

**Southwestern Riverside County Multi-Species Reserve
Annual Report Fiscal Year 2020-2021**



San Diego horned lizard (*Phrynosoma coronatum blainvillii*)



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I. Introduction

The Southwestern Riverside County Multi-Species Reserve (Reserve) was established in October 1992 as mitigation for impacts to sensitive species resulting from the creation and operation of the reservoir “Diamond Valley Lake” (DVL) near Hemet, California. To this end, the Metropolitan Water District of Southern California (MWD) developed a Multi-Species Habitat Conservation Plan (MSHCP) which included the establishment of the Reserve, provisions for research and management funding, and a Cooperative Management Agreement (CMA) between the five agencies with interest in the Reserve: MWD, the Riverside County Habitat Conservation Agency (RCHCA), the Riverside County Regional Park and Open-Space District (RCRPOSD), the California Department of Fish and Wildlife (CDFW), and the U.S. Fish and Wildlife Service (USFWS) (Cooperative Management Agreement, 1992)

The Reserve MSHCP covers a 20,000-acre planning area including approximately 2,400 acres of previously conserved habitat (the Shipley Reserve), 6,600 acres of new conservation land, 8,600 acres dedicated to two reservoirs and water-related facilities, and 2,400 acres dedicated to recreation facilities at Diamond Valley Lake (previously “Domenigoni Valley Reservoir Project” or “Eastside Reservoir Project”) and existing Lake Skinner. The Reserve was established by combining the Shipley Reserve, lands around Lake Skinner, and lands around DVL to create a contiguous Reserve of approximately 9,000 acres. Subsequent acquisitions have added to the Reserve and increased the size of the Reserve to approximately 14,000 acres (21 square miles). **(Southwestern Riverside County Multi-Species Reserve Management Plan, 2008).**

II. Multi-Species Reserve

A. Reserve Management & Patrol

1) Request for Proposal for Reserve Management

Effective June 08, 2021 Metropolitan Water District of Southern California and Riverside County Regional Park and Open-Space District entered into an agreement to provide reserve management services pursuant to the CMA and MSHCP. The agreement is in effect from July 1, 2021 through June 30th, 2022, with four (4) optional one-year extensions.

2) SCE Utility Pole Repair and Replacement

For a second year, Southern California Edison contracted Sturgeon, Bargas, and PAR to upgrade and replace existing utility poles on the Reserve, as well as replace transmission lines with coated wire that is less likely to cause wildfires. Reserve staff continues to

coordinate pre-construction field meetings with contractors and biological/archeological consultants, while providing assistance and oversight on construction days to ensure compliance.

3) Trails

Effective Spring 2021, the Skinner Trail is open to the public year-round with limited closures during significant weather events impacting public safety. Reserve Management and MWD installed protective measures to keep users on trails and to reduce impacts to Quino checkerspot butterfly (*Euphydryas editha quino*). Reserve staff continue to patrol and maintain the trail regularly in collaboration with Lake Skinner Recreational Area staff.

4) Maintenance

Staffed installed 600 feet of 3-stranded wire fencing within Crown Valley Management Unit meant to prevent access to the reserve and illegal dumping. Repairs were made to wildlife water guzzlers and annual maintenance was conducted on Reserve equipment including tractors and attachments, fire suppression unit, trailers, and a portable water tank unit.

5) Patrol

In order to fulfill the management objectives established in the Reserve Management Plan, the Reserve is patrolled by a full time Park Ranger employed by Parks (per SWRCMSR Service Contract). Additionally, two Open-Space Park Rangers and three Lake Skinner Recreational Area Park Rangers were crossed trained on Reserve boundaries and assisted the Reserve Ranger on occasion. The majority of the Reserve is off limits to the general public due to its sensitive habitat and critical species residing within the Reserve. Routine patrols include the inspection of Reserve boundary fencing, removal of unauthorized people, and visitor interactions while on trails.

The primary Reserve issue this fiscal year continues to be the increase in single-family homes located west of the Reserve. As a result of these developments, Reserve staff is seeing a significant increase of vehicle and mountain bike traffic along Rawson Road and Crown Valley Road.

