

MSCP Management Actions Report

JANUARY 1, 2018 — DECEMBER 31, 2018











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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 2018 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 2018. 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 also provide educational opportunities for Park visitors.





Management Actions: At-A-Glance

Education

- Over 83,200 people visited Mission Trails Visitor Center and Tecolote Nature Center.
- At Mission Trails Regional Park alone, 2,765 adults and 1,788 children participated in Ranger-led walks and hikes. Additionally, over 5,000 students participated in curriculum based school programs at Mission Trails.
- <u>16 schools</u> from preschools to universities took field trips to visit Open Space parks and preserves.

Enforcement and Cleanups

- Over 1,900 volunteers dedicated over 10,000 hours to cleanup, restoration, and park beautification activities.
- Approximately <u>80,000 pounds of trash</u> 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 transients and clean up encampments in various open space locations.

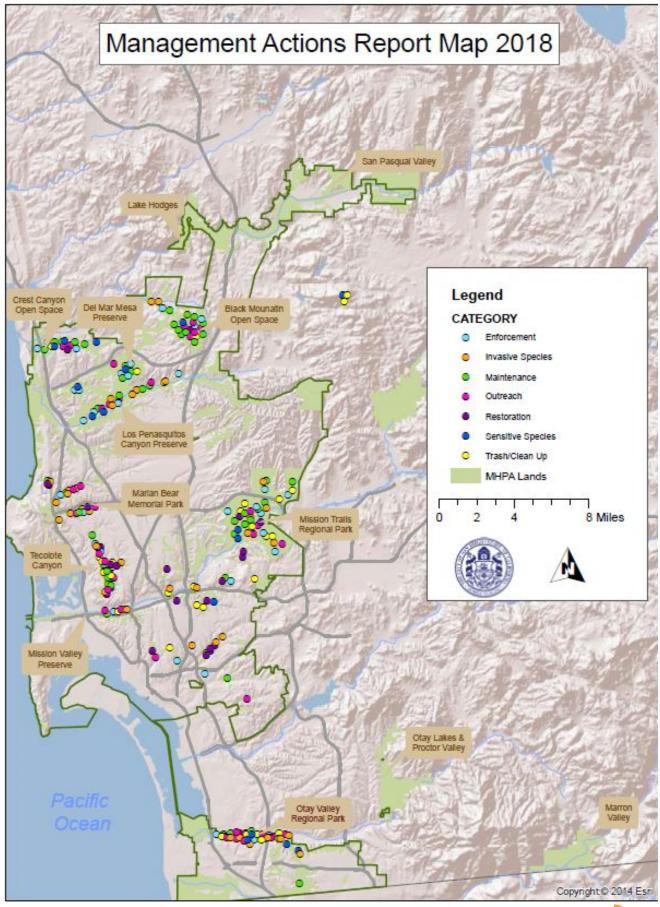
Invasive Weed Management

- City pesticide applicators performed invasive weed treatments at 33 open space preserves, visiting an average of nine preserves per month. Some sites were visited multiple times.
- City pesticide applicators <u>treated nine</u> <u>locations with MSCP-covered San Diego</u> <u>thornmint</u> for invasive purple false brome using the Conservation Biology Institute protocol.
- Mowing and herbicide treatments were performed to <u>control non-native grasses</u> <u>at the San Diego ambrosia site</u> at Kumeyaay Lake.
- Over <u>1,800 cubic yards</u> of invasive tamarisk, giant reed and waterbush were removed from a 180 acre area of Otay Valley Regional Park.

Habitat Restoration & Beautification

- Over <u>2,800 native plants</u> installed to protect and restore habitat adjacent to trails.
- Closed/reclosed a total of <u>94</u> <u>unauthorized trails</u> for restoration and wildlife corridor area.
- Approximately 1,800 San Diego thornmint seeds were dispersed in the Mission Trails Regional Park San Diego thornmint restoration site. Several seedlings were observed in the seeded areas in December 2018.
- Two SANDAG EMP grants were awarded to the City to conduct habitat restoration and weed management around vernal pool complexes and to expand cactus wren habitat.







Black Mountain, Mount Woodson and Clevenger Canyon **Park Management Highlights** Rangers led the "Tour For All People", a monthly wheelchair accessible interpretive program on the Jas Arnold Trail For All People. This interpretive walk highlights the ethnobotany, geology, and wildlife found in Black Mountain Open Space Park. Rangers coordinated with local rock climbing organizations to host a graffiti removal and trash clean up event at Mount Woodson. The San Diego Zoo and San Diego Natural History Museum conducted a ringtail cat study at Mount Woodson.



BLACK MOUNTAIN PARK is located west of I-15 and harbors habitat for California gnatcatcher as well as several other sensitive species. Black Mountain also provides a natural experience for nearby residents with trails, viewpoints, and interpretive information.

- 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.)—Weekly
- Conducted regular maintenance of trail systems, park-wide—Monthly
- Rangers led the "Tour For All People", a wheelchair accessible interpretive program on the Jas Arnold Trail For All People. This interpretive walk highlights the ethnobotany, geology, and wildlife found in Black Mountain Open Space Park—*Monthly*
- Long-term volunteer team continued focus on artichoke thistle removal in Lusardi Canyon—Monthly
- Led interpretive walks and other outreach events through the "Ranger Adventure Hike" program including "Full Moon Hikes" at Black Mountain—Monthly
- Coordinated "Park Cleanup Day" at Black Mountain with San Diego Jewish Academy—

 January
- Rangers completed trail alignment and improvements for the Black Widow approach on Black Mountain—January through February
- Rangers met with local rock climbing organizations to coordinate a graffiti removal and trash clean up event at Mount Woodson—February
- Rangers presented a geology, local history, and trail maintenance program for 75 Cub Scouts and Girl Scouts at Village Green Park in Del Sur—March
- Provided access for researchers from the San Diego Zoo and the San Diego Natural History Museum to conduct a ringtail cat study at Mount Woodson—*March*



A ringtail cat photographed at Mount Woodson using remote cameras installed by the San Diego Zoo Institute for Conservation Research.

