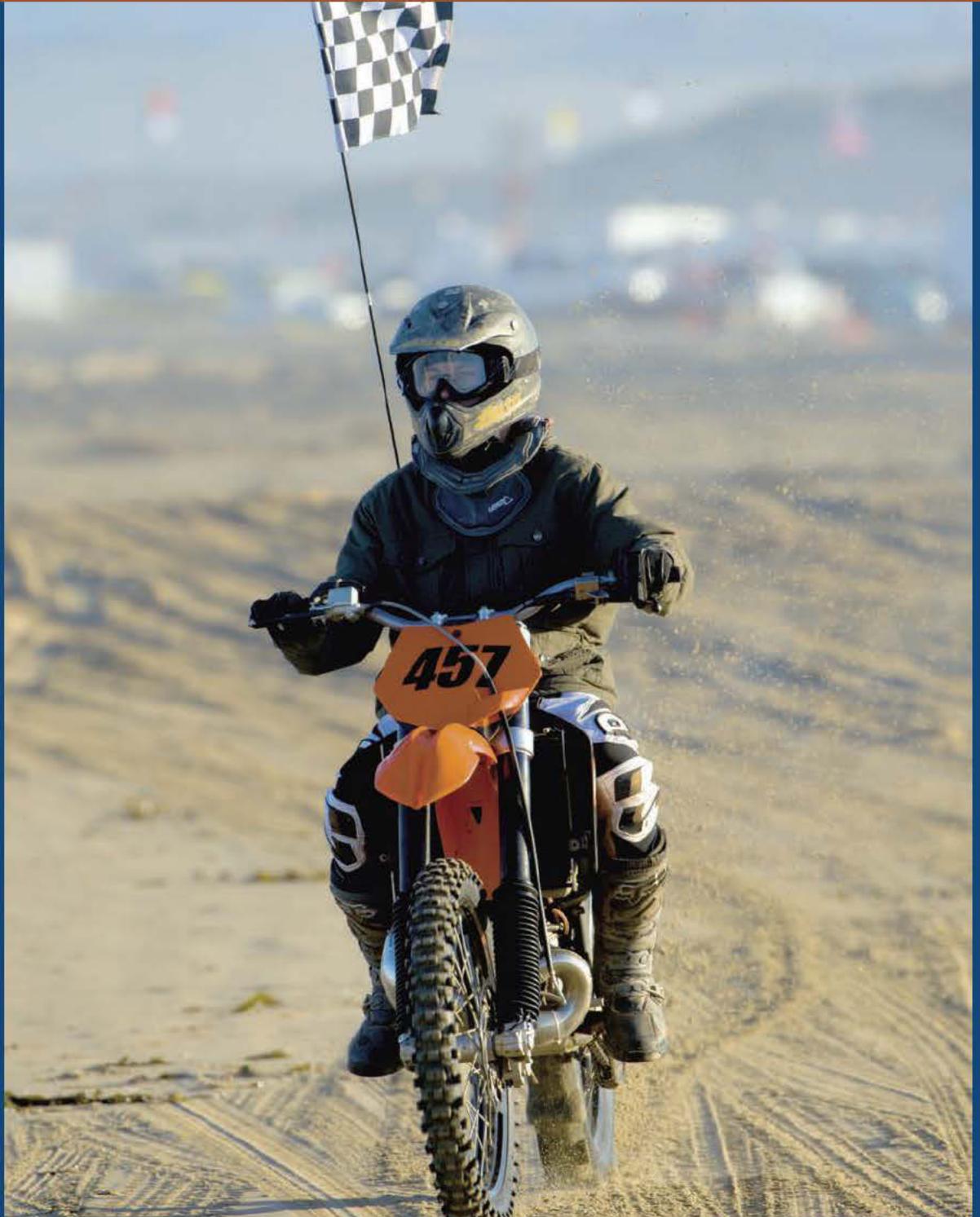


DRAFT

OFF-HIGHWAY MOTOR VEHICLE RECREATION

COMMISSION PROGRAM REPORT



DRAFT

JANUARY 2017

DRAFT

Off-Highway Motor Vehicle Recreation Commission Program Report

January 2017

Off-Highway Motor Vehicle Recreation Commission

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Eric Lueder, Vice Chair

Tom Lemmon

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Off-Highway Motor Vehicle Recreation Division

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 for 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.

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Message from the Chair

Message from the Director / Deputy Director

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, the Assembly Water, Parks, and Wildlife Committee, the Senate Committee on Natural Resources and Water, and the Committee on Appropriations of each house on or before January 1, 2011, and every three years thereafter. The report shall be adopted by the commission after discussing the contents during two or more public meetings. The report shall address the status of the program and off-highway motor vehicle recreation, including all of the following:

- 1. The results of the strategic planning process completed pursuant to subdivision (1) of Section 5090.32.*
- 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(s) 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 since the last program report.*

This Program Report is an overarching document that touches on all aspects of California's Off-Highway Vehicle (OHV) recreation program. This program not only facilitates the accommodation of OHV recreation and related non-motorized recreation like camping and wildlife viewing, but also restores habitat damaged by unauthorized OHV recreation and supports education and law enforcement efforts associated with OHV recreation.

As California's OHMVR Program enters its 45th year in 2017, it is crucial that the program evolve to better serve California's changing demographics and future OHV recreation needs. This effort is well supported through the Budget Act of 2016 that was signed by Governor Edmund G. Brown Jr. on June 27, 2016, and the Budget Act fully repays the outstanding OHV Trust Fund loans totaling \$112 million.

OHMVR Program Milestones Chart, 1971-2016

Introduction

California is the nation's leader in management of OHV recreation as a sustainable activity. California State Parks, through its OHMVR Division, has worked for over 40 years to establish management practices that reduce or prevent damage to the environment from OHV activity. Through management of OHV areas and by partnering with other local, state, and federal land managers, these principles 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 basic components. The first is a system of 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 a grant program providing financial assistance to local, state and federal agencies as well as Native American tribes, nonprofits and educational institutions. Along with the SVRAs, OHV opportunities on federal and other lands are an essential element of the OHMVR Program. This critical financial assistance enables other agencies to implement sustainable, environmentally responsible OHV recreational opportunities. Funds are also available to counties and local communities affected by OHV uses and impacts, including trespass, noise, and other nuisances, that require regulatory action, education, and law enforcement.

The OHMVR Division works to ensure that quality recreational opportunities remain available for future generations by providing for 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 state General Fund support. The OHV registration fees, SVRA entrance fees, and fuel taxes paid by OHVs and recreational and tow vehicles pay for the OHV program and benefit local merchants.

OHV recreation is a family-friendly activity. Participants share a love and appreciation of the outdoors, enjoy connecting with nature through OHV recreation and other non-motorized recreation, and volunteer their time to conservation projects in their favorite recreation areas.

Legislation

In 1971, through enactment of the Chappie-Z'berg Off-Highway Motor Vehicle Law (the Law), the Legislature addressed the growing use of motorized vehicles off-highway by adopting requirements for the registration and operation of these vehicles. In addition, the Law provided funding for administration of the OHMVR Program along with facilities for OHV recreation (California Vehicle Code (CVC) § 38000, et seq.).

The Law 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.” The Law required maintenance and oversight to allow for sustainable OHV use consistent with good environmental stewardship.

In 1982, these principles were expanded upon through the enactment of 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) (Public Resources Code (PRC) § 5090.01 et seq.).

The legislative intent, as articulated in the OHMVR Act, is that existing OHV areas be expanded, added to and managed to sustain areas for long-term motor vehicle recreation and that the OHMVR Program support motorized off-highway access to non-motorized recreational opportunities. The OHMVR Act requires the OHMVR Program be given 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 was given the exclusive authority for administering the OHMVR Program. The Division is charged with all aspects of managing 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 a number of significant changes that enhanced the ability of the OHMVR Division to meet its goals. In addition to other changes, SB 742 modified the makeup and responsibilities of the Commission, increased funding to the OHV Trust Fund, and adjusted the allocation of grant funds. It also extended the OHMVR Program sunset to January 1, 2018, the longest sunset in the history of the OHMVR Program. The bill received strong bipartisan support from the Assembly and the Senate as it passed through the Legislature by a vote of 114-5.

Program Goals

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

1. Existing off-highway motor vehicle recreational areas, facilities, and opportunities should be expanded and managed in a manner consistent with this chapter, in particular to maintain sustained long-term use.
2. New off-highway motor vehicle recreational areas, facilities, and opportunities should be provided and managed pursuant to 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 non-motorized 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 should be 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. Off-highway motor vehicle recreation should be managed in accordance with this chapter through financial assistance to local governments and joint undertakings with agencies of the United States and with 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 Division on the OHMVR Program.

The Commission is a nine member body consisting of five members appointed by the Governor, two by the Senate Committee on Rules, and two appointed by the Speaker of the Assembly. A complete roster of OHMVR Commissioners can be found as an Appendix to this report.

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

- Be fully informed regarding all governmental activities affecting the OHMVR Program.
- Meet at least four times per year at various locations throughout the state to receive comments on the implementation of the OHMVR Program. Establish an annual calendar of proposed meetings at the beginning of each calendar year. The meetings shall include a public meeting, before the beginning of each Grants Program cycle, to collect public input concerning the OHMVR Program, recommendations for program improvements, and specific project needs for the system.
- 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.
- 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 OHVs and recommend to the Division suitable measures for the prevention of any adverse impact determined by the Commission to be occurring, and suitable measures for the restoration of adversely impacted property.
- Review and comment annually to the director on the proposed budget of expenditures from the fund.
- Review all plans for new and expanded local and regional vehicle recreation areas that have applied for grant funds.
- Review and comment on the Strategic Plan developed by the Division pursuant to Section 5090.32.



OHMVR Commissioners l. to r.:

Ed Patrovsky, Kevin Litwin, Kevin Murphy, Chair Ted Cabral, Vice Chair Eric Lueder, Tom Lemmon, and Paul Slavik

- Prepare and submit a program report to the Governor; the Assembly Water, Parks, and Wildlife Committee; the Senate Committee on Natural Resources and Water; and the Committee on Appropriations of each house on or before January 1, 2011, and every three years thereafter. The report shall be adopted by the Commission after discussing the contents during two or more public meetings.
- Additionally, the Commission approves general plans and amendments to general plans for the SVRAs pursuant to PRC Section 5002.2.

OHMVR Division

The OHMVR Division operates nine SVRAs located throughout California and supports local, state, and federal OHV recreation areas through financial and technical assistance and professional guidance. Per PRC Section 5090.32, the Division has the following duties and responsibilities:

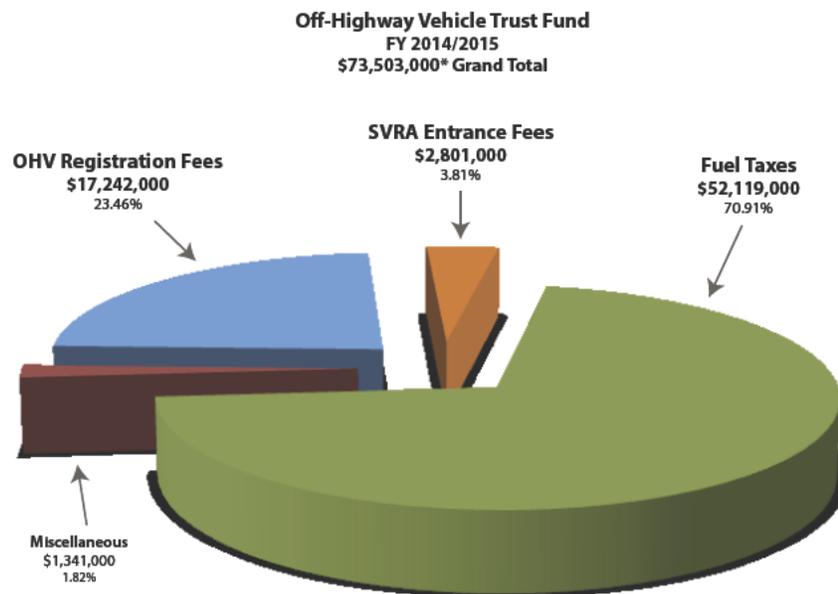


- Planning, acquisition, development, conservation, and restoration of lands in SVRAs.
- Direct management, maintenance, administration, and operation of lands in the SVRAs.
- Provide for law enforcement and appropriate public safety activities.
- Implement all aspects of the Program.
- Ensure Program compliance with the California Environmental Quality Act (CEQA) (Division 13 commencing with § 2100) in SVRAs.
- Provide staff assistance to the Commission.
- Prepare and implement plans for lands in, or proposed to be included in, SVRAs, including new SVRAs. However, a plan shall not be prepared in any instance specified in subdivision (2) of Section 5002.2.
- Conduct, or cause to be conducted, surveys, and prepare, or cause to be prepared, studies that are 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 § 38000) of the Vehicle Code and other laws regulating the use or equipment of off-highway motor vehicles in all areas acquired, maintained, or operated by funds from the fund; however, the Department of the California Highway Patrol (CHP) shall have the responsibility for enforcement on highways.
- Complete by January 1, 2009, a strategic planning process that will identify future off-highway motor vehicle recreation needs, including, but not limited to, potential off-highway motor vehicle parks in urban areas to properly direct vehicle operators away from illegal or environmentally sensitive areas. This strategic planning process shall take into consideration, at a minimum, environmental constraints, infrastructure requirements, demographics limitations, and local, state, and federal land use planning processes. The Strategic Plan shall be reviewed by the Commission and updated periodically.

Program Funding

The OHMVR Program receives no 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 off-highway recreation on public lands.
- OHV registration fees.
- Entrance fees generated at the SVRAs.
- Interest and miscellaneous income.
- 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 gate fees. Gate 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.



NOTE: No funding comes from the State's General Fund
* Governor's Fund Condition Statement

Fuel Taxes

Fuel taxes represent approximately 70% 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 in the course of OHV recreation. Legislation passed in 2007 (SB 742) established that future transfers would be based on the percentage of fuel taxes transferred in 2007, rather than depending on studies to estimate the amount of gasoline burned by OHVs. 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 that is purchased by Californians, the more gas tax revenue that is 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 gasoline purchased in California is dependent on the price of gasoline and larger economic factors.

Fiscal Year	Gallons of Gasoline Sold
2012/2013	14,475,836,000
2013/2014	14,599,336,000
2014/2015	14,921,441,859

OHV Registration Fees

Another source of income to the OHV Trust Fund is fees paid to register vehicles that are operated exclusively off-highway. This registration is commonly referred to as a “Green Sticker.” With the passage of SB 742 in 2007, OHV registration fees were doubled from \$25 to \$50 for a two-year registration. This 100% increase in registration fees was supported by OHV and environmental organizations. 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 related to uses associated with OHV recreation or enforcement.) OHV registration fees are currently \$52 every two years. Of this amount, \$33 is directed to the OHV Trust Fund, and the remainder is distributed to the CHP, the Department of Motor Vehicles, and to counties. (CVC §§ 38225, 38230)

Annual Distribution of Off-Highway Motor Vehicle Registration Fees
(Registrations are \$52.00 Biennially Effective January 1, 2009)



USFS Visitor Use Monitoring

As the demographics of California change over time it is important for public land managers to gather visitor data to assist in the development and management of recreational facilities. The United States Forest Service (USFS) has a robust visitor use monitoring program for National Forest lands. The results of the visitor use monitoring can be accessed by forest, region or nationality. Data is available for items like visitor demographics, economics, visit duration and activity. This type of data gathering would benefit the SVRA operations/management and should be implemented in the future. For more information about the USFS Visitor Use Monitoring Program and to access program data visit:

<http://apps.fs.fed.us/nfs/nrm/nvum/results/A05001-A05002-A05003-A05004-A05005-A05019-A05006-A05007-A05008-A05009-A05011-A05012-A05013-A05014-A05015-A05010-A05016-A05017.aspx/Round3>

NRM FSWeb | FM FSWeb | WO FSWeb | USDA Intranet | FS WWW | USDA WWW

Natural Resource Manager

National Visitor Use Monitoring RESULTS

Version: 2.1.2.41

Corporate Data Warehouse | FACTS | Infra | NRIS | TIM

Round: 3 Selected Units: Angeles NF, Cleveland NF, Eldorado NF, Inyo NF, Klamath NF, Lake Tahoe Basin Mgt Unit, Lassen NF, Los Padres NF, Mendocino NF, Modoc NF, Plumas NF, San Bernardino NF, Sequoia NF, Shasta-Trinity NF, Sierra NF, Six Rivers NF, Stanislaus NF, Tahoe NF

Change Units

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Sampling Strata

Satisfaction

Sample Population

Visit Description

Visitation Estimates

Maps

Format: PDF

Welcome to USDA Forest Service National Visitor Use Monitoring

Quick Start Guide

1. The light blue bar above shows your selected round and forest(s). Any reports that you generate will only use data from this round and forest(s). To change the selection, click on the "Change Units" link next to the selected forest(s).
2. Using the drop-down menu in the bottom left corner of the screen, select a file format for reports (PDF, Word, or Excel).
3. Select a report category on the left side of the screen in order to see all available maps and reports. Click on the report or map name to run the report.
4. Move your mouse cursor over a category or report in the menu to see a brief description in the box below.

Report Description

Move your mouse cursor over a report title to see its description here.

USDA Forest Service, NRM

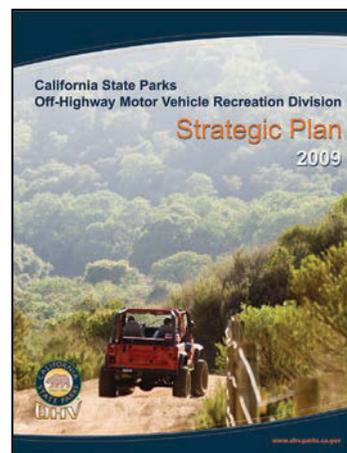
Report Requirement No. 1

The results of the strategic planning process completed pursuant to subdivision (1) of Section 5090.32.

Off-Highway Motor Vehicle Recreation Division Strategic Plan

The 2009 Off-Highway Motor Vehicle Recreation (OHMVR) Division Strategic Plan provides specific objectives relative to overarching Program goals. These goals touch all elements of the OHMVR Program, including stewardship of natural and cultural resources, and sustaining and expanding managed OHV recreation in California. Substantial progress has been made towards implementing the objectives.

This section reports on progress towards meeting the 2009 Strategic Plan objectives. For each of the goals listed below, the Strategic Plan lays out specific objectives to be implemented to achieve the goal. The objectives include anticipated date for completion, and describe performance measures that can be tracked to verify objectives have been accomplished. The 2009 Strategic Plan provides a road map for the OHMVR Division and consists of four strategic themes, five guiding principles (below in boxes), and six goals (on facing page), all of which the Division uses to meet the Program's legislative mandates.



For each of the goals listed on the facing page, the Strategic Plan lays out specific objectives to be implemented to achieve the goal. The objectives include anticipated periods for completion, which can be tracked to verify objectives have been accomplished.

STRATEGIC THEMES

- ✓ Emphasize the Basics
- ✓ The Greening of OHV Recreation
- ✓ Improving Technology
- ✓ The New Gateway

GUIDING PRINCIPLES

- ✓ Sustainability
- ✓ Transparency in Decision Making
- ✓ Working with Partners and Volunteers
- ✓ Considering the Needs and Concerns of Stakeholders
- ✓ Sound Data for Management Decision Making

GOAL 1 – Sustain Existing Opportunity

Protect, preserve, and enhance existing OHV opportunities in a manner that ensures well-managed, interesting, and high quality experiences, and address the environmental impacts that may be associated with those activities.

GOAL 2 – Increase OHV Opportunity

Add new OHV opportunities where appropriate and needed to replace loss of existing opportunities and respond to changing and future demand.

GOAL 3 – Staff Development

Enhance the abilities of Program managers and staff dedicated to the development, management, and implementation of the OHMVR Program.

GOAL 4 – Develop an Informed and Educated Community

Achieve a highly informed and educated community associated with OHV recreational activities, dedicated to safe and lawful OHV operation and responsible environmental stewardship.

GOAL 5 – Cooperative Relationships

Establish and maintain productive relationships between individuals, organizations, industry, and government agencies to cooperatively identify problems and develop and implement solutions to advance the Mission and Goals of the OHMVR Program.

GOAL 6 – Informed Decision Making

Improve the quality, quantity, and accessibility of information needed to support sound decision-making, transparency of administration, and communication with the interrelated groups interested in, and associated with, the OHMVR Program.

Thanks to the hard work of staff at the State Vehicular Recreation Areas (SVRAs or SVRA), OHMVR Division, and our cooperating partners, significant progress has been made toward achieving the goals and objectives that will help the OHMVR Division fulfill its mission and realize its Strategic Plan vision. The OHMVR Division's progress toward achieving a number of the Strategic Plan's goals is outlined on the following pages.

Goal 1 Objectives

Protect, preserve, and enhance existing OHV opportunities in a manner that ensures well-managed, interesting, and high quality experiences, and address the environmental impacts that may be associated with those activities.

1.1 On an annual basis, ensure requirements for the Soil Standard and Habitat Protection Programs are being implemented in the State Vehicular Recreation Areas and for other projects supported by the Off-Highway Vehicle Trust Funds.

Soil Standard Implementation

- In order to make the required evaluation, each SVRA adopted a soil conservation plan tailored specific to conditions at their OHV facility. A soil conservation plan includes guidelines that detail land condition assessments, maintenance procedures for OHV facilities, construction design elements for development projects, and appropriate monitoring programs to detect and quantify changes overtime.
- Done prior to project implementation, land condition assessments identify area conditions so that there can be an opportunity to design the project with sensitivity toward the long-term sustainability of OHV lands. OHMVR Division and District staff use the results of a land condition assessment to develop maintenance and/or development plans to implement consistent and appropriate construction protocols. A monitoring program will determine if the facility has been designed, constructed, and maintained to limit soil erosion, promote sustainability, and prevent sediment delivery to water bodies.
- Participants in the OHMVR Division Grants and Cooperative Agreements Program (Grants Program) are required to provide a soil conservation plan as part of the grant application process. For every proposed project that involves ground disturbing activities, an applicant is required to provide a soil conservation plan that addresses how the project will adhere to the Soil Standard. Grant funded recipients are also required to submit soil compliance reports at project closeout for each project identified in their soil conservation plan. The compliance report is required to address how the applicant was able to comply with the Soil Standard with regard to their proposed project. Applicants typically incorporate trail watch programs with volunteers from the OHV community to assist with Soil Standard implementation.

- The OHMVR Division contracts with the California Geologic Survey (CGS) to provide technical expertise and peer review assistance with Soil Standard implementation for SVRAs and the Grants Program.

Habitat Protection Program Implementation

- Since 2014, SVRA environmental scientists have collaborated to design custom databases to manage collected scientific data within each of the SVRAs. The newly implemented methodology for storing information is expected to benefit the Wildlife Habitat Protection Program (WHPP) and the Habitat Monitoring System (HMS) reporting by allowing collected data be extrapolated and analyzed much more efficiently. Additionally, the OHMVR Division has contracted with private consultants and academic researchers to work with SVRAs to provide peer reviews regarding

Monitoring Soil Erosion on Recreational Trails

Carnegie SVRA has several miles of trails that accommodate motorcycles, all terrain vehicles (ATV), and administrative vehicles. SVRA staff utilize the Soil Standard Guidelines in trail evaluations 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, Carnegie 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 to plan for rehabilitation projects, trail maintenance, and to meet regulatory compliance.



study design methods and data analysis to further improve WHPPs and HMS reporting.

- On an annual basis, SVRA environmental scientists monitor the condition of natural resources and produce reports that evaluate whether the SVRA meets the requirements for the WHPP. Ground disturbing projects funded through the Grants Program have the same requirements for natural resource monitoring. Grantees provide separate reports at the end of their grant-funding period for each project that implemented ground disturbing activities.



1.2 *By 2012, identify and implement best management practices (BMPs) for keeping SVRAs, and other lands supported by OHV Trust Funds, compliant with current regulations and standards in resource management to reduce environmental impacts.*

Examples of compliance are provided below.

