: 147 Students
 - 2nd grade Kumeyaay Programs: 43 Students
 - 3rd grade Kumeyaay Programs: 1,234 Students
 - 4th grade Ecosystems programs: 38 Students
 - 4-6th Grade Geology programs: 117 Students
 - 6-7th grade Ecosystem programs: 108 Students
 - Nature Story and craft programs: 41 participants
 - Presentation for SDSU Geography Class on Land Management
 - KLC Halloween interpretive program: 18 participants
 - “What Rangers Do” program at Maryland Elementary School: 100 Participants
- Rangers provided as needed enforcement and emergency response to a variety of situations including:
 - * Assisted the SDFD with 6 reports of injured parks users.
 - * Park rangers executed enforcement actions in response to the following incidents:
 - ⇒ Dog off leash: 60
 - ⇒ Smoking: 8
 - ⇒ Illegal vegetation collection: 19
 - ⇒ Hiking off trail: 30
 - ⇒ Alcohol: 10



Above average rainfall brought about beautiful wildflower displays across Mission Trails Regional Park.

Management Actions Related to MSCP Covered Species

Winter 2019: January through March

- A City Biologist, Park Rangers and Pesticide Applicators performed mowing and herbicide treatments to control invasive species at the Kumeyaay Lake San Diego ambrosia site.
- RECON Environmental performed herbicide treatments and dethatching to manage non-native grasses and forbs in the San Diego thornmint restoration site.

Spring 2019: April through June

- City biologists monitored Orcutt's brodiaea, San Diego ambrosia, San Diego goldenstar, San Diego thornmint, and variegated dudleya using the SDMMP IMG Rare Plant Monitoring protocol.
- City biologists and pesticide applicators removed nonnative species from vernal pool basins and the surrounding upland buffers.
- City biologists performed VPHCP required monitoring of vernal pool complexes throughout the park.

Fall 2019: October through December

- RECON Environmental dispersed San Diego thornmint seed that was bulked by the San Diego Zoo Global Seed Bank throughout the San Diego thornmint restoration site prior to precipitation events. Seedling germination was observed as early as December 2019.
- RECON Environmental continued to perform herbicide treatments to manage non-native grasses and forbs in the San Diego thornmint restoration site.
- New fencing was installed along the trail adjacent to the San Diego thornmint restoration site to help protect the site from unauthorized access.



San Diego thornmint seedlings are sprouting from bulked seed that was dispersed into the restoration in Fall 2019.



The San Diego thornmint restoration site. Red flags mark the locations of San Diego thornmint seedlings.

Tri-Canyons & Mission Valley Preserve

Park Management Highlights

- ♦ Volunteer groups planted nearly 100 oaks in Rose Canyon grown from locally collected acorns.
- ♦ The Tecolote Family Day event was a huge success with almost 700 visitors in attendance.
- ♦ Rangers and volunteers continued to work on and expand the Tecolote Canyon restoration area. A total of 1.5 acres were added to the site.

The **TRI-CANYON PARKS** area includes Tecolote Canyon Natural Park, Marian Bear Open Space Park and Rose Canyon Open Space Park. Though located in an urban setting, these canyons provide opportunities for residents to enjoy nature and host many native habitats and species. The **MISSION VALLEY PRESERVE** is located in the San Diego River Floodplain within the Tri-Canyon Parks. The Preserve contains primarily riparian scrub and forest habitat and provides habitat for the federally endangered least Bell's vireo.

Stewardship Management Actions and Outreach

Year—round routine management:

- Park-wide trail monitoring and maintenance.
- Performed regular patrols and maintenance in all of the Tri Canyon Parks and worked with SDPD on patrols through the Mission Valley Preserve.
- Volunteers assisted with local native plant propagation for restoration at the Tecolote Nature Center nursery.
- Rangers worked with San Diego Police Department to evict transients from canyon areas.

