
# Off-Highway Motor Vehicle Recreation Commission

## 2022 Program Report

First Draft, October 2021

# DRAFT Off-Highway Motor Vehicle Recreation Commission Program Report

## 2022

**Off-Highway Motor Vehicle Recreation Commission**

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# California State Parks Mission Statement

To provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

# OHMVR Mission Statement

The Mission of the Off-Highway Motor Vehicle Recreation (OHMVR) Division is to provide leadership statewide in the area of off-highway vehicle (OHV) recreation; to acquire, develop, and operate state-owned vehicular recreation areas; and to otherwise provide for a statewide system of managed OHV recreational opportunities through funding to other public agencies. The OHMVR Division works to ensure quality recreational opportunities remain available for future generations by providing education, conservation, and enforcement efforts that balance OHV recreation impacts with programs that conserve and protect cultural and natural resources.

# OHMVR Division Vision Statement

The OHMVR Division will assure ongoing access to a wide variety of high-quality OHV recreational opportunities through our commitment to prudent resource management, outdoor recreation, community education, and environmental stewardship.

## Contents

## Message from the OHMVR Commission Chair

Note to readers:

Commissioner Urena is preparing the "Message from the Chair." It will be available in the First Draft that goes to the Commissioners in September for review.

## Message from the OHMVR Division Deputy Director

Note to readers:

Sarah Miggins is preparing the "Message from the Deputy Director." It will be available in the First Draft that goes to the Commissioners for review.

## Executive Summary

As required by Public Resources Code (PRC) Section (§) 5090.24(h), Duties and Responsibilities of the Commission, this Program Report is submitted by the Off-Highway Motor Vehicle Recreation (OHMVR) Commission to inform the Governor and Legislature of progress and developments in the State's OHMVR Program. The Commission shall:

Prepare and submit a program report to the Governor and appropriate policy and fiscal committees of each Legislature house on or before January 1, 2022, and every three years thereafter. According to this subdivision, the report shall be submitted in compliance with Section 9795 of the Government Code. The Commission shall adopt the program report after discussing the contents during two or more public meetings. One of the public meetings shall be held in northern California, and one shall be held in southern California. The report shall address the status of the Program and off-highway motor vehicle recreation, including the following:

> **Report Requirement 1:** A summary of the process, standards, and plans developed according to this chapter.
>
> **Report Requirement 2:** The condition of natural and cultural resources of areas and trails receiving state off-highway motor vehicle funds and resolving conflicts of use in those areas and trails.
>
> **Report Requirement 3:** The status and accomplishments of funds appropriated for restoration pursuant to paragraph (2) of subdivision (b) of PRC §5090.50.
>
> **Report Requirement 4:** A summary of resource monitoring data compiled and restoration work completed.

**Report Requirement 5:** Actions taken by the Division and Department since the last program report to discourage and decrease trespass of off-highway motor vehicles on private property.

**Report Requirement 6:** Other relevant program-related environmental issues that have arisen at state vehicular recreation areas since the last program report, including, but not limited to, actions that are undertaken to ensure compliance with federal and State Endangered Species Acts, local air quality laws, and regulations, federal Clean Water Act, and regional water board regulations, or permits.

This Program Report is an overarching document that touches on all aspects of California's Off-Highway Motor Vehicle Recreation program (OHMVR Program or the Program). The Program facilitates the accommodation of off-highway vehicles (OHV) and related nonmotorized recreation. It also provides support for environmental stewardship, education, and law enforcement efforts associated with OHV recreation.

Other potential content:

- Highlights of the Resource Management, Outreach and Education, Public Safety, and Grants programs.

# Chapter 1: OHMVR Program Overview

Note to readers: the final Program Report will include images and a different layout design.

# Chapter 1: OHMVR Program Overview

**Introduction**

California State Parks' OHMVR Program entered its 50th year in 2021, and there is much to celebrate. On October 3, 2017, the Governor signed Senate Bill 249 that made the OHMVR Program permanent. This legislation strengthened the Program and achieved a balance between natural and cultural resource protection and maintaining high-quality OHV recreation to the public.

California is recognized as a leader in the management of OHV recreation as a sustainable[1] activity. For 50 years, State Parks has established management practices that reduce or prevent damage to the environment from OHV activity. By actively managing OHV areas and partnering with other local, state, and federal land managers, these practices have been applied to a statewide system of OHV recreation opportunities where visitors can fully enjoy California's spectacular outdoors.

The OHMVR Program is carried out through two primary components. The first component is the nine State Vehicular Recreation Areas (SVRAs) that provide motorized recreational opportunities on approximately 145,000 acres of State Parks owned and managed lands dedicated to OHV recreation and related uses. The SVRAs are managed to ensure public safety, protect sensitive natural and cultural resources, and mitigate conflicts between various recreation advocates.

The second component is the Grants and Cooperative Agreements Program (Grants Program), which provides financial assistance to local, state, and federal agencies, Native American tribes, nonprofits, and educational institutions. Along with the SVRAs, OHV recreational opportunities on federal and other lands are an essential element of the OHMVR Program and comprise approximately 80 percent of the OHV recreation in California. This critical financial assistance enables these agencies to implement sustainable, environmentally responsible OHV recreational opportunities. Funds are also available to counties and local communities affected by OHV uses and impacts that require management, regulatory action, education, or law enforcement. Since 1974, has awarded over $530 million to recipients for OHV-related activities, including restoration, law enforcement, safety, and education for OHV recreation.

[1] The Oxford English Dictionary defines sustainable as "able to be maintained at a certain rate or level, and "able to be upheld or defended."

In addition to the Grants Program, the OHMVR Division is also responsible for the motorized portion of the Recreational Trails Program (RTP). The RTP is an assistance program of the Department of Transportation's Federal Highway Administration. The RTP provides funds to California to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.

California State Parks works to ensure that quality recreational opportunities remain available for future generations by providing education, conservation, and enforcement efforts that balance OHV recreation impacts with programs that conserve and protect cultural and natural resources.

The OHMVR Program is supported entirely by user fees and taxes, with no direct state General Fund support. The OHV registration fees, SVRA entrance fees, and a fuel tax pay for the Program. OHV recreation is a family-friendly activity, often shared by many generations in one family. Furthermore, off-highway vehicles provide a means for those with mobility challenges who cannot experience nature and outdoor spaces through nonmotorized recreation. Participants share a love and appreciation of the outdoors, enjoy connecting with nature through OHV recreation and other nonmotorized recreation, and some volunteer their time to conservation projects in their favorite recreation areas.

## Legislation

In 1971, by enacting the Chappie-Z'berg Off-Highway Motor Vehicle Law (the OHV Law), the Legislature addressed the growing use of motorized vehicles off-highway for the registration and operation of these vehicles. The OHV Law also provided funding for administering the OHMVR Program and facilities for OHV recreation (California Vehicle Code (CVC) § 38000 et seq.).

The OHV Law was founded on the principle that "effectively managed areas and adequate facilities for the use of OHV and conservation and enforcement are essential for ecologically balanced recreation" (PRC § 5090.02 (b)). The Law required maintenance and oversight to allow for sustainable OHV use consistent with sound environmental stewardship.

In 1982, these principles were expanded upon by enacting the Off-Highway Motor Vehicle Recreation Act, which has been amended numerous times and is now referred to as the Off-Highway Motor Vehicle Recreation Act of 2003 (OHMVR Act) (PRC § 5090.01 et seq.).

As articulated in the OHMVR Act, the legislative intent is that existing OHV areas be expanded, added to, and managed to sustain areas for long-term motor vehicle recreation. The OHMVR Program supports motorized off-highway access to nonmotorized recreational opportunities.

California State Parks, Off-Highway Motor Vehicle Recreation Commission

The OHMVR Act requires the OHMVR Program to have equal priority with other programs administered in the State Park System.

Through the OHMVR Act, the Legislature created a separate division within California State Parks, the OHMVR Division, which administers and manages the OHMVR Program.

In 2007, Senate Bill (SB) 742 was introduced by Senator Steinberg and co-authored by Assembly Member Wolk. Enacted in 2008, SB 742 made several significant changes that enhanced the OHMVR Division's ability to meet its goals. In addition to other changes, SB 742 modified the Commission's makeup and responsibilities, increased funding to the OHV Trust Fund, and adjusted grant funds allocation. It also extended the OHMVR Program sunset to January 1, 2018, the most extended in the OHMVR Program's history. The bill received strong bipartisan support from the Assembly and the Senate as it passed through the Legislature by a vote of 114-5.

In 2017, Senator Allen introduced SB 249 that revised various provisions of the Act, including permanent reauthorization of the OHMVR Program within California State Parks. The bill also sought to strengthen the Program's environmental protection and conservation measures, including:

- Prepare and implement management and wildlife habitat protection plans (WHPPs) in existing and new SVRAs.
- Post all plans, reports, and studies related to OHV recreation developed by the Division on the Department's website.
- Update the 2008 Soil Conservation Standard and Guidelines (Soil Standard) to establish a generic and measurable soil conservation standard by December 31, 2020. Review and update that standard when deemed necessary.
- The Department shall monitor each SVRA annually to determine whether soil conservation standards and the objectives of WHPPs are being met to protect natural, cultural, and archaeological resources within SVRAs.
- The Division shall take other specified measures to protect natural and cultural resources within SVRAs, as specified.
- The bill extends the Act's provisions indefinitely.

This bill, authored by Senator Allen, was informed by a collaborative effort of representatives from California State Parks, the OHV community, environmental organizations, and Member and Committee staff. This broad coalition achieved a balance between maintaining

opportunities for off-highway vehicle recreation and protecting cultural and natural resources. Governor Brown signed the bill into law on October 3, 2017, Chapter 459, Statutes of 2017.

## Program Goals

The goals of the OHMVR Program are consistent with the Legislature's intent as recorded in PRC §5090.02(c):

1. Existing off-highway motor vehicle recreational areas, facilities, and opportunities should be expanded and managed consistently with this chapter to maintain sustained long-term use.
2. New off-highway motor vehicle recreational areas, facilities, and opportunities should be provided and managed under this chapter in a manner that will sustain long-term use.
3. The Department should support both motorized recreation and motorized off-highway access to nonmotorized recreation.
4. When areas or trails, or portions thereof, cannot be maintained to appropriate established standards for sustained long-term use, they should be closed to use and repaired to prevent accelerated erosion. Those areas should remain closed until they can be managed within the soil conservation standard or closed and restored.
5. Prompt and effective implementation of the Off-Highway Motor Vehicle Recreation Program by the Department and the Division of Off-Highway Motor Vehicle Recreation should have equal priority among other programs in the Department.
6. OHV recreation should be managed according to this chapter through financial assistance to local governments and joint undertakings with agencies of the United States and federally recognized Native American tribes.

# OHMVR Commission

The OHMVR Act established the Commission (PRC § 5090.15 et seq.) to provide a public body of appointed members having expertise in various areas related to off-highway recreation and environmental protection. The Commission is dedicated to reviewing and commenting on Program implementation, encouraging public input on issues and concerns affecting the OHMVR Program, considering and approving general plans for SVRAs, and providing advice to the OHMVR Division.

## Duties and Responsibilities

Per PRC § 5090.24, the Commission has the following duties and responsibilities:

> (a) Be fully informed regarding all governmental activities affecting the program.
>
> (b) Meet at least four times per year at various locations throughout the state to receive comments on the implementation of the program. Establish an annual calendar of proposed meetings at the beginning of each calendar year. Before beginning each grant program cycle, the meetings shall include a public meeting to collect public input concerning the program, recommendations for program improvements, and specific project needs for the system.
>
> (c) Hold a public hearing to receive public comment regarding any proposed substantial acquisition or development project at a location in close geographic proximity to the project unless a hearing consistent with federal law or regulation has already been held regarding the project.
>
> (d) Consider, upon the request of any owner or tenant, whose property is in the vicinity of any land in the system, any alleged adverse impacts occurring on that person's property from the operation of off-highway motor vehicles and recommend to the division suitable measures for the prevention of any adverse effect determined by the commission to be occurring, and suitable measures for the restoration of adversely impacted property.
>
> (e) Review and comment annually to the director on the proposed budget of expenditures from the fund.
>
> (f) Review all plans for new and expanded local and regional vehicle recreation areas that have applied for grant funds.
>
> (g) Review and comment on strategic plans periodically developed by the division.

(h) Prepare and submit a program report to the Governor and the appropriate policy and fiscal committees of each house of the Legislature on or before January 1, 2022, and every three years thereafter. The report required to be submitted pursuant to this subdivision shall be submitted in compliance with Section 9795 of the Government Code. The report shall be adopted by the commission after discussing the contents during two or more public meetings. One of the public meetings shall be held in northern California, and one shall be held in southern California. The report shall address the status of the program and off-highway motor vehicle recreation, including all the following:

(1) A summary of the process, standards, and plans developed pursuant to this chapter.

(2) The condition of natural and cultural resources of areas and trails receiving state off-highway motor vehicle funds and the resolution of conflicts of use in those areas and trails.

(3) The status and accomplishments of funds appropriated for restoration pursuant to paragraph (2) of subdivision (b) of Section 5090.50.

(4) A summary of resource monitoring data compiled and restoration work completed.

(5) Actions taken by the division and department since the last program report to discourage and decrease trespass of off-highway motor vehicles on private property.

(6) Other relevant program-related environmental issues that have arisen at state vehicular recreation areas since the last program report including, but not limited to, actions are undertaken to ensure compliance with federal and state Endangered Species Acts, local air quality laws and regulations, federal Clean Water Act and regional water board regulations, or permits.

(i) Make other recommendations to the deputy director regarding the off-highway motor vehicle recreation program.

(Amended by Stats. 2017, Ch. 459, Sec. 7. (SB 249) Effective January 1, 2018.)

## Appointments to the Commission

PRC Section 5090.15.

(a) There is in the department the Off-Highway Motor Vehicle Recreation Commission, consisting of nine members, five of whom shall be appointed by the Governor and subject to Senate confirmation, two of whom shall be appointed by the Senate

Committee on Rules, and two of whom shall be appointed by the Speaker of the Assembly.

(b) In order to be appointed to the commission, a nominee shall have expertise in or represent one of the following interests:

(1) Off-highway vehicle recreation.
(2) Environmental protection.
(3) Motorized access to nonmotorized recreation.
(4) Law enforcement.
(5) Environmental restoration.
(6) Health and safety.
(7) Rural landowners or residents.
(8) Biological or soil specializations.
(9) Public-at-large.

(c) Whenever a reference is made to the State Park and Recreation Commission pertaining to a duty, power, purpose, responsibility, or jurisdiction of the State Park and Recreation Commission with respect to the state vehicular recreation areas, as established by this chapter, it is a reference to, and means, the Off-Highway Motor Vehicle Recreation Commission. (Amended by Stats. 2021, Ch. 258, Sec. 20. (SB 155) Effective September 23, 2021.)

## 2021 OHMVR Commissioners

Note to readers – this section will include a photograph of the current Commissioners' names in the final report.

## OHMVR Division

The OHMVR Division provides technical assistance and funding to nine SVRAs throughout California and supports local, state, and federal OHV recreation areas through technical help and professional guidance. Per PRC § 5090.32, the Division has the following duties and responsibilities:

- Planning, acquisition, development, conservation, and restoration of lands in the state vehicular recreation areas.
- Management, maintenance, administration, and operation of lands in the state vehicular recreation areas.
- Provide for law enforcement and appropriate public safety activities.
- Implement all aspects of the OHMVR Program.
- Ensure program compliance with the California Environmental Quality Act (Division 13, commencing Section 21000) in SVRAs.
- Provide staff assistance to the Commission.
- Prepare and implement management and wildlife habitat plans for lands in, or proposed to, SVRAs, including new SVRAs. These plans shall be developed in consideration of statutorily required state and regional conservation objectives. However, a plan shall not be prepared in any instance specified in subdivision (c) of §5002.2. Upon completing a full environmental review, trails may only be added or included as components of existing trail systems when developing or updating plans in state vehicular recreation areas.
- Conduct, or cause to be conducted, surveys, prepare or cause to be prepared, and studies necessary or desirable for implementing the Program.
- Recruit and utilize volunteers to further the objectives of the Program.
- Prepare and coordinate safety and education programs.
- Provide for the enforcement of Division 16.5 (commencing with CVC §38000) of the Vehicle Code and other laws regulating the use or equipment of OHVs in all areas acquired, maintained, or operated by funds from the fund. However, California Highway Patrol shall have responsibility for enforcement on highways.

- Provide for the conservation of natural and cultural resources, including appropriate mitigation.
- Post all plans, reports, and studies related to OHV recreation developed by the Division on the Department's website.
- Report on any closure implemented under §5090.35 at the next Commission meeting following the closure and complete other duties as determined by the Director.

## Program Funding

The OHMVR Program receives no direct support from the State's General Fund; all funding comes from the OHV Trust Fund. Monies deposited into the OHV Trust Fund are generated by user fees associated with OHV recreation, including:

- Fuel taxes from gasoline consumed during OHV recreation on public lands.
- OHV registration fees.
- Entrance fees generated at the SVRAs.
- Interest and miscellaneous income.

**OHV Trust Fund**

The funding model for the OHMVR Program is based around users funding the Program primarily through gas taxes and registration fees rather than relying on SVRA entrance fees. Entrance fees collected at the SVRAs are kept at a reasonable level to promote OHV enthusiasts' use of the managed recreation opportunities and not create a barrier for low-income visitors.

**Fiscal Year 2020/2021 OHMVR Program Trust Fund Receipts**

| | |
|---|---|
| Total: | $77,652,661 |
| OHV Registration fees: | $15,818,091 |
| SVRA Revenue: | $2,471,166 |
| Miscellaneous: | $1,097,437 |
| Fuel Taxes: | $58,265,966 |

## Fuel Taxes

Fuel taxes represent up to 75 percent of annual income to the OHV Trust Fund. Fuel tax transfers were once calculated based on statewide studies that estimated the total gallons of gasoline burned during OHV recreation. Legislation passed in 2007 (SB 742) established that future transfers would be based on the percentage of fuel taxes transferred in 2007. In 2011, legislation was passed that reduced these transfers by $10 million annually (Revenue and Taxation Code § 8352.6).

The amount of fuel tax transferred to the OHV Trust Fund is directly proportionate to the amount of fuel purchased in California; the more gasoline purchased by Californians; the more gas tax revenue transferred to the OHV Trust Fund. According to the California Board of Equalization over the last few years, the amount of gasoline sold has steadily increased, suggesting the amount of gas purchased in California is dependent on the price of gas and more significant economic factors. Fuel Tax revenue declined in fiscal year 2020/2021, possibly due to Californians driving less during the COVID Pandemic quarantine and related closures.

**Fuel Tax Totals per Fiscal Year**

| Fiscal Year | Amount |
|---|---|
| 2016/2017 | $68,655,813 |
| 2017/2018 | $67,749,634 |
| 2018/2019 | $66,947,839 |
| 2019/2020 | $65,003,574 |
| 2020/2021 | $58,265,966 |

## OHV Registration Fees

Another source of income to the OHV Trust Fund is fees paid to register vehicles operated exclusively off-highway. This registration is commonly referred to as a "Green Sticker or Red Sticker." With the passage of SB 742 in 2007, OHV registration fees were doubled from $25 to $50 for a two-year registration. OHV and environmental organizations supported this 100 percent increase in registration fees. In 2009, the OHV registration fees were raised another $2 to bolster the portion of the fees directed to the California Highway Patrol (CHP). OHV

registration fees transferred to the CHP have no restrictions on uses associated with OHV recreation or enforcement. As of 2017, OHV registration fees are currently $54 every two years. Of this amount, $33 is directed to the OHV Trust Fund, and the remainder is distributed to CHP ($10), the Department of Motor Vehicles ($7), and cities/counties ($4) (CVC Sections 38225 and 38230).

## Loans, Transfers, and Redirects from the OHV Trust Fund

Throughout the OHMVR Program's history, monies have been borrowed or redirected from the OHV Trust Fund for purposes outside of the OHMVR Program. The total funds borrowed or diverted from the OHV Trust Fund have reached approximately $268 million. The following text details those loans, transfers, and redirects.

**Fiscal Year 1982/1983**

Transfer to General Fund. Amount of transfer $8.5 million.

Authorize loan to 51st District Ag Association. Amount of loan $150,000.

**Fiscal Year 1983/1984**

Transfer to General Fund. Amount of Transfer $13 million.

**Fiscal Year 1990/1991**

Loan to Fish and Game Preservation Fund. Amount of transfer $3 million. Amount of repayment $3 million loan and $1.6 million in interest.

**Fiscal Year 1992/1993**

Transfer to State Park and Recreation Fund and General Fund. Amount of transfer $10.444 million. Amount of repayment $13.562 million.

**Fiscal Year 1993/1994**

Transfer to State Park and Recreation Fund and General Fund. Amount of transfer $13.141 million. Amount of revenue redirect $2.152 million. A portion of repayment noted above.

**Fiscal Year 1994/1995**

Transfer to State Park and Recreation Fund and General Fund. Amount of transfer $1.959 million. Amount of revenue redirect $2 .563 million.

**Fiscal Year 2008/2009**

Loan to General Fund. Amount of transfer $90 million. Amount of repayment $90 million.

**Fiscal Year 2009/2010**

Loan to General Fund. Amount of transfer $22 million. Amount of repayment $22 million.

**Fiscal Year 2010/2011**

Loan to General Fund. Amount of transfer $21 million. Amount of repayment $21 million.

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**Fiscal Year 2011/2012**

Redirect from Motor Vehicle Fuel Account to State Park and Recreation Fund ongoing. Amount of revenue redirect $10 million.

**Fiscal Year 2012/2013**

Transfer from Motor Vehicle Fuel Account to State Park and Recreation Fund. Amount of transfer $7 million.

**Fiscal Year 2016/2017**

Redirect of Motor Vehicle Fuel Account to State Park and Recreation Fund. Amount of revenue redirect $31 million.

The State's General Fund and the State Park and Recreation Fund have been the primary beneficiaries of these loans, transfers, and redirects. A considerable portion of these borrowed monies has been subsequently repaid, culminating with the Budget Act of 2016, signed by Governor Edmund G. Brown Jr. on June 27, 2016, which reimburses the remaining outstanding OHV Trust Fund loans. The transfers from 1982/83 and 1983/84, totaling $21 million, are tied to conditional legislation. Under current law, those funds would be repaid if the Director of the Department of Finance determined that the OHV fund was over appropriated.

# 50th Anniversary and OHMVR Program Milestones

## 1950-1960

1953 First Jeepers Jamboree runs on the Rubicon Trail

1968 Honda motorcycle sales exceed 1 million

## 1970

1970 Snowmobile Trust Fund created by AB 2235 (Chappie)

1971 Chappie-Z'Berg Off-Highway Motor Vehicle Law

1972 OHV Gas Tax Act

1974 Pismo Dunes SVRA was created (renamed Oceano Dunes SVRA) as the first SVRA in the State Park System

1974 First OHV Grants awarded to local governments

1975 Hollister Hills SVRA opened

1976 Ocotillo Wells SVRA created

1977 OHV Grants authorized for federal agencies

1979 First OHV Grants awarded to BLM and USFS

## 1980

1980 Hungry Valley and Carnegie SVRAs opened

Office of OHMVR and Division Chief position created

1981 Clay Pit SVRA opened

Hungry Valley, Carnegie, and Ocotillo Wells SVRAs General Plans adopted

Ocotillo Wells SVRA opened

1982 OHMVR Division and Commission created

Pismo Dunes SVRA (later renamed Oceano Dunes SVRA) opened to the public

1985 OHV registration fees increased from $15 to $20

1986 Safety and Education Grants authorized

1987 ATV training required

Wildlife inventories, wildlife habitat protection plans, and soil loss standards established for state-owned OHV recreation lands

1989 Prairie City SVRA opened

ATV helmet law enacted

## 1990

1991 Prairie City SVRA General Plan adopted, and Oceano Dunes SVRA General Plan amended

Soil Conservation Standard and Guidelines adopted

1994 OHV registration fees increased from $20 to $21

OHV Fund renamed OHV Trust Fund

1997 Non-emission compliant OHVs issued Red Stickers

1998 Nonresident OHV Use Permits required for all out-of-state unregistered OHVs

## 2000

2000 Off-Highway Vehicle Stakeholders Roundtable created

2001 Hollister Hills SVRA General Plan amended

2002 Off-Highway Vehicle Act of 2003 enacted

2003 OHV registration fees increased from $21 to $25

2004 1991 Soil Conservation Standard and Guidelines revised

2005 Law passed prohibiting OHV operation in federal and state wilderness areas

2006 Parents can be cited for allowing their children under age 14 to operate an ATV without supervision or a safety certificate

2007 SB 742 enacted

OHV registration fees doubled from $25 to $50; Heber Dunes SVRA opened

2008 Renz Property at Hollister Hills SVRA opened

2009 OHMVR Division Strategic Plan published

OHV registration fees increased from $50 to $52

## 2010

2011 Heber Dunes SVRA General Plan adopted

2011 Commission Program Report published

2012 Clay Pit SVRA General Plan adopted

OHMVR Program 40th Anniversary

2013 ROV Helmet Law enacted

2014 Eastern Kern County, Onyx Ranch SVRA opened

2014 Commission Program Report published

2015 Hudner Ranch at Hollister Hills SVRA opened

2016 Carnegie and Prairie City SVRAs General Plan updates adopted

Mudstone Ranch at Hollister Hills SVRA opened

2017 Senate Bill 249 permanently authorized State Parks' Off-Highway Motor Vehicle Program

Senate Bill 159 permanently authorized the OHV Trust Fund, the $33 fee for OHV registration, and the $7 service fee

The Road Repair and Accountability Act of 2017 (Senate Bill 1) redirected millions of new gas tax revenue to State Parks, including the Division of Boating and Waterways and the OHMVR Division

2018 Senate Bill 249 redirected the OHMVR Division Deputy Director duties, allowing seamless integration of SVRAs within State Park districts

2019 The California Air Resources Board amended the 1999 red sticker regulation and eliminated red sticker identification for competition-labeled motorcycles and ATVs, beginning with 2022 models

## 2020

2020 April 2020 -- California State Parks closes all State Parks and Beaches to prevent the spread of coronavirus (COVID-19), including SVRAs. Most parks, beaches, and SVRAs reopen from Fall 2020 to January 2021.

2021 The OHMVR Division celebrated the 50th Anniversary of the OHMVR Program

The OHMVR Division celebrated the inaugural OHV Safety Week events in May and October that will run annually

Green and red sticker identification fees increased to $54 for biennial stickers

## Off-Highway Motor Vehicle Recreation Commission

# Resolution

## Recognizing the 50th Anniversary of the
### California Off-Highway Motor Vehicle Recreation Program

WHEREAS, the California State Parks, Off-Highway Motor Vehicle Recreation (OHMVR) Program was established in 1971 by legislation co-authored by two state legislators, Gene Chappie, an off-highway recreation enthusiast and Ed Z'berg, an early supporter of protecting California's natural resources; and

WHEREAS, AB 2342 "The Chappie-Z'berg Off-Highway Vehicle Act of 1971" was signed into law on December 22, 1971, by Governor Ronald Reagan; and

WHEREAS, the Chappie-Z'berg Law was founded on the principle that responsibly managed off-highway vehicle (OHV) use was better for the environment than unmanaged activity; and

WHEREAS, the Mission of the OHMVR Division, established in 1982, is to provide leadership statewide in the area of OHV recreation; to acquire, develop, and operate state-owned vehicular recreation areas; and to otherwise provide for a statewide system of managed OHV recreational opportunities through funding to other public agencies; and

WHEREAS, the OHMVR Division works to ensure that quality OHV recreational opportunities remain available for future generations by providing for education, conservation, safe use, and enforcement efforts that balance OHV recreation impacts with programs that conserve and protect cultural and natural resources; and

WHEREAS, the OHMVR Grants and Cooperative Agreements program has provided millions of dollars in financial assistance for well-managed off-highway vehicle recreation in the State of California through grants to cities, counties, districts, federal and state agencies, educational institutions, federally or state recognized Native American Tribes, Certified Community Conservation Corps, and nonprofit entities; and

NOW, THEREFORE BE IT RESOLVED that the California Off-Highway Motor Vehicle Recreation Commission recognizes 2021 as the 50th Anniversary of the California Off-Highway Motor Vehicle Recreation Program, and encourages all related agencies, groups, associations, and persons to recognize and commemorate the 50th Anniversary by any and all efforts to highlight and honor the history, significance, contributions, and achievements that went into the development of the OHMVR program and its contribution to the people of California and the nation.

**August 6, 2020**

Sarah Miggins, Chair
OHMVR Commission

Brian E. Robertson, Division Chief
OHMVR Division

## 50th Anniversary Celebration and California OHV Safety Week

Note to readers: this section will be updated to include the October 20201 50th Anniversary event in Hungry Valley.

State Parks celebrated 50 years of providing the public with high-quality and environmentally sustainable OHV in California's spectacular outdoors in 2021. In August 2020, the OHMVR Commission passed resolutions recognizing 2021 as the 50th Anniversary of the OHMVR Program and California OHV Safety week, held the third week in May.

**First Annual California OHV Safety Awareness Week**

OHV Safety Awareness Week is an integral part of the OHVMR Program 50th Anniversary, commemorated throughout 2021. In October 2020, the OHMVR Commission passed a resolution dedicating the third week of May (Northern California) and October (Southern California) to promote and focus on safe and responsible OHV practices.

The OHMVR Division and partners launched the inaugural OHV Safety Awareness Week on May 15-23, 2021. The theme for the event was "Know Before You Go," to educate riders about how to prepare for a safe and fun outing. Topics included simple actions like riding rules, routes, trail difficulty ratings, filing a riding plan, required safety equipment, riding with others, and knowing riding limits to promote safety in California's extensive OHV areas and trails. Messaging incorporated Tread Lightly! ® principles that encourage resource stewardship and awareness to protect natural and cultural resources that make these places special.

State Parks collaborated with the Tread Lightly! ® Initiative, California Highway Patrol, Outdoor Recreation Foundation, ATV Safety Institute, and Recreational Off-Highway Vehicle Association (ROHVA) to provide a mix of safety messages and activities during OHV Safety Awareness Week. Programs consisted of park interpretive programs, in-person events (with COVID-19 safety guidelines), and social media platforms. The ATV Safety Institute and ROHVA teamed up with the Division to provide free ATV and ROV training on the California Outdoor Recreation Foundation website.

Below are safety tips that the OHMVR Division shared during the OHV Safety Awareness Week for new and experienced riders:

**Learn the Rules of Riding:** There are laws specific to operating off-highway vehicles on public lands. Learn about them by visiting your outdoor destination's website before leaving home and take a training course.

**Scout Your Route:** Each OHV area has a vast and diverse mixture of geology for riders exploring in their motorcycle, ATVs, dune buggies, or 4x4s; learn about the various trail experience levels and terrain to avoid emergencies.

**Be Prepared:** Know which supplies you need to have for a successful ride. Be prepared with a first aid kit, extra water and food, maps, a tool kit, and fuel.

**File a Riding Plan**: Tell a responsible person back at camp or home where you are going and when you plan to return. Ask that person to notify local law enforcement if you do not come back on time.

**Use Required Safety Equipment:** Know which gear is required for your type of recreation to prevent injury. Always wear protective gear, including a safe, well-fitting helmet.

**Never Go Alone:** Always ride with at least one other person, preferably in groups of three riders. If one rider is hurt, someone can stay with the rider while the other one gets help. Never move an injured rider.

**Tread Lightly:** Know where to ride, and ride only on designated routes and trails. Be sure to check ahead for open trails. Remember, wildlife has the right-of-way.

**Know Your Limits:** Know the rules, your skill level, and how to maintain your vehicle. Only ride at speeds at which you can always maintain control. Do not ride faster than your talent and never operate a vehicle under the influence of alcohol or drugs. Keep your speed under 15 mph when riding near campsites or groups of people.

## Hangtown: Celebrating 50 Years of OHV History

*Story by Peter Ostroskie, State Park Interpreter at State Parks' Interpretation and Education Division. Peter was also served as Prairie City SVRA's interpreter at Prairie City for many years.*
Story by Peter Ostroskie

Prairie City SVRA hosted the annual Hangtown National Motocross Classic in May 2018. The day was filled with the smell of racing fuel, the sun's warmth, and the roar of the crowd. But 2019 was different than the previous. The Hangtown Classic celebrated its 50th year in existence. Starting back in 1969 on Murray's Ranch in Placerville, a local motorcycle club known as the Dirt Diggers North hosted the first-ever race and named it after the nickname of Placerville - "Hangtown."

Over the years, the race site would change from Placerville to Plymouth, wherein a few short years, the event outgrew that town. Finally, in 1979, the Hangtown Classic would land at Prairie City Off-Highway Vehicle (OHV) park, which Sacramento County owned. In 1990, the park would have new ownership under the state parks system. The Dirt Diggers North Motorcycle Club (DDNMC) and District 36 of the American Motorcycle Association have, from 1990 to this day, worked together to host the once largest OHV event in the state.

With so much history of past riders, racers, professionals, and guests, Prairie City SVRA and the DDNMC wanted a new way to celebrate this unique past and commemorate the event. State Parks staff and DDNMC volunteers worked together to put on a vintage motocross display and history of the Hangtown classic mixed in with the Prairie City SVRA booth.

Not only did Prairie City SVRA have its radio-control car course, but it also provided information about the park and the importance of protecting its environment. Friends from local federal offices such as BLM and Forestry also participated and 28 different vintage motocross bikes from different eras of Hangtown past. These included bikes like the BSAs, Maicos, Yamahas, Husqvarnas, and many more. These bikes were in mint condition, and two of the bikes were the only two of five replicas.

The Yamahas that were on display were BP Racing Aberg Replicas. They are examples of the original Hallman/Pro-Fab Aberg Replica Yamahas - 4 stroke bikes, 500ccs. These are two of only five replicas built utilizing the famous Pro-Tec stroker version of the Yamaha Engine. These machines had their stories: bike number 20 was the first Aberg replica built by BP racing in 1979. It was raced by Danny Turner (Second Open Pro AMA 4 stroke National Championships at Carlsbad), Billy Grossi (3rd Open Pro CMC 4 stroke National Carlsbad), and Eric McKenna (First place Anaheim SX 4 stroke Invitational) between 1979 and 1981.

Bike number 98 was built in 1979 by Ed Santin. Steven Gall (3rd place Hangtown 4 stroke invitational), Billy Grossi (First place CMC 4 stroke nationals Carlsbad), and Jerome Hybarger (First place Hangtown 4 stroke invitational) between 1979 and 1982 also raced this bike.

While these bikes were in the center hub of the tents, much Hangtown history surrounded them, including more than eight different photo albums of newspaper clippings and a poster for almost every race year. Even on display were vintage stickers from the races in the ’70s. Winners of previous Hangtowns were also around to answer questions and be interviewed by motorcycle enthusiasts and magazines for the industry.

While many of the parks in California have their unique histories, Off-Highway Vehicle parks for the state are truly different from a past of diverse bikes, riders, and fans. As always, the staff looks forward to next year’s Hangtown at Prairie City SVRA.

## OHMVR Division Education and Outreach Program

In 2008, Senate Bill (SB) 742 revised the OHMVR Division, including a provision that required the Division to provide education programs associated with OHV recreation. To meet this mandate, State Parks hired Interpreters at SVRAs and the OHMVR Division to develop relevant, integrated programming that gives the public opportunities to learn about safety, lawful OHV operation, and protection of California’s resources. The program has grown in popularity over the years and reaches over 150,000 contacts annually.

Dedicated interpretive staff develops a broad menu of traditional and innovative interpretive programs relevant to many audience types, from the OHV community to underserved youth. These dynamic programs are content-rich and incorporate audience engagement strategies to be meaningful, enjoyable, and memorable. SVRA Interpreters and the OHMVR Outreach Team give programs at SVRAs, OHV and sporting events, county fairs, community events, safety fairs, youth events, school programs, and career fairs. In addition to in-person events, Interpreters create informative videos using social media platforms and deliver school programs using the PORTS® (Parks Online Resource for Teachers and Students) program.

While teaching people about safe and responsible OHV recreation and environmental stewardship remains the heart of the OHMVR program, the interpretive staff teaches science, history, culture, and arts programs aligned with California’s Common Core State Standards for grades K-12.

In 2020, the COVID-19 pandemic changed traditional engagement with park users and stakeholders who recreate with OHVs. Interpretive staff in SVRAs pivoted from in-person to digital interpretive content. Even though parks and state facilities had closed to the public during stay-at-home orders, the public still wanted up-to-date information about safety

measures in parks, plans for re-opening the SVRAs, and interpretive and educational opportunities for learning about their favorite State Parks.

Digital interpretive content for the OHV community took many forms throughout 2020 and 2021, including live streams and uploaded video content to Facebook, creation of videos placed on YouTube, PORTS® programs, on-demand, and home learning programs, augmented reality educational platform tools (Agents of Discovery), Flipgrid and Padlet content created for school academic learning. Flipgrid is an international online platform used in classrooms and displays short, informational videos on a wide range of educational topics. Padlet is an online bulletin board where information can be posted in videos, educational website links, and various documents.

Virtual programming included Junior Ranger™ Programs, Little Ranger, Mini Ranger, campfire programs, and statewide interpretive special events. The ability of the interpretive staff to uniquely change their program offerings to provide continuous service to the public shows the professionalism of State Park Interpreters in the OHV program and their commitment to engage the public.

The OHMVR Division Outreach Team has several seasonal and permanent interpretive staff dedicated to developing public safety education and environmental stewardship programs. The team attends public events and schools, assists SVRAs at special events, and creates social media and online learning content.

The Outreach Team is continually developing and delivering dynamic programs. Some of the most popular in-person programs include:

- a Radio Control (RC) Jeep® trail program that teaches Tread Lightly! ® principles of safe OHV recreation and environmental stewardship.
- An interactive wildlife program with skulls, hides, scat, and tracks promoting discussions about how children can help protect wildlife.
- Gear Up program where youth put on safety gear and practiced all-terrain vehicle (ATV) riding skills on a simulator to simulate an OHV riding experience.

**Highlights from 2017-2021**

**The Bureau of Land Management (BLM) Youth Summit Career Expo** -- The Outreach Team put a new spin on the Tread Lightly! ® Radio Control (RC) Jeep® program and turned it into a career awareness trail. With a focus on interactive fun, the RC program was an innovative way to introduce various careers for youth to consider along their career trail.

**New Venues in 2017**-- Many hunters use OHVs to access areas on federal and state lands. Staff educated the hunting community about the importance of OHV safety and environmental protection at the Hooked-on Hunting event, held in Paradise. Staff also attended the US Marine's Semper Ride events at Camp Pendleton and Camp Miramar to educate the marines and their families about OHV safety and environmental protection.

**International Sportsmen's Exposition (ISE)** -- The Outreach Team collaborates with the Division of Boating and Waterways (DBW) to participate in the ISE and Youth Fair. The Youth Fair provides activities for youth and families to explore outdoor recreational activities while learning about safety and resource protection.

**2019**

The OHMVR Division Statewide Outreach Program participated in over 40 programs during 2019. These included small, single-day events like State Scientist Day at the State Capitol and partnered with State Parks' Great Basin District and the National Park Service at the National Junior Ranger Day event at Sequoia National Park. Significant events include the ISE, King of the Hammers Off-Road Race in Johnson Valley, California State Fair, and the Nevada County Fair.

**2020**

Before COVID-19 stay-at-home procedures, the OHMVR Outreach Team attended several special events in January and February. These events included the ISE, King of the Hammers, assisting Ocotillo Wells District at Tierra Del Sol, and working with the Tahoe National Forest. The Outreach Team gave programs to 4,842 people from January to March 2020 before large-scale special events were canceled or postponed. Later in the year, some smaller events with limited capacity were allowed in a few SVRAs while following safety precautions for COVID-19.

Transitioning into the COVID-19 stay-at-home orders, the interpretive team focused on creating digital educational content through educational platforms and social media sites for the public. The outreach team created content such as learning about native wildflowers in each SVRAs using Flipgrid. While the latter focused on schools, other social media platforms provided information to followers, including which parks were open to the public, safety messages during COVID-19, and proper social distancing practices. Safety videos were also created and filmed at Prairie City SVRA by the Outreach Team. These videos were shared on social media to teach riders how to shift their body weight on an ATV and gear up safely as OHV riders. The Interpreters also celebrated Women's History Month by highlighting women OHV riders on social media, including an interview with an OHMVR Grants Program woman staff member.

The Outreach Team was involved in "OHV Turns 50" committee work throughout 2020, including interpretive theme development, designs for stickers and patches, public engagement

pilot projects for Agents of Discovery and the "OHV and Me Project," as well as meetings with the Communications Division and SVRA interpretive staff.

**2021**

Limited in-person interpretive programs and engagement resumed in some areas in summer 2021 with the Nevada and El Dorado County Fairs. Overall, using digital interpretive platforms was a successful approach to reach interested stakeholders and user groups. The Outreach Team will continue to use these platforms as well as in-person interpretation into the future.

## Carnegie SVRA

**2018**

Carnegie SVRA and Hollister SVRA staff partnered with Carnegie Forever to host a booth at the Oakland Supercross on February 3rd. State Parks Interpreters shared information about recreational opportunities in parks, including hiking, camping, and OHV recreation. Children were excited to receive stickers, maps, and other items from the Tread Lightly! ® program. The staff was happy to see so many of Carnegie's regular visitors outside the park and answer questions about resource projects and new riding opportunities.

**2019**

Carnegie SVRA started offering campfire programs in 2019. Families especially enjoyed a program that discussed the local bat population and their relationship to insect management at the park. Park Interpreters also gave programs at special events that promoted safe riding practices, proper riding gear, and talks about Carnegie's history.

**2020**

Carnegie SVRA held a volunteer special event for planting trees before the COVID-19 stay-at-home order in March. About 20 volunteers participated, donating nearly 100 volunteer hours and planting over 100 trees. The park held another volunteer event in November with appropriate COVID-19 restrictions in place. This event had a smaller group of 12 volunteers, who donated about 48 hours to open some park areas that were closed due to fire recovery.

Carnegie SVRA was closed for about a month during the statewide stay-at-home order. During this time, interpretive content turned virtual through videos. Many videos were uploaded to Facebook to connect with the visitors regarding current happenings, such as trail maintenance and projects with the forestry staff to open certain park areas. Two videos focused on the early history of the park, which included coal mining and brick making. These videos were uploaded to Flipgrid to share local history with educators. The Brick & Pottery Factory video received

many positive reviews from visitors when it was also posted on Facebook. Carnegie SVRA participated in the statewide Great Virtual Halloween Spectacular with other parks from the Mount Diablo District by creating a video about tarantulas.

State Park staff updated its website with more information about park facilities. Coordination with the park aides at the park kiosk has also helped bridge the gap with Spanish-speaking visitors through English and Spanish language brochures. Staff also updated interpretive panels near the restrooms and fire safety awareness for the park. Plans include connecting with local schools to create in-person programs such as riding tours and Junior Ranger™ Programs.

## Heber Dunes SVRA

**2017**

Rediscovery of park resources was the primary interpretive focus in 2017. Everything from designing and funding a "Discovery Barn" to hosting a series of "Beach" hikes moved from dreams to reality. The OHV Junior Ranger™ Program took on new momentum as enthusiastic parents volunteered their time to brainstorm new activities and program ideas. The rediscovery of Heber Dunes by NYPUM El Centro ushered in the new year on an exceptionally high note.