The OHV BMP manual for Erosion and Sediment Control (Salix 2007) is provided on-line for reference by managers of OHV recreation facilities:
ohv.parks.ca.gov/pages/25010/files/ca_dpr_ohv-bmp-manual_nov2007.pdf

- Hungry Valley SVRA – After the Grand Fire of 2013, Sterling Canyon Trail has been recovering at a rate slower than expected. Using BMPs, the resource crew planted native plants grown in Hungry Valley SVRA's native plant nursery. Due to the extreme drought experienced by all of California, a product called DriWater is being used to help the success rate of these plants. DriWater is a gel and when comes in contact with naturally occurring enzymes in soil, the enzymes slowly break down the gel, releasing moisture into the soil delivering moisture to plants. As plants become available, they will be planted in this area to help speed the recovery of this burned area.
- Hungry Valley SVRA – The Hungry Valley Pavilion and Group Campground opened at the end of 2014. With very little vegetation remaining in the area, the resource team planted native vegetation on a slope and in the new walkways created by the construction of the facility. The plants were grown in the SVRA's native plant

nursery. The slope was also hydro-seeded with native seed to help the recovery of the slope. As plants become established, signs are placed next to them indicating the common name, genus, and species of the plant so the visitor can learn and appreciate the native vegetation of the area.

- SVRA environmental scientists conduct annual meetings to collaborate on monitoring programs, data management and analysis, and methods to evaluate habitat health, species diversity, and biological trends. The meetings have included training and evaluations from subject matter experts and academic peers on topics such



Environmental Scientists' Annual Meeting

- as avian and vegetation monitoring, soil conservation, storm water management, statistical analysis and reporting. OHMVR Division managers, DPR Natural Resource Division staff and DPR Legal Counsel attend these meetings to discuss resource management priorities, current regulations, and ways to implement Best Management Practices (BMPs).
- Since 2014, the OHMVR Districts have hired senior environmental scientists to oversee natural resource programs at the SVRAs. The OHMVR Division has a full staff of environmental scientists and cultural resource specialists to manage OHMVR Division-wide resource programs and to provide assistance to field staff. Field staff consults with environmental scientists at SVRAs and at the OHMVR Division regarding implementation of BMPs.
- The OHMVR Division has contracted with private consultants and academic researchers to work with Districts to identify and implement BMPs. The contractors provide peer review of monitoring programs and HMS reports and provide technical assistance on storm water management (MS4 permits), noise and ambient sound monitoring, vegetation monitoring, herpetology studies, avian and bat monitoring, paleontological studies, and cultural resource inventories.
- Carnegie SVRA has been modernizing the trail system to comply with its Storm Water Management Program and Soil Standard BMPs. The project is being implemented in each Resource Management Area (RMA) within the SVRA. In 2015, Harrison Hill was the most recent RMA trail system completed. Results from trail monitoring already show an increase in vegetation, more storm water friendly trails, and a lower overall trail footprint.

- Prairie City SVRA uses a rotational hillclimb program as part of their soil conservation program. When a hillside is in need of repair, the SVRA will temporarily close it for rehabilitation and open another hillclimb area for visitors to enjoy. Then, SVRA staff re-contours the hillside with soil material collected from sediment basins and place burlap-wrapped fiber rolls along the contours to stabilize the soil.



Restoration Project - Before

Finally, the hillside is sprayed with a hydro-seed mixture of native seed mix, tackifier, mulch, and water and given multiple winter seasons to grow before re-opening the area to OHV recreation.



Restoration Project - During



Restoration Project - After

- As part of an ongoing or annual effort, Carnegie SVRA inspected existing signs at RMAs for wear and tear and each panel passed inspection. The signs at the Los Osos Knob trailhead and Thrasher/Roadrunner trailheads were updated with RMA rules and regulations to ensure proper interpretation of the importance of preventing water pollution. The SVRA will develop and post signs for two future rehabilitation zones (Harrison Hill and Los Osos Climb Trails) to help inform the public about the park's efforts to improve water quality.
- As an example of permit-related requirements, Carnegie SVRA implemented several BMPs to protect water quality. This permit, known as MS4s, regulates storm water discharges from municipal separate storm sewer systems. The BMPs include the installation of spill kits throughout 4x4 areas, public outreach using weekend stakeholder meetings to discuss storm water regulations, and outfitting garbage dumpsters with lids to prevent trash from entering the environment.
- Hungry Valley SVRA completed a major capital outlay project in 2015, known as the Honey Valley Pavilion and Group Campground. The project used BMPs when designing the site drainage and grading plan that sheds water and minimizes erosion and sedimentation. In addition, the project protected existing vegetated areas and included planting native species as landscape elements.

- Clay Pit SVRA – As part of the Clay Pit SVRA Drainage Improvement Project, Park staff constructed two elevated water crossings that improve user access to the site, control storm water, and help protect water quality downstream. Throughout the process staff worked closely with state and federal regulatory agencies to limit and mitigate project impacts to the federally threatened Vernal Pool Fairy Shrimp.



Heavy equipment operators installing the culvert



Culvert in the Drainage Management Area

- The Grants Program awarded funding to the Plumas County Department of Transportation to implement BMPs on OHV routes in Plumas County. In partnership with the Plumas National Forest and the Sierra Buttes Trail Stewardship, Plumas County provides trail maintenance for 21 miles of OHV routes on the Mount Hough Trail System and 183 miles of Plumas County OHV routes.
- Over the last five years, Hollister Hills SVRA partnered with faculty and students from California State University (CSU) Monterey Bay's Division of Science and Environmental Policy to establish a Water Quality Monitoring Program at the park. The program measured the amount of sediment coming in and out of the park's boundaries and attempted to parse out sediment sources and their input locations. To accomplish this, the program conducted a variety of monitoring studies that examined either watershed processes or the changes over time to man-made features.

These studies determined the general nature of the park's watersheds and included the measurement of landslide complex movement rates, measurement of stream bank erosion rates, and surveys of the longitudinal or cross-sectional profiles of streambeds. Study examples focused on how trails form and how sediment detention basins were introduced to the landscape and how these changed over time. These included 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 by the park's sediment detention basins. The result was a collection of monitoring studies that established a baseline that environmental scientists could use for future monitoring and assessment efforts.

Hollister Hills SVRA values the partnership with the University and renewed the contract for an additional five years. Park staff took the knowledge gained from the baseline water quality monitoring study and applied it towards the assessment of erosion and sediment control management strategies. This relationship also offers teaching and learning opportunities for CSU Monterey Bay faculty and their students.

1.3 Using the 2009/2010 fiscal year as a baseline, achieve a 25 percent reduction in carbon footprint from management of the SVRAs by 2020.

- Ocotillo Wells Solar Panel Installation Project – The existing electrical meters were replaced with solar type bi-directional meters, which can accommodate power being fed back to the grid. The entire solar panel system is composed of 312 panels, which were installed on the roofs of the District Office (105), the Auto Shop (45), the Maintenance Shop (90) as well as three stand-alone arrays (72). According to the Imperial Irrigation District in 2016, the Maintenance Shop, Auto Shop, and three ground arrays had an accumulated net consumption of 11,600 kWh last year. These arrays produced a net generation of 45,200 kWh, which is a difference of 33,600 kWh, earning the District a credit on their account of almost \$2,000. That translates into roughly 181.94 U.S. tons of averted emissions.



Roof installation of solar panel system



Solar panel system

- OHMVR Division has met the low-emission vehicle requirement for the fleet acquisition plan per Executive Order B-16-2012.
- Vehicle Replacement Program – The OHMVR Division acquired multiple zero emission off-highway motorcycles and retired gas-powered bikes for law enforcement staff.

- The Over Snow Vehicle (OSV) program replaced its grooming tractor with more fuel efficient and cleaner-burning tractors. In 2015, the 20+ year-old snow grooming tractor for the Bucks Lakes area was replaced with a new “Tier 4” diesel powered snow-grooming tractor. Tier 4 refers to federal air emissions standards established by the United States Environmental Protection Agency that apply to new diesel engines used in off-road equipment. Tier 4 requires manufacturers to reduce the levels of particulate matter and oxides of nitrogen (NOx) to a level that is 50-96 percent lower than existing generation of diesel engines. The new Tier 4 snow grooming tractor at Bucks Lake is the first of its type in North America.



Tier 4 diesel powered snow-grooming tractor



Groomed trail

1.4 By 2013, implement a sound level management program with the aim of reducing sound levels generated from vehicles recreating off-highway.

- OHMVR Division resource specialists contracted with DPS Technical, Inc. for a pilot ambient background sound quality program at Oceano Dunes SVRA and Prairie City SVRA.
- OHMVR Division outreach efforts include promotion of zero emission-electric OHVs.
- As part of SVRA General Plan development, comprehensive sound studies are conducted to assist in the development of operational goals and guidelines aimed at reducing SVRA sound emissions.
- Hollister Hills SVRA has had an ambient noise monitoring program on the boundaries of the SVRA since 2002. Initially eight locations were monitored multiple times per year to get a true baseline of the



Zero emission electric dirt bike

ambient noise levels. This has evolved into a program that focuses on selected locations that are more sensitive or where noise reduction management practices have been implemented to ensure compliance. The monitoring sessions are staffed so that they can identify the cause of any spikes, which are annotated on a strip sheet. The monitoring calendar is set in consultation with the acoustical engineering contractor, normally during high attendance months. The results of these tests are used to guide management in addressing any problem areas.

- The Grants Program awarded Education and Safety grant funding to the Southern California Mountains Foundation for informational kiosks, free sound awareness monitoring, and outreach at events and at OHV areas.

1.5 *By 2014, implement a dust monitoring and management program with the aim of reducing the amount of dust generated by OHVs.*

- Oceano Dunes SVRA took steps in 2015 to reduce sediment and improve water quality in surrounding areas. The SVRA installed a track-out prevention device at public exits onto West Grand Avenue in the City of Grover Beach and Pier Avenue in Oceano. This device is similar to a rumble strip or cattle grate and is designed to prevent or control sediment track-out. These track-out devices have been installed in the ground and are not visible except from the area immediately near the device. These devices are part of Oceano Dunes SVRA Particulate Matter Reduction Plan, which is mandated by local San Luis Obispo County Air Pollution Control District (APCD) Rule 1001, Coastal Dunes Dust Control Requirements.
- In 2014, Ocotillo Wells SVRA entered into a contract with Michael Baker International to develop a pilot treatment and testing program for various dust control treatments and measure their effectiveness. Various treatments include dust palliatives, wind barriers, and signage on selected park roads and trails. Monitors used during the project to collect fugitive dust data relative to the treatment processes included the truck-mounted TRAKER III (Testing Re-entrained Aerosol Kinetic Emissions from Roads) and several stationary monitoring towers. The TRAKER III measures the mass concentration of the dust plume at the rear of the vehicle created by its travel over unpaved surfaces. The stationary towers measure wind speed and direction, temperature, relative humidity, atmospheric pressure, and particulate matter number concentrations in eight size bins.

The project findings are expected to deliver a full summary of the activities conducted and data collected during the study as well as an evaluation of the effectiveness and efficiency of both individual dust control practices and combinations of practices. The findings will help Ocotillo Wells SVRA to comply

with the Imperial Valley Air APCD Rule 800 mandate for regulating fugitive dust within the park boundaries. Rule 800 provides general requirements for control of fine particulate matter, most prominently the level of Particulate Matter of 10 Micron (PM10) particulates.

- Hollister Hills SVRA is entering its fifth year of round-the-clock PM10 monitoring at three locations on the boundaries of the SVRA. For several years, baseline data was collected using a Mini-Vol PM10 monitor. The data from the Mini-Vol, together with consultation with the Monterey Bay Unified APCD, led to strategic placement of the three permanent, 24-hour EBAM brand PM10 monitors (i.e., real-time portable gauges that record PM10 levels). The SVRA contracts with Monterey Bay Unified APCD for consultation, training, and calibration of the EBAMs. In January 2016, the SVRA entered into an expanded contract that also analyzes daily PM10 reports and communicates with the SVRA on any spikes that occurred. Hollister Hills SVRA field staff conducts investigations to determine the source of the spike and, if attributed to OHV activity, implements BMPs from the Dust Management Plan to minimize future occurrences. Hollister Hills continues to be within the State Ambient Air Quality Standard of 50 micrograms per cubic meter, average, per 24-hour period.
- Carnegie SVRA and Prairie City SVRA apply 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 park's drought response plan, which is mandated by the Executive Order B-18-12.

1.6 By 2017, identify critical urban conflicts and take actions to reduce the threat of urbanization on existing and future OHV opportunities and the loss of open space.

- The Sacramento County communities of Folsom and Rancho Cordova have expanded their boundaries, now immediately north of Prairie City SVRA. White Rock Road, the county roadway that borders Prairie City SVRA, is being expanded to accommodate the regional growth through the Capital Southeast Connector Joint Powers Authority project. OHMVR Division and Prairie City SVRA staff is coordinating with the project managers to minimize impacts to the SVRA and ensure future access to the SVRA from the county roadway.



Planned development of residential and commercial properties in the vicinity of the SVRA

- Prairie City SVRA – The State of California acquired approximately 229 acres of contiguous land to the SVRA, known as Ehnisz Ranch and added it to Prairie City SVRA. The acquisition will prevent residential/commercial development on the property that would have affected the SVRA operation.
- Property adjacent to Hungry Valley SVRA in Southwest Kern County was slated for residential and commercial development through the Frazier Park Estates project. When issues arose with water supply for the project, the State of California was able to acquire the property and add it to Hungry Valley SVRA. The approximately 845-acre acquisition will ensure the lands are not developed in a manner that will affect SVRA operations.
- OHV trails in the Baldy Mesa area of the San Bernardino National Forest were experiencing conflicts with residents of the neighboring communities of Hesperia and Phelan. The San Bernardino National Forest in conjunction with the Southern California Mountains Foundation received grant funding for trail reroutes, restoration, and fence construction to mitigate impacts associated with the neighboring communities.
- In 2014, OHMVR Commissioner Paul Slavik convened a meeting with park and recreation leaders and organizations at Hungry Valley SVRA. The goals of the group were to brainstorm how OHVs can be used to reach out to urban populations and how to make OHV areas more accessible from urban centers. The group included OHMVR Commissioners, Division staff, State Park and Recreation Commissioners, State Park Deputy Director of External Affairs, executive staff from Los Angeles (LA) County Parks and Recreation Department, LA County Sheriff's Department, the National Off Highway Vehicle Conservation Council, LA County, LA City Parks Department, and the Institute for Community Health and Well-Being, CSU Northridge. In addition to discussions, the group took a tour of Hungry Valley SVRA to look at the current Off-Highway Police Activities League program facilities that could be replicated in an urban park setting.

Goal 2 Objectives

Add new OHV opportunities where appropriate and needed to replace loss of existing opportunities and respond to changing and future demand.

2.1 By 2020, establish, for each priority major population center, at least one OHV opportunity within a sixty-mile radius of the urban footprint.

- **INSERT NEW CONTENT or DELETE**

2.2 By 2020, add new areas dedicated to OHV recreation.

- In December 2014, the Eastern Kern County Onyx Ranch SVRA was acquired by the State of California and added to the State Park System. The SVRA lands are adjacent to Bureau of Land Management (BLM) OHV Open Areas of Jawbone Canyon and Dove Springs. The SVRA offers OHV recreation, primitive camping, and other related recreation opportunities. Major population centers of Bakersfield and Los Angeles are approximately 75 miles to the west and 120 miles to the south, respectively.
- In 2015, Hollister Hills opened the gates to the Hudner Ranch 4x4 area, adding approximately 15 miles of narrow 4x4 trails spread across nearly 1,600 acres of rolling grasslands, chaparral, and beautiful oak woodlands.
- The Grants Program funded the Tahoe National Forest Gold Valley Connector Trail project to construct 1.8 miles of a motorized single-track trail. The self-draining sustainable design will connect the ridge above Deer Lake to the beginning of the Gold Valley OHV trail.
- The Grants Program provided funding to BLM Ukiah Field Office to acquire 1,300 acres adjacent to Cow Mountain. Collectively the parcels are 1,391 acres and are located on either side of Highway 175, just south of the South Cow Mountain OHV Recreation Area. Acquisition of this property supports BLM's long-term management objectives to secure and improve public access and recreational opportunities within the popular Cow Mountain Recreation Area. Currently OHV users must cross private lands to connect to BLM trails and use access roads into the area that are always used by private land owners surrounding the area. Purchase of this parcel will solve this access issue, promote effective recreational use, and will enhance the OHV area.

- City of Tehachapi – The Grants Program awarded funding for the development of a 13-acre OHV recreation area.

2.3 By 2012, develop five new OHV recreational opportunities in response to growing recreation trends and equipment (rock crawlers, endurocross, electric, etc.).

- The OHMVR Division is working with manufacturers of electric OHVs to learn more about the technology. These vehicles produce zero-emissions and are quiet. OHMVR Division managers and staff met with two manufacturers at Hungry Valley SVRA and Prairie City SVRA to discuss the technology and trends in the industry. One of the manufacturers makes electric dirt bikes for children and the other makes them for adults. The group discussed applicable laws and policies, opportunities for the new technology, and infrastructure needed to accommodate the electric vehicles. The manufacturers anticipate that these vehicles will become more popular due to advances in the technology, such as improved battery life that provides longer travel distances. Since 2014, the OHMVR Division purchased three electric dirt bikes for law enforcement patrols and promoted the vehicles at outreach events.
- In 2015, Hollister Hills SVRA opened the Hudner Ranch 4x4 area, which added approximately 15 miles of narrow 4x4 trails spread across nearly 1,600 acres and is ideal for recreational off-highway vehicles (ROVs).
- The BLM Barstow Field Office completed a new OHV Skills Development and Training Course at the El Mirage OHV Recreation Area. The 54-acre training facility will serve to teach safe and proper dirt bike and ATV skills, techniques, and improve basic riding skills for visitors of all ages. The project was funded through development program funds from the Grants Program.



2.4 By 2015, establish a minimum of two snowmobile-touring trails designed for multi-day trips with accommodations (e.g., cabins, restrooms).

- In 2015, the OHMVR Division and USFS Pacific Southwest Region (Region) renewed the Master Challenge Cost Share Agreement between the two agencies. The Master Challenge Cost Share Agreement allows the OHMVR Division to enter into supplemental project agreements with individual national forests in the Region to provide for OSV trail grooming and related activities. This agreement will continue through December 31, 2020.
- The OHMVR Division is coordinating with Region on analysis of OSV use designation on the Lassen, Tahoe, Eldorado, Stanislaus, and Plumas forests. This process may lead to expanded OSV opportunities.

2.5 By 2020, implement the California Statewide Motorized Trail as outlined in the Act.

- OHMVR Commissioners and Division planning staff attended planning meetings and provided comments to preserve existing OHV routes in BLM areas undergoing travel management plan revisions in Southern California.
- In 2016, the OHMVR Commission designated an Ad Hoc Committee to study the implementation of the California Statewide Motorized Trail.
- OHMVR Division staff provided technical assistance to Del Norte County in support of County Code Chapter 10.25 that allows OHV traffic on some unpaved County roads.
- In September 2015, the OHMVR Commission toured the Inyo County Adventure Trail project in and around the community of Bishop, California. The Grants Program provided funding to support planning and signing efforts for the project.

Goal 3 Objectives

Enhance the abilities of Program managers and staff dedicated to the development, management, and implementation of the OHMVR Program.

3.1 By 2012, develop and implement a system to capture institutional knowledge and ensure staff is knowledgeable with the skill sets necessary to be successful.

- Since 2013, the OHMVR Division and Districts have held annual training and collaborative workshops for environmental scientists. These workshops cover topics on monitoring design,



Annual training and collaborative workshops for environmental scientists

data capture, statutory compliance, and other pertinent issues. The ability to have all OHMVR Division resource staff in one location has been very beneficial in the development of WHPP plans for each SVRA. These meetings have resulted in a well-vetted process of discussion and design focused on implementing the needs at the SVRA level with the requirements at the programmatic level.

- Prairie City SVRA environmental scientists provide training to all permanent and seasonal staff. The training includes an overview of environmental laws and regulations, best practices for managing wildlife and special status species, and highlights the unique natural resources in the SVRA.
- The OHMVR Division and Districts collaborated with the State Parks' Cultural Resource Division and the Native American Heritage Commission to provide an in-depth training for staff on Assembly Bill 52 requirements, which made changes to the CEQA regarding Native American Consultation. The training was offered to all OHMVR Division and District staff and was open to cultural resource managers in State Parks. Over 30 managers, supervisors, tribal liaisons, and interested staff participated at the William Penn Mott Jr. Training Center in Pacific Grove, California, and from remote locations around the state using new video conferencing technology. Two open sessions allowed participants to ask questions and discuss

aspects of the bill not covered in the presentations. Everyone received training credit for their participation.

- Ocotillo Wells SVRA hosted a CEQA training that included staff from all disciplines. State Parks' legal staff and resource experts provided an in-depth course on the laws and policy that govern project management as they relate to environmental compliance and review. Ocotillo Wells SVRA cultural staff also participates in PRC Section 5024 training, which discusses the evaluation process for resources that may have National Register of Historic Places eligibility and California Historical Landmark eligibility.
- The OHMVR Division expanded its use of Microsoft Sharepoint (Sharepoint), a collaborative interface used to organize, store, manage data, and share information between users in many locations. This program provides an efficient platform for several users to work together on one document. For example, the OHMVR Division's law enforcement section uses Sharepoint to develop curriculum and organize Peace Officer Standards and Training (POST) classes throughout the state. The OHMVR Division Natural and Cultural Resources Programs use Sharepoint to store monitoring data, submit HMS Annual Reports for peer review, track GIS/GPS data, and cultural resource projects in a secure environment.
- OHMVR Division archaeologists provided cultural resource training for Oceano Dunes District staff. Northern Chumash Elders were invited to share their perspective on cultural resources at the SVRA while the archaeologists explained State Park policies for resource preservation. The training provided SVRA staff with tools to communicate effectively with public contacts regarding cultural resource protection measures.



3.2 *By 2011, develop opportunities for Division staff to participate in diverse work assignments throughout the OHMVR Division and with other agencies.*

- The Grants Program offers opportunities for staff from other disciplines to attend workshops and participate in the grant application review and selection process. OHMVR Division staff learns about the Grants Program and grant administration skills while contributing their subject matter expertise to the review process.
- Staff throughout the OHMVR Division participated in training outside State Parks to enhance their job skills. For example, planning and environmental science staff attended CEQA training through the UCD Davis Extension. Staff also attended CEQA and National Environmental Protection Act (NEPA) training provided by USFS and BLM.

- Staff from a variety of disciplines assist the OHMVR Division Outreach team at special events such as the California State Fair, International Sportsmen's Expo, Sand Sports Super Show, and at career fairs. Planning and administrative staff, interpreters, environmental scientists, and retired law enforcement officers have volunteered at Outreach events. Staff add their diverse knowledge base to the Outreach Program to spread the word about safety gear, wildlife conservation, recreational opportunities, and careers in State Parks. In return, staff gains skills in effective communication and meet people who visit the SVRAs.

- State Parks' Office of Community Involvement conducted its second Outdoor Recreation Leadership class for 2014 at San Luis Reservoir State Recreation Area. Hollister Hills SVRA staff participated and are eligible to participate in the California State Parks FamCamp® Program.



- Ocotillo Wells SVRA – State Parks' rural Emergency Medical Technician (EMT) Desert Lifeguard Program is unique among lifeguard agencies. This program is a critical component of the SVRA's medical provision to the public. Throughout the California winter, several State Park lifeguards transition from the beach to work at SVRAs. The lifeguards receive training to become certified EMTs and respond to medical emergencies at the SVRA.

- Since 2014, a number of new hires and new positions became available within the OHMVR Division and many sections are now working at full capacity. Some of these positions were filled with Training and Development assignments, where staff from different disciplines take on new assignments in different classifications. For example, an OHMVR Division environmental scientist filled a vacancy in the Grants Program as a grant administrator. During this short-term assignment, the staff brought his scientific expertise to the team to review environmental documents and conservation plans required for grant applications.

- OHMVR Division environmental scientists have played a key role in the management of the Flat Tailed Horned Lizard (FTHL) at Ocotillo Wells SVRA. Environmental scientists have been sitting members of the FTHL Interagency Coordinating Committee for the last six years, and provide comments and peer review for committee publications, program design, and policy. The environmental scientists are known as experts in this field of study and are publishing management documents for the FTHL.

- OHMVR Division and District interpreters and planning staff took on the role as guest editor for the State Parks newsletter, the Catalyst. OHMVR Division interpreters collaborated to develop an OHV Edition, which was published in summer 2015. This publication is well-known throughout the interpretation profession and highlighted the innovative work that interpreters do to educate and inspire visitors at our SVRAs and at outreach events.