Winter 2019: January through March

- Rangers performed several volunteer events to weed the restoration area in Tecolote Canyon allowing for the natives to grow and seed.
- Volunteer groups in Rose Canyon planted nearly 100 oaks from locally collected acorns.
- Rangers participated in multiple “Weed Warriors” volunteer clean ups in the canyons.
- Aztec Landscaping and Alpha Project crews worked to clear overgrown trails.
- City spray crews and volunteer sprayers worked to remove priority invasive species.
- New kiosk displays were installed at all park kiosks.
- Ranger created an animal count board for the public to log sightings.
- Environmental Services Department and Code Compliance were used to post and



Volunteers help install native plants, weed nonnative species and apply mulch in the Tecolote restoration site.

abate transient camps in all parks.

- Rangers issued citations to repeat illegal lodging offenders.
- Rangers kept up regular patrols, enforced transient issues and worked with local San Diego police department concerning patrols and other issues in the Parks.

Spring 2019: April through June

- Rangers continued to work with volunteers to remove invasive, clear trails, and plant natives.
- The Annual Mesa College Canyon clean up event helped to remove trash and debris from the canyon near Genesee Avenue.
- Repaired foot bridge and met with City staff regarding the Standley Park Trail entrance.
- Nature Center staff provided an outreach booth at International Mud Day.
- All Rangers did informal interpretation with individuals they met out in the field.
- USD students provided a hawk talk and created posters for the nature center
- Senior Ranger Steven provided a presentation on Tri-Canyon Parks at the Clairemont Town Council meeting.
- Hosted SDRPF and Project Learning Tree nature education training.
- Rangers kept up regular patrols, enforced transient issues, addressed off leash dogs, and worked with local San Diego police department concerning patrols and other issues in the Parks.
- Senior Ranger Steven provided a training for rangers on how to approach people in the canyon and citation writing.
- Tecolote Family Day event was a huge success with almost 700 visitors



These volunteers helped water native plants with over 400 gallons of water at the Tecolote Canyon restora-



Three trucks filled with trash removed from a single non-active homeless encampment in Tecolote Canyon. Items removed included over 20 needles.

- A total of 17 field trips were presented for the Elementary Outdoor Education Program.

Summer 2019: July through September

- Rangers continued to work on and increase area of native plant restoration area with large group volunteer involvement.
- Rangers Assisted Friends of Rose Canyon in native Coast Live Oak planting project.
- Rangers participated in multiple “Weed Warriors” volunteer events for clean ups in the canyons.
- Trails were cleared and maintained throughout the park system with Alpha Project and Aztec Landscaping crews.
- Aztec Landscaping and volunteers removed non-native vegetation from the canyons.
- Rangers lead nature walks, talks and presentations for several different groups of different ages at the Nature Center, in Marian Bear Park and at schools and libraries.
- Rangers continued to preform regular patrols, enforced transient issues and worked with local San Diego police department concerning patrols and other issues in the Parks.
- Staff run programs included Wednesday Warriors, Weed Warriors, Sunday in the Garden, Art and Activities for Kids, Birding by Ear walk, and several youth field trips.
- Friends of Tecolote Canyon hosted a well-attended Kumeyaay ethnobotany presentation at the Tecolote Nature Center.

Fall 2019: October through December

- Rangers continued to work on and expand the native plant restoration area, often with large group volunteer involvement. A total of 1.5 acres were added this quarter and 380 plants were planted in Tecolote Canyon and another 50 were planted in Marian Bear.
- Rangers Assisted Friends of Rose Canyon in implementing a native Coast Live Oak planting project by providing supplemental watering and weed maintenance.
- Rangers participated in multiple “Weed Warriors” and “Canyon Compadres” events for weeding clean-ups in the canyons.
- Aztec Landscaping and volunteers continued to remove non-native vegetation from the canyons.
- Ranger completed a trail sign project for Marian Bear and began implementing a similar project for Rose Canyon.
- Rangers lead nature walks, talks and presentations for different groups of



Volunteers help maintain a native plant nursery at the Tecolote Nature Center. Plants propagated here are used in restoration projects in the Tri-Canyons Parks.

different ages at the Nature Center, in Marian Bear Park and at schools and libraries.