Other reoccurring issues this year include illegal dumping of trash and green waste located along Rawson Road and Crown Valley Road, hot air balloons landing within the Reserve,

fence damage due to Off-Highway Vehicles (OHV), and mountain bike trespass. The use of ArcGIS Collector was utilized to track these occurrences. A total of 1,557 patrol hours was conducted in FY 2020-2021, a 21% increase from FY 2019/2020.

B. Biological Surveys

1) Rare Plants

Rare plant surveys were conducted in Spring 2021 by the Reserve Manager and MSHCP Biological Monitoring Program, where several populations of Parry's spineflower (*Chorizanthe parryi*) and Palmer's grapplinghook (*Harpagonella palmeri*) were observed. Munz's Onion (*Allium munzii*) surveys were conducted in two plots located in the Northshore Management Unit where over 50 flowering individuals were observed.



Parry's spineflower (*Chorizanthe parryi*)

A previously undocumented species of plant on the Reserve was identified by the Reserve Ranger; round-leafed stork's bill (*California macrophylla*). The MSHCP Biological Monitoring Program conducted a survey of the area resulting in over 300 individual plants being identified. Plant locations were added to the Reserve GIS database.

Consistent with previous management actions, the overall health, sign of insect pests, presence of acorns, and hybridization of the 69 Engelmann oak (*Quercus engelmannii*) adults and saplings in Lopez Canyon and Rawson rift were assessed biannually. Canopy cover of adult trees continues to decrease, which is likely due to long term drought

conditions. Wood boring beetles Goldspotted Oak Borer (*Agrilus auroguttatus*) and Polyphagous Shot Hole Borer (*Euwallacea sp.*) have not been observed on the Reserve.



Lopez Canyon oak grove

2) Avian Surveys

California gnatcatcher (*Polioptila californica californica*) surveys were conducted during the 2021 bird nesting season by the MSHCP Biological Monitoring Program according to USGS protocol. During the surveys they discovered four nests within the Reserve. Two of the nests had three live fledglings and three dead nestlings, and two nests had been depredated on during the egg incubation stage. There were no observations of parasitism from brown-headed cowbirds (*Molothrus ater*).

Observations of Burrowing owl (*Athene cunicularia*) were conducted in accordance with the Reserve Management Plan. Site inspections of artificial burrows were conducted quarterly, and vegetation management around burrows was conducted throughout the year.

The MSHCP Biological Monitoring Program documented two white-tailed kite nesting attempts on the Reserve, one of which was documented to have successfully fledged, while the other nest failed.

During the reporting year, the Reserve Manager led the annual Christmas Bird Count for the National Audubon Society Diamond Valley Circle, which encompasses the entire Reserve and bordering properties. A total of 15 participants documented 132 species of birds including all 12 avian species covered by the Reserve MSHCP.

3) Quino checkerspot butterfly

A total of four Quino checkerspot butterfly surveys were conducted by the MSHCP Biological Monitoring Program between February 2021 and April 2021. A total of 73 adult and 54 Quino larvae were observed during the presence-absence surveys.



Quino checkerspot butterfly larvae

4) Mammals

The use of camera traps was utilized to document large mammals on the Reserve including mountain lions (*Felis concolor*). A total of 4 wildlife cameras were placed near natural springs, wildlife guzzlers, and known game trails. Two mountain lions were observed on multiple occasion between October 2020 and February 2021. Additional species regularly documented include California mule deer (*Odocoileus hemionus californicus*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*).



Mountain lion (*Felis concolor*)

Reserve Manager assisted Debra Shier with the San Diego Zoo Wildlife Alliance to conduct a research project on Stephens' kangaroo rat (*Dipomdys stephensi*) that studied anthropogenic lighting and interspecific competition on SKR foraging behavior and habitat use. Results of the study are pending submission to the Reserve Manager.

5) Additional Research

During the reporting year, five MSR Research Proposals were submitted and have been approved by the Reserve Manager. Research proposals include surveys for California Gnatcatcher (*Polioptila californica*), Quino Checkerspot butterfly (*Euphydryas editha quino*), Blainville's horned lizard (*Phrynosoma blainvilli*), Stephens' kangaroo rat (*Dipomdys stephensi*), and Burrowing owl (*Athene cunicularia*). Each researcher is in the process of completing their work and will provide the Reserve Manager with published results.