**2018**

A tradition enjoyed throughout California is celebrating the beginning of a new year by hiking a favorite trail with family and friends. However, at Heber Dunes SVRA, young OHV riders and their families don their safety gear and cruise over to the park's staging area for the Annual Family Ride. In 2018, the El Centro NYPUM group attended the event, so minibikes joined the ATVs for the annual ride. By the end of the year, El Centro NYPUM had done everything from providing an after-ride BBQ to helping to staff the park booths at the Mid-Winter Fair, the Children's Fair, and the Heber Fall Festival, as well as hide eggs for "Eggstravaganza," the park's spring egg hunt. The Ambassador Club from Heber Elementary School District and a small group of interested parents also offered ideas and assistance. Community outreach enabled a group of like-minded individuals to discover the positive effects of sharing common interests, attitudes, goals, and a feeling of fellowship with others.

**2019**

During the first half of 2019, the interpretive staff at Heber Dunes SVRA provided outreach to five local schools. Over 100 children received a science core-based curriculum, performed lab work, made field studies, and presented reports on subjects such as the wildlife food chain, desert plants, and animals living at Heber Dunes SVRA.

**2020**

Most visitors go to Heber Dunes in the fall through spring due to the extreme summer temperatures. During the COVID-19 pandemic, the interpretive staff from the Ocotillo Wells District played a critical role in distributing bi-lingual COVID-19 safety information to the visitors.

## Hollister Hills SVRA

**2017**

Hollister Hills received increased requests for school programs from local elementary teachers and conducted 19 interpretive programs for kindergarten to 5th-grade classrooms. The most requested program was “Birds of Prey,” focusing on adaptations that make raptors excellent hunters. Students learn about local birds of prey through various tactile props such as photos, skull replicas, wings, feathers, talons, birdcalls, eggs, and pellets. One adaptation that catches students’ interest is the serrated edges of feathers on owl wings that help them fly virtually soundless. The program also addresses the delicate web of life and how human activities affect food chains. The Birds of Prey Program allows students to understand how living things are connected and that nature has checks and balances.

**2018**

2018 marked the fourth annual year of Holiday Hayrides. The evening program started in 2014 and has gathered interest and popularity every year. With hundreds of Christmas lights helping to set the holiday cheer, the festively decorated flatbed trailer complete with hay bales transforms into the perfect interpretive mobile center. The hayride extravaganza travels through the park along the main road and stops at all five campgrounds to pick up visitors. Modeled after a traditional park campfire program, staff highlight the park’s history through storytelling, facilitate games, and sing Christmas carols.

**2019**

Hollister Hills SVRA celebrated the 10th anniversary of the Clean Wheeling Program, which has remained an integral part of the SVRA’s special events. This event is a great park stewardship program for families and is a collaborative effort between the park staff, off-road clubs, and the Hollister Hills Off-Road Association (HHORA). Interpretive staff added programs for non-motorized user groups and offered full moon hikes, astronomy sessions, and guided wildflower walks in 2019. Staff also used this opportunity to discuss OHV land management practices at the park. Additionally, the interpreters restructured the school group program for the second, fourth, and fifth grades, and HHORA assisted by providing transportation funding. The curriculum aligned with the new Next Generation Science Standards and focused on the San Andreas Fault line.

**2020**

Interpretation plays a critical role in disseminating information to the public. Interpreters regularly communicate the State Park messaging through social media platforms, in-person communication, and by phone. Interpreters worked with visitor services staff to provide accurate information to the public as the COVID-19 pandemic changed the State Park System in unprecedented ways.

Virtual programs became the new normal during the pandemic as in-person programs were on hold. Hollister Hills SVRA embraced this new method and completed a total of 12 videos with another four videos in production and plans for four more. New and unique ideas led the interpretive team to create a stop-animation geology video, a November series on cooking with OHV-related safety messages, and a "spooktober" series of tree preservation messages throughout the park. The tree preservation message culminated in a video where trees that met an early demise released hauntings to the public.

Outside of the growing video production company, the interpretation staff at Hollister Hills SVRA also developed interpretive panels. Interpreters created and installed various information panels, including:

- Welcome panel for the Nature Area (non-motorized),
- Campground panels (2) in the Upper Ranch (4x4)
- Gate panels for Mudstone Ranch (non-motorized) that interpret the symbiotic relationship with cattle grazing.

Although 2020 found many parks postponing or canceling annual events, Hollister Hills SVRA was able to reorganize and offer two of the fall 4x4 oriented events. In September, the SVRA offered a self-guided Geocache Bash was provided in which single household units or families could come to the park and partake in the GPS scavenger hunt. In late October, the SVRA staff held the annual "Clean Wheeling" Program event in which the SVRA had 28 participants who drove throughout the Upper Ranch collecting trash. State Parks required all preregistered participants to provide a signed one-day volunteer form before being admitted to participating in this event.

Hollister Hills SVRA was fortunate to continue participating in some annual city and county outreach events during 2020 that were well-organized and safe. Two events include the "Treat Street" and "Lights on Holiday Parade." It was a morale booster for both the staff and the public for Hollister staff to attend and participate in these events.

Additionally, Hollister Hills SVRA was among some of the first parks to re-open to the public in May, which made many park visitors happy, as they arrived in large numbers. During this time, Interpreters assisted visitor services staff in implementing their re-opening plans.

## Hungry Valley SVRA

### 2017-2018

Hungry Valley SVRA and the OHMVR Division Outreach Team worked with the Los Angeles County Sheriff and Los Angeles County Parks to provide the annual Youth Recreation Day at Castaic Lake State Recreation Area. The Police Activities League (PAL), run by the Los Angeles County Sheriff's Office, helps underprivileged children in Los Angeles and brought about 80 children for a day of recreation fun on October 27th. The children had an opportunity to ride an ATV, kayak, or paddleboard and operate the RC Jeeps® on an obstacle course. In addition, the children rotated through stations to learn about nature and State Parks' careers. The ATV simulator was a huge hit, and Poser, the snake, was also a big hit with the children.

### 2019

Hungry Valley SVRA continued to offer and expand on one of their most popular interpretive programs, the Animal Ambassadors. After a short presentation discussing outdoor safety and the importance of snakes in the environment, visitors had an opportunity to hold the snakes in a safe space. Participants also learn about the important role snakes play in the food web. Hunter (a kingsnake) and Poser (a gopher snake) are native to the park and are the two Animal Ambassadors on staff. In June, youth from the Los Angeles Police Department's National Youth Project Using Minibikes (NYPUM) program met the Animal Ambassadors when Hungry Valley SVRA hosted the West Coast NYPUM Rodeo. Not only were the participants able to address their fears and hold the snakes, but they were also introduced to the importance of habitat protection, park stewardship, and potential career opportunities in park management. The goal of this program is for individuals to gain a greater appreciation for the park so that they may enjoy their experience even more.

### 2020

Hungry Valley SVRA launched a cell phone-based augmented reality game (via Agents of Discovery) titled "Discover Hungry Valley" to commemorate its 40th anniversary in April 2020. At the park, users could search for challenges and answer questions about safety, the park's flora, fauna, and history. The game's avatar, named Secret Agent Sage, is dressed in riding gear, including a helmet, gloves, boots, long pants, and jersey. This game compliments another cell phone app, Geocaching, to encourage visitors to explore the park.

The SVRA saw an increase in visitors, including first-time visitors, in 2020. As a result, interpretive staff launched a “Know Before You Go” campaign to help visitors prepare themselves for riding in the park. Park staff recorded videos of the camping facilities, day-use areas, and some trails to allow first-time visitors to prepare before visiting. This campaign also included safety messaging to help keep the public safe while visiting the park.

The park’s social media campaigns grew in 2020. Hungry Valley SVRA’s Facebook page followers had a yearly increase of 27%, and Instagram followers jumped by 19%. Park staff used social media to inform visitors of ongoing safety messaging related to the COVID-19 pandemic and OHV recreation at Hungry Valley SVRA.

## Ocotillo Wells SVRA

### 2017

Ocotillo Wells SVRA interprets the desert in many ways. The interpretive staff gives weekly school visits to third-grade classrooms throughout the region. The focus of the program is animal adaptations in the desert environment. Aligned with the third-grade common core curriculum for science and art, teachers prize the program. During 2017, Ocotillo Wells Interpreters visited 43 schools, with an average of three classes, and reached almost 3,000 students. Not only have the students learned about the unique adaptations of desert animals, but they have also learned about Ocotillo Wells.

### 2018

Ocotillo Wells SVRA continues to reach thousands of visitors with pop-up mobile exhibits throughout the park. Most of the 2018 field contacts came from engaging displays set up at popular destinations with interpretive staff. Since visitors tend to recreate at the park monthly or even weekly, interpreters updated existing programs and created brand new ones, such as “Rattlin Bones.” This program is about the adaptations of the park’s wildlife revealed by their skeletons to survive the harsh desert environment. Through a game, Interpreters relate a safety message by advising visitors about how to keep their skeletons safe while recreating. The message is clear -- use the proper safety gear and follow the Tread Lightly! principles. “Rattlin Bones” has become one of the park visitor's favorite displays. Ocotillo Wells staff are exploring ways to expand the program with additional content about safety and incorporating more of the Tread Lightly! ® principles.

### 2019

Ocotillo Wells SVRA made over 70,000 interpretive contacts in 2019, mainly through outreach at OHV trade shows and field programs. In 2019 the Parks staff partnered with many different

agencies and groups to make the visitor experience at Ocotillo Wells SVRA and Heber Dunes SVRA safe and enjoyable. In April, the interpretive staff hosted a campout for the El Centro NYPUM program and provided two fantastic night-time hikes for the children and chaperones. Working with the OHMVR Division Outreach Team, Ocotillo Wells SVRA hosted a booth at the Sand Sports Super Show in Costa Mesa. This booth included a mix of natural and cultural history, Tread Lightly! ® messages, and rider safety. The booth also featured an ATV safety simulator that was popular with young attendees. The Outreach Team assisted Ocotillo Wells SVRA interpretive staff with education programming during the Christmas through New Year's holiday week. Historically, this is one of the busiest visitation periods of the year, and the goal was to reach thousands of more visitors with the~~ir~~ additional assistance. Additionally, Ocotillo Wells District worked with safety coordinators at the Division of Boating and Waterways and the OHMVR Division to debut a safety messaging campaign over the winter holidays. This campaign included bumper stickers, radio spots, and a rack card with helpful safety guidelines.

**2020**

The interpretation staff started the year with numerous outreach programs at schools in under-served communities. During the one-hour program, students discovered the animals that call the desert their home and the adaptations these animals have developed to survive the extreme summer heat and lack of water. The fearsome taxidermy badger was a highlight of each visit. At the end of the session, the students drew their very own animal, which must have at least two adaptations to help it survive in the desert.

Until the COVID-19 temporary closures, the interpretation staff continued the always-popular weekend pop-up programs at the famous riding destinations in the park. Popular topics included desert riding safety and safety gear, gnarly prehistoric animals of the past, adaptations of desert animals, and the popular solar telescope and a solar oven. Three different Junior Ranger™ Programs were also offered to children ages 3-6 in the Mini Ranger program.

The park also held its annual Geology Daze festival. This event draws hundreds of visitors who have a chance to discover the various geologic forces that have sculpted the landscape, including flash floods, wind erosion, earthquakes, the story of the rock cycle, and compared the geology of the SVRA with other planets. The highlight of every Geology Daze event is the Borrego Rock and Gem Club, which cut open geodes and sliced other rocks.

During the extreme heat of the summer months, with temperatures up to 120°F, few visitors come to the desert. During this time, the interpretation staff replaced many of the interpretive panels at the popular riding destinations in the park.

The interpretive team also played a vital role in keeping visitors up to date on the park's response to the COVID-19 pandemic. Staff utilized included social media and web-based efforts,

deployed and maintained park signage, made personal contact with visitors and created new "Radio Rock-o-tillo" content.

## Oceano Dunes District

**2017**

Oceano Dunes District developed its own children's Adventure Guide, creating a personal connection to the park's natural, cultural, and recreational treasures. The Adventure Guide had fun activities for children to learn about rider safety, Tread Lightly! ® principles, swimming safety, hiking tips, Native Americans, animal track identification, and trash awareness. A few pages encouraged children to interact with their surroundings by spotting animals or items around the park. The Adventure Guide instilled a sense of ownership for children to become stewards of public land for future generations.

**2018**

Oceano Dunes SVRA started the summer off with a new Shoreline Junior Ranger® Program. The SVRA is a unique recreation area along the coast of California. The interpretive staff teamed up with the park's lifeguards to educate children about recreational safety and the natural and cultural resources. Parents and interested bystanders appreciated the education their children were receiving, and the children had a blast.

**2019**

Oceano Dunes SVRA continued to expand its innovative interpretive programs, emphasizing safe and responsible riding and protecting the dune environment. "Dunes Safety Day," an event focused on riding and ocean safety, was held during the July 4th holiday. Rangers, lifeguards, and interpretive staff answered questions about riding rules and regulations, taught visitors about proper riding gear, and helped ocean users to identify rip currents. The interpretive team introduced the OHV Junior Rangers™ Program, where children learned how to ride safely in the dunes and the importance of respecting the dunes ecosystem. Visitors now have daily access to the visitor center and can experience new programs that focus on the dune environment. Interpreters offer the popular Agents of Discovery program and a resource and recreation-themed experience for young children called Little Rangers.

Additionally, the staff used interpretive technology in new and exciting ways. Augmented reality coloring sheets help teach children about Snowy Plovers and Monarch butterflies. Interpretive staff started a new PORTS program called "Discovering the Dunes" that reaches students in classrooms worldwide.

**2020**

At the start of 2020, interpretive staff began incorporating PORTS programming into the schedule. The SVRA increased the program topics offered within the district as they developed more digital lessons while adapting to the changes that came with the pandemic. “Discovering the Dunes” is a program available through the PORTS On-Demand Programs for Oceano Dunes SVRA. Interpreters also participated in the PORTS Home Learning Programs with various topics and activities, including reading the famous Dr. Seuss book, “Clam I Am,” at the shore.

The staff used Flipgrid, Padlet, and YouTube to present interpretive programs and content. Staff posted the augmented reality coloring sheets that teach about the Western snowy plover and OHV safety gear. Interpreters included links to the SVRA’s Padlet, Flipgrid, and YouTube channel in program confirmation emails to teachers, during PORTS programs, and on ending slides to Home Learning Programs. Some of the topics include dune formation, native plant species, native invertebrates, and native mammals. The goal was to provide teachers with as many resources as possible to assist them during these times of digital learning.

Interpreters brought visitors virtually into the park with Agents of Discovery. Usually, a person must be on location to play Agents of Discovery. The app was updated to include options for gameplay at home. The SVRA advertised the game to visitors and noticed that the Oso Flaco Lake location increased in use. Interpreters continue to add content to game locations to engage visitors in a new and fun way during the park closures.

**Other Interpretive Programs and Content at Oceano Dunes District**

Interpretive staff and docents provide guided hikes throughout the district. The Oso Flaco Lake area is a popular location for guided hikes led by local non-profit organizations, and most guided walks are on existing trails. The district may conduct school field trips at Oso Flaco Lake and other park locations during the school year, including the Monarch Butterfly Grove and visitor center. During the 2018 school year, approximately 4,000 K-12 students visited the park for field trips.

The Dunes Center, a local non-profit affiliated with the Guadalupe Nipomo Dunes Collaborative, conducts two to three guided field trips at Oso Flaco Lake per month. The Dune Center field trips typically accommodate 5–30 people.

Camp KEEP (Kern Environmental Education Program, an outdoor science school for 6th graders from Kern County) utilizes the foredunes and shoreline northwest of Fins restaurant to provide hands-on sustainability education programming. On average, Camp KEEP provides education to 3,841 students annually.

The district has two interpretive trailers that can be towed onto the beach or other locations. Park interpretive staff and volunteers use them for programs, impromptu outreach, onsite information, interpretation, and sales.

State Park interpreters carry out the PORTS program and cover monarch butterflies, discovering the dunes and Northern Chumash.

The district uses interpretive signs, brochures, and online media to educate the public about resource protection topics. Flyers, activity books, and interpretive panels discuss restoration projects, habitat, wildlife, environmental stewardship, safety education, responsible recreation, and other pertinent issues. Printed materials are available at the visitor center, while interpretive panels are available throughout the park. Park interpreters also manage content on the State Park website and social media platforms.

For instance, the district has 48 outdoor interpretive panels, including an accessible trail at Oso Flaco Lake and the Monarch Butterfly Grove. Seasonal interpretive signs on Western snowy plover and California least tern nesting are in place from March through September, along with wayside panels.

**Monarch Butterfly Citizen Science Program**

Tourists, locals, and frequent visitors consider the Pismo State Beach Monarch Butterfly Grove an essential destination on the Central Coast. For many years, permanent and seasonal Interpretive staff and dedicated Pismo State Beach volunteers and docents have been involved with Monarch Butterfly studies and monitoring. The park partners with professional organizations such as Xerces Society, Cal Poly San Luis Obispo Monarch Alert, and others to accomplish critical monitoring, population studies, and other reporting.

Recently, district staff, volunteers, and docents participated in a citizen science Public Broadcasting episode, *Our Winter, Masses of Monarchs,* which features the Pismo State Beach Monarch Butterfly Grove. The Monarch Butterfly section runs from 27:15 and runs through 32:17 and can be seen at http://crowdandcloud.org/watch-the-episodes/episode-four.

This episode featured many volunteers, docents, and the newest seasonal interpreter. This same group of individuals and other 70 or so volunteers and docents not featured are instrumental in providing outstanding education and interpretation presentations and programs from November through February, reaching an average audience of over 80,000 visitors. Staff and volunteers give two formal presentations a day, seven days a week during this period, and staffing the Butterfly Grove.

**Educating the public about Northern Chumash Culture**

The Oceano Dunes District has hosted outdoor field trips along the Oceano Lagoon for local third-grade students for many years. These field trips incorporate a hands-on learning approach to understanding the Northern Chumash Native American culture and the natural resources around the Oceano Lagoon. When schools around the nation began closing to in-person learning due to COVID-19, staff began brainstorming ways to share this content digitally.

Interpretive staff collaborated with the district's tribal liaison and Northern Chumash tribal representatives to create educational videos aligned with the school curriculum. The series is comprised of short videos that teachers can incorporate into their class studies. Videos are posted on the district's YouTube Channel and Flipgrid. These videos complement their lessons and live programs, giving students background knowledge for deeper discussions during these programs. Oceano Dunes District offers a PORTS Program on these same topics, available on Wednesday mornings. Additionally, interpreters hosted a home learning program on this topic for students.

During November 2020's Native American Heritage Month, the district posted an interview with Northern Chumash community members developed in collaboration with tribal members for an exhibit in the Oceano Dunes District Visitor Center. Upon request of Tiłhini (Northern Chumash) Chairwoman Mona Tucker, interpreters converted the interview into an accessible digital format. This interview has since been shared across social media platforms and throughout the Northern Chumash community.

**Stormwater Management Program Education**

Since 2018, Oceano Dunes SVRA has produced informational notices, interpretive panels, and brochures as part of the education requirement of the Stormwater Management Plan. Topics include:

- Storm Water Management Program Flyer
- What You Can Do to Protect Water Quality
- Protecting Riparian Areas
- Protecting Coastal Dune Scrub
- Eliminating Illicit Discharges
- RV Dumping
- Pick Up Your Trash

- Pick Up After Your Pet

## Prairie City SVRA

**2017**

Prairie City SVRA held guided walking tours of vernal pools in the spring to provide an opportunity for visitors to see an area closed to OHV recreation for resource protection. The tour theme, "A vernal community that protects off-highway enthusiasts, while nurturing the cycle of life," appealed to visitors and created curiosity about how these little pools protected their right to ride. After learning that the vernal pool area provides a buffer to help with noise reduction, visitors felt a deeper appreciation and connection with this resource. The vernal pool tour guides presented information in a fun and relatable way. Visitors no longer viewed the pools as a reason to lose riding areas but to save both a resource and recreation opportunities.

**2018**

Prairie City SVRA staff collaborated with the Dirt Diggers North Motorcycle Club to celebrate the 50th anniversary of the Hangtown Motocross Classic. The result of the collaboration was a temporary museum with a shared exhibit booth at the 2018 Hangtown races in May. The Dirt Diggers and State Parks brought out memorabilia that included posters, stickers, newspaper articles, and vintage bikes from previous races to create the museum. This historic display brought in visitors, both young and old. Many of them talked about their racing adventures at the Hangtown event. The Dirt Diggers North Motorcycle Club and the OHV community loved this joint venture. The temporary museum spurred the idea that when Prairie City SVRA builds a visitor center, there should be an area dedicated to the history of the Hangtown Motocross Classic, off-highway recreation in California, and a center to collect oral histories of riders.

**2019**

The skilled interpretive staff has found unique ways to reach classrooms worldwide. Using the computer program Skype, an iPad, and a microphone, staff have been able to bring children to the park through the Internet to educate them on resources and safety. Park Interpreters developed a dynamic interpretive program showcasing the Vernal Pool Management Area that discusses how recreation and resource protection go together at the park. Staff talked with the students about engineering, physics, and math connecting all these subjects to the world of OHV recreation. The program has been very popular, providing visitor interest in a multi-disciplinary program focused on resource protection in an SVRA. This program has increased visitor engagement by reaching a larger and more diverse audience.

**2020**

Adaptability, collaboration, creativity, and an enthusiasm for developing new skills were critical elements of Prairie City SVRA's success in overcoming challenges of helping the public forge meaningful connections to natural, cultural, and recreational resources in the era of COVID-19.

Prairie City SVRA's interpreter reached 24,300 existing and potential visitors through its official Prairie City Instagram page, collaborating with staff from multiple program areas in the Gold Fields District. Promoting safe recreation during the COVID-19 pandemic, highlighting rare vernal pool ecosystems, and educating visitors on red sticker riding season were just a few of the topics addressed in these videos and posts. Best of all, the response to this content from the park's diverse community of OHV recreationists was overwhelmingly positive.

The park Interpreter worked collaboratively with park rangers and environmental scientists to develop park signage to educate visitors on a 4x4 area improvement project. The outdoor areas around the Environmental Training Center, including the two training ranges and shade ramadas, were utilized by special event promoters and Department staff to provide various socially distanced OHV training programs involving ten or fewer people.

# Chapter 2
# OHMVR Resource Management Programs

Chapter 2 describes the natural and cultural resource management programs of the OHMVR Program and at State Vehicular Recreation Areas. This chapter includes the following OHMVR Commission Program Report Requirements:

**Report Requirement 1:** A summary of the process, standards, and plans developed according to this chapter.

**Report Requirement 2:** The condition of natural and cultural resources of areas and trails receiving state off-highway motor vehicle funds and the resolution of conflicts of use in those areas and trails.

**Report Requirement 4:** A summary of resource monitoring data compiled and restoration work completed.

# Connecting with Youth through OHV Recreation

**Hungry Valley SVRA Hosts Youth for a National Youth Project Using Minibikes Rodeo Event**

*Story from: Don Schmidt (from the Off-Highway Motor Vehicle Recreation Division), and Jorge Moreno (from the Communications and Marketing Division)*

The kickoff to a fantastic new partnership took place last week at Hungry Valley SVRA when youth from Los Angeles and Bakersfield came out to participate in a two-night, three-day "rodeo." It was part of a new joint venture between California State Parks' OHMVR Division and the National Youth Project Using Minibikes (NYPUM). This unique partnership provides mentoring and education for urban youth through off-highway motorcycle recreation. Using the trail bike outdoors, NYPUM captures a young person's imagination and enthusiasm and harnesses it to promote positive change and growth.

This event was not a typical rodeo, as there were no bucking broncos, horses, or roping involved. An NYPUM rodeo involves youth competing in fun, challenging events while riding on trail bikes.

The Los Angeles Police Department Off-Road Enforcement Unit and the Bakersfield Youth for Christ organization are new NYPUM partners near Hungry Valley SVRA. NYPUM, now in its 50 years, has had a long-term presence in California, both in Los Angeles and El Centro.

Youth from Los Angeles, ages 10-17, spent three days camping and experiencing the beautiful mountain environment at the park's Honey Valley Group Camp. This event was the first camping experience for some of the children. For many, this was their first time away from home – and they loved it!

"Because of where I live and, I guess, because of the economic status of my family, I wasn't really able to get into this kind of thing," said 17-year-old Brissenia Rojo from South Central Los Angeles. "I am a person who goes for an opportunity when I have it, and this was an open opportunity, so why not try it." She added that learning how to ride the motorcycle, camping, and disconnecting from her phone (there's no signal at the park) had been one of the most fun experiences she has had.

The early morning hours were spent on trail rides and skills practice over varied terrain. After breakfast, fun, competitive events tested what they learned during their 21 NYPUM riding certification lessons. To master the "Slow Race," the competitors had to ride as slow as possible over the rocky dirt while maintaining their balance. The Four Barrel Race and Relay Race challenged the riders with speed and turning skills, while the Hot Dog Race required a rider to stay balanced and attempt to bite into a hot dog suspended over the track. On their last day,

after competing for bragging rights, ribbons and participation medals were awarded to all the children for all their hard work.

"I would recommend this to everyone in my community because it's really fun, and it builds your confidence in doing something new," said Brenijia Barnes, 16, from Imperial Courts.

Besides learning how to ride motorcycles, the youth had a chance to hear from various staff about the many career opportunities within the Department. Some of the most valuable aspects of the partnership are the mentoring and educational opportunities California State Parks can provide. To further this idea, Great Basin District Superintendent Russ Dingman and other staff members from the district (Maintenance Chief Chad Rowan, Senior Environmental Scientist Chris Hon, Rangers John Cunningham, and Vince Burke, and Chief Interpreter Steve Ptomey) along with Smokey Bear and a local U.S. Forest Service fire crew, spent time talking about their jobs and career paths.

The interpretive staff from the district put on a variety of demonstrations that included a wildlife exhibit from Hungry Valley SVRA, period artifacts from Colonel Allensworth State Historic Park, and the Dragoon Era military exhibit from Fort Tejon State Historic Park. OHMVR Division Chief Brian Robertson and OHMVR Commissioner Paul Slavik also helped demonstrate the firing of the Mountain Howitzer from Fort Tejon. It was an afternoon the children would never forget.

## Over Snow Vehicle Program

The OHMVR Division serves as the lead agency for the statewide Over Snow Vehicle (OSV) program, a cooperative effort to provide wintertime recreation opportunities throughout California. The OSV program primarily operates under a Cost Share Agreement (CSA) with Region Five of the US Forest Service (USFS). Additional support is provided by various program partners, including county government agencies, volunteer groups, and private contractors. Together, everyone provides a comprehensive network of 26 trail systems with over 1,700 miles of groomed trails. These trails are primarily used for motorized recreation; however, they are also popular among cross-country skiers, snowshoers, and dog sledders.

### Training

In 2018, the OSV program updated the training requirements for its grooming tractor operators. Under the new requirements, each operator must complete the Entry Level Snow Grooming course before operating a state-owned tractor. In October 2018, the OSV program held a three-day training event for all current operators to bring everyone into compliance. The event was hosted and facilitated by the PistenBully Pro Academy in Reno. Fifty operators from 15 trail systems were in attendance and completed the course. As a result, the OSV program

achieved 100% compliance with the new training requirements. In future years, similar events will be held as necessary to maintain full compliance.

**Online Training**

The PistenBully Pro Academy recently released an online version of their Entry Level Snow Grooming course. The OSV program has made this course available to newly hired tractor operators, allowing them to begin learning while awaiting a training event. Upon completing the online course, new operators can operate the state-owned tractors with a pre-approved veteran operator.

**Advanced Practical Training**

Each season, the OSV program chooses locations to receive Advanced Practical Training. For this course, expert instructors provide hands-on training to a small group of operators, using their assigned state-owned tractor on their home trail system. The curriculum, which usually focuses on advanced grooming techniques, is tailored to fit the needs of the local trail system and its operators. Training locations are chosen based on a variety of factors, including operator experience, operator interest, snow conditions, instructor scheduling, and recent technological upgrades.

## Emissions and Fleet Upgrades

In 2004, the Environmental Protection Agency (EPA) finalized its Tier 4 emissions standards for "non-road" diesel engines. These standards strictly regulate the amount of particulate matter and nitrous oxide emitted from off-highway diesel equipment. The Tier 4 diesel engine standards were phased between 2008 and 2015.

Executive Order B-16-2012 applied these and other EPA standards to California's state vehicle fleets. It required state agencies to retire their high-emissions vehicles through the usual replacement process. As part of the OHMVR Division's plan to comply with the order, the OSV program was tasked with retiring its fifteen "dirty diesel" snow grooming tractors. Between 2013 and 2018, the program replaced twelve of its tractors with Tier 4 compliant equipment. The new Tier 4 grooming tractors have met the strictest EPA requirements to date.

In recent years, PistenBully (PB) has improved its engine compliance. They developed an improved version of their model PB 100, which provides the lowest emissions available on the US snow grooming market. In January of 2020, the OSV program added two new PB 100s to its grooming fleet. Field operators have been thoroughly impressed by the performance of the new tractors, reporting enough power to keep up with high-demand trails while consistently producing near-zero emissions. In the fall of 2021, the OSV program will replace its final "dirty

diesel" tractor with a third PB 100. This replacement will bring the entire OSV program fleet into compliance with Tier 4 standards.

**Surplus Grooming Tractors**

During the fall of 2019, Butte County approached OSV program staff about purchasing a surplus grooming tractor. The tractor would be used for backcountry search and rescue. A short time later, Lassen County made a similar inquiry. With two pending replacements scheduled for January, it was the perfect opportunity to support local communities with valuable public safety resources. After meeting with OHMVR Division management, the tractors were offered to the counties in February 2020. Both grooming tractors have since contributed to saving multiple lives. Based on the success of these two transactions, the OHMVR Division is considering a similar arrangement for the final tractor retirement.

**Telematics Installation in Snow Groomers**

In December 2020, DGS released Management Memo (MM) 20-06, requiring all state agencies to equip their fleet assets with telematics systems. Telematics systems use GPS technology to track and report all vehicle use activity and collect and store on-board diagnostic information such as odometer readings, maintenance needs, and fuel consumption.

In January of 2020, in anticipation of the impending mandate, the Department management chose the OSV program to pilot the new telematics systems. The program's small fleet and remote locations would enable the Department to test the technology under incredibly challenging circumstances. The telematics devices were added to the OSV program's fifteen snow groomers and tested throughout the 2020/21 snow season. The devices performed exceptionally well, producing accurate data despite the remote conditions.

The telematics data can provide additional benefits beyond mobile equipment management. In the future, the OSV program plans to use the data to create a compressive mapping and environmental monitoring system. This new system will enable the Division to perform extensive ecological analyses and implement mitigation measures more effectively.

**SNO-Park Program**

The California SNO-Park Permit Program was established under Public Resources Code (PRC) Division 5, Chapter 1.27, effective September 30, 1984, to provide parking facilities for winter recreation. The OHMVR Division administers the SNO-Park Permit Program.

There are currently 18 SNO-Parks throughout the state providing access to snow play, cross-country skiing, dog sledding, and snowmobiling on U.S. Forest Service (USFS) land from November 1 to May 30 each year. The program is self-funded, utilizing the Winter Recreation

Fund through parking permit sales. Ten of the SNO-Parks provide access to recreation for Over-Snow Vehicles (OSV). The Off-Highway Vehicle Trust Fund supports these sites in conjunction with the Winter Recreation Fund, ensuring that the Off-Highway Vehicle Trust Funds only pay for the motorized portion of use. SNO-Park permits for the day are $5.00 and the season permits are $25.00. Permits are sold online at local vendors and the OHMVR Division office by mail and front counter.

**2018-2021 Highlights**

**SNO-Park enhancements –** The USFS Special Use Permit that allows the OHMVR Division to operate the non-OSV-related SNO-Parks requires an annual investment. These funds are used for repairs or improvement projects at the SNO-Park locations. Some important projects have been completed through this process, including ADA enhancements to facilities allowing for a more accessible visit for all recreationists.

**SNO-Park Day Use and Season Pass Sales**

**Pass sales –** The table below shows day-use passes and season passes sold during fiscal years 2017-2021. Day-use pass sales increased 51% from 2017/2018 to 2020/2021. Season passes increased 46 percent during the same time.

| **Season 2017-2018** | |
|---|---|
| Day Passes Sold | 20,948 |
| Season Passes Sold | 5,193 |
| Day Use Revenue | $92,181.40 |
| Season Pass Revenue | $122,067.00 |
| Total Revenue | $214,248.40 |

| **Season 2017-2018** | |
|---|---|
| Day Passes Sold | 34,577 |
| Season Passes Sold | 7,221 |
| Day Use Revenue | $152,150.20 |
| Season Pass Revenue | $169,737.00 |
| Total Revenue | $321,887.20 |

| **Season 2018-2019** | |
|---|---|
| Day Passes Sold | 28,125 |
| Season Passes Sold | 7,188 |
| Day Use Revenue | $123,754.20 |
| Season Pass Revenue | $168,836.50 |
| Total Revenue | $292,590.70 |

**Season 2020-2021**

| | |
|---|---|
| Day Passes Sold | 41,048 |
| Season Passes Sold | 11,143 |
| Day Use Revenue | $180,620.80 |
| Season Pass Revenue | $261,899.50 |
| Total Revenue | $442,520.30 |

**Totals for all years**

| | |
|---|---|
| Day Passes Sold | **124,698** |
| Season Passes Sold | **30,745** |
| Day Use Revenue | **$548,706.60** |
| Season Pass Revenue | **$722,540.00** |
| Total Revenue | **$1,271,246.60** |

# Chapter 2: OHMVR Program Natural and Cultural Resources Program

Protecting California's most valued natural and cultural resources and creating opportunities for high-quality outdoor recreation is central to the mission of California State Parks. The OHMVR Division provides balanced OHV recreation for long-term use. The OHMVR Division conserves and improves cultural and natural resources at each State Vehicular Recreation Area (SVRA) through adaptive management programs, such as implementing the Wildlife Habitat Protection Plan (WHPP) and the Soil Conservation Standard and Guidelines, under PRC Sections 5090.35(b)(1), 5090.35(c), and 5090.43. Cultural resources afford a high resource preservation and protection level to comply with PRC Sections 5024, 5024.1(g), and 5024.5. The OHMVR Grants and Cooperative Agreements Program projects also have the same natural and cultural resource conservation and improvement objectives (see chapter 3, OHMVR Grants and Cooperative Agreements Program).

Effective January 1, 2018, Senate Bill (SB) 249 amended the OHMVR Program legislation (commencing with PRC §5090), enhancing several requirements for managing and reporting on the health of SVRA natural and cultural resources. Report Requirement 1 describes the new legislative requirements and State Parks' processes and methods to meet statutory requirements. It also describes statewide OHMVR Division resource management programs implemented at SVRAs.

The second part of this chapter presents the content for Report Requirements 2 and 4. First, the section gives an overview of cultural and natural resources at SVRAs. Then, it describes resource management programs, a summary of monitoring data, restoration programs, and other relevant program information. See Appendix B for the legislative codes referenced in this chapter.

## Report Requirement 1

### Wildlife Habitat Protection Plan

Ongoing monitoring efforts are essential for understanding, conserving, and improving the condition of the natural resources of an SVRA. The type of monitoring conducted can be specific to determine the condition of an individual sensitive species or broad to assess an entire ecosystem's health. The OHMVR Division and district staff developed Wildlife Habitat Protection Plans (WHPPs or WHPP) at each SVRA to assist resource managers in maintaining and protecting current wildlife populations and their habitats.

The WHPP includes a baseline inventory of plant and animal species and plant communities identified within the SVRA. Soil types will be covered in the Soil Conservation Plan for each

SVRA that is currently being developed. The WHPP also implements an annual monitoring program and makes recommendations for managing the SVRA to sustain biodiversity. All SVRAs, except for Onyx and Clay Pit, currently have an existing WHPP, developed in the 1990s and updated or revisited in 2010. Onyx and Clay Pit SVRAs have implemented their draft WHPPs until the Plans are revised and finalized.

As a direct result of the passage of SB 249 in October 2017, WHPPs have taken on additional significance and scope. The following is a summary of the legislative changes for WHPPs:

- Requires preparation of a WHPP that conserves and improves wildlife habitats for each SVRA.
- Changed standard from “viable species composition” at each SVRA to “conserve and improve habitat” at each SVRA.
- Requires the OHMVR Division to compile, review, and periodically update an inventory of wildlife populations.
- Requires WHPP to be developed in consideration of statutorily required state and regional conservation objectives.
- Requires WHPP to apply the best available science.
- Requires annual monitoring to determine whether the objectives of WHPPs are being met.
- Requires WHPPs to provide opportunities for public comment, including but not limited to written comments and public meetings.
- No longer specifically authorizes modification of the natural environment to enhance the recreational experience.
- No longer requires a public hearing to establish sensitive resource areas.
- Requires OHMVR Division to provide for the conservation of natural and cultural resources, including appropriate mitigation.
- Requires the anticipation and prevention of accelerated and unnatural erosion and other OHV impacts.
- Requires the OHMVR Division to take the steps necessary to prevent damage to significant natural and cultural resources within SVRAs.

**WHPP Update Process**

State Parks formed a working group with OHMVR Headquarters, SVRA, and Natural Resource Division (NRD) staff to develop a WHPP framework document to guide the revision, update, and development of WHPPs for the nine SVRAs, spanning 145,000 acres within the State Park System. The working group formed in 2018 and held 13 workshops and more than 30 coordination and working meetings – including onsite meetings at Carnegie, Prairie City, Hollister Hills, Oceano Dunes, and Hungry Valley SVRAs – to ensure the framework met staff needs and statutory requirements. Once drafted, OHMVR Division and NRD technical staff, leadership, SVRA natural resource staff, managers, and district superintendents reviewed and provided feedback on the framework. The final framework document was approved in April 2021.

The working group created specific objectives to update the WHPP for each SVRA. These objectives demonstrated how each WHPP meet statutory requirements:

- Use updated inventories of wildlife populations to prepare a wildlife habitat protection plan that conserves and improves wildlife habitats (PRC §5090.35. (c)(1)).
- Identify rare or endangered plant and animal species and their supporting habitat for sensitive area consideration (PRC §5090.43 (b)). Incorporate objectives that target the protection, conservation, and improvement of natural resources within SVRAs.
- Incorporate consideration of statutorily required State and regional conservation objectives for existing and new SVRAs (PRC §5090.32. (g)).
- Develop and incorporate an annual monitoring program that assesses whether objectives of the WHPP are being met (PRC Sections 5090.13 and 5090.35. (d))
- Incorporate best available science (PRC §5090.39. (a)).
- Incorporate public comment into the development process (PRC §5090.39. (a)).

**WHPP Adaptive Management Principles**

With the passage of SB249, Section 5090.14 was added to the PRC to define adaptive management more accurately within State Parks' OHMVR program:

> "Adaptive management" means to use the results of information gathered through a monitoring program or scientific research to adjust management strategies and practices to

conserve cultural resources and provide for the conservation and improvement of natural resources.

Adaptive management was defined as the foundation and guiding force behind SVRA monitoring programs and an integral part of updating the WHPP. Adaptive management is inherently linked to the application of the best available science. The WHPP working group also established the principles, structure, and importance of the adaptive management process and its relation to the management of natural resources.

The 2021 WHPP will define the adaptive management approach that guides resource management decisions at their respective SVRAs. Adaptive management programs at SVRAs will work to implement each step. In general, adaptive management loops at SVRAs will address natural resource assessments, identify objectives, implement management actions, develop and implement a monitoring program, and evaluate and adapt management based on monitoring results. Each 2021 WHPP will be written with the next five years and will include projects expected to occur within that time. Some projects may not be known during 2021 WHPP creation; however, the 2021 WHPP will explain how adaptive management is incorporated into all projects.

**WHPP Best Available Science Guidelines**

The Natural Resource Division developed Best Available Science Guidelines (2021) and a formal review process to meet PRC §5090.39(a) requirements. The guidelines define the minimum standard for scientific information and clarify “Best” and “Available” science. These guidelines also provide a set of principles, a taxonomy of the sources of scientific information (e.g., peer-reviewed literature, unpublished technical reports, expert opinion), and criteria for peer review.

**Best Available Science**

Each WHPP will address several factors in applying the best available science (California State Parks, 2021, pp. 10-11). These methods include:

- Clear, well-stated, quantitative, and measurable objectives.
- Comprehensive and inclusive treatment of scientific evidence.
- Use of information relevant to the management unit, ecosystem type, or ecological issue of interest.
- Clear articulation of the issue timeframe or planning horizon.

- The clear connection between the policy/management question, operational goals, scientific hypotheses, and findings/inference.
- Clear and transparent documentation and use of assumptions, conceptual graphical models, description of methods used, and presentation of summary conclusions.
- Logical and appropriate experimental design, standardized methods, rigorous specification of variables, all informed by conceptual model and expert knowledge.
- Proper documentation of data and analytical tools used in analyses and syntheses.
- Analyses identifying and describing assumptions and uncertainties in the data are used to quantify relationships between the target species, habitat, and potential environmental stressors.
- Data engaged in support of the agency determination are presented in spatially explicit context and format.
- Enables understanding of likely environmental consequences of a proposed policy or management decisions.
- Recognizes limitations of data and knowledge gaps.
- Tools for handling uncertainty and disagreement, including adaptive management and a need to revisit conclusions to address limitations and uncertainties.
- Peer review ensures quality and that information is collected and analyzed appropriately via scientific methods.

SVRA resource staff include documentation demonstrating how they applied the guidelines with their draft WHPP upon review by OHMVR and Natural Resource Divisions. The review team then used the guidelines as review criteria to make this determination.

**Public Comment Requirements**

SB 249 includes specific requirements to ensure that the public reviews these plans, provides written comments, and attends public meetings. The corresponding statutory requirements consist of the following:

> **PRC §5090.32 (m)** Post on the Department's Internet website all plans, reports, and studies related to off-highway vehicle recreation developed by the Division.

> **PRC §5090.39 (a)(2)** All standards, plans, and monitoring programs subject to paragraph (1) shall provide opportunities for public comment, including, but not limited to, written comments and public meetings, as appropriate.

Each SVRA will provide the opportunity for the public to review and provide written comments on their 2021 WHPPs. SVRAs will:

- Provide notice to the public of a 30-day public review and comment period.
- Make the draft publicly available during the public comment period on State Parks' OHMVR Division webpage.
- Include one public meeting to present and receive feedback on draft WHPPs.
- Provide the notice to all known stakeholders and interest groups who may be interested in the 2021 WHPP (e.g., interested persons, conservation groups, adjacent landowners, OHV organizations).
- Within the 30-day public comment period, present the WHPP at an OHV Commission meeting.
- Once the draft WHPP is adopted, post the final document, public comments, and responses to public comments on the respective State Park SVRA webpage.

## Wildlife Populations and Inventory Update

Senate Bill 249 amended PRC §5090.35(c)(1) that required the OHMVR Division to:

> Compile and, when determined by the Department to be necessary, periodically review and update an inventory of wildlife populations and prepare a wildlife habitat protection plan that conserves and improves wildlife habitats for each state vehicular recreation area. By December 31, 2030, the Division shall compile an inventory of native plant communities in each state vehicular recreation area to inform plan updates.

Given their close relationship in identifying resources management goals, the OHMVR Division and NRD agreed to simultaneously assess and update the inventory, where necessary, wildlife populations and the SVRA WHPPs. Thus, each SVRA must incorporate a wildlife population and inventory update as part of the park's WHPP update process.

State Parks developed a standardized WHPP framework (2021) document that outlines how each WHPP will meet the mandate and provides guidance for updating wildlife populations and inventories, including desktop research and field assessment.

The desktop research part consists of using the CDFW California Natural Diversity Database, United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation, the California Native Plant Society's (CNPS) Rare Plant Inventory, and other available natural resources databases to update the SVRAs' species lists and occurrence data. Field assessment updates of the wildlife inventories and populations include using species information gathered during the past ten years of standard field assessments and survey methods, conducted as part of the SVRAs' WHPP and resources programs, to update existing data. SVRAs will conduct wildlife inventories and population updates as part of every WHPP update cycle at a minimum of every five years.