Flat-tail Horned Lizard

- OHMVR Division and District staff participate in planning efforts with BLM and USFS. For example, OHMVR Division planning staff attended planning sessions and provided comments on the BLM’s West Mojave Route Network Project and Plan Amendment and the USFS requested OHMVR Division input on their Forest Plan Revision update.
- OHMVR Division – Planning and administrative staff participate in State Parks operations planning groups, such as the Planning, Policy, and Programming Committee, Interpretation and Education planning, and as committee and subcommittee members for Parks Transformation.
- OHMVR Division law enforcement/visitor services team assist El Dorado and Placer Counties and the USFS Tahoe Region with weekend patrols on the Rubicon Trail each summer. Staff assist with outreach about the Rubicon Trail, habitat and trail conservation, and responsible vehicle operation. In addition, staff on this assignment also monitor the Pacific Crest Trail for any OHV trespass and ensure signage on the trail is adequate.

- The state park interpreter at Heber Dunes SVRA created an after school Junior Ranger program as part of the 2002 Proposition 49 initiative “After School Safety and Education.” The program provides outreach to five schools where 100 children receive core-based curriculum in the classroom. Children perform lab work, field studies, and reports on subjects like food chains, desert plants, and animals who live at the SVRA.



Heber Dunes SVRA afterschool Junior Ranger program

- Hungry Valley SVRA managers organized a “staff enrichment day” for all interested staff. Laurie Solis, Adjunct Professor of Anthropology at College of

the Canyons in Santa Clarita, California spent an afternoon on the San Fernando/Tataviam Band of Mission Indians, whose traditional lands include the park. Maintenance workers, office staff, environmental scientists, archaeologists, and interpreters attended the presentation and requested more training from Professor Solis.

- Hungry Valley SVRA and Ocotillo Wells SVRA maintenance and visitor services staff participate in fire suppression training classes and have responded to fires at the SVRAs and participated in prescribed burns. Maintenance crews are integral in fire suppression tactics since they run the water tenders.

- OHMVR Division and SVRA interpretive staff participated in a bi-annual OHMVR Division Interpretation Summit at Prairie City SVRA. Interpreters shared interpretive techniques unique to OHV interpretation, learned about innovative technology for use in interpretive programs, and sharpened their skills on ROV and trailer operation. In addition, interpreters participated in a two-day class about graphic interpretive design through the National Association of Interpretation.



Bi-annual OHMVR Division Interpretation summit

- Ocotillo Wells District staff is encouraged to spend a portion of their off-season time in other park units. SVRA and non-OHV park units request Ocotillo Wells District staff from all disciplines to assist with trails, heavy equipment operations, public safety, and resource projects and monitoring. Staff appreciates the opportunity for personal and professional growth.

3.3 *By 2011, increase the average number of years staff work at the Division, and strive to maintain full workplace capacity.*

- Since 2014, the OHMVR Division filled a number of vacant positions. For example, the cultural and natural resources section hired environmental scientists and archaeologists to assist SVRAs with resource programs. The outreach and education section hired interpreters to participate in outreach events, social media engagement, and writing for publications. By filling vacant positions, the OHMVR Division law enforcement team was able to develop curriculum and conduct OHV law enforcement and sound testing training to local, state, and federal agencies offering OHV recreation.

- The OHMVR Division provides opportunities for staff to build their skills for their current positions and to train for future advancement. For example, training and development opportunities have allowed staff from natural resource classifications to expand their skills through the Grants Program. Similarly, leadership opportunities have been offered



OHMVR Division staff visit Sutter Buttes

to rank-and-file staff to work on State Parks projects and work assignments that are out of their current classification. Staff is encouraged to build their skill set and experience by assisting other units with specialized projects and include heavy equipment operators, law enforcement officers, maintenance staff, resource staff as well as state park interpreters. In addition, the OHMVR Division encourages its staff to attend training in subject areas of interest. When specific training for staff is not available within State Parks, the OHMVR Division has paid for out-of-service training. Encouraging staff to advance their skills and try new experiences raises morale and often leads to higher retention rates within the OHMVR Division.

3.5 *By 2013, assure increased accountability for expenditures of the OHV Trust Fund through Division resources.*

- The Parks Transformation Team and subcommittees developed a system to track staff tasks, hours, and materials to understand the costs involved in running a state park. Several state parks including Ocotillo Wells SVRA, participated in a pilot study to test the new program, known as Service Based Budgeting.
- The OHMVR Division amended the Grants Program regulations to limit indirect project costs.

3.6 *By 2010, increase the availability of training opportunities designed to enhance knowledge of laws and regulations related to OHV operation.*

- The Grants Program facilitate two, two-day workshops in Ontario and Sacramento to assist grant applicants in obtaining funding for OHV-related projects. The workshops are well attended and available to federal, municipal, county, education, non-profit, and Native American groups. Project categories include Law Enforcement,

Education, Operations/Maintenance, and Restoration. In 2016, the Grants Program provided a segment for Law Enforcement grant applicants during the workshop. This segment covered grant regulations and types of projects that fit under the Law Enforcement category. Since many of the applicants are peace officers working for local law enforcement, the focused segment allowed more flexibility in their schedule.



- OHMVR Division law enforcement and emergency services/visitor services team offers a POST-approved OHV Law Enforcement class to local, state, and federal law enforcement agencies statewide. The goal of this class is to educate other agencies regarding OHV-specific laws, and promote the consistent statewide application of those laws. Classes started in May 2016 and have continued through the year and around the state.

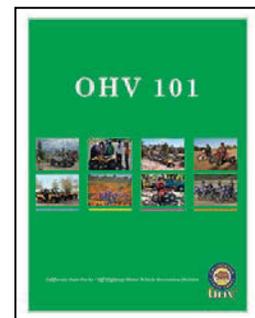
- OHMVR Division administrative staff participated in ROV driver training at the Environmental Training Center at Prairie City SVRA. ROV Driver Coach Candidates and State Park Safety Coordinator trained the administrative staff and familiarized themselves with the equipment, safety, and environmental responsibility. The training also allowed staff to experience the fastest growing segments of OHV recreation.



Administrative staff ROV driver training

- The OHMVR Division and Hungry Valley SVRA provided advanced dirt bike training for OHMVR Division staff that regularly use dirt bikes in the field. Hungry Valley SVRA hosted a four-day, 40-hour “Introduction to Trails” dirt bike course that trained participants to become certified instructors. Upon course completion, the instructors have the ability to teach seven-hour trail classes for beginning through advanced level students.

- The OHMVR Division revised its orientation class for new staff and OHMVR Commissioners. The class introduces the state OHV recreation program and describes its many components, such as statutory requirements, program funding, mission and vision, recreation and resource protection programs, and SVRAs. The “OHV 101” guide was updated to serve as a self-study course and a reference guide for new staff and those interested in learning more about the OHMVR program. The latest classes were held in April and May 2016, where



managers from each discipline presented information about their section to new staff and OHMVR Commissioners.

- As part of the park's storm water management plan and MS4 requirements, consultant MBI trains Carnegie SVRA staff annually on good housekeeping and pollution prevention practices including identifying and eliminating possible sources of pollution, proper maintenance procedures, and vehicle washing practices.
- Storm water management training was provided by consultant MBI in 2016 to Prairie City SVRA staff. This training was an introduction on storm water regulations and provided BMPs for parks operations. Prairie City SVRA staff received training on laws and regulations that protect wildlife and how to manage human and wildlife conflicts.

Goal 4 Objectives

Achieve a highly informed and educated community associated with OHV recreational activities, dedicated to safe and lawful OHV operation and responsible environmental stewardship.

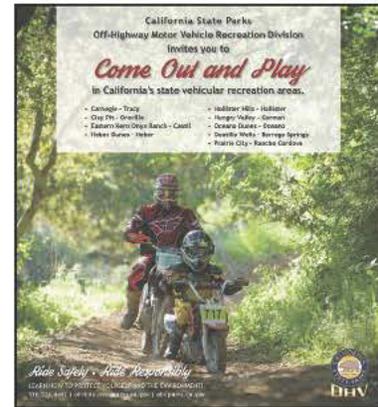
4.1 *By 2010, the Division will convene an OHV Education Stakeholder Group to advise the Division in the development of a successful statewide educational program regarding responsible OHV use. By 2011, the Division will develop and begin implementing the educational program.*

- On April 28, 2016, the OHV Safety Education Committee (OHVSEC) reconvened for the first time since 2001. In attendance were OHMVR Commissioner Paul Slavik; CHP designee Captain Kevin Davis; DMV designee Robert Benson; OHMVR Division designee Greg Schumaker and other OHMVR Division staff. The participants discussed the history of the OHMVR program; the OHVSEC; the ATV Safety Certificate program; California ATV laws; past ATV Safety Training Organizations (STO); the current ATV STO program and guidelines; and DMV requirements to become an ATV STO.
- On May 10, 2016, members of the OHVSEC committee met with a representative from the ATV Safety Institute. After the meeting, the members participated in an ATV Rider Course at Prairie City SVRA to experience the hands-on program first-hand. Future OHVSEC meetings will address ATV Safety Certificate challenges that may affect the development of the minimum criteria for certification for ATV STO.

4.2 *By 2015, commercial OHV advertising targeted to California consumers, including print and broadcast media, will accurately represent appropriate and responsible OHV use.*

- Ocotillo Wells SVRA – Park interpreters are building a partnership with a popular Coachella Valley radio station that provides music on the I-10 and Highway 86 travel corridors to the park. The partnership includes opportunities to develop public service announcements, provide content for regularly scheduled OHV reports, promote upcoming park events, as well as provide conservation and safety messaging to listeners.

- As a strategy to reach teens, the OHMVR Division has a partnership with the SportStars Magazine that is marketed to youth and their parents. The Division publishes a monthly article and ad. The topics of the articles include ATV safety and training, the career path of a young dirt biker to become an OHV law enforcement staff, and the success of two teens as hill climb champions. In addition to promoting visitation to the SVRAs, the ad includes the OHMVR Division's web address and hyperlink in the online version for magazine subscribers to learn how to recreate safely and responsibly. With a distribution of 300,000 print copies to school libraries and other locations throughout California and an additional 150,000 online subscribers, SportStars Magazine is a valuable communication tool to reach youth using a nontraditional interpretive method that is accessible for teens.



- The OHMVR Division and SVRAs maintain active social media pages, such as Twitter, Facebook, and Instagram. These pages inform visitors of upcoming events, conservation, and safety messaging.



4.3 By 2012, increase availability of training classes addressing OHV safety and environmental stewardship at SVRAs and grant-funded areas.

- OHMVR Division environmental scientists and the OHMVR Division outreach and education staff attended the California Native Plant Society Conference in 2015, where participants were very receptive to learn about the OHMVR Division's ecologically sound land management practices.
- Ocotillo Wells SVRA School Outreach Programs – Each year, the Ocotillo Wells SVRA interpretive staff takes the desert to 32 regional elementary schools. Through these programs, over 1,000 third and fourth grade students have the opportunity to explore desert wildlife in an interactive and educational manner. From live animals to taxidermy mounts, from skulls and skins to animal scat, this Desert Biome program is a hit with students and teachers alike.
- Ocotillo Wells SVRA is developing partnerships with local universities with an emphasis on field research where students receive college credits for their work. This valuable data will be used as an adaptive management tool in ensuring resource sustainability.

OHMVR Division Outreach and Education Programs

The OHMVR Division's Education, Interpretation and Outreach Program supports all six goals of the OHMVR Division's Strategic Plan and specifically addresses Goal 4 which is to develop an informed and educated community. During 2015, the Outreach Program continued to flourish by reaching a broader, more diverse audience and by launching new programs and expanding current popular programs. The OHMVR Division offers an array of educational programs that utilize traditional and innovative methods to create meaningful connections to audiences and employs a variety of outreach strategies.

In addition to in-park programs, community events, county fairs, and major OHV events, such as the Sand Sports Super Show and the Hangtown Motocross Classic, the OHMVR Division provides outreach to audiences who may be less aware of the OHMVR Division's commitment to well-managed recreational lands. In addition, our education



Sacramento County State Fair – ATV Simulator

programs address many State Parks initiatives, such as engaging younger generations and underserved audiences in order to connect youth to nature and the outdoors.

One strategy to reach underserved youth audiences who may not have the opportunity to visit a state park is to bring the park to the local schools with a



Junior Ranger After School Club

Junior Ranger After-School Club. This community outreach program is offered to third and fourth graders on a weekly basis throughout the school year. The program provides a series of mini lessons tied to the common core and science education standards and introduce or reinforce the school curriculum in an experimental, minds-engaged, and hands-on format.

By implementing SVRA science-based day camps, first-time visitors participate in a curriculum-based outdoor education and interpretation program. Students participate in geocaching activities to learn about the local plants and animals, geology, and the management practices to balance OHV recreation and resource protection.



Cerra Vista Science Camp

Science camp students participate and assist staff in projects involving re-vegetation with native plant species, invasive species removal, and habitat monitoring. These programs provide awareness and understanding of the complexities of resource protection. With using a hands-on approach of digging in the dirt and observing wildlife scientifically, these students have a higher probability of bringing their families to the parks and ultimately becoming park stewards.

During the annual Kids' Adventure Connection Weekend, children complete a series of outdoor activities based on the Children's Outdoor Bill of Rights that was developed by State Parks with an OHV recreation twist. The event kicks-off with the kids learning about the Tread Lightly! Principles and then apply them while operating remote controlled Jeeps® on a simulated mini obstacle course. After learning about safe and responsible

OHV recreation, families gear-up for an off-highway trail ride to discover California's past.

The weekend program engages participants through experiential learning to appreciate the natural world and learn about their heritage.

The OHMVR Division's statewide Education, Interpretation, and Outreach Program proved to be highly successful during 2015 serving more than 233,000 people. Talented and dedicated staff throughout the state will continue to provide high-quality interpretation programs that are relevant to a diverse population and encourage the public to become part of an educated community that will protect resources for sustainable recreational opportunities.



Kids' Adventure Connection



Junior Ranger



Ride Safe Kiosk Game



Solar Viewing

- Ocotillo Wells SVRA – The Harold Soens Youth Track is designated for riders 12 years old or younger, riding 90cc or less. Recently, the track was improved to include several new elements that mimic riding conditions in the park. The straw bale lined track now includes alternative trail routes, a miniature hill climb to test rider’s skills, boulders and rocks to traverse, small rolling hills, route signage, and two new desert safety interpretive panels. The track is a great place for kids to ride under the guidance of parent supervision.



Harold Soens Youth Track

- Interpreters at Hungry Valley and Heber Dunes SVRAs developed Junior Ranger clubs to teach safe riding and environmental stewardship. The interpreters work with local elementary schools and the Boys and Girls Club of America to hold their programs after school.

- OHMVR Division staff participated in the 2015 California Parks Training Conference at Yosemite. OHMVR Division staff provided a session to federal, county, and city professionals about our innovative methods to educate the public about recreating safely while protecting cultural and natural resources.



California State Parks Training Conference

- Grants Program – The Southern California Mountains Foundation OHV Volunteer programs in partnership with the San Bernardino National Forest education efforts target current and future OHV users and recognizes the need to educate visitors about the importance of responsible recreation and public land stewardship. The Volunteer Program has approximately 200 active OHV Volunteers, a paid Education Outreach Coordinator and Seasonal Education Intern with the remaining leadership positions held by volunteers. This project is to provide for OHV related education and safety activities. Activities include conducting area school presentations, visit OHV dealerships, host informational kiosks, attend OHV trade shows and/or OHV dealership open houses, conduct educational rides, print approved USFS OHV maps and other educational material, sign development and updating stationary kiosks and brochures, and ATV Safety Institute OHV teacher training instruction. The OHV Volunteer program contributed 12,322 hours of volunteer time during the course of the project period towards the education and safety project, which was an OHMVR Grant awarded in 2014/2015 fiscal year.

Goal 5 Objectives

Establish and maintain productive relationships between individuals, organizations, industry, and government agencies to cooperatively identify problems and develop and implement solutions to advance the Mission and Goals of the OHMVR Program.

5.1 By 2013, improve communication and interaction among local, state and federal agencies having direct or indirect land management, law enforcement and/or regulatory responsibilities involving OHMVR Program activities and issues.

- The OHMVR Commission and Division collaborate with local, state, and federal agencies to develop content and tour locations for OHMVR Commission meetings, address issues that concern OHV access and recreation, and to engage the public on issues that concern them. OHMVR Division environmental scientists have played a key role in the management of the Flat-Tailed Horned Lizard (FTHL) at Ocotillo Wells. Environmental scientists have been sitting members of the FTHL Interagency Coordinating Committee for the last six years, and provide comments and peer review for committee publications, program design, and policy. Our environmental scientists are known as experts in this field of study and are publishing management documents for the FTHL.



Flat-Tailed Horned Lizard

- Prairie City Resources staff teamed up with the flat track concessionaire to start a new volunteer program at the park. Members of Big Time Speedway's Youth Group volunteer corps collect, sort, and haul away recycling left by park guests. All proceeds received for the recycled materials go to fund the youth group's motorcycle speedway activities. The program fosters relationships between the park and users groups while promoting public involvement and sustainability practices.
- OHMVR Division planning staff and OHMVR Commissioners attend USFS and BLM land use planning meetings to provide feedback and support for their programs. In 2014 and 2015, staff attended several USFS public meetings to provide feedback on the Forest Plan Revision Update. Staff were also engaged with the BLM's West Mojave Route Network Project and Plan Amendment.

- Environmental scientists from Oceano Dunes SVRA and the OHMVR Division attend California Coastal Commission (CCC) meetings. In addition, the Oceano Dunes District established the Technical Review Team (TRT) under a permit condition to address and help resolve perceived conflicts between recreational vehicle use and the protection of sensitive environmental species at Oceano Dunes SVRA. TRT members include representatives from the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife (CDFW), CCC, local governments, landowners and residents, environmental groups, and the OHV community. TRT tasks include reviewing scientific reports, particulate monitoring efforts, mitigation and regulatory issues, and other issues affecting recreation and resource management. The TRT produces an annual report of recommendations to the CCC reports.

Honda Partners to Assist Off-Highway Police Activities League Program

In May 2016, an appreciation ceremony was held at Prairie City SVRA during the highly publicized Motocross Classic event. The ceremony recognized and expressed gratitude to the American Honda Motor Company for the generous donation of two ROVs, 8 motorcycles and 10



L. to R.: OHMVR Commissioner Paul Slavik; OHMVR Division Acting Deputy Director Maria Mowrey; State Parks Director Lisa Mangat; American Honda Motor Company, Honda Rider Education Department Manager Gary Martini; and OHMVR Commission Chair Ted Cabral

all-terrain vehicles that will be used for youth safety and educational training. Honda has partnered with the OHMVR Division to provide use of these vehicles to the Off-Highway Police Activities League Program. The recreation and mentoring program uses the appeal of OHVs and a comprehensive curriculum to develop positive relationships between peace officers and youth while fostering safe and responsible OHV riding behavior. The vehicles will be distributed throughout the state at the following state vehicular recreation areas: Hollister Hills, Hungry Valley and Prairie City SVRAs. These vehicles replaced motorcycles and ATVs that were up to 20 years old. This substantial donation is an example of how beneficial and important partnerships are in State Parks.

- OHMVR Division law enforcement staff began collaborating with BLM in 2013 in order assist with what is thought to be the most attended OHV event in the nation—King of the Hammers. This was not the first event in which State Parks worked with BLM. The 2011 Glamis President’s Day weekend event had seven State Park Peace Officers working with BLM and officers from CDFW and the CHP in order to ensure a safe and memorable OHV experience by the visitors to Imperial Sand Dunes. In addition to King of the Hammers and Glamis events, the OHMVR



King of the Hammers

Division partners with BLM, the USFS, and the Kern County Sheriff’s Office in order to ensure that OHV enthusiasts are not trespassing and recreating in unauthorized areas, such as the lands on and around the Pacific Crest Trail in Kern County.

- Hungry Valley SVRA crosses into Ventura, Los Angeles, and Kern Counties. SVRA State Park Peace Officers work closely with Los Angeles County Fire #77, which has a paramedic on staff and whose station is near the Quail Canyon Motocross Track. They also respond to emergencies at Hungry Valley SVRA and are often the first notified by 911 callers. SVRA staff work with both Los Angeles and Kern Counties in evacuating local communities during dangerous wildfire conditions. All law enforcement staff is certified in basic wildland fire training. Law enforcement staff work with local agencies and provide back up as necessary.

- Oceano Dunes SVRA staff, collaborating with the California Department of Forestry and Fire Protection (Cal Fire) and California Conservation Corps, cut 15-foot firebreaks through the southernmost ten acres as part of the Grand Dunes project in 2016. Tasks included cleaning up illegal campsites, up-limbing 4 acres of non-native brush, followed by a prescribed burn. This multi-year, multi-agency project will result in an increase in safety for the public and for staff and will continue until the entire Grand Dunes area has been treated. The most effective outcome of this project has been the consistent communications and partnerships with homeless services agencies, neighboring municipalities, and other public safety agencies. Through this leadership, State Parks has created a process that respects and benefits all members of the community surrounding these state parks.



- Ocotillo Wells SVRA works closely with BLM in managing the approximate 21,400 acres of BLM land located within the boundaries of Ocotillo Wells SVRA. A Memorandum of Understanding (MOU) helps direct management strategy for recreation, resource protection, special events, and facility development.

- Clay Pit SVRA constructed a hardened water crossing to provide access to OHV recreation while protecting the federally threatened Vernal Pool Fairy Shrimp. Throughout the process, staff worked closely with state and federal regulatory agencies to limit and mitigate project impacts.
- OHMVR Division staff and OHMVR Commissioners coordinated with the California Air Resources Board on a Red Sticker OHV Assessment.
- Carnegie SVRA – The California Conservation Corps assist in land management activities throughout the year including trail construction, land rehabilitation, and resource protection. This partnership allows a flexible workforce to improve the OHV experience while helping California Conservation Corps members develop skills in land management.
- The Ocotillo Wells SVRA's law enforcement staff collaborate with local law enforcement/medical providers including BLM, San Diego County Sheriff, Imperial County Sheriff, Federal Border Patrol, CHP, Mercy Air, local fire departments, and Cal Fire to provide high-quality service to park visitors.



5.2 *By 2011, improve communication, coordination and integration between agencies and stakeholders to focus on collective efforts to achieve consensus in addressing identified issues.*

- The OHMVR Commission meets at least four times per year at various locations throughout the state to engage with the public and receive comments about the implementation of State Park's OHMVR program. OHMVR Commission meetings usually consist of a tour on the first day followed by a public meeting the second day. When possible, the OHMVR Commission tours areas that receive OHV Trust Funds in the form of grants to nonprofit organizations, local governments, and federal agencies that provide OHV opportunities. These meetings also provide an ideal forum for agencies and stakeholders to discuss issues affecting OHV recreation.
- Carnegie SVRA environmental science team led a group of researchers from the United States Geological Survey and BLM in a search for California red legged frogs as part of a population genetics study and screening for a potentially deadly fungus. Researchers visited two locations at night in the park and, despite the state's historic drought, at least eight



Red-legged frog

frogs were found in each spot. The frogs were weighed, measured, and biological samples were taken. The results will help the resources team learn more about this federally endangered species.

- From Memorial Day weekend to Labor Day weekend, the OHMVR Division law enforcement staff assists El Dorado and Placer Counties and the USFS Tahoe Region with weekend patrols. This is excellent opportunity to inform residents and visitors about the importance of the Rubicon Trail as a recreational and historical resource, as well as an economic engine. Helping them to preserve this area is achieved through promoting safe and responsible vehicle operation. In addition, the OHMVR Division's presence promotes the importance of partnerships and the image that we are all working together to achieve high quality, sustainable recreation opportunities.



OHMVR Division Law Enforcement staff assists with weekend patrols at the Rubicon Trail

- Hungry Valley SVRA – State Park law enforcement staff work with local agencies and provide backup as necessary. Adjacent to Hungry Valley SVRA is the Los Padres National Forest, which has numerous off-highway trails, several which connect to Sterling Canyon in Hungry Valley SVRA. Staff joined the Ventura County Sheriff Department on numerous search and rescue operations in the National Forest.
- Berryessa Snow Mountain National Monument was recognized with a formal dedication ceremony on March 19, 2016, at the BLM's Cowboy Camp. Designated by President Obama in July 2015, the newest national monument balances resource



protection with multi-use recreation. It took years of cooperative efforts among many different public agencies and private partnerships to protect this beautiful slice of California as a national monument. The event organizers invited the OHMVR Division to provide an interpretive booth in order to highlight the continued OHV recreational opportunities previously established in this area. Approximately 700 people visited the booth and participated in interactive

programs to learn about safe and responsible OHV recreation.