C. Vegetation Management

1) Tucalota Creek Restoration

Reserve staff propagated approximately 150 native plants this year, which included various riparian species. These plants were installed in the creek and placed on drip irrigation as part of the active restoration component of the project. Additionally, Reserve staff worked with CalFire to burn over 70 piles of previously cut salt cedar (*Tamarix ramosissima*).



Tucalota creek restoration area

2) Non-native grassland

Reserve staff focused on managing non-native grassland in order to manage habitat for covered species and mitigate the risk of catastrophic wildfire on the Reserve. Staff mowed

approximately 500 acres of non-native grasslands across multiple management units. Additionally, Reserve staff coordinated with CalFire as part of the 5-year Vegetation Management Plan to conduct a prescribed burn on 50 acres in the Domenigoni Management Unit. Low intensity burns removed the existing thatch layer with minimal harm to shrubs and trees.

3) DVL Hills Restoration

In 2019, an arsonist burned approximately 40 acres of Riversidean sage scrub (RSS) in the Diamond Valley North Hills Unit. As part of an active restoration project, staff removed non-native vegetation growing within the burn area. Native seeds of RSS species were also collected from the immediate area and dispersed as part of a multi-year project.

D. Habitat and Species Management

1) Burrowing Owl

Under the supervision of the Reserve Manager, Kidd Biological conducted a translocation of a pair of burrowing owls to the Reserve. The pair were placed into a hacking enclosure for 30 days, where they produced offspring. A total of three of five birds fledged and were banded. The cost associated with the translocation were borne by the project developer and Reserve funds were not utilized.



Burrowing owl chick being banded

2) Stephens Kangaroo Rat

Reserve staff concluded the 3-Year Habitat Restoration Plan for the Stephens' kangaroo rat on RCHCA parcels within the Reserve. Four parcels totaling 64 acres were dominated by non-native grasses including ripgut brome (*Bromus diandrus*), red brome (*Bromus rubens*), and slender wild oat (*Avena barbata*). Field staff conducted mowing operations to remove non-native grasses, as well as raking for thatch removal and seeding efforts with a native forb seed pallet. Although the project has concluded, Reserve staff will continue to conduct management and monitoring activities for the benefit of SKR on these units.

3) Brown-headed cowbird trapping

Brown-headed cowbird trapping was conducted on the Reserve from March – June 2021. Traps were operated in three locations throughout the Reserve. 173 individuals were captured and euthanized this season compared to 61 in 2020 and 37 in 2019.

III. Alamos Schoolhouse Nature Center

A. Interpretive

Due to the ongoing COVID-19 pandemic, the Alamos Schoolhouse Nature Center was closed to the public.

IV. Budget

The annual budget for FY 2020-2021 was **\$412,088**. Reserve management used **\$396,171** of this approved amount on all operations indicated in this report and the Southwestern Riverside County Multi-Species Reserve 2020-2021 Annual Work Plan. Budget actuals for fiscal year 2020 - 2021 expenditures can be referenced in Appendix B.

V. Reserve Management Committee Approvals

During FY 2020/2021 the RMC hosted three management committee meetings. Complete meeting notes are provided below (**RMC Minutes, 2020-2021**):

A. RMC Meeting - March 4, 2020 (Held Virtually)

RMC Members Present

Dustin McLain (Riverside County Regional Park and Open-Space District/Parks)
Alex Marks (Metropolitan Water District of Southern California/MWD)
Brian Shomo (Riverside County Habitat Conservation Agency/RCHCA)
James Thiede (United States Fish and Wildlife Services)
Richard Kim (California Department of Fish and Wildlife)

Other Attendees

Joe Sherrock (Parks), Gail Barton (Public), Tania Asef (MWD), Dustin McLain (Parks), Kyla Brown (Parks)

1. **Approval of meeting notes** – June 3, 2020 meeting notes were presented and discussed.

**MOTION to approve the meeting notes as presented for the June meeting
Motion – Brian Shomo; Second – Dustin McLain; Motion approved**

B. RMC Meeting - June 28, 2021 (Held Virtually)

RMC Members Present

Dustin McLain (Riverside County Regional Park and Open-Space District/Parks)
Alex Marks (Metropolitan Water District of Southern California/MWD)
Brian Shomo (Riverside County Habitat Conservation Agency/RCHCA)
James Thiede (United States Fish and Wildlife Services/USFWS)
Richard Kim (California Department of Fish and Wildlife/CDFW)

Other Attendees

Joe Sherrock (Parks), Gail Barton (Public), Tania Asef (MWD), Diane Doesserich (MWD)

1. **Approval of meeting notes** – December 2, 2020 meeting notes were presented and discussed.