In addition, the OHMVR Division collaborates with SVRA resource programs to expand and improve each park's monitoring efforts. An example of this ongoing effort includes using recording equipment and newly recognized software programs to detect and evaluate bird and bat calls and increase species detections and classification rates. With these continued efforts, the OHMVR Division will sufficiently provide an updated wildlife population and species inventory for each SVRA to manage the natural resources at these parks successfully.

## Habitat Monitoring System

The OHMVR Division developed the Habitat Monitoring System (HMS) in conjunction with the WHPP. The HMS program encompasses all monitoring aspects, including survey design and implementation, data capture and management, and statistical analysis and reports. Annual reports interpret and summarize the past year's monitoring efforts that environmental scientists and managers use to make informed decisions about an SVRA's habitat management needs and comply with statutory requirements. The HMS program consists of peer-reviewed standardized scientific protocols that meet the specific needs of the SVRA. Additionally, the program can accommodate new technology, survey, and analysis methods to provide the information managers need to make informed decisions.

The OHMVR Division utilizes consultants to compile, analyze, and summarize monitoring data from SVRAs and provide a peer review of the statistical models, interpretation, and conclusions described in annual HMS reports for each monitoring section. The consultants bring a wealth of knowledge and experience to the OHMVR Program, with backgrounds in federal and state environmental and regulatory compliance; land use planning; water and air quality; vegetation and stormwater management; avian, bat, herpetology, and small mammal studies; geological surveys; and cultural resource management. The consultants also train Division and field staff in their respective fields and assist with developing survey protocols.

## Native Plant Community Inventories

Per Senate Bill 249, Wildlife Habitat Protection Plans must consider state and regional conservation goals (PRC §5090.32 (g)) and require SVRAs to compile an inventory of native plant communities by December 31, 2030 (PRC §5090.35(c)(1)). The OHMVR Division and the NRD implemented the Vegetation Classification and Mapping Program (or VegCAMP) to meet these requirements.

VegCAMP was created when the State Legislature required CDFW to develop and maintain a vegetation classification and mapping standard. The CDFW developed the State Vegetation Standard, based on the National Vegetation Classification Standard, in collaboration with state resources departments, including State Parks, federal agencies, nonprofit organizations, and private entities. The State Vegetation Standard is the best available science regarding classifying and organizing vegetation communities and is considered the "industry standard" within California. It is widely used in wildlife and plant conservation, fire management and analysis, development and planning, climate change analysis, invasive species monitoring, and hydrology and watershed studies. Much of the State has been mapped using the State Vegetation Standard. For more information and maps, visit the CDFW VegCamp website.

OHMVR Division and NRD staff lead the effort to map vegetation communities at the SVRAs using VegCAMP. Additionally, CDFW VegCAMP staff provided guidance, training, and peer review during the field sampling and mapping. Half of the SVRAs completed mapping in 2021 (Clay Pit, Prairie City, Carnegie, Hollister Hills, and Heber Dunes SVRAs). The other half (Oceano Dunes, Hungry Valley, Onyx Ranch, and Ocotillo Wells SVRAs) will complete theirs in 2022. The resulting classifications and maps will be incorporated into each SVRA's WHPP.

Data and analysis methods include field sampling, data analysis, desktop mapping using aerial imagery, and a finished map field accuracy test. Field sampling and data analysis began in spring 2021. By the end of 2022, all nine SVRAs will have complete maps and vegetation community inventories. This information will supply valuable habitat data for resource managers and a standard baseline for future reference. Each map and inventory will be updated as necessary, along with the WHPPs every five years.

## SVRA Avian Monitoring Program

Birds can be one of the most important indicators of the health of any habitat or ecosystem. Thanks to their broad ranges and ability to occupy different ecological niches, birds interact with their environments on many different levels. Additionally, birds are among the most studied and understood taxonomic groups globally, given their diurnal (daytime) nature and relative ease of spotting. These factors make bird population and data easy to compare land

population data with larger trends and population information. California boasts some of the world's most prolonged avian population trend monitoring and data gathering programs and the largest and most popular migratory routes -- the Pacific Flyway.

For these reasons, collecting and analyzing bird population information is a valuable resource tool that can inform the health of habitats, ecosystems, and the potential impacts of land use like recreation. Understanding birds and their populations is a valuable tool that public land managers must consider when managing properties.

In September 2016, the OHMVR Division contracted with the National Audubon Society (Audubon) and the Institute for Bird Populations (IBP) to improve SVRA Avian Monitoring Programs. The initial three-year contract was updated and renewed in 2020 with IBP through December 2023.

The scope of the first contract was to analyze nine SVRA existing avian monitoring data, and evaluate and improve upon the current programs, so that OHMVR and SVRA resource staff may better understand their habitats and make more informed management decisions. The contract included analyzing and summarizing previously collected bird survey data and comparing it to regional bird populations and SVRA-use trends. The consultants and SVRA resource staff created detailed reports evaluating each SVRAs data trends and provided them with specific management goals and actions to better manage the park's habitat and avian resources.

In addition, IBP utilized new approaches to measure disturbance effects from OHV recreation using Autonomous Recording Units (ARUs). The ARUs are self-contained audio recording devices that record ambient noise, including singing birds. A pilot study was conducted at Carnegie SVRA that distributed ARUs over forty-four plots throughout the riding and non-riding areas of the SVRA. The goal of the pilot study was to provide SVRAs with another option for collecting and analyzing survey data and compare the effectiveness of the units and programs to trained surveyors. If proven to be sufficient, ARUs would provide SVRA resource staff more flexibility since they are not dependent on the availability or presence of trained avian specialists to conduct field surveys. Instead, they could capture recordings and send the audio files to an avian specialist for analysis.

The study proved that ARUs is a viable field survey alternative for the SVRAs and could provide more defensible and consistent data for their avian monitoring program.

In January 2020, IBP installed ARUs and provided additional avian support to the SVRAs. Much like the first contract, the scope focused on improving existing SVRA avian monitoring and resources programs. The current contract with IBP was especially valuable as the COVID-19 pandemic hit. Because of the ARUs and planning and coordination efforts in the spring of 2020, staff could conduct annual surveys at their parks with COVID-19 restrictions in place. Typically,

avian surveys require at least two individuals, a trained surveyor and a recorder. The ARU deployment only needed a single untrained person.

The ARU program and collaboration with Audubon and IBP scientists enable State Parks resource staff to gather data more efficiently to evaluate bird populations at the SVRAs. If the program continues to prove successful, managers will have more time and resources to devote to improving habitat and ecosystem health at the SVRAs.

## SVRA Ambient Noise Monitoring

OHMVR Division contracted with CSDA Design Group over five years to monitor ambient noise conditions within the nine SVRAs. This contract aims to determine SVRA contributions to ambient noise conditions, model noise generation for defensive planning purposes, and understand and better manage noise related to OHV use at the SVRA.

To accomplish these goals, the contractor will install at least one permanent monitor per SVRA. Some SVRAs, given their size and topography, will have multiple monitors to capture noise throughout the unit. Additionally, the contractor will monitor at least two SVRA special events per year to understand noise generation during high-use or high-intensity events.

This contract will provide several deliverables for SVRA managers. There will be monthly, quarterly, and annual reports that present modeled noise throughout each SVRA. These reports will also differentiate other noise contributors around the SVRA. For example, a nearby road that substantially contributes to ambient noise levels will be discernable. Additionally, the contractor is providing a real-time data viewer through a web-based platform. Resource managers can use this platform to explore collected data, listen to current conditions, and review spikes in the data. Lastly, CSDA has committed to training SVRA staff to perform noise monitoring, use equipment, and interpret data.

## Soil Conservation Standard and Guidelines

Senate Bill 249 required the OHMVR Division to review and, if necessary, update the 2008 Soil Conservation Standard and Guidelines by December 31, 2020.

> Off-highway vehicle recreation facilities shall be managed for sustainable long-term prescribed use without generating soil loss that exceeds restorability without causing erosion or sedimentation, which significantly affects resource values beyond the facilities. Management of OHV facilities shall occur in accordance with Public Resources Code, §5090.2, 5090.35, and 5090.53.

Managers of SVRAs and OHV facilities receiving monies from the OHV Trust fund must ensure their OHV facilities are maintained to meet the 2020 Soil Standard. Compliance requires that

the best available science practices be incorporated into OHV management. These practices are specific to the management activity, should evolve, and requires management activities to be evaluated over time using robust information and data to inform soil conservation management activities.

The purpose of the review and update was to ensure the Soil Standard used a generic and measurable standard founded in the best available science and subject to public review. The update occurred in consultation with the United States (US) Natural Resource Conservation Service, US Geological Survey, US Forest Service, US Bureau of Land Management, California Department of Fish and Wildlife (CDFW), and the California Department of Conservation (PRC §5090.35 (b)). These state and federal partners formed the Consulting Agency Review Committee for the 2020 Soil Standard update.

The OHMVR Division assembled a multidisciplinary team composed of environmental scientists and engineering geologists, the California Geologic Survey, and the Department's Natural Resources Division. The team developed a survey to gather public feedback on the 2008 Soil Standard. The survey was sent to OHMVR Grants Program recipients from the past three years, the OHV Commission email listserv (comprised of stakeholders and interested persons), SVRA Resource staff, State Park natural resource staff, and State and federal consulting agencies. The team received significant feedback with more than 220 comments. Major themes included:

- A clear explanation of the intent and application of the Soil Standard, including compliance and assessments.
- Additional technical resources, guidance documents, and practical examples to help implement the Soil Standard and project design.
- Updates to the Best Management Practices Manual.

Per the review findings, the Guidelines were updated for clarity, use, and account for technological changes in vehicles used for OHV recreation. The 2020 Guidelines were designed as a step-by-step guide to assist SVRAs and applicable OHV Trust-funded projects in incorporating the best available science into their management. It included references to peer-reviewed research data, agency-published technical reports, information obtained from systematic inventory and monitoring data, and professional expertise and experience.

State Parks presented a revised draft to the Consulting Agency Review Committee for review and feedback. A final draft was posted for public review and comment before being approved on December 30, 2020.

## Storm Water Management Plans

A Storm Water Management Plan (SWMP) is designed to guide park staff to implement a stormwater program. The purpose is to define expectations and direction for those responsible for developing and implementing the stormwater program. Elements outlined in an SWMP may include training or site-specific structural and non-structural Best Management Practices (BMPs) intended to reduce or eliminate pollutant discharges from SVRAs. The SWMPs typically have six minimum control measures: public education and outreach; public involvement and participation; illicit discharge detection and elimination; construction site runoff; post-construction runoff; pollution prevention; and good housekeeping.

OHMVR Division SWMPs may also include management goals and activities for maintaining OHV trails and facilities to meet the park's water quality objectives. SWMPs come in various forms throughout the OHMVR Division. Two SVRAs, Carnegie and Oceano Dunes, operate under the California State Water Resources Control Board's (SWRCB) Water Quality Order No. 2013-0001- DWQ and the National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000004 for waste discharge requirements for stormwater discharges from small municipal separate storm sewer systems adopted on February 5, 2013 (General Permit) as non-traditional permittees. This permit regulates stormwater discharges from municipal storm sewer systems (MS4s).

MS4 is defined by the Environmental Protection Agency (EPA) as a:

> conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manufactured channels, or storm drains): (i) owned or operated by a state, city, town, borough, or county (US Environmental Protection Agency, 2012).

MS4 permits prescribe a stormwater program to reduce the discharge of pollutants to the maximum extent practicable. This program intends to protect the park's natural resources, improve water quality, and meet the NPDES and the Clean Water Act requirements. Many State Parks, including SVRAs, fall under the MS4 permit category throughout California and must develop and implement a program.

Together, the SWMP and related management programs and plans provide an adaptive management framework for SVRAs to protect water quality while providing high-quality OHV recreational opportunities.

## Statewide Collaborative Efforts and Consultant Contracts

The OHMVR Division works with academic institutions and government agencies for technical assistance with monitoring and habitat restoration, while volunteers and stakeholder groups assist with resource protection projects. These relationships also provide learning opportunities for students who will become the next generation of resource environmental scientists and managers.

OHMVR Division environmental scientists are part of the larger scientific community studying species and habitat health and implementing adaptive management techniques for restoration and resource management. Environmental scientists collaborate with many professional organizations such as the California Native Plant Society, Audubon Society, and California Invasive Plant Council to share their work and ideas. Moreover, several local chapters of these organizations also volunteer at SVRAs to help with species counts and habitat restoration projects.

Since 1994, Ocotillo Wells SVRA has been a sitting member of the Interagency Coordinating Committee (ICC), whose responsibility is to determine state and federal policy on flat-tailed horned lizards (FTHL) management, research protocols, and protection status. The OHMVR Division also provides comments and peer review for ICC committee publications, monitoring program design, and management policies.

Several academic institutions work closely with SVRAs to provide technical assistance with monitoring programs and peer review of data and reports. For instance, the Biological Sciences Department at California Polytechnic State University, San Luis Obispo (Cal Poly), works with Oceano Dunes SVRA staff to evaluate existing methods and protocols to monitor the park's bird and small animal populations. In addition, Cal Poly professors hold workshops on these topics with OHMVR Division management and environmental scientists. Students from California State University (CSU) San Diego, CSU Sacramento, and CSU Monterey work with environmental scientists to implement erosion control BMPs on trails and assist with habitat restoration work. These programs allow students to gain practical skills and knowledge in their field of study while districts have access to subject matter experts, enthusiastic interns, and new technologies.

The OHMVR Division hires consultants to review reports and data, train staff, and provide technical assistance regarding local, state, and federal regulation compliance. The consultants have diverse experiential backgrounds ranging from academia, the public sector, and private companies and are experts in their field of study. Consultants have a wide range of tasks, including:

- Assess existing habitat monitoring programs and make recommendations.
- Assist SVRAS in developing programs that meet their specific management needs.
- Provide a review of statistical models, interpretations, and conclusions described in monitoring reports and WHPPS.
- Provide regulatory compliance and specialized training.
- Review projects and prepare related environmental documents.
- Assist the OHMVR division in developing policy and compliance with local, state, and environmental regulatory mandates; and
- Review OHMVR Grants Program applications to comply with the National Environmental Policy Act (NEPA) and coordinate with CEQA.

Consultants also support program-level planning documents such as Habitat Conservation Plans for permit compliance, trail management, restoration plans, interagency agreements, and other legal documents.

The natural and cultural resource programs can meet their management goals through district staff, local and state agencies, and stakeholder groups. At several SVRAs, stakeholders from different interest groups form advisory committees to assist restoration projects, review draft plans and projects; and make recommendations to park managers.

## Road and Trail Management Planning

Road and Trail Management Plans (RTMPs) provide specific guidance and direction for implementing the goals and objectives of the park's approved General Plan. It describes a park's existing road and trail conditions, provides direction for their future management, and includes specific actions for individual roads and trails.

A comprehensive road and trails ensure that recreational trail opportunities are made available at their fullest potential while conserving and enhancing the protection of cultural and natural resources. Although planning can be implemented on a single trail basis, park-wide trail system planning remains the preferred and the most effective method. Comprehensive planning also reduces construction and maintenance costs and identifies preferred management actions for balancing resource protection.

The RTMP process analyzes existing conditions, identifies issues, gaps, and makes recommendations to:

- Maximize visitor use and experiences.
- Reduce potential safety issues.
- Minimize impacts on natural and cultural resources.
- Coordinate with local and regional planning efforts.
- Provide access to surrounding public lands.
- Reduce maintenance and management costs.
- Provide an appropriate range of recreational opportunities and associated infrastructure.
- Limit impacts on the natural environment to a level acceptable under CEQA.
- Prioritize roads and trails projects.

The Strategic Planning and Recreation Services Division manages RTMPs in collaboration with SVRAs and districts. The planning team consists of employees from multiple disciplines (maintenance, public safety, cultural and natural resources, safety training, and support staff) and includes several public involvement and feedback opportunities. Prairie City, Carnegie, and Onyx Ranch SVRAs are currently undergoing Road and Trail Management Planning efforts.

## Cultural Resources Program Overview

All districts have a team of specialists like Cultural Resource Managers, Tribal Liaisons, and Archaeologists who review proposed projects, conduct surveys, monitor projects, and consult with tribes. The Department's Northern and Southern Service Centers provide archaeological support and CEQA review and assist with tribal consultation. The Department's Cultural Resource Division also provides support with tribal affairs and reviews proposed projects and plans. SVRAs may also hire cultural resource firms to conduct resource studies, historic district evaluations, and cultural resource management plans.

The State Office of Historic Preservation reviews and approves projects in compliance with PRC §5024 and 5024.1(g). These code sections require state agencies to take several actions to preserve state-owned historical resources under their jurisdictions. These actions include evaluating resources for National Register of Historic Places (National Register) eligibility and California Historical Landmark (California Landmark) eligibility, maintaining an inventory of eligible and listed resources, and managing these historical resources to retain their historic characteristics. Since the last Program Report, Carnegie SVRA has applied to the California Register of Historical Resources. for the Tesla Mine Complex. Prairie City SVRA investigated whether the Capital Dredging Company complex might be considered a historic district under the National Register or the California Register of Historical Resources (California Register).

**Cultural Resource Inventories**

Conducting cultural resource inventories is a critical tool for SVRAs to identify cultural resources on land under its ownership and occur in compliance with PRC §§ 5024 and 5024 .1(g). The state laws and the results of the cultural resource inventories that have been conducted in Onyx Ranch, Clay Pit, Prairie City, Carnegie, Hollister Hills, Ocotillo, and Oceano Dunes SVRAs were discussed in the 2011, 2014, and 2017 OHMVR Commission Program Reports. Since the last report, Hungry Valley SVRA reviewed recorded archaeological sites in the park and conducted a new cultural resource inventory on the 2014 Acquisition area.

After completing a cultural resource inventory of an SVRA, State Park archaeologists evaluate the significance of known resources according to the National Register and the California Register criteria (California State Parks, 2021). If cultural resources are determined to be eligible for listing in one or both registers, they are designated as "historical resources." State agencies have a high level of resource preservation and protection of historical resources, including avoiding, minimizing, or mitigating adverse project impacts in compliance with CEQA. Refer to the SVRA sections below for updates on their cultural resource management programs.

**Tribal Consultation**

California State Parks conducts ongoing Native American consultation to ensure the identification, protection, and preservation of Tribal Cultural Resources in SVRAs. In compliance with CEQA guidelines, Executive Order B-10-11, Senate Bill 18, the California Natural Resources Agency Tribal Consultation Policy, and State Parks Departmental Notice 2007 Native American Consultation Policy and Implementation Procedures, the OHMVR Division, SVRAs, and the State Park Service Centers work with the State Parks' Tribal Liaison on all consultation matters (California State Parks, 2007). All districts have a State Park-trained employee who is a liaison with the Native American community to engage in ongoing consultation.

State Parks staff conduct extensive outreach and consultation with Native American tribes and individuals during planning and project implementation. Consultation practices follow Departmental Notice 2007-05, which outlines the policy of State Parks to engage in open, respectful, ongoing consultation with appropriate California Native American tribes or groups in the proper management of areas, places, objects, or burials associated with their heritage, sacred sites, and traditional cultural properties or cultural traditions in the State Park System.

For instance, during the general plan revision process for Hungry Valley SVRA, tribal representatives helped identify culturally sensitive areas to avoid or mitigate future SVRA development. Likewise, at Prairie City SVRA, the United Auburn Indian Community met with park staff on a Road and Trail Management Plan for the unit. When projects occur at SVRAs, staff work with interested Native American tribes early in the project planning phase to develop

mitigation efforts or avoidance measures and serve as Native American monitors during project implementation.

Consulting with tribes is a critical step in complying with archeological resource protection laws such as the National Historical Resource Preservation Act (NHPA), Archeological Resource Protection Act (ARPA), and CEQA. For example, Ocotillo Wells SVRA archaeologists work with the Tribal Most Likely Descendant (MLD) of the area as a crucial part of the decision-making process to protect sensitive archaeological resources and mitigate the threats OHV traffic can pose.[2] See the Ocotillo Wells SVRA section below for more information about their consultation work with MLDs.

Native American tribes also share their expertise with interpretive staff to develop appropriate exhibits and educational materials for the public. For example, Northern Chumash tribal representatives worked with interpreters at Oceano Dunes District to create educational content and messaging that accurately reflect their culture from their perspectives for the district's Interpretation Master Plan. The Indian Canyon Mutsun Band of Costanoan Indians has been integral to developing interpretive programs at Hollister Hills SVRA. Tribal representatives provided training to SVRA staff on aspects of their culture and participated in educational programs for the public.

**Monitoring Programs**

As discussed in previous program reports, State Park archaeologists monitor significant historical resources using Archaeological Site Condition Assessment Report forms and the California Archaeological Site Stewardship Program (CASSP) volunteers' help. CASSP pairs trained volunteers with archaeologists to monitor sites and preserve prehistoric and historic cultural resources at the SVRAs. The combined experience all parties bring to the table creates a greater understanding and appreciation of the complexities of managing an OHV recreation program in a regulatory environment. These collaborative efforts provide the OHMVR Division and Districts with the information needed to make informed management decisions and keep the OHMVR Program sustainable for the long term.

[2] California State law invests the Native American Heritage Commission (NAHC) with authority to designate a Most Likely Descendant (MLD) when Native American human remains, and any associated grave goods are inadvertently discovered outside of a dedicated cemetery. The NAHC defines an MLD as the most likely descended culturally affiliated, California Native American tribe or Native American descendent that may recommend to the owner or the person responsible for the discovery work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods, under PRC §5097.98(a)).

Damage to historical resources can occur from intentional destruction (e.g., construction projects, prescribed burns, looters) or inadvertently caused deterioration (e.g., trail down cutting, erosion, vehicle traffic, and natural causes). An ongoing resource monitoring program ensures staff immediately identifies resource impacts and establishes proper resource preservation measures to avoid, minimize, or mitigate effects on the resources.

Clay Pit SVRA and Prairie City SVRA do not have ongoing cultural resource monitoring programs because the data collected from their cultural resource inventories did not identify any significant historical resources that require regular monitoring. However, ongoing resource monitoring programs exist at Carnegie, Hollister Hills, and Oceano Dunes SVRAs. Cultural resource inventories are ongoing at Ocotillo Wells SVRA.

## Summary of SVRA Cultural Resource Programs

*Carnegie SVRA*

Diablo Range District had the opportunity to hire a new associate state archaeologist position in March 2020, which has enabled staff to increase cultural resource monitoring and expedite project implementation at Carnegie and Hollister Hills SVRA.

Carnegie SVRA monitors its cultural sites for damage or impacts weekly. No changes to cultural resources have occurred since the last program report. Wildfires at the park create one of the biggest concerns with protecting cultural resources-- it has burned several times since 2017 and twice in 2020. Cultural resources risk exposure and damage from fires. Surveying and monitoring sites for fire damage have increased in recent years. There are numerous historical artifacts such as bricks, pottery, china, terra cotta, and other construction materials surrounding the original area of the SVRA. Fortunately, the fires and fire suppression efforts did not damage any cultural resources.

The lack of vegetation due to fire has led to an increase in people collecting and moving artifacts. The 2016 Carnegie SVRA General Plan recommended staff participate in an annual cultural sensitivity training, which the district implemented. This training teaches park staff what to look for in the landscape, guidelines to address visitor collecting, and what to do if visitors turn in artifacts. Although this training is best conducted in person, it was held virtually in 2020 due to COVID-19 pandemic restrictions.

Carnegie SVRA has an ongoing CASSP program where trained volunteers help monitor important sites that park staff cannot visit as often. The CASSP volunteers have not reported any site damage since 2017.

Carnegie SVRA staff routinely consult with Native American tribes per CEQA requirements, state and department policies. Part of this consultation is about identifying, recording, and protecting cultural sites in the park. The cultural program aims to increase consultation and Memorandums of Understanding with Native American tribes for gathering access and ceremonial practices.

In 2020, the cultural resource staff evaluated seven park infrastructure projects, including sign placements and a new power pole installation. Of these projects, only one needed a historical resources review (per PRC §5024 and 5024.5) as the project occurred within a historic site. Cultural resource staff surveyed and monitored the site to ensure it had no impact on resources. Additionally, no projects required tribal consultation as they were routine maintenance or occurred in historical sites.

Carnegie SVRA developed educational content for programs and public outreach about the park's prehistoric and historic landscape. For instance, interpreters created a video series on the Carnegie Brick and Pottery Company and the Tesla Mining Company. These videos are intended for young children and inform them about the park's history where they ride. Links to the interpretation are below.

- Carnegie Brick and Pottery Video on Facebook: https://fb.watch/3QW5IW3hDe/
- Carnegie Brick and Pottery Video on Flipgrid: https://flipgrid.com/6ac12ef3
- Tesla Coal Mining on Flipgrid: https://flipgrid.com/d08c23f7

**Oceano Dunes SVRA**

Oceano Dunes SVRA and Pismo State Beach have a long history of human habitation and land use. Cultural resources include prehistoric, historical, and contemporary sites and artifacts. Several people with different professional backgrounds work as a team to protect cultural resources and educate the public, including archaeologists, historians, curators, environmental scientists, maintenance workers, interpreters, and public safety staff. Archaeological duties include investigating cultural sites, monitoring projects, researching, writing technical studies, environmental compliance, and acting as the tribal liaison for the district with Native American groups and individuals: visitor services, resources, and maintenance staff help by monitoring sites and erecting barriers to protect them. The interpretation staff collaborates with local Native American groups and archaeologists to prepare educational materials for the public and schools.

State Archaeologists and State Historians are also crucial to the Oceano Dunes District resource management and environmental compliance programs. Both specialists are required to be

consulted with and provide, as a necessary, formal environmental review of department projects and actions to ensure that no adverse changes or impacts occur to significant cultural or tribal resources. They are key to complying with professional Departmental cultural resource management procedures and practices to ensure compliance with the CEQA and Public Resources Code 5024.5.

**Ocotillo Wells SVRA and Heber Dunes SVRA**

**Consultation**

As an OHV recreation area, resources at Ocotillo Wells SVRA face unique threats from recreational activities. What seems like a barren desert wasteland holds significant history and cultural heritage for many. As visitors use the park for its intended purposes, SVRA staff face unique challenges in balancing responsibilities to provide recreational opportunities and protect significant cultural resources adequately.

Ocotillo Wells District's work consulting with the Tribal Most Likely Descendant (MLD) of the area has been crucial in the decision-making process to protect sensitive archaeological resources and mitigate the threats OHV traffic can pose. Some examples of projects where an MLD has been a colleague include:

- Approving concepts for palm restoration projects that help sustain the fragile desert ecosystem.
- Determining the most appropriate way to fence sensitive sites.
- Assisting with fence expansion efforts.
- Working as a tribal monitor for portions of the ongoing geothermal seismic exploration project on private inholdings within the park.

Collaboration with tribal nations provides cultural resource managers with guidance on resource protection, such as collecting and curating artifacts for future generations, performing residue testing, and dating. After proper analysis and recordation are conducted, artifacts are stored and curated, as appropriate, at the Imperial Valley Museum. The SVRA MLD has advised the SVRA to keep artifacts together to allow tribal members and interested community members to view and learn about the objects and their culture.

**Site Monitoring at Heber Dunes and Ocotillo Wells SVRA**

Archaeological site monitoring is an integral part of a cultural resource specialist's work, especially at a busy park like Ocotillo Wells SVRA. When managing 85,000 acres, many fences or

signs need attention, and there is a constant stream of projects to maintain facilities and trails. Between 2017 and 2020, the cultural resources team monitored 76 individual projects. Projects were internally generated through a project review system and externally generated from special event permits and scientific permits.

As most projects take place on previously disturbed ground, it is relatively rare that anything new of archaeological significance is found. However, some monitoring projects have shown evidence of farms and homesteads that used to occupy the land now managed by the Ocotillo Wells District.

**Archaeological Survey**

Cultural resource staff continually survey the park to locate and record items modified by humans in the past and hike through what seems like an endless expanse of desert. Surveying also helps facilitate special event permits, internal projects, and ongoing maintenance. In 2016, cultural staff started to survey the highest used special event areas, such as campgrounds, to help streamline the review process for events. This effort eventually morphed into a push to thoroughly survey every mapped and named trail within the trail system. Each trail was assigned a buffer corridor on either side of the trail, and then cultural staff surveyed within the corridor to locate and record all cultural resources.

With over 60 mapped trails, this has been a significant accomplishment. Over the years, the district received help from Southern Service Center archaeologists to survey large sections of the trail. Internally, Ocotillo Wells SVRA has supplemented two to four cultural resource staff, depending on staffing levels. The trails project will be finalized in 2021. The SVRA conducted a systematic pedestrian survey of 84 miles of trail (equivalent to 4,000 acres), identified 221 new isolates,[3] and located 93 new sites.

The data collected from those new sites and isolates were then submitted to the South Coastal Information Center and managed within the district's cultural resource databases. Once the data is entered into GIS databases, the information can be presented on a map. It has helped immensely with the project review process. Visually understanding the spatial relationship between artifacts, sites, and park infrastructure allows staff to make decisions quickly to protect cultural resources effectively.

**Cultural Resource Training**

[3] An isolate is an area where a few artifacts are found (such a place where a person made tools and left behind rock shards) that contribute information about a culture, period, or function.

Starting in late 2018, the cultural resources staff has held cultural overview training for new employees. This training is a helpful and effective way to introduce the cultural resources program, the general history of the area, and what employees should do when encountering artifacts in the park. Cultural resources staff held multiple sessions for maintenance and trails staff from Ocotillo Wells and Heber Dunes SVRAs, and eventually expanded to include public safety and interpretive staff. After the presentation, there is a hands-on portion where employees can pick up and look at artifacts within the training collection. Most of this collection came from visitors who 'found something cool' and decided to bring it back to park staff. At that point, cultural staff usually lack the necessary data to return it to its original context.

This training is crucial because it provides face time with employees, gives them a way to communicate if they find something that might be an artifact. This time also helps cultural staff explain why they may object to something being done a certain way in the park because of a potential threat to cultural resources. The training integrates the "why" and "what we do," resulting in a better understanding between disciplines. Teaching park employees the park's rich history affords them a more profound knowledge of the land and people who utilize it and garner excitement to protect cultural resources in the future.

*Prairie City SVRA*

**Uncovering Prairie City SVRA's gold dredging history**

Perhaps the most familiar landforms at Prairie City SVRA are large piles of rock cobbles or dredge tailings deposited from past dredge gold mining activities. In 2004, States Parks purchased 211 acres at the northern portion of the SVRA, known as the Yost property. It was incorporated into the Prairie City General Plan in 2016 and was identified as part of the OHV route and trail use area. In 2018, SVRA staff started work on a road and trail management plan to design the park's trail system, including the Yost area.

The OHMVR Division hired an archaeological firm to research the historical land uses in the Yost area. The tailing piles, dredging ponds, and ranching materials left behind were intriguing, and the SVRA wanted to ensure it protected significant cultural resources before implementing a trails system here. The firm investigated whether the property might be considered a historic district under the National Register or the California Register.

Prairie City SVRA, like much of the surrounding region, was actively mined for gold and later sand and other aggerates. Although the remains of earlier placer mining operations are not present, Prairie City SVRA displays the remains of bucket-line dredging operations of the Capital Dredging Company, which operated from 1927 to 1952 in the western portion of the present-day SVRA. The Yost property was used primarily for cattle ranching after 1952. Intermittent sand and aggregate mining occurred here from 1958 until 2012. While much of the dredging

operations are intact, the firm found that it did not meet the requirements for registration as a historic district.

This analysis gave State Parks a wealth of information about gold-dredging activities in the park, especially how it connects to the Sacramento region. Interpretive staff will use the report to develop interpretation for riders who enjoy the trails and create educational materials and programs for interested public and schools.

**Prairie City Hosts the United Auburn Indian Community for a day of OHV Fun**

Members from the United Auburn Indian Community (UAIC) came out to Prairie City SVRA to enjoy a day of riding, food, and fun. The park was excited for such an opportunity to have a day with the tribe. Many members brought out their OHVs, such as dirt bikes, ATVs, and Side by sides. Park staff helped by providing loaner safety gear such as helmets, goggles, and gloves to members and children alike.

After a great morning of riding, UAIC provided lunch and a raffle for its members. State Park Interpreter Peter Ostroskie and Law Enforcement Ranger Dave Harte taught an ATV Safety Institute class to some children in the afternoon. Others enjoyed a little bit of competition over at the All-Star Karting track. The Big Time Speedway, one of the concessionaires at Prairie City, hosted UAIC in the evening. Even having one of the members ride the opening lap at the September 11, 2001 tribute race.

# Report Requirements 2 and 4: Condition of Natural Resource Monitoring Summaries and Restoration Projects at SVRAs

## Carnegie SVRA

### *SVRA and Environmental Setting*

Carnegie SVRA is in the hills of southern Alameda and San Joaquin Counties between the cities of Livermore and Tracy. The SVRA provides 1,200 acres of OHV recreation opportunities and offers beautiful scenic vistas for trail riding. Carnegie is distinctive for OHV recreation of all skill levels, and it is especially suited for motorcycle use because of its steep hills and narrow trails. The canyons provide a variety of terrain for trail riding, including some extremely challenging hill climbs. Park elevations range from 650 feet to 1,750 feet above sea level, and the weather is generally a semi-arid Mediterranean type with wet, mild winters and long, dry summers.

The park currently manages approximately 1,500 acres. The north side of Original Carnegie is grassland with durable clay soils. The south side contains sensitive habitats of the park, such as coastal scrub and oak woodland. The soils in these habitats are less stable and need vegetation to minimize erosion from stormwater. The vegetation, once disturbed, can take several years to reestablish.

The park is home to the federally listed threatened Alameda whipsnake, California red-legged frog, and California tiger salamander. Because of the presence of these listed species, along with the need to clean out sediment basins annually, several regulatory permits are required by both state and federal agencies.

### *Resource Management and Monitoring Programs*

**Monitoring Soil Erosion on Trails**

Carnegie SVRA has several miles of trails that accommodate motorcycles, ATVs, and emergency vehicles. SVRA staff use and improve upon evaluations from the Department's Soil Standard to examine the degree of compaction (static, dynamic, or kneading), water travel (rilling, gullying, slope, berming, or whooping), soil saturation, and erosion prevention along every trail. These evaluations help protect water quality, habitat and ensures visitors have the best riding experience. In 2016, the SVRA transitioned to using Global Positioning System (GPS) equipment to collect the data and Geographical Information System (GIS) software to store the data. SVRA managers use the data to monitor the trail system and plan for rehabilitation projects (see the Black Bear Resource Management Area project below), trail maintenance, and regulatory compliance.

**Storm Water Management Plan in Action**

The OHMVR Division initiated an aggressive stormwater management program at Carnegie SVRA to protect natural resources, improve water quality, and meet the NPDES and the Clean Water Act requirements. SVRA staff planned and implemented several projects and programs to achieve these water quality objectives. The OHMVR Division initiated a study of the Corral Hollow watershed in 2004. The primary goal of the assessment was to provide the OHMVR Division, Carnegie SVRA staff, and community stakeholders with an understanding of historical occurrences that have shaped the watershed. Based on the assessment's findings, the OHMVR Division developed recommendations to reduce future erosion and sediment concerns and return Corral Hollow to a properly functioning watershed while maintaining visitor satisfaction and preserving the area's historical value. These conclusions and recommendations are presented in the *Final Corral Hollow Watershed Assessment* (California State Parks, 2007).

The findings from the watershed assessment were used to develop many recommendations designed to reduce erosion and sediment issues through innovative BMPs and an active adaptive management framework focused on meeting water quality objectives. This framework includes continual assessment of erosion and sediment generators, implementation of appropriate BMPs, ongoing monitoring and evaluation of these actions, and plans for long-term maintenance to ensure the success of these actions. Other components of the stormwater management program include the ongoing development and implementation of the Trails Management Plan; the implementation, monitoring, and maintenance of projects associated with the Soil Standard; implementation of annual species surveys and habitat restoration activities related to the WHPP/HMS program; and use of the OHV-specific BMP manual for selecting, implementing, and maintaining appropriate BMPs.

The next phase of the SWMP included developing the plan and implementing it in 2012. The purpose of the SWMP is to reduce or eliminate pollutant discharges from Carnegie SVRA using site-specific structural and non-- structural BMPs to protect and improve water quality while providing high-quality OHV recreational opportunities. Elements of the SWMP include public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site stormwater management, post-construction stormwater management, and pollution prevention/good housekeeping. The SWMP also included an OHV element dedicated to discussing management goals and activities for maintaining OHV trails and facilities to meet the water quality objectives.

Since 2012, several elements of the SWMP have been implemented. The following section describes the Resource Management Area (RMA) rehabilitation and public outreach and participation elements of the SWMP.

The RMAs are discrete zones established to better plan and implement management activities of areas with common characteristics. For the most part, the RMAs were divided into sub-watersheds and cover the Original Carnegie. The RMAs are connected through a trails network and are part of the overall Carnegie SVRA Trails Management Program. Carnegie SVRA's resource and trail staff plan and create new sustainable trails to provide a balance between recreation and habitat.

East Kiln RMA has shown no apparent signs of off-trail riding. These trails have proven to be sustainable and have not demonstrated high stormwater concentrations elsewhere. These trails are usually incorporated into the RMAs trail network. Trails that have been identified as erosive per the soil conservation program's dataset are eliminated from the trails network, and the area is restored.

**Public Education and Outreach with Storm Water Management**

In 2011, Carnegie SVRA, working with the Central Valley Regional Water Quality Control Board, created and adopted an SWMP to reduce or eliminate pollutant discharges and meet NPDES requirements and the Clean Water Act requirements.

The SWMP mandates public education. Carnegie SVRA developed a brochure and interpretive panels to educate visitors about the importance of protecting and improving water quality by recreating responsibly and teaching visitors about water quality protection.

The educational brochure explains potential sources of pollutants in the park and the detrimental impact of those pollutants on the area's wildlife, water quality, and public health. It identifies ways to prevent contaminants from being transported to the creek and stresses the need to comply with the General Permit requirements to keep the park open.

Interpretive staff created three kinds of interpretive panels to comply with the Storm Water Management Plan: pollution prevention, ecological diversity, and temporary panels about rehabilitation projects. The pollution-prevention panels aim to provide visitors with information on identifying pollutants and ways to prevent these pollutants from contacting stormwater runoff. One panel specifically addresses contaminants of concern, and the other discusses the prevention of unlawful discharges.

The series of ecological diversity panels includes information on four habitat types found in the park: riparian, coastal scrub, oak woodland, and grassland. These panels aim to educate visitors about how SVRA activities may generate pollutants that can be transported to these habitats via stormwater runoff and the associated negative impacts on the habitat.

**Wildlife and Vegetation Monitoring**

Annual wildlife and vegetation surveys are performed to determine overall species diversity, richness, and population density. At Carnegie SVRA, various species have been documented during annual habitat monitoring for various taxa.

**Vegetation Monitoring**

Vegetation surveys are conducted park-wide at least once a year using point-line intercept methods at fixed transects throughout the riparian habitat. This data allows staff to track the passive restoration within the creek buffer closed to OHV activity since December 2009. Localized botanical surveys are done before ground-disturbing projects, and large-scale inventory efforts are made twice every several years to ensure the vegetation list is updated. This survey is especially poignant after fires, such as the Tesla Fire of August 2015, when certain fire-following species occur for a relatively short period before going dormant within the seed bank again.

Rare plant surveys are conducted annually. The surveys target recorded rare plant locations and areas where projects will soon occur to ensure adequate protection. Locations are recorded using GPS and stored in the GIS database.

In 2021, the SVRA's vegetation was assessed using VegCAMP -- a standardized data collection set of protocols managed by CDFW. The CDFW has the ambitious goal of classifying all vegetation in the State to provide for more informed management decisions of the State's natural resources. Carnegie SVRA is the first SVRA to implement the VegCAMP protocols.

Also, in 2021, the park's native grasslands were identified and mapped throughout the 5,000 acres. This methodology is considered a fine-scale mapping effort and establishes a baseline dataset to help measure the health and potential impacts to the native grasses.

**Avian Monitoring Program**

Avian surveys are carried out using standard point-count methods at fixed locations. The sample points were randomly generated independently using GIS software. These sites are stratified over four habitat types (oak woodland, sage scrub, grassland, and riparian) to conduct species-habitat relationship analyses. Over 135 bird species have been identified within the park, including special status loggerhead shrike, horned lark, and tricolored blackbird. Localized nest surveys are conducted before all projects occur in the park, and nests are avoided if found.

Since 2015, approximately 60-point count locations have been surveyed annually. Each sample point is surveyed twice each season (winter/spring) for ten minutes per survey. There is a minimum of ten days between the first survey (at any given point) and the second survey. Upon arrival at the site, the observer/notetaker is quiet for one minute. Birds are identified by sight

and sound. Distances from the observer are recorded using a rangefinder, when needed, or the observer's estimate. Direction and habitat type are also recorded. Each survey is conducted with one skilled observer to identify birds by sight and call and one note-taker or a voice recorder. Typically, two or three teams of observers and note-takers are sent out so that all the points can be visited over three to four days. Data is recorded in the HMS database.

In 2018, automated recording units (ARU) were investigated as a potential alternative method for monitoring bird populations at Carnegie SVRA. This study involved deploying the ARUs at locations where human point count data was already being collected. The study found that the ARUs are comparable to human point counts under low to moderate wind conditions; however, human annotation of the recorded data is more effective than relying on software for analysis. Carnegie SVRA environmental staff will continue to look for ways to incorporate the ARUs into the habitat monitoring program.

**Aquatic Amphibians and Reptiles Monitoring Program**

Aquatic resources at Carnegie SVRA include the ephemeral Corral Hollow Creek and its seasonal drainages and other water bodies comprised of stock ponds and sediment retention basins. These water bodies can hold water into the late spring, depending on pond characteristics and seasonal rainfall. Various special status amphibian species occur at the SVRA, including the California red-legged frog, California tiger salamander, foothill yellow-legged frog, and western spadefoot toad. Western pond turtle, a special status aquatic reptile, also occurs at Carnegie SVRA and may be detected during aquatic monitoring. Other species regularly encountered include coast range newt, western toad, aquatic garter snake, and Sierra tree frog, also known as Pacific chorus frog.

The purpose of aquatic species monitoring is to determine species presence and their use of aquatic breeding habitat at the sites surveyed. In addition, monitoring the water bodies allows an opportunity to assess the aquatic habitat and adjacent uplands and record any changes or threats to these habitats. Work is currently being done to expand the variables measured during surveys to allow for more in-depth population analyses over time.

Surveys are typically conducted twice in the spring at known water bodies in the park to monitor aquatic species. Water bodies include 25 stock ponds, sediment retention basins, and sections of Corral Hollow Creek in both the riding and non-riding areas. Surveys are typically conducted in April or May and again in May or June. This timing allows for the detection of juvenile amphibians with little to no risk of egg mass presence (egg masses could be harmed by dip netting).

Monitoring is conducted by a qualified biologist possessing a federal 10(a) 1(A) Recovery Permit for California red-legged frog and California tiger salamander. The permitted biologist holds an

MOU from CDFW to handle listed species and a CDFW Scientific Collection Permit. Other biologists may accompany the permitted biologist and assist with the survey.

The western spadefoot toad is a nocturnal amphibian that has been found at Carnegie SVRA and about which little is known. This species chooses to breed in rain puddles in the floodplain and the ephemeral Corral Hollow Creek instead of the various ponds in the SVRA. They can transform from eggs to juveniles in as little as 30 days. This strategy allows them to avoid competing with other aquatic species for resources and avoid predators such as the California tiger salamander. Each winter since 2015, focused surveys were conducted in Original Carnegie. A targeted nocturnal visual encounter survey for western spadefoot is conducted on nights with a high likelihood of adult activity (precipitation or high humidity between January and April). This focused effort is crucial for the seasonal protection of western spadefoot breeding puddles throughout Carnegie SVRA. If a toad is detected in the pools, Carnegie staff will close the area to recreation for a limited time.