- Prairie City SVRA has become popular in recent years for various branches of the military. The facilities in the park are an excellent vehicle operations training venue

Hollister Hills SVRA Partnerships

Hollister Hills SVRA works closely with the Hollister Hills Off-Road Association (HHORA), which is a contracted cooperating association. HHORA Board members along with other State Park volunteers put on several events annually to provide funding to enhance the interpretive education programs in the park. Jeremy Simmons, Recycling and Resource Recovery Coordinator for San Benito County, approached HHORA to ask for assistance in the implementation and distribution of oil spill kits to the 4x4 user groups in the park. Mr. Simmons received a grant from Cal-Recycles' Oil Payment



Oil Spill Kit assembly

Program to purchase the materials for the kits. A disposal receptacle was placed in the 4x4 area of the park and all waste collected will be picked up with monies from the grant. Response from the initial distribution of the kits has been very positive and users now carry these kits in their vehicles. This is a great partnership and another 'green step' in reducing oil hazards in the park. HHORA members, volunteers from San Benito County and Hollister Hills staff all worked together to assemble over 2,500 spill kits.

HHORA also provides free training for beginner riders through the Motorcycle Safety Foundation (MSF). Students learn to safely operate their vehicles as well as Tread Lightly! principles and the legal requirements to ride in the SVRAs (e.g., Red and Green Sticker Registration, spark arrestors, and meeting sound testing standards).

State Park Volunteers and HHORA Board members go through instructor training provided by MSF to be able to offer these classes to further educate off-road motorcycle riders at Hollister Hills SVRA.



MSF Instructor Class



MSF instructor with student on the training pad

to prepare military personnel for deployments in challenging terrains. Prairie City's obstacle course offers natural obstacles such as mud, sand, and cobbles, as well as engineered obstacles that are useful for testing the abilities of an off-road vehicle and improving the performance of the driver. Park staff and four-wheel enthusiasts watched in awe as these vehicles easily climbed obstacles that are challenging recreational OHVs to negotiate. The Twin City District maintenance staff coordinated the design and construction of the obstacles, which included approximately 314 cubic yards of concrete. The ability of these obstacles to hold up under heavy use like this is an impressive testament to the skills of the Prairie City staff.



Reserve Marines on an obstacle called "The Alamo," also known as the Pyramid

5.3 By 2014, improve and increase public involvement at the SVRAs.

- Clay Pit SVRA – Visitor Appreciation Days occur annually at the SVRAs. Park admission is free during the event, which usually occur over a weekend. Visitor Appreciation Days are designed to highlight the variety of recreational opportunities that are offered at each SVRA and are a large draw for existing OHV enthusiasts and new visitors. At Clay Pit SVRA, attendees participated in their 4x4s, rock crawlers, ATVs, or motorcycles. Special guests included representatives from the Butte County Mayor's office and the Oroville City Chamber of Commerce office. Dealers set up booths to display new vehicles and gear while Cal Fire had an engine on display and Butte County landed their helicopter at the event. Visitor Appreciation Days give the SVRA opportunities to establish new relationships with local user groups, inform people about



Clay Pit SVRA Visitor Appreciation Day

projects and activities, and promote responsible recreation, safety education, and wildlife conservation messaging.

- Hollister Hills SVRA holds clean-up events where volunteers help pick up trash and help with trail restoration. In Hollister’s annual “Clean Wheeling” volunteer project, participants venture to the Upper Ranch portion of the park to go four wheeling and pick up trash along the way. Volunteers are supplied with garbage bags, latex gloves, and a trash pickup stick. Each year a significant amount of trash is removed from the park and disposed of properly. In 2016, volunteers cleared brush surrounding the Vintage (motorcycle) Track, which had become overgrown and hindered visibility. In addition, volunteers replaced the old straw bales around the track with new ones.

- Ocotillo Wells SVRA Desert Sky Programs – Using giant telescopes, the park’s team of astronomers guide visitors on a trip through our galaxy and beyond during our astronomy programs. In the afternoon, solar telescopes allow visitors to get a great view of solar flares and sunspots. When the skies darken, the astronomy team sets up its powerful telescope for an evening of night sky viewing. Hot chocolate and NASA produced movies round out this true desert experience.



Stargazing with a giant telescope

- Heber Dunes SVRA offers many opportunities for park stewardship and community involvement. For example, park volunteers help replace hay bales in the training/practice area and offer suggestions on how to improve the area design to make it more challenging.

- Hollister Hills SVRA GEARS Program – The Gaining Experience Awareness Responsibility and Science (GEARS) program found success in a partnership between Hollister Hills SVRA, Pinnacles Continuation School, and San Benito County Probation Office. A small group of at-risk students with previous interaction with the juvenile justice system had an opportunity to experience the park, interact with park professionals, and have an opportunity to join Hollister Hills SVRA’s staff as an intern at the conclusion of the program.



Hollister Hills SVRA GEARS Program

- Ocotillo Wells SVRA Park Visitor Guide – The park released its new 24-page, *Your Adventure Starts Here* park visitor guide. The guide is the go-to publication for visitors and includes variety of short, fun-to-read articles about the park. The guide is also available online at the park’s website: ohv.parks.ca.gov/pages/1170/files/ow-visitor-guide.pdf.
- In conjunction with the 40th Anniversary of Hollister Hills SVRA in 2015, park staff organized a special series of geocaches. This family-friendly event combines 4x4 off-highway recreation and geocaching, the global online scavenger hunt. Participants had a free day use pass to search for the geocaches. The number of hide locations expanded with the use of newly developed multiuse trails so that visitors without a 4x4 vehicle could participate by hiking or bicycling. The geocaches focused on the park’s history and highlighted some of the park’s natural features. The new geocaches encourage an appreciation for the parks natural and cultural resources through interpretive cards found inside each container that visitors collect.
- Hollister Hills SVRA holds an annual science camp each year in the spring. Sixth-grade students, teachers, and parent/chaperones visit the SVRA to participate in curriculum-based outdoor science education. The camp teaches science through hands-on learning activities. For example, students orient themselves to the SVRA through geocaching activities, an introduction to local plants and animals, geology, and how the SVRA is managed for OHV recreation. Camp-goers then assist staff in managing the park through projects like native plant restoration,



Cerra Vista Science Camp

invasive species removal, and habitat monitoring. SVRA staff from all disciplines help to make this program a success by developing content, preparing the science camp projects, participating in activities, and program delivery. The SVRA held its fifth annual science camp in 2016.

- Prairie City SVRA opens its doors to mountain bike recreation every Wednesday in the late afternoon when the park is normally closed for maintenance projects. Opening the park to non-motorized recreation is a draw for local bicycle enthusiasts who may have never visited an SVRA. Under the guidance of a bicycling events promoter, Prairie City SVRA offers a mid-week mountain bike racing series that draws participants from the Sierras and the San Francisco Bay Area. The event

offers bicyclists of all ages an opportunity to ride the park's many off-highway trails with a variety of traditional mountain bikes, tandem bikes, cyclo-cross, and even children with training wheels.

- Hungry Valley SVRA hosted the Collegiate Baja SAE (Society of Automotive Engineers) California Competition in May 2016. The Baja SAE consists of competitions that challenge engineering students to design and build off-road vehicles capable of withstanding the abuse of off-highway travel. Hungry Valley SVRA hosted 67 colleges and universities from all over the United States. The park welcomed colleges/universities from six foreign countries that included China, India, Canada, South Korea, Mexico, and United Arab Emirates that consisted of 31 colleges and universities. The teams competed in design, technical, endurance, and dynamic competitions. The event was a great success and Baja SAE is already talking about returning in 2017 as the venue was well-received by the participants and event organizers.



Collegiate Baja SAE Competition

- Prairie City SVRA – The Prairie City Improvement Group meets monthly to encourage public involvement with SVRA planning and projects. Prairie City SVRA also initiated the Prairie City Trails Advisory Team to help assist in transitioning some open riding areas to trails only areas.
- Ocotillo Wells SVRA interpreters regularly engage with park visitors through its social media efforts. In a recent poll, visitors were asked to rank the ten top things that new visitors to the park should know. This information was used to develop interpretive media about the importance of using hand signals while riding. Additional media focusing on “should-know” information are in development.
- Ocotillo Wells SVRA park interpreters conducted several visitor surveys that provided visitors an opportunity to make suggestions and shape the park's interpretive program. Several new interpretive programs, festivals, and publications have been developed through this process.
- Carnegie SVRA created a user/stakeholder trail advisory team. The advisory team is made up of multiple user disciplines such as ATVs, ROVs, motorcycles, and 4x4s along with the Carnegie SVRA staff trail team. The group meets no less than bi-weekly to discuss trail and resource project RMAs. The advisory team has proven to be an excellent outreach source with all visitors.

- Carnegie SVRA hosts approximately four special events per year. At each of these events, an educational booth is set up. An information station is set up in the park each weekend during the riding season, October through March. Both of these outreach booths allow staff to educate and inform visitors about protecting wildlife and habitat, cultural resources, and water quality. The educational booth at special events typically reaches 300 visitors per weekend while the information station reaches around 30 visitors per day.



Carnegie SVRA Outreach Information Booth

5.4 On an annual basis, perform activities that enhance the public’s understanding of the OHMVR Program’s goals and objectives.

- OHMVR Division Outreach and Education staff participated in the 2014 California State Fair, where State Parks had exhibits that commemorated its 150th anniversary. The 7,200 square foot exhibit served as a window into California’s 280 state parks from historic Yosemite Valley, California’s first state park, to modern-day natural wonders that attract millions of visitors and supporters from all over the world. Visitors viewed pictures and information on various types of state parks (historic, recreation areas, beaches, etc.), recreation opportunities, historical artifacts, and some of the ways in which the State Parks connects with California’s communities through youth programs, grants and loans, and safety and education campaigns. The OHMVR Division had several activities such as the ATV Safety Simulator program, the Tread Lightly! Radio Control Trail, Wildlife Discovery Station, and Ride Safe computer kiosks. OHMVR Division staff made 90,284 total contacts during the 17-day period.
- OHMVR Division and Prairie City SVRA environmental scientists presented a field lecture to the Ecology in Recreation Areas class from CSU Sacramento. The scientists led a guided hike through the park covering a wide range of the resource issues found in the SVRA. Topics included water quality and erosion control, trail



2014 California State Fair – ATV Simulator

Oceano Dunes Junior Lifeguard Program

The Junior Lifeguard program at Oceano Dunes SVRA is a fun and challenging aquatic course whose goal is to educate community youth about safe ocean recreation.

The four-week program is open to kids age 9-16, and starts its third season in July (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 business and donations provide the students with free transportation, supplies, occasional lunches, and a banquet at the close of the program. There is no limit to the class size, and participation doubled in size from the first year to the second.



The Oceano Dunes Junior Lifeguard program coordinator anticipates the program will continue to grow. Participants learn leadership skills and critical thinking through physical activity and competitive events. Instructors teach self-rescue, first aid, and safety with activities such as open water swimming, paddle boarding, body surfing, surfboarding, and skin diving. In addition, a four-hour ATV safety training class teaches kids to ride responsibly on the dunes.



Throughout the program, interpreters engage students in discussions about the coastal environment. Knowledge of coastal currents, rip tides, swells, and aquatic life helps students make informed decisions about their safety. During lunch breaks, kids learn about cultural history, natural resources, and conservation topics. These

sessions broaden the students' knowledge of the area and promote a sense of stewardship for the park and its resources. What are the results? Kids are excited about going to the park with their families. Parents see their kids gain self-confidence and maturity, as they establish themselves in sports. Students feel empowered to talk to park visitors about safety and responsible recreation. The program is training our next generation of state lifeguards.

restoration projects, and prescribed burn protocols, among others. The students seemed very interested in the topics and the SVRA and many said they were interested in returning to the SVRA. Prairie City SVRA staff collaborates with CSU Sacramento to provide internships for students in environmental sciences and recreation management. In the future, Prairie City SVRA hopes to collaborate on research projects and monitoring efforts.

- With technologies like virtual reality and the physical web, Hollister Hills SVRA is reaching visitors with relevant information in new and fun ways. Virtual reality provides an immersive park experience for folks that may have never visited the park. This technology can be utilized in person or through 360-degree videos/photos posted on the park's website/social media. Furthermore, utilizing beacon technology and the physical web allows us to provide visitors with site-specific information on their mobile device with a touch of a button. These along with other technologies help us to remain relevant and connect with visitors in real and meaningful ways.
- Prairie City SVRA – The SVRA's vernal pools are home to the federally endangered Vernal Pool Tadpole Shrimp, as well as the federally threatened Vernal Pool Fairy Shrimp. The vernal pools are also home to a variety of beautiful flora such as Spokepod, Valley Tassels, Royal Larkspur, Fremont's Tidy Tips, White Meadowfoam, Miniature Lupine, Vernal Pool Goldfields, and many others. Every April Prairie City SVRA hosts an annual Vernal Pool tour. Environmental scientists and interpreters offer the free tour, which shows visitors the splendor of this complex micro-ecosystem.
- OHMVR Commission and Division – BLM recently hosted the fourth Annual Youth Summit at CSU Sacramento. The purpose of the summit was to connect youth to the outdoors who may not often have the opportunity to get out of their neighborhoods and enjoy nature. The day offered approximately 300 participants a variety of opportunities, including workshops focused on leadership, higher education, and career opportunities in natural/cultural resources; and activities such as career discussion circles, career expo booths, and outdoor interactive exhibits. More than 35 state and federal agencies and other organizations participated, promoting natural and cultural resources, outdoor activities and careers. OHMVR Commission Chair Ted Cabral presented workshops about dealing with challenges and leadership skills to help prepare students for the future.



Prairie City SVRA Vernal Pool Tour

- CSU Sacramento and Prairie City SVRA collaborate to provide an internship program that supports higher education and the future of park recreation management. In 2015, a Parks and Recreation Management major at CSU Sacramento worked with SVRA staff to learn park operations. Tasks included kiosk operation, assisting maintenance with a soil erosion control project, attendance at a core staff meeting, a Peace Officer briefing prior to serving a search warrant, assisting with turbidity measurements and data entry in the resource program, lending a hand in a variety of maintenance related tasks, and participation in OHV training classes.
- Heber Dunes SVRA has an oral-history project that gives older generations who have recreated at the park and remember its history an opportunity to share their stories. Oral histories are added to the information gleaned from local newspapers, photograph albums, and museums. These “voices of the past” helped make Heber Dunes SVRA what is today and are being treasured and preserved.
- Ocotillo Wells SVRA Interpretive Publications – Several informational and interpretive publications produced by the park enhance the visitor’s experience. They include a park map, the annual visitor guide, five different natural history guides, as well as resource trading cards. All publications are available at the Discovery Center or online at the park’s website.



Goal 6 Objectives

Improve the quality, quantity, and accessibility of information needed to support sound decision-making, transparency of administration, and communication with the interrelated groups interested in, and associated with, the OHMVR Program.

6.1 By 2014, consolidate existing data stored throughout the Division.

- The OHMVR Division sends completed planning documents, natural and cultural resource records, and other pertinent files for addition to the State Park's Library and Archives Program and Unit Data File (UDF). The archivist in charge of this State Parks-wide program preserves a hard copy of the document in a climate-controlled library and uploads a digital version to UDF. State park staff can view and download these documents (with the exception of sensitive cultural records) at any time through the UDF on the State Parks Intranet. The UDF allows for easy access to information while preserving documents for future use.
- The OHMVR Division expanded its use of Sharepoint, a collaborative interface used to organize, store, manage data, and share information between users in many locations. This program provides an efficient platform for several users to collaborate on one document. For example, the OHMVR Division's law enforcement section uses Sharepoint to develop curriculum and organize POST classes throughout the state. The OHMVR Division natural and cultural resources programs use Sharepoint to store monitoring data, submit HMS Annual Reports for peer review, track GIS/GPS data, and cultural resource projects in a secure environment.
- Hollister Hills SVRA environmental scientists are in the process of reviewing and digitizing historical monitoring documents within their library. Digitizing these documents ensures the information gleaned from them is preserved and is readily accessible. Conducting literature review and document digitization is an essential part of the SVRA's WHPP development. Reviewing historical monitoring data will help staff learn from past monitoring efforts and gain a better understanding of the park's resources.

6.2 *By 2016, identify and obtain data needed to fill information gaps.*

- The OHMVR Division expanded its use of Sharepoint, a collaborative interface used to organize, store, manage data, and share information between users in many locations. This program provides an efficient platform for several users to collaborate on one document. For example, the OHMVR Division is developing a database and using Sharepoint to enter and track GIS data from resource monitoring projects. In addition, the OHMVR Division's Information Technology section is developing a database to track state property.



- The OHMVR Division worked with a State Parks historian to conduct a historical evaluation of the Kelso Cabin at Eastern Kern County, Onyx Ranch SVRA.
- OHMVR Division resource specialists contracted with DPS Technical, Inc. for a pilot ambient background sound quality program at Oceano Dunes SVRA and Prairie City SVRA.



Kelso cabin

- Carnegie SVRA, Hungry Valley SVRA, and Ocotillo Wells SVRA conducted visitor surveys to gather information about visitor needs and expectations. Park staff and consultants conducted visitor intercept and email surveys and conducted interviews as part of the General Plan updates for these SVRAs. The information gathered from these surveys helped the planning team identify existing conditions and issues. From there, the team created planning concepts and held public workshops to receive input on potential changes and improvements to recreation and facilities.
- The OHMVR Division hired a consultant to conduct a cultural resource inventory and develop a Cultural Resources Management Plan (CRMP) for Eastern Kern County Onyx Ranch SVRA. The consultant identified 126 archaeological sites, including prehistoric and historic sites (McGuire and Waechter 2016, 1). This document was submitted in draft form in July 2016. Once approved, the CRMP will guide the management of cultural resources for the SVRA and inform future planning efforts.
- Each year, the Ocotillo Wells SVRA interpretive improvement team meets to review the prior season's interpretive efforts and its performance. Through visitor surveys, the team is able to gauge effectiveness of education and outreach efforts in regards to conservation and safety messages. The information gathered helps the interpretive team implement new and innovative approaches to interpreting to the diverse audience that recreates at the SVRA.

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 in those areas and trails.

Protecting natural and cultural resources is an essential part of managing balanced off-highway vehicle (OHV) recreation for long-term use. The Off-Highway Motor Vehicle Recreation (OHMVR) Division monitors the condition of resources at each State Vehicular Recreation Area (SVRA) through adaptive management programs like the Wildlife Habitat Protection Plan and the 2008 Soil Conservation Standard and Guidelines (Soil Standard), pursuant to Public Resource Code (PRC) Sections 5090.35(c) and 5090.35(b)(1). Cultural resources afford a high level of resource preservation and protection to comply with PRC Sections 5024, 5024.5, and 5024.1(g). Projects funded by the OHMVR Grants and Cooperative Agreements Program (Grants Program) have the same requirements for natural and cultural resource protection. In addition, managing a sustainable recreation program sometimes requires restricting access to trails and OHV areas for resource management work. OHMVR Division and District staff continue to work with stakeholders and user groups to resolve conflicts about resource areas and recreational use.



Snowy Plover Chicks

Report Requirement 2 provides an overview of OHMVR Division natural and cultural resource programs, the condition of cultural and natural resources on lands supported by the Grants Program, and examples of conflict resolution in those areas.

Natural Resources Program

Wildlife Habitat Protection Program and Habitat Monitoring System

Ongoing monitoring efforts are essential for understanding and addressing the condition of natural resources of an SVRA. The type of monitoring conducted can be specific to determine the condition of an individual species or broad to assess the health of an ecosystem. Monitoring practices differ greatly from park to park depending on what species are present, climate localities, topography, and geology. The OHMVR Division and Districts' staff developed Wildlife Habitat Protection Plans (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 (including special-status species), plant communities (habitats), and soil types. The WHPP also implements an annual monitoring program and makes recommendations for managing the SVRA to sustain biodiversity. SVRAs are in the process of updating their WHPPs, as many date from the late 1990s to the early 2000s. Revised WHPPs will undergo extensive peer review from professionals outside State Parks to ensure scientific integrity and reliability.



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

In addition, the OHMVR Division hired consultants to compile, analyze, and summarize monitoring data from SVRAs and provide a peer review of the statistical models, interpretations, 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 storm water 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 the development of survey protocols.

2008 Soil Conservation Standard and Guidelines

PRC Section 5090.35 (b) (1) requires the OHMVR Division and the Grants Program recipients to implement a soil monitoring program based on the 2008 Soil Conservation Standard and Guidelines (Soil Standard). This section describes the OHMVR Division and Grants Program recipient compliance with the Soil Standard.

2008 Soil Conservation Standard and Guidelines Compliance at the SVRAs

OHMVR Division staff annually evaluate whether an SVRA complies with the Soil Standard for specific areas designated for OHV use. In order to make that evaluation, each SVRA adopts a soil conservation plan tailored specific to conditions at the park. This plan includes guidelines that detail land condition assessments, maintenance procedures for OHV facilities, construction design elements for development projects, and appropriate monitoring programs to detect and quantify changes over time.

Land condition assessments identify area conditions before the design of a project and provide information staff use to design a project that promotes the long-term sustainability of OHV facilities and parklands. To ensure the implementation of consistent and appropriate construction protocols, park staff use the results of a land condition assessment to develop

maintenance plans, trail plans, and other facility development plans. SVRA staff conduct soil monitoring programs to evaluate conditions of trails and other OHV facilities and produce annual reports as a component of the WHPP. Together, the soil assessment and monitoring programs give staff and managers the tools to limit soil erosion, promote sustainable land use, and prevent sediment delivery to water bodies.



Soils training class

2008 Soil Conservation Standard and Guidelines Compliance of Lands Supported by the Grants Program

Participants in the Grants Program are required to provide a soil conservation plan as part of the grant application process. For every proposed project that involves ground-disturbing activities, an applicant is required to provide a soil conservation plan that addresses how the project will adhere to the Soil Standard. Grants Program recipients are also required to submit a soil compliance report at project closeout for each project identified in their soil conservation plan. 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 (CGS) to provide technical expertise for assistance with the Soil Standard implementation for SVRAs and the Grants Program.



Trail work

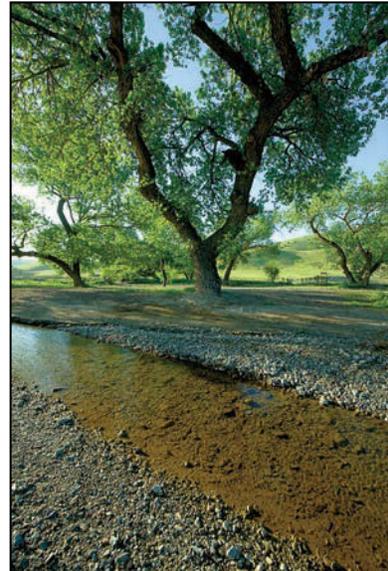
Storm Water Management Plans

A Storm Water Management Plan (SWMP) is designed to provide guidance for staff members to effectively implement a storm water program. The purpose is to define expectations and direction for those responsible for developing and implementing the storm water program. Elements outlined in a SWMP may include training or site-specific structural and non-structural Best Management Practices (BMPs) intended to reduce or eliminate pollutant discharges from SVRAs. SWMPs typically include six minimum control measures. These are:

- public education and outreach,
- public involvement and participation,
- illicit discharge detection and elimination,
- construction site runoff,
- post-construction runoff, and
- pollution prevention/good housekeeping.

OHMVR Division SWMPs may also include management goals and activities for maintaining OHV trails and facilities as they relate to meeting the unit's water quality objectives.

SWMPs come in various forms throughout the Division. Two of the 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 (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems adopted on February 5, 2013 (General Permit) as non-traditional permittees. This permit regulates storm water discharges from municipal separate storm sewer systems (MS4s). Although it is not a requirement for non-traditional Phase II permittees to develop a SWMP, the Division has taken this step in an effort to enhance the program by providing this additional guidance. Other SVRAs are not covered by a permit, but are working to develop a voluntary statewide SWMP. This SWMP will provide a storm water program outline that all SVRAs can use to improve the quality of storm water discharges.