**MOTION to approve the December meeting notes as presented
Motion – Richard Kim; Second – Brian Shomo; Motion approved**

2. **Annual Work Plan - Reserve Manager will present the Annual Work Plan to the Committee-** Joe presented the proposed 2021/2022 fiscal year annual work plan to the RMC. The work plan includes tasks related to General Reserve Administration, Vegetation Community Monitoring and Management, Species Monitoring and Management, Reserve Research, Reserve Protection, and Reserve Interpretive Services. Joe stated that the annual operating budget to implement the work plan was \$495,256.

MOTION to approve the annual work plan for fiscal year 2021-2022 at a budget of \$495,256.

Motion – Brian Shomo; Second – Richard Kim; Motion approved

3. **Annual Operating Budget – MWD will present Annual Operating Budget to the Committee -** Joe presented the proposed \$495,256 annual operating budget that would fund the reserve management services to be provided in the 2021/2022 fiscal year annual work plan. The proposed budget is consistent with the new reserve management agreement executed between Parks and MWD. In the context of the annual operating budget discussion, Alex provided the RMC with an update on the

reserve endowment fund. The RMC requested that at a subsequent committee meeting MWD provide additional details on the endowment and its long-term solvency.

MOTION to approve the \$495,256 2021/2022 fiscal year annual operating budget for reserve management services.

Motion – Brian Shomo; Second – Jim Thiede; Motion approved

References

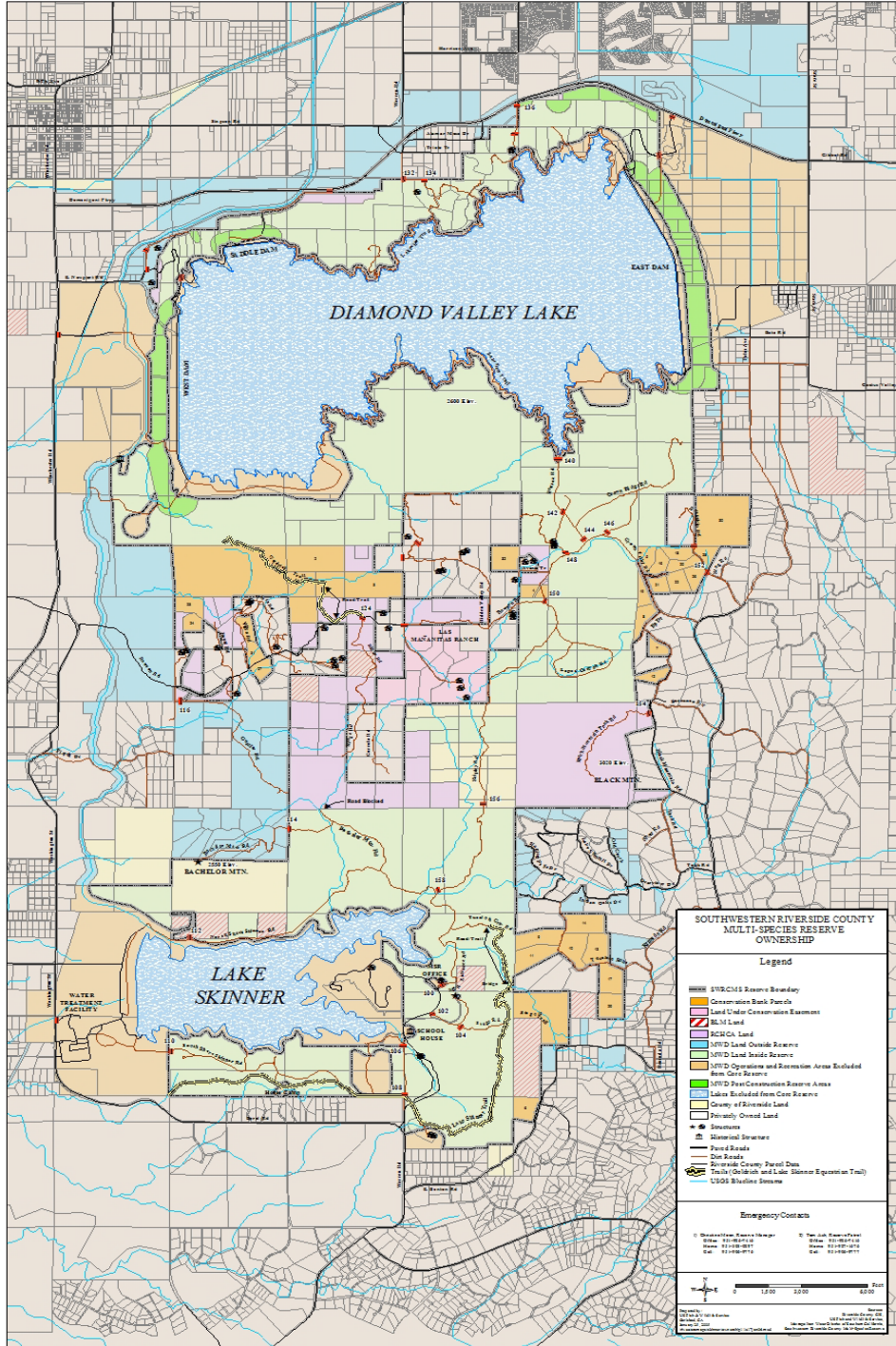
Cooperative Management Agreement. (1992). California Department of Fish and Wildlife, Metropolitan Water District of Southern California, Riverside County Habitat Conservation Agency, Riverside County Regional Park and Open-Space District, and U.S. Fish and Wildlife Service.