**Small mammal surveys**

Rodent surveys are conducted using Sherman traps and mark-recapture methods for population estimates. Past surveys have detected the California pocket mouse, San Joaquin pocket mouse, the deer mouse, desert woodrat, and Heermann's kangaroo rat.

**Large Mammal Surveys**

Large mammal surveys consist of two methodologies: passive and active monitoring. Passive surveys involve camera traps stationed at fixed sites throughout the park that capture species presence and, occasionally, relative abundance data. Active surveys are nocturnal and done by driving set transects within the park at consistent speeds while spotlighting species presence and behavior. Daytime large mammal sightings are recorded as incidental and used as species presence data. While conducting nocturnal surveys, staff detected black-tailed deer, bobcats, coyotes, black-tailed jackrabbit, and Audubon's cottontail.

American badger, three owl species, and common poorwills, a nocturnal bird, have been observed. Mountain lions have only been detected using camera traps.

**Mountain Lion Monitoring Program**

In the spring of 2017, staff at Carnegie SVRA and consultants deployed a series of motion-activated cameras, referred to as camera traps, across Carnegie SVRA to capture images of mountain lions that live in and around the park. This study aims to use camera trapping to model mountain lion occupancy at Carnegie SVRA and use the results of this data to guide management and future decision-making.

Research shows that mountain lions in the Diablo Range have low genetic diversity and low effective population sizes, making them vulnerable to extirpation from the area. The population of mountain lions in this region of California has become a candidate species for listing under the California Endangered Species Act. As such, staff at Carnegie wanted to identify mountain lion movement corridors throughout the park to manage the species better.

The first round of data analysis was performed in 2020, indicating that Corral Hollow Road, the two-lane county road used to access Carnegie SVRA, influenced mountain lion occupancy at Carnegie. No mountain lions were detected on cameras placed within one kilometer of the road. The study also found that mountain lions more readily occupied the non-OHV area of the park, but that one camera in the OHV area did regularly detect mountain lions. Along with mountain lions avoiding Corral Hollow Road, this point suggests greater human activity influences how mountain lions occupy the area. This study also confirms that Carnegie SVRA functions as a movement corridor for mountain lions in the Diablo Range, despite the motorized recreation occurring on the property.

**National Audubon Society and Institute for Bird Populations Avian Study**

The National Audubon Society partnered with the OHMVR Division and The Institute for Bird Populations in 2016 to examine birds as indicators of habitat conditions and disturbance effects at SVRAs across California. They compared approximately five years of avian species monitoring data for the SVRA, comparing species richness, diversity, and abundance between OHV and non-OHV survey results.

They modeled trends in abundance for 22 bird species using the spring bird monitoring data from 55 survey points spanning 2014 to 2019. They found no clear pattern of change in mean abundance across all species that were modeled. Five bird species declined significantly, six species increased significantly, and eleven had no significant change. Most bird species with a substantial response to OHV trail cover were less abundant in more OHV trail cover areas. Nine bird species were significantly less abundant in areas with more OHV trail cover, two species were more abundant, and eleven were not significantly affected.

Most of the Breeding Bird Survey (BBS) trends were like the trends in abundance calculated from Carnegie SVRA's data. Only western meadowlark and California Quail had abundance trends within Carnegie that were significantly positive while their BBS trends were significantly negative.

Overall, they found little evidence of near-term (five-year) declines in bird populations due to OHV use within the park, although many species were less abundant in areas with greater OHV trail cover. A longer time series is likely required to determine if near-term trends in abundance indicate longer-term processes that may be occurring. Fortunately, Carnegie's current study

design provides data that can be used to determine which species are significantly declining and may inform which actions land managers may take to stabilize the local abundance of decreasing species in the future.

Since 2015, environmental scientists have monitored and documented successful breeding throughout the SVRA during higher rainfalls. Other variables, such as water temperature, ambient temperature, and vegetation, were measured to allow for future analysis of factors affecting breeding site selection and tadpole survivorship. Park staff continue to monitor and protect breeding habitat seasonally.

## *Restoration Project*

In the past, trail proliferation among Carnegie SVRA's steep topography led to the decline of vegetative cover, increased soil erosion, and affected water quality and wildlife. Carnegie SVRA resource and maintenance staff collaborate with the Carnegie Advisory Team (a group of local OHV enthusiasts) and the California Conservation Corps. Together, the tram brought eroded areas back to grade and restored vegetation using genetically local native grass seed.

Each restoration project starts with a planning process that considers several items, including trail layout, connectivity, emergency access, user interest, enforcement strategy, education methods, buffer zones, and a timeline for completing the project. Carnegie staff s follows the guidelines in the OHV Trails and Facilities section of the 2011 Storm Water Management Plan, which includes Best Management Practices (BMPs) and techniques.

Some areas are temporarily fenced to give vegetation time to reestablish. Another method includes re-contouring a hillside to remove ruts and adding soil recovered from sediment basins. Crews hydroseed the re-contoured area using a mix of mulch and native seeds. The hydroseed mix consists of water, tackifier to prevent seed mobilization, fine mulch (usually a bonded-fiber matrix or wood chips), and native seeds (purple needlegrass, blue wild rye, California fescue, and California brome). Biodegradable straw wattles are then staked to prevent erosion until vegetation has taken hold.

Many rehabilitation sites have shown great success using these methods and are constantly monitored to ensure it continues. The hydroseeding method of revegetating has been highly effective and is an excellent option for restoration projects with constraints such as steep topography and high winds. Once vegetation is reestablished in previously bare areas, water is slowed enough to infiltrate soils, effectively preventing erosion.

**Black Bear Resource Management Area Restoration Project**

Black Bear Resource Management Area was completed in 2019 and consisted of 27 acres. The restoration area was fenced during construction, which took nearly two years to complete. The project increased vegetation, added storm water-friendly trails, and lowered the overall trail length. In addition, the Carnegie Advisory Team also helped design the trail. The timing of rain was a crucial component in the success of the project. Due to this revegetation attainment, the trail is now open for recreation.

## Clay Pit SVRA

### *SVRA and Environmental Setting*

Clay Pit SVRA is located two miles west of Oroville in Butte County. The Oroville Municipal Airport, ranchlands, CDFW shooting range, and wildlife area surround the SVRA's 220 acres. The bowl-shaped topography has primarily been created by the past excavation of clay minerals used in the construction of the Oroville Dam. The area was also mined for gold, and dredge tailings remain, primarily in the park's southeastern corner. A shallow canal partially bisects the northern one-third of the park. The north, upstream end of the canal is fed by small, seasonal drainage that originates outside the park to the north, draining part of the adjacent airport and surrounding uplands.

State Parks manages Clay Pit SVRA after a 1981 agreement with the California Department of Water Resources (CDWR) granted management to State Parks while retaining fee title ownership. If needed, the CDWR maintains the right to inundate the site or remove additional material for the Oroville Dam. To date, CDWR has yet to exercise these rights. The park's most distinguishing feature is the depression formed from past clay mining activities and gives the SVRA its name. The park offers open riding opportunities for motorcycles, ATVs, and 4x4 enthusiasts.

Many grassland bird species that thrive in open landscapes can be found at Clay Pit SVRA. Species include western meadowlark, American kestrel, northern harrier, and prairie falcon. Other wildlife species include northern pacific rattlesnake, western fence lizard, black-tailed deer, and coyote.

Clay Pit SVRA also has many seasonal vernal pools that are a habitat for the federally endangered tadpole shrimp and federally threatened vernal pool fairy shrimp.

Habitat diversity is limited within the park, although seasonally wet areas cover 15 percent of the total acreage. Most of the park consists of upland areas that experience dry, hot conditions during the summer and early fall. Vegetation within the SVRA consists of three distinct plant communities: upland locations that are non-wetland areas have low-growing grasses; lowland locations consist primarily of wetland vegetation associated with vernal pool habitat; and a few

places with wetland vegetation such as spike rush. Fremont cottonwoods are also scattered throughout the park, offering shade areas for visitors in the summer months.

## *Resource Management and Monitoring Programs*

### Water Quality Program

Located within the Lower Feather River Watershed, Clay Pit SVRA is within the Lower Feather River hydrologic area and subarea of the Marysville hydrologic unit and the Sacramento Valley hydrological region. Although artificial, the ephemeral drainage entering from the northwest is considered jurisdictional water under Section 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code. The drainage area comprises 1,315 acres, including Oroville Municipal Airport, the Table Mountain Golf Course, and surrounding farmland. The SVRA encompasses only 18 percent of the area's watershed, yet the entire watershed drains through the SVRAs drainage to an outlet at its eastern boundary. While in the park, the channel meanders slightly, is culverted under two trails, and filters through a rock weir before exiting the property. The remainder of the canal was recently fenced off from OHV access in 2017 to control potential sediment and pollutant issues.

To comply with water quality regulatory requirements and inform future SVRA restoration projects and resources management, OHMVR Division and a consultant designed a study to monitor water entering and leaving the site and assess the effect of future land treatment projects. Additionally, the study was designed to be Surface Water Ambient Monitoring Program (SWAMP) comparable.

SWAMP is a State Water Resources Control Board (SWRCB) program that assesses the state's surface waters. SVRA staff collects monitoring results from the program and its partners to produce comprehensive and standardized data products for statewide water resource management. Data collected by this project will be SWAMP comparable to maintain data comparability and is a standard requirement in the planning, documentation, implementation, review, and reporting processes. Many of the SVRA's and State Parks, including Hollister Hills SVRA and Carnegie SVRA, implement SWAMPs or SWAMP compatible water monitoring programs to understand better and manage their park's water and soil resources.

Establishing and implementing this program is critical for the future management of Clay Pit SVRA and will help protect the park's hydrological resources for years to come.

### Avian Monitoring

Avian surveys consist of eight-point count locations surveyed twice in the winter and spring. Four of the point count locations are within OHV recreation riding areas of the SVRA; the other

four point count locations are off-property on lands managed by CDFW and CDWR. The off-property sites have similarly disturbed grassland and vernal pool habitat near the SVRA but have no OHV recreation usage

In 2019, an analysis of Clay Pit's bird monitoring data was conducted by the National Audubon Society (Audubon) and the Institute for Bird Populations (IBP). They reviewed approximately three years of avian species monitoring data (Winter 2013 – Spring 2016) for the SVRA, where they compared species richness, diversity, and abundance between OHV and non-OHV survey results. The analysis found that several species were more abundant in the OHV use areas than non-OHV use areas in winter and spring surveys. Only one species, the red-winged blackbird, was significantly less abundant in OHV areas. Their findings concluded that there was little difference in bird richness and diversity between OHV and non-OHV use areas. However, they also cautioned that this might lead to skewed results given the relatively limited sample size and the proximity of Clay Pit SVRA versus off-property sites to a wildlife area with trees and a more complex forested habitat. The report recommended continuing the avian monitoring program at Clay Pit SVRA, with some slight modifications, and encouraged that continued monitoring of bird populations will lead to more sophisticated analysis and more informed resources management in the future.

Since the 2019 analysis, Clay Pit SVRA has continued to conduct avian monitoring. The transformation of the SVRA into the greater State Parks' system led to temporary gaps in survey years; however, the park now has roughly seven years of survey data that will be used to provide a more detailed picture of the SVRA's avian resources. Additionally, Clay Pit SVRA and OHMVR Division resource staff have continued working with Audubon and IBP to improve avian survey methodology and analysis with their contract renewal. With their help, Clay Pit SVRA was one of the first to use ARUs in their monitoring program.

**Vernal Pool Monitoring Program**

The most recent surveys of listed vernal pool branchiopods occurred during the 2012 Clay Pit SVRA General Plan process. However, OHMVR resource staff are drafting an Interagency Agreement with CDWR to resume annual surveys during winter 2021/2022 and 2022/2023 seasons. CDWR, who still owns the rights to mine and inundate the property, has resource staff with the necessary USFWS permits required to survey the SVRA's vernal pools and other aquatic features. As part of the Interagency Agreement, CDWR staff will train SVRA resource staff to survey for large, listed branchiopods, including vernal pool fairy and tadpole shrimp, and gain them the field hours necessary, so that they may obtain their permits for future surveys.

## Heber Dunes SVRA

### *SVRA and Environmental Setting*

The 341-acre Heber Dunes SVRA is located within unincorporated Imperial County in Southern California, just three miles north of the Mexican border crossing at Highway 7 (Calexico/Mexicali). Heber Dunes SVRA is unique because it is a small island of dunes located within a large valley dominated by agriculture. The local population considers this location significant to gather and recreate in a natural setting close to their homes. The SVRA offers a natural environment with some remaining native vegetation and a habitat for wildlife. The burrowing owl occurs at both Heber Dunes SVRA and the adjacent agricultural fields, and CDFW identifies it as a species of special concern. Other sensitive wildlife species recorded at the park are Abert's towhee, sage sparrow, and white-faced ibis.

The 2011 Heber Dunes SVRA General Plan provided baseline inventories and direction for developing ongoing resource management programs. Management Zones designated in the General Plan have specific recreational goals and guidelines for sustainable OHV recreation in those areas. The Resource Management Zone, for example, has guidelines to protect creosote scrub habitat, saltbush scrub habitat, and other natural resources while allowing OHV access only on identified trails. Environmental scientists monitor resources and include results in management decision-making.

The SVRA implemented a two-year pilot study in 2017 to determine the best strategies for meeting resource management needs at Heber Dunes. Resource staff completed avian, reptile, small mammal, and vegetation surveys from 2017-2019. Based on the pilot study results, resource staff found that focused avian and small mammal surveys would be the most valuable to meet compliance standards and the resource requirements of the SVRA. Additional benefits of focused surveys are minimal staff resources, time, and effort to collect quality data to inform resource management.

### *Resource Management and Monitoring Programs*

**Avian Monitoring**

Avian surveys occur twice a year at Heber Dunes SVRA, once in the spring (March) and once in the fall (October). Spring surveys allow for observations of spring migratory birds as they pass the area, while fall surveys sample fall migrants and residential birds. Sampling occurs at three plots located within the SVRA’s boundaries for four consecutive days in the early sunrise hours, as avian activity is most active during this time. Surveyors, if possible, denote species, sex, number, detection type, behavior, location, and life stage of any individuals observed.

**Small Mammal Monitoring**

Small mammal surveys, like avian surveys, occur twice a year, once in the spring (April) and once in the fall (October). Sherman live traps are placed along four separate plots and used to live capture grain-seeking small mammals with a mixture of seeds and peanut butter. Traps are checked in the morning and set in the afternoon for a total of three consecutive trap nights. Each morning, traps are checked, and any individuals captured are identified to species, sexed, weighed, and measured. Everyone is given a unique mark with a permanent marker to distinguish recaptured individuals and help with population abundance information.

**Bat Monitoring**

Bat monitoring began in spring 2019 using acoustic bat detectors. Resource staff conduct surveys in the spring (March) and the fall (September/October) using acoustic bat recorders to record for an entire month. Acoustic monitoring stations were placed at three locations identified as the most likely to have bat activity, two of which are associated with potential drinking sites. Recordings occurred starting at dusk, and the microphone detected recorded sounds or sonar waves. Resource staff sent the recording data to a consultant who analyzed the information and provided the results and a brief monitoring report.

**Aquatic Monitoring Program**

Surface water resources and riparian lands in the vicinity of Heber Dunes SVRA, preliminarily investigated in 2016, were more thoroughly surveyed in 2019. These surveys arose because SVRA visitors access the South Alamo Canal, just beyond the east and south boundaries of the unit for fishing. Though this activity occurs on an occasional to frequent basis, it was not reviewed or considered in the unit's General Plan. OHMVR Division staff conducted surveys to determine the assemblages of fish species in the canal and assess any potential native resources impacted by the ease of access the SVRA allows its visitors. Access to the South Alamo Canal and its tributaries can be done at numerous locations around the SVRA. The land and facilities of some, if not all, of these engineered waterways, are owned by Imperial Irrigation District (IID), which has not posted any rules or prohibitions concerning public access.

OHMVR Resource staff conducted a more comprehensive survey of the South Alamo Canal that borders the SVRA on February 11, 2019, during IID scheduled maintenance. Staff captured three different fish species, including Common Carp, bluegill, and Red-eared sunfish. Resource staff also noted that no small species or individuals were present in the nets, which was likely due to increased predation pressure by larger predatory fish species (i.e., Bass, Bluegill, etc.) in the reduced “habitat.” Smaller baitfish were confined to small pools with copious amounts of larger predatory fish species and thus likely were eaten.

## Hollister Hills SVRA

### *SVRA and Environmental Setting*

Hollister Hills SVRA is located within an hour's drive south from the urban core of San Jose and eight miles from the city of Hollister. The SVRA is situated in the foothills of the Gabilan Mountain Range, and elevations within the property range from 660 feet to 2,425 feet. Adobe and granitic soils are predominantly separated by the San Andreas Fault that runs through the park.

Vegetation communities growing on the adobe soils consist of annual grasslands and oak woodlands, with pockets of sage scrub chaparral growing out of the sandstone outcrops. Vegetation communities on the granitic soils consist of pine woodlands at higher elevations, scrub, and dense oak-dominated woodlands on north-facing slopes. Chamisal and sage scrub chaparral communities occur on sun-exposed ridges. Riparian corridors are thick and covered with various water-dependent tree and shrub species, with the dominant species being sycamore, madrone, maple, and oaks. Common wildlife in the park includes black-tailed deer, coyote, bobcat, ground squirrel, cottontail rabbit, various bat species, red-tailed hawk, turkey vulture, wrentit, western meadowlark, wild turkey, western fence lizard, and gopher snake. Hollister Hills SVRA also has mountain lions, occasionally spotted near water sources through trail monitoring cameras or incidental observations. A mountain lion mated pair is known to inhabit the park during the breeding season. The California Condor also has been seen at the park.

### *Resource Management and Monitoring Programs*

**Trail Assessment Program**

Since 2013, Hollister Hills SVRA resource staff have utilized an updated Trail Assessment Matrix to complete the Annual Trail Assessment. This matrix was developed in-house to capture trail conditions and sustainability data accurately. The matrix assesses trails based on characteristics of design sustainability and tread condition. Multiple subcategories were created within those two categories that better capture what park resource managers want to know to maintain trail sustainability.

The tread condition category contains subcategories such as whoops/break bumps, ruts, rills, compaction, etc. Generally, one staff drives the trail in an ROV with a trail assessor, who notes various tread and sustainability-related issues using the Trail Rating Matrix Field Sheet Data. The information is entered into a Trail Rating Matrix and is given an overall rating score. Each subcategory carries a specific weight determined by the resource managers. Category weights are based upon how much impact certain features have on a trail. For example, “whoops” on a

trail are far less impactful than incised sections because they cannot shed water and thus continue to worsen over time. Trail assessment results are combined into an annual report to inform managers of the overall trail system condition and prioritize yearly maintenance.

**Noise and Dust Management on Trails**

Noise and dust emissions are identified as potential impacts to neighboring properties. For example, the Hollister Hills SVRA trail design team incorporates the land's natural contours in designing trails to limit the potential effect of OHV-generated noise on neighboring properties. For instance, sections of trails that climb slopes and require added throttle are designed so the OHV's tailpipe is pointing towards the park instead of the park's boundary.

One of the many ways the park manages dust is by applying an organic soil-binder "Dust-Off®" to the park's most heavily traveled trails which helps prevent dust formation while OHVs traverse them.

**Water Quality Monitoring Program**

Hollister Hills SVRA collaborated with CSU Monterey Bay's Division of Science and Environmental Policy faculty and students to establish a Water Quality Monitoring Program. This five-year monitoring program measured the amount of sediment coming in and out of the SVRA's boundaries and attempted to parse out sediment sources and their locations.

Several studies attempted to determine the general nature of the SVRA's watersheds, including measurement of landslide complex movement rates, size of stream bank erosion rates, and surveys of the longitudinal or cross-sectional profiles of streambeds. These studies incorporated trail erosion studies to help calibrate the trail assessment rating system and sediment basin profile surveys using photogrammetry to measure the amount of material captured and stored in sediment detention basins. These monitoring studies successfully established a baseline that SVRA Resource staff use for future monitoring and assessment efforts.

The successful partnership with CSU Monterey Bay resulted in a second five-year contract for the program. The renewed program will use the baseline water quality monitoring study results and apply them to assess the erosion and sediment control management strategies employed by SVRA Resource staff. In addition, the program ensures the continued fostering of teaching and learning opportunities for CSU Monterey Bay faculty and students.

The contracted partnership will end in 2021, but many of the monitoring components developed by CSU Monterey Bay will continue under Hollister Hills resource staff. The final report will be completed at the end of 2021. The yearly reports have indicated that the park's sediment control methods effectively capture most of any erosion generated by the SVRA trail

system. The information and data gathered by this effort have led to a more data-driven maintenance schedule and better management of the sediment control at the SVRA.

**Air Quality Monitoring and Management Program**

Hollister Hills SVRA has an ongoing 24-hour Particulate Matter 10 ($PM_{10}$) monitoring program at three locations on the boundaries of the SVRA. One measures the concentration of particulate matter 10 ($PM_{10}$) of the air coming into the park, and the other two measure the concentration of $PM_{10}$ leaving the park; $PM_{10}$ monitoring occurs year-round. Monterey Bay Air Resources District (MBARD) maintains the monitors through a contract. The park receives monthly reports from MBARD that discuss any exceedances. No dust exceedances were recorded in 2019/2020 related to OHV use.

Hollister Hills staff work closely with MBARD if an exceedance is reported and attributable to SVRA operations. Examples of actions taken to reduce dust related to OHV use include trail closures during the summer months, more frequent watering, dust suppressants, and scheduling special events outside the summer months. Hollister Hills SVRA continues to comply with the State Ambient Air Quality Standard of 50 micrograms per cubic meter, average, per 24-hour period.

As per the Dust Management Plan, the park implements a series of management actions to reduce dust emissions from the SVRA. Dust is a management concern all year but is particularly important during the summer months, coincidentally when park visitation is minimum.

Park staff wet roads and trails with a water truck during the week, but it becomes a higher priority during the weekends when visitation increases. Tracks, main roads, and some trails are watered frequently during the summer. However, watering only reduces dust for short periods, and during a drought, this action can be misconstrued as wasteful. In early June, the park applies a magnesium chloride dust suppressant to the central park roads and selected trails to reduce water use. This solution is much more effective at reducing dust emissions throughout the summer.

**Ambient Noise Monitoring Program**

Hollister Hills SVRA has had an Ambient Noise Monitoring Program at the boundaries of the SVRA since 2002. Initially, eight locations were monitored multiple times per year to get an accurate baseline of the ambient noise levels. Since then, the program has evolved to focus on select areas more sensitive to noise or where noise reduction management practices have been implemented to ensure compliance. The eight noise monitoring locations around the park boundary are still monitored annually to ensure operations at the park comply with noise ordinances.

Four monitoring sessions occurred from October 2019 to September 2020. Noise standards were exceeded at monitoring locations 6 and 7 and were determined to be caused by SVRA activity. At location 6, the Lmax (maximum noise level) was exceeded by two decibels, and this is not the first time it has exceeded acceptable levels. State Parks infer that the exceedance comes from the Middle Field trail in the Adobe Management Unit. Middle Field has a direct line of sight to the monitoring location, and when traveled uphill, the exhaust of an OHV points directly to the monitor. The exceedance could be caused by either one OHV or a group of riders.

Location 7 is in the Hudner Management Unit and had four exceedances of the Lmax, two of the L1.7, and one at the L8.3. During this monitoring session, a large group of recreational off-highway vehicles (ROVs) was observed by park staff. This group of ROVs passed by the monitoring location many times during the session and caused the exceedances.

Park resource staff recommends that law enforcement staff perform more consistent sound tests on OHVs suspected of being non-compliant with noise standards (96 decibels at the 20-inch test). More consistent enforcement could lower the amount of non-compliant aftermarket exhaust systems. Additional public outreach and education are also needed to inform the public on reducing noise from their OHV. If noise generation continues to be an issue at location 6, a trail re-route might be necessary, but more noise data would need to be collected before taking this action.

**Fire Management Program**

Hollister Hills SVRA has taken critical steps in building a fire management program in the last several years. Park staff set up a water truck for use as a water tender and equipped a truck as a type 6 fire engine (built on a pickup truck frame with a medium-duty chassis). These two pieces of equipment are significant components in the park's prescribed fire program and respond more quickly to fires within the SVRA and nearby State Parks.

Prescribed burns provide many benefits to the SVRA's ecosystems. In addition to the ecological benefits, they reduce fuel loading, increase public safety, and decrease the chances of a more destructive wildfire.

Park management has stepped up efforts to increase fuel reduction throughout the SVRA by mowing, cutting, and burning. Combined with maintaining clearances around structures, these methods are part of State Parks’ efforts to become more fire resilient. California's climate is becoming hotter and drier, which leads to increased fire danger. Fire management will continue to grow as one of the top priorities in land management, and the workload will increase on park staff to meet that challenge.

**Feral Pig Depredation Program**

Feral pigs are descended from the natural crossbreeding of feral pigs and Eurasian wild boars and reside within and in the lands adjacent to the park. Feral pigs can cause significant resource damage from their rooting behaviors, completely tilling an entire hillside in one night. Feral pigs reach sexual maturity as early as seven months and can have offspring up to three times a year with an average litter size of three to six piglets. It became necessary to keep the feral pig population numbers manageable to protect habitat and species health.

Feral pig depredation has occurred at the park for over ten years. The pig population was once so prominent that it caused negative interactions between the pigs and visitors. The SVRA depredated hundreds of pigs per year at the program's start, but those numbers have since declined. Incidental observations such as signs of pig damage (rooting and wallowing in ponds) and actual captures have dramatically decreased. For instance, the SVRA depredated 45 pigs during the 2019/2020 season.

**Grazing Program**

Grazing is a historical use of the rangelands in the non-motorized areas of the Renz and Hudner Ranches, and since 1994, park managers have used cattle grazing as a resource management tool. The SVRA's Grazing Management Plan guides activities to support the resource management goals of the program. Since then, the SVRA has worked with a local grazer to develop a holistic, rotational grazing approach to manage the rangelands. There are roughly 1400 acres of annual grassland and oak savannah in 27 fields in the northern portions of the park available for grazing. The 27 fields vary in acreage, slope, aspect, and vegetation composition. Fields are separated with a single electric wire, and border fences are typically non-climb fencing. The current grazer runs a stocker operation with yearling cattle over several years.

The current objectives of the Hollister Hills grazing program are: 1) enhance and restore native grasslands and oak woodlands 2) increase habitat diversity within the grasslands and oak savannahs, 3) control and reduce exotic flora, 4) protect riparian values, 5) maintain wetland and pond habitat for breeding amphibians, 6) reduce grassland fuel loading and wildfire potential, mainly along bordering properties.

Park resource managers meet with the grazer to develop the year's grazing plan each year before cattle are brought on-site. The grazing program fluctuates based on when and how much precipitation the park receives. At the end of each season, the grazer and park resource managers tour the fields, identify changes, and how grazing can be used to accomplish those desired outcomes.

Residual dry matter monitoring is the primary means of determining if the grazing plan and associated objectives are met. Resource staff monitors this in the late summer and early fall when conditions are at their driest. The revised Wildlife Habitat Protection Plan will recommend more robust monitoring protocols and yield more tangible results to assess the grazing program's effectiveness.

**Aquatic Herpetofauna Surveys**

Amphibian surveys are performed at Hollister Hills SVRA annually to determine the presence or absence of specific amphibian species. There are up to 70 seasonal water bodies within the unit, although the number of waterbodies sampled varies yearly based on rainfall levels. Two federally listed amphibians are present at the SVRA, California red-legged frog and California tiger salamander. Both species are known to breed in several water bodies throughout the unit. Dipnet surveys typically occur between April and the end of May, depending on the rainfall received.

Eight ponds were sampled in the 2019-2020 season and were chosen due to the limited rainfall received at the park. The park received 12.5 inches of rain from October 2019 to May 2020. About half of the rainfall received fell between the end of November to the beginning of January. No rain fell between January and mid-March, typically the year's wettest time at the park. Subsequently, water bodies did not begin filling until after mid-March.

The overarching goal of this monitoring effort is to ensure breeding populations of both California tiger salamander and California red-legged frog continues to occur on the property. A secondary goal is to ensure that breeding occurs annually at ponds that have historically had breeding. Third, by sampling the ponds annually, one park staff can determine the presence of predatory or invasive amphibians or fish and adjust management as needed to ensure breeding habitat is of a quality that promotes thriving amphibian populations. Since waterbodies serve as only a portion of the required habitat for these amphibians, this monitoring effort helps ensure that land management practices do not negatively impact upland or breeding habitats. Results of the monitoring effort are used to direct both pond and upland habitat management.

Eight waterbodies were sampled on May 13, 2020. The results of the dipnet surveys are typical given the rainfall totals from Water Year 2020. Additional surveys for the red-legged frog in the North Canyon watershed should have been undertaken to confirm the results of this survey but were not due to COVID-19 restrictions. This season, five different amphibian species were sampled across the eight basins: California red-legged frog (CRLF), California tiger salamander, Aquatic Garter Snake, Pacific chorus frog (PCF), and California newt. One fish, the sunfish, was recorded at Lodge Lake. The western toad and western pond turtle were neither spotted nor dip netted during this sampling effort.

State Parks surmise, and the data suggests, that red-legged frog breeding occurred late in the season or not at all, given rainfall patterns. Waterbodies didn't begin to fill until mid-March, likely rendering a short window for successful breeding to occur.

The early rains in late November through December likely favored tiger salamander breeding. The lack of rainfall after that limited tiger salamander breeding sites drastically.

These surveys confirmed that American bullfrogs are still not present at the park. There is, however, the potential for bullfrogs to be introduced by park visitors. Only perennial water bodies, such as Lodge Lake, would support bullfrogs. Resource managers will continue to monitor for their presence.

**Lodge Lake**

The reported presence of bass and the confirmed presence of sunfish concerns park resource managers due to their impact on native amphibian populations. The perennial nature of Lodge Lake will make it challenging to control the fish population. Night visual encounter surveys should occur outside breeding season to understand if CRLF uses Lodge Lake for upland habitat. As mentioned above, CRLF had successfully bred in the lake in previous dipnet surveys. Not finding PCRF or CRLF suggests that the fish found in this survey potentially impact native amphibian breeding.

Cattails and tule are encroaching dramatically at two of the water bodies sampled this season. Excessive amounts of emergent vegetation can be detrimental to habitat quality within waterbodies. Emergent vegetation at the Area 5 Gabion pond and the Office Basin should be thinned during the summer months to prevent the waterbody from being choked out.

**Bird Creek Fish Surveys**

Hollister Hills SVRA lost an assemblage of native fish from a short reach of Bird Creek when this spring-fed permanent reach of stream dried entirely in 2014. Since then, resource staff occasionally survey the hydrologic and aquatic resources in that permanent reach. Additional surveys are periodically conducted in seasonal downstream reaches where a neighboring landowner permits access. In 2020, Bird Creek's permanent reach (near an SVRA-appropriated water diversion for stock watering) was surveyed once in early summer and late fall by OHMVR Division environmental scientists. Despite the relatively dry rain levels, this 1/4-mile-long spring-fed reach of Bird Creek continued to flow throughout 2020. However, no fish have yet recolonized this reach. For native fish to naturally recolonize this reach, they must migrate via the San Benito River.

Rainbow trout, California Roach, and Riffle Sculpin were present before the onset of severe drought in 2014. While roach is common regionally, the trout were arguably steelhead progeny (a federally listed threatened species), and the sculpin was the southernmost known population in the Coast Range. Park resource staff periodically secure permission for access to the mouth of Bird Creek at the San Benito River to determine whether any fish recolonize lower Bird Creek. While unsuccessful colonization attempts by at least three other native fish species have been documented in the lowest reach of Bird Creek since the end of the multi-year drought, no such recolonization by any species was observed there during the spring 2020 survey. That flowing reach of the stream was devoid of fish in May. It is believed to have dried entirely in summer/fall as expected and was similarly observed late in the 2018 and 2019 seasons.

**Avian Monitoring**

Bird monitoring at Hollister Hills SVRA has been an ongoing effort for several decades. Since 2012, the park has followed one set of methods and used the exact survey locations to monitor bird populations. In-person surveys are conducted in the winter and spring at 50 locations annually. Upon arriving at the site, the survey team gives potential nearby birds time to adjust to the surveyors' presence. The monitor calls out all species seen or heard for ten minutes and provides distance and direction of the bird(s), while the note-taker keeps track on a datasheet. The note-taker also records ambient weather conditions and whether any OHVs were heard during the survey. After ten minutes have elapsed, the team moves to the following location. When points are close in proximity, care is taken to ensure birds are not double-counted.

Winter bird monitoring did not occur in 2020 due to rainy weather and the lack of an available birding expert. In spring, resource staff deployed automated recording units or ARUs to record bird vocalizations as part of a pilot project to determine if these units are a viable alternative to in-person birders. This effort is part of a contract with The Institute for Bird Populations.

The SVRA may continue to use in-person birders or supplement with an ARU. Inherently, ARUs fail to capture birds that an in-person birder visually spots. Although visual identifications constitute a much smaller sample, valuable data is still missing for long-term datasets.

**Invasive Species Monitoring and Management**

The park continually monitors for and treats invasive pest plants throughout the unit. Of highest priority are those High Ranked species by California Invasive Pest Council (also known as CAL-IPC) and include yellow starthistle, medusahead, and French broom. Other species of local importance that State Parks manage include stinkwort, purple starthistle, poison hemlock, milk thistle, and Italian thistle.

Park managers use an integrated approach to treating invasive plants that include herbicides, timely mowing, seed head clipping, hand pulling, and to some extent, grazing. The exact methods vary depending on the site, area, plant, and location being treated. Areas of high disturbance, such as tracks, road/trail sides, are treated annually. Other sites are treated depending on how a plant particularly expresses itself in each season.

For several seasons, park managers noticed a significant expression of yellow starthistle in an area referred to as the Pig Pond field, which is grazed seasonally by cattle and not subject to motorized recreation. Working with the grazer, the SVRA developed a plan to leave higher amounts of residual dry matter (left from the fall) to help reduce yellow starthistle in the spring. Anecdotally, this strategy has proved successful, and park staff will capture quantifiable data in subsequent years.

Also, in the grazed areas of the park, there has been an inconsistent expression of medusahead in several fields (Ridge and Amme fields). Medusahead has been known to occur in the Amme field but is restricted to relatively small patches. The grazer proactively used feed to attract cattle to the patches to help trample the grasses, and resource staff cut and bagged the seed heads to reduce the potential for spread. Resource staff will monitor these fields and adjust management actions as needed.

**Point Blue Rangeland Monitoring Network**

Point Blue Rangeland Monitoring Network (Point Blue) biologists approached Hollister Hills SVRA staff in 2015 to begin a long-term rangeland monitoring plan. Their monitoring plan seeks to answer questions on a statewide scale regarding soil carbon, bird species abundance, and cover of vegetative species in grazed and ungrazed rangelands.

Point Blue biologists sampled in 2016 and again in 2019 at the park. No apparent trend has been established regarding soil carbon at the park, but their statewide dataset reports that, on average, soil carbon decreased by five percent. Bird species richness positively responded to the end of the severe drought, with the average number of species per point increasing by three from 2016 to 2019. Vegetation composition similarly responded to the end of the drought. Each functional group cover increased across all classes. Likewise, staff noticed increased invasive flora across the unit's rangelands.

Resource management recommendations include maintaining litter-covered soil and ensuring overgrazing does not occur. Litter helps keep the soil cool, supporting microbial life, slowing water runoff, increases infiltration, and reduces erosion potential. In addition, resource staff will protect blue oak saplings with cages to protect them from trampling and browsing as studies show that soils beneath oak canopies are more fertile than those in open grasslands.

Finally, staff will keep riparian areas vegetated. The SVRA does not permit grazing in riparian corridors.

### *Restoration Projects*

**Native Plant Nursery**

Hollister Hills SVRA regularly rehabilitates and restores habitat and trails at the park, and there is generally a native plant component to each project. Resource staff collect local seeds and propagate native plants in its nursery. The program produces thousands of trees, shrubs, and grasses for projects within the park.

**Restoration**

No planned large-scale restoration projects were undertaken in 2020; however, multiple existing restoration sites were planted with plants grown in the native plant nursery. The focus has remained on establishing and improving native vegetation cover on the Fremont, Tule Lake, and Lake Road restoration sites in the Lower Ranch Granite Management Unit. SVRA staff maintain erosion control best management practices (BMPs), fill in rills, and reduce sources of run-on.

SVRA staff planted several hundred oak saplings at the Foothill Restoration site in the Upper Ranch Management Unit. A previously restored hillclimb was breached, and extensive damage occurred just before the COVID-19 shutdown of the unit. Riders broke through multiple fences and began riding on the closed hillclimb near the Coyote Drainage Restoration site. The site was assessed, old plastic fiber rolls were removed, small hand-built water diversions were constructed, and the area was covered with the cut brush to protect the disturbed soil. A new wire fence was built to prevent future public access to the site. Resource staff will monitor the Coyote Drainage Restoration Site to ensure the site is secure and prioritize planting to promote soil stabilization in 2021/2022. Staff will continue to plant chaparral species and seed sites in the Lower Ranch Granite Management Unit restoration sites.

## Hungry Valley SVRA

SVRA and Environmental Setting

Hungry Valley SVRA is within an hour's drive from Los Angeles and is adjacent to the heavily traveled Interstate 5 on the Tejon Pass. The SVRA provides approximately 20,000 acres of diverse recreation and is the third-largest SVRA in California. It offers more than 4,000 acres of open space and 130 miles of trails that traverse various terrain, from sand washes to rolling hills to hill climbs. Hungry Valley SVRA has eleven campgrounds with over 200 campsites and one

group camp. In addition to camping and off-highway vehicle recreation, Hungry Valley SVRA hosts several special events, commercial filming, and military training.

The SVRA is located at the intersection of three Southern California mountain ranges—the Transverse, Tehachapi, and Coastal ranges. The park is bordered north by Tejon Ranch, west by Los Padres National Forest, east by the CDWR aqueduct, and south by the Angeles National Forest. Hungry Valley SVRA contains four distinct geographic regions. The first is Hungry Valley proper, a large valley in the western portion of the park. The second is Freeman Canyon, a badland-type environment (an area characterized by extensive natural erosion) situated in the middle of the park. The third is the Gorman Creek drainage along the north and east sides of the park. The fourth is Canada de Los Alamos, a large, relatively flat plane in the southern portion of the park with a deep canyon cutting through the area supporting riparian vegetation.

Vegetation within the park is diverse due to the convergence of several California floristic regions. Major vegetation communities include chaparral, pinyon-juniper woodland, grassland, riparian woodland, juniper shrubland, oak woodland, and mixed shrubland. The 60-acre Oak Woodland Natural Preserve in the northwest area of Hungry Valley SVRA protects a natural seep that provides water for big valley oaks with an understory of native grasses. The natural preserve protects a scarce and unique habitat and is closed to motorized recreation.

## *Monitoring Programs*

In 2021, Hungry Valley SVRA completed its 25th consecutive year of Habitat Monitoring System (HMS) reporting. This extensive program includes monitoring vegetation, herpetofauna, birds, bats, small mammals, and large mammals.

The trail erosion monitoring program continues in conjunction with the OHMVR Division soil conservation program. This program assists the SVRA in capturing trail erosion data throughout the year to enable the park to prioritize restoration and repair efforts.

**Vegetation Monitoring**

Hungry Valley SVRA has a contiguous 4,200-acre unique native valley grassland plant community. During the formation of Hungry Valley SVRA, environmental scientists from State Parks recognized a unique six-square-mile area along the park's northern boundary that contained the grasslands.

A management plan, formulated in 1981, recommended that the entire 4,200 acres be set aside as the Hungry Valley Native Grasslands Management Area (NGMA). Park visitors can travel through OHVs only on identified trails established by park staff to protect this sensitive plant community.

An extensive vegetation and wildlife monitoring program was developed for Hungry Valley SVRA in 1997. The Soil Ecology and Restoration Group from San Diego State University (SDSU) conducted a vegetation and wildlife survey. The University established specific monitoring protocols in collaboration with the OHMVR Division. During this survey, these protocols were used to gather data on vegetation and wildlife at randomly selected monitoring plots throughout the SVRA. Survey plots were in both OHV and non-OHV areas within each habitat type and were paired with control plots in non-OHV and OHV areas. The system was created using SDSU protocols to establish a biotic inventory and monitoring methods and set up data analysis and interpretation guidelines to determine the long-term effects of OHV recreation on the habitats of Hungry Valley SVRA. This early monitoring system developed into the prototype for the current version of the HMS implemented in all the SVRAs.

**Invasive Weed Management Program**

Dalmatian toadflax was found in Hungry Valley SVRA in the spring of 2004. Since then, Hungry Valley SVRA has conducted a rigorous program every spring to eradicate this invasive species within the boundaries of the SVRA. Initially, the infestation spanned approximately 1,000 acres. An invasive management plan was put together to combat this exotic species in 2005, and Dalmatian toadflax has been contained in the park's Northern Grasslands Management Area (NGMA). Eradication began with spraying herbicide from an ATV, but this work is now completed by spot spraying the area by foot. The infestation has significantly been reduced, and staff continually monitor the seed's 15-year viability in the ground.

In 2008, the California Department of Food and Agriculture (CDFA) contacted the park about a park's biological release and test plot. With a permit from the EPA, Hungry Valley SVRA began a test plot using the *Mecinus janthiniformis* (MEJA) weevil on toadflax. The CDFA initially started the project, but it has been transferred to the United States Department of Agriculture (USDA). The MEJA weevil is a stem-boring weevil that eventually reduces the toadflax to a non-flowering plant. Initial results showed that the weevil had spread throughout the toadflax infestation and that reductions in plants' size had been noted.

In May of 2013, the Grand Fire burned approximately 850 acres inside Hungry Valley SVRA. Unfortunately, it burned over the MEJA release site, test plots, and weather collection equipment set in place for the CDFA study. In spring 2014, USDA determined the pilot test was necessary and started with new weevils and test plots. They enlarged the test area by two release sites in hopes that the weevil would expand its boundaries. Since 2014, weevil populations have flourished at the release sites, and they have dispersed to non-release sites. Weevil infestation rates increased up to 100% at some release sites. Between 2014 and 2019, the Dalmatian Toadflax population declined 99% (Smith et al. 2021). Weevil sampling is now complete, and the research has been published in the journal *Biological Control*. Continued

herbicide spraying will be used to keep the toadflax population from returning. Herbicide spraying is also used to control Yellow Star Thistle, Russian Thistle, and Pepper Grass.

**CDFW Permit**

In early 2020, resources staff obtained a CDFW Scientific Collection Permit (SCP), covering all wildlife monitoring activities for the park. This permit covers capturing and handling small mammals, reptiles, amphibians, and bats.

**Bat Acoustic Monitoring**

Hungry Valley SVRA began conducting acoustic bat surveys in 2015. Initially, surveys were conducted twice per year (late winter/early spring and summer/early fall) by Hungry Valley staff and consultants using an average of five sites. No bat surveys were conducted in 2018. In 2020, Hungry Valley SVRA staff completed acoustic bat surveys three times per year in late winter (February-March), late spring/early summer (June-July), and early fall (September-October).

Acoustic surveys capture species diversity from multiple seasons and catch migratory and non-migratory bat species. Bats are monitored using Wildlife Acoustics SM4BAT acoustic recording devices and ultrasonic microphones that record the ultrasonic frequencies of bat calls. Acoustic detectors are placed at six set locations near perennial water sources (both natural and artificial) for a minimum of two weeks. Acoustic files are analyzed using SonoBat and Kaleidoscope software.