- Ranger installed new signage along Ahwee Trail in Lusardi Canyon—March
- Rangers worked with volunteers to restore a degraded area of Black Mountain with native plant species as part of the restoration requirement of the Natural Resource Management Plan—March
- Rangers conducted trail maintenance and brushwork with labor crews on Artesian Trail, Lusardi Loop Trail, Jas Arnold Trail for All People, Clevenger Canyon North Trail, Nighthawk Trailhead, Miner's Trailhead, Miners Ridge Loop Trail, Clevenger North and South Trailheads, and Trans County Trail—April
- Rangers organized and hosted a clean-up event at Mt. Woodson with Allied Climbers of San Diego. A total of 70 participants removed 2 truck loads of litter and eliminated numerous areas of graffiti—April
- Rangers worked on remediating section of Miner's Ridge Loop trail which was found to have high arsenic content. Additional work was performed to re-open the trail after more than a year closure—April
- Rangers worked with Boy Scouts on Little Black Loop trail trimming project—June
- American Conservation Experience crew assisted with trail remediation project at two sites on Black Mountain- Nighthawk and Little Black Loop Trail—June
- Ranger conducted an interpretive hike on Miner's Ridge Loop trail with 42 participants, with focus on local history and geology—June
- Black Mountain Rangers attended YMCA Summer Camp in Spring Valley, presented to group of 70 children about the duties of park rangers and wildlife identification—June
- Rangers attended Kids to Canyons Library Program at Carmel Valley Library with 35 families. They presented information on Wildlife Explorers Workbook, Kids to Canyons Backpacks, and outdoor safety—June



Ranger-led Geology Hike at Black Mountain.



Ranger-led Full Moon Hike at Black Mountain.



- Ranger worked with Alpha Project to install fence along Camino Del Sur to block vehicles from illegally entering open space to retrieve landing hot air balloons—*June*
- Rangers responded to fires that burned through Clevenger Canyon North and South trails, inspecting the affected area immediately after the fire—*July*
- Ranger provided first response to hiker suffering from early heat stroke symptoms. Hiker was transported in truck to main entrance of Peñasquitos canyon to the east where ambulance was waiting and provided medical attention thereafter—August
- Ranger oversaw Eagle Scout project installation of bench near Black Mountain summit—October through December
- Rangers worked with SDMBA volunteers to maintain the Black Widow trail—October through December



Black Mountain ranger teaches students from Marshall Elementary School about local wildlife.



Management Actions Related to MSCP and VPHCP Covered Species

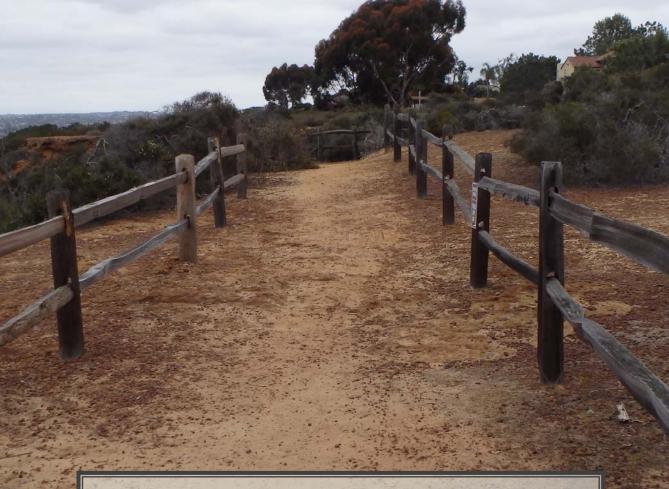
- Rangers and Pesticide Applicators performed dethatching and herbicide treatments to manage non-native grasses and forbs at the Lusardi Open Space San Diego thornmint site using weed control protocol developed by Conservation Biology Institute—March
- Biologists performed annual MSCP monitoring of rare plant occurrences of San Diego thornmint, threadleaf brodiaea, and variegated dudleya using the SDMMP IMG protocol—April through June
- Black Mountain Rangers assisted Mission Bay staff and Audubon Society biologists with fence installation and surveys at Least Tern site at North Fiesta Island—April
- Rangers worked with Alpha Project crews to repair fencing that protects an occurrence of threadleaf brodiaea (Brodiaea filifolia) near Sundevil Way—April



City Pesticide Applicators spot-spray herbicide to treat invasive species at the San Diego thornmint site in Lusardi Open Space.



Crest Canyon & Gonzales Canyon Open Space



Park Management Highlights

- Park Ranger presented "Crest Canyon Hike" interpretive program with 39 participants. Hikers learned how to identify rare native plants and how they can be more involved with park stewardship.
- Park Rangers oversaw volunteer habitat restoration events in Gonzales Canyon at the Sword Way trailhead.
- Biologists discovered a new occurrence of Coast wallflower at Overlook Park.



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.