Storm Water Management

An 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, man-made channels, or storm drains): (i) owned or operated

by a state, city, town, borough, or county.” MS4 permits prescribe a storm water program with the goal of reducing the discharge of pollutants to the maximum extent practicable. The intent of this program is to protect the park’s natural resources, improve water quality, and to meet the requirements of the NPDES and the Clean Water Act. Many state parks throughout California, including SVRAs, fall under the MS4 permit category and are required to 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.

In 2011, Carnegie SVRA became the first SVRA to develop a SWMP and the first State Park to develop a plan specifically focused on protection of water quality within a recreational setting. This plan was developed in partnership with the Central Valley Regional Control Board and involved several interagency agreements and coordination at the state and federal levels.



In 2012, the OHMVR Division hired a consultant to assist in the assessment and development of SWMPs for SVRAs. The consultants also work with the SVRAs to meet all applicable federal, state, and local storm water and water quality regulations. The consultant provides many services including staff training; developing BMP recommendations; SWMP and Storm Water Pollution Prevention Plan development; storm water inspections, monitoring, and analysis; soil quality inspection and monitoring; annual compliance reporting; focused water quality related environmental studies; assistance with preparing permits; and assistance with public education and outreach, among many other tasks.

Collaborative Efforts and Consultant Contracts

SVRA lands are some of the most diverse landscapes, climates, and ecosystems in California. Protecting cultural and natural resources within these areas takes a team of highly skilled environmental scientists and the support of partners, volunteers, and recreational groups. This collaborative approach allows for people with diverse backgrounds, interests, and knowledge bases to have a role in monitoring and protecting resources while preserving recreational opportunities. 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 who are studying species and habitat health and implementing adaptive management techniques for restoration and resource management. Environmental scientists at SVRAs 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 lizard 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) work with Oceano Dunes SVRA to evaluate existing HMS methods and protocols used 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 perform erosion 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.



Cal Poly students

The OHMVR Division hires consultants as support for compliance with local, state, and federal requirements, for peer review of reports and data, and training and technical assistance to field staff. 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 to develop programs that meet their specific management needs;
- provide review of statistical models, interpretations, and conclusions described in HMS annual reports and WHPP revisions;
- 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 for compliance with the National Environmental Policy Act (NEPA) and coordination with the California Environmental Quality Act (CEQA).

Consultants also provide support for program-level planning documents such as General Plans, Habitat Conservation Plans for permit compliance, Trail Management and Restoration Plans, interagency agreements, and other legal documents.

Furthermore, the natural and cultural resource programs are able to meet their management goals through the combined efforts of District staff, local and state agencies, and stakeholder groups. At several SVRAs, stakeholders from different interest groups form advisory committees to assist in restoration projects; review draft plans and projects; and make recommendations to park managers. For example, Oceano Dunes SVRA formed an advisory group under a permit requirement made up of stakeholders who actively participate in the adaptive management process involved in habitat conservation and park management. The stakeholder team consists of representatives from local governments, businesses, citizens, the California Coastal Commission, the OHMVR Division, OHV groups, California Department of Fish and Wildlife (CDFW), the United States Fish and Wildlife Service (USFWS), and the environmental community.

Volunteers have been an integral part of the OHMVR Program since its inception. They represent a cross section of those who visit our parks and contribute essential skills in support of natural and cultural resource management. The Carnegie Advisory Team and the Carnegie SVRA Trails Team, for example, work on restoration projects and trail planning with the goal of increasing sustainable trails. Another volunteer program, the California Archaeological Site Stewardship Program (CASSP), pairs trained volunteers with archaeologists to monitor sites and preserve prehistoric and historic cultural resources at the SVRAs.



Volunteers work on restoration projects

The combined experience all parties bring to the table creates a greater understanding for, 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 information needed to make informed management decisions and keep the OHMVR Program sustainable for the long term.

Cultural Resource Program

Conducting thorough cultural resources inventories, evaluating identified cultural resources in terms of eligibility for listing on federal and state historic registries, and consistent monitoring of significant historical resources are three of the main tools OHMVR Division archaeologists utilize in protecting the valuable cultural resources present at SVRAs. These resources are important due to their fragile, non-renewable, and irreplaceable nature. Once damaged, their unique value to California's and/or our nation's heritage may be lost forever. OHMVR Division archaeologists are reliant on the cooperation of District staff, archaeological volunteers from California Archaeological Site Stewardship Program (CASSP), and Native American consultants in developing best management practices (BMPs) that help to ensure the protection of these resources.



Cultural Resource Inventories and Resource Evaluations

Conducting cultural resource inventories is a critical tool for the OHMVR Division to identify cultural resources on land under its ownership, and occur in compliance with PRC Sections 5024 and 4024 .1(g). The state laws and the results of the cultural resource inventories that have been conducted in Clay Pit, Prairie City, Carnegie, Hollister Hills, and Oceano Dunes SVRAs were previously discussed in the 2011 and 2014 Program Reports.

OHMVR Division hired an archaeological firm to conduct a cultural resources inventory of Eastern Kern County, Onyx Ranch SVRA. This inventory covered approximately 13,000 acres, and resulted in the identification and recordation of 99 archaeological sites (58 prehistoric, 36 historic-era, and five multicomponent), as well as 383 isolated finds. The results of this inventory will help inform a Cultural Resources Management Plan (CRMP) that dictates best practices for preserving cultural resources at the SVRA. The final report from this inventory is expected in 2016.

Although the cultural resource inventory of Prairie City SVRA was completed in 2010, additional archaeological survey work was conducted in the summer of 2013 following a 176-acre prescribed burn in compliance with PRC Section 5024. OHMVR Division archaeologists successfully surveyed all 176 acres and five newly identified resources were recorded. Results from this post-burn archaeological survey have been incorporated into the existing Prairie City SVRA cultural resource inventory.



Prescribed burn at Prairie City SVRA

In 2015, OHMVR Division entered into a contract to complete an inventory of approximately 1,200 acres at Hungry Valley SVRA, and update previously recorded resources as well as record and prepare initial evaluations of newly identified resources. An archaeological firm is also contracted to perform initial evaluations for national and state historic registries of resources located in high-use recreation areas. All fieldwork for this contract has been completed and the final report is expected in September 2016.

As the largest SVRA, it has been difficult for the cultural resource staff at the Ocotillo Wells District to conduct a complete cultural resource inventory of Ocotillo Wells SVRA. The large majority of the SVRA that has been inventoried occurred as part of the environmental review of proposed projects. In 2012, 1,511 acres of Ocotillo Wells SVRA was archaeologically surveyed in compliance with CEQA and PRC Section 5024 as part of the U.S. Army Corps of Engineers Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the Borrego Maneuver Area federal undertaking. Seven new sites and 53 previously recorded sites were identified and recorded during the archaeological survey.

Following the completion of a cultural resource inventory of an SVRA, OHMVR Division archaeologists evaluate the significance of known resources according to the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources criteria (California State Parks 2011, 93). If cultural resources determined eligible for listing in one or both Registers are “historical resources.” In compliance with PRC Sections 5024 and 5024.5, state agencies must afford a higher level of resource preservation and protection to historical resources, including avoiding, minimizing, or mitigating adverse project impacts in compliance with CEQA.

The cultural resource inventory of Carnegie SVRA included the survey, recordation, and evaluation of historic-era sites; features and artifacts associated with the coal, sand, clay, gravel, lime, and manganese mining operations; and brick and pottery industrial undertakings and company town sites that occurred within Corral Hollow between 1855 and the 1960s.



Carnegie SVRA cultural resources

To identify historical resources within Carnegie SVRA, the OHMVR Division contracted with the Anthropological Studies Center (ASC) at Sonoma State University to evaluate the resources' historical significance and integrity according to NRHP criteria.

Because of this evaluation, the ASC identified the Tesla Mining and Industry historic district. This historic district is a large and diverse property comprised of 34 known resources, and

encompassing 680 acres within Carnegie SVRA and adjoining OHMVR Division-owned properties. The overall historic context of the historic district is mining in Corral Hollow from 1855 to 1911. Within that larger context, each of the contributing resources is associated with one of the following themes or sub-contexts:

- early coal exploration and mining, 1855-1866;
- the San Francisco and San Joaquin Coal Mining Company, 1890-1905;
- sand mining for the Pacific Window Glass Company, 1890-1908; and,
- clay mining for Carnegie Brick and Pottery Works, 1901-1911.

The contributing resources to the historic district include the following: Carnegie Water Works Mine, Tesla Complex, Ryan Clay Works, Tesla Sand Mine, Alameda Mine, Harrietville, Historic-era Artifact Concentration/Cabin Flat, Harrisville, Commercial Mine (Main Shaft), Pottery Sewer Pipe Plant, Coast Range Coal Mine, Alameda-San Joaquin Railroad, Tesla-Livermore Road, Hetch Hetchy Work Camp, Tesla Clay Works, Summit Mine, Carnegie Lime Kiln, Commercial Mine (Meader Shaft), Three Lime Kiln Prospect Cuts, Carnegie Road (Lime Kiln), and the Carnegie Brick and Pottery Company.



Lime Kiln Tunnel at Carnegie SVRA

On December 7, 2012, the State Historic Preservation Officer (SHPO) concurred with the ASC's determination that the Tesla Mining and Industry historic district is eligible for listing in the NRHP at the state level under Criteria A, B, C, and D, with a period of significance of 1855 to 1911. An official nomination to the NRHP is currently planned.

Two prehistoric resources, CA-ALA-443, a prehistoric occupation site with evidence of inter-tribal trading and CA-ALA-571, a prehistoric rock art site, were also recorded and evaluated by the ASC. The ASC concluded that both of these resources are eligible for the NRHP and the CRHR for their ability to yield significant information about the prehistory of the area. On October 9, 2013, SHPO concurred with the determination that CA-ALA-443 is eligible for listing in the NRHP under Criterion D, and CA-ALA-571 is eligible under Criteria C and D.

In 2012, two historic-era buildings—an operations building also known as Building C and a building referred to as the Gorman House located at Hungry Valley SVRA—were recorded and evaluated by OHMVR Division archaeologists and historians with the Southern Service Center of State Parks as part of the environmental review for a proposed project. The evaluation determined that both buildings are ineligible for the NRHP or the CRHR and the findings are currently being reviewed by the SHPO.

In 2013, historians with the Cultural Resources Division of State Parks recorded and evaluated two historic-era buildings located at Hollister Hills SVRA, CA-SBN-101H, the Vineyard Schoolhouse, and CA-SBN-141H, a residence. The evaluation determined that the Vineyard Schoolhouse is eligible for listing in the NRHP under Criterion C as an excellent example of Rural Schoolhouse Architecture in California, 1848-1910. The evaluation also determined that the residence (House B) is significant as a unique example of how Shingle Style Architecture influenced vernacular residential buildings in California through the latter half of the 19th century. This resource also appears eligible for listing in the NRHP under Criterion C, as a building that embodies distinctive characteristics of the Shingle Style, representing a significant and distinguishable entity. The OHMVR Division is awaiting the SHPO's concurrence. OHMVR Division staff are working with CASSP volunteers to monitor cultural resources at Hollister Hills SVRA, including the Vineyard Schoolhouse.



Vineyard Schoolhouse at Hollister Hills SVRA

Summary of Cultural Resource Monitoring and Resolution of Conflict to Resources

As previously discussed in the 2011 and 2014 Program Reports, OHMVR Division archaeologists monitor significant historical resources using Archaeological Site Condition Assessment Report (ASCAR) forms and through the help of CASSP volunteers. 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 resource impacts are identified immediately and proper resource preservation measures are established to avoid, minimize, or mitigate impacts to the resources.

Clay Pit SVRA and Prairie City SVRA do not have regular ongoing cultural resource monitoring programs because the data collected from their cultural resource inventories did not identify any significant historical resources that would require regular monitoring. However, ongoing resource monitoring programs exist at Carnegie, Hollister Hills, and Oceano Dunes SVRAs. Resource monitoring programs at Hungry Valley SVRA and Eastern Kern County, Onyx Ranch SVRA will be established upon completion of the currently in process cultural resource inventories. As previously discussed, cultural resource inventories in the Ocotillo Wells District have also not yet been completed.

OHMVR Division archaeologists conduct annual resource monitoring of known historical resources in Oceano Dunes SVRA by visiting the resources and documenting their existing condition and any observed changes on ASCAR forms and through photography. The Oceano Dunes SVRA resource monitoring program also includes involvement from the local Northern Chumash community. Prior to each resource monitoring visit, Northern Chumash representatives are notified and invited to accompany archaeologists during site visits. Since 2011, results from the Oceano Dunes SVRA resource monitoring program have not identified any significant impacts to resources. Monitoring efforts in 2015 and 2016 identified several prehistoric sites where the boundary fencing was in need of replacement or repair, and District staff acted promptly to correct the problems.



Northern Chumash Middens at
Oceano Dunes SVRA



Carnegie SVRA – Historic Brick and Pottery Plant

Since 2009, CASSP volunteers assist OHMVR Division archaeologists in performing bi-annual monitoring of known historical resources at Carnegie SVRA. In 2012, CASSP monitors identified impacts to two known historical resources, CA-SJO-311H, ruins of a historic-era brick and pottery company and CA-ALA-443, a prehistoric occupation site. Impacts to CA-SJO-311H resulted from ongoing road grading and maintenance.

Historic-era artifacts were identified within the road, apparently unearthed because of grading. OHMVR

Division archaeologists consulted with the District and Sector Superintendents to devise a workshop that would teach park staff what types of resources are found in the SVRA and what to do and who to contact if they inadvertently uncover cultural resources.

Impacts to CA-ALA-443 occurred because of ongoing use by park neighbors and OHV recreation that occurs through a portion of the site boundary. This road is an easement road accessed by the adjacent property owners and is one of the primary roads that the park uses to access portions of the recreation areas, and therefore cannot be closed. Additionally, the surrounding steep topography does not permit a road reroute. In an effort to stop resource impacts, several years ago a large portion of the site was fenced for protection; however, over time the consistent vehicle activity has gullied portions of the road and CASSP volunteers identified artifacts eroding from areas within the road bed. As a result of this resource impact, OHMVR Division archaeologists consulted with the Sector

Superintendent, the park environmental scientist, the park maintenance supervisor, and the local Native American community and concluded that the periodic capping of the road with four to six inches of sterile native soils and road base material will stop further resource impacts. The results of site monitoring in 2016 suggest that the capping has been successful in preventing further impacts to the site.

Since 2011, CASSP volunteers have bi-annually monitored known historical resources at Hollister Hills SVRA. Since 2011, results from the Hollister Hills SVRA resource monitoring program have determined that no significant resource impacts have occurred at monitored sites.



CASSP volunteers work with State Park Archaeologists

Native American Consultation

The OHMVR Division conducts ongoing Native American consultation to ensure the identification, protection, and preservation of Tribal Cultural Resources (TCRs) in SVRAs. In compliance with Executive Order B-10-11, Senate Bill 18, the California Natural Resources Agency Tribal Consultation Policy, and California State Parks Departmental Notice *2007 Native American Consultation Policy and Implementation Procedures*, the Division works directly with the State Parks' Tribal Liaison on all consultation matters (California State Parks 2016). All Districts have a Department-trained employee who serves as a liaison to the Native American community to engage in ongoing consultation.

The Division conducts extensive outreach to, and consultation with, Native American tribes and individuals on all levels of planning and project implementation. For instance, during the general plan revision process for Prairie City SVRA, Carnegie SVRA, Hungry Valley SVRA, and Ocotillo Wells SVRA, tribal representatives helped Division staff identify culturally sensitive areas to avoid or mitigate during future SVRA development. Tribal representatives participated in the development of cultural resource goals and guidelines to manage and protect TCRs within the SVRAs. When projects occur at SVRAs, OHMVR Division staff work with interested Native American tribes early in the project planning phase to develop mitigation efforts or avoidance measures, and to serve as Native American monitors during project implementation.

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 helped develop exhibits for the Oceano Dunes SVRA Visitor Center that accurately reflect their culture from their perspectives. The Indian Canyon Mutsun Band of Costanoan Indians has been integral to the development of interpretive programs and exhibits at Hollister SVRA. Hollister SVRA also provided a loan of prehistoric objects to Indian Canyon for use in research and educational programs. In addition, Tribal representatives provided training to SVRA staff on aspects of their culture and participated in educational programs to the public.

Changes to the CEQA Requirements for Native American Consultation

In September 2014, Governor Edmund G. Brown Jr. approved Assembly Bill 52 (AB 52) to expand CEQA to require consultation with California Native American tribes during the environmental review process and create “tribal cultural resources” as a CEQA resource element. AB 52 went into effect on July 1, 2015 (State of California 2014).

This legislation’s key components affect how public agencies conduct CEQA review and compliance. The first component adds consultation into the environmental review process. Consultation is required with all California Native American Tribes on the Native American Heritage Commission (NAHC) maintained list, which includes federal and non-federally recognized tribes. The consultation process has several steps:

- The NAHC provides tribes with a list of lead agencies and contact information;
- If the tribe wishes to be notified of projects, the tribe must contact the lead agency in writing;
- The lead agency then formally notifies the tribe within 14 days of undertaking a project or determining a project application is complete;
- The tribe has 30 days to respond to the agency whether it wants to consult on the project;
- Then, the lead agency has 30 days to begin consultation on the project.

Consultation ends when either the lead agency agrees to incorporate the mitigation requested by the tribe into the CEQA document (if a significant effect exists), or the tribe or the lead agency conclude that agreement cannot be reached. If no agreement is reached, the lead agency must still consider feasible mitigation to tribal cultural resources. In addition, if the tribe does not choose to consult, the lead agency must still consider ways to mitigate impacts to these resources. Once these conditions are met, then the lead agency may release the environmental document for public review.

While these new steps have the potential to increase the time for project review and evaluation, it will promote improved communication between tribes and lead agencies. The bill recognizes that consultation is an important function that already occurs between

tribes and lead agencies; these new requirements do not impede on or replace previous consultation processes.

The second component requires lead agencies to evaluate a project's potential to impact TCRs. TCRs are a broad category as defined in CEQA. TCRs are "a site, feature, place, cultural landscape, sacred place, or object which is considered of cultural value to a California Native American Tribe" (PRC section 21074(a) (1-2). TCRs may overlap existing historic and archaeological sites and be considered cultural landscapes. The consultation process will identify potential TCRs in a project area. During environmental review, if it is determined that the project causes substantial adverse change to a TCR, it is a project that may have a significant effect on the environment (PRC section 21084.2). AB 52 also requires lead agencies to follow new confidentiality requirements regarding TCRs in the project area. These requirements make comments and information submitted by tribes confidential and not available to the public during public review of environmental documents.

Since the passage of AB 52, the OHMVR Division and Districts have:

- attended Native American Heritage Commission meetings and hearings that discussed AB 52 legislation and changes to their roles and functions;
- facilitated training opportunities for managers, tribal liaisons, and interested staff;
- implemented regular and ongoing meetings with interested tribes to keep them informed of pending projects, and get their input as early in the planning stages as possible;
- administered contracts with qualified archaeological and cultural resource management firms for consultation services; and,
- conducted outreach for consultation efforts with local tribes to meet the Department and OHMVR Division's mission statement and comply with CEQA.

Native American Consultation Training

In August 2015, the OHMVR Division collaborated with State Parks' Cultural Resources Division and the Native American Heritage Commission to provide an in-depth training for employees on AB 52 requirements. The training was offered to all OHMVR Division staff and was open to State Park cultural resource managers. More than 30 managers, supervisors, tribal liaisons, and interested staff participated at the William Penn Mott Jr. Training Center in Pacific Grove, California, and from remote locations around the state using new video conferencing technology. Two open sessions allowed participants to ask questions and discuss aspects of the bill not covered in the presentations. In addition, the Cultural Resources Division offers annual training for all Native American liaisons. Together, these training opportunities give staff tools to maintain and strengthen relationships with Native American tribes and ensure compliance with statutory requirements.

Native American Consultation at the SVRAs

Beginning in the summer of 2012, local Ohlone and Northern Valley Yokuts, including tribal representatives from the Indian Canyon Mutsun Band of Costanoan, the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Trina Marine Ruano Family, and the Salinan Layehm have been involved in ongoing consultation with the Carnegie SVRA General Plan team. Consultation included Division staff-lead tours of the known prehistoric cultural resources within Carnegie SVRA and Alameda-Tesla properties.

As a result of these on-site consultation tours, the Native American community identified several cultural resources to be “sacred sites,” meaning “places of spiritual importance to a tribe where religious ceremonies are practiced or which are central to their origins as a people. It is always up to the tribe to determine whether or not a site is sacred” (California State Parks Departmental Notice 2007: 5). OHMVR Division archaeologists and Twin Cities District staff are working with the Native American community to facilitate Native American access to the sacred sites for ceremonial use.

Native American consultation in the Carnegie SVRA General Plan process helped the planning team identify areas, such as sacred sites, that need to be avoided or mitigated during future park development. Additionally, Native American consultation will play an integral role in the future management and preservation of known prehistoric cultural resources, all of which will be discussed in the cultural resource guides and guidelines section of the Carnegie SVRA revised General Plan.

In the fall of 2015, an OHMVR Division archaeologist and Oceano Dunes staff participated in a meeting with local Northern Chumash Native Americans to discuss upcoming projects, and identify any ongoing concerns tribal members may have. Moving forward, the OHMVR Division plans to continue holding annual meetings with the tribe to assess any upcoming projects that may involve Native American interests.

In June 2016, an OHMVR Division archaeologist, Oceano Dunes SVRA staff, and a representative from the Northern Chumash group worked together to identify several sites of concern within the dune preserve area, and to install symbolic fencing around the sites to discourage pedestrians and equestrians from entering into the sites and potentially damaging them.

Native American consultation for the Prairie City SVRA General Plan began in the summer of 2013 and included consultation with the local Miwok and Maidu Native American community, including tribal representatives from the Shingle Springs Band of Miwok Indians, the United Auburn Indian Community of the Auburn Rancheria, and the Wilton Rancheria. Native American consultation included tours of the known prehistoric cultural resources within Prairie City SVRA. The general planning team is working with the Native American

community to develop cultural resource guides and guidelines for the General Plan through consultation and involvement.

Recent Outreach Initiatives of the Cultural Resources Program at Ocotillo Wells SVRA

Among the most pleasurable activities for an archaeologist working for State Parks are the opportunities staff have to engage with the general public and park visitors. These contacts enhance the park experience in many ways. During the past year, the Ocotillo Wells SVRA cultural resources program has undertaken a number of public outreach initiatives to enhance the park experience. Among these have been increased interactions with interpretive programs, lectures presented at avocational archaeological gatherings, training of site steward volunteers, research results presented at professional archaeological meetings, and increased cooperation with local universities.

A new enhancement to the cultural resources program is a cooperative initiative established with the Department of Anthropology at CSU San Diego. This resulted in a recent visit to Ocotillo Wells SVRA by a CSU San Diego professor and students to explore future teaching and research opportunities. Among the future projects discussed were weekend field visits to instruct students in archaeological field methods that will include training in orienteering, field survey, and site evaluation methods. A direct result of these discussions is a proposed thesis by a graduate student to investigate recently recorded ancient fish traps that align with the recessional shoreline of Lake Cahuilla.

Formalization of these cooperative discussions resulted in the drafting of a MOU between CSU San Diego and Ocotillo Wells SVRA to define future cooperative relationships. Ocotillo Wells SVRA staff hope this joint initiative will prove beneficial to both the University and State Parks for years to come.



Recent field visit and inspection of a prehistoric Lake Cahuilla fish trap

California Archaeological Site Stewardship Program, Ocotillo Wells District

One of the core responsibilities of State Parks is to protect the irreplaceable historic and prehistoric resources that exist on our parklands. The sites where historic and prehistoric events took place can only be understood today through the physical materials that remain on the ground. Through the study of these precious materials, we are able to learn and share the stories of who we were and still are as people. Like pieces of a jigsaw puzzle, as time passes, these remains gradually disappear through biodegradation, erosion, and other natural processes. However, among the most devastating impacts has been people's natural curiosity and tendency to want to collect interesting trinkets for their own personal collections. This has undoubtedly become one of the most serious challenges in the park's efforts to preserve the past.