In 2020, acoustic surveys detected 15 bat species. The Oak Preserve exhibited the highest diversity of the six acoustic sites, with 11 of the 15 different species detected there. Four of the species detected --Pallid Bat, Townsend's big-eared bat, Western mastiff bat, and Western red bat are California Species of Special Concern. Since beginning the bat monitoring program at Hungry Valley SVRA in 2015, 2020 yielded the highest number of species detected. Bats are essential members of the environment providing many ecosystem services, and it is necessary to conserve and protect habitat for the bat species that utilize Hungry Valley SVRA.

**Bat and Bird Box Surveys**

In 2020, three sets of two back-to-back, 4-chambered bat boxes (from Bat Conservation and Management) were installed throughout the park near water sources and were monitored approximately once per month for bat presence. The newly installed bat boxes provide additional roosting habitat, and all had bat occupants at some point during the year. Staff confirmed bat occupancy by visually verifying bats or detecting guano on the predator guard below each bat box. Continued acoustic monitoring throughout the year, coupled with bat box

monitoring, will aid in determining the presence of bat species and the habitats they are utilizing throughout the park.

Eight Western Bluebird boxes and four American Kestrel boxes were installed throughout the park in 2020 to provide additional bird nesting habitat for native cavity-nesting species. Bird boxes were monitored approximately once per month to check for the presence of nesting birds. Bluebird boxes are registered, and all nesting activity is reported to the Cornell Lab of Ornithology's Nest Watch program. Similarly, Kestrel boxes are registered, and all nesting activity is reported to the American Kestrel Partnership. While nesting birds did not use bird boxes in 2020, birds will likely discover and use them eventually.

**Bird Populations Study and Acoustic Surveys**

In 2016, the National Audubon Society partnered with the Institute for Bird Populations and the OHMVR Division to "examine birds as indicators of habitat conditions and disturbance effects at SVRAs" (Michel, Cole, Seigel, & Wisely, 2019, p. 1). First, the consultants reviewed Hungry Valley SVRA's 19-years of bird survey data and then analyzed trends in species abundance and habitat changes. They found:

> model trends in bird abundance for 17 species during the spring and 12 species during the winter across 19 years - quite a considerable collection of data. There were four and three species of birds in spring and winter, respectively, with a significant change in abundance through time. Western Meadowlark and Mourning Dove increased significantly, and Spotted Towhee and Song Sparrow decreased significantly during the spring. Common Raven increased significantly, and Spotted Towhee, Dark-eyed Junco, and Golden-crowned Sparrow decreased significantly during the winter.
>
> Trends in abundance at Hungry Valley generally mirrored the trends in regional measure of abundances (Breeding Bird Survey and Christmas Bird Count), except for Western Meadowlark, which increased significantly at Hungry Valley but declined significantly in the greater region. Perhaps Hungry Valley has a habitat that is attractive to Western Meadowlark, and this same habitat is declining in the greater region, leading to increased abundances within the park. Further study of those species exhibiting significant abundance declines may be warranted to determine the cause of declines, such as sensitivity to OHV noise or greater habitat fragmentation (Michel, Cole, Seigel, & Wisely, 2019, p. 53).

In 2020, resource staff collaborated with the Institute for Bird Populations (IBP) to monitor bird populations via ARUs. During Hungry Valley resource staff's regular yearly bird monitoring, they brought along ARUs so that IBP could analyze the acoustic calls of birds throughout the diverse park. The ARUs were left on their own for 6 hours or carried with surveyors along a transect.

Hungry Valley SVRA hopes the data will show new species not previously detected by human observers. If the program is successful, Hungry Valley staff and IBP staff will install permanent ARU locations to monitor birds throughout the year.

**Blainville's Horned Lizard Monitoring**

In 2020, resources staff initiated Blainville's Horned Lizard monitoring program. The CDFW recognizes this lizard as a Species of Special Concern, and little is known about their habitat requirements and home range. Resources staff captured, sexed, measured, weighed, photographed, and released horned lizards. Staff also collected weather data, microhabitat characteristics, elevation, and GPS coordinates at each capture location to monitor horned lizard presence and habitat usage throughout the park. Incidental lizard captures indicated that the species is widespread throughout Hungry Valley SVRA and is successfully reproducing, as evidenced by several small hatchlings found. All horned lizard data was submitted to the California Natural Diversity Database to monitor this species of special concern.

## *Training and Outreach*

**Bat Presentation**

In October 2019, Jessica Vannatta gave a bat presentation to the Condor Group/Kern Kaweah Chapter of the Sierra Club in Pine Mountain Club. Jessica collaborated with Hungry Valley SVRA's interpreters on this presentation to the public.

**Audubon Bird Training**

In 2019 and 2020, Arthur (AJ) Heredia and Jessica Vannatta attended the Birds of Southern California and Learning California Bird Sounds training classes offered by Sea and Sage Audubon Society. In 2021, AJ began taking an advanced sparrows class with Sea and Sage Audubon. These classes have helped create the foundation for bird identification used in the Hungry Valley SVRA bird monitoring program.

## *Resource Management Projects*

**Vault Toilet Screens**

In 2020, the Teton Raptor Center reached out to Hungry Valley SVRA staff regarding one of their projects to prevent the entrapment of birds in vault toilet pipes. Vault toilets are pits in the ground, and they have tall vents in the form of cylindrical pipes that are approximately 30 feet tall. The problem is that cavity-nesting birds will investigate the tall pipes and will fly in. Once they are in the pipe, they fall into the pit full of human waste. There is virtually no way for them to get out of the pit at the bottom on their own. The Teton Raptor Center created a

project called the Poo-poo Project to address the issue. They began manufacturing vented stainless-steel screens that fit on the top of the vault toilet pipes. These screens allow airflow to vent the toilet as well as prevent birds from entering the open lines. The screens are very sturdy and are universal on most vault toilets.

After researching the project, Hungry Valley SVRA staff jumped on the opportunity to partner with such a great organization and project. A total of 34 metal screens were installed on vault toilet pipes to prevent birds from becoming trapped. All vault toilet pipes throughout Hungry Valley SVRA are now closed with metal screens, which have successfully prevented birds from entering the lines.

**Hungry Valley Trail Crew**

Ongoing maintenance of Hungry Valley SVRA's extensive trail system requires many hours of hard work and eyes all over the park. Ranger and Maintenance staff do a great job of helping the Natural Resources Trail Crew find areas of the park that need to be repaired. The Trail Crew helps repair trails, spray invasive vegetation, re-build broken peeler pole fences, and deter the creation of unsanctioned volunteer trails to improve the habitat of Hungry Valley SVRA. The Trail Crew's most common task is to repair broken peeler pole fencing. Peeler pole fencing is used throughout Hungry Valley to keep riders off public roads and sensitive habitats and keep riders on trails. Accidents happen when riders collide with the heavy wooden fencing, which also creates resources damage. The Trail Crew works quickly to re-build the fencing to keep the public safe and preserve the natural resources of Hungry Valley SVRA for many more generations to enjoy.

## Oceano Dunes SVRA

### *SVRA and Environmental Setting*

Oceano Dunes (formerly Pismo Dunes) was the first State Vehicular Recreation Area, established in 1974, and is the only State Park that allows camping on the beach and OHV recreation on the coast. The SVRA is located on the central California coast in southern San Luis Obispo County and is adjacent to Pismo State Beach. The Cities of Pismo Beach, Grover Beach, and the unincorporated community of Oceano border these state parks. This section also includes resource monitoring and management at Pismo State Beach since staff maintains both park units.

Oceano Dunes SVRA lies at the north end of the Guadalupe-Nipomo Dunes complex, an approximately 20,000-acre coastal dune and dune scrub ecosystem stretching 18 miles along the central coast. Of the 3,490 acres within the SVRA, about 2,100 acres are managed as native habitat.

Oceano Dunes SVRA offers recreational activities like dispersed beach camping, beach play, nature exploration, fishing, horseback riding, ocean sports, and a wide range of education and safety programs. State Parks allows OHVs and street-legal vehicles on roughly 3.5 miles of beach and approximately 1,300 acres of dunes in the SVRA open riding area. Only street-legal vehicles, including motorhomes, vehicles towing trailers, and other camping vehicles, can access the SVRA via sand ramps at West Grand Avenue in the City of Grover Beach and Pier Avenue in the community of Oceano. Visitors must tow their OHVs to this point via street-legal vehicles before unloading, and only OHVs can operate within the open riding area. An all-terrain vehicle (ATV) safety-training center is near Post 4 in the riding area.

Oso Flaco Lake is an area within the SVRA, located south and southeast of the open riding area. State Parks manages this day-use area for passive pedestrian use only, and it is a popular destination for fishing, bird watching, nature viewing, and beach play. It has a day-use area, picnic shelters, interpretive panels, restrooms, walking paths, and a boardwalk that crosses a portion of the lake and dunes to overlook points. State Parks offers popular science programs for K–12 grade students and water and motorized recreation safety programs at the Oso Flaco Lake Day Use Area.

Habitat types in the park include open sand, foredunes, Central Coast dune scrub, dune lakes, freshwater creeks, coastal lagoons, wetlands, riparian habitats, woodlands, and vegetated islands. The vegetated islands are pockets of vegetation situated in barren areas of active coastal dunes, mainly composed of willow and dune scrub.

The sandy beaches in the park area are a harsh environment where most plants are unable to survive. The dunes are located behind the beaches, divided into two zones—foredunes and backdunes—characterized by their location and dominant vegetation. Foredunes begin at the high tide line and include vast natural areas of the open sand sheet. These areas comprise low wind-deposited dunes sparsely vegetated with the hardiest dune stabilizing plants. Where vegetation can gain a foothold, only low-growing plants with deep root systems, such as sand verbena and beach bur, can survive. The strong winds, storm waves, salt spray, lack of freshwater, nutrient-poor substrate (i.e., sand), and alternating sand burial and erosion periods create conditions where the only foredune adapted vegetation can become established and thrive. Dune scrub forms downwind of the foredunes in more stabilized areas and vegetated due to less wind and other erosive forces. Dominant dune scrub plant species include mock heather, silver dune lupine, seacliff buckwheat, and dune ragwort.

Wetland and riparian habitats surround Oso Flaco Lake, Little Oso Flaco Lake, and Pismo Lake. They are scattered throughout the South Oso Flaco area, the Phillips 66 leasehold area, and along the streams in the park. Wetlands include salt marshes, fresh- and brackish-water marshes, swamps, mudflats, and the dune-slack lakes (i.e., seasonally flooded marshes and flats

near sea level). Plants that live within these coastal wetland environments are adapted to dynamic environmental conditions, including high salinity concentrations and extreme weather conditions and winds.

Woodland habitats in the park are limited in size and primarily composed of non-native species, including eucalyptus and Monterey pine. Native arroyo willow and California wax myrtle are present, and a few native coast live oaks are scattered as single trees in the backdunes. Monterey pines are similarly scattered, but eucalyptus trees form groves at some sites, including the Butterfly Grove near State Route 1.

Numerous saltwater and freshwater fish, reptiles and amphibians, birds, mammals, and invertebrates depend on the dune ecosystem. State Parks surveys of Pismo State Beach and Oceano Dunes SVRA have detected at least 19 species of fish (D. Rischbieter, pers. comm. 2017), 28 species of reptiles, and amphibians, 19 species of mammals, and numerous bird species (State Parks 2017). Two hundred eighty-three bird species live in or migrate through Oso Flaco Lake within the Oceano Dunes SVRA (eBird 2020).

Active dunes represent the most common habitat type found within the park. Even though vegetation mostly lacks dynamic dune environments, many animals still use these bare sand areas for nesting. These birds include species like the California least tern, western snowy plover, and killdeer.

Also, evidence of small mammals, large mammals, amphibians, reptiles, and invertebrates have been documented dispersing throughout the active dune areas in the OHV and non-OHV regions of the park. In a recent small mammal study, kangaroo rats were recorded moving between vegetation islands and foraging in the open riding area at night. There is also evidence that kangaroo rats, California mice, California pocket mice, and deer mice are moving between islands recently connected through revegetation, suggesting that restoration efforts are beneficial to the small mammals in the park. Continued restoration efforts and connectivity of vegetation islands are predicted to increase small mammals' diversity and colonization rates. They could benefit other taxonomic groups such as large mammals, reptiles, amphibians, and invertebrates.

The beach receives nutrients from the ocean that feed its burrowing invertebrate populations. Willets, marbled godwits, and sanderlings search for food in the sand. Several gulls frequent the beach to scavenge, as do some terrestrial birds such as Brewer's blackbird. Behind the beach, wind-created dunes and the associated silver dune lupine-mock heather scrub vegetation offer some protection for wildlife. White-crowned sparrow, Bewick's wren, California towhee, and wrentit take advantage of the insects and seeds provided by the dune vegetation. Deer mice and black-tailed jackrabbits forage in the dune scrub and may become food for predators such

as great horned owl, coyote, and bobcat. Migrating waterfowl frequent the wetlands in the park.

With their available water and dense, diverse vegetation of trees, shrubs, and herbs, the riparian habitats provide abundant food and cover many wildlife species. The moist riparian area produces abundant insect life, food for many insectivorous amphibians, birds, and mammals such as the Pacific treefrog, western skink, Wilson's warbler, black phoebe, Pacific-slope flycatcher, northern rough-winged swallow, and ornate shrew. Omnivorous inhabitants include the big-eared woodrat, opossum, and raccoon. Predators include the garter snake, black-crowned night heron, red-shouldered hawk, and gray fox.

Freshwater creeks provide a habitat for aquatic macroinvertebrates. These invertebrates create the stream food chain base along with vegetative detritus in leaf litter and woody debris. The freshwater streams or creeks in the park support resident rainbow trout and steelhead (i.e., anadromous rainbow trout) and other native fishes such as threespine stickleback and prickly sculpin. Slow-moving streams provide essential habitats for native amphibians and reptiles such as California red-legged frogs and western pond turtles. Ephemeral and intermittent tributary streams may provide critical habitat for western toad and other amphibian species. Many insects, birds, amphibians, reptiles, and mammals utilize the riparian vegetation associated with freshwater streams.

## *Resource Management Plans*

**Air Quality Studies, Monitoring and Maintenance Programs**

The Oceano Dunes District implements a program to control and minimize indirect emissions of dust and particulate matter (PM) generated at Oceano Dunes SVRA during periods of intense, persistent winds and subsequently blown downwind of the SVRA and onto the Nipomo Mesa. To address windblown dust, State Parks has already implemented a series of dust control and monitoring measures in the park, which include:

- Native vegetation planting – between 2014 and 2018, State Parks planted almost 50 acres of locally collected native vegetation for dust control purposes. Staff planted approximately 36 additional acres in the open riding area in winter 2018/2019.
- Wind fencing and straw bale array deployment – in 2018, State Parks installed three wind fencing arrays totaling approximately 49 acres and two straw bale arrays totaling about 36 acres.
- Dust and meteorological monitoring – Since 2010, the OHMVR Division has operated and maintained a meteorological tower in the Oceano Dunes SVRA open riding area, referred to as the "S1" tower. The OHMVR Division installed an air quality monitoring station, the Oso Flaco station, in the southeast corner of Oceano Dunes SVRA in 2015.

Also, the district maintains up to 20 seasonal monitoring stations with weather and particulate matter monitoring equipment.

- 48-acre area for foredune vegetation planting – this 48-acre foredune area was fenced and closed to motorized recreation and camping in 2019. It was planted in February 2020 and included vehicle travel pathways through the foredune area between the shoreline and the open riding area to the east. However, these "alleys" are closed to camping to maintain vehicle circulation.

**Particulate Matter Reduction Plan (PMRP)**

The previously mentioned dust control and monitoring measures are currently in place and are expected to continue, subject to modification consistent with legal obligations described here. In May 2018, State Parks entered into a Stipulated Order of Abatement (SOA) (Abatement Order; filed May 4, 2018) with the San Luis Obispo County Air Pollution Control Board. Under the SOA, State Parks agreed to implement numerous dust control measures. These include:

- permanently closing off sections of open riding area to motorized recreation and camping.
- installing track-out devices at the West Grand Avenue and Pier Avenue entrances to prevent track-out of sand onto paved, public roadways, and
- preparing a PMRP

The SOA was amended on November 18, 2019, and expires on December 1, 2023. As noted above, State Parks already closed off and planted approximately 40 acres of open riding area in winter 2018/2019. State Parks released a draft PMRP in June 2019, including an implementation plan specifying that staff will undertake through December 2023.

**Biodiversity Management Plan**

In 2020, State Parks began work on a Biodiversity Management Plan (BMP) with the California Department of Fish and Wildlife (CDFW). The BMP intends to describe the unique biological diversity of Oceano Dunes SVRA, the management goals and objectives required to conserve this biodiversity, and the needed actions to achieve these goals. It also provides guidance on the process and procedures for short and long-term management actions. Planning and management will address potential impacts of park use on vegetation and plant communities, sensitive and protected habitat areas, and wildlife species.

An example of some of the more complex issues to be addressed within the BMP include:

- Arroyo Grande Creek crossing management.
- Endangered shorebird nesting enclosures.

- Assessment of nighttime vehicle activity.

The BMP brings together the expertise and knowledge of the two mission-based resource management agencies to ensure that natural resource management efforts at the district meet all necessary professional standards and best management practices. BMP recommendations include short-term actions and long-term management efforts, including regular agency consultation and collaboration, scientific studies, restoration projects, or more formal agreements such as a Natural Communities Conservation Plan (NCCP). The CDFW is currently reviewing it for final approval.

**Stormwater Management Plan**

This plan includes the following components to protect ground and surface water and comply with the State Water Resources Control Board's (SWRCB) water discharge requirements.

- Pollution Prevention of Stormwater and Non-Stormwater Runoff.
- Education and Outreach Program.
- Public Involvement and Participation Program.
- Illicit Discharge Detection and Elimination Program.
- Construction Site Runoff Control Program.
- Pollution Prevention/Good Housekeeping Program.
- Post-Construction Stormwater Management Program.
- Total Maximum Daily Load Compliance Requirements; and
- Annual Reporting.

The SWMP also requires best management practices (BMPs) to protect water quality and provide interpretation and education to the public about protecting water resources.

**Draft Habitat Conservation Plan**

State Parks prepared a Draft Habitat Conservation Plan (HCP) for the Oceano Dunes District. The HCP is intended to cover federally listed species at both parks, including the western snowy plover, California least tern, California red-legged frog, and tidewater goby. The four federally listed plant species include Marsh sandwort, La Graciosa thistle, Nipomo Mesa lupine, and Gambel's watercress. Several of the covered species are also listed under the California Endangered Species Act (CESA). The HCP's primary purpose is to ensure that management,

maintenance, and development activities protect these threatened and endangered plant and animal species consistent with the federal Endangered Species Act (FESA).

The draft HCP was released for public review in spring 2020. As amended, it provides the basis for issuing an incidental take permit (ITP) by the USFWS under Section 10 of FESA. The HCP establishes acceptable levels of incidental take of the covered species that may occur as an unintended result of otherwise lawful activities of park visitors or State Parks staff and describes measures to minimize and mitigate the incidental take to the maximum extent practicable. The conservation element of the HCP also supports the issuance of a FESA Section 10(a)(1)(A) Recovery Permit, which authorizes take that occurs while implementing measures to enhance the propagation or survival of a listed species.

Separately, State Parks will also be applying for "take" authorization from the CDFW for species listed under CESA according to California Fish and Game Code Sections 2081 and 2800 et seq., including Section 2835.

**Draft Public Works Plan**

In 1982, the California Coastal Commission (CCC) approved a Coastal Development Permit (CDP 4-82-300) for Oceano Dunes SVRA. The CDP has been amended several times since 1982 and set in motion a 40-year debate over access to and recreation at Oceano Dunes SVRA. State Parks attempts to synthesize permitting and provide solutions to this 40-year challenge through the draft Public Works Plan (PWP).

State Parks and the CCC jointly agreed on the idea of a PWP as a viable option to examine future operations and management at Oceano Dunes SVRA. The PWP includes Oceano Dunes SVRA and Pismo State Beach and is a long-range land use management plan for compliance with the California Coastal Act reviewed and approved by the CCC. The PWP allows for a comprehensive permit for large or multi-phase projects and holistically examines future operations and management decisions.

State Parks received significant input and engagement on a wide range of complex management issues associated with operations and potential impacts at these popular, and at times controversial, jointly managed park units during the two-year-plus PWP planning process. These management issues were related to other regulatory mandates, such as federal and state-recognized sensitive and endangered species and regional air quality. These non-Coastal Act issues are addressed in the PWP, including recommended management actions beyond the Coastal Act's scope to effect comprehensive operational improvement and best management practices.

State Parks prepared a draft PWP in December 2020 to balance these complex management issues with operational goals such as increasing equitable public access to the coast through recreational opportunities, facilities, and low-cost accommodations. The draft PWP also seeks to enhance the preservation of the cultural and natural resources, identify compatibility and actions for Local Coastal Plan (LCP) compliance, and become the district's long-term management plan. This PWP intends to resolve outstanding and long-standing issues from CDP 4-82-300 (as amended). As directed by its mission and statute, State Parks' draft PWP proposes a balanced solution to competing mandates to provide continued protection, preservation, and recreational opportunities at these parks for future generations.

**Wildlife Habitat Protection Plan**

Oceano Dunes SVRA resource staff are revising their WHPP to standardize a broad range of protocols appropriate for monitoring the health of the unique habitats found within the park. Monitoring incorporates "control" sites (where OHV recreation is not allowed) and compares conditions in these control sites to treatment sites (where OHV riding occurs). Monitoring and data collection involves standardized surveys repeated over time to detect changes or document trends, especially related to recreation impacts. Resource staff complete annual and quarterly surveys for small mammals, terrestrial birds, shorebirds, and vegetation. They also conduct data analysis to help achieve the goals and objectives outlined in the WHPP, which informs adaptive management.

The WHPP monitoring program also includes targeted surveys for listed plant and animal species, including Marsh sandwort, La Graciosa thistle, Surf thistle, Beach spectacle pod, Nipomo Mesa lupine, Gambel's watercress, tidewater goby, South-Central California Coast steelhead, California red-legged frog, California least tern, and Western snowy plover. Annual surveys assess these species' status, measure trends and changes in population size, identify new or emerging threats, and manage their respective habitats to reduce invasive species and recreation effects.

## *Resource Management and Monitoring Programs*

The district's natural resource management program employs many permanent and seasonal scientific staff who monitor and protect wildlife, plants, and coastal habitat. Duties include implementing natural resource inventories, evaluating biological systems' conditions, and mapping vegetation and wildlife habitats. Environmental science staff also assess impacts from the public recreational activity and prepare detailed annual reports supporting the district's regulatory and environmental compliance programs. Employees in this program have experience monitoring and protecting a wide variety of taxa, such as the California red-legged

frog, tidewater goby, western snowy plover, California least tern, and numerous rare and threatened plant species.

Several programs operate within the umbrella of resource management. These programs include monitoring and protecting shorebirds; wildlife management and surveys of taxa mentioned above; monarch butterfly habitat management; marine and inland fisheries surveys and management; coastal habitat restoration; vegetation management; invasive exotic weed control; air quality monitoring; and water quality management. The resource management program also includes a vigorous vegetation management program—park staff and contractors plant native plants to revegetate dunes and protect coastal habitats. Along with wind fencing, vegetation stabilizes dunes and is an essential air quality management program component.

**Western Snowy Plover and Least Tern Nesting Program**

Oceano Dunes SVRA is an important breeding site for two special-status ground-nesting birds—the California least tern (state and federally listed as endangered) and the western snowy plover (federally listed as threatened). Some employees hold a specific permit with the USFWS to monitor and manage these birds. Responsibilities include conducting population surveys, locating and monitoring nests, erecting and monitoring seasonal fence and nest closures, and monitoring nests and chicks. This program also prepares annual reports to the USFWS and CDFW.

Western snowy plover and California least tern breed at Oceano Dunes SVRA from March to September. Oceano Dunes SVRA continues to be an important breeding site, and approximately 300 acres of the park are closed to the public during the birds' breeding season. Oceano Dunes SVRA Resource staff intensively monitor these two species' nesting and fledgling success seven days per week. The Resources team tries to locate every nest within the park. Since 1998, Oceano Dunes SVRA staff attempted to band and search for all chicks that hatch from the site to track their movement and survival. In addition, Oceano Dunes SVRA management efforts include:

- Maintaining the six-foot "no-climb" fence that surrounds the 300-acre closure.
- Enhancing nesting habitat with driftwood, wood chips, and least tern shelters (for added protection from predators and the elements).
- Predator management.
- Monitoring and enhancement of beach invertebrate communities.
- Educating park visitors.
- Enforcement of resource protection regulations.

This program has gathered important information on breeding activity, factors influencing breeding success and chick survival, and changes in adult breeding populations.

Environmental scientists analyze the monitoring data and trends and adapt management actions to improve the nesting program. Thanks to these monitoring and management activities, Oceano Dunes SVRA has documented stable and growing breeding populations and chick survival trends thanks to these monitoring and management activities. These efforts help recover the least tern and snowy plover while keeping OHV use and other recreational opportunities available to the public. The district employs up to eight seasonal snowy plover and least tern monitors each year. Staff are often local biologists recruited as recent California Polytechnical Institute, San Luis Obispo's graduates (Cal Poly). The SVRA hired several graduates from other parts of the state or country, as well.

**2020 Least tern breeding statistics**

In 2020, there were an estimated 35-42 least tern breeding pairs, higher than the previous two years (30-33 pairs) and compared to a minimum average of 41 (range=23-48) pairs in the 13 years from 2005-2017. Breeding pairs at Oceano Dunes SVRA decreased after a near-complete breeding failure in 2017, with only seven juveniles produced due to skunks' high egg and chick predation. Subsequently, several SVRA banded terns expected to nest at the park relocated to nearby sites in Santa Barbara County in 2018-2019 for breeding (information from 2020 is not available from other sites for this report). In 2020, staff documented a minimum of 12 banded birds with known origins as breeding at the park, with all of them banded as chicks and fledged from the SVRA.

There were 48 known nesting attempts in 2020, 47 from the Southern Exclosure, and one in the open riding area. The hatching rate for known location and fate nests was 78.3% (36/46), below the average of 83.7% during the previous 15-year period 2005-19. Of the remaining 12 nests, two had an unknown fate (not known if hatched or failed), four were abandoned, four failed with unknown cause, one was depredated, and one failed due to wind.

Sixty-three chicks hatched, and of these, 57 were color-banded to an individual. Thirty-eight chicks (35 banded, three unbanded) are known to have fledged (seen when 21 days old or older), for a fledging rate of 60.3% and an estimated 0.90-1.09 chicks fledged per pair. This rate compares with an average for the previous 14-year period 2006-19 (banding chicks to individual began in 2006) of 47 juveniles produced per year, a 74.7% chick fledging rate, and 1.04-1.19 chicks fledged per pair.

**2020 Snowy Plover Statistics**

There was a minimum of 190 breeding snowy plovers (110 males and 80 females), compared to 214 in 2019, a decrease of 11.2%. Staff documented 87 banded birds with known origins as breeding, with 89.7% (78/87) banded as chicks and fledged from the SVRA. There were 226 known nesting attempts in 2020, including 12 identified only by detecting brood (unknown nest location). Of the 214 nests from known locations, 128 (59.8%) were in the Southern Exclosure, 39 (18.2%) in Oso Flaco, 24 (11.2%) in the Foredune closure, 22 (10.3%) in the open riding area, and one (0.5%) in Pawprint revegetation area. Of the 197 nests with known location and fate, 142 hatched for a nest hatching rate of 72.1%. This rate compares to an average of 74.6% for the previous 18-year period 2002-19. Fifty-five nests failed, attributed to the following causes: abandoned pre-term (5); abandoned post-term (1); abandoned unknown pre- or post-term (2); wind (13); overwashed by the tide (3); cause unknown (4); unidentified predator (8); unidentified avian predator (12); coyote (1); common raven (3); and northern harrier (3). For all documented nest loss to predation, avian predators accounted for 66.7% (18/27).

Of the 410 hatching chicks, 250 were color-banded to brood with 32.0% (80/250) fledging, and the fate of the 160 unbanded chicks is believed known with 23.1% (37/160) fledging. A total of 117 chicks fledged (seen when 28 days old or older) for a low fledging rate of 28.5%. This rate compares to 27.1% in 2019 and an average rate of 39.2% for the 18 years from 2002-2019. One chick fledged per breeding male is the estimated number needed to prevent the population of snowy plovers from declining. The productivity of 1.2 chicks fledged per male should provide for moderate population growth (assuming approximately 75% annual adult survival and 50% juvenile survival) (USFS 2007). In 2020, an estimated 1.06 chicks fledged per breeding male at Oceano Dunes SVRA. For the 18 years (2002-2019), the average productivity was 1.47 chicks fledged per breeding male.

**Small Mammal Monitoring Program**

Small mammal monitoring has been conducted since 2014 through a contract with Cal Poly State University. Oceano Dunes SVRA Resource staff have been working closely with Dr. Francis Villablanca, a professor from Cal Poly, who has provided technical assistance and consultation on small mammal monitoring methods. Dr. Villablanca has helped update, refine, and standardize Oceano Dunes SVRA's small mammal study design to conform to experimental design principles. Small mammal monitoring has been conducted through capture-mark-release-recapture on standardized live-trapping plots within the SVRA. The plots are placed in contiguous habitats or on vegetation islands in the open riding area. Each plot is set to equally sample the two predominant plant alliances in the park: fifty-percent willow/wax myrtle and lupine/mock heather. Additionally, some plots sampled the open riding area. This plot placement occurred immediately following the closure of select areas to OHVs, and before plant restoration.

All study plots have been repeatedly sampled, though some time series are longer than others. The purpose is to understand native small mammal abundance, distribution, and habitat use. The data and analyses inform 1) use of the open riding areas by small mammals, 2) effect of open riding area closure and plant restoration on small mammal abundance and diversity, 3) multi-year, species, and plot specific, survivorship and population size dynamics, and 4) dispersal propensity by species. Small mammal diversity and movement can be a proxy for the health of the wildlife habitat within the park. This program would not be possible without the volunteer assistance received from several Cal Poly students, resulting in a beneficial relationship between Oceano Dunes SVRA and the University.

According to the 2021 Draft Oceano Dunes Biodiversity Management Plan,

> Since 2014, the essential findings have shown the following: 1) Small mammal species distribution is consistent with the theory of island biogeography, and there is a significant relationship between island size and species diversity; more species are found on larger vegetation islands than on smaller islands; 2) Dispersal between habitat islands has been documented in all species, though deer mice and Heermann's kangaroo rats show the highest rates of traveling through the ORA [open riding area]; 3) Species diversity and abundance are lowest on plots that sample the ORA; some ORA plots have diversity and abundance of zero; and 4) Across the entirety of the study plots, the most common species are deer mice and Heermann's kangaroo rat, which are generally associated with the lupine/mock heather alliance. The other three most common species (Monterey big-eared wood rat, California mouse, and California pocket mouse) are generally associated with willow/wax myrtle habitat. (California State Parks & California Department of Fish and Wildlife, Jan. 2021, p. 9)

## *Vegetation Monitoring and Management Programs*

Summarized from the "Draft Oceano Dunes Biodiversity Management Plan" (California State Parks & California Department of Fish and Wildlife, Jan. 2021, pp. 8-9)

In 2015, State Parks and a consultant conducted a comprehensive vegetation mapping effort for the Oceano Dunes District (including the SVRA, Pismo State Beach, and leased lands). Resource staff also conducted plant surveys for one or more plant species in 2008 (the Nipomo Mesa lupine) and adjacent San Luis Obispo County Land Conservancy lands annually. State Parks staff also conducted rare plant mapping in 2013 and 2014 and vegetation transect surveys from 2004-2009 in association with their habitat monitoring program. Rare plant surveys are completed annually by State Parks staff and other partner organizations for certain plant species, like Nipomo Mesa lupine. Staff complete other non-listed but rare plant surveys as needed.

**Vegetation Management Restoration Program**

The restoration program was established in 1989 to protect the natural and cultural resources found within the park. The program is vital to preserving habitats and protecting the unique flora and fauna in the park. Oceano Dunes SVRA staff use various restoration methods, including sand stabilization to prevent soil and habitat loss, weed abatement, revegetation in areas where native vegetation has been displaced or lost by sand encroachment or invasive weeds. Staff monitor vegetation to evaluate the effectiveness of the projects.

The natural dunes process is due to the active depositing and redepositing of sand by wind. Stabilization of the moving sands has protected features such as Oso Flaco Lake and the fenced vegetation islands found in the dunes.

Each year, park staff work with California Conservation Corps members to revegetate and stabilize various sites within the park. Before installing plants and spreading native seed, park crews blow certified “weed-free” straw over the project area and use a sheep’s foot attachment to punch the hay into the sand.

The straw provides wind protection for the plants, niches for the seed to land and germinate, organic matter and collects moisture from the marine layer. In areas not accessible to heavy equipment, crews dig the straw into the sand by hand.

**Oceano Dunes District Greenhouse**

Each year the Oceano Dunes SVRA resource staff germinate an average of 30,000 plants and collects hundreds of pounds of native seed, of which 151 are used for restoration projects. Every native plant grown in the greenhouse comes from seed that staff hand-select from within the park, ensuring its suitability to thrive and exist in the dune environment.

**Invasive Weed Abatement**

Many invasive species are threatening the dune ecosystem. They include European beach grass, Russian wheatgrass, ice plant, veldt grass, and Cape ivy. Invasive species degrade or eliminate important foredune and dune scrub habitats needed by sensitive plant and animal species such as the California least tern, Western snowy plover, marsh sandwort, beach spectacle pod, and surf thistle. Eradication of these invasive species is done through herbicide application, hand removal, and prescribed burning. These methods have helped transform the dunes back to their natural state.

## *Invertebrate Monitoring and Management Programs*

**Special Status Invertebrates**

Oceano Dunes SVRA staff and consultants recorded seven special status insects in or around the SVRA and Pismo State Beach. These insects include the Oso Flaco patch butterfly, Oso Flaco flightless moth, globose dune beetle, obscure bumblebee, sandy beach tiger beetle.

Since 1997, Oceano Dunes Resource staff monitor the overwintering monarch butterfly populations at Pismo State Beach, adjacent to the SVRA. Other insect surveys have been conducted sporadically at the SVRA over 30 years. In 2020, Oceano Dunes SVRA completed a monarch butterfly management plan at Pismo State Beach in consultation with academics and the Xerces Society.

The CDFW recommends managing native vegetation, active planting, invasive plant treatments, and exclusion fencing to enhance invertebrate populates at the SVRA.

Oceano Dunes SVRA staff have maintained a vigorous vegetation restoration program within the SVRA since 1989. Most of the revegetation efforts were made as part of the air quality management plan; however, the 170 acres permanently closed off to OHV recreation also benefit invertebrate species with additional habitat. The CDFW postulates that continuing restoration efforts using native vegetation would also help invertebrate species (California State Parks & California Department of Fish and Wildlife, Jan. 2021, pp. 10-11).

## *Aquatic Species Monitoring Program*

As mentioned above, the California red-legged frog has been recorded within the Arroyo Grande Creek Estuary, Oso Flaco Lake, and Little Oso Flaco Lake. During their freshwater life stages, the steelhead trout and tidewater goby also inhabit the Arroyo Grande Creek and lagoon. Oceano Dunes SVRA and OHMVR Division staff have conducted quarterly fish surveys in aquatic habitats since 2003.

**California Red-Legged Frog**

Surveys for federally listed species use the USFWS protocols. Since 2017, staff has surveyed California red-legged frogs (CRFL) populations. According to the BMP:

> In 2017 all accessible, suitable aquatic habitats (e.g., wetlands, lakes, creeks) within the Oceano Dunes District were surveyed for CRLFs. In 2018 a subset of habitats was surveyed to determine CRLF population trends. During the 2017 and 2018 surveys, large and established populations of American bullfrogs (*Lithobates catesbeianus*) were observed in the more northern survey sites, and these areas were therefore excluded from the 2019 and 2020 study. Instead, the 2019 and 2020 CRLF surveys focused on low numbers on areas with no known frogs or frogs, American bullfrog or CRLFs. The 2019 surveys were completed over a wide range of months to cover different life stages and

> behaviors from March to August. CSP [California State Parks] will continue to conduct surveys for CRLF in areas known to be occupied by CRLF and with a high potential to support CRLF within the BMP Area (California State Parks & California Department of Fish and Wildlife, Jan. 2021, p. 16)

The Draft Habitat Protection Plan prescribes management actions for the CRLF that may include habitat enhancement and control of invasive plants and animals. The BMP also recommends that future management and restoration projects at Arroyo Grande Creek and lagoon and the Oso Flaco Lakes Complex minimize impacts to the CRLF. It also recommends controlling invasive species like the American bullfrog in these areas.

**Special Status Freshwater Fishes**

Arroyo Grande Creek and its lagoon provide sometimes-tenuous sensitive habitat for several fish species and other aquatic animals in Oceano Dunes SVRA. These aquatic species, including the federally listed tidewater goby (endangered) and steelhead (threatened), frequently are negatively impacted by water quality and availability. The greatest threat to these species and habitats appears to be local water management activities, especially excessive local groundwater withdrawal (presumably for agricultural irrigation), as well as the occasional need for manipulation of the lagoon, sandbar, and riparian areas under local flood management priorities.

Environmental scientists monitor the status of the fish and habitat within the several acres of Arroyo Grande Creek (including lagoon). Fishery surveys are conducted approximately every two to three months, four to six times per year, with the primary purpose of ensuring that SVRA operation and visitor activities do not impact these sensitive resources. Since 2003, State Parks has compiled a valuable record of the dynamics of the estuary and the fish community.

CDFW recommends all monitoring ensure consistency with protocols identified in the National Marine Fisheries Service's (NMFS) 2016 California Coastal Monitoring Plan. Management actions to protect these species include limiting vehicle crossings, posting signs, and fencing areas. State Parks closes Arroyo Grande Creek to vehicle crossings during deep- and high-flow conditions. In conjunction with the 2019 Stormwater Management plan, Oceano Dunes SVRA also uses educational and interpretive signage to inform the public about potential water quality and aquatic habitat threats and discourage behaviors that could affect aquatic species.

The Draft HCP recommends that State Parks prepare a Tidewater Goby Management Plan to address park operations, exotic pest species, aquatic and upland habitat management, water quality, and mosquito control (where applicable). This plan will also benefit steelhead trout. In addition, State Parks will also study impacts associated with the vehicle creek crossing, fish migration, and outmigration.

## Ocotillo Wells SVRA

### *SVRA and Environmental Setting*

Ocotillo Wells SVRA is in the Colorado Desert, approximately 90 miles northeast of San Diego in Imperial and San Diego Counties. It is bordered by Salton City on the east, the community of Ocotillo Wells to the south, and Anza-Borrego Desert State Park® to the north and west. The district manages approximately 85,000 acres, including 26,000 acres of BLM land managed under a Memorandum of Understanding.

Most of the park is designated for distributed riding use (approximately 49,640 acres), limiting OHV riding to specific trails. Other park areas are classified as "trails only" (about 28,499 acres), where OHV recreation is only allowed on official park trails. Approximately 414 acres of the park, 0.5 percent of the total park area, are excluded from riding by fencing or other barricades to protect sensitive cultural or natural resources. The remainder of the park's acreage is distributed throughout the park among private and BLM land parcels.

Most of the park is relatively flat, with a few areas of relief. Elevation typically ranges from 131 feet to 787 feet. There are seven broad, flat washes and many smaller arroyos cross through Ocotillo Wells SVRA, originating in Anza-Borrego Desert State Park® in the north and west. These washes fill and flow with water during significant rain events that typically occur in the summer months or intense winter storms and are occasionally subject to flash flooding. Ocotillo Wells SVRA is in the rain shadow of the Santa Rosa Mountains of the Peninsular Ranges. The average annual rainfall is 3.45 inches. Temperatures range from 70 to 115 degrees Fahrenheit in summer and near freezing to 80 degrees Fahrenheit during the day in the winter.

Due to variability found in elevation, terrain, soils, and many other factors, a wide variety of Colorado Desert vegetative communities is present in the park. These include creosote bush scrub and creosote white bursage scrub, mesquite, Palo Verde woodlands, brittlebush scrub, and woody aster badland wash benches.

### *Resource Management and Monitoring Programs*

Monitoring surveys in Ocotillo Wells SVRA have been continuously improved. Staff conduct protocol reviews before surveys are performed, ensuring all staff understand how to conduct the survey correctly. This review has proven to be beneficial for survey consistency. Protocols have remained consistent with only minor edits since 2017, allowing for comparable data analysis. Partnering with the San Diego Natural History Museum has ensured data connectivity through past monitoring efforts while reinforcing the current protocols in use.

Habitat Monitoring System surveys expanded into the Truckhaven area, in the northern section of Ocotillo Wells SVRA. Three additional plots have been added, increasing survey plots from 10 to 13 plots within the park. Vegetation and small mammal surveys began in Truckhaven in 2018. In 2020, reptile pitfall arrays were installed in the summer, allowing additional reptile surveys to occur.

**Reptile Monitoring**

Ocotillo Wells SVRA uses a pitfall trapping protocol adapted from the United States Geological Survey (USGS) (Fisher et al. 2008) to monitor reptiles in the park. As of 2020, there are 13 plots within the SVRA, including the Truckhaven area, each with a permanent pitfall trapping array consisting of seven pitfall buckets. Sampling occurs in fall (April) and summer (August) each year for three trapping days per plot each season. Each morning, captured individuals are identified to species, measured, weighed, and marked with a permanent marker to note the incidence of recaptures.

**Small Mammals Monitoring**

Small mammal trapping occurs twice a year in the late winter/early spring (March) and fall (October). Sherman traps are used to live-capture grain-seeking small mammals by baiting with a mix of seeds and peanut butter. Traps are checked in the morning and set in the afternoon for a total of three trap nights. Each morning, captured individuals are identified to species, measured, weighed, and marked with a permanent marker to note the incidence of recaptures. In 2018, Ocotillo Wells SVRA expanded reptile monitoring into the Truckhaven area. There are 13 total monitoring sites within the park.

**Bat Monitoring**

Monitoring bats within Ocotillo Wells SVRA occurs at four locations -- either drinking locations or potential flight pathways. Staff monitor bats using SM2, SM3, or SM4 acoustic bat detectors (specialized monitoring devices) with microphones mounted on PVC poles adjacent to them. Then, the data is analyzed through an OHMVR Division contract using Kaleidoscope software. Monitoring occurs twice a year, in the spring (March) and summer (August). Recorders are set for four to six weeks and retrieved after. Monitoring has occurred consistently since 2014, except for 2018.

In 2020, four SM4 bat acoustic monitors were acquired at Ocotillo Wells SVRA to supplement existing bat monitoring at the park. Semi-permanent monitoring stations were placed in similar locations to previous surveys, allowing for future ease of setup. These recorders were set in August and retrieved in September. Data was sent to a Division contract for data analysis and

reporting. Since 2015, bat monitoring has detected 18 bat species within Ocotillo Wells SVRA, of which seven are considered special status.

**Flat Tail Horned Lizard Monitoring and Management Program**

OHMVR Division environmental scientists play a crucial role in managing flat-tailed horned lizard (FTHL; *Phrynosoma mcallii*) populations at Ocotillo Wells SVRA. This species has a limited range, found only in southwestern Arizona, southeastern California, and adjacent portions of Sonora and Baja California Norte, Mexico.

Since 1994, Ocotillo Wells SVRA has been a member of the FTHL Interagency Coordinating Committee (ICC), a voluntary conservation working group composed of nine federal and state agencies, including agencies in Mexico. As part of the cooperative agreement among members of the ICC, Ocotillo Wells SVRA conducts annual FTHL population surveys and research to bolster the understanding of its unique ecology.