- 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.)—Weekly
- Conducted regular maintenance of trail systems, park-wide—Monthly
- Park Ranger presented "Crest Canyon Hike" interpretive program with 39 participants. Hikers learned how to identify rare native plants and how they can be more involved with park stewardship—January
- Park Rangers completed work to enhance the staircase at the Durango Dr. trailhead of Crest Canyon, and repaired damaged portions of peeler log fence—January
- Rangers coordinated "Community Serve Day" at Gonzales Canyon for Del Mar Presbyterian Church in conjunction with San Diego River Valley Conservancy. Participants trimmed 2 miles of the Torrey Pines Loop Trail—February
- Rangers took down bicycle jumps along illegal trail that was cut on western side of Gonzales Canyon—March
- Ranger removed unnecessary signage at Durango Drive approaching Crest Canyon trailhead—March
- Park Ranger presented "Crest Canyon Wildflower Walk" interpretive program attended by 42 participants. Hikers leaned about plant identification, ethnobotany and unique natural resources—April







Trail sign in Gonzales Canyon.



- Rangers worked with American Conservation Experience crews to perform trail maintenance in Gonzales Canyon—June
- Rangers closed down and filled in with brush illegal trail that was starting to get constructed on East side of Crest Canyon—July through September
- Ranger installed cameras to monitor activity at illegal trail in Crest Canyon—October through December
- Ranger oversaw volunteer event at Gonzales Canyon Sword Way trailhead for the planting of native plants—October through December

Management Actions Related to MSCP and VPHCP Covered Species

- Biologists discovered a new occurrence of coast wallflower at Overlook Park—February
- Biologists and Management Interns performed annual MSCP monitoring of coast wallflower (Erysimum ammophilum) at Crest Canyon, Gonzales Canyon and Overlook Park—March
- Park Rangers assisted Biologists and Management Interns with annual MSCP monitoring of short-leaved dudleya (Dudleya brevifolia) at Crest Canyon—April



Coast wallflower is an MSCP covered rare plant species that grows in Crest Canyon and Gonzales Canyon.



Los Peñasquitos **Canyon Preserve Park Management Highlights** Goldspotted Oak Borer was confirmed to be present in Los Peñasquitos Preserve in the area east and west of Black Mountain Road. A contractor to apply approved pesticide to infected trees and five severely infected trees were removed. This area is being monitored closely to control further spread. Rangers participated in the annual MSCP Public Workshop by hosting an educational booth and leading nature walks. Pesticide Applicators performed dethatching and herbicide treatments to manage non-native grasses and forbs at the San Diego thornmint site using the weed control protocol developed by Conservation Biology Institute.



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.

- 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.)—Weekly
- Conducted regular maintenance of trail systems, park-wide—Monthly
- Led interpretive walks and other outreach events—Monthly
- Los Peñasquitos Canyon Preserve Ranger completed development of a new mascot to represent the City of San Diego as part of the new citywide Junior Ranger program— January
- Rangers and volunteers performed trail inspections and repairs following winter storms—March
- Goldspotted Oak Borer was confirmed to be present in Los Peñasquitos Preserve in the area east and west of Black Mountain Road. A Purchase Request was immediately submitted for a contractor to spray infected trees—March
- Conducted removal of stinkwort (Dittrichia graveolens) from trails throughout the canyon—July through September
- Rangers participated in annual MSCP Public Workshop by hosting an educational booth and leading nature walks—October
- Ranger helped evacuate woman and child from Peñasquitos Canyon after friend fell on rocks at waterfall—October



Wildlife cameras were installed at the Black Mountain Road underpass to monitor mountain lion activity after tracks were observed in August. No mountain lions were photographed but the cameras did capture several other species using the underpass.



- Rangers worked with Environmental Services Department and San Diego Police Department on illegal encampment abatement at three locations—*October*
- Rangers and volunteers performed trail maintenance, trash removal and invasive plant removal throughout the preserve—October through December
- Ranger led a "Kids to Canyons" educational snake program at Mtn. View Beckworth Library— November
- Ranger led volunteer effort to remove litter from canyon—November
- Ranger observed cyclist on single track trail after dark and informed them of regulations— November
- Atlas Trees was contracted to remove 5 Oak trees infected with Goldspotted Oak Borer—November
- Rangers led an effort in removing invasive species, including Canary Island Date Palm, Mexican Fan Palm, Russian Thistle, and Castor Bean; 30 volunteers from Reality Changers assisted with this effort—November
- Rangers performed erosion control maintenance around the El Cuervo Adobe site— December

Management Actions Related to MSCP Covered Species

- Pesticide Applicators performed dethatching and herbicide treatments to manage nonnative grasses and forbs at the San Diego thornmint site—February
- Biologists and Management Interns performed annual MSCP monitoring of San Diego thornmint and variegated dudleya in Los Peñasquitos Canyon; willowy monardella in Lopez Canyon; and San Diego goldenstar, Orcutt's brodiaea at Lopez Ridge—April through June
- Mountain Lion tracks were found at the west end of Los Peñasquitos Canyon and under Black Mountain Road bridge by the San Diego Tracking Team. A further investigation revealed it is likely an adult female. Additional tracks were seen in Carmel Valley. The SD Tracking team placed a wildlife camera at the west end and rangers installed a camera under Black Mountain Road—July