- Rangers performed informal interpretation with individuals they met in the field.
- Rangers continued to perform regular patrols, enforced transient issues and worked with local San Diego police department concerning patrols and other issues in the Parks.
- Rangers followed the City protocol to report active transient camps.

Management Actions Related to MSCP Covered Species

Year—round routine management:

- Park Rangers performed routine patrols of the Tecolote and Nobel Drive Vernal Pool complexes on the lookout for any enforcement and maintenance issues.

Spring 2019: April through June

- City biologists monitored Orcutt's brodiaea at the Nobel Drive Vernal Pool site using the SDMMP IMG Rare Plant Monitoring protocol.
- City biologists performed VPHCP required monitoring at the Tecolote and Nobel Drive Vernal Pool complexes.
- City biologist worked with Pesticide Applicator staff to perform VPHCP required weed maintenance activities at the Tecolote and Nobel Drive Vernal Pool complexes.



Park Rangers patrolled the Nobel Drive Vernal Pool complex looking for enforcement and maintenance issues.

Citywide Urban Canyons & San Diego River

Park Management Highlights

- ♦ Ranger staff assisted in planning and implementation of Mid-City Clean Parks event with San Diego Police Department, Environmental Services Department, and the Community Parks division. This joint initiative resulted in 36 bags of trash removed from riparian areas and two mattresses.
- ♦ Open space staff initiated restoration projects at several Canyon sites, including Juniper, Chollas, Rancho Mission, and University. This included site preparation, selecting plant pallet, coordination of work crews, and the installation of over 1900 plants.

URBAN CANYONS within the Multi-Habitat Planning Area are found throughout the City of San Diego. Several canyons of these canyons are part of the **SAN DIEGO RIVER** watershed. Although small and subject to intense pressures, many continue to support native plants and wildlife. In fact, many of the large canyons are habitat for the sensitive California gnatcatcher and cactus wren. Management actions can counteract edge effects from development to maintain the habitat provided by these canyons.

Stewardship Management Actions and Outreach

Year—round routine management:

- Led the ongoing coordination effort to prevent homeless encampments and clean up active or abandoned encampments with volunteers, Alpha Project, San Diego Police Department, and Urban Corps. Rangers worked with SDPD Joint Patrols and Quality of Life teams to remove transients from various canyon locations
- Worked with various non-profit groups including SD Canyonlands, the Friends of Ruffin Canyon, Friends of University Heights Open Space, Friends of Navajo Canyon, Friends of Chollas Creek, Friends of Juniper Canyon, Friends of 47th St. and Friends of Maple Canyon on invasive removal, trash pickup, trail maintenance and habitat restoration.

Winter 2019: January through March

- Ranger staff assisted in planning and implementation of Mid-City Clean Parks event with San Diego Police Department, Environmental Services Department, and the Community Parks division. This joint initiative resulted in 36 bags of trash removed from riparian areas and two mattresses.
- Senior Ranger created the San Diego River Park Newsletter and conducted 3 interpretive programs: “River Ramble,” (history of SD River and Mission Valley)



Rangers issue citation for illegal lodging in MSCP conserved open space.



Vandalized sign was removed and replace at Radio Canyon.

“Kumeyaay Ethnobotany Walk,” and the “Navajo Canyon Geology Hike.”