In response to this widely recognized tendency that is rapidly destroying our shared cultural heritage, the Society for California Archaeology created the California Archaeological Site Stewardship Program (CASSP). This program provides a way for interested visitors to become personally involved in helping to preserve and protect disappearing cultural resources. In December 2015, 28 people from the Anza-Borrego Desert State Park and Ocotillo Wells SVRA participated in a two-day CASSP training to become volunteer site monitors. Professional archaeologists led the comprehensive training that included information on how to recognize historic and prehistoric artifacts, define site boundaries, site mapping, photo documentation, site condition assessment, and documentation of destructive events such as off-highway activity. On the second day, experienced site monitors conducted site tours to apply the volunteer's newly acquired knowledge.



Mesquite dunes are among the most delicate natural and cultural resources at Ocotillo Wells SVRA

The park's cultural resource staff are excited to have these newly trained site stewards to provide much needed assistance in monitoring the sites and help protect them for future generations. These stewards agree to visit one or two sites on three or four occasions each year. During a site visit, the site steward fills out a site condition form, notes any changes that have occurred since the previous visit, and photo-documents the site. Once completed, they file the information with the CASSP coordinator at the park. There are over 700 sites currently recorded in Ocotillo Wells SVRA, a number that constantly increases as new sites are discovered. Site stewards are vital in assisting the Cultural Resources teams to keep track of site conditions within this vast desert landscape.

In addition to the CASSP program, Ocotillo Wells SVRA expanded its public and institutional partnerships through a cooperative research agreement between the SVRA and the Department of Anthropology at CSU San Diego. Ocotillo Wells SVRA is developing a Memorandum of Understanding (MOU) with the University to guide mutually beneficial research initiatives. For example, one research effort will investigate recently recorded late prehistoric fish-traps that align with the recessional shoreline of ancient Lake Cahuilla. This joint project provides the opportunity for a graduate student to complete a thesis while providing valuable cultural resource information for the SVRA. Other proposed research activities for the 2016/2017 fiscal year may include supporting weekend projects by an archaeological field methods class that will incorporate orienteering, field survey and site evaluation methods. These joint efforts provide immediate enhancements to the understanding of the park's cultural resources while training future park cultural resource managers.



Inspection of a prehistoric Lake Cahuilla fish trap by graduate students

Condition of Natural and Cultural Resources at SVRAs

This section provides an overview of cultural and natural resources at SVRAs and areas that receive OHV trust funds, followed by a description of major resource management programs at each unit.

Carnegie SVRA

Located in the coastal hills of western San Joaquin and eastern Alameda Counties, the topography of Carnegie SVRA is steep, with several vegetation communities represented, including California annual grassland, blue oak, California sagebrush-black sage, and mule fat. The climate is Mediterranean with cool, wet winters and hot, dry summers.

The park currently manages approximately 5,000 acres. Of that acreage, approximately 1,200 acres are currently available for OHV recreation; the remainder is awaiting the preparation of a General Plan, which will establish the management policies, and the appropriate levels of recreation balanced against the protection and conservation of natural and cultural resources.

Approximately half of the area on the north side of the park is available for OHV recreation. Typically, this area consists of grasslands with more durable clay soils. The existing General Plan identified this area as open riding and allows OHV recreation so long as vegetation and natural or cultural features are not damaged. Although these clay soils have been ridden on for several decades, years of observations and monitoring show few signs of excessive erosion or degradation. In the areas where damage is observed, restoration has been performed or planned for implementation.



The other half, the south side, is the “trails only” area that comprises the more sensitive habitats of the park (coastal scrub and oak woodland). The soils in these habitats are less stable and need vegetation to minimize erosion from storm water. The vegetation, once disturbed, can take several years to reestablish.

A Storm Water Management Plan (SWMP) for Carnegie SVRA was prepared by State Parks and approved by the Central Valley Regional Water Quality Control Board in 2011. The purpose of the SWMP is to reduce pollutant discharges or eliminate them from the planning area by using site-specific structural and nonstructural BMPs to protect and improve water quality, while providing high-quality OHV recreational opportunities. Elements of the Carnegie SVRA SWMP include public education and outreach, public involvement



Carnegie SVRA storm water management

and participation, detection and elimination of illicit discharges, storm water management at construction sites, post-construction storm water management, and pollution prevention/good housekeeping. Specifically, the SWMP includes implementation of a trails management plan; implementation, monitoring, and maintenance of projects associated with the OHMVR Division’s Soil Standard; and the use of an OHV-specific BMP manual for selecting, implementing,

and maintaining appropriate BMPs. The SWMP also includes an OHV element dedicated to discussing management goals and activities for maintaining OHV trails and facilities as they relate to meeting water quality objectives.

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.

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 Soil Standard to examine the degree of compaction (static, dynamic, or kneading), water travel (rilling, gullyng, 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



Using GPS equipment to collect soils data

System (GPS) equipment to collect the data and Geographical Information System software to store the data. SVRA managers use the data to monitor the trail system and plan for rehabilitation projects, trail maintenance, and regulatory compliance.

Storm Water Management Plan in Action

The OHMVR Division initiated an aggressive storm water management program at Carnegie SVRA in an effort to protect the park’s natural resources, improve water quality, and meet the requirements of the National Pollution Discharge Elimination System (NPDES)

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 a SWMP to reduce or eliminate pollutant discharges and to meet the requirements of the National Pollution Discharge Elimination System and the Clean Water Act.

Public education is mandated by the SWMP. Carnegie SVRA developed a brochure and interpretive panels to educate park visitors about the importance of protecting and improving water quality by recreating responsibly and to teach visitors about water quality protection.

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

Three kinds of interpretive panels have been created to comply with the Storm Water Management Plan: pollution prevention, ecological diversity, and temporary panels on rehabilitation projects. The goal of the pollution-prevention panels is to provide visitors with information on how to identify pollutants and ways to prevent these pollutants from contacting storm water runoff. One panel specifically addresses pollutants 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. The goal of these panels is to educate visitors about how park activities may generate pollutants that can be transported to these habitats via storm water runoff and the associated negative impacts on the habitat.

The main challenge of interpretation for the SWMP is to make these subjects interesting to the public. It is easy to know what to interpret since it is outlined in the SWMP. Carnegie SVRA's visitors are keenly interested in seeing the park stay open and to expand recreation. Knitting together the need for clean water, protection of species, and OHV rider education is crucial to the future of OHV recreation in California.

and the Clean Water Act (CWA). In order to achieve these water quality objectives, a number of projects and programs have been planned and/or are being implemented. 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 historic value. These conclusions and recommendations are presented in the Final Corral Hollow Watershed Assessment (California State Parks 2007, 1-4).

The findings from the watershed assessment were used to develop a number of 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



Trail riding at Carnegie SVRA

maintenance to ensure the success of these actions. Other components of the storm water 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 HMS program, and use of the OHV-specific BMP manual for selecting, implementing, and maintaining appropriate BMPs.

The next phase of the storm water management program included the development and implementation of a SWMP in 2012. The purpose of the SWMP is to reduce or eliminate pollutant discharges from Carnegie SVRA through the use of site-specific structural and non-structural BMPs in order 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 storm water management, post-construction storm water 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 as they relate to meeting the water quality objectives.

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

Resource Management Areas

The RMAs are discrete zones established to better plan and implement management activities of areas that share common characteristics. For the most part, the RMAs were

divided by sub-watersheds and cover the entire SVRA. The RMAs are connected to each other through a trails network and is part of the overall Carnegie SVRA Trails Management Program.

Each RMA 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 completion of the project. The on-the-ground restoration work begins with

identifying any trails that have proven to be sustainable and that do not convey high concentrations of storm water 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



East Kiln RMA shows no obvious signs of off-trail riding

network and the area is restored. Eliminating these trails from the network often involves using heavy equipment to place soil back on the hillside to bring the hillside back to grade. Once in place, the soil is protected using BMPs from the OHV BMP manual. Typically, the BMPs used are a combination of straw wattles that reduce the velocity of concentrated water, and hydromulch that protects the soil from precipitation. If the hydromulch machine is unable to access the area, straw is used to cover the bare soil. Staff are trained in proper implementation techniques and the work is supervised by experienced restoration specialists. These efforts result in an overall reduction in trail density for the area, along with a shortening of hydrological connections, two tactics outlined in this program. Special attention will be given to developing buffer zones near drainages by limiting trail density and soil disturbance within these areas to provide adequate bio-filtration (sediment control).

Carnegie SVRA is in the process of actively restoring its RMAs. The RMAs are completed by rehabilitating degraded areas, and introducing sustainable trail systems within them. Implementation of this modernization is being done from east to west with our RMA. The last completed RMA, Harrison Hill, was a great success. The project took approximately seven months to complete, and has had an increase in vegetation, more storm water friendly trails, and a lower overall trail length (7,840 linear feet, compared to the previous 30,000 linear feet). The trail design was established using the Carnegie Advisory Team, which is a group of local enthusiasts that are well versed in enhancing the user experience.

Monitoring Program Overview

The following section provides an overview of natural resource monitoring programs that are part of the SVRA's WHPP and HMS.

Vegetation Monitoring

In order to modernize vegetation survey techniques and to provide for a more robust and efficient vegetation monitoring program, the monitoring program was revised in 2014 to rely on LiDAR (light detection and ranging) data. LiDAR is a remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light. Vegetation reflection data is collected that can provide information on vegetation type and cover. Airborne LiDAR data allows a greater area to be surveyed with more accuracy and significantly less staff time compared to on-the-ground vegetation transect monitoring. On April 19, 2014, Carnegie SVRA (both areas of use and non-use) was flown by REY Engineers out of Folsom. This resulted in a very large dataset (65 GB) (de Silva and Meisel 2015, 8).



California juniper woodlands

Avian Monitoring Program

Birds are surveyed using a point count system. The sample points were randomly generated independently from one another using GIS software (ESRI Arc Map 9.3). The distribution was based on a stratified random sample of eight levels. To provide for statistical independence and since data collection will focus partially on birds (which tend to



Red-tailed hawk

move around and have large home ranges), the habitat sites were buffered from one another by 200 meters. In other words, no site could be within 200 meters of another site. To qualify for a specific treatment level, 51 percent of the area surrounding the site needed to consist of the specific treatment level for a 100 meters radius. For example, an OHV blue oak site had to be within the riding area and blue oak habitat for at least 51 percent of the surrounding area. An OHV site is

defined as an area within the SVRA where recreation occurs based on the 1981 General Plan. Some sites have restricted OHV activity but are labeled as OHV sites because they are located within these boundaries.

There were 110-point count sites during the 2011-2014 bird surveys. Each sample point is surveyed twice each season (winter/spring) for a period of 10 minutes per survey. There is a minimum of 10 days between the first survey at any given point and the second survey. The survey period is from 0700 to 1300 in the winter and 0630 to 1100 in the spring. Upon

arrival at the site, the observer/note taker 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 is also recorded. Each survey is conducted with one skilled observer able to identify birds by sight and call, and one note taker or a voice recorder. Typically, two or three teams of observer and note taker are sent out so that all the points can be visited over three to four days. Data is recorded in the HMS database (de Silva and Meisel 2015, 8).

Aquatic Amphibians and Reptiles Monitoring Program

Aquatic resources at Carnegie SVRA include the ephemeral Corral Hollow Creek and its seasonal drainages, as well as other water bodies comprised of stock ponds and sediment retention basins. These water bodies can hold water into the late spring, depending on



Western spadefoot toad

pond characteristics and seasonal rainfall. A variety of special status amphibian species are known to occur at the SVRA, including special status California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylei*), and western spadefoot toad (*Spea hammondi*). Western pond turtle (*Actinemys marmorata*), 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 (*Taricha torosa*), western toad (*Anaxyrus boreas*), aquatic garter snake (*Thamnophis atratus*), and Sierran tree frog (*Pseudacris regilla*), also known as Pacific chorus frog.

The purpose of aquatic species monitoring is to determine species presence and species' 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.

In order to monitor aquatic species, surveys are conducted twice in the spring at known water bodies in the park. This includes 25 stock ponds and sediment retention basins, as well as 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 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 in possession of a federal 10(a) 1(A) Recovery Permit for California red-legged frog and California tiger salamander. The permitted biologist also holds a MOU from CDFW for handling of listed species as well as a CDFW Scientific Collection Permit. Other biologists may accompany the permitted biologist and assist with the survey.

During surveys, the water body is approached slowly and quietly and scanned with binoculars for any sign of amphibians or reptiles. Following the visual encounter survey, the water body is dip netted. Sampling consists of carefully dipping the net in the water with a sweeping arc motion, checking the net, and recording any captures by species, including the total number observed and developmental stage. Typically, the entire perimeter of the water body is surveyed. A herpetological field guide (Stebbins 1985) and other identification keys or photographs are used to verify species, if needed. All amphibians are carefully returned to the water immediately after they are recorded. Turtles are observed by visual encounter only; no trapping of turtles is conducted. The survey methodology described allows for a determination of species presence and breeding.

Other data collected during water body surveys includes the weather at the time of the survey, survey start and stop time, pond capacity, the number of dips made, and number of observers/biologists conducting the survey.

Due to variation in annual rainfall, including years with very low levels of rain, in some years water bodies are found to be dry during aquatic species monitoring. Dry water bodies are recorded as such and no further data is collected. It should be noted that three water bodies have successively transformed into mule fat thicket and no longer hold water. One of these is being considered for restoration, and two of these water bodies will be removed from the map (cannot be restored due to the presence of archaeological resources). In addition, two ponds have been heavily overgrown with cattails, and would require vegetation removal to allow for the continuance of open water habitat (de Silva and Meisel 2015, 31-32).

Bat Monitoring Program

In 2014, a monitoring program for bats was initiated and bat surveys were conducted in July and August 2014. Surveys were conducted by a bat biologist consultant.

Due to the variety of habitat types, the expansive study site, and the potential for numerous species' microhabitat requirements that could be investigated, visual encounter surveys and passive acoustic surveys are conducted at a few selected locations in both the SVRA riding area and the Tesla-Alameda property. Site visits were conducted on July 17, 24, 31, and August 11, 2014. Visual encounter surveys were conducted by examining the external



features of and entering the cavities of mines, large rock cracks (e.g., small caves), and natural caves. Evidence of guano, food debris piles, urine stains, roosting bats, carcasses of dead bats, and any detectable audio signatures were noted during each visit. Passive acoustic surveys began July 24 and ended August 11, 2014. These surveys were conducted for one or two week periods at Hidden Pond, Mitchell Ravine Pond, Tyson's Basin, one cattle trough located at a park residence, Lime Kiln Cave, and one large mine adit.

Passive acoustic devices consisted of the Wildlife Acoustics SM2 Bat meter. Units were placed adjacent to the site of focus with a cabled microphone mounted on a PVC pole and placed within the stock pond targeted for data collection. Alternatively, units were placed within the opening of caves/mines such that the microphone head was mounted from the roof of the structure. Units were set to collect data beginning at one hour before sunset for five hours, and then for 30 minutes each hour until one hour after sunrise. Data were analyzed using Kaleidoscope 2.0.7 software (Wildlife Acoustics). Acoustic signatures that were not identifiable were ambiguous, or which overlapped significantly with another species were discarded (de Silva and Meisel 2015, 49).

Clay Pit SVRA

Clay Pit SVRA is located two miles west of Oroville in Butte County. The Oroville Municipal Airport, ranch lands, and a CDFW shooting range and wildlife area surround it the SVRA's 220 acres. The bowl-shaped topography has largely been created by 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 southeastern corner of the park. A shallow canal partially bisects the northern one-third of the park. The northern, upstream end of the canal is fed by a very 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 Department of Water Resources (DWR) granted management to State Parks while retaining fee title ownership. DWR maintains the right to inundate the site or remove additional material for the Oroville Dam, if needed. To date, DWR has yet to exercise these rights. The park's most distinguishing feature is its accurately-titled



topography, as prior clay mining formed the clay soil depression that has since become Clay Pit SVRA. The park offers open riding opportunities for motorcycle, ATV, and 4x4 enthusiasts.

Many grassland bird species that thrive in open landscapes can be found at Clay Pit SVRA. Species include western meadowlark (*Sturnella neglecta*), American kestrel (*Falco sparverius*), northern harrier (*Circus cyaneus*), and prairie falcon (*Falco mexicanus*). Other wildlife species include northern pacific rattlesnake (*Crotalus oregonus*), western fence lizard (*Sceloporus occidentalis*), black-tailed deer (*Odocoileus hemionus columbianus*), and coyote (*Canis latrans*).



Vernal pool at Clay Pit SVRA

Clay Pit SVRA also has many seasonal vernal pools which are habitat for both the federally endangered tadpole shrimp (*Lepidurus packardii*) and the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) (Heitner and Cumber-Lose, Prairie City and Clay Pit HMS 2014, 2).

Habitat diversity is limited within the park, although seasonally wet areas cover as much as 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 park consists of three distinct plant communities. Upland locations, which are non-wetland areas, are vegetated with low growing grasses. Lowland locations consist mostly of wetland vegetation associated with vernal pool habitat, and a few areas consist of other wetland vegetation such as spikerush. Fremont cottonwoods are also found scattered throughout the park, offering areas of shade for park visitors in the summer months.

New Culvert

The Clay Pit SVRA General Plan, approved by the OHMVR Commission in June 2012, established three management areas: the Developed Use Area, the Open OHV Recreation Area, and the Drainage Management Area. Each management area has specific goals and guidelines on appropriate visitor use and resource conservation. For example, the Drainage Management Area consists of a central



New culvert installation at Clay Pit SVRA

drainage canal that transects the SVRA from the northwest to the southeast. The primary management intent for this area is to prevent water quality degradation and soil loss while allowing OHV recreation connectivity to other areas in accordance with water quality requirements. The General Plan recommended the installation of drainage crossings, consisting of culverts, bridges, or other features to guide circulation through the area. Driving in drainage areas would also be discouraged (California State Parks 2012, 4-5).

The SVRA implemented this General Plan guideline for the Drainage Management Area in 2015 with the installation of a new culvert and crossing.

Eastern Kern County, Onyx Ranch SVRA

Eastern Kern County, Onyx Ranch SVRA is the second largest of nine SVRAs and is the newest acquisition. It is adjacent to Red Rock 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. It is laid out in a checkerboard fashion of mostly one-mile square parcels and offers approximately 25,000 acres of scenic and challenging terrain for OHV recreation. The SVRA is surrounded by mostly BLM land that also offers visitors varied OHV recreational opportunities.



Elevations at Eastern Kern County, Onyx Ranch SVRA range from 2,200 feet to over 6,400 feet. Occasional snowfalls occur in the winter months.

Summers are mostly hot and dry. The most pleasant times of the year for OHV recreation occurs between October and April when temperatures are cool and occasional rains provide for reduced dust and improved traction. Nighttime temperatures frequently drop below freezing in the winter, spring, and fall.

In December 2014, the OHMVR Division acquired 50 privately-owned parcels in eastern Kern County. California's Public Works Board approved the acquisition at their November 14, 2014, meeting as the Eastern Kern County, Onyx Ranch SVRA. The acquired lands are classified by California State Parks as SVRA lands (California State Parks 2013, 1-1). On October 3, 2013, the OHMVR Division approved the Eastern Kern County Acquisition project and adopted the acquisition Environmental Impact Report (EIR). The EIR considers the environmental effects of the OHMVR Division acquiring and managing the project properties and is required under CEQA (PRC § 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Title 14, § 15000 et seq.). In

accordance with the EIR, the OHMVR Division and San Andreas District manage the SVRA and hired full-time law enforcement and environmental scientist staff in the summer of 2016.

The EIR planning process included several focused studies to establish a baseline for existing cultural and natural resources for the acquisition parcels and to determine the impacts of purchasing the land for use as a SVRA. The results of these studies and the EIR will serve as the foundation for the development of a general plan and subsequent resource management planning documents (e.g., WHPP, HMS, Soil Conservation Plan, Trail Management Plan, Storm Water Management Plan, and cultural resource monitoring programs). Five focused studies were conducted for the EIR in the spring and summer of 2012. The focused studies addressed Mohave ground squirrel (*Xerospermophilus mohavensis*) and other mammals, desert tortoise (*Gopherus agassizii*) and other reptiles, birds, vegetation communities and rare plants, and cultural resources. Many of the surveys were directed at the eastern parcels within the OHV use area because these parcels have been subject to the most intensive OHV uses. Where time and budget allowed, other parcels were also surveyed (California State Parks 2013, 2-11). Focused studies include:

- Botanical Resources Report
- Desert Tortoise Survey of Property Acquisition Project, Kern County
- Property Acquisition Project Avian Study
- Special-Status Wildlife Surveys for Property Acquisition Project, Kern County
- Cultural Resource Survey for the Onyx Ranch Acquisition Kern County
- Preliminary Assessment of Erosion Hazard Potential for Eastern Kern County

In addition, the OHMVR Division hired a consultant to conduct a cultural resource inventory and develop a Cultural Resources Management Plan (CRMP). The consultant identified 126 archaeological sites, including prehistoric and historic sites (McGuire and Waechter 2016, 1). This document was submitted in draft form to the OHMVR Division in July 2016. Once approved, the CRMP will guide the management of cultural resources for the SVRA and inform future planning efforts.



Historic structure

Law Enforcement

San Andreas District State Park Peace Officers from Hungry Valley SVRA conduct regular law enforcement patrols at Eastern Kern County, Onyx Ranch SVRA. Law enforcement patrols expand in October coinciding with the busier visitation season. As of July 2016, the San Andreas District hired two State Park Peace Officers to help protect the cultural and natural resources within the SVRA.

Rockhounding

Pursuant to PRC Section 5001.65, in March 2015 State Parks approved rockhounding on the Eastern Kern County, Onyx Ranch SVRA lands. Rockhounding is the recreational gathering of rock and mineral specimens. No commercial collection is allowed.

Memorandum of Understanding

San Andreas District and the BLM Ridgecrest Field Office developed an MOU to coordinate efforts and maximize state and federal land management resources in the area of the Eastern Kern County, Onyx Ranch SVRA lands. The MOU is in the signature phase.

Phase II Acquisition – Kelso Valley Parcels

The OHMVR Division acquired three additional parcels near the intersection of Jawbone Canyon Road and Kelso Valley Road. The Kelso Valley parcels were identified as a potential future acquisition in the EIR. The Kelso Valley parcels were approved for Site Selection by California's Public Works Board on August 17, 2015, and the acquisition was completed in December 2015. Prior to the acquisition, the OHMVR Division and the Acquisition and Development Division of State Parks prepared a Historical Evaluation and Determination of Eligibility report on the historic structures within the Kelso Valley parcels (Bevil 2015). This comprehensive report will help guide the management of these historic structures and will be a guiding document for a future general plan.

Grazing Lease with BLM Permittee

Ranching and livestock grazing is a historic activity that occurred in the region for at least 80 years and on nearly all of the parcels at the time State Parks acquired the lands in 2015 (California State Parks 2013, 4-13). As the guiding interim management document, the EIR recommended that the existing uses, including grazing, would continue on the property, subject to appropriate cultural and natural resource protection measures (see Section 2.5.2.3, Management Measures, of the EIR).

The OHMVR Division drew up a grazing lease with a BLM permittee to continue prescriptive cattle grazing practices on SVRA lands for the term of two years, 2016-2018 (California State Parks 2016). Prescriptive grazing is a method of controlling the spread of annual exotic species on rangeland



Livestock grazing at Eastern Kern County, Onyx Ranch SVRA

habitats and can be an effective vegetation management goal. The EIR also recommended that the OHMVR Division conduct rangeland health assessments to monitor forage conditions on parcels used for livestock and grazing operations (California State Parks 2013, 28 to 2-9).

Heber Dunes SVRA

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) in Imperial County. Heber Dunes SVRA is surrounded by large parcels of land used for agriculture, currently in alfalfa production for nutrient enrichment of the soil with other crops rotated through at various times. Generally, agricultural land use dominates the area and extends for miles in all directions, with residential homes scattered throughout the area.



The Heber Dunes SVRA site is unique in that it is a small island of sand dunes located within a large valley dominated by agriculture. This location is considered significant by the local population as a place to gather and recreate in a natural setting within proximity to their homes. With the majority of land surrounding Heber Dunes SVRA in agricultural production, the site offers a natural setting with some remaining native vegetation and habitat for wildlife. The burrowing owl is known to occur at both Heber Dunes SVRA and in the adjacent agricultural fields. The burrowing owl is identified as a species of special concern by the CDFW. Other sensitive wildlife species that have been recorded from



White-faced Ibis

Heber Dunes SVRA are Abert's towhee (American Bird Conservancy watch list), sage sparrow (CDFW watch list), and white-faced ibis (CDFW watch list).