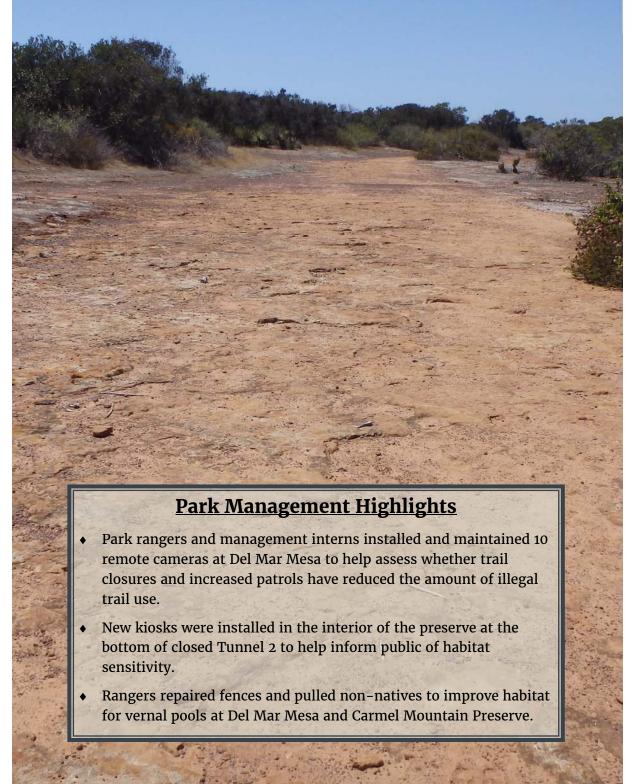




Willowy monardella is an MSCP covered rare plant Orcutt's brodiaea is an MSCP covered rare plant species that grows in Lopez Canyon and Flanders species that is found on Lopez Ridge.

Canyon.

Del Mar Mesa & Carmel Mountain Preserves



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.

- 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.)—Weekly
- Conducted regular maintenance of trail systems, park-wide—Monthly
- Led interpretive walks and other outreach events—Monthly
- Park rangers and management interns installed and maintained 10 remote cameras at Del Mar Mesa to help assess whether trail closures and increased patrols have reduced the amount of illegal trail use—January through April
- Coordinated with CalTrans on Deer Canyon East mitigation and trail installation—July through September
- New kiosks were installed in the interior of the preserve at the bottom of closed Tunnel 2 to help inform public of habitat sensitivity—*July through September*
- Ranger performed trail maintenance and invasive plant removal at Del Mar Mesa— October through December
- Ranger educated visitors on about illegal trail construction and vegetation removal during sign installation—*November*



Remote cameras were installed to monitor illegal trail use at Del Mar Mesa.



Management Actions Related to MSCP and VPHCP Covered Species

- Rangers repaired fences and pulled non-natives to improve habitat for vernal pools at Del Mar Mesa and Carmel Mountain Preserve—April
- Park Rangers assisted Biologists and Management Interns with annual MSCP monitoring of short-leaved dudleya (Dudleya bevifolia) at Carmel Mountain Preserve— April
- Biologists and Management Interns conducted VPHCP required monitoring of the vernal pool complexes at Del Mar Mesa and Carmel Mountain Preserve—April through December



San Diego button celery is a VPHCP covered rare species that is found in vernal pools on Del Mar Mesa.



San Diego mesa mint is a VPHCP covered rare species that is found in vernal pools on Del Mar Mesa.



Short leaved dudleya is an MSCP covered rare plant species that is found at Carmel Mountain Preserve and Crest Canyon.



Mission Trails Regional Park Park Management Highlights Coordinated and managed the 5-Peak Challenge which draws over 1500 participants annually to hike the five tallest peaks in Mission Trails Regional Park. Park Rangers closed/reclosed a total of 94 undesignated trails and replaced 29 damaged/vandalized signs park-wide. 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.



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.

- 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.)—Weekly
- 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-Weekly
- 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—Weekly
- · Responded to a variety of enforcement and emergency incidents including dogs offleash, illegally parked vehicles, drug use, injured hikers and/or lost hikers, heat related illness, etc.—Weekly
- Led volunteer trail crews on a variety of trail maintenance projects park-wide. Trail crews installed jute netting, planted native plants, installed timber steps, and weeded invasive species —Weekly
- Rangers led monthly Park Beautification, Habitat Restoration, and Trail Maintenance volunteer crews—Yearlong
- Conducted regular maintenance of trail systems, park-wide—Weekly





- An illegal dump was removed along Mesa Road—April
- Rangers organized and led a volunteer riverbed cleanup project—April
- Rangers hosted an I love a Clean San Diego, Creek to Bay volunteer cleanup event—April
- Rangers responded to report of injured hiker on Cowles Mountain. Assisted SDFD with transport of medics to victim. Victim transported via helicopter to ambulance at East Fortuna Staging Area—April
- Removed a fallen tree blocking Kumeyaay Lake Trail—May
- Rangers led a volunteer cleanup event at the Cowles Mountain Staging area. A total of 12 volunteers participated—*May*
- Coordinated with County Vector Control for annual mosquito control helicopter staging location and aerial drops—*May*
- Removed a fallen tree blocking Oak Grove Loop Trail—June
- Park rangers repaired and replaced of damaged wood benches Kumeyaay Lake Campground amphitheater—*June*
- Park rangers repaired/replaced over 42 feet of fencing—July through September
- Staff responded to and removed 12 illegal dumps park-wide—July through September
- Park rangers led 2 Kids to Canyons presentations, totaling 38 participants—July through September
- Ranger led ecological succession school group walk with 25 participants—September



A red-diamond rattlesnake eating a brush rabbit at Cowles Mountain in Mission Trails Regional Park..



Management Actions Related to MSCP Covered Species

- Pesticide Applicators performed mowing and herbicide treatments to control invasive species at the Kumeyaay Lake San Diego ambrosia site—January through March
- RECON Environmental performed herbicide treatments and dethatching to manage non-native grasses and forbs in areas with San Diego thornmint—March
- 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—April through May
- Pesticide applications/non-native removal projects; Mesa Rd., KLC, West Fortuna, EFSA, Big Rock Trail, SD River Crossing Trail, Grasslands Loop Trail, Spring Canyon, Deerfield Crossing Trail, Rim Trail, Dog Creek—July through September



Variegated dudleya is an MSCP covered rare plant species that occurs in Mission Trails Regional Park.



San Diego goldenstar is an MSCP covered rare plant species that occurs in Mission Trails Regional Park.