- Senior Ranger continued working on Audubon Society’s “Habitat Helpers” program in Ruffin Canyon, presented plant restoration techniques for 3rd–5th grade students from area elementary schools.
- Senior Ranger worked with the SDRPF Clean River Manager and volunteers at 12 “River Rescue” cleanup events. Over 100,000 pounds of material was removed from inactive encampments along the San Diego River.
- Ranger staff submitted eleven request’s to the Environmental Services Department for encampment abatement.
- Rangers repaired broken fence railing in 32nd St Canyon.
- Hosted Navajo Canyon volunteer event where 30 native plants were installed and four bags of trash and non-native mustard were removed from around the restoration site.
- Rangers hosted a San Diego Audubon after school program in Ruffin Canyon and installed 30 native plants in open space off of Shawn Ave.
- Ranger worked with San Diego Mountain Biking Association volunteers on Rancho Mission Canyon trail repairs.
- Rangers hosted a planting at Juniper Canyon where an ROTC group from SDSU planted 30 plants.
- Rangers oversaw Alpha Project crew work on various natural resource management projects in University Heights, Pottery Canyon, Juniper Canyon, 32nd Street Canyon, Rancho Mission, Maple, Chollas and Hospice area.
- Ranger staff coordinated the cleanups with ESD for encampments in Buchannan, Emerald Hills, Radio canyon, Pacific Beach, Juniper Canyon, Kensington and Texas St. Open Space
- Senior Ranger directed Urban Corps and Alpha Project crews at Ruffin Canyon and Navajo Canyon. Trails were trimmed and weeded and holes were dug for planting projects.



- Coordinated volunteers at 5 plant restoration events at Navajo Canyon and Ruffin Canyon.
- Biologist oversaw Aztec Landscape contractor and worked with City Pesticide Applicators in restoration of the Otay Mesa PUD grant funded restoration site. They mowed and weed whipped over 15 acres, with a follow up of herbicide treatment and installed 600 native container plants at the site.
- Open space staff initiated restoration projects at several Canyon sites, including Juniper, Chollas, Rancho Mission, and University. This included site preparation, selecting plant pallet, coordination of work crews, and the installation of over 1900 plants.

Spring 2019: April through June

- Hosted a series of three volunteer events in Navajo Canyon. Volunteers removed 9 bags of invasive plants and 6 bags of trash/debris.
- Coordinated the planning of trail maintenance and improvements in Swan Canyon between private citizen, San Diego Canyonlands and Public Utilities Department.
- Rangers worked with San Diego Mountain Biking Association volunteers on Rancho Mission Canyon trail repairs.
- Replaced several signs in Emerald Hills, Radio Crayon, Switzer and Paradise Hills open spaces.
- Rangers planned and oversaw volunteer event with UCSD students involving a restoration project at Mt. Soledad Open Space.
- Rangers hosted a Creek to Bay volunteer cleanup event at Chollas Creek.
- Ranger led a Girl Scout troop for a 2-hour educational nature hike at 32nd St. Canyon.
- Ranger oversaw ongoing Urban Corps trail restoration project in Emerald Hills and Switzer Canyon.
- Ranger created a new volunteer opportunity named the Canyon Strike Team. She planned, recruited for, and hosted 9 Canyon Strike Team events resulting in 44 volunteers, 123.5 hours, and removal of an estimated 8,210 lbs. of trash.
- Ranger staff coordinated cleanups with the Environmental Services Department



Trail signs at Rancho Mission Canyon.

- for five encampments.
- Ranger staff continued to perform “in-house” cleanups of abandoned encampments.
- Ranger staff constructed and installed 3 interpretive stands in Switzer, Juniper and Rancho Mission Canyons and repaired a damaged kiosk at Rancho Mission Canyon.
- Oversaw Aztec Landscape in the planting of 25 box trees in the Chollas Creek area.
- Senior Ranger participated in River Blitz invasive plant survey and served as a leader for segments along the San Diego River and Ruffin Canyon.
- Conducted five public interpretive programs: “Ruffin Canyon Wildflower Walk”, “Navajo Canyon Full Moon Hike”, “San Diego River Ramble”, “Forester Creek Adventure Hike and, “Kumeyaay Ethnobotany Walk.”
- Senior Ranger presented a “River Update” at the San Diego River Conservancy Meeting.
- Presented 2 Kids to Canyons nature walks at Serra Mesa Library with a total of 74 children and parents.
- Senior Ranger continued working with the SDRPF Clean River Manager and volunteers at multiple “River Rescue” cleanup events. Over 100,000 pounds of material was removed from inactive encampments along the San Diego River.
- Ranger worked with over 120 volunteers at I Love A Clean San Diego’s Clean Canyons for a Clean Coast Cleanup at Adobe Falls. Hosted in partnership with the California Coastal Commission’s Adopt-A-Beach Program.