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 to allow 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 (California State Parks December 2011, 87-95). In general, resource monitoring is done in conjunction with Ocotillo Wells SVRA environmental scientists and is reported in the annual Ocotillo Wells District HMS reports.

In addition, the Heber Dunes SVRA education and outreach program engages visitors, especially children. For example, the State Park interpreter at the SVRA developed a successful after-school program at local schools that teach students about the many plant and animal species found within the SVRA and how to protect them while recreating responsibly.

Hollister Hills SVRA

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 present, 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 low chaparral communities 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; along with



Juvenile red-tail hawks nesting

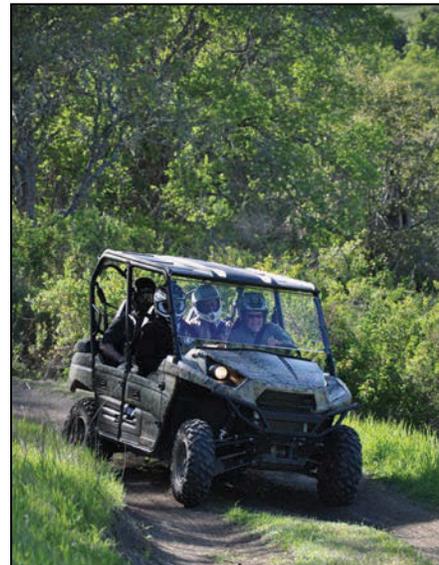
high and low chaparral communities on sun exposed ridges. Riparian corridors are thick and covered with various water dependent tree and shrub species, with the dominant species being sycamore, madrone, maple, and riparian oaks.

Common wildlife in the park include black-tailed deer, coyote, bobcat, ground squirrel, cottontail rabbit, bat, red-tailed hawk, turkey vulture, wrentit, western meadowlark, wild turkey, western fence lizard, and gopher snake. Hollister Hills SVRA also is home to the mountain lion, which is occasionally spotted near water sources through trail monitoring cameras or by incidental observations. A mountain lion mated pair is known to inhabit the park during the breeding season.

Trail Assessment Program

Since 2013, Hollister Hills SVRA resource staff has been utilizing an updated Trail Assessment Matrix to complete the Annual Trail Assessment. This matrix was developed in-house as a means to more adequately capture useful data about trail conditions and sustainability while reducing subjectivity and increasing objectivity. The matrix assesses trails based on characteristics of design sustainability and tread condition. Within those two categories, multiple subcategories were developed that better capture what park resource managers want to know.

The tread condition category contains subcategories such as whoops/break bumps, ruts and rills, compaction, etc. Generally, trails are traversed in a side-by-side while the assessor takes note of various tread and sustainability related issues on the trail using the Trail Rating Matrix Field Sheet. Data is entered into the Trail Rating Matrix and an overall rating score is provided. 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 having sections of trail that are incised. Sections of trail that are incised cannot shed water, and thus continue to worsen over time. The results of the trail assessment are combined into an annual report that is used to inform managers of the overall condition of the trail system in the park, and are used to prioritize the annual maintenance plan.



ROV trail at Hollister Hills SVRA

A mutually advantageous partnership has arisen out of the Annual Trail Assessment work completed at Hollister Hills SVRA. The park contracts with CSU Monterey Bay to perform water quality analysis for suspended sediment in Bird Creek, the creek that drains about two-thirds of the park. An additional component of the contract is to have CSU Monterey Bay graduate students undertake trail erosion surveys. Using aerial photogrammetry, a large swath of trail is surveyed. The image is used to generate raster models, which are subtracted from year to year to get an overall net change in the tread. These models are used to determine the amount of soil erosion or the amount of soil aggradation at a particular site. The data is used to verify and adjust the rating scale of the Trail Rating Matrix.

Water Quality Monitoring Program

Over the last five years, Hollister Hills SVRA collaborated with faculty and students from CSU Monterey Bay's Division of Science and Environmental Policy to establish a Water Quality Monitoring Program at the SVRA. This monitoring program measured the amount of sediment coming in to and out of the SVRA's boundaries and attempted to parse out sediment sources and their locations of input. This program was accomplished by conducting a variety of monitoring studies that examined either watershed processes or the changes over time in the form of fabricated features.

Examples of studies that attempted to better determine the general nature of the SVRA's watersheds included measurement of landslide complex movement rates; measurement of stream bank erosion rates; and surveys of the longitudinal or cross-sectional profiles of streambeds. Other studies focused on how the form of trails and sediment detention basins were introduced to the SVRA's natural landscape had changed over time being. These studies included 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 by the SVRA's sediment detention basins. A collection of monitoring studies successfully produced and established a baseline that SVRA resources staff could use for future monitoring and assessment efforts.

Moving forward, it was apparent that the valued partnership between CSU Monterey Bay and Hollister Hills SVRA warranted a renewal of the contract between the two agencies for another 5-year cycle. The renewed program will use the results gained from the baseline water quality monitoring study and apply it towards the assessment of erosion and sediment control management strategies employed by SVRA resources staff. In addition, the program ensures the continued fostering of teaching and learning opportunities for CSU Monterey Bay faculty and students.

Air Quality Monitoring Program

Hollister Hills SVRA is entering its fifth year of 24-hour Particulate Matter 10 (PM10) monitoring at three locations on the boundaries of the SVRA. For several years, baseline data was collected using a Mini-Vol PM10 monitor. The data from the Mini-Vol, together with consultation with the Monterey Bay Unified Air Pollution Control District (APCD), led to strategic placement of the three permanent 24-hour E-BAM PM10 monitors. The SVRA contracts with Monterey Bay Unified APCD for consultation, training, and calibration of the monitors.

In January 2016, the SVRA entered into an expanded contract that also analyzes daily PM10 reports and communicates with the SVRA on any spikes that occurred. Hollister Hills

SVRA staff conducts investigations to determine the source of the spike, and if attributed to OHV activity, implements BMPs from the Dust Management Plan to minimize future occurrences. Hollister Hills SVRA continues to be within the State Ambient Air Quality Standard of 50 micrograms per cubic meter, average, per 24-hour period.

Ambient Noise Monitoring Program

Hollister Hills SVRA has had an Ambient Noise Monitoring program on the boundaries of the SVRA since 2002. Initially eight locations were monitored multiple times per year to get a true baseline of the ambient noise levels. This evolved into a program that focuses on selected locations that are more sensitive or where noise reduction management practices have been implemented to ensure compliance. The monitoring sessions are staffed so that they can identify the cause of any



spikes, which are annotated on a strip sheet. The monitoring calendar is set in consultation with the Acoustical Engineering Contractor, normally during high attendance months. The results of these tests are used to guide management in addressing any problem areas.

Fire Program

In the last several years, Hollister Hills SVRA has taken critical steps in building a fire program. Hollister Hills SVRA 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 major components in the park's goal of building a prescribed fire program and responding more quickly to fires within the SVRA.

Over the next few years, Hollister Hills SVRA plans to reestablish the prescribed fire program. Prescribed fires provide many benefits to the SVRA's ecosystems. In addition to the ecological benefits, they reduce fuel loading which increases public safety and decreases the chances of a destructive wildfire.

In addition, the fire equipment has been used to respond to several emergencies. The engine deployed multiple times to dampen helicopter landing zones in order to prepare for the transportation of critically injured patients. The engine has been placed on standby multiple times for deployment on potential fires or on fires that were already burning that may require additional resources. On October 12, 2015, the water tender assisted Cal Fire in fire suppression efforts on the Cienega Fire. Because the tender has a shorter wheel base and is a six-wheel drive vehicle, it was able to reach remote locations that other water

tenders could not. It proved to be a valuable resource in stopping the Cienega Fire, which could have easily done major damage to the SVRA and surrounding residences.

The Hollister Hills SVRA's fire program is consistent with the Transformation Team strategic goals of maintaining high quality operations and public service and protecting and enhancing natural and cultural resources.

Wild Pig Depredation Program

Hybrid wild pigs are descended from the natural crossbreeding of feral pigs and Eurasian wild boars and reside within the park's boundaries. Wild pigs can cause significant resource damage from their rooting behaviors, completely tilling an entire hillside in one night. Wild 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 wild pig population numbers manageable to protect habitat and species health. Hollister Hills SVRA entered into a MOU with the CDFW to put a depredation program into place.



Caged wild pig at Hollister Hills SVRA

Dust and Noise Management Program

Two of the by-products of OHV use, noise and fugitive dust levels, may have an effect to the park's neighbors. Hollister Hills SVRA integrates natural features into effective strategies that help address the concerns of nearby community members and landowners. The Hollister Hills SVRA trail design team incorporated the land's natural contours in designing trails to limit the potential effect of OHV-generated noise on neighboring properties. For example, sections of trails that climb slopes and require added throttle are designed so that the tailpipe of the OHV is pointing towards the park.

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

Native Plant Nursery

Hollister Hills SVRA is regularly rehabilitating and restoring habitat and trails at the park, and there is generally a native plant component to each project. In the past, Hollister Hills



SVRA relied on local nurseries to provide the seeds and plants for these projects and purchased plants that are native to the park. Starting in 2011, Hollister Hills SVRA built its own nursery, which enabled staff to collect local seeds and grow its own plants on site. The program continues to expand each year and produces thousands of trees, shrubs, and grasses to be used for projects within the park

Grazing Program

State Parks established a grazing program on a portion of Hollister Hills SVRA to enhance and restore native grasslands and oak woodland habitat. This grazing management plan is designed to help guide State Parks and its lessee in their grazing management actions so that State Parks meets its resource conservation goals. The Hollister Hills SVRA grazing



area is approximately 1,155 acres of rangeland and is divided into 25 pastures, ranging in size from nine acres to 119 acres. In 1994, State Parks initiated a pilot program at Hollister Hills SVRA to evaluate the suitability of livestock grazing as a grassland management tool. Stock operations typically have a shorter grazing season (approximately late fall to late spring or less) than cow-calf operations, which are frequently year-round in coastal California. The absence of livestock during dry summer months may reduce livestock impacts on sensitive riparian areas.

Hungry Valley SVRA

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 is located in the intersection of three Southern California mountain ranges—the Transverse, Tehachapi, and Coastal ranges. The park is bordered on the north by Tejon Ranch, on the west by Los Padres National Forest, on the east by the California Department of Water



Oak Woodland Natural Preserve - Hungry Valley SVRA

Resources (CDWR) aqueduct, and on the 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) 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 immense valley oaks with an understory of native grasses. This is an extremely rare and unique habitat and is, therefore, closed to motorized recreation.

Hungry Valley is the only SVRA that has a contiguous 4,200-acre native valley grassland plant community. During the formation of the Hungry Valley SVRA, environmental scientists from State Parks recognized a unique six-square-mile area along the northern boundary of the park 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 the area on OHVs only on clearly 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. At that time, the Soil Ecology and Restoration Group from San Diego State University (SDSU) conducted a vegetation and wildlife survey. Specific monitoring protocols were established by SDSU in collaboration with the OHMVR Division. These protocols were used during this survey to gather data on vegetation and wildlife at randomly selected monitoring plots throughout the SVRA. Survey plots were located in both OHV and non-OHV areas within each habitat type. These plots were paired with control plots in non-OHV areas as well as riding areas. The system was created using SDSU protocols to establish biotic inventory and monitoring methods and set up data analysis and interpretation guidelines to determine 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 that is being implemented in all of the SVRAs.

Invasive Weed Management Program

Dalmatian toadflax (*Linaria dalmatica*) was found in Hungry Valley SVRA in the spring of 2004. Since then, Hungry Valley SVRA has conducted a vigorous program every spring to eradicate this invasive species within the boundaries of the SVRA. Originally, 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 NGMA of the park. Eradication began with spraying herbicide from an ATV. This work can be done now by spot spraying the area. The infestation has been greatly reduced and the area is monitored due to the 15-year viability of the seed in the ground.



Dalmatian toadflax - Hungry Valley SVRA

In 2008, the California Department of Food and Agriculture (CDFA) contacted the park about a biological release and test plot in the park. With a permit from the EPA, Hungry Valley SVRA began a test plot using the *Mecinus janthinus* (MEJA) weevil on toadflax. The plot was originally started by CDFA, but has since 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 the weevil had spread throughout the toadflax infestation and reductions in size of plants 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 of 2014, USDA determined the pilot test was important and started the project again with new weevils and test plots. They enlarged the test area by two release sites in hopes the weevil would expand their boundaries. In 2015, monitoring of the weevil showed low incidence of feeding on the stems of Dalmatian toadflax. As of July 2016, the collection of stems shows much more widespread incidence of weevil than the previous year.

In 2015, Hungry Valley SVRA added the perennial pepperweed to the eradication program. The SVRA's resource team worked approximately 500 hours in 2015 to eradicate both the toadflax and the pepperweed. With the drought conditions and continuous eradication efforts, the resource crew saw a marked reduction of Dalmatian toadflax. Pepperweed; however, continued to subsist due to late season rains in 2015.

Oceano Dunes SVRA

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 that stretches for 18 miles along the central coast. Of the 3,600 acres within the SVRA, approximately 2,100 acres are managed as native habitat.



The park's unique riding substrate is constantly moving and changing. The natural dune field is historically an open sand sheet with pockets of vegetation. Vegetation in the dunes provides habitat as well as a means to secure the sand sheets and slow wind-driven sand migration. Historic photography (taken prior to vehicular disturbance to dunes) documents the area as being primarily open sand sheets with scattered vegetation islands providing for habitat and cover for many endemic dune species.

The riding areas are located on large moving sand sheets that shift and migrate, driven by prevailing easterly winds coming from the ocean. Staff is currently investigating the relationship between moving sands and downwind movement of dust containing Particulate Matter of 10 micron or less in size (PM10). Ongoing monitoring will help determine BMPs to reduce PM10 emanating from the dune system.

Habitats within the park include coastal foredune, dune scrub, bare sand sheets, dune slack wetlands, coastal estuary, riparian, and freshwater lakes. The SVRA provides habitat for numerous special-status plant and animal species, including valuable nesting habitat for



Oso Flaco Lake

state- and federally-listed endangered California least terns and federally listed threatened western snowy plover. Oceano Dunes SVRA provides critical habitat for birds traveling along the Pacific Coast Flyway to rest and feed.

Oso Flaco Lake and the associated habitats are among the park's most important ecological features. The lake is one of the few remaining freshwater dune lakes in Central and Southern California, providing important waterfowl habitat on the Pacific Flyway, and supporting a thriving avian community. The lake provides critical primary feeding habitat for the California least tern. The lake is also home to Gambell's watercress and the marsh sandwort, two endangered plant species that are so restricted they occur naturally in just two locations in

the world. Numerous other areas provide regionally important habitat, including the dune system south of Oso Flaco Lake and the vegetated islands located within the motorized recreation and camping area.

Western Snowy Plover and Least Tern Nesting Program

Each year, the federally threatened western snowy plover (*Charadrius alexandrinus*) and California least terns (*Sterna antillarum browni*) breed at Oceano Dunes SVRA from March to September. Oceano Dunes SVRA continues to be an important breeding site for the state and approximately 250 acres of the unit are closed to the public during the birds' breeding season.



Western Snowy Plover Juvenile

Oceano Dunes SVRA resources staff intensively monitor the nesting and fledgling success of these two species seven days per week. An effort is made 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 in order to track their movement and survival. In addition, Oceano Dunes SVRA management efforts include:



California Least Tern Juvenile

- 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; and
- 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 been able to document stable and growing trends in breeding bird populations and chick survival. These efforts help in the recovery of the least tern and snowy plover while keeping OHV use and other recreational opportunities available to the public. Oceano Dunes District employs up to eight seasonal snowy plover



Six-foot “no-climb” fence

and least tern monitors each year. The staff members are often local biologists recruited as recent Cal Poly San Luis Obispo graduates; however, several of them have been hired from other parts of the state or country.

Air Quality Studies and Monitoring

Oceano Dunes SVRA implemented several seasonal mitigation strategies to control dust and monitor particulates. These strategies include installing 40 acres of wind fencing within the riding area and operation of dust monitoring equipment. In 2014, Oceano Dunes



Wind fencing at Oceano Dunes SVRA

SVRA staff installed 30 acres of straw bales east of the OHV riding area between the SVRA and the Cal Fire monitoring station. In the winter of 2014, staff restored six acres to native vegetation. In the winter of 2015, an additional five acres were restored to native vegetation.

Oceano Dunes SVRA also installed a dust monitoring station south of Oso Flaco Lake in June 2015 through an emergency permit from the California Coastal Commission. These efforts are part of a long-range five-year mitigation program being evaluated in a Program EIR, which is under review. Oceano Dunes SVRA is also considering options for a temporary project during the windy season within the SVRA.

Ocotillo Wells SVRA

Ocotillo Wells SVRA is located in the Colorado Desert approximately 90 miles northeast of San Diego in both 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. Currently the District consists of approximately 85,000 acres, including property managed under a MOU with the BLM.

A majority of the park is designated for distributed riding use (approximately 49,640 acres), which does not limit OHV riding to any specific trails. Other areas of the park are classified as “trails only” (approximately 28,499 acres), in which OHV recreation is allowed on official park trails only.

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 among private and BLM land parcels throughout the park.



Ocotillo Wells SVRA

The majority of the park is relatively flat with a few areas of relief. Elevation typically ranges from 131 feet to 787 feet. 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 large rain events, which 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 Range. The average annual rainfall is 3.45 inches. Temperatures range from 70 to 115 degrees Fahrenheit in the summer and from 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 burr sage scrub, mesquite, Palo Verde woodlands, brittlebush scrub, and woody aster badland wash benches.

Flat-Tail Horned Lizard Monitoring Program

Since 1994, Ocotillo Wells SVRA has been a partner in the ICC whose responsibility is to determine state and federal policy on the flat-tailed horned lizard (*Phrynosoma mcallii*) management, research protocols, and protection status. The OHMVR Division is a sitting member of the committee and provides comments and peer review for ICC publications, monitoring program design, and management policies. As part of the cooperative agreement among members of the ICC, Ocotillo Wells SVRA conducts annual flat-tailed horned lizard population surveys and research to bolster understanding of its unique ecology.

Ocotillo Wells SVRA utilizes occupancy and demography studies to collect data. Occupancy surveys help park staff gain a broad perspective on population trends so that Ocotillo Wells SVRA may identify extinction or extirpation events as they happen. Demography surveys paint a detailed portrait providing information on immigration, emigration, recruitment, birth rate, and mortality. The Ocotillo Wells SVRA resource team conducts occupancy surveys on 80 plots from June through August each



Flat-Tailed Horned Lizard

year. Demography surveys occur over the course of two weeks in September at a few select plots. In 2016, the resource team had nine people dedicated to conducting these surveys. Ocotillo Wells SVRA submits annual survey data to the ICC, whose statisticians analyze the information for modeling and projection of lizard populations throughout its range.

CDWF currently list the flat-tailed horned lizard as a Species of Special Concern; however, the California Fish and Game Commission is in the process of making a ruling on changing the species conservation status. The Division developed an interim management plan that will be followed during the period the lizard is under consideration for state listing as endangered. The Division is also developing an Incidental Take Permit (ITP) and associated Mitigated Negative Declaration environmental document in the event the lizard is listed as endangered. The ITP will allow Ocotillo Wells SVRA to continue with park operations, resource protection, and visitor services that may have the potential to “take” the lizard.

Invasive Species Abatement Program

Tamarisk (*Tamarix spp.*) is a non-native species of tree or large shrub that is considered extremely invasive and found in increasing numbers throughout the arid southwest. Ocotillo Wells SVRA has high densities of tamarisk within several of its eastern washes. Through a cooperative effort with State Park’s Southern Service Center, the SVRA engaged in a three-year capital outlay contract to manage and eradicate tamarisk.

In 2011, a private contractor was awarded a contract to begin treatment of tamarisk infestation areas. Methods for removing tamarisk included the use of various broadcast foliar herbicides in conjunction with some physical/mechanical (cut-stump) removal. Ocotillo



Tamarisk Tree

Wells SVRA GIS staff created a database that allows SVRA staff to document tamarisk locations, prioritize infestations for treatment, and track tamarisk response to herbicide applications. Tamarisk infestations were treated and monitored every year for three years.

The project area consisted of approximately 2,813 acres in which 630 locations were identified as having tamarisk present.

Following the first years application, 93 percent of areas treated with the herbicide Imazapyr showed a favorable response. As of 2013, all known occurrences had been treated with the outlined eradication methods.

After the conclusion of the contract, since 2013, no chemical treatment has been re-applied to the major remaining tamarisk stands, and mechanical/physical removal of new growth/saplings has been the major treatment method. Resource crews continue to survey for tamarisk in previous and new locations to determine the effectiveness of treatment methods, look for regrowth, and update the status of infection areas.

While the physical/mechanical methods proved to be most effective at deterring local long-term regrowth of target stands, both methods have been successful. The remaining invaded area has been reduced down to approximately 200-250 acres of infested riparian corridor and many of the surviving target plants have mutated or hybridized after the last foliar herbicide application in 2013.

Current projected goals plan to move back to aggressive physical removal of the remaining invasive stands and controlling new growth with foliar broadcast herbicide. Resource crews will continue to monitor for tamarisk growth and help determine effectiveness of herbicide use on mutated/hybridized species.

Reptiles

Reptile monitoring at Ocotillo Wells SVRA follows the pitfall trapping protocol designed by the United States Geological Survey (USGS) (Fisher, et al. 2008). One permanent pitfall trapping array has been placed at each of the 12 plots. The pitfall trapping array is placed with the center pitfall bucket at the center of each plot. The arrays are laid out as outlined in the USGS pitfall monitoring protocol (Fisher, et al. 2008). Each array consists of three snake traps, four pitfall traps, and three funnel traps, with each array being the sample unit.

Sampling occurs twice per year in the fall (October) and in the spring (June), with three trapping nights per array per sampling effort. When sampling is initiated each season, trapping arrays are opened on Monday afternoon and are checked each subsequent morning through Thursday. Traps are closed at the conclusion of sampling on Thursday. Each morning, the number of each species of reptile found in the arrays is counted. Each animal caught is marked with a permanent marker on the ventral side to note the incidence of recaptures to better track the number of individuals captured. Recaptured individuals will not be used in the overall count of individuals, since recaptured individuals have already been included in the count of the existing population on the first day they were captured. The attributes monitored for reptiles are total number of individuals captured and species richness.

Small Mammals

Small mammal sampling occurs twice per year in the fall (October) and in the late winter/early spring (February/March), with three trapping nights per plot. When sampling is initiated each season, traps are placed and set on Monday afternoon and are checked each subsequent morning through Thursday. Traps are removed from the field at the conclusion of sampling on Thursday. Traps are checked once per day in the morning so that trapped animals are released before temperatures rise. Each morning, the number of each species of small mammal found in the traps is counted. Each animal caught is marked with a

permanent marker on the ventral side to note the incidence of recaptures. Recaptured individuals will not be used in the overall species count, since recaptured individuals have already been included in the count of the existing population on the first day they were captured. The attributes monitored for small mammals are total number of individuals captured and species richness.



Badger

Vegetation

Vegetation can play an important role in the overall health of the desert ecosystem by providing forage and habitat or by physically altering or affecting the habitat in which it is present and facilitating positive interspecific interactions in the community (Noy-Meir 1979), (Tielborger and Kadmon 2000), (Bertness and Callaway 1994). For example, in the Sonoran Desert, *Olneya tesota* provides shade and refuge from extreme temperatures, thereby modifying the area beneath its canopy to act as a nursery area for recruitment of new seedlings (Tewksbury and Lloyd 2001). Consequently, due to its multitude of inherent benefits to other native flora and fauna, the loss of vegetation is likely to impact the overall health of the desert ecosystem. Therefore, vegetation cover is likely to act as an indicator of overall habitat health in Ocotillo Wells SVRA due to its essential utility by other flora and fauna species.

Birds

As of 2014, bird-monitoring methodology at Ocotillo Wells SVRA has been revised to follow the Landbird Monitoring Protocol for the Sonoran Desert Network developed by the National Park Service (NPS) (Beaupré, et al. 2013). This protocol uses point transects, or a series of six permanent points, randomly placed and spaced at least 250 meters apart around a plot center point. Observers spend eight minutes at each of the six points and record all birds seen or heard. Any birds flushed in route to sample points will also be recorded. The species, number of individuals, distance from the point to the observed birds, and sex and age (when known) are recorded.