San Diego thornmint is an MSCP covered rare plant species that occurs in Mission Trails Regional Park. Several seedlings germinated in 2018 but few plants flowered due to herbivory.



Tri-Canyons & **Mission Valley Preserve Park Management Highlights** Ranger caught and removed two Guinea Fowl (one male and one female) that had been released in Marian Bear Park and relocated them to the Orange County Zoo. Rangers continued park-wide work on increasing area of native plant restoration, often with volunteer involvement. Rangers worked with SDPD to evict transient camps and coordinated with the San Diego River Park Foundation on monthly cleanup events in the Mission Valley Preserve



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.

- Park-wide trail monitoring and maintenance—Monthly
- Performed regular patrols and maintenance in all of the Tri Canyon Parks and worked with SDPD on patrols through the Mission Valley Preserve—*Monthly*
- Volunteers assisted with local native plant propagation for restoration at the Tecolote Nature Center nursery—Yearlong
- Rangers worked with San Diego Police Department to evict transients from all canyon areas—Yearlong
- Worked with volunteers in Tecolote Canyon, Marian Bear and Rose Canyon to remove trash and shopping carts from the creek bed and control non-native species, including hand pulling thousands of palm seedlings—Weekly
- Utilized Alpha Project crews to complete a variety of large maintenance tasks including removal of transient debris, cleaning storm drains, blocking illegal trails, and invasive
 - species control in Tecolote Canyon, Marian Bear, Rose Canyon and Mission Valley Preserve—Monthly
- Worked with SDPD to evict transient camps and coordinated with the San Diego River Park Foundation on monthly cleanup events in the Mission Valley Preserve—Monthly
- Ranger and volunteers planted 32 native plants in Tecolote Canyon—*January*
- Park Rangers removed a fallen sycamore tree from the middle of the trail in Rose Canyon—January
- Park Rangers worked with Friends of Rose Canyon to remove invasive plants from Rose Canyon—January
- Rangers planted 66 plants in Tecolote Canyon—February

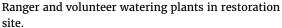


San Diego Police Officers worked with Rangers to patrol canyons, which sometimes required wading across the river.



- Worked with interpretive volunteer groups to water and mulch native plants in the Tecolote Canyon revegetation site—February through April
- Urban Corps removed three 40 yard dumpsters worth of chipped Pepper Tree from the Mission Valley Preserve—February
- Aztec contractor removed 3 stands of Pepper Tree from Tecolote Canyon—February
- Friends of Rose Canyon removed large amounts of old mustard in order to provide space for new young oaks and plant new oaks—February
- Worked with contractor to clean illegally dumped spray paint from Tecolote Creek— **February**
- Ranger caught and removed two Guinea Fowl (one male and one female) that had been released in Marian Bear Park and relocated them to the Orange County Zoo—March and April
- Ranger staff and volunteers planted 124 native plants in Tecolote Canyon—March
- Rangers removed bike jumps and bridges from an illegal trail in Tecolote Canyon and installed fencing to deter use of illegal trails—March
- Volunteers removed non-native plants and trash in all of the Tri Canyons. Volunteers with Qualified Applicator Certificates/Licenses (QAC/QAL) performed herbicide treatments to control non-native plants—*March*
- Staff performed bi-yearly storm water monitoring and reports—*March*
- Rangers planted 12 more native plants in the Tecolote Canyon revegetation site and watered all plants in that area—April
- Rangers worked with Weed Warrior volunteers to hand-pull invasive onion weed growing in west side of Marion Bear Park—April
- Ranger organized and directed the Mesa College Canyon Day clean up event—April
- Rangers assisted with San Diego River Park Foundation clean up events in the Mission Valley Preserve—April through May







A truckload of Arundo being removed from the canyon.



- Aztec Landscaping and Alpha Project performed trail clearing and park maintenance through all of the Tri Canyon Park system—April
- Rangers cleaned up remnants of a large transient encampment inside Tecolote canyon off of Manning Street—April
- Rangers coordinated with the San Diego River Park Foundation to host a River Days volunteer event. Volunteers watered and mulched recently installed native plants in Tecolote Canyon—*May*
- Weed Warriors volunteers helped clean up at the Balboa and Osler sections of Tecolote Canyon—May
- Aztec Landscaping crews were utilized to perform trail clearing in Marian Bear and Tecolote Canyon—May
- Rangers and Friends of Rose Canyon volunteers led students from UCHS on an insects walk through Rose Canyon Park—May
- Ranger replaced old park entrance signs with new updated signs—June
- Ranger led a nature hike for Mr. Bear's 3/4th grade class. The hike focused on plant and animal adaptations in Marian Bear Park—June
- Ranger created an informational sign to educate visitors about ongoing efforts to remove non-native plants in the parks—June
- Rangers and San Diego Police Officers attended to a truck that attempted to drive into Rose Canyon via the regents trail and got stuck—June
- Rangers and volunteers worked together to host a Tecolote Family Day event at the Tecolote Nature Center. Over 500 visitors enjoyed the festivities—*June*
- A Grounds Maintenance Worker assisted the Nature Center Director with the rescue of an injured Cooper's Hawk near the Tecolote Nature Center—June



Senior Ranger Steve Smith.



Rangers are ready to dethatch.



- Led ecological succession school group walk with 25 participants—July through September
- Rangers continued park-wide work on increasing area of native plant restoration, often with volunteer involvement—July through September
- Alpha and Aztec crews were recruited to help clear trails and remove large stands of pepper tree in Tecolote Canyon—July through September
- Rangers hosted multiple "Weed Warriors" programs for clean ups in the canyons.— July through September
- Staff and volunteers installed student art project tiles of native species around the Nature Center patio—July through September
- Contracted Aztec Landscaping to remove large stand of Arundo donax from canyon (appx 50'x50' stand)—October
- Rangers collected acorns and planted them in areas that had been disturbed to encourage future growth near riparian area—October
- Rangers and volunteers installed 58 native plants and added mulch in an active restoration site—October
- Several large stands of pepper tree and pampas grass were removed from Tecolote Canyon—October
- Rangers installed new fence, 25 feet long along with a new kiosk on battle trail, within Tecolote Canyon—October
- Staff hand-pulled non-native English Ivy from trails in Marian Bear Park—October



Revegetation site getting watered by Weed Warrior volunteer.