The working group developed the Rangewide Management Strategy in 1997 (updated in 2003), one of the factors cited by the federal and state wildlife agencies to not list the FTHL as threatened or endangered. Projects at Ocotillo Wells SVRA incorporate guidance from the 2003 update of this management plan to protect flat-tailed horned lizards.

Ocotillo Wells SVRA conducts annual population surveys for the FTHL as part of an agreement as ICC members. There are two types of surveys Ocotillo Wells SVRA utilizes to collect data and monitor trends: occupancy and demography. Resource staff direct occupancy surveys on 79 randomly scattered plots throughout the park from May through August, with each plot surveyed six times. The survey is complete at the end of an hour or when a flat-tailed horned lizard is found. Occupancy surveys give a better understanding of the distribution trends of the lizard within the park. Demography surveys are conducted in September on two plots for two weeks each. The time spent on these plots allows for a more detailed look at immigration, emigration, recruitment, birth rate, and mortality. These surveys provide census data of the FTHL population at each plot, used to estimate range-wide trends. Staff submits data for both surveys to the ICC, whose statisticians analyze the information for modeling and projection of the lizard population throughout its range. Ocotillo Wells SVRA has seen an upward trend in FTHL populations since 2014, with 2020 as a record-setting year with the most flat-tailed horned lizards observed in both occupancy and demography. FTHL tends to be a “boom or bust” species based on rainfall; the population increase noted since 2014 matches local rainfall trends.

In 2015, the California Fish and Game Commission accepted a petition to consider listing the FTHL as endangered. At the end of 2016, the Commission decided not to list the species as

endangered based on the analysis and recommendation provided by the California Department of Fish and Wildlife staff. The FTHL remains a species of special concern in the state.

Since 2018, 474 occupancy surveys have been conducted each year on 79 randomly scattered plots throughout the park, with each plot surveyed six times, and demography surveys are conducted on two plots for two weeks each. Ocotillo Wells SVRA has been observing an upwards trend in the FTHL population since 2014, likely due to a consistent increase in rain. A record high was set in 2020, with the most flat-tailed horned lizards observed in both occupancy and demography. Of the 79 occupancy plots, 68 were positive for an FTHL (86%).

**Vegetation Monitoring Program**

Vegetation and the cover it provides in the Sonoran Desert is an essential component of the overall habitat health in Ocotillo Wells SVRA. Perennial vegetation protocols were modified from the National Park Services' Sonoran Vegetation survey protocol. Surveys are conducted twice a year in the spring (March) and fall (October). The cover is measured through transect surveys. Resource staff identify the plant species and cover length that crosses the transects. In 2018, Ocotillo Wells SVRA expanded vegetation monitoring into the Truckhaven area.

**Sensitive Vegetation Monitoring**

Since 2020, Ocotillo Wells SVRA has focused on mapping and understanding the condition of three indicator and/or sensitive vegetation species within the park. These species include desert ironwood, honey mesquite, and Orcutt's woody aster. Targeted sensitive vegetation monitoring helps indicate the health of these populations within the park.

Sensitive vegetation monitoring is performed annually to gather information on the distribution and health of these species throughout the SVRA. Sensitive species within the park will be surveyed and mapped using ArcGIS Collector. Plant physiognomy will also be collected and used to monitor population changes over time.

A sensitive vegetation monitoring protocol was developed in 2020, with field efforts commencing in 2021. The current focus of the protocol is three sensitive species: desert ironwood, honey mesquite, and Orcutt's woody aster. The aim is to identify and map individuals throughout the park and conduct a basic health assessment to inform resource staff on the distribution and health of these populations throughout the park. Surveyors note height, damage (if any), fauna on or near the vegetation, and proximity to OHV tracks. Other health attributes recorded are overall health, new growth, canopy diameter, basal circumference,

dune area (specific to mesquites), and surrounding vegetation. Once surveys of the initial target species are complete, additional species may be added to the protocol.

**Invasive Species Management**

Ocotillo Wells District's Invasive Management Plan was developed in 2020. It relies on four phases of management: prevention, early detection rapid response (EDRR), control and management, and education and public awareness. The phased approach provides guidelines to actualize management goals. These phases are not sequential or mutually exclusive and can all be in effect at once.

Ocotillo Wells SVRA has 24 confirmed non-native species within the park. Of these, three stand out: tamarisk, Sahara mustard, and desert knapweed. Tamarisk uses large quantities of water and exudates salt from deeper soil in its leaves, inhibiting the growth of native plants. Since the 2013 treatments of tamarisk, the infestation rate is relatively mild within the park, and near-complete eradication may be possible; however, re-infestation from neighboring areas is also possible.

Sahara mustard outcompetes native wildflowers in wet years, affecting the wildlife that relies on the native vegetation and reducing the diversity of annual wildflowers. It may be possible to create weed-free zones with control management efforts but eradicating this species throughout the park is impossible. Staff handpicks or use hoes to remove Sahara mustard. Due to its ubiquity, Sahara mustard is mapped based on its treatment, allowing staff to monitor the area and observe how treatment holds up over time.

Sahara mustard was opportunistically pulled in 2018 and 2019. Particular attention was paid to areas with high traffic, such as around Blowsand Hill, a popular visitor site, and around the park office. In 2020, mustard was pulled under the new invasive management plan with 8.5 acres treated and mapped on Collector. Staff will monitor treated areas to create weed-free zones in areas of special concern.

Desert knapweed was first found in the neighboring park of Anza-Borrego Desert State Park® in 2010 and Ocotillo Wells SVRA in 2020. In response to its rapid spread within the Borrego Valley, an EDRR protocol was developed for Ocotillo Wells SVRA. Areas of high risk, such as high-traveled access roads that lead into the park or washes that originate from Anza-Borrego Desert State Park®, are monitored for the presence of desert knapweed. If found, the invasive is promptly removed, and the area is mapped for continued monitoring.

In 2019, an Early Detection Rapid Response (EDRR) protocol was created for desert knapweed due to its proximity to the park. Staff located, pulled, and mapped a small population in February 2020 at the side of County Dump Road. On three other occasions, the invasive plant

was found in the same location and removed. Since then, the area has been surveyed three more times and has been negative for desert knapweed each time. Thus far, this has been the only site where it has been found within the park. Staff will continue with EDRR efforts to prevent this species from establishing in the park.

**Native Plant Nursery**

The native plant nursery allows for the propagation of native plants in controlled conditions for restoration within Ocotillo Wells SVRA. Upgrades have been made to the nursery at Ocotillo Wells SVRA, such as PVC irrigation lines and motion-activated sprinklers to deter small mammals looking to forage on nursery plants. New cages for native plants have also been made to protect them from small mammal foraging.

Native palm trees grown in the nursery have been used for restoration projects within Ocotillo Wells SVRA. Additional palms and other native vegetation, such as California boxthorn, honey mesquite, and palo verde, are grown for future projects.

**HMS Program Improvements**

Ocotillo Wells SVRA has improved their HMS-Natural Resources database to allow better data entry, ensure quality data, and provide reports on the data collected. In addition, historical monitoring data has been added to the database to ensure that all park data is housed in one system that is easily accessible and allows for better comparisons and assessment of trends throughout the years.

**Resource Training and Stewardship**

Protecting species like the FTHL requires support and participation from staff and the public. In 2019, Ocotillo Wells SVRA environmental scientists gave an FTHL orientation to train staff on essential skills at the beginning of the survey season. Generally, the program introduces district staff to the resource management program. It consists of FTHL survey protocol, introduction to common reptile species at Ocotillo Wells SVRA, basic 4x4 training, navigation, cultural awareness training, and desert safety. Staff enjoyed this training, and it resulted in higher levels of crew confidence. Ocotillo Wells SVRA staff, in turn, staff educate the public about how to protect the FTHL and other sensitive plants and wildlife through informal discussions, interpretive programs, signs, brochures, and social media posts.

The district holds a CEQA and project development training for staff from all disciplines. The training focuses on the legal background of CEQA, State Parks' role in environmental review, how to develop a project scope, and concludes with information about the review process. This

knowledge base helps all staff understand how to propose and carry out environmentally responsible projects.

**Projects with partnered agencies**

District staff monitor external projects that are proposed in or near the SVRA. In recent years, this has meant that district staff has had the opportunity to work closely with other agencies' staff on project permitting and review. District staff reviewed geothermal exploration lease permits and military clean-up operations, working with partners such as the Bureau of Land Management, County of Imperial, State Lands Commission, and United States Marine Corps. While it is important for staff to be alert and involved in projects that could impact the SVRA, these joint projects provide great cross-training opportunities. Each agency has different goals and objectives; therefore, finding common ground for project success is critical.

## *Restoration Projects*

Restoration differs from conservation in that restoration efforts seek to return nature to a state like pre-human disturbance. Ecological restoration projects are critical because of the need to balance maintaining an area for OHV riders to recreate safely while supporting a healthy ecosystem. Restoration focuses on repairing the damage in sensitive areas from harmful human activities and returning them to a natural state. Ocotillo Wells SVRA's projects include the Truckhaven Palm Bowl, Truckhaven Palm flats, and Desert Ironwood Filled Donuts projects. The Truckhaven projects removed volunteer hill climbs and trails and protected and restored two California Palm oases. The Desert Ironwood Filled Donuts project involved filling in "donuts" (ruts) created by OHV riders around ironwood trees.

Ocotillo Wells SVRA has been focusing on restoration projects that require the skills and expertise of multiple fields, allowing opportunities for the Resources Department, Trails Department, and Heavy Equipment Operators to work alongside each other. These joint projects provide a better understanding of each other's specialty and often result in a multi-benefit project.

**Truckhaven Palm Bowl Restoration**

The Truckhaven Palm Bowl project was a cooperative project that included natural and cultural resource staff, heavy equipment operators, and trail staff. The project began with the removal of volunteer hill climbs using heavy machinery. The soil was de-compacted with heavy equipment to encourage new native growth. A barricade was installed to protect the area from future disturbance. Campfire rings were deconstructed, and trash was removed from the site. Five native palms were planted and are regularly monitored and watered.

**Truckhaven Palm Flats Restoration**

The Truckhaven Palm Flats project, with proximity to the "Truckhaven Bowl" project, also removed volunteer trails using heavy machinery. The focus of this project was to restore and protect a degraded California Fan Palm oasis. One tamarisk was removed to help protect the potential water source. Additionally, remnants of old campsites and litter were removed from the area. The project was supported by cultural resource staff and the trails team. The restoration area was raked to remove signs of human disturbance, and native palms were planted within the site. The project location is monitored and watered regularly.

**Desert Ironwood Filled Donuts Project**

The Desert Ironwood, Filled Donuts project filled three OHV created "donuts," with two around desert ironwood trees and the other around creosote. Donuts are made when OHV riders drive in circles at high speeds. This action causes the soil to be become compact and eroded, leaving tree roots damaged and exposed. It also generates additional safety concerns as the exposed roots can cause visitors to injure themselves or cause damage to their vehicles. Heavy machinery moved soil into the ruts to restore these sites, ranging from six inches to two and a half feet deep. The trails team assisted with raking and provided finer detail work after heavy equipment use was completed. Interpretive panels will be installed to inform the public about the significance of desert ironwoods in desert environments.

## Onyx Ranch SVRA

### *SVRA and Environmental Setting*

Eastern Kern County, Onyx Ranch SVRA (Onyx Ranch SVRA) is the second largest of nine SVRAs and is the most recent acquisition. It is adjacent to Red Rock Canyon State Park, where the Mojave Desert abuts the southern-most extent of the Sierra Nevada and includes the Jawbone Canyon, Kelso Valley, and Dove Springs areas. The SVRA is laid out in a checkerboard fashion of mostly one-mile square parcels of BLM land interspersed with state property. The SVRA offers approximately 25,000 acres of scenic and challenging terrain for OHV recreation. The eastern portion of the park is available for OHV use, but the western part, interspersed with private ranches and crossed by the Pacific Coast Trail, is not authorized for OHV use.

Elevations range from 2,200 feet to over 6,400 feet. Occasional snowfalls occur in the winter months, and summers are mainly hot and dry. The most pleasant times for OHV recreation occur between October and April when temperatures are cool and occasional rains reduce dust and improve traction. Nighttime temperatures frequently drop below freezing in the winter, spring, and fall. The mean temperature ranges from the low 30s to over 100 degrees Fahrenheit, and the average annual precipitation is 6.7 inches.

Vegetation communities in the SVRA consist of creosote and bursage scrub, desert wash and terrace, lower and upper Mojave woody scrub, Joshua tree woodland, blackbrush scrubland, and desert wetland and riparian. Located within the park is Butterbredt Spring, an important stopover for migratory birds on the Pacific Flyway. Butterbredt Spring is an Audubon designated Important Bird Area within the BLM's Jawbone-Butterbredt Area of Critical Environmental Concern. This sanctuary provides a much-needed resting place for hundreds of thousands of birds migrating through the area, with willows, cottonwoods, and the only water for miles.

The SVRA provides habitat for the federally and state-listed threatened desert tortoise, and the state-listed threatened Mohave ground squirrel. The tri-colored blackbird and Joshua tree also occur in the park and are a state candidate listing for sensitive species.

### *Plans, Resource Management and Monitoring Programs*

**Wildlife Habitat Protection Plan**

In 2017, a draft WHPP was completed with input from environmental consultants to ensure the best available science was incorporated into the monitoring protocols. Pending final approval, the habitat monitoring system outlined in the revised WHPP is implemented to create a

baseline species list. The 2021 WHPP may update the existing habitat monitoring system and other monitoring processes.

**Road and Trail Management Plan**

The Strategic Planning and Recreation Services Division and Onyx Ranch SVRA staff began work on the Road and Trail Management Plan in 2019. The management plan is a comprehensive planning document that examines the SVRA's existing system of roads and provides specific directions for their long-term construction, maintenance, and management. The planning process will analyze existing trail conditions, identify issues and gaps in the route network, and make recommendations. The plan intends to maximize visitor experiences while minimizing impacts to natural and cultural resources, reduce maintenance and management costs, prioritize roads and trail projects, and coordinate with local and regional planning efforts.

**Soil Monitoring Program**

As part of the trail photo monitoring program, quarterly resource staff monitor twelve sites with a high erosion hazard throughout the park. This program allows staff to detect and respond to changes in erosion over time. Additionally, park staff report and respond to problematic erosion areas as they occur. This quick response is critical following significant precipitation events.

**Landscape Photo Monitoring**

Staff conduct landscape photo monitoring bi-annually (January and August) in high-use and habitat restoration areas. There are currently twelve landscape photo monitoring locations for Onyx Ranch SVRA. Landscape photo monitoring aims to detect and inform resource managers of vegetation cover, erosion, and trail expansion changes throughout the park.

**Plant and Wildlife Program Overview**

In 2018, habitat monitoring plots for annual monitoring were generated using a generalized random tessellation stratified design. This design randomly selects monitoring plots while also being stratified and spatially balanced across habitat types. These plots serve as the locations for vegetation, avian, reptile, and small mammal monitoring. A subset of these plots is used for Mohave ground squirrel and large mammal monitoring. Three plots in trail and non-trail areas were selected in four main vegetation alliance or alliance combinations, except wetland and riparian areas due to limited locations. Several habitats in the eastern portion of the park that allow OHV use was selected for generating plots. These include creosote and bursage scrub, desert wash and terrace, lower Mojave woody scrub, Joshua tree woodland, blackbrush

scrubland, and meadow and seep or desert riparian. This protocol resulted in 21 monitoring plots.

**Vegetation Monitoring**

Resource staff conducts vegetation monitoring annually at the 21 Habitat Monitoring System (HMS) plots in the spring when vegetation is at or near peak phenology. Vegetation monitoring protocols follow the California Native Plant Society relevé sampling technique. Information about each plot's location, habitat, and vegetation composition is recorded. Each plot is $30m^2$; the same plots are monitored annually. Every species in the plot is recorded, and the percent cover is estimated. Data from this vegetation monitoring provides insight into the composition of vegetation communities in the park, the ratio of native and non-native plants and is aiding in establishing a species list. Continued monitoring will allow State Parks to detect and respond to changes over time.

Over 450 vegetation species have been confirmed in the park by the relevé surveys and the surveys done by consultants for the Acquisition Environmental Impact Report. In 2019, vegetation monitoring added 12 new species to the park's species list.

**Butterbredt Spring Invasive Species Management Plan**

In 2018, State Parks contracted with a consultant to prepare an Invasive Species Management Plan at Butterbredt Springs to control the stand of broad-leaved cattail. Broad-leafed cattail is native to California but reproduces and spreads like aggressive invasive plants. A thick, solid stand formed at the Butterbredt spring and eliminated the open water habitat on which wildlife species in this dry environment rely. The management plan included various non-chemical removal methods that could be used to control broad-leaved cattails.

State Parks led a control project in 2018 with the help of an American Conservation Experience (ACE) crew at Butterbredt Spring and Alphie Spring to maintain open water habitat and biodiversity of plants and animals within the spring area. The ACE crew removed and bundled cattails by hand and bagged the seed heads. Hand removal was done to minimize the impact on non-target species. In the five full workdays that the crew worked on the project, they removed all the cattails at Butterbredt Spring and approximately half at Alphie Spring. Because cattails are prolific at sprouting, continued control projects are needed to ensure open water habitat is available for wildlife.

**Reptile Monitoring**

Since 2019, staff conducted reptile monitoring annually in the spring between March and May through visual encounter surveys with 10 meter wide transects. Two transects are surveyed for

30 minutes each at every HMS plot. Each plot is surveyed when reptiles are most active, generally between 0800-1300. The species, sex (if known), age (adult or juvenile), and microhabitat for each reptile observed are recorded. Twenty-two reptile species have been confirmed in the park so far.

**Amphibian Monitoring**

In 2019 and 2020, a consultant, with assistance from park staff, monitored amphibians monitoring at five water locations throughout the park. The goal was to verify which potential amphibian species were utilizing waterbodies in the park. Spotlight surveys were conducted with binocular scanning and visual and auditory searches. The western toad and the Pacific chorus frog were observed at the park.

**Avian Monitoring**

Avian monitoring is conducted annually in the spring between April and May and winter between November and January. Spring surveys started in 2019, and winter surveys began in 2020. Surveys are conducted when birds are most active in the morning and are concluded by 10 a.m. when bird activity slows down. Point count surveys with a five-minute observation time are done at each of the 21 HMS plots. For each individual observed, the species, number of individuals, the distance of the bird from the plot center is recorded. Birds are identified by sight and sound, and distances are recorded using a rangefinder. In addition to point counts, the Institute of Bird Populations (IBP) and OHMVR Division environmental scientists deployed Automatic Recording Units (ARUs) at all the HMS plots in 2019. IBP has annotated acoustic data from the ARUs. The ARUs detected a total of 28 species, including 12 species that have not previously been confirmed from the park's potential species list. The ash-throated flycatcher, Bewick's wren, blue-grey gnatcatcher, Brewer's sparrow, Bullock's oriole, Costa's hummingbird, dark-eyed junco, downy woodpecker, gray flycatcher, house wren, Pacific-slope flycatcher, and white-throated swift were officially confirmed in the park.

**Mohave Ground Squirrel Monitoring**

Annual Mohave ground squirrel (MGS) presence monitoring is conducted annually between March 15$^{th}$ and May 15$^{th}$. Great Basin District staff collaborated with the California Department of Fish and Wildlife's Mohave Ground Squirrel Technical Advisory Group to develop protocols for monitoring the species. Four habitat monitoring sites were selected based on habitat and slope. Mohave ground squirrels preferentially use habitats of blackbrush scrublands and Joshua tree woodlands in flat or mildly sloped areas. A transect of five cameras spaced 150 meters apart at each of the four habitat monitoring sites was set up.

Resource staff installed cameras for two sessions of five full days. There is a minimum break of three weeks between sessions to capture post-mating season variability in surface activity. Staff bait cameras with birdseed and peanut butter powder to attract the species to the camera view. The photos are reviewed, and the number of MGS photo occurrences are recorded. Incidentally, other diurnal species are recorded during the monitoring period.

In 2018, Mohave ground squirrels were detected at four locations in the park. In 2019, one site had a possible species detection, but there were not enough photos of the individual to confirm. Reports from other Mohave ground squirrel monitoring efforts in the region are consistent with the results in the park. In 2019, there were little to no species detections from other regional survey efforts. Cattle grazing also impacted the survey efforts of MGS, and staff removed the birdseed bait containers from the cattle's view at three of the camera locations.

Unfortunately, two cameras malfunctioned and were not consistently operating during the monitoring period. Mohave ground squirrel presence could not be adequately detected at these sites without consistent bait in the camera view without properly functioning cameras. Since grazing occurs throughout the park during the ground squirrel survey season, survey protocols may have to be adjusted in the future. Daily birdseed refills at each camera site would reduce the impact of cattle on survey results, but this would require more personnel to implement. Alternatively, ground squirrel monitoring can be done every other year during the grazing rest period for the pastures.

**Bat Monitoring**

A consultant conducted acoustic bat monitoring in 2019, followed by park staff in 2020. State Parks used Wildlife Acoustics SM4 devices at five locations near water sources to monitor bats. Resource staff installed wooden posts so that the locations were standardized over time. Each unit is placed 10-12 feet above the ground, mounted on a painter's pole, and the microphone cord is wrapped around the pole to reduce noise interference. Passive acoustic surveys are done for two periods of two weeks throughout the year. The data is analyzed using the auto-identification software of Sonobat 4.4.5, and a subset is manually vetted by park staff and sent to an experienced bat biologist for confirmation.

Previous surveys have detected 11 different species, including the pallid bat, western red bat, hoary bat, big-brown bat, California myotis, western small-footed bat, long-eared bat, Yuma myotis, evening bat, spotted bat, and the Mexican free-tailed bat. Continued monitoring of bats throughout the park in different seasons is necessary to confirm if other potential species are onsite.

**Bat House Installation**

In 2021, two four-chamber bat houses were installed near a spring in Kelso Valley to provide additional roosting locations. The bat houses were placed back-to-back on a pole 11 feet off the ground. The bats have access to different temperature options for roosting by providing two bat houses facing opposite directions.

**Large Mammal Monitoring**

Large mammal presence monitoring began in 2016 and is completed each year in June or July. Reconyx wildlife cameras with infrared motion detectors are set up at water sources to run 24 hours a day for two weeks. The photos are then reviewed, and the number of individuals, number and type of species, and the number of species occurrences are recorded. A time-gap interval of 10 minutes defines a new species occurrence.

**Grazing Lease with Cattle Ranchers**

Cattle grazing has occurred for over 50 years at the property that composes Onyx Ranch SVRA. Previously, BLM and State Parks maintained a grazing lease with ranchers through the Rudnick Common Allotment. State Parks' grazing lease expired in 2018 but continues with a holdover clause on a month-to-month basis. Within the Rudnick Common Allotment, grazing is done on a rest rotation schedule, with each pasture receiving a spring rest period between uses. The lease serves many benefits to Onyx Ranch SVRA, including facility maintenance of historical structures, fire prevention and fuel reduction, and control of non-native plants.

**Restoration Projects**

The Great Basin District trails crew has been working on several projects at Onyx Ranch SVRA. These projects include:

- Maintaining existing routes and trails.
- Replacing damaged trail markers.
- Replacing existing fencing to protect sensitive areas.
- Installing new barriers to protect resources.
- Closing open fence pipes and openings in kiosks throughout the park to prevent avian mortality.

Staff work on these projects in collaboration with the BLM, the Friends of Jawbone, the local Audubon chapter, and the grazing lessee.

## Prairie City SVRA

### *SVRA and Environmental Setting*

Prairie City SVRA is an urban OHV park located at the base of the Sierra Nevada foothills approximately 25 miles east of Sacramento and 60 miles west of Lake Tahoe. Elevations range from 240 feet to 350 feet above sea level. Summers are dry and hot, while winters tend to have dense fog in the mornings and occasionally heavy rains. The park's flat, open grasslands, rolling hills with native blue oak trees, and acres of historic cobbled mine tailings provide various terrain, trails, distributed riding, and an extensive selection of tracks for OHV enthusiasts.

Prairie City SVRA is 1,348-acres, with currently 649-acres devoted to OHV use. Within the remaining 699 acres that are not open to OHV riding, 213 acres allow for non-motorized docent-led use by the public, and 486 are currently closed to the public. Areas only open to non-motorized recreation contain a high concentration of vernal pools that provide habitat for species listed under the California and Federal Endangered Species Acts. These include the 211-acre Yost property purchased in 2004, the 68-acre Barton property purchased in 2014, and the 229-acre Ehnisz property purchased in 2015.

The SVRA has various water features, including streams, drainages, vernal pools, and palustrine wetlands. Three intermittent streams run southeasterly throughthe eastern portion of the park and flow into Coyote Creek, and a fourth run northwesterly through the northeast corner of the SVRA and drains into Buffalo Creek. Several seasonal drainages are tributaries to these intermittent streams or lower elevation settling basins and vernal pools throughout the park, primarily in non-OHV riding areas.

**Wildlife**

Prairie City SVRA is home to an array of Central Valley and Sierra foothill wildlife. Resource staff has compiled an ever-growing inventory of fauna and flora recorded through surveys conducted at the park and incidental eye-witness observations. As of 2018, 161 species of birds, 19 species of mammals, 17 species of amphibians and reptiles, four species of brachiopods, and two fish species have been recorded. Some interesting bird species include Loggerhead Shrike, Swainson's Hawk, Tri-colored Blackbird, Great Horned Owl, burrowing owl, and Northern Harrier. Reptiles and amphibians include Pacific chorus frog, western fence lizard, gopher snake, and northern pacific rattlesnake. Bobcat, coyotes, and black-tailed deer are some of the large charismatic mammals present. Other animals commonly observed include the California ground squirrel, killdeer, turkey vultures, brush rabbits, black-tailed jackrabbits.

**Special-status Species**

Protected species at Prairie City SVRA include the federally endangered vernal pool tadpole shrimp and the federally threatened vernal pool fairy shrimp. The state threatened Swainson's hawk is a common nester, and the park's fully protected white-tailed kite has been observed. In addition, the federally threatened valley elderberry longhorn beetle may be found in the park's blue elderberry trees. As of August 2018, the Tricolored Blackbird flocks to the park in summer and is listed as a threatened state. Other species of special concern include the yellow warbler, northern harrier, loggerhead shrike, grasshopper sparrow, burrowing owl, and the western pond turtle.

**Buffer Lands and Vernal Pools**

The Storm Water and the Vernal Pool Management Use Areas serve as a buffer for noise and dust produced from OHV recreational activities. Prairie City SVRA has almost 200 acres of vernal pool grasslands, a California prairie ecosystem that includes upland grasslands, and the seasonal wetland vernal pools home to many native species of flora and fauna.

Consultants or other resource management staff have conducted past studies on vernal pool tadpole shrimp and vernal pool fairy shrimp at the park. In 2016, resource staff received the training necessary to obtain scientific collection permits from the USFWS to prepare for future studies. Prairie City SVRA staff also use the vernal pool area for outreach and educational programs such as the annual Vernal Pool Tour.

## *Resource Management and Monitoring Programs*

**Normalized Difference Vegetation Index Studies**

Since 2014, Prairie City has had multispectral aerial imagery flown every two years in the spring. Using this imagery, Normalized Difference Vegetation Index (NDVI) analyzes were performed using ArcMap 10.4 to measure vegetation cover changes between years. NDVI measures the amount of near-infrared light versus red light being reflected off terrain. Plants absorb red light during photosynthesis, and the leaf structure reflects infrared. A healthier, denser plant will absorb more red light and reflect more infrared than a dead, spindly plant resulting in a higher NDVI value. Bare ground, buildings, and water absorb and reflect light differently from plants and can be separated during analysis. Essentially, the NDVI analysis can be used to monitor vegetation health and cover change over time.

At Prairie City, staff use NDVI to identify priority areas needing restoration and quantify those projects' success. Pairing NDVI analysis with turbidity monitoring can target areas of vegetation loss and poor water quality. NDVI also helps visualize new user-created trails, widening tread in trail-only areas or monitoring the effectiveness of different physical barriers preventing OHV trespassing. Over multiple years, patterns can be inferred if similar trails are created or widened

in an area that could signal users' desire for more entertaining routes. Or the opposite, if a route is overgrown, it could signal users are dissatisfied and that trail/area could be restored. This aspect of NDVI will be a planning tool for the Road and Trail Management Plan in areas transitioning from open riding to trails only.

**Avian Monitoring**

Prairie City SVRA conducts annual point counts surveys to monitor avian diversity and richness at 43 sites across the park. Initially, the primary objective of the analysis was to determine the impact of OHV recreation use areas on bird populations. The results indicate no statistically significant difference in species diversity or richness between OHV use and non-OHV use areas. Instead, there was a substantial increase in diversity or richness correlated with the presence and complexity of vertical habitat regardless of OHV use. The western zones of the park contain almost all the cottonwood/willow and coyote brush scrub habitat. The eastern area consists primarily of annual grassland, disturbed annual grassland, and blue oak woodland vegetation types. The woodier vegetation of the west provides greater vertical complexity with more habitat niches. Since the last Commission report, several restoration efforts and new tree and shrub planting additions in the eastern portion may have reduced the diversity gap observed in the 2018 analysis.

Over the past several years, multiple volunteers helped complete the avian point count surveys, but experts were not always available every year. This method resulted in slightly different data collection methodologies or reduced survey efforts some years. Prairie City renewed the contract with Audubon and the Institute for Bird Populations (IBP) to improve the avian bird count methodology. Part of the previous contract included an analysis of the effect of trail cover on select species during the winter and spring using five years of avian data. The study concluded that the percentage of trail cover itself did not appear to cause population declines in species and that disturbance may happen when a trail is initially constructed. The IBP recommended Automated Recording Units (ARUs) and bird song identifying software in future studies to accompany field observation when experts are in short supply.

With the onset of COVID-19, Prairie City and IBP staff have relied on these ARUs as "virtual" experts. Analysis of the first round of ARU's determined that longer recording time would allow the song identifying software to approach human-like accuracy. In the future, Prairie City staff plan to set up long-term sampling stations at each HMS site with the additional possibility of tracking vehicle use per IBP's recommendation.

**Reptiles and Amphibians**

Visual pond surveys for the non-native American bullfrog were conducted in spring 2015. The purpose of the survey was to determine the presence and location of this species within the

park. Bullfrogs were observed in the Coyote Creek waterway, including drainages, sediment basins, and creek segments. They were observed in the large seasonal pond at the north end of the park, the cottonwood-lined pond near the entrance road, and several other locations.

The bullfrog, while native to the United States, is invasive in California. In California, the American bullfrog has contributed to the decline of many native animal populations, including some frogs, turtles, and snakes, by either outcompeting or preying upon them (California Herps.com 2013). High populations of bullfrogs could lead to the reduction of species richness and diversity in the park wetlands. Because of this, bullfrog monitoring and discussions about eradication measures continue.

**Road and Trail Management Plan**

State Parks' Strategic Planning and Recreation Services Division lead the Prairie City Road and Trail Management Plan (RTMP). In 2017 and 2018, Prairie City SVRA staff inventoried all the roads and signed trails within the park after receiving the Roads and Trails Program training. Then, Research Analysts entered these features into the Statewide Road and Trails Program database. Roads and Trails Program staff then reviewed the data and completed a base map in 2020.

Next, Prairie City SVRA staff will develop draft trail concepts, including new trails and trail systems and trails for certain vehicle types (i.e., motorcycle, ATV, ROV, four-wheel drive, and multiple uses). If existing routes have caused erosion or affect sensitive species, these may be re-routed or discontinued. Once completed, the public will have the opportunity to review them.

The base map will be a planning tool to decide which trails to preserve, modify, or restore when transitioning from "open riding: to a trail-only riding area in the park. Priority projects include designing new roads and trails within the Yost and Ehnisz properties currently closed to recreation. Another is developing new routes within the Coyote Gulch area once that area has been restored (See Coyote Gulch section for more information). The cultural survey has been completed for Yost and Ehnisz by Far Western, and the report will determine any constraints surrounding cultural resources. A consultant conducted the biological assessment. Once constraints and avoidance areas are identified, the following steps will determine possible vehicle uses and trail corridors within Yost and Ehnisz. A public meeting will be held to discuss the corridors and gather input on possible features to include. The plan is to open Yost and Ehnisz and the Coyote gulch area before more sites are closed for rehabilitation.

During the 2020/2021 fiscal year, the project was on hold due to staff reassignments for Covid-19 related contact tracing. The project is expected to resume in the 2021/2022 fiscal year.

**Designation of Management Units**

Management units (MU's) were established at Prairie City in 2020 to provide a structure for implementing and organizing maintenance and natural resource management activities. Delineation of Prairie City SVRA management units was conducted based on vegetation community differences, OHV use type, and the similar regime of routine maintenance and management needs.

Zone 1 MU is dominated by dredge tailings that support annual grassland interspersed with elderberry and cottonwoods. A few signed trails exist in the area, as well as numerous past-user-created trails. The zone is designated as a distributed riding area in the General Plan, meaning visitors may use any existing routes, signed or not, but may not create new ones.

- Zone 2/3 MU is an area of rolling hills composed of annual grasslands with two main ephemeral drainages that support riparian vegetation. This area is in the process of shifting from "open riding" to a designated route and trail system use area. Management activities include stormwater and trail monitoring and possible restoration and new trail design in the future. These two areas may be separated into different MU's once the type and trail design have been identified.
- Zone 4 MU includes the northern portion of one of the park's main ephemeral drainages. This 4x4 and ROV vehicles area has a mixture of obstacles, special event facilities, and transitional areas of "open riding" to route and trail systems only. Management activities include stormwater and trail monitoring and possible restoration projects. Future facilities, obstacles, and trail design will be 4x4 and ROV specific.
- Yost/Ehnisz MU is a relatively flat annual grassland with dredge tailings, vernal pools, and cottonwood woodlands. This area is in the process of opening previously closed areas to route and trail system use areas. These sections may be separated into different MU's once use type and trail design has been identified.
- Barton MU is designated as a stormwater management area and not open for motorized recreation. A tributary to Coyote Creek runs through the center, supporting blue oak woodland surrounded by annual grassland and the occasional vernal pool. A 100' easement abuts the northern and western boundaries.
- Prairie City MX Track MU is run as a concession area that operates mostly independently from the rest of the park and hosts a huge event- the Hangtown Nationals MX Race. Other concession areas were omitted as they are relatively small and do not have much that would warrant a distinguished and separate MU. Temporary drainage runs through the middle of the track.
- Vernal Pool Management Area MU comprises annual grassland interspersed with vernal pools and is closed to motorized recreation. The MU is further broken into subunits: A to the north and B to the east. Both subunits are priority prescribed burn locations as they are heavily infested with medusahead. In spring, the park hosts vernal pools tours

for the public. Additional non-motorized recreation facilities may be planned in the future.

**Stormwater Management**

Stormwater management and restoration are vital components of the natural resource program at Prairie City SVRA. Due to the vegetation removal and mechanical erosion that occurs with the spinning wheels of motorized vehicles, establishing programs to achieve both erosion control and sediment control is vital to staying in compliance with water quality standards

Restoration and rehabilitation efforts are one component of increasing vegetative cover and limiting the presence of erodible soils. Recontouring of areas prone to rutting and gully erosion is prioritized on the maintenance schedule. Seeding both with a hydro seeder and through broadcast methods is conducted throughout the winter rainy season.

For sediment control, rip-rap channels and energy dissipaters are used throughout the park to slow the rate of high-volume water flows, catch sediment, and limit erosion. Burlap-wrapped straw wattles and silt fences can be seen in specific areas to help contain and filter.

Twelve sediment basins throughout the SVRA hold and store stormwater and collect sediment before water continues through the hydrologic system. Prairie City SVRA uses sediment material collected from the basins for hillside restoration efforts.

**Hill Rotation Program**

The Hill Rotation Program has been implemented to promote balanced and sustainable OHV recreation management. Prairie City SVRA temporarily closes hillsides needing rehabilitation while other areas are open for the recreational hill climb. During the rehabilitation process, hillsides are recontoured with soil material recovered from sediment basins. Then, burlap-wrapped fiber rolls are placed along the hillside to stabilize the soil. Finally, the hillside is sprayed with a hydroseed mixture of native seed mix, tackifier, mulch, and water. Vegetation is given multiple winter seasons to establish before reopening the area to OHV recreation.

Prairie City SVRA applies Dust-Off® (magnesium chloride) annually to the main roads to help minimize dust. In addition, this product reduces the reliance on water for dust control and is part of the parks' drought response plan, which is mandated by Executive Order B-18-12.

## *Restoration Projects*

**4x4 Mitigation Planting Restoration**

In 2018 before the vegetation improvement project started, there were 235 existing plants in the 4x4 area. During the 2018/2019 vegetation improvement project, 86 plants were introduced, making a 27% increase, bringing the total number of introduced plants to a 4x4 area to 321. Staff planted five species of native trees and shrubs, including coffeeberry, hoary coffeeberry, coyote bush, western sycamore, and buckbrush.

Once per week, staff watered plants, monitored the health of plants, and added any other notes about new plantings to a datasheet for each planting area. The sycamore, coyote bush, and both species of coffeeberry proliferated and performed well. The buck brush did not perform well in any planting areas and will not be attempted again. Buckwheat, which has been observed thriving in the 4x4 area, may be planted in the future instead.

**Coyote Gulch and Teichert Haul Easement**

In 2016, the Major Capital Outlay Erosion Control project started at Prairie City to improve the quality of stormwater discharge leaving the SVRA. The OHMVR Division hired consultants to collect baseline hydrological and turbidity data supporting preliminary engineering, design erosion control facilities, and develop additional erosion control measures/Best Management Practices (BMPs). Many BMPS were proposed because of the studies, including detention/sediment basins, bio-filtration swales, check dams, and spray fields. Most designs focused on the Barton Ranch property acquired to provide buffer land to the SVRA and develop water quality improvement facilities.

After discussing the options and project budget, the project team, consisting of Northern Service Center and Prairie City staff, decided to focus on the Coyote Gulch section of Zone 3 for the initial design. The current plan focuses on restoring the 43-acre area to the original line and grade and converting the existing channel into an eight-foot-wide vegetated swale. Five raised box culvert crossings will be strategically placed along the stream, and later trail design and use determination will be handled separately through the Route and Trail Management Plan.

A setback occurred in the planning process in early 2020 when the planning team discovered Teichert was initiating the installation of a conveyor belt on their 100' haul easement on the Barton property. The exclusive easement was granted in 2003 - before State Parks purchased the Barton property in 2014 - to transport material from Teichert or Stoneridge Quarry to the Teichert Grant Line Road processing facility. The 100' easement contains a 4ft tall conveyor belt with roads on either side bounded by 6ft fencing, preventing State Park access to most of the Barton property unless it builds a crossing under or over the easement.

The two planning teams are currently in conference to mutually redesign projects in this overlap area to meet both parties' needs.

**Annual Wildland Fire Refresher-Fire Shelter Deployment Training**

Prairie City SVRA hosts many different safety courses with government and non-profit organizations throughout the year. This partnership also provides valuable training for State Park staff. For example, the National Wildfire Coordinating Group (NWCG) provided an annual refresher course at Prairie City on July 27, 2021. The NWCG provides national leadership to enable interoperable wildland fire operations among federal, state, local, tribal, and territorial partners. Click on this link for a video of this training.

# Chapter 3: OHMVR Grants and Cooperative Agreements Program

Chapter 3 describes the OHMVR Grants and Cooperative Agreements Program and includes the following OHMVR Commission Program Report Requirements:

**Report Requirement 2**: The condition of natural and cultural resources of areas and trails receiving state off-highway motor vehicle funds and the resolution of conflicts of use in those areas and trails.

**Report Requirement 3**: The status and accomplishments of funds appropriated for restoration pursuant to paragraph (2) of subdivision (b) of Section 5090.50.

## Chapter 3: OHMVR Grants and Cooperative Agreements Program

This chapter provides an overview of the OHMVR Grants and Cooperative Agreements Program, changes to regulations since 2017, Operations and Maintenance, and OHV Restoration Grants under PRC 5090.24 (h)(2) and (3). See Chapter 4, OHV Law Enforcement, for information about the OHV Law Enforcement and OHV Education and Safety Grants Programs. See Appendix C for the legislative codes referenced in this chapter.

# OHMVR Grants and Cooperative Agreements Program Overview

Since 2016:

- $14,138,355 was awarded for OHV Operation and Maintenance grants.
- $31,457,319 was awarded for OHV Restoration grants.
- $27,800,000 was awarded for OHV Law Enforcement grants.
- $6,949,582 was awarded for Education and Safety Grants.

The OHMVR Division manages the Grants and Cooperative Agreements Program (Grants Program), an annual program that supports well-managed OHV recreation in California. The Grants Program provides financial assistance to local, state, federal, nonprofit organizations, educational institutions, conservation corps, and Native Americans for OHV-related activities. The program:

> Support(s) the planning, acquisition, development, maintenance, administration, operation, enforcement, restoration, and conservation of trails, trailheads, areas, and other facilities associated with the use of off-highway motor vehicles and programs involving off-highway motor vehicle safety or education (PRC Section 5090.50 et al.).

In addition to the Grants Program, the OHMVR Division is also responsible for the motorized portion of the Recreational Trails Program (RTP). The RTP is an assistance program of the Department of Transportation's Federal Highway Administration. The RTP provides funds to California to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.

The Grants Program has four categories with different funding allocations appropriated by the Legislature:

**Operations and Maintenance:** Fifty percent (50%) shall be expended for the acquisition, maintenance, operation, planning, shall be expended solely for grants and cooperative

agreements for projects that restore or repair habitat damaged by either legal or illegal off-highway motor vehicle use.

**Restoration:** Twenty-five percent (25%) shall be expended for projects that provide ecological restoration or repair to habitat damaged by either legal or unauthorized OHV use.

**Law Enforcement:** Twenty percent (20%) shall be available for grants and cooperative agreements to local and federal law enforcement entities for personnel and related equipment.

**Education and Safety:** Five percent (5%) shall be available for grants and cooperative agreements that provide a comprehensive education that teaches OHV safety, environmental responsibility, and respect for private property or provide safety programs.

## Updates to Grants Regulations Since 2017

Since 2017, OHMVR Grants Program staff made several significant changes to the Grants Program regulations, including amendments to grant application eligibility, eligible project costs, and Grant fund accountability.

Application Eligibility: Extended grant application eligibility to include state-recognized Native American Tribes and Certified Community Conservation Corps. These applicants can now apply for education and safety, ground operations, and restoration projects. Additionally, the matching funds requirement for restoration projects was reduced from 25% to 10% of the total project cost, and acquisition projects may now be funded up to a $1.5 million total cost.

Eligible Project Costs: Added a "Heavy Equipment" definition to determine eligible costs for this specific, longer life type of equipment and added the requirement, when using project volunteers, to use the California Independent Sector Volunteer hourly time rate to establish a uniform cash value for volunteer time.

Grant Fund Accountability: Extended the grant-funded equipment inventory reporting requirement from five years to indefinite (so long as the equipment is still in use), added a certification requirement for nonprofit grantees that protects against conflicts of interest in project funding and expenditures, tightened rules regarding financial audits to ensure complete access to all project records, and added required forms for grantees to use when requesting Grant fund payments and closing out a project.