Summer 2019: July through September

- Conducted site visits and oversaw Urban Corps grant-funded restoration work at Emerald Hills.
- Rangers removed graffiti at multiple canyon locations.
- Worked with San Diego Canyonlands on split rail fence installation at Swan Canyon.
- Rangers and other open space staff fortified a retaining wall to help address erosion issues at University Heights.
- Rangers investigated habitat destruction at Radio Canyon and identified and educated an individual who mistakenly thought he was “helping” by cutting back native vegetation.



Repaired damaged kiosk at Rancho Mission Canyon.

- Hosted a 2-hour interpretive/service learning program for 40 Golden Hill Elementary Students.
- Rangers led a total of six 2-hour Kids to Canyons Programs.
- Coordinated and led Coastal Cleanup Day at Juniper Canyon with 71 volunteers.
- Rangers hosted a total of 13 Canyon Strike Team events with 57 volunteers, 160 volunteer hours, and removed 11,900lbs of trash and 945lbs of invasives.
- Rangers hosted eleven weekend volunteer events removing 3,245 lbs of trash and 2,120 lbs of invasives from several open space canyons.
- Ranger presented to 480 K-5 students at the Ibarra Elementary career day event.
- Rangers responded to three small fires that occurred in or near open space canyons.
- Worked with SDPD, NPD, ESD, HOT Team, Humane Law Enforcement to address unsheltered individuals in open spaces areas.
- Rangers worked with a community member and AT&T to address a broken telephone pole with a downed communication line that was obstructing the trail in Navajo canyon
- Conducted a total of five public interpretive programs: “Ruffin Canyon Walk”, “Navajo Canyon Full Sturgeon Moon Hike”, “San Diego River Ramble”, “Forester Creek Adventure Hike” and, “Kumeyaay Ethnobotany Walk.”
- Senior Ranger continued working with the SDRPF Clean River Manager and volunteers at multiple “River Rescue” cleanup events. Over 20,000 pounds of material was removed from river banks and inactive encampments along the San Diego River
- Worked with volunteers on Canyon Enhancement Projects at Ruffin Canyon.

Fall 2019: October through December



These blue “tubes” are temporarily placed around young plants in restoration sites to protect them from herbivores while they become established.

- Rangers removed large non-native Eucalyptus trees from the access path area at Maple Canyon.
- Canyons team hosted 12 Canyon Trike Team events where 62 volunteers contributed a total of 180 hours of service. Volunteers and staff removed 8,950 lbs. of trash and 300 lbs. of invasive plants from Open Space canyon areas
- Rangers assisted San Diego Canyon Lands with installation erosion control BMPs in a new native plant garden at 47th Street Canyon.
- Rangers worked with American Conservation Experience crews to restore 3 miles of trail, which included improving tread and drainage, bridge repairs, installation of 30 segments of pillar log fencing and planting 50 native plants in South Juniper Canyon.
- Rangers worked with Urban Corp to implement trail improvements in Emerald Hills Open Space Canyon.
- Rangers and Pesticide Applicators performed supplemental watering and weed maintenance in restoration sites in Chollas, Juniper, Navajo, Pottery, Rancho Mission, Revelle, University Heights, Ruffin Canyon on an as needed basis.
- Rangers worked with San Diego Canyon Lands and local girl scout troops to install native plants in Mission Hills canyon.
- Ranger cleared a fallen eucalyptus tree from the South Juniper Canyon trail.
- Rangers repaired and replaced broken/stolen signage at Pasatiempo Open Space and Mission Hills Canyon.
- Rangers helped facilitate a helicopter palm removal project in Sandstone Canyon.
- Rangers hosted 12 weekend volunteer events where 135 volunteers contributed a total of 405 hours of service and removed 1,785 lbs of trash and 1,705 lbs of invasive plants from several open space canyons.
- Rangers worked with SDPD, NPD, ESD, and HOT Team to address unsheltered individuals in open spaces areas.
- Rangers hosted an education/service project event with St. Augustine High School in Juniper Canyon where students helped install 75 native plants.
- Rangers facilitated Alpha Project crews conducting enhancement, improvements and trash abatement in multiple canyon locations.