Every 1st Sunday of the month a volunteer group called Sunday in the Garden works in the native plant garden behind the nature center.



- Staff began work on a new restoration site through non-native plant removal and planting of over 50 native plants—November
- Aztec crews and City herbicide applicators removed several large stands of giant reed and pepper trees—October through December
- San Diego River Park Foundation removed large stands of non-native vegetation in the Mission Valley Preserve—October through December
- Rangers closed several illegal trails, using barriers and brushing throughout the parks—October through December
- New kiosk displays were installed at all park kiosks—October through December
- Information displays were installed at revegetation site to inform park users of conservation efforts and why they are occurring—October through December
- Environmental Services Department and Code Compliance were used to post and abate transient camps in all parks—October through December



Ranger and volunteer host an outreach event for families at the San Diego Children's Museum.



Children attached their colorful pictures of native plants and animals to where they thought they would live.



Weed Warriors volunteers meet every 3rd Saturday.



Citywide Open Space & Urban Canyons **Park Management Highlights** Senior Ranger worked with the SDRPF Clean River Manager and volunteers at 12 "River Rescue" cleanup events. Over 74,000 pounds of material was removed from inactive encampments along the San Diego River. Rangers led the ongoing coordination effort to prevent homeless encampments and clean up active or abandoned encampments with the San Diego Police Department, Environmental Services Department, Alpha Project 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.

CITY-WIDE OPEN SPACE and URBAN CANYONS within the Multi-Habitat Planning Area are found throughout the City of San Diego. 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.

- 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—Yearlong
- 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—Yearlong
- Supervised Alpha Project and Urban Corps crews in trash pickup and weed removal in various Canyon locations—Yearlong
- Pesticide Applicators performed herbicide applications to control non-native and invasive weed in various Open Space Canyons including: Serra Mesa Rec Center Open Space, Balboa Blvd, Maple Canyon, Pottery Canyon, Rancho Mission Park, Curlew Open Space, Navajo Canyon, Emerald Hills Open Space, Marian Bear Park, Regents Rd, Juniper Canyon, and Tecolote Canyon, Chollas Creek Open Space, Guymon Open Space, Mission Trails, 46th and Home St. Open Space, and Dennery Rd Open Space, Camino Del Luna, Otay Mesa, Nobel Drive—Yearlong (as needed)
- Performed park-wide trail monitoring and maintenance—Monthly



Volunteers help water and install plant protectors around recently planted native plants at Juniper Canyon.



- Park rangers performed an educational talk and instruction on how to install native plants with 30 kids as part of the SD Audubon Habitat Helpers program. A total of 17 plants were installed—January
- Hosted a volunteer event with a UCSD Sorority of 29 people at La Jolla Heights during which 100 native plants were installed—January
- Rangers, Pesticide Applicators and Grounds Maintenance Manager staff worked with contracted crews to remove giant reed (Arundo donax) from the San Diego River-January
- Coordinated with SDG&E to have them regrade a utility access road in Otay Mesa that was causing erosion issues—February
- Rangers coordinated a volunteer group with 50 participants at Chollas Creek to install 360 native plants—February
- Senior Ranger presented a two day Habitat Restoration Training workshop with Park Rangers and Pesticide Applicator staff from various OS/DRP. A total of 55 participants attended—February
- Rangers and Pesticide Applicators installed straw waddle and conducted maintenance at the University Heights and Pottery Canyon restoration sites—February through March
- City staff planted 20 willow cutting along the Chollas Creek bottom—February
- Park Rangers coordinated with multiple volunteer groups to install a total of 310 native plants in city open space canyons—March
- Pesticide Applicators assisted and supervised the planting of 450 native plants at Pottery Canyon restoration site—*March*
- Ranger hosted Saturday volunteer events at Ruffin Canyon and University Heights. Volunteers planted, watered and coned 50 native plants at Ruffin Canyon and planted 14 native plants at University Heights—April
- Ranger hosted an I Love a Clean San Diego, Creek to Bay volunteer event at Juniper Canyon—April



teers at La Jolla Heights.



Ranger gives a planting demonstration to youth volun- Volunteers install native plants at La Jolla Heights.



- •
- Rangers coordinated with SD Canyonlands in City Heights canyons (Swan, Manzanita, 47th) on trail improvements and restoration projects—*July through December*
- Ranger hosted the I Love a Clean SD Coastal Clean-up day event at Juniper Canyon. 17 volunteers attended. They watered 400 native plants in restoration site and removed approximately 700 lbs. of trash from the canyon—September
- Urban Corps completed a six day clean up at Guymon Arms Open Space—October
- Senior Ranger worked with the SDRPF Clean River Manager and volunteers at 12 "River Rescue" cleanup events. Over 74,000 pounds of material was removed from inactive encampments along the San Diego River—July through December
- Ranger supervised Urban Corps in the removal of Arundo from both 69th Street and Adobe Falls Open Space areas—*October through December*
- Rangers led weekly Saturday volunteer events focusing on restoration, invasive removal and cleanups. A total 250 Native plants were watered within the restoration site at Chollas Creek, and 50 plants were watered at Navajo Canyon. In Juniper Canyon, 400 native plants were watered, pepper tree was removed, and over 200 lbs of trash was removed—October through December
- At Rancho Mission, Rangers supervised Urban Corps and planted over 130 coastal sage scrub plants—October through December
- Ranger supervised Alpha Project crew at Old Trolley Barn. The crew removed approximately 900 pounds of trash and removed invasive caster bean and tree tobacco on the steep hillside, thereby improving visual surveillance and reducing invasive species—October through December
- Senior Ranger took part in the Mid-City Homeless Coalition Meeting at SDPD Mid-City Division, the San Diego River Coalition Meeting at Mission Valley Library and patrolled with SDPD, Code Enforcement Officers and SDPRF staff as part of the "SDPD / SDRPF Homeless Meeting and Patrol" from Ocean Beach to Mission Valley Preserve—October through December





Volunteers help remove large amounts of trash from an urban creek bed.