## Proposed Regulatory Changes to the Grants Program for the 2022 Grants Cycle

In 2021, the OHMVR Division proposed several updates for the 2022 Grant Program Regulations cycle to improve documentation and review environmental compliance for each grant application. The proposed updates include:

- Updating the Environmental Review Data Sheet
- Asking the applicant to identify standard measures within their project description to avoid impacts to environmental and cultural resources
- Asking the applicant to describe further what analysis was completed as a part of the evaluation to determine potential impacts to environmental and cultural resources
- Referring the applicant to the several species tools like the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPac) tool, and its National Wetlands Inventory (NWI) when researching the potential impact
- Asking the applicant to identify if designated critical habitat exists within or surrounding the project site
- Asking the applicant to discuss how approval of the project would change existing baseline conditions or impacts OHV facility operations
- Updating the Habitat Management Program (HMP)
    - Having the HMP Part 1 due at the time of preliminary application
    - Clarifying that the HMP Part 2 is due at the time of the final application.
    - Removing reference to "in areas open to legal OHV Recreation."
    - Including impact analysis to cover potential impacts to the OHV Recreation directly facilitated by the project activities
    - Adding a description of the justification and analysis used to certify that a proposed project does not contain any risk factors to special status species or sensitive habitats within the HMP Part 1
    - Attaching CNDDB, IPaC, and NWI database search results within the HMP Part 1

By increasing the documentation of the analysis used to evaluate potential project impacts, the Grants Program can better ensure environmental compliance for each grant application. Removing reference to "in areas open to legal OHV recreation" ensures all projects with ground-disturbing activities fully evaluate if an HMP Part 2 is needed. In addition, providing the HMP Part 1 during the preliminary application will give the applicant ample time to develop an HMP Part 2, if required.

## Condition of Natural and Cultural Resources of Areas and Trails Receiving OHV Funds

This section describes the condition of natural and cultural resources of areas and trails receiving OHMVR Grants Program funds and resolving conflicts of use in those areas and trails. Applicants to the Grants Program must provide natural and cultural resources compliance documentation as part of the Grants application. Ground disturbing projects funded by the Grants Program have the same resource monitoring and soil conservation requirements as projects at SVRAs.

This section also describes Operations and Maintenance Grant project highlights from the USFS, BLM, and other nonprofit and partnership groups funded from 2016/2017 through 2020/2021 Grant cycles and resolution of conflicts of use.

## Habitat Monitoring Program Overview

Through the Habitat Management Program (HMP), applicants identify species of concern in proposed project areas. The HMP identifies monitoring activities, risk analysis, and management action to address issues.

To qualify for funding, applicants with projects involving ground-disturbing activities must implement an HMP. The HMP requires applicants to identify special-status plant and animal species that could be at risk from OHV recreation and monitor for potential impacts to those species. As an adaptive management plan, the HMP includes management objectives and actions to address the risk, success criteria to gauge the effectiveness of each management action, and "triggers" for management change. Once awarded, grantees also report on any management actions taken to monitor results or address concerns raised by the public.

After the project agreement and before the project file can be closed, grantees must provide monitoring results to the OHMVR Division as part of their closing documents. The OHMVR Division created an internal procedure to assure compliance with this reporting requirement.

## Environmental Review Data Sheet

For each proposed project, applicants are required to complete an Environmental Review Data Sheet. Applicants describe project activities, submit completed environmental analysis documents, and describe potential impacts to wetlands, habitat, threatened and endangered species, and historical and cultural resources.

## OHMVR Grants Compliance Unit

As Senate Bill 249 was approved, State Parks transformed its grants programs by ensuring transparency, accountability, and compliance. It created a firewall system that separated staff who award grants, oversee active grants, and account for grant funds. These changes led to the creation of a Compliance Unit within the Grants Program. The Compliance Unit has several responsibilities. It oversees the application award process, provides technical support to grant applicants, develops project agreements, and maintains an inventory of equipment purchased through the Grants Program. It also conducts project closeout reviews to ensure grant staff complies with state statutes and program regulations. The Compliance Unit confirms the grants application process is transparent and unbiased. Furthermore, the Compliance Unit ensures that the Grants Unit staff members adhere to State Parks' high standards and are meeting the expectations of OHV and non-OHV constituents.

## 2020 Soil Conservation Standard Compliance of Lands Supported by the Grants Program

Public Resources Code Section 5090.35 (b)(1) requires the OHMVR Division and the Grants Program recipients to implement a soil monitoring program to ensure compliance with the Soil Standard. Participants in the Grants Program must provide a Soil Conservation Plan as part of the grant application process. For every proposed project after 2022 that involves ground-disturbing activities (excluding Restoration Grants), an applicant is required to provide a soil conservation plan that addresses how the project will adhere to the Soil Standard. Grants Program recipients must also submit a soil compliance report for each project identified in their soil conservation plan at project closeout. The compliance report is required to address how the applicant complied with the Soil Standard regarding the proposed projects. Applicants typically incorporate trail watch programs with volunteers from the OHV community to assist with Soil Standard implementation. In addition, the OHMVR Division contracts with the California Geologic Survey to provide technical expertise for assistance with the Soil Standard implementation for SVRAs and the Grants Program.

## Operations and Maintenance Grants Fund Highlights

### Federal Lands

Since 2016, the United States Forest Service (USFS) has been awarded $33,828,095, and the Bureau of Land Management (BLM) was awarded $12,113,058 in Operations and Maintenance Grants. These grants provide funding to build fences to protect sensitive environments and cultural resources, monitor habitat and soil conditions, maintain roads and trails to reduce sedimentation, and install signs to keep visitors on approved areas and routes. OHV planning

grants provide funding to conduct environmental analysis for proposed projects to examine potential impacts on resources.

**United States Forest Service**

There are eighteen National Forests in California with a combined inventory of nearly 40,000 miles of OHV routes. The individual National Forests apply directly for OHV grant funding.

**Little Sugar Pine OHV**

The Tahoe National Forest received operation and maintenance funding for a Little Sugar Pine OHV trail system development project through the Grants Program. The Little Sugar Pine's 71 miles of OHV trails incorporates everything from the most accessible trails to those rated as most difficult. The planned reroute ultimately added over nine miles of new sustainably built motorized single-track to this already popular and prized riding area. The project also addressed trail segments related to steep, unsustainable grades and drainage features, requiring high maintenance frequencies.

**Bureau of Land Management**

The BLM manages over 15,000,000 acres of land in California. These BLM lands accommodate considerable OHV recreation through areas like the Imperial Sand Dunes Recreation Area, Johnson Valley National OHV Area, Jawbone and Dove Springs OHV Areas in Southern California, and Fort Sage, Samoa Dunes, and Chappie-Shasta in Northern California. The individual BLM Field Offices apply directly for OHV grant funding.

**Blue Oaks Acquisition**

In March 2020, the BLM Ukiah Field Office acquired 1,400-acres of land along State Route 175 in Lake County to provides staging and camping access for the South Cow Mountain OHV Management Area. The BLM Ukiah Field Office applied for an OHMVR Acquisition grant for $177,416 to partially fund the purchase. According to the BLM Ukiah Office article and acting Field Manager, Ryan Cooper:

> This acquisition will allow the BLM to protect and conserve the area for cultural and environmental resources, sustain and enhance current use at the South Cow Mountain, and allow for paved access to future camping, staging, and trail opportunities. This acquisition would not have happened without the strong collaboration between the ranch owner, recreation community, California State Parks, and the BLM (Bureau of Land Management, 2020).

The area offers beautiful views of Ukiah and Lake County, pockets of old-growth fir, several species of oak, willows, over 31 miles of streams, 13 reservoirs, and habitat for blacktail deer, bear, wild turkey other upland species.

## Nonprofits Working in Partnership with Federal Land Managers

Several nonprofit organizations have partnered with federal land managers to apply for OHMVR Division grants directly for the care and protection of natural and cultural resources on federal lands.

**Plumas County, Plumas National Forest, and Sierra Buttes Trail Stewardship Partnership**

Through partnerships with the Plumas National Forest and Sierra Buttes Trail Stewardship, Plumas County provides maintenance activities on approximately 60 miles of OHV trails within the Plumas National Forest. Plumas County OHV trails have quickly become a recreation and economic resource for the community of Quincy by attracting visitors and providing opportunities for varying levels of riding difficulty and varied types of users, including ATV, dirt bike, 4x4, and side by sides. OHV grant funding has allowed the County to perform regular maintenance on three ranger districts within the Plumas National Forest. Federal employees continued monitoring for problems along the trail where soil resources are impacted and then addressed those impacts by installing new drainage dips, hardened crossings, and short reroutes.

**Central Coast Trail Riders Association.**

The Central Coast Trail Riders Association (CCTRA), previously known as the Central Coast Motorcycle Association, has provided volunteer support for the Santa Lucia District of the Los Padres National Forest for many years. The CCTRA currently has a Challenge Cost Share Agreement with Los Padres National Forest for trail maintenance and related activities on the Forest. The CCTRA occasionally shares its heavy equipment with volunteers on the Mount Pinos Ranger District, who perform trail maintenance on that district. Los Padres National Forest customarily claims volunteer labor provided by their organization as a volunteer match. In addition, the CCTRA provides some specialist support (biologist) and conducts soil condition monitoring on the trail system.

**Kingsburg 4-Wheel Drive Club**

The Kingsburg 4-Wheel Drive club (K4WDC) works with Sierra National Forest to improve OHV opportunities for the greater public. The K4WDC has been in existence since 1970 and was

incorporated in 2018. The club maintains locations and provides volunteer hours on trails and campgrounds in OHV areas in the Sierra National Forest.

**Friends of Cow Mountain**

The Friends of Cow Mountain's (FOCM) mission is to improve OHV recreation at the BLM South Cow Mountain OHV Recreation Area and ensure access for future generations by integrating sustainable design features into the trail system. They envision a trail system, intensely maintained to contemporary standards, which provides a unique recreation experience for the community. Since 2017 they have completed multiple projects, including the rebuilding of two bridges and trail reroutes.

## Local Entities

Many local agencies also participate in the Grants Program to provide OHV recreation opportunities while caring for natural and cultural resources. Since 2016, $14,138,355 in operations and maintenance grant funds have been awarded to local agencies.

**City of California's OHV Program**

California City, located in the East Kern County desert, remains a premier area for OHV enthusiasts. The City permit system allows OHV riders to ride on 1800 miles of dirt routes with approximately 4500 acres of open riding. The City is responsible for maintaining, signing, and monitoring these OHV riding trails.

Grant funding allows the City to support and sustain these OHV opportunities and maintain Borax Bill OHV Park. This park is the only OHV facility located within the OHV riding area, and its amenities include restrooms, showers, fresh water for RVs, trash, and recycling.

The City also received operation and maintenance funding for a planning project to identify if an RV dump station is feasible and environmentally sound. This dump station will enhance the amenities offered to the OHV visitors, and the City will locate the dump three miles west of Borax Bill OHV Park.

## Resolution of Conflicts of Use

California's population has nearly doubled since the OHMVR Program's inception in 1971. Today, more people are heading to rural areas in search of OHV recreational opportunities. At the same time, areas traditionally available for OHV recreation have been shrinking due to the reallocation of land uses as people relocate from urban communities and land management agencies embark upon the designation of motorized routes. This population movement is creating a situation where competition for resources leads to land-use conflicts. Through

OHMVR Division programs, recreational conflicts of use are analyzed and resolved to the extent possible. See Chapter 4, Law Enforcement, for more information on the OHMVR Division's efforts to reduce these land-use conflicts.

## Restoration Grants

The OHMVR Division Grants Program regulations define restoration as "upon closure of the unit or any portion thereof, the return of land to the contours, the plant communities, and the plant covers comparable to those on surrounding lands or at least those which existed prior to OHV use" (California State Parks, Jan. 2021).

Before Senate Bill (SB) 742, it was unclear whether restoration planning came under the definition of "restoration." SB 742 clarified that applicants could use grant funding for restoration planning, defined as "identifying appropriate restoration techniques, strategies and project implementation, including environmental review associated by the project. (PRC Section 5090.50 (A)(v)" This update made it possible to use restoration funds to prepare California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents.

The Public Resources Code requires that 25 percent of the funds appropriated by the Legislature for OHV grants must be awarded to provide ecological restoration to habitat damaged by OHV use. In recent years there had not been sufficient qualifying grant requests to distribute all available restoration funding. Subsequently, Grants Program administrators increased their restoration outreach efforts to agencies, Resource Conservation Districts, and nonprofit organizations. As a result, the number of project applications and amounts requested rose substantially.

## Federal Lands

### Restoration in Bureau of Land Management and United States Forest Service Areas

The OHMVR Division has continued its long-standing relationship with federal agencies to repair and restore areas that have been affected by OHV recreation. Over the last five years, the OHMVR Grants Program awarded $7.66 million to BLM for restoration grants projects and $7.25 million to the USFS -- the state's two largest federal land managers.

### USFS Restoration Grants Projects Highlights

Restoration projects on USFS lands have restored and protected areas like the Lassen Creek watershed on the Modoc National Forest and repaired unauthorized trails on the Stanislaus National Forest. The El Dorado National Forest has undertaken a restoration project to study the relation of OHV use with the movement of the California red-legged frog on the Rock Creek

Trail system. The Cleveland National Forest received funds to continue a previously funded project, executing the unauthorized route decommissioning authorized in the completed Environmental Assessment. These projects are just a few examples of USFS restoration efforts supported by the Grants Program.

**BLM Restoration Grants Projects Highlights**

The BLM Eagle Lake Field Office has recently completed a project encompassing signing, education, and patrolling damaged areas within the Skedaddle Wilderness Study Areas. Similarly, the Grants Program awarded the BLM Ridgecrest Field Office OHV restoration funding to restore approximately 250-340 closed routes in the Red Mountain subregion, in the Coso Mountains and Darwin Falls. The project included vertical and horizontal mulching, construction of water bars, and archeological and biological inventories. In addition, the BLM Arcata Field Office was awarded funds to support restoration efforts in the Eureka Dunes riding area of the Somoa Dunes Recreation Area. The project assists with the Field Office's requirement to maintain two native plant enclosures that total two acres. These enclosures are homes to the Humboldt Bay wallflower, beach layia, and the western snowy plover.

**Imperial Sand Dunes Recreation Area**

The BLM El Centro Field Office (ECFO) applied for a Restoration grant to install and maintain signs around the critical habitat of Peirson's Milkvetch (federally listed as threatened and endangered) at Imperial Sand Dunes Recreation Area (ISDRA). These signs mark restricted motor vehicle access to closed areas and encourage OHV recreation in the appropriate open regions. Through continual active signing and enforcement of OHV closures, the BLM allows the 9,046 acres of milkvetch critical habitat restored by natural processes to their original condition before OHV recreation. Soils in the closed areas are also protected to maintain productivity, minimize erosion, and preserve natural dune geomorphologic processes. This project helped the natural restoration process occur successfully and promote Peirson's milkvetch's survival and recovery. The signing project supports the natural restoration of 35,144 acres of sensitive habitat within the North Algodones Dunes Wilderness closures.

The 2014-2015 grant cycle was the El Centro Field Office's first application for the restoration grant. However, the terrain and weather made the restoration project challenging for staff. For example, the dunes are constantly changing shape and size due to wind, and some dunes get up to 300 feet high, making it nearly impossible to install permanent fencing and barriers. As a result, maintaining the closed boundary perimeter requires regular monitoring and maintenance.

In addition, the BLM ECFO assigned a team of four personnel and three ROVs for the restoration project. Because of the continuous use and strenuous working conditions, the ROVs

required regular repairs and maintenance, slowing down operations. Furthermore, a four-person crew was not sufficient to cover such a vast area of dunes and wilderness.

The 2017 restoration grants project funded additional personnel, gear, materials, and the adequate type and number of vehicles to transport the staff and equipment through the dunes to accomplish their task. The BLM staff signed 9,046 acres of the milkvetch habitat that frame the borders of the four closures. Although the closed area has an uneven odd/shape and is without fencing, OHV recreationists are aware of the closures, and the majority are respectful of the red closure signs.

## Other Restoration Grants Project Highlights

### National Park Service Restoration

The National Parks Service received restoration grants funds in Death Valley National Park and Joshua Tree National Park. Both projects monitor, identify and prevent unauthorized OHV routes within the boundaries of the park. The projects included barricade work, repairing damaged land, and helped to educate park users of the need to Tread Lightly! ® and stay on the road within the park. The National Park Service has received $1.33 million in restoration grants since 2016.

## Nonprofit Restoration Grants and Partnerships

Since 2016, the Grants Program has awarded over $11.5 million to nonprofit organizations and educational institutions for restoration projects on public lands. The BLM and the USFS have also benefited from restoration grant projects conducted by nonprofit partners and educational institutions. In many instances, federal land managers are shorthanded, and priorities are directed elsewhere. State law allows nonprofit organizations and educational institutions to assist restoration efforts with the land manager's approval. New grantees since 2016 include the Post Wildfire OHV Recovery Alliance and the Transition Habitat Conservancy.

### Southern California Mountains Foundation

The Southern California Mountains Foundation (SCMF or Foundation) is a 501 (c)3 nonprofit organization that has partnered with the San Bernardino National Forest (SBNF or Forest) in OHV management and education for over 25 years. The Foundation supports the Forest by providing OHV interpretive services to the public, trail building, site maintenance, monitoring, and participating in large-scale restoration projects using volunteers and the SBNF Urban Conservation Corps (UCC) program. The SCMF UCC is a development program for urban center young people that teaches skills in conservation-related fields and assists them in completing their high school education.

**SCMF Restoration Grants Project Highlights**

From 2016 to the present, the SCMF installed over ten miles of fencing and other barriers and has actively restored over 3,544 acres by seeding, planting, and slashing unauthorized routes to restore natural resources and prevent OHV damage in the San Bernardino National Forest.

The SCMF operates and co-manages three greenhouses (at Big Bear, Children's Forest, and Lytle Creek) in partnership with the SBNF Mountaintop and Front Country Ranger Districts. The SCMF stores native seeds and grows plants to restore areas damaged through unauthorized OHV use and decommissioned OHV routes throughout the Forest.

Using ArcGIS mapping software, the Foundation has inventoried over 800 restored sites. It continuously monitors to maintain restored sites and address new issues. A few of the areas receiving focused restoration attention include:

- Baldy Mesa (Trestles) OHV Area – planted four acres with native plants, seeded over 20 acres, weeded five acres, installed 6.6 miles of new fencing, repaired five miles of border pipe and cable fence, laid 23 miles of slash, and removed five tons of garbage.
- Bee Canyon – installed six new interpretive signs, slashed six miles of unauthorized routes and removed 40 tons of garbage.
- Holcomb Valley – planted several hundred plants and trees on ten-plus acres and seeded three sites.
- Miller Canyon -- assisted the Forest in restoring an old user-created staging area due to its proximity to a sensitive riparian area that provides potential habitat to several threatened and endangered species. The UCC crews constructed pipe and cable fencing, installed signage, weeded, raked seed over a 15-acre area, and assisted in planting willow trees.
- Cactus Flats – installed one half-mile of new t-post fencing, slashed two miles of unauthorized routes, and seeded ten acres at the staging area restoration site.
- Rattlesnake Mountain – slashed 20 miles of unauthorized routes, seeded five miles, installed fences along new Forest OHV trails in nine different locations to protect sensitive areas, planted 150 plants and trees in and around the Horse Springs and Big Pine Flats campgrounds, and installed sensitive species informative signs.
- San Jacinto – slashed 1.5 miles of unauthorized routes and installed 800 feet of new t-post fencing.

# Chapter 4: Public Safety

Chapter four describes the OHMVR Division Public Safety Program and includes the following OHMVR Commission Program Report Requirement:

**Report Requirement 5:** The actions taken by the OHMVR Division and the Department since the last program report to discourage and decrease trespass of off-highway motor vehicles on private property.

# Chapter 4: Public Safety

Chapter 4 provides an overview of the OHMVR Division Public Safety Program and information about reducing trespass for Report Requirement 5. This chapter also highlights Law Enforcement and Education and Safety grants awarded for the OHMVR Grants and Cooperative Agreements Program and other relevant information.

## The OHMVR Division Public Safety Program

The Public Safety Program provides statewide leadership in OHV-related law enforcement. Emphasis is placed on educating the public regarding OHV laws and regulations to encourage voluntary compliance. For instance, the OHMVR Division law enforcement team (OHMVR LE Team) staff attend county fairs, youth and career fairs, and other special events to promote responsible recreation and safety. The Remote-Controlled Jeep® Course, developed by the OHMVR Division and used at outreach events, teaches Tread Lightly! ® principles, trails use, and respect for private property. The ATV simulator and other interactive activities at outreach events teach safe riding techniques, proper safety gear, and responsible trail use.

OHMVR Division's LE Team assists city, County, and federal law enforcement agencies with OHV recreation-related services. For example, staff coordinate with El Dorado Sheriff's Office, Placer County Sheriff's Office, Tahoe National Forest, Lake Tahoe Basin Management Unit, and the El Dorado National Forest to reduce trespass on private lands through increased patrols on the Rubicon Trail during special events and on busy summer weekends. Increased contacts with law enforcement staff help OHV enthusiasts know where it is legal to recreate. Staff also meet with stakeholders and law enforcement agencies around the state to identify issues, encourage cooperation, and facilitate solutions.

The law enforcement team works with Grants Program staff to review law enforcement applications, administer grant site visits and assist grant recipients in implementing their programs. The funds from the law enforcement grant finance equipment and law enforcement positions that help agencies patrol OHV areas in local and federal OHV areas.

## Statewide OHV Law Enforcement and Sound Testing Training Class

The OHMVR Division law enforcement team develops curriculum and conducts OHV law enforcement and sound testing training to local, state, and federal agencies that provide OHV recreation opportunities. These classes comply with PRC Section 5090.32 and Division 16.5 California Vehicle Code (CVC). The Peace Officer Standards and Training (POST)-certified class applies toward the continued professional training required for law enforcement officers and is offered at no cost to the participants.

The six-hour OHV laws class is intended for in-service law enforcement officers and other staff assigned to patrol, supervise, or manage OHV areas, public safety, and educational programs. The OHMVR LE Team has presented courses from El Centro to Eureka for BLM, the USFS, counties, and other municipal agencies' law enforcement officers. These classes are delivered free of charge to local, state, and federal agencies that provide OHV recreation opportunities. Since 2017, the OHMVR Division has held 20 classes. Unfortunately, the COVID pandemic prevented the Division from holding the class in 2020/2021, but classes resumed in summer 2021.

The OHV sound testing class is a six-hour course that consists of instructor presentations and practical exercises. Participants learn the basics of human hearing and the effect of sound in the environment. Students learn to use a sound meter and tachometer to measure sound levels on a variety of OHVs. Graduates of this course are qualified to provide court testimony for sound violations. In addition, class participants can meet other law enforcement staff who work in OHV areas, many of whom will coordinate joint law enforcement efforts at significant special events on California's public lands.

Since new OHV trends, safety and education goals, legislative changes, and regional issues constantly change, the OHMVR Division regularly adjusts the curriculum to meet the needs of its law enforcement agency partners.

## OHMVR Division Law Enforcement Partnerships

OHMVR Division law enforcement staff assists the BLM El Centro Field Office, CDFW, and the CHP during the President's Day weekend event to provide a safe environment for OHV recreation at Imperial Sand Dunes Recreation Area. In addition, the OHMVR Division works in partnership with BLM, the USFS, and the Kern County Sheriff's Office to ensure OHV enthusiasts are not trespassing and recreating in unauthorized areas, such as lands on and around the Pacific Crest National Scenic Trail section in Kern County. The following stories illustrate how the OHMVR Division law enforcement section partners with land managers to protect resources, support recreation enthusiasts, and prevent trespass.

**King of the Hammers**

First held on BLM land in 2007 for "bragging rights" amongst friends, the weeklong King of the Hammers event now draws up to 70,000 spectators annually. Since 2013, the OHMVR Division has assisted BLM at one of the most attended OHV events in the nation. The race is held primarily on BLM lands and extends into the Shared Use Area, where Means Dry Lake is located. The Shared Use Area is jointly operated by BLM and the United States Marine Corps Air Ground Combat Center (USMCAGCC) at Twenty-nine Palms. For ten months out of the year, it falls

under BLM jurisdiction, with two months allocated to the Marine Corps for training. To successfully manage an event of this size, BLM partners with the USMC Twenty-nine Palms Provost Marshal's office, USMC Conservation Law Enforcement Officers, San Bernardino County Sheriff's Office, San Bernardino County Fire Department, California Highway Patrol, and California State Parks OHMVR Division to provide law enforcement and emergency services.

In 2018, the OHMVR Division assisted with Law Enforcement support by providing six off-road-capable motorcycle patrol officers and three support staff for the week. The focus of the deployment was to provide patrols to prevent incursions onto the racecourse and into the USMCAGCC that is not open to use by the public. Rangers from Hollister Hills SVRA, Hungry Valley SVRA, Eastern Kern County Onyx Ranch SVRA, Ocotillo Wells SVRA, Angeles Sector, and OHMVR Division Headquarters also deployed to support this event. The extreme desert riding conditions require all Rangers to have off-road motorcycle skills well above the norm, and the immense crowds and non-stop nature of the event test even the best Officer's skills.

### Promoting Safety on the Rubicon Trail

With any form of recreation, one should always think about safety—our own and those around us. For those who recreate along the iconic Rubicon Trail, safety must be their primary concern. Through the USFS request, staff from the OHMVR Division recently helped spread the message of safe recreation at both the Loon Lake and Lake Tahoe trailheads of the Rubicon Trail. The Rubicon Trail is known worldwide as a challenging and beautiful route through the Sierra. California Native Americans historically used this route between Georgetown and Lake Tahoe, and it became an automobile road following the development of the Rubicon Springs area. Following World War II, the trail became the preferred weekend recreational drive for many individual users and four-wheel-drive clubs.

The trail is managed and maintained through partnerships with multiple governmental agencies, including El Dorado County, Placer County, the El Dorado, Tahoe National Forests, and the U.S. Forest Service Lake Tahoe Basin Management Unit. Superintendent Callan McLaughlin of the OHMVR Division stated,

> These agencies receive Grant money through the Off-Highway Motor Vehicle Recreation Division Grants and Cooperative Agreements Program for resource management, trail maintenance, law enforcement, and education-related materials. These competitive grants help keep this historic trail open for sustainable recreation.

Over several weekends, State Park Peace Officers (Rangers) Al Chavez and Neill Gow manned the Loon Lake trailhead, while Ranger Jon Brandt and Interpreter Don Schmidt worked along the Tahoe side of the trail. The team informed users about campfire restrictions, safe camping practices, and safety belt and helmet use. They also offered oil spill kits, safety bandannas, and

Rubicon Trail maps to anyone who needed one. Driving this trail makes for a fantastic opportunity for individuals and families to enjoy some time together in a beautiful part of the Sierra Nevada.

**Annual Desert Lifeguard Training at Hungry Valley State Vehicular Recreation Area**

Story from: Jack Gorman, State Parks Great Basin District

Hungry Valley SVRA Desert Lifeguard Program aims to make Hungry Valley SVRA a safer place for visitors by providing staff trained in emergency medical service. In 2020, lifeguards from Channel Coast and Angeles Districts participated in the exciting and innovative program. Desert lifeguard training was held at Hungry Valley SVRA on Wednesday, September 30, and Thursday, October 1. Training consisted of recreational off-highway vehicle (ROV) operations, provided by Hungry Valley's Recreational Off-Highway Vehicle Association instructors, and emergency medical skill-building exercises by emergency medical services instructors from the Great Basin and Channel Coast Districts. Los Angeles County Fire Department provided a fire and rescue helicopter to inform lifeguard and ranger staff on the helicopter's abilities and loading and unloading procedures and their services to assist park staff in future emergencies.

# Report Requirement 5: Efforts to Prevent Trespass

The OHMVR Program was founded on the principle that "effectively managed areas and adequate facilities for the use of OHVs and conservation and enforcement are essential for ecologically balanced recreation" (PRC Section 5090.02 (b). Preventing trespass onto private property and other areas closed to OHV recreation is an essential component of the OHMVR Program.

Effectively managed areas and adequate facilities provide people with a legal alternative to trespassing onto private lands and closed areas searching for OHV recreation. The OHMVR Division coordinates with and provides grant funding to local, state, and federal agencies by teaching the law enforcement class, monitoring wilderness boundaries, private property, and other closed areas. These agencies also implement focused enforcement actions to address specific trespass and wilderness incursion concerns that arise. To reduce violations, the OHMVR Division and its partners use various approaches to educate the public on the importance of respecting closed areas and private property boundaries and the consequences of ignoring applicable laws.

### 2020 and 2021 Law Enforcement Deployments During the COVID-19 Pandemic

The COVID-19 Pandemic closed most recreation areas to motorized recreation in 2020. As counties and OHV recreation locations throughout the state began to re-open, the OHMVR Division Law Enforcement officers and staff joined the re-opening efforts throughout the state. Completing public safety deployments, resource management site visits, and public outreach is the OHMVR Division's proven three-prong approach for success. The OHMVR Division deployed with staff from two National Forests, the El Dorado County Sheriff's Office, Placer County Sheriff's Office, and the Nevada County Sheriff's Office. The OHMVR Law Enforcement team deployed to the Rubicon and Fordyce Trails for regularly scheduled patrols in the summer.

# OHMVR Division Grants and Cooperative Agreements Program Law Enforcement Funding

### Impact of the OHMVR Law Enforcement Grants to Local Law Enforcement Programs

Since 2016, $27,800,000 in grant funds has been awarded to local law enforcement agencies to provide financial assistance for protecting life and property related to OHV recreation and motorized access to non-motorized recreation. This includes enforcement for both legal and illegal OHV recreation. Grant recipients are often located in rural areas with limited funding, personnel, and equipment needed to assist OHV enthusiasts, protect cultural and natural resources, and prevent trespass on private property. OHV grant funds help local agencies fill the gaps to offer quality services to keep OHV enthusiasts informed and safe. These funds may also

support local economies since funds are often spent where they are allocated. For more information, see the OHMVR Grants and Cooperative Agreements website.

The table below shows the amount of local law enforcement grants awarded since 2016

| Applicant | Total Award |
|---|---|
| Alameda County Sheriff's Office | $79,046 |
| Alpine County Sheriff's Office | $72,980 |
| Amador County Sheriff's Office | $48,459 |
| Butte County Sheriff's Office | $98,640 |
| Calaveras County Sheriff's Department | $275,683 |
| City of California City | $429,097 |
| City of Fresno Police Department | $79,409 |
| City of Hesperia Police Department | $99,377 |
| City of Sacramento Police Department | $96,252 |
| Colusa County Sheriff's Office | $85,926 |
| El Dorado County Sheriff's Office | $415,104 |
| Fort Bragg Police Department | $16,744 |
| Fresno County Sheriff's Office | $354,165 |
| Humboldt County Sheriff's Office | $160,030 |
| Imperial County Sheriff's Office | $820,644 |
| Inyo County Sheriff's Department | $189,967 |
| Kern County Sheriff's Office | $715,216 |
| Lake County Sheriff's Office | $109,159 |
| Lassen County Sheriff's Department | $138,773 |
| Los Angeles County Sheriff's Department | $580,258 |

| | |
|---|---|
| Los Angeles Police Department Traffic Division Off Road Unit | $300,453 |
| Madera County Sheriff's Office | $305,182 |
| Mammoth Lakes Police Department | $23,832 |
| Modoc County Sheriff's Office | $62,670 |
| Mono County Sheriff's Department | $162,406 |
| Napa County Sheriff's Office | $95,875 |
| Nevada County Sheriff's Office | $101,384 |
| Placer County Sheriff's Office | $331,662 |
| Plumas County Sheriff's Office | $195,690 |
| Ridgecrest Police Department | $98,005 |
| Riverside County Sheriff's Department | $374,686 |
| Sacramento County Regional Parks | $39,494 |
| San Benito County Sheriff's Office | $24,584 |
| San Bernardino County Sheriff's Department | $1,012,432 |
| San Diego County Sheriff's Department | $201,920 |
| San Diego Police Department | $36,484 |
| San Joaquin County Sheriff's Department | $203,208 |
| Santa Barbara Sheriff's Office | $263,321 |
| Santa Clara County Parks and Recreation Department | $262,761 |
| Sierra County Sheriff's Office | $61,843 |
| Stanislaus County Sheriff's Department | $516,062 |
| Town of Truckee Police Department | $13,559 |
| Tuolumne County Sheriff's Office | $246,362 |
| Ventura County Sheriff's Department | $166,911 |

California State Parks, Off-Highway Motor Vehicle Recreation Commission

| | |
|---|---|
| Yolo County Sheriff's Office | $343,385 |
| Yucca Valley Police Department | $10,897 |
| 2016-2019 Total Local Law Enforcement Grants | **$10,320,000** |

## Law Enforcement and Safety Education Grants Projects Highlights

**Law Enforcement Grant Reviews**

The OHMVR Division Law Enforcement officers assisted the Grants team with the preliminary and final reviews of Law Enforcement grants. Throughout the year, the Law Enforcement team also completes "boots on the ground" site visits to review the use of OHMVR Law Enforcement Grant dollars by grantees.

## State and Federal Agencies

**Modoc County**

The OHMVR Grants Program awarded the Modoc County Sheriff's Office funds to purchase equipment to provide OHV related enforcement within the jurisdiction of Modoc County. Sheriff's Office Deputies spend 1000+ hours per year patrolling OHV areas. The eight-person patrol unit covers 26,881,920 million acres, making OHV a priority in the County. With the assistance of the California OHV Law Enforcement Grants program, the Modoc County Sheriff's Office has been able to educate off-roaders, and more importantly, effectively patrol and take corrective actions against willful violators.

**Imperial County**

The Imperial County Sheriff's Office (ICSO) with the Imperial County Sheriff's Off-Highway Vehicle Enforcement Safety Team (OHVEST) is the lead agency for law enforcement in the vast OHV use areas of Imperial County. ICSO has formed an Off-Highway Law Enforcement Coalition consisting of Deputies and Reserve Deputies from ICSO. Imperial County Sheriff's Office personnel administer approximately 1.3 million acres of public land. Of the 4,500 square miles encompassing the County, about half (2,500) of those miles pertain to limited and full use of OHV recreation areas. OHVEST focuses its mission on Visitor Safety, Environmental Safety, and Education.

**BLM Eagle Lake Field Office**

The BLM Eagle Lake Field Office was awarded funds for a Law Enforcement Ranger to enforce OHV rules and regulations and monitor for OHV intrusions within the Wilderness Study Areas, Areas of Critical Environmental Concern, Special Recreation Management Areas, Extensive

Recreation Management Area, Wild and Scenic Rivers, Historic Trails and within the Designated Fort Sage and Rice Canyon OHV areas. There are 1,667 miles of OHV routes within the Eagle Lake Field Office California boundaries that are patrolled.

**Angeles National Forest**

The Angeles National Forest covers 70% of the open space in Los Angeles County and receives three million recreational users each year. This National Forest has 270 miles of OHV roads and trails available to green sticker OHV areas. The Angeles National Forest was awarded funds to hire law enforcement officers to patrol high OHV use areas and purchase safety equipment. The forest also received funding to buy a utility trailer to transport and store OHV equipment and act as their command center.

## Nonprofits and Organizations

**Desert Group Search and Rescue Volunteer, Inc.**

The Desert Search and Rescue team (Desert SAR) comprises all volunteers dedicated to providing OHV search and rescue support in the deserts and mountains in East Kern County, South Inyo County, and northwest San Bernardino County. These areas include the Dove Springs and Jawbone Canyon OHV Recreation Areas and California City, including all OHV areas near the Pacific Crest National Scenic Trail to the Trona Pinnacles. The Desert SAR team deploys into their primary response area on all major holidays or events, providing a central point of contact for all medical and rescue needs. They are on-call 24 hours a day, seven days a week. The Desert SAR trains all volunteers to a minimum standard of a first responder, with many emergency medical technicians since an ambulance response time is typically one hour. They serve one of the state's largest geographical OHV riding areas, assisting people in enjoying the open OHV areas.

**Southern California Mountains Foundation**

The Southern California Mountains Foundation (SCMF) also receives Education Grant Project activities, including:

- Delivering ten or more yearly ATV Safety Institute and Motorcycle Safety Foundation training to the public.
- Distributing thousands of educational OHV user map guides, brochures, and other information directly to Forest visitors and other OHV users. These items are posted at informational kiosks and booths at major events, trade shows, OHV staging areas, and through its OHV dealer partnerships. Informational booths at Cactus Flats, Miller Canyon, Pinnacles, Baldy Mesa, and Summit Staging areas offer free voluntary sound

testing and present riders' information on how to get their OHV equipment within its legal sound limits.

- Delivering 10 to 25 "On the Right Trail" radio-controlled (RC) car presentations to area school groups and the public about the importance of staying on authorized trails.
- Conducting several rider-to-rider educational public outreach rides, where volunteers operating OHVs educate riders onsite by providing OHV user map guides and other safe and responsible riding information.

**The Sierra Avalanche Center**

The Sierra Avalanche Center is a 501(c)(3) nonprofit organization that supports winter recreation, public safety, and education outreach with the USFS in the greater Lake Tahoe area. The organization informs and educates the public about backcountry avalanche conditions and provides free motorized avalanche education classes. The Sierra Avalanche Center submitted an education and safety grant in 2021 to support daily avalanche forecasts.

## In-Lieu Funding Distributions

As part of the OHV Registration Fees, the state imposes a four-dollar fee for issuing or renewing identification for each OHV subject to identification (registration) in-lieu of all taxes on value levied for state or local purposes (CVC § 38230). These in-lieu funds are to be used by local agencies to provide OHV opportunities and facilities, including law enforcement efforts. The state distributes in-lieu funds to counties based on how much OHV activity occurs in the county. Previously, the population of registered OHVs in a county determined the total of in-lieu funds each county would receive, which resulted in some counties with little OHV enforcement needs receiving large amounts of funding based on their high population. By directing funds to counties based on the level of OHV activity, counties with smaller populations visited by large numbers of OHV recreationists are now receiving a fairer share of the available funds (CVC § 38240). Since 2008, over $32 million has been distributed directly to the counties. A listing of in-lieu distributions to the counties is below.

## State Controller's Office Division of Accounting and Reporting

**Table 1. Allocation of OHV License Fee from 2008 to July 2021**

| COUNTY | AMOUNT |
|---|---|
| Alameda | $206,050 |
| Alpine | $57,771 |
| Amador | $76,164 |
| Butte | $159,968 |
| Calaveras | $48,467 |
| Colusa | $675,752 |
| Del Norte | $3,226 |
| El Dorado | $1,107,072 |
| Fresno | $143,321 |
| Glenn | $4,752 |
| Humboldt | $34,711 |
| Imperial | $8,014,668 |
| Inyo | $10,328 |
| Kern | $2,108,062 |
| Lake | $47,607 |
| Lassen | $296,204 |
| Los Angeles | $2,281,128 |
| Modoc | $8,132 |
| Mono | $277,579 |
| Napa | $226,438 |
| Nevada | $510,582 |
| Orange | $235,319 |
| Placer | $458,716 |

| COUNTY | AMOUNT |
|---|---|
| Plumas | $988,247 |
| Riverside | $1,543,067 |
| Sacramento | $117,458 |
| San Benito | $1,633,008 |
| San Bernardino | $4,651,495 |
| San Diego | $826,306 |
| San Joaquin | $263,474 |
| San Luis Obispo | $2,325,630 |
| Santa Barbara | $9,029 |
| Santa Clara | $282,355 |
| Shasta | $484,488 |
| Sierra | $309 |
| Siskiyou | $211,683 |
| Solano | $34,026 |
| Stanislaus | $28,591 |
| Tehama | $55,169 |
| Trinity | $135,946 |
| Tulare | $147,631 |
| Tuolumne | $321,458 |
| Ventura | $1,016,059 |
| Yolo | $8,607 |
| Yuba | $112,276 |
| TOTAL | **$32,188,328** |

# Chapter 5: Other relevant program-related environmental issues at SVRAs

Chapter five describes other relevant program-related environmental issues and includes the following OHMVR Commission Program Report Requirement:

**Report Requirement 6:** Other relevant program-related environmental issues that have arisen at state vehicular recreation areas since the last program report, including, but not limited to, actions that are undertaken to ensure compliance with federal and state Endangered Species Acts, local air quality laws, and regulations, federal Clean Water Act, and regional water board regulations, or permits.

## Chapter 5: Other Relevant Program-Related Environmental Issues at SVRAs

Note to readers: Topics for this section are in the process of being developed. It will be updated for the First Draft that goes to the OHMVR Commissioners.

**Additional content in the process:**

- OHV recreation provides access to nature for those with mobility challenges
- OHMVR Commission as a conduit for the public to speak directly to State Park leadership, raise concerns over access, and collaborate to solve challenges to accessing OHV recreation
- Equal access to parks is an environmental justice issue

# Equal Access to Parks, Open Space, and Recreation

Fair treatment is an essential environmental justice principle. Many disadvantaged communities do not have the same access to parks and open spaces as wealthier communities. Finding affordable transportation to access open space is often a barrier for low-income communities, as many State Parks are far from urban centers. Many forms of recreation also use specialized equipment, and the cost of entry fees and overnight accommodations are common barriers to accessing parks.

Every Californian should have the opportunity to access parks and open spaces, regardless of where they live or their income levels. Access to green space and recreation connects people to nature, reduces stress, and fosters a positive association with physical activity. Recreating with friends and family also strengthens relationships (Taylor, Floyd, Whitt-Glover, & Brooks, 2007).

State Parks and the OHMVR Commission are dedicated to improving access to recreation and parks for underserved communities and youth. While there is much room for improvement, several programs help break some of the barriers to recreation access. The following are highlights of many programs offered at SVRAs and through the OHMVR Division Outreach and Education Program to make recreation more accessible.

**National Youth Project Using Minibikes**

The OHMVR Division and the National Youth Project Using Minibikes (NYPUM) partnered to provide mentoring and education for urban youth through off-highway motorcycle recreation. Using the trail bike outdoors, NYPUM captures a young person's imagination and enthusiasm and harnesses it to promote positive change and growth.

For 50 years, NYPUM has worked nationally with community youth service organizations, including government, nonprofit, and faith-based groups, to help mentor youth using its time-tested mentoring program. The NYPUM Program, which is free, introduces urban youth, ages 10–17, to fundamental engineering concepts, internships, and studies in environmental stewardship opportunities, helping them build self-esteem and develop self-discipline and leadership abilities. The program also teaches teamwork and responsible riding skills and provides a way for youth to work together with their communities.

This program can last anywhere between six to eight months. Participants take trips to outdoor facilities, such as Hungry Valley or Prairie City State SVRAs, to ride the off-highway motorcycles and learn about the importance of protecting California's diverse cultural and natural resources. Participants can use trail bikes and equipment anytime during their scheduled programming.

**Junior Guard Program at Oceano Dunes**

The Junior Guard program at Oceano Dunes is an aquatic course to educate community youth about safe ocean recreation. The four-week program is open to kids aged 9-16 (www.parks.ca.gov/ juniorlifeguards). Students come from a variety of social and economic backgrounds. The Oceano Dunes Junior Lifeguard program is inexpensive and frequently awards scholarships. Partnerships with local businesses and donations provide the students with free transportation, supplies, occasional lunches, and a banquet at the program's close. There is no limit to the class size, and participation doubled from the first year to the second.

**Interpretation and Education Programs**

Dedicated interpretive staff develops traditional and innovative interpretive programs relevant to many audience types, from the OHV community to underserved youth. These dynamic programs are content-rich and incorporate audience engagement strategies to be meaningful, enjoyable, and memorable. SVRA Interpreters and the OHMVR Outreach Team give programs at SVRAs, OHV and sporting events, county fairs, community events, safety fairs, youth events, school programs, career fairs.

In addition to in-person events, Interpreters create informative videos using social media platforms and deliver school programs using the PORTS® (Parks Online Resource for Teachers and Students) program.

## Sea-Level Rise Strategy for Coastal Resilience

State Parks manages nearly a third of California's coastline. With 128 coastal park units, including those at Oceano Dunes District, providing coastal access and recreational

opportunities to over 50 million people from all over the world, State Parks has an obligation and a chance to play a leading role in building California's resilience to sea-level rise and coastal hazards. Driven by these considerations, State Parks formed an internal multi-disciplinary Sea Level Rise Working Group in May 2018 to develop a Sea Level Rise Adaptation Strategy. The strategy articulates State Parks' approach to coastal management in an era of sea-level rise and recommends actions and tools to build sea-level rise considerations into existing planning and project development processes. The strategy considers the most recent science, guidance, and adaptation approaches taken by agencies, municipalities, and organizations across California. State Parks is drafting a public summary of the strategy posted to the Parks website soon.