Variegated dudleya in flower at Rancho Mission Canyon.

Management Actions Related to MSCP and VPHCP Covered Species

Spring 2019: April through June

- Biologists and Pesticide Applicators performed VPHCP maintenance of several vernal pool complexes including Serra Mesa, Pasatiempo, Otay Mesa, Robbinhood Ridge, Hidden Trails, Cal Terraces North, Cal Terraces South, and Clayton. Maintenance tasks included herbicide application, brush clearing, mowing and trash removal.
- Biologists and Pesticide Applicators attended the Ward's Weed land manager meeting held by SDMMP. They followed up with surveying the Robinhood Ridge vernal pool complex for the new invasive weed. Three herbicide application visits were completed to control the weed.
- Biologists performed MSCP Annual Rare Plant Monitoring of Variegated dudleya in Rancho Mission Canyon and Otay Mesa Open Space, and Coast Cholla in Florida Canyon and Otay Mesa Open Space.

Fall 2019: October through December

- Over 2,500 coast cholla cactus cuttings were installed at Chollas Radio Canyon and Navajo Canyon to restore habitat for coastal cactus wren. Weed management was also performed at these sites and will continue through 2020.



Biologists monitor for fairy shrimp at the Cal Terraces South vernal pool complex.

Otay Valley Regional Park

Park Management Highlights

- ◆ Rangers coordinated multijurisdictional operations to manage homeless illegal lodging violations in the OVRP.
- ◆ A total of 32 tons of trash was removed from non-active encampment sites by the Environmental Services Department during January to May 2019.
- ◆ A San Diego Clean Park operation was held at OVRP on Saturday, September 26. The multi-agency operation deployed 80 police officers, 5 Environmental Services Department code enforcement officers and 4 work crews, 7 park rangers, one brush crew packer operator and 2 grounds maintenance workers to cleanup homeless camps in OVRP.

OTAY VALLEY REGIONAL PARK (OVRP) follows the Otay River from its reservoir to the San Diego Bay, a distance of 13 miles. It is one of the few remaining regional corridor links for wildlife to move between habitats in eastern San Diego County to the west. The OVRP includes Dennery Canyon which was carved out of the high Otay Mesa terrace by drainage flowing to the Otay Valley from the Mesa tops. The park supports sensitive vernal pool habitats, California gnatcatcher, least Bell's vireo, Ridgway's rail and several rare native plants, such as Orcutt's bird's-beak, variegated dudleya and small leaved rose.

Stewardship Management Actions and Outreach

Year—round routine management:

- Park Rangers performed weekly patrols of the interior of the park to deter camping and other illegal activities.
- Park-wide trail monitoring and maintenance.
- Supervised Urban Corps, San Diego County Probation Crews and Center for Employment Opportunities (CEO) up to three days a week to clean up abandoned illegal encampments and remove invasive weed species park-wide.