Management Actions Related to MSCP and VPHCP Covered Species

- Biologists and Management Interns conducted cactus wren surveys in Navajo Canyon and Chollas Radio Canyon—April
- The City was awarded a SANDAG grant to restore cactus wren habitat in degraded areas of Navajo Canyon and Chollas Radio Canyon—July
- Removed 2 full 45 gallon trash bags of 40 oz. beer bottles, broken glass, and miscellaneous trash surrounding vernal pool site-November



A cactus wren perched atop a prickly pair cactus in Navajo Canyon.



A cactus wren nest found in a coast cholla cactus in Chollas Radio Canyon.



Otay Valley Regional Park



Park Management Highlights

- Adventure Passport volunteers and Senior Ranger hosted a Butterfly Day in OVRP at the Rancho Drive trailhead on Saturday, February 24, 2018. Total of 11 participants planted 100 narrow leaf milkweed.
- Approximately 800 cubic yards of invasive plants were removed along the north trail between Beyer Blvd. and Beyer Way to deter homeless camp areas along the trail.
- San Diego Audubon Society highlighted OVRP as a Birding Paradise in June 2018 Sketches magazine.
- Biologists documented Light-footed Ridgway's Rail utilizing freshwater marsh habitat near Heart Pond and Le May Pond.



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

- Park Rangers performed weekly patrols of the interior of the park to deter camping and other illegal activities—Yearlong
- Improved security at the staging areas by increasing the visibility and enforcing gate closing hours by security resulting in a significant decrease in the number of suspicious visits by vehicles and vandalism at the staging areas over the past year—

 Yearlong
- Park-wide trail monitoring and maintenance—Monthly
- 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—Yearlong
- Ranger performed monthly bird surveys of OVRP with the help of volunteers from San Diego Audubon—Monthly
- San Diego Audubon Society continued its grant funded after-school program at the Beyer Way Staging area and surrounding trail—Yearlong
- Park Rangers performed ongoing monitoring, maintenance and replacement of Shot-hole borer traps located throughout the park—Bi-weekly





Youth participating in the Adventure Passport program learn how to fish at Otay Lakes.



- Park Rangers coordinated with Living Word Community Church to have 20-30 volunteers perform monthly maintenance at Fenton Pond—Monthly
- Rangers conducted joint patrols with San Diego Police Department officers to help deter unlawful activities within the park—January through April
- Adventure Passport volunteers and Senior Park Ranger hosted an Arbor Day volunteer
 event at Hollister Pond. A total of 18 volunteer participants planted 10 sycamore and 10
 cottonwood trees. Urban Corps removed several homeless camps and four 40-cubicyard dumpsters of giant reed (Arundo donax) to prepare the site for planting—January
- Overgrown vegetation at Finney overlook was removed or cut short to create better visibility of the area, which reduced vandalism—*January*
- Overgrown vegetation at the Saturn Blvd staging area was trimmed down to create better visibility for enforcement officers and the public. A 4-cubic-yard dumpster was also placed at the staging area to accommodate ongoing trash issues. This resulted in fewer homeless camps immediately next to the staging area and less trash—January
- Rangers contacted Caltrans to request help with a massive illegal encampment below I-805—January
- Rangers performed enforcement patrols with SDPD and communicated with the City of Chula Vista Homeless Outreach team to provide help for chronic homeless people at the Mace staging area—January through February
- Worked with volunteer to install nest boxes in the park that were built during 2017
 Discover OVRP Day along with owl boxes and an osprey nest platform—January through
 February
- Adventure Passport volunteers and Senior Ranger hosted a Butterfly Day in OVRP at the Rancho Drive trailhead on Saturday, February 24, 2018. Total of 11 participants planted 100 narrow leaf milkweed. A probation crew and Urban Corps prepared the site for planting by digging and watering 100 holes prior to the event—February



A volunteer poses with a variety of nest boxes built and decorated by volunteers. These nest boxes have been installed throughout the park.



- San Diego Natural History Museum Canyoneers hosted a nature walk at Fenton Pond attended by approximately 50 participants. Senior Ranger provided an opening talk introducing OVRP and the OVRP Concept Plan—February
- In the response to the Senior Ranger's request, the City of Chula Vista installed multiple "No Parking" signs along the 27th Street and Faivre Street. The area has significantly improved with parking issues by homeless individuals and suspicious / inoperable/stolen vehicles were removed/towed from the area—March
- Several large areas of graffiti were removed at Finney Overlook (bench, interpretive panels, tables, trash can) and shattered glass was cleaned from the area—March
- Rangers coordinated and oversaw probation crew in the removal of three 40 cubic yard dumpsters of non-native plants at Date Ct. They also removed six 4 cubic yard worth of trash and overgrown vegetation from the Beyer Blvd. and Beyer Way sidewalk areas—March
- A probation crew removed approximately 160 cubic yards of non-native plants and accumulated old biomass from an open space area immediately east of I-805—April
- Rangers hosted an Adventure Passport Earth Day cleanup event with 22 volunteer participants—April
- Ranger's presented a Fenton Pond Loop Interpretive Nature Walk for YMCA group—
- Ranger supervised a probation crew to cleanup dumps, pick up trash and trim back brush at Mace Staging Area. They also assisted in trimming back poison oak along authorized trails—April
- RECON Native Plants began collecting seed in OVRP. The seeds collected will be used to grow plants for future habitat enhancement/restoration projects in OVRP—April



A beautiful sunrise over Fenton Pond.