## Lower-Cost Coastal Accommodations

The Department, legislators, the California Coastal Commission, park partners, and environmental justice groups have identified the need for more low-cost overnight accommodations (LCOAs) in State Parks to attract more diverse park visitors. The Department collaborates with the State Coastal Conservancy to develop the "Explore the Coast Overnight" report, identifying the best places within state and local parks along the coast to create LCOAs. The Department also has undertaken an internal assessment of LCOAs project opportunities statewide.

The ability to camp on the beach and dunes at Oceano Dunes SVRA is a significant recreational attraction. This primitive beach and dune camping also represents very low-cost camping and recreation opportunity. The $10 fee is the lowest camping fee available within the Oceano Dunes District (North Beach and Oceano Campground fees range from $35 to $50). The existing 1,000 beach camping units, Oceano Dunes SVRA, offer some of the lowest cost camping opportunities and the only beach camping allowed within the State Park System. Oceano Dunes District is researching potential projects to create new opportunities for lower-cost coastal accommodations within the two parks.

## Increased Opportunities for Non-Motorized Recreation

While the purpose of SVRAs is to provide access to high-quality OHV recreation, they also offer non-motorized recreation. For example, several SVRAs offer camping, group gathering areas, and many offer guided walks and interpretive walking trails. The following are some of the many non-motorized recreation opportunities available:

**Heber Dunes SVRA**

Heber Dunes SVRA is often described as an island surrounded by agriculture. The agricultural fields and canals surrounding the park and the tamarisk trees provide food, water, and shelter for a variety of watchable wildlife. Hikers, bird watchers, runners, geocachers, and the

occasional mountain biker and equestrian frequently take advantage of the park's perimeter road and shady winding trails for early morning runs, hikes, or rides. Heber Dunes is a popular destination for local families and friends to gather and picnic.

Radio Control Vehicles: It is not unusual to find miniature 4x4s, dune buggies, and pickup trucks skimming across the more remote areas of Heber Dunes. Radio-controlled "duning" is a popular pastime at the park.

**Hollister Hills SVRA**

Mudstone Ranch, a non-motorized, multi-use trail system in lands set aside as buffer zones for neighboring properties around the park, held its Grand Opening in June 2016. Mudstone Ranch provides an excellent opportunity to open previously closed public lands to a community needing outdoor recreation opportunities. The trail system features casual, exciting, and challenging trails for hikers, mountain bikers, and equestrians through grasslands, chaparral, and deeply wooded canyons that are otherwise in minimal supply in San Benito County. Additionally, a pump track, designed for cyclists to build momentum over various rollers and jumps, will be constructed soon.

Other non-OHV recreation within the park includes hiking and mountain biking in the nature area located in the Lower Ranch. In addition, the park contains a small fishing area called Lodge Lake that provides year-round fishing opportunities for largemouth bass and black crappie.

**Hungry Valley SVRA**

Wildflower Viewing**:** During the wildflower season, Hungry Valley SVRA offers a self-guided tour route, two-hour staff-guided wildflower tours, maps, and hiking opportunities throughout the park. The wildflowers in the area are world renown for their color and abundance as the grassy hillsides turn brilliant shades of orange, yellow, and purple. During the springtime, park staff produces a weekly, updated flower guide on the wildflower bloom. It is available at the Sector Office, website, and visitor kiosks.

Hiking in the Oak Preserve: The Oak Woodland Natural Preserve is 60 acres on the park's western boundary. It is only accessible by foot—no motorized vehicles are allowed in this area. All ages of oaks are present in this woodland, from seedlings to 500+ years old.

**Oceano Dunes SVRA**

In addition to motorized recreation, Oceano Dunes SVRA provides a wide array of non-motorized recreation opportunities, including hiking, nature viewing, and birdwatching. South of the SVRA is the Oso Flaco Lakes area. This area consists of two freshwater lakes and dune complexes managed for non-motorized recreational uses. Visitors to the Oso Flaco area can

enjoy a moderate walk along the one-mile ADA-accessible boardwalk, observing wildlife and native plants as the path passes Oso Flaco Lake, leading out to the beach. Oso Flaco Lake is an essential stopover for waterfowl traveling along the Pacific Flyway.

Horseback riding is welcome in the park. There is an equestrian staging area located near the beach entrance on Grand Avenue. Rides can also be arranged through the commercial stables situated near the park.

Water Recreation: Surfing, boating, operating personal watercraft, kiteboarding, and paddling are some recreational watersports available at Oceano Dunes SVRA. Since motorized activity is allowed on the beach, those accessing the water for recreational purposes can park their vehicles and quickly unload gear near the water's edge.

**Onyx Ranch SVRA**

Butterbredt Spring Wildlife Sanctuary is one of the premier stops in the SVRA. It is an oasis in the middle of the desert and an essential resource for migrating birds. This sanctuary provides a much-needed resting place for hundreds of thousands of birds migrating through the area, as it is filled with willows, cottonwoods, and the only water for miles on end. Many people come here to enjoy the site and birdwatch.

**Prairie City SVRA**

The park is closed to motorized recreation on Wednesdays and offers mountain bike enthusiasts the opportunity to enjoy the park as they practice and test their skills.

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## Abbreviations

| Acronym | Description |
|---|---|
| 4WD | 4-Wheel Drive |
| AB | Assembly Bill |
| ACEC | Area of Critical Environmental Concern |
| APCD | Air Pollution Control District |
| ASCAR | Archaeological Site Condition Assessment Report |
| ATV | All-Terrain Vehicles |
| BLM | Bureau of Land Management |
| BMPs | Best Management Practices |
| Cal Fire | California Department of Forestry and Fire Protection |
| Cal Poly | California Polytechnic State University, San Luis Obispo |
| Cal-Trans | California Department of Transportation |
| CARB | California Air Resources Board |
| CASSP | California Archaeological Site Stewardship Program |
| CDCA | California Desert Conservation Area |
| CDFA | California Department of Food and Agriculture |
| CDFW | California Department of Fish and Wildlife |
| CDWR | California Department of Water Resources |
| CEQA | California Environmental Quality Act |
| CGS | California Geologic Survey |
| CHP | California Highway Patrol |
| CNPS | California Native Plant Society |
| CPR | Cardiopulmonary Resuscitation |
| CRMP | Cultural Resources Management Plan |
| CSU | California State University |
| CTUC | California Trail Users Coalition |
| CVC | California Vehicle Code |
| CWA | Clean Water Act |
| Onyx Ranch SVRA | Eastern Kern County, Onyx Ranch SVRA |
| EIS | Environmental Impact Statement |
| EMT | Emergency Medical Technician |

| | |
|---|---|
| EPA | Environmental Protection Agency |
| FIELD | Farmworker Institute of Education and Leadership Development |
| FTHL | Flat-Tailed Horned Lizard |
| GIS | Geographical Information System |
| GPS | Global Positioning System |
| Grants Program | OHMVR Grants and Cooperative Agreements Program |
| HCP | Habitat Conservation Plan |
| HMP | Habitat Management Program |
| HMS | Habitat Monitoring System |
| IBP | Institute for Bird Populations |
| ICC | Interagency Coordinating Committee |
| ITP | Incidental Take Permit |
| LADWP | Los Angeles Department of Water and Power |
| LiDAR | Light Detection and Ranging |
| MEJA | Mecinus janthinus Weevil |
| MOU | Memorandum of Understanding |
| MSF | Motorcycle Safety Foundation |
| NAHC | Native American Heritage Commission |
| NCCP | Natural Community Conservation Plan |
| NEPA | National Environmental Protection Act |
| NGMA | Native Grasslands Management Area |
| NOA | Naturally Occurring Asbestos |
| NOx | Oxides of Nitrogen |
| NPDES | National Pollution Discharge Elimination System |
| NPS | National park Service |
| NRD | Natural Resources Division |
| NRHP | National Register of Historic Places |
| OHMVR | Off-Highway Motor Vehicle Recreation |
| OHMVR Act | Off-Highway Motor Vehicle Recreation Act of 2003 |
| OHPal | Off-Highway Police Activities League |
| OHV | Off-Highway Vehicle |
| OSV | Over Snow Vehicle |

| | |
|---|---|
| PCT | Pacific Crest Trail |
| PM10 | Particulate Matter of 10 Micron |
| POST | Peace Officer Standards and Training |
| PRC | Public Resources Code |
| RAMP | Recreation Area Management Plan |
| RC | Radio Control |
| Region | Pacific Southwest Region |
| RI/FS | Remedial Investigation/Feasibility Study |
| RMA | Resource Management Area |
| RMP | Resource Management Plan |
| RMU | Resource Management Unit |
| ROV | Recreational Off-Highway Vehicle |
| SB | Senate Bill |
| SDSU | San Diego State University |
| SHPO | State Historic Preservation Officer |
| Soil Standard | Soil Conservation Standard and Guidelines |
| SPPOs | State Park Peace Officers |
| SPRF | State Park and Recreation Fund |
| SRMA | Special Recreation Management Area |
| State Parks | Department of Parks and Recreation |
| SUV | Sports Utility Vehicle |
| SVRA | State Vehicular Recreation Area |
| SWMP | Storm Water Management Plan |
| SWRCB | State Water Resources Control Board |
| TCRs | Tribal Cultural Resources |
| The Law | Chappie-Z'berg Off-Highway Motor Vehicle Law |
| USDA | United States Department of Agriculture |
| USFS | United States Forest Service |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| USMC | The United States Marine Corps |
| VES | Visual Encounter Surveys |
| WDRs | Waste Discharge Requirements |

| | |
|---|---|
| WHPP | Wildlife Habitat Protection Program |

## Appendix A: OHMVR Commissioners Terms of Office (Appointments 1983 – Present)

| Appointing Power | Appointee | Appointed | Term Expired | Period of Service |
|---|---|---|---|---|
| Governor - #1 | | | | |
| Brown | Stephen Casagrande | 02/83 | 01/85 | 02/83 to 07/85 |
| Deukmejian | Betty Morris | 07/85 | 01/89 | 07/85 to 04/94 |
| Deukmejian/Wilson | Betty Morris | 05/90 | 01/93 | |
| Wilson | Janette McGarvie | 04/94 | 01/97 | 04/94 to 10/98 |
| Wilson/Davis | George Galvan | 10/98 | 01/01 | 10/98 to 01/02 |
| Davis/Schwarzenegger | Robert Chavez | 03/02 | 01/05 | 03/02 to 05/06 |
| Schwarzenegger | Gary E. Willard | 05/06 | 01/09 | |
| Schwarzenegger | Gary E. Willard | 05/09 | 01/13 | 05/06 to 01/13 |
| Brown | Erin Hafkenschiel | 05/14 | 05/17 | 05/14 to 02/16 |
| (resigned) | | | | |
| Brown | Patricia Ureña | 03/18 | 01/21 | 03/18 to Current |
| Governor - #2 | | | | |
| Brown | Howard Wilshire | 02/83 | 01/84 | 02/83 to 05/84 |
| Deukmejian | Edward Waldheim | 05/84 | 01/88 | 05/84 to 05/90 |
| Deukmejian/Wilson | Loren Lutz | 05/90 | 01/92 | 05/90 to 04/94 |
| Wilson | Donald Amador | 04/94 | 01/96 | 04/94 to 05/00 |
| Wilson/Davis | Donald Amador | 01/96 | 01/00 | |
| Davis/Schwarzenegger | Michael F. Prizmich | 05/00 | 01/04 | 05/00 to 02/07 |
| (resigned) | | | | |
| Schwarzenegger | Michael F. Prizmich | 05/06 | 01/08 | |
| Schwarzenegger | Kane Silverberg | 07/08 | 01/12 | 07/08 to 03/12 |
| Brown | Sarah Miggins | 03/18 | 01/20 | |
| Newsom | Sarah Miggins | 03/20 | 01/24 | 03/18 to 08/20 |
| (resigned) | | | | |
| Governor - #3 | | | | |
| Brown | Martin Coren | 02/83 | 01/86 | 02/83 to 8/84 |
| (resigned) | | | | |
| Deukmejian | Mark Anderson | 06/85 | 01/86 | 06/85 to 02/87 |
| Deukmejian | Mark Anderson | 02/86 | 01/90 | |
| Deukmejian | Eugene Chappie | 02/87 | 01/90 | 02/87 to 05/92 |
| (resigned) | | | | |
| Deukmejian/Wilson | Eugene Chappie | 05/90 | 01/94 | |
| Wilson | Eldon Nobles | 07/94 | 01/98 | 07/94 to 02/00 |
| (resigned) | | | | |
| Wilson/Davis | Eldon Nobles | 01/98 | 01/02 | |

| | | | | |
|---|---|---|---|---|
| Davis (resigned) | Daphne C. Greene | 05/00 | 01/02 | 05/00 to 04/03 |
| Schwarzenegger | Edward H. Waldheim | 11/03 | 01/06 | 11/03 to 05/06 |
| Schwarzenegger | Mark D. McMillin | 05/06 | 01/10 | 05/06 to 3/10 |
| Brown | Ted Cabral | 03/13 | 01/14 | 03/13 to 01/14 |
| Brown | Ted Cabral | 03/14 | 01/18 | 04/14 to 01/18 |
| Brown | Ted Cabral | 03/18 | 01/22 | 03/13 to Current |

| | | | | |
|---|---|---|---|---|
| Governor - #4 Schwarzenegger | | Bradley Franklin | | 07/08 01/12 |
| | 07/08 to 03/12 | | | |
| Brown | Kevin P. Murphy | 03/13 | 01/16 | |
| Brown | Kevin P. Murphy | 02/16 | 01/20 | 03/13 to 03/20 |
| Newsom | Roger Salazar | 05/20 | 01/24 | 05/20 to Current |

| | | | | |
|---|---|---|---|---|
| Governor - #5 Schwarzenegger | | Paul Slavik | 07/08 | 01/12 |
| Brown | Paul Slavik | 03/12 | 01/16 | |
| Brown | Paul Slavik | 02/16 | 01/20 | 07/08 to 3/20 |
| Newsom | Tina Brazil | 05/20 | 01/24 | 05/20 to Current |

| Appointing Power | Appointee | Appointed | Term Expired | Period of Service |
|---|---|---|---|---|
| Senate - #1 | | | | |
| David Roberti | Michael Bishop | 02/83 | 01/84 | 02/83 to 03/88 |
| David Roberti | Michael Bishop | 01/84 | 01/88 | |
| David Roberti | Hugh McGuigan | 03/88 | 01/92 | 03/88 to 01/00 |
| David Roberti /Bill Lockyer | | Hugh McGuigan | 01/92 | 01/96 |
| Bill Lockyer/John Burton | Hugh McGuigan | 01/96 | 01/00 | |
| John Burton (resigned) | Paul J. Spitler | 01/00 | 01/04 | 01/00 to 12/07 |
| John Burton/Don Perata | Paul J. Spitler | 01/04 | 01/08 | |
| Don Perata | Eric K. Lueder | 05/08 | 01/12 | 05/08 to 06/12 |
| Darryl Steinberg (resigned) | Teresa Villegas | 07/12 | 01/16 | 07/12 to 2/16 |
| Kevin de León (replaced) | Kevin Litwin | 04/16 | 01/20 | 04/16 to 1/20 |
| Toni Atkins | Thomas Lemmon | 01/20 | 01/24 | 01/20 to Current |
| Senate - #2 | | | | |
| David Roberti | James Livermore | 02/83 | 01/85 | 02/83 to 01/89 |
| David Roberti | James Livermore | 01/85 | 01/89 | |
| David Roberti | Paul Golde | 01/89 | 01/93 | 01/89 to 04/93 |

| | | | | |
|---|---|---|---|---|
| David Roberti/Bill Lockyer 04/93 to 03/97 | J. Robert Hayes | 04/93 | 01/97 | |
| Bill Locklyer/John Burton | Kenneth R. Nelson | 03/97 | 01/01 | 03/97 to 01/01 |
| John Burton/Don Perata (resigned) | Harold Thomas | 01/01 | 01/05 | 01/01 to 12/07 |
| Don Perata | Harold Thomas | 01/05 | 01/08 | |
| Darryl Steinberg | Stan Van Velsor | 02/09 | 01/13 | 02/09 to 01/13 |
| Darryl Steinberg | Edward Patrovsky | 01/13 | 01/17 | |
| Kevin de León | Edward Patrovsky | 03/17 | 01/21 | 01/13 to Current |

| Appointing Power of Service | Appointee | Appointed | Term Expired | Period |
|---|---|---|---|---|
| Assembly - #1 | | | | |
| Willie Brown | John Motley | 02/83 | 01/84 | 02/83 to 11/96 |
| Willie Brown | John Motley | 01/84 | 01/88 | |
| Willie Brown | John Motley | 01/88 | 01/92 | |
| Willie Brown | John Motley | 01/92 | 01/96 | |
| Curt Pringle | James Bramham 11/96 to 02/00 | 11/96 | 01/00 | |
| Antonio Villaraigosa | Judith A. Anderson 02/00 to 01/08 | 02/00 | 01/04 | |
| Herb Wesson | Judith A. Anderson | 01/04 | 01/08 | |
| John Pérez 01/16 (replaced) | Diana Pérez | 02/11 | 01/12 | 02/11 to |
| John Pérez | Diana Pérez | 01/12 | 01/16 | |
| Toni Atkins | Thomas Lemmon 01/16 to 01/20 (transfer) | 01/16 | 01/20 | |
| Anthony Rendon | Diane Ross-Leech 08/20 to Current | 08/20 | 01/24 | |
| Assembly - #2 | | | | |
| Willie Brown | Marge Sutton 02/83 to 02/02 | 02/83 | 01/86 | |
| Willie Brown | Marge Sutton | 01/86 | 01/90 | |
| Willie Brown | Marge Sutton | 01/90 | 01/94 | |
| Willie Brown | Marge Sutton | 01/94 | 01/98 | |
| Cruz Bustamante | Marge Sutton | 01/98 | 01/02 | |
| Herb Wesson | John Brissenden 05/02 to03/09 (resigned) | 05/02 | 01/06 | |
| John Pérez 05/14 (replaced) | Breene Kerr | 02/11 | 05/14 | 02/11 to |

| | | | | |
|---|---|---|---|---|
| Toni Atkins 10/18 (resigned) | Eric Lueder | 05/14 | 01/18 | 05/14 to |
| Anthony Rendon | Kimberlina Whettam 02/19 to Current | | 02/19 | 01/22 |

## Appendix B: Legislative Text Referenced in Chapter 2 and 3

Appendix B provides the associated legislative text referenced in the OHMVR Program Report for Public Resources Code, California Code of Regulations, and the California Vehicle Code.

# Chapter 2: Natural and Cultural Resources Program Legislative Text

The following passages are the WHPP-related legislative text from PRC Section 5090 that requires the OHMVR Division to:

> **PRC §5090.32. (g)** Prepare and implement management and wildlife habitat protection plans for lands in, or proposed to be included in, state vehicular recreation areas, including new state vehicular recreation areas. These plans shall be developed in consideration of statutorily required state and regional conservation objectives. However, a plan shall not be prepared in any instance specified in subdivision (c) of Section 5002.2. Trails may onlybe added or included as components of existing trail systems when developing or updating plans in statevehicular recreation areas upon completion of a full environmental review.
>
> **PRC §5090.35. (c) (1)** Compile and, when determined by the Department to be necessary, periodically review and update an inventory of wildlife populations and prepare a wildlife habitat protection plan that conserves and improves wildlife habitats for each state vehicular recreation area. By December 31, 2030, the Division shall compile an inventory of native plant communities in each state vehicular recreation area to inform future updates. (2) If the Division determines that the wildlife habitat protection plan is not being met in any portion of any state vehicular recreation area, theDivision shall close the noncompliant portion temporarily until the wildlife habitat protection plan is met. (3) If the Division determines that the wildlife habitat protection plan cannot be met in any portion of any state vehicular recreation area, the Division shall close and restore the noncompliant portion pursuant to Section 5090.11.
>
> **PRC §5090.35. (d)**, Monitor annually in each state vehicular recreation area todetermine whether soil conservation standards are being met and the objectives of wildlife habitat protection plans are being met.
>
> **PRC §5090.39. (a)** (1) Any soil conservation standard, wildlifehabitat protection plan, or monitoring program required by this chapter, applies the best available science.
>
> (2) All standards, plans, and monitoring programs subject to paragraph (1) shall provide opportunities for public comment, including, but not limited to, written comments and

public meetings, as appropriate. (b) Nothing in this chapter relieves the Division from compliance with state and federal lawsand regulations, including permit requirements.

PRC §5090 also provides language on conserving and improving natural resources within SVRAs, whichfurther informs the scope and purpose of WHPPs:

**5090.35. (a)** The protection of public safety, the appropriate utilization of lands, and the conservation ofnatural and cultural resources are of the highest priority in the management of the state vehicular recreation areas. Additionally, the Division shall promptly repair and continuously maintain areas and trails and anticipate and prevent accelerated and unnatural erosion and other off-highway vehicle impacts to the extent possible. The Division shall take steps necessary to avoid damage to significantnatural and cultural resources within state vehicular recreation areas.

**5090.35. (f)** The Division shall protect natural, cultural, and archaeological resources within the statevehicular recreation areas.

**5090.43. (a)** State vehicular recreation areas consist of areas selected, developed, and operated to provide off-highway vehicle recreation opportunities. State vehicular recreation areas shall be selected for acquisition on lands where the need to establish areas to protect natural and cultural resources is minimized, the terrain is capable of withstanding motorized vehicle impacts, and where there are quality recreational opportunities for off-highway motor vehicles. Areas shall be developed, managed, and operated for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present, in accordance with the requirements of this chapter, while providingfor the conservation of cultural resources and the conservation and improvement of natural resource values over time.

**5090.43. (b)** After January 1, 1988, no new cultural or natural preserves or state wildernesses shall beestablished within state vehicular recreation areas. To protect natural and cultural resource values, sensitive areas may be established within state vehicular recreation areas were determined by the Department to be necessary to protect natural and cultural resources. These sensitive areas shall be managed by the Division in accordance with Sections 5019.71 and 5019.74, which define the purposeand management of natural and cultural preserves.

**5090.43. (c)** If the off-highway motor vehicle uses results in damage to any natural or cultural resources ordamage within sensitive areas, appropriate measures shall be promptly taken to protect these lands from any further damage. These measures may include the erection of physical barriers and shall include the restoration of natural resources and the repair of damage to cultural resources.

# Chapter 3: Grants and Cooperative Agreements Program Legislative Text

Public Resources Code 5090.50 (b)(1)

**Operation and Maintenance Grants.**

(A) Fifty percent of the funds appropriated by the Legislature according to subdivision (a) of Section 5090.61 shall be expended solely for grants and cooperative agreements for the acquisition, maintenance, operation, planning, development, or conservation of authorized trails and facilities associated with the use of off-highway motor vehicles for recreation or motorized access to nonmotorized recreation.

(B) Guidelines developed to implement this paragraph, pursuant to subdivision (d), shall at a minimum:

(i) Give preference to applications that sustain existing authorized off-highway motor vehicle recreation opportunities.

(ii) Give additional consideration to applications that improve facilities that provide motorized access to nonmotorized recreation opportunities.

(C) Applications that would affect lands identified as inventoried roadless areas by the Forest Service of the United States Department of Agriculture are eligible for cooperative agreements under paragraph (1) if the application is for a project that does any of the following:

(i) Realigns a forest system road or trail to prevent irreparable resource damage that arises from the design, location, use, or deterioration of a classified route and that cannot be mitigated by route maintenance.

(ii) Reconstructs a national forest system road or trail to implement a route safety improvement project on a classified route determined to be hazardous on the basis of accident experience or accident potential on that route.

(iii) Maintains a road or trail that is included in the National Forest System Roads and Trails on or before January 1, 2009.

(D) Any unencumbered funds under this paragraph shall only be used in future grant cycles for purposes consistent with this paragraph.

**Public Resources Code 5090.50(b)(2) Restoration**

(2) Restoration.

(A) Twenty-five percent of the funds appropriated by the Legislature pursuant to subdivision (a) of Section 5090.61 shall be expended solely for grants and cooperative agreements for projects that restore or repair habitat damaged by either legal or unauthorized off-highway motor vehicle use.

(B) The division shall develop and implement, in consultation with the Wildlife Conservation Board, a competitive grant and cooperative agreement program, which shall be administered in accordance with this paragraph.

(C) Funds identified in this paragraph shall be available for grants and cooperative agreements for projects that restore or repair habitat damaged by both legal and unauthorized off-highway motor vehicle use.

(D) Eligible projects include:

(i) Removal of a road or trail or restoration of an area associated with the rerouting and subsequent closure of a designated road or trail.

(ii) Removal of roads or trails and the restoration of damaged habitats in any area that is not designated for motorized vehicle use.

(iii) The removal of closed roads or trails, or a portion of a closed road or trail, which will help to prevent off-highway motor vehicle access to closed areas.

(iv) Scientific and cultural studies regarding the impact of off-highway motor vehicle recreation not otherwise required by state or federal laws.

(v) Planning to identify appropriate restoration techniques, strategies, and project implementation, including planning associated with environmental review.

(vi) Restoration projects that generally improve and restore the function of natural resource systems damaged by motorized activities.

(E) Eligible applicants include local, state, and federal agencies, federally or state-recognized Native American tribes, educational institutions, certified community conservation corps, resource conservation districts, and other eligible nonprofit organizations.

## Appendix C: Restoration Projects funded from the 2016/2017 through the 2019/2020 Grant cycles

# Bureau of Land Management

**BLM - Arcata Field Office**

- Active restoration of unauthorized use of approximately two miles of native plant enclosures. In addition, monitoring, installation of fencing/barriers, and scientific and cultural studies were completed. Amount Awarded $94,000
- Active restoration and monitoring of approximately two acres of native plant enclosure within the open riding area of Samoa Dunes Recreation Area. Activities included pulling invasive place species within the native plant enclosure. Amount Awarded $12,000.
- Total Awarded $106,000.

**BLM - Bakersfield Field Office**

- Close approximately 285 acres of OHV routes within the Bakersfield Field Office jurisdiction. The project includes signing and limited monitoring. Amount Awarded $66,179.
- Total Awarded $66,179.

**BLM - Barstow Field Office**

- Active restoration of approximately 500 acres of unauthorized use in the WEMO and NEMO areas contains 1,335 miles of open OHV routes (528 miles of WEMO and 807 miles of NEMO lands). Monitoring, sign installation, and fencing or barrier installation will also be completed. Amount Awarded $578,468.
- Restoration planning for designated OHV Recreation Areas of Rasor Road, Johnson Valley, Stoddard Valley, and Dumont Dunes Areas. Provide three reports consisting of a biological and environmental condition assessment and a summary cultural resources report to determine the location and priority of future restoration and provide clearance for any restoration work to be done in the future. Amount Awarded $455,000.
- Installation of fencing, signage, monitoring, barrier construction, and restoration groundwork such as revegetation, mulching, and earth recontouring in Coolgardie, Kramer Hills, Harper Lake, and Iron Mountain areas. Amount Awarded $741,413.
- Total Awarded $1,774,881.

**BLM - Bishop Field Office**

- BLM office-wide OHV Restoration Activities including active restoration of unauthorized OHV use, monitoring, signage, fencing and barriers, and public outreach. Amount Awarded $306,667.
- Total Awarded $306,667.

**BLM - Eagle Lake Field Office**

- OHV Route removal, monitoring, fencing, and signing in Tunnison Wild Scenic Area (WSA), Skeddadle WSA, and Fort Sage OHV Area. Amount Awarded $375,500
- WSA restoration and signing. Amount Awarded $116,720.
- Total Awarded $492,220.

**BLM - El Centro Field Office**

- Installation and maintenance of signs in the Imperial Sand Dunes Recreation Area to protect the Peirson's Milk Vetch critical habitat. Amount Awarded $771,500.
- Total Awarded $771,500.

**BLM - Redding Field Office**

- Restoration projects. Amount Awarded $183,050.
- Total Awarded $183,050.

**BLM - Ridgecrest Field Office**

- Active restoration of unauthorized OHV use of approximately 7-10 Acres of trails and roads in Santa Rosa Flats, Saline Valley, Talc City Hills, and Red Mountain Subregion. Monitoring, signage, fencing/barriers, and public outreach. Amount Awarded $665,040.
- Restoration work of unauthorized OHV use in Panamint Valley, Santa Rosa Flats, Saline Valley, Talc City Hills, and Red Mountain Subregions, office-wide monitoring, signage, fencing/barriers, and public outreach. Amount Awarded $596,444.
- Vertical mulching, monitoring, erosion control structures, maintaining barriers, and signage in the Red Mountain, Coso Mountain, and Darwin Falls areas of the BLM Ridgecrest Field Office. Amount Awarded $606,467.
- Restoration and camouflaging of designated closed OHV routes in the limited use areas. The project includes erosion control, barriers, signing, photo documentation, and data collection in the areas within the Red Mountain Sub-Region, Piper Mountains, Sylvania Mountains, Inyo Mountains, White Mountains, the Great Fall Basin, Bright Star, and Malpais Mesa wildernesses and restoration of sites that border wilderness, where there

is a multiple-use interface, and are within the Desert Wildlife Management Areas. Amount Awarded $706,613.

- Total Awarded $2,574,564.

**BLM - Ukiah Field Office**

- Active restoration of approximately 22 acres. Passive restoration of approximately 35 acres. Monitoring of incursions along with signage and fencing/barrier installation. Amount Awarded $1,392,131.

- Total Awarded $1,392,131.

**2016-2019 BLM Restoration Projects Total Awarded $7,667,192**

## United States Forest Service

- **USFS - Cleveland National Forest**

- This project has two phases. The first phase is NEPA, and the second phase includes earthwork such as chunking, ripping, water bar installation, barrier installation, and signage in the Laguna Place of the Descanso Ranger District. Amount Awarded $185,880.

- The installation of pipe-rail barriers, signage, and restoration groundwork includes extreme surface roughening, installing water bars on closed routes, and breaking up compacted soils. Amount Awarded $837,200.

- Total Awarded $1,023,080.

**USFS - Eldorado National Forest**

- This project includes the scientific study of the interaction of California red-legged frogs and OHVs on the Rock Creek Trail. Amount Awarded $72,279.

- This project includes signing, barriers, active restoration, and trail obliteration throughout the Eldorado National Forest. Amount Awarded $139,628.

- Total Awarded $211,907.

**USFS - Inyo National Forest**

- Forest-wide OHV restoration activities including active restoration of unauthorized OHV use, monitoring, signage, fencing or barriers, public outreach, and restoration planning. Amount Awarded $192,154.

- Total Awarded $192,154.

**USFS - Lake Tahoe Basin Management Unit**

- Closure and restoration of unauthorized OHV routes. Amount Awarded $221,580.
- Total Awarded $221,580.

**USFS - Los Padres National Forest**

- Restore natural resource systems open for OHV and motorized use on approximately 15 miles of roads and OHV trails closed to motorized use. Staff will monitor and install signage and fencing, and barriers. Amount Awarded $174,420.
- Total Awarded $174,420.

**USFS - Mendocino National Forest**

- Active Restoration of approximately 15 miles of roads on Leech Lake Road. Staff will remove about 31 culverts, monitor, install signage and fencing or barriers, and update kiosk and educational signage. Amount Awarded $414,000.
- Total Awarded $414,000.

**USFS - Modoc National Forest**

- NEPA and decommissioning of roads, treatment of noxious weeds, and restoration of streams and meadows in the Bald Mountain Area. Amount Awarded $ 668,679.
- NEPA and surface scarification, barrier installation, and restoration monitoring. Amount Awarded $198,730.
- Study on the effects of OHV recreation on cultural properties. Amount Awarded $210,005.
- Total Awarded $1,077,414.

**USFS - Plumas National Forest**

- Closure and obliteration of unauthorized non-system routes. Amount Awarded $101,338.
- NEPA and decommissioning of roads and unauthorized routes. Amount Awarded $72,510.
- Closing of unauthorized routes, signing, barrier installation, and patrol. Amount Awarded $50,344.
- Total Awarded $224,192.

**USFS - San Bernardino National Forest**

- Protection of existing restoration sites and active restoration of 16 acres in Deep Creek Roadless Area, Coxey Roadless Area, Rattlesnake Mountain Restoration Area, Horse Springs OHV Campground, Holcomb I, Holcomb II, Air Curtain Site, Cienega Redonda/Cienega Larga, Miller Canyon Unauthorized Staging Area Restoration, Summit Unauthorized Staging Area Restoration, 2N47 Unauthorized Staging Area Restoration and Delta Way. Activities include site decompaction and erosion control, seed collection and propagation, sow seed and outplant, invasive weed removal, restoration maintenance, monitoring, restoration mapping, barrier placement, and signing. Amount Awarded $862,885.

- Monitoring and maintaining existing Restoration sites and restoring new areas by seeding, plant propagation and out-planting, barrier placement, kiosk, and signage installation. Amount Awarded $817,253.

- This project has two phases for Holcomb Valley in Mountaintop Ranger District. The first phase is NEPA. The second phase includes restoration of three acres to include seeding, slashing, raking, heavy mechanized chunking and ripping, watercourse and meadow restoration, barrier installation, kiosk, and signage installation. Amount Awarded $35,834.

- Total Awarded $1,715,972.

**USFS - Sequoia National Forest**

- NEPA and CEQA review, active restoration on 5-10 acres within the Kern River Ranger District, Hume Lake, Western Divide Ranger Districts, monitoring, signing, and public outreach. Amount Awarded $424,086.

- Total Awarded $424,086.

**USFS - Shasta-Trinity National Forest**

- Within the Parks-Eddy Project Area: Decommission approximately 20 miles of system roads. In addition, staff may decommission about one mile of unauthorized roads once they complete the assessment. Within the South Fork Project Area: Will prevent access to meadows/wetlands, prevent access to the Castle Crags Wilderness Area, road decommissioning, and streambank stabilization. Like Parks-Eddy, staff may decommission about ten miles of OHV routes within this project area. Monitoring will be completed, along with signage and barrier installation. Amount Awarded $380,025.

- Total Awarded $380,025.

**USFS - Stanislaus National Forest**

- This project includes five acres of active restoration, signing, fencing, monitoring, and public outreach within the Stanislaus National Forest. Amount Awarded $279,044.
- Total Awarded $279,044.

**USFS - Tahoe National Forest**

- Barrier and Restoration of non-system OHV Routes. Amount Awarded $371,570.
- Study on the impact of Over Snow Vehicles on the Sierra Nevada yellow-legged frog. Amount Awarded $87,060.
- NEPA review and obliteration of 30 miles of user-created unauthorized routes. Amount Awarded $145,995.
- NEPA review and monitoring, barrier installation, and restoration of unauthorized routes. Amount Awarded $308,375.
- Total Awarded $913,000.

**2016-2019 USFS Restoration Total Awarded $7,250,874.**

## National Parks Service

**Death Valley National Park National Park**

- CEQA and NEPA completion along with Restoration Planning. The project includes restoring 3-5 miles of damaged off-road vehicle tracks within line of sight of the road across five hotspot zones along with monitoring, signage and barrier installation, and public outreach. Amount Awarded $498,000.
- CEQA and NEPA review, install barriers and signage. Restoration groundwork includes raking, vertical mulching, disguising user-created trails to the line of sight, and planting native vegetation. Amount Awarded $411,380.
- Total Awarded $909,380

**Joshua Tree National Park**

- Restoration planning - Create an OHV Restoration Plan with treatment specifications, a routine patrol plan for law enforcement, and written outreach strategies. Amount Awarded $126,778.
- OHV-related restoration within the jurisdiction of the Joshua Tree National Park. Staff will install fencing, signage, and restoration groundwork such as revegetation, vertical mulch, decompaction of tracks, etc. Amount Awarded $299,250.

- Total Awarded $426,028.

**2016-2019 National Park Service Restoration Total Awarded $1,335,408**

## County

**El Dorado County Chief Administrative Office**

- Monitoring, fencing, and restoration work along the Rubicon River. Amount Awarded $41,395.
- Patrolling, monitoring and restoration along the Sacramento Placerville Transportation Corridor. Amount Awarded $39,032.
- Total Awarded $80,427.

**Riverside County Regional Park and Open-Space District**

- Kabian Park Restoration. Amount Awarded $395,000.
- Total Awarded $395,000.

**Stanislaus County Parks and Recreation Department**

- Identify areas to close for restoration within Frank Raines Regional OHV Park, active restoration, signing, and monitoring. Amount Awarded $90,000.
- Total Awarded $90,000.

**2016-2019 County Restoration Grant Total Awarded $565,427.**

## Districts

**Trinity County Resource Conservation District**

- Decommission 4.75 miles of USFS trails, invasive plant species surveys along 25 miles of USFS trails in the Hayfork Creek watershed, installation of signage or physical barriers as appropriate, planting of native grass, recontouring or reshaping of banks, and project effectiveness monitoring. Amount Awarded $286,666.
- Total Awarded $286,666 .

**Mendocino Coast Recreation and Parks District**

- Fencing 586 acres, restoring of trails, and removing invasive species. Amount Awarded $2,739,828.
- Total Awarded $2,739,828.

**Western Shasta Resource Conservation District**

- Surveying for invasive plant populations and evaluation of location for power wash stations. Amount Awarded $104,012.
- Total Awarded $104,012.

**2016-2019 District Restoration Grant Total Awarded $3,130,506.**

## Other Local Entities

**Back Country Land Trust**

- Active restoration of unauthorized use of approximately 15 acres in Clover Flat. Staff will monitor and install signage and barriers. Amount Awarded $146,817.
- Total Awarded $146,817

**Center for Sierra Nevada Conservation**

- Restoration projects. Amount Awarded $571,989.
- Total Awarded $604,062.

**2016-2019 Other Local Entities Restoration Grant Total Awarded $1,176,051**

## Nonprofits

**Desert Tortoise Preserve Committee Inc.**

- Restoration of unauthorized routes of approximately 4,600 acres of conservation land adjacent to Desert Tortoise Research Natural Area, monitoring, signage, fencing, and surveying of Project area. Amount Awarded $126,180.
- Install fencing along the northern boundary of approximately 300 acres of land adjacent to the western border of the Desert Tortoise Research Natural Area, signing and marker installation. Amount Awarded $16,937.
- Install fencing along 600 acres adjacent to the west boundary of the Desert Tortoise Research Natural Area, camouflage-restoration of unauthorized routes, signing and marker installation. Amount Awarded $54,865.
- Install fencing along the 330 acres of land adjacent to the southern boundary of Desert Tortoise Research Natural Area, camouflage restoration of unauthorized routes, signing and marker installation. Amount Awarded $62,596.
- Total Awarded $260,578

**Farmworker Institute of Education and Leadership Development Inc. (FIELD)**

- CEQA, restore unauthorized routes, install fencing, and monitor within 165 acres of Golden Hills Nature Park. Amount Awarded $573,203.
- Restore closed OHV routes, install fencing and signs, and mitigate erosion on 116 acres in the Upper Middle Knob OHV region within BLM Ridgecrest. Amount Awarded $410,017.
- Restore closed OHV routes, stabilize terrain, install fencing, and mitigate erosion on 500 acres within BLM Palm Springs. Amount Awarded $338,828.
- Total Awarded $1,322,048.

**Friends of El Mirage**

- Restoration planning and active restoration of about 50 acres of trails and roads in the 36,000 acre El Mirage subregion. Activities include monitoring, installing signs and fencing or barriers, and public outreach. Amount Awarded $1,197,632.
- **Total $1,197,632**

**Friends of Jawbone**

- Active restoration of unauthorized OHV use within the Middle Knob Subregion. Activities include monitoring, installing signs and fencing or barriers, and public outreach. Amount Awarded $1,287,302
- Active Restoration of unauthorized use of approximately 50 Acres of linear disturbances in the El Pass Mountains Subregion. Activities include monitoring, installing signs and fencing or barriers, and public outreach. Amount Awarded $1,025,604
- Restoration activities on the designated closed trails in the Northern and Southern Jawbone Subregion, EP 15 in the El Paso Subregion, and polygons RM29, RM40, RM41, RM42, RM61, and RM 62 in the Rands Subregion within the jurisdiction of the BLM Ridgecrest Field Office. Activities include monitoring, installing signs and fencing or barriers, and ripping. Amount Awarded $901,041
- Restoration activities on the designated closed trails in the northwestern section of the greater Jawbone region. Activities included ripping, barriers, fencing, signage and monitoring, data collection, and photo documentation of restoration efforts. Amount Awarded $872,901.
- **Total Awarded $4,086,848.**

**Pacific Coast Conservation Alliance**

- Scientific research study collecting the occurrence and breeding data on a suite of wildlife species, primarily birds and bats, in proximity to OHV use. The primary focus of this study takes place in the Eastern Portion of Kern County. Amount Awarded $196,470
- Research activities in the Jawbone-Butterbredt Area of Critical Environmental Concern within the BLM Ridgecrest Field Office jurisdiction. This project investigates the status of nesting raptors (eagles, hawks, and owls) and bat populations within the designated area(s). Amount Awarded $64,685.
- **Total $261,155**

**Post Wildfire OHV Recovery Alliance**

- Active restoration of unauthorized OHV use of about 4 acres of decommissioned trails in the Saint John's Mountain area. Activities include installing signage and barriers and public outreach. Amount Awarded $36,800.
- **Total $36,800**

**Southern California Mountains Foundation**

- Approximately 40-acres of restoration work in the San Jacinto, Mountaintop, and Front Country Ranger Districts of the San Bernardino National Forest. Activities include chunking/ripping, mulching/camouflage/rock scattering, plant propagation, planting, seeding, land stabilization, barrier placement, erosion control, monitoring, signage placement. Amount Awarded $1,032,560.
- Restoration will be forest-wide with additional focused restoration in Rattlesnake Canyon, Baldy Mesa - East, Bee Canyon, and Cleghorn Ridge. Activities include items such as maintaining existing restoration sites, repairing new ones, monitoring, installation of barriers/fencing, signage, and groundwork to include chunking, slashing, mulching, seeding, and planting. Amount Awarded $985,704.
- Total Awarded $2,018,264.

**The Watershed Research and Training Center**

- CEQA and NEPA review, restoration implementation activities, erosion control, re-seeding of unauthorized OHV routes, monitoring restoration activity effectiveness, installing barriers, disguising unauthorized routes with slash and boulders, and installing signage identifying unauthorized OHV-use as well as designated OHV routes. Amount Awarded $94,990.
- Total Awarded $94,990.

**Transition Habitat Conservancy**

- Complete at least 150 unique restoration sites that consist of closed routes, incursion, and newly created cross-country tracks within 13 identified management polygons which encompass roughly 23,040 acres of roadless habitat bounded by legal, designated OHV routes. Activities include installing signs and barriers, patrols, and public outreach. Amount Awarded $282,142.

- OHV-related restoration activities within the Fremont-Kramer and Black Mountain subregions in the jurisdiction of BLM Barstow Field Office. Activities include installing barriers and signs, kiosks, post and cable fencing, vertical mulching, raking, and monitoring. Amount Awarded $344,609.

- Total Awarded $626,751.

**Urban Corps of San Diego County**

- CEQA and NEPA completion leading into the active restoration of approximately 3.5 acres of open space in Wright's Field Ecological Reserve. Activities include monitoring, installing signs and fencing or barriers, and public outreach. Amount Awarded $106,741.

- OHV-related restoration project of critical wildland habitat in the Clover Flat area of La Posta Preserve. CEQA completion leading into the installation of fencing and signage; and groundwork to include planting; camouflaging unauthorized routes, and implementing erosion control methods. Amount Awarded $173,237.

- Total Awarded $279,978.

**2016-2019 Nonprofit Restoration Grant Total Awarded $11,507,912.**