Winter 2019: January through March

- Rangers hosted three outdoor activities as a part of the ADVENTURE PASSPORT program: 2nd Annual Arbor Day at the Hollister Pond, a Butterfly sanctuary milkweed planting day at Poggie Creek and Nature sketching and painting at the Finney Overlook. Approximately 100 participants attended these events.
- Approximately 240 cubic yards of invasive Boobialla (*Myoporum acuminatum*) were removed from the Saturn Blvd staging area to enhance habitat and decrease desirable homeless camp areas.
- Over 1,284 person-hours were spent to removing non-native plants species along 8 miles of trails .
- Volunteers and staff planted a total of 100 narrow-leaf milkweed, 10 sycamore trees and 10 cottonwood trees.
- OVRP Ranger program coordinated multijurisdictional operations to manage homeless illegal lodging violations in the



A narrow-leaf milkweed plant that was planted by volunteers near Poggi Creek is doing well almost a year after planting.

OVRP. One of the camps discovered was largest active camp seen by San Diego Police Officer and San Diego Environmental Services Department Code Officer in past 10 years.

Spring 2019: April through June

- The 9th Annual Discover OVRP Day was held on May 18, 2019. The event included several outdoor adventure programs such as Mountain biking led by the San Diego Mountain Biking Association, horseback riding led by the Bonita Valley Horsemen, birding led by the San Diego Audubon Society and Nature walk led by Canyoneers.
- A Junior Ranger Activity Journal program was provided to three third grade classes from Chula Vista High Tech Elementary school.
- Hawkins STEAM charter school students helped place bird nest boxes throughout the park.
- Management of non-native vegetation was conducted at the six future active recreation sites (approximately 300 acres) to prevent weeds from spreading into nearby sensitive habitats.
- Rangers continued to coordinate multijurisdictional operations to manage ~~homeless~~ illegal lodging violations in the park. A total of 32 tons of trash were removed from non-active encampment sites by the Environmental Services Department during January to May 2019.



A small brush fire caused by an illegal campfire. Ranger identified the fire and fought it with fire extinguisher until the Fire Department arrived.



City of San Diego Police Officers make contact with an individual illegally camping in the Park's Open Space.

Summer 2019: July through September

- A total of 10 volunteers removed over 20 cubic yard of invasive plants from the Mace Street Equestrian Staging area for Coastal Cleanup Day on Saturday, September 21.
- Approximately 480 cubic yards of arundo and other invasive plants were removed from the North Beyer trail.
- A total of 18 spot brush fires occurred between Friday, September 13th and Sunday, September 15th and burned a approximately 3 acres total. Invasive plant management activities performed in the area helped prevent the fires from spreading and damaging more sensitive riparian habitat.
- A San Diego Clean Park operation was held at OVRP on Saturday, September 26. It was ~~multi-jurisdictional, multi-department and multi-agency~~ operation which deployed 80 police officers, 5 Environmental Services Department code enforcement officers and 4 work crews, 7 park rangers, one brush crew packer operator and 2 Grounds maintenance workers from the CPII division to cleanup homeless camps in OVRP.

Fall 2019: October through December

- In a joint effort, OVRP Homeless Task Force (Ranger, SDPD, ESD) cleaned up approximately 35 camps and removed 4,000 cubic yards of trash.
- San Diego Audubon Society hosted a series of Outdoor Explorer educational programs in Otay Valley Regional Park in November. Approximately, 20 students from local schools attended each day.
- A probation crew assisted with trash pick up between Beyer Way and Beyer Blvd. They collected approximately ~~4 cubic yard full of spray paint cans and~~ trash from below the Beyer Way river crossing.
- Ranger Program coordinated SDFR and CVFR Wildland Firefighting Chainsaw



A bench and interpretive kiosk overlooking Fenton Pond.



City Pesticide Applicator working to remove invasive Arundo from a sensitive wetland area.

Training as a way to reduce vegetation from known chronic encampment sites, graffiti sites, and a future recreation development site (within a total of 10 acres). Approximately, 60 eucalyptus and 1,200 cubic yards of nonnative vegetation was removed to create better visibility and increased safety while improving habitat. Over 200 fire fighters were trained in chainsaw use.

- Senior Ranger and Pesticide Applicators cut and treated over 700 Tamarisk trees and removed approximately 200 cubic yards of Arundo to improve wetland habitat.