Reserve Management Committee Minutes. (August 2, 2017. November 1, 2017. February 7, 2017. May 2, 2018) The Reserve Management Committee.


Southwestern Riverside County Multi-Species Reserve Management Plan. (September 3, 2008). Moen, C.

Appendices

A. Reserve Map



B. RivCo Parks FY 20-21 Budget Actuals

 SOUTHWESTERN RIVERSIDE COUNTY MULTI-SPECIES RESERVE FY20-21 TASK ORDER ACTUALS									
Description	T001 Reserve Admin	T002 SKR Habitat Maintenance	T003 Habitat & Species Management	T004 Weed Management	T005 Interpretive Services	T006 Habitat Restoration	T007 Reserve Patrol & Mgmt	T008 Research	TOTAL ACTUAL
PERSONNEL									
Total Personnel	\$ 52,856	\$ -	\$ 42,940	\$ 115,634	\$ -	\$ 25,154	\$ 102,120	\$ 22,244	\$ 360,948
SUPPLIES & OTHER									
Total Supplies & Other	\$ 3,621	\$ -	\$ 1,553	\$ 2,074	\$ -	\$ 144	\$ 429	\$ -	\$ 7,821
ADMINISTRATIVE OVERHEAD									
Admin Overhead @ 15%	\$ 8,472	\$ -	\$ 6,674	\$ 17,656	\$ 770	\$ 4,734	\$ 13,673	\$ 3,337	\$ 55,315
MILEAGE REIMBURSEMENT									
2020 Mileage	134	-	480	2,320	-	482	4,996	-	
<i>2020 IRS Mileage Rate</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	<i>\$ 0.5750</i>	
2021 Mileage	-	-	1,358	2,881	-	495	2,944	41	
<i>2021 IRS Mileage Rate</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	<i>\$ 0.560</i>	
Mileage Reimbursement	\$ 77	\$ -	\$ 1,036	\$ 2,947	\$ -	\$ 554	\$ 4,521	\$ 23	\$ 9,160
FY20-21 SUBTOTAL	\$ 65,026	\$ -	\$ 52,204	\$ 138,311	\$ 770	\$ 30,586	\$ 120,744	\$ 25,604	\$ 433,244
<i>Vehicle Usage Credit</i>	<i>\$ (5,564)</i>	<i>\$ -</i>	<i>\$ (4,467)</i>	<i>\$ (11,835)</i>	<i>\$ (66)</i>	<i>\$ (2,617)</i>	<i>\$ (10,332)</i>	<i>\$ (2,191)</i>	<i>\$ (37,073)</i>
FY20-21 TOTAL COSTS	\$ 59,461	\$ -	\$ 47,737	\$ 126,476	\$ 704	\$ 27,969	\$ 110,412	\$ 23,413	\$ 396,171