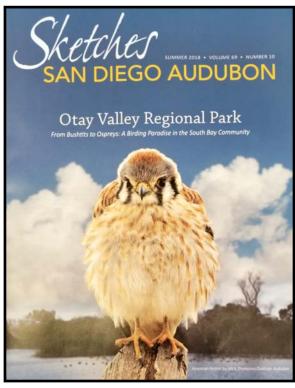


- Probation crews were utilized for a variety of tasks including: removal of weeds, biomass, litter and spreading mulch around the Saturn Blvd. parking lot; removal of nine shopping carts from the Otay River trail; removal of weeds and litter on service road and around drain at Rancho Drive; removal of an illegal dump and litter near Beyer Way; and removing shattered glass and litter near Rios Ave—May
- Urban Corps crews assisted with watering trees at Hollister Pond, removing graffiti
 along Otay River trail and interpretive panels, painted Kiosks and portable restrooms
 from Hollister staging area to Saturn staging area, cut and removed stumps around
 Saturn staging area, trimmed trees at Finney's entrance to prepare area for new
 fence—May
- Newway Landscape was contracted to repair a peeler log fence, cut brush encroaching on Otay River trail from Hollister Pond to staging area, and remove weeds from around Mace Staging Area—May
- Rangers led monthly interpretive programs to 30-40-day camp kids from the YMCA— June through August
- Fence contractor replaced Finney Overlook fence and repaired several peeler log posts and rails at Beyer Way and Finney Overlook trail—June
- Ranger coordinated and supervised 19 volunteers from Living Word Community Church San Diego to remove trash and debris from the Ranger Office to the 27th Street Staging Area—June
- Ranger presented a Kids to Canyon program at Otay Mesa Nestor Branch library—June

San Diego Audubon Society highlighted OVRP as a Birding Paradise in June 2018
 Sketches magazine—June



A monarch caterpillar feasts on a narrowleaf milkweed plant that was planted by Adventure Passport youth volunteers near the Rancho Drive trailhead.



Otay Valley Regional Park was highlighted as a "birding paradise" in San Diego Audubon's *Sketches* magazine.

- Rangers collaborated with I Love A Clean San Diego and the City of Chula to remove dead biomass, non-native plants and trash from the park—October
- OVRP Rangers partnered with the City of Chula Vista to host Beautify Chula Vista Cleanup event in the park. Approximately 75 people participated the event—October
- Rangers received assistance from a Probation Crew (6 individuals) to remove large stands of Arundo from the river bed—October
- OVRP Rangers hosted three outdoor activities as a part of ADVENTURE PASSPORT; Halloween Mountain biking, Kumeyaay Nature Walk and Stargazing program. Total of 100 plus participants attended the events—October through December
- Approximately 800 cubic yards of invasive plants: arundo, tamarisk, myoporum, Brazilian peppers were removed along the north trail between Beyer Blvd. and Beyer Way to deter and decrease desirable homeless camp areas along the tail—October through December
- Rangers collaborated with Partnership with Industry (PWI) to remove trash and litter from 27th street to Ranger station; approximately 15 pounds of trash was transported. —November
- A probation crew of 9 worked to clear brush to suppress danger of fire—November
- Atlas Tree was contracted to remove Eucalyptus, Ash, and Peruvian Pepper trees; with the goal to deter illegal encampments and reduce fire danger—November
- OVRP Rangers assisted SD County Ranger to host Holidays at the Lake at Otay Lakes County Park. Approximately 100 plus people visited the event—*December*



Crews removed invasive waterbush (Myoporum montanum) from Otay Valley Regional Park. Cut stumps were treated with herbicide to prevent regrowth.



Management Actions Related to MSCP and VPHCP Covered Species

- Biologists worked with consultants to conduct biological surveys in support of preparation of a Natural Resource Management Plan for the Western Otay River Valley Regional Park. Surveys included mapping of vegetation communities, invasive species, and rare species, conducting CRAM assessments for riverine and depressional wetland areas, and monthly bird surveys at 16 point count locations—March through December
- Biologists documented Light-footed Ridgway's Rail utilizing freshwater marsh habitat near Heart Pond and Le May Pond on multiple occasions—April through December
- Biologists discovered a previously unknown occurrence of variegated dudleya (*Dudleya variegata*) near the Finney Overlook trailhead. Over 300 plants were counted at this location and the population appears to be stable and healthy—*April*
- Biologists performed annual MSCP monitoring of rare plant occurrences of Orcutt's birds beak along the Otay River, as well as San Diego thornmint, Otay tarplant, and small leaved rose at Dennery Canyon—April through May
- Biologists surveyed for fairy shrimp at Robinhood Ridge and Cal Terraces South vernal pool complexes—*December*
- Biologists and Pesticide Applicators performed invasive weed maintenance and removed over 100 pounds of trash at vernal pool complexes at Robinhood Ridge, Cal Terraces North, and Cal Terraces South—October through December



Orcutt's birds-beak is an MSCP covered rare plant that is found throughout the Otay River Valley.



Small-leaved rose is a n MSCP covered rare plant that is found along the upland mesa tops of Dennery Canyon.

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**
- **Kev 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!

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