Photos showing before and after removal of invasive Boobialla, Arundo and Tamarisk from wetland habitat area near Finney Overlook.

Management Actions Related to MSCP and VPHCP Covered Species

Spring 2019: April through June

- Conducted biological surveys in support of preparation of a Natural Resource Management Plan for the Western Otay River Valley Regional Park.
- Performed annual MSCP IMG Rare Plant monitoring of Orcutt's birds beak along the Otay River and Dennery Canyon, as well as San Diego thornmint, Otay tarplant, and small-leaved rose occurrences in Dennery Canyon.
- Light-footed Ridgeways Rail were observed/detected in freshwater marsh areas near Fenton Pond, Heart Pond and Le May Pond.

Summer 2019: July through September

- A pair of burrowing owls was observed in the open space near the Saturn Blvd Staging Area in August 2019. This area has been undergoing regular weed maintenance using both with mowing and herbicide treatments to control the spread of invasive crown daisy for the past 2.5 years.

Fall 2019: October through December

- Monthly site visits to the Saturn Blvd staging area were performed to confirm presence burrowing owls. The owls continued to use the site through the Fall/Winter season. Three owls was observed during one visit. Regular monitoring for burrowing owls at this site will continue through 2020.



A large population of Orcutt's bird's-beak growing along the trail.



A burrowing owl observed near the Saturn Blvd Staging Area.

Thanks to our Partners!

- Allied Gardens Recreation Center
- Alpha Project
- AmeriCorps
- American Conservation Experience
- Atlas Tree Service
- Bay Park Nature Walks
- Bayside Community Center
- Boy Scouts of America
- Cabrillo Recreation Center
- California Native Plant Society
- Cambridge Elementary School
- Camelback Group
- Chula Vista Home School
- CEO – Center for Employment Opportunities
- CETYS High School in Tijuana
- Chaparral Lands Conservancy
- City of Chula Vista
- City of San Diego – Police Department
- Conservation Biology Institute
- County of San Diego
- Del Dios Habitat Protection League
- Donovan Crew
- Eagle Scouts
- Empower Charter School
- Finney Elementary School
- Friends of 47th Street Canyon
- Friends of Arroyo Canyon
- Friends of Chollas Creek
- Friends of Juniper Canyon
- Friends of Mission Valley Preserve
- Friends of Lake Murray
- Friends of Los Peñasquitos Canyon Preserve
- Friends of Navajo Canyon
- Friends of Rose Canyon
- Friends of Ruffin Canyon
- Friends of Tecolote Canyon
- Friends of University Heights Open Space
- Girl Scouts of America
- Groundworks Chollas
- Hands on San Diego
- High Tech High
- Holmes Elementary School
- I Love a Clean San Diego
- Jewish Community Center
- Juarez Elementary School
- Kate Sessions Elementary School
- Key Club
- Longfellow Elementary School
- Mesa College
- Mike Kelly & Associates
- Mission Resource Conservation League
- Mormon Missionaries
- Ocean Discovery Institute
- Outdoor Adventures
- Outdoor Outreach
- River Partners
- Safe Routes to Nature
- San Diego Association of Governments (SANDAG)
- San Diego Audubon Society
- San Diego Canyonlands
- San Diego Cooperative Charter School
- SDG&E
- San Diego Natural History Museum
- San Diego Management and Monitoring Program
- San Diego Mountain Biking Association
- San Diego River Park Foundation
- San Dieguito River Park Conservancy
- San Diego State University
- San Diego Zoo Institute for Conservation Research
- Sierra Club
- Sky Hunters
- Spreckles Elementary School
- The Institute for Effective Education (TIEE)
- Trail Life USA
- University of San Diego
- Urban Corps of San Diego County
- US Fish and Wildlife Service
- US Navy
- WildCoast

Thank you for your support
of natural open space within the City of San
Diego!

For questions or to volunteer, please contact:

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