Sampling occurs twice per year, in the winter (December/January) and spring (March/April), in an attempt to record migratory, resident, and spring breeding birds. Sampling occurs in the morning, starting as soon as it is light enough to see at least 200 meters and does not continue past noon (Beaupré, et al. 2013). A pilot study for bird protocols was initiated in 2014, and the study will continue in 2015. Data collected for birds will be analyzed in 2015 after two consecutive years of surveys have been completed.

Bats

Bat monitoring was attempted in the fall of 2013 and spring of 2014. Monitoring used a pole-mounted microphone attached to a Wildlife Acoustics SM2BAT SongMeter system capable of recording echolocation frequencies. The system was placed near the District office and a light source where bats have been observed feeding in the crepuscular hours. Difficulty was encountered in distinguishing the call signatures of distinct bat species detected by the system.

Software that analyzes bat calls to determine species would greatly increase the accuracy and efficacy of these monitoring efforts. In addition, bat monitoring courses are offered intermittently by various organizations. Staff attendance at one of these training courses would also be immensely beneficial for the success of bat monitoring efforts. At a minimum, additional research is required to continue to attempt further bat monitoring into the future at Ocotillo Wells SVRA.

Prairie City SVRA

The park landscape consists primarily of annual grasslands and rolling hills dotted by native blue oak trees and cottonwood trees. Historical gold mining activity left cobble mining tailings in the northernmost portion of the site. Sand and aggregate mining also occurred on the property, which required the creation of a large open quarry that can be observed on the Yost property. A wide range of birds and other wildlife reside in the park. The open grasslands attract raptors while brush habitats provide shelter for California quail (*Callipepla californica*), wild turkeys (*Meleagrus gallopavo*), and ring-necked pheasants (*Phasianus colchicus*). Black-tailed deer (*Odocoileus hemionus*) are commonly observed in the morning or evening hours when they come out to browse and coyotes (*Canis latrans*) and bobcats (*Lynx rufus californicus*) have been recorded on park wildlife cameras. Other animals commonly observed (*Spermophilus beecheyi*), killdeer (*Charadrius vociferous*), turkey vultures (*Cathartes aura*), brush rabbits (*Sylvilagus bachmani*), black-tailed jackrabbits (*Lepus californicus*), northern pacific rattlesnakes (*Crotalus oreganus*), and western fence lizards (*Sceloporus occidentalis*) (Heitner and Elsom, 2015 Annual Monitoring Report of Wildlife Habitat and Trail Conditions at Prairie City State Vehicular Recreation Area 2016, 6).



Elderberry Bush

Prairie City SVRA General Plan Update

The Prairie City SVRA General Plan Update, which began in 2012, was adopted by the OHMVR Commission on September 9, 2016. The General Plan establishes five land use areas: Storm Water Management Use Area, Vernal Pool Management Use Area, Developed Use Area, Distributed OHV Recreation Use Area, and the Route and Trail System Use Area (figure #). The identification of these management areas in the General Plan is essential in guiding future resource management decisions. The General Plan provides goals and guidelines for each Use Area that has different characteristics, activities, or allowable uses, resources, and related management mandates.

The Storm Water Management Use Area includes 113 acres for storm water runoff treatment and water quality improvement. Most of this use area comprises the Barton Ranch property, which was purchased in 2014 to help manage water quality. The Vernal Pool Management Use Area has 213 acres with a high concentration of vernal pools. These pools often provide habitat for specially adapted plants and animals, including several species listed under the California and federal Endangered Species Acts. This area would not be open to OHV recreation, but would provide opportunities for access to nonmotorized recreation like picnicking, wildlife viewing, and guided vernal pool interpretive hikes.

The Developed Use Area consists of 219 acres that accommodates recreational and administrative uses and existing and future facilities. The Distributed OHV Recreation Use Area has 217 acres that accommodates distributed OHV recreation that is not confined to routes and trails. The Route and Trail System Use Area is approximately 353 acres of OHV recreation on identified routes and trails of varying difficulty for skills development and technical riding. Additional routes and trails would be established on the Yost property, which was not previously open to OHV recreation.

Use Areas, goals, and guidelines were developed through extensive studies and research during the planning phases and from input by regulatory agencies and the public. For instance, the change from distributed OHV recreation to trails-only in the Route and Trail System Use Area was based on recommendations by the Central Valley Regional Water Quality Control Board. Keeping OHVs on trails in this area will preserve water quality and soils loss while allowing for recreational enjoyment. Other resources, such as vernal pools and special status species and wildlife, have been identified throughout the Use Areas. Natural and Physical Resource Management goals and guidelines provide strategies for managing and avoiding or mitigating impacts to water quality, soils, habitat, vegetation, and wildlife. All goals and guidelines seek to provide a balance of resource protection while maintaining quality OHV recreational experiences (California State Parks October 2015, 4-6 to 4-6).

Special-status species are generally defined as those species listed under the federal Endangered Species Act or the California Endangered Species Act, or that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. Protected species at Prairie City SVRA include the federally endangered vernal pool tadpole shrimp (*Lepidurus packardii*) and the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*). The state threatened Swainson's hawk is a common nester in the park (Figure 7). In addition, the federally threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) may be found in the park's blue elderberry trees (*Sambucus mexicana*) (Heitner and Elsom, 2015 Annual Monitoring Report of Wildlife Habitat and Trail Conditions at Prairie City State Vehicular Recreation Area 2016, 11).



Rescued Swainson's hawk

The park contains a variety of water features including streams, drainages, vernal pools, and palustrine wetlands.

Three intermittent streams run southeasterly through the eastern portion of the park and flow into Coyote Creek. A fourth intermittent stream runs 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. Vernal pools occur throughout the park, primarily in non-OHV riding areas. Vernal pools are seasonal depressional wetlands created through direct precipitation and surface run-off. Palustrine wetlands are non-tidal wetlands covered with emergent vegetation. They are often referred to as marshes. These water features are scattered throughout the park (Heitner and Elsom, 2015 Annual Monitoring Report of Wildlife Habitat and Trail Conditions at Prairie City State Vehicular Recreation Area 2016, 7).



Vernal pool

Several State Parks buildings are present on the site including the Environmental Training Center, District Office, Sector Office, Maintenance Facility, and an entrance kiosk. Concessionaires lease and operate facilities within the park maintain structures associated with those facilities, such as observation towers, storefronts, storage containers, and restrooms (Heitner and Elsom, 2015 Annual

Monitoring Report of Wildlife Habitat and Trail Conditions at Prairie City State Vehicular Recreation Area 2016, 8).

Buffer Lands

The Storm Water and the Vernal Pool Management Use Areas (described in the Prairie City SVRA General Plan Update) act as a buffer for noise and dust produced from OHV recreational activities. The vernal pool grasslands contain threatened and endangered wildlife species and native California plants and provide SVRA environmental scientists with valuable research opportunities. Prairie City SVRA staff also use the vernal pool area for outreach and educational programs such as the annual Vernal Pool Tour and has the potential as a non-motorized recreation area of the park.

Prescribed Burns and Vernal Pool Management

Within the boundaries of Prairie City SVRA are almost 200 acres of vernal pool grasslands, a California prairie ecosystem that includes both upland grasslands and the seasonal wetland vernal pools, which are home to many native species of flora and fauna. Within this Vernal Pool Management Area, State Parks exclude OHV recreation and provide educational opportunities such as at the annual springtime Vernal Pool Tour led by State Parks environmental scientists and interpreters.

In 2013, a prescribed burn was implemented on 176 acres of vernal pool grasslands. The burn was managed as a partnership between State Parks and Cal Fire. The burn plan's main objective was the reduction of invasive grasses to increase native plant diversity and restore the hydrologic cycle of the vernal pools.



Prescribed burn

Since then, monitoring of the prescribed burn indicates some management goals were met and others were not. Native species richness has not increased; however, the dominance of invasive species has declined, and the sampled plots are indicating a more even distribution of plant species, both native and non-native to the grasslands of California. These results are promising, and staff will continue to monitor the area. Results will help determine whether a proper frequency for further prescribed burns or management should be shifted to another method for invasive species control in the vernal pool grasslands.

Small Mammal Trapping

Sherman trapping is used at Prairie City SVRA following the transect protocol developed by Pearson and Ruggiero (Pearson and Ruggiero 2003). The Sherman trap is a collapsible sheet metal box-style animal trap designed for the live capture of small mammals. Researchers in the biological sciences have used it extensively for capturing animals such as mice, voles, shrews, and squirrels. A survey for an extended period of trap nights has not occurred since 2010; however, trapping training nights have been conducted. Summer or fall 2016 could be targeted to conduct a survey of 4 to 12 trap nights. At minimum, another training survey should occur to teach study protocols and increase mammal species inventory data.



Sherman trap designed for the live capture of small mammals

Reptiles and Amphibians

Bullfrog Surveys

Visual pond surveys for the non-native American bullfrog (*Lithobates catesbeianus*) were conducted in the spring of 2015. The purpose of the survey was to determine presence and location of this species within the park. Bullfrogs were observed in the Coyote Creek waterway, which includes 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 locations in Zone 2.



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 species of frogs, turtles, and snakes, by either outcompeting or preying upon them (CaliforniaHerps.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 will continue.

Reptile Pitfall Trapping

With the exception of trapping for staff training purposes, pitfall trapping has not been done since the pilot year of 2010. In 2010, pitfall traps made of 5-gallon buckets were dug-in and placed by pond, coyote brush, and oak habitats. This trapping helped to build the reptile inventory of the park, including the identification of gilbert's skink (*Plestiodon gilberti*), western skink (*Eumeces skiltonianus*) and sharp-tailed snake (*Contia tenuis*). Spring or summer 2016 could be targeted for a survey of up to 12 trap nights. At minimum, a training survey should be conducted to train new District resource staff on pitfall trapping methods.

Amphibian Dip-Netting

Dip-netting for amphibians is conducted regularly for inventory data. All park ponds were dip-netted for amphibian presence during the spring of 2013. At that time, American bullfrog and Pacific chorus frog were present in multiple ponds. In 2014, several of the sediment basins were dip-netted, with only American bullfrog confirmed for presence. Spring or summer 2016 may be targeted for dip-netting for amphibian presence in all ponds and sediment basins. At minimum, a training survey should be conducted to train new District resource staff on survey methods.



Incidental Data

Throughout 2015, incidental data was collected on numerous species including Northern Pacific rattlesnake, alligator lizard (*Elgaria multicarinata*), and western fence lizard. All incidental data is entered into a database under a custom-programmed form titled "Incidental Species Observations." The data is automatically organized into tabular form that can be queried and then exported into a spreadsheet.

Vegetation

Most of Prairie City SVRA is characterized by California Annual Grassland habitat (Sawyer et. al 2009). Introduced grasses and forbs dominate this landscape including wild oats (*Avena barbata*), yellow star thistle (*Centaurea solstitialis*), and broadleaf filaree (*Erodium botrys*). In the



Oak tree

winter rainy months, vernal pool seasonal wetlands can be found in the grasslands of the park. The vernal pool areas contain the highest diversity of native plants including annual hairgrass (*Deschapsia danthonioides*) and yellow mariposa lily (*Calochortus luteus*). On the eastern edge of the park is a remnant of a blue oak (*Quercus douglasii*) habitat. In addition, stands of Fremont cottonwood (*Populus fremontii*), blue elderberry, and coyote brush (*Bacharis pilularis*) are present in the park.

Condition of Natural and Cultural Resources on Lands Supported by the Grants Program

Applicants to the Grants Program are required to provide natural and cultural resources compliance documentation as part of the Grants application. Ground disturbing projects that are funded by the Grants Program have the same resource monitoring and soil conservation requirements as projects at the SVRAs.

Habitat Monitoring Program Overview

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

In order to qualify for funding, applicants with projects involving ground disturbing activities must implement a 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 in response to monitoring results or to concerns raised by the public.

At the conclusion of 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, completed environmental analysis documents, and potential impacts to wetlands, habitat, threatened and endangered species, and historical and cultural resources.

Federal

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. Since 2014, the USFS has been awarded approximately \$18,000,000 in operations and maintenance grant funding for the care and protection of natural and cultural resources on National Forest lands. 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 the trails and routes. OHV planning grants provide funding to the USFS to conduct environmental analysis for proposed projects to examine potential impacts on resources.

Bureau of Land Management

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/Dove Springs OHV Areas in Southern California and areas like Forts Sage, Samoa Dunes, and Chappie-Shasta in Northern California. The individual BLM Field Offices apply directly for OHV grant funding. Since 2014, BLM has been awarded approximately \$4,000,000 in operations and maintenance grant funding for the care and protection of natural and cultural resources. 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 BLM to conduct environmental analysis for proposed projects to examine potential impacts on resources.

Fort Sage Special Recreation Management Area

The Fort Sage Special Recreation Management Area (SRMA) is managed by the BLM Eagle Lake Field Office. Located in eastern Lassen County near the California-Nevada border, this OHV area offers approximately 90 miles of OHV trails on 28,598 acres.

Through the Grants Program, the BLM Eagle Field Office receives operations and maintenance grant funding for monitoring and conservation efforts for special status species like the Swainson's hawk, golden eagle, and loggerhead shrike.

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.

The Watershed Center works with the Shasta-Trinity National Forest to provide quality OHV recreation while minimizing impacts to resources. OHMVR grant funding allows for the production of route maps, an OHV focused website (www.trinityohvtrails.com), and route maintenance on 154 miles of OHV routes.



California Trail Users Coalition – Stewards of the Sequoia

The California Trail Users Coalition – Stewards of the Sequoia work with the Sequoia National Forest on the care and upkeep of motorized and non-motorized recreational trails. Through OHMVR grant funding and thousands of volunteer hours, over 200 miles of OHV trails are annually maintained to provide quality OHV recreation while caring for the forest's rich natural and cultural resources.



Sierra Buttes Trail Stewardship

Sierra Buttes Trail Stewardship, working in cooperation with the Tahoe National Forest, performs maintenance on 44.1 miles of motorized OHV trails in the Downieville Trail System.

This important network of trails provides an economic benefit to Sierra County recreational tourism and receives over 60,000 visitors per season. All trails are located in close proximity to and/or cross through watersheds, making routine maintenance and drainage construction a high priority to reduce sedimentation into streams and keep the trails open to recreational users. The Downieville Trail System and the surrounding network of OHV forest roads provide boundless opportunities for beginner to expert level OHV recreationists as well as access for camping, birding, hiking, equestrian, fisherman, rock climbers, and mountain bikers.



Local

Many local agencies also participate in the Grants Program to provide OHV recreation opportunities while caring for natural and cultural resources.

Stanislaus County

Stanislaus County manages two OHV recreation areas with assistance from the Grants Program.

- Frank Raines – 750 acres in western Stanislaus County
- La Grange – 147 acres in eastern Stanislaus County

Grant funding allows for soil conservation efforts, trail signage, and fencing to protect natural and cultural resources in the project area.

El Dorado County – Rubicon Trail

El Dorado County, in cooperation with the Eldorado National Forest and the Central Valley Regional Water Quality Control Board, manages the historic Rubicon Trail. The Rubicon Trail is widely recognized as the premier OHV route in the United States and has been called the “crown jewel of all off-highway trails.”

OHMVR Division grant funding has allowed the County to perform substantial soil conservation efforts and route delineation which have been successful in sustaining access to the Rubicon Trail while improving the surrounding natural and cultural resources. Trail assessments are routinely conducted by County staff and the results are posted for public review on the County website.

Resolution of Conflicts of Use

The population of California has nearly doubled since the OHMVR Program was created in 1971. Today, more and 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 reallocation of land uses as people relocate from urban communities, and land management agencies embark upon the designation of motorized routes. This is creating a situation where competition for resources leads to land use conflicts. Detailed information on the OHMVR Division’s efforts to reduce these land use conflicts can be found under Report Requirement 5.

Through OHMVR Division programs, recreational conflicts of use are analyzed and to the extent possible resolved.

Iron Mountain SNO-Park

Iron Mountain SNO-Park is located at the intersection of Highway 88 and the USFS Mormon Emigrant Trail near the Carson Pass in Amador County. Iron Mountain SNO-Park offers Californians opportunities for snow play and winter fun with cleared parking areas and sanitary restroom facilities. The SNO-Park also serves as a trailhead to access the Silver Bear Snowmobile Groomed Trail system.



The groomed trails provide opportunities for snowmobiles as well as nonmotorized trail uses like cross-county skiing and snowshoeing.

In the winter months, the Mormon Emigrant Trail is not cleared of snow for normal vehicular travel and is, in some instances, made available by the USFS for Wheeled Over the Snow Vehicles. Access to the USFS Mormon Emigrant Trail in the winter months is provided off of Highway 50.

This combination of SNO-Park snow play, groomed snowmobile trails, and Wheeled Over the Snow Vehicles is a recipe for possible conflicts of use. These conflicts of use are mitigated through a snow berm created by the USFS contracted snow grooming tractor. The snow berm keeps the Wheeled Over the Snow Vehicles on the Mormon Emigrant Trail side away from the groomed snowmobile trails and the SNO-Park.

2014 OHV Trail Workshop Highlights New Management Tools

Sutter 300 Single Track Trail Tractor

The weather was perfect October 28-30, 2014, for the re-energized annual public land OHV manager's Ranger Ride event coordinated by Don Amador of Quiet Warrior Racing and the Blue Ribbon Coalition. The event was hosted by the Tahoe National Forest at the American River Ranger District's Sugar Pine OHV area. Approximately 40 OHV managers, instructors, volunteers, and support staff from California-based public land management agencies (Forest Service including Region 5, BLM, State Parks OHMVR Division) gathered to discuss OHV management, view demonstrations, take motorcycle/ATV training certification courses and exchange OHV management strategies/challenges/successes.

Demonstrations included the Sutter 300 single-track trail dozer road to trail conversion, Magnum Buster boulder breaking tool, wet weather soil management monitoring instruction by soil scientist Roger Poff, OHV sound testing demonstration, and restoration projects review.

Tahoe NF Trail Lead Explains Magnum Buster to Agency Staff and Volunteers

The Magnum Buster boulder breaking tool demonstration showed OHV trail managers how large boulders/rock can be broken down to manageable sizes or removed through use of the Magnum Buster, which does not require a certified blaster to use. The rock breaking technology uses water as a means to transfer a shock wave from the Magnum Buster's initiation cartridge to the black powder cartridge placed in a hole drilled into the boulder/rock. The Yuba River Trail Crew drilled a 1-5/8" hole in a 4 foot diameter boulder with a gas powered rock drill, about 36 inch deep, filled the hole with water, placed the 30 grain cartridge in the hole and set the Magnum buster on top of the hole. The group was moved back to a safe distance and watched as the 100 foot long chord was pulled to set off the series of concussions. With a loud BOOM the boulder broke into about 5 pieces that could be handled by an individual.

Demo Rock Fractured Into Many Segments

OHV managers saw the benefit of being able to break down large rock without needing to call in a certified blaster. The Magnum Buster goes for about \$5,000, and a gas powered rock drill will cost about the same.

Pre-Demo 10 ft. Wide “Motorcycle Only” Road

Tony Dipino from the Sutter Equipment Company demonstrated their new Sutter 300 mini dozer that has a 24 inch wide blade by implementing a road to single-track trail conversion laid out by the district trail manager. The OHV managers watched the machine make quick work of the project and helped with the conversion by placing woody debris into the abandoned portions of the old route to keep motorcycles on the now more narrowly defined trail.

Post-Demo Road Put to Bed and Replaced with New Motorcycle Trail

This demonstration seemed to pique the interest of many of the OHV managers who spoke of having address frequent complaints from motorcyclists about maintaining motorcycle trails with a 4 foot wide trail dozer and making the trails “too wide.”

OHV traffic on trails under wet conditions can damage treads and drainage structures. Determining when to open or close OHV trails has been a challenge for trail managers. Some have used seasonal closures; others have used rainfall. Both of these approaches have limitations.

Roger Poff Gives Research Update

Roger Poff gave an update on his field studies that involve measuring soil strength and soil moisture, and correlating these measurements with observed levels of trail damage. This information is used to predict the risk of trail damage at different levels of soil strength and soil moisture. This prediction of risk can then be used to develop threshold values to determine when to open or close trails.

Poff believes this method will not be a “magic bullet” to solve all the issues related to opening and closing trails under wet conditions. However, it will be an important tool in the trail manager’s toolbox for managing trails under wet conditions.

Kern County PCT Trail Survey

The segment of the Pacific Crest Trail (PCT) crossing Kern County south of Highway 58 has previously been identified as a possible hotspot for conflict between PCT trail users and OHV recreationists. This segment of the PCT is challenging for public land managers because the PCT crosses some areas of private lands on which OHV recreation is permitted and in some instances the PCT shares an alignment with a public roadway.

In order to better understand the existing magnitude of the impact on hikers using the PCT, the Kern County Sheriff's Office in coordination with OHMVR Division public safety staff conducted a survey of PCT trail users. The Survey locations were established along the PCT north of Highway 58 to capture the experiences of northbound PCT hikers coming out of the area of concern. Approximately 500 PCT trail users completed the survey.

The survey determined that only an extremely small percentage of those surveyed had any direct or indirect contact with OHV users while on the PCT.



Popular 4-wheel Drive Trail Re-Opens

The Barrett 4-Wheel Drive (4WD) Trail, a rugged six mile off-highway route from Wright's Lake to Barrett Lake, just west of Desolation Wilderness, reopened, now that reconstruction has been completed on three segments of the trail to protect sensitive meadows. The Barrett 4WD Trail has been used by recreationists since the 1960s and offers one of the most challenging OHV experiences in the Sierra Nevada. The trail has a high rating for difficulty and is only recommended for very experienced OHV users prepared for remote travel over large rocks. Motorized travel on this trail is typically at a rate of approximately 1-2 miles per hour.

The Barrett 4WD Trail was identified as one of 18 routes in the Eldorado National Forest travel system that needed corrections to comply with the environmental protection guidelines in the Sierra Nevada Plan. These routes were closed in 2012 to complete further analysis and make corrections to ensure the hydrologic connectivity of meadows would not be significantly impacted by motorized vehicle use.



The final work to reopen the trail was completed June 26 to July 1 when Forest Service employees and 19 volunteers from the Hi-Landers 4WD Club installed two rolling dips and a culvert to minimize the potential for sediment from the trail to end up in one of the meadows.

In the fall of 2015, projects at two other meadow sites along the trail were completed. One involved the construction of a short 0.27 mile trail reroute around a meadow and restoration work at the section of trail that was replaced. Near the largest meadow, rolling dips were constructed to divert water that was running down the trail, and three ephemeral stream channel crossings on the trail within the meadow were stabilized by hardening the approaches with permeable materials to minimize sediment entering the streams.

The work was funded by the USFS with assistance from an OHMVR Division ground operations grant and a Secure Rural Schools Title II grant through the El Dorado County Resource Advisory Committee. The project was implemented by the USFS together with two contractors, a Student Conservation Association Leader Crew, and volunteers from the Hi-Landers 4WD Club.

The Hi-Landers 4WD Club has a long history of stewardship with the Barrett 4WD Trail. They have assisted with maintenance of the trail under the adopt-a-trail-program for many years. In 2013, they provided assistance with transporting materials during construction of the new Barrett Bridge, and with restoration of the Jones Fork Silver Creek crossing that the bridge replaced, which were also OHMVR Grant projects.

Report Requirement 3

The status and accomplishments of funds appropriated for restoration pursuant to PRC Section 5090.50(b)(2) – Grants and Cooperative Agreements.

Public Resources Code 5090.50(b)(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 provide ecological restoration or repair to habitat damaged by either legal or illegal 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 provide ecological restoration or repair to habitat damaged by both legal and illegal 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, that 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 entities, Native American tribes, educational institutions, and eligible nonprofit organizations.
- (F) Guidelines developed to implement this paragraph shall at a minimum do all of the following:
 - (i) Give additional consideration to applications for projects that will restore areas that have the potential for the most significant environmental damage.
 - (ii) Guarantee that no grant will be used for the development or maintenance of trails for motorized use.
- (G) Any unencumbered funds under this paragraph shall be used only in future grant cycles for purposes consistent with this paragraph.

Overview

The OHMVR Division Grants and Cooperative Agreements Program (Grants Program) Regulations define restoration: “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.”

Prior to SB 742, it was unclear whether restoration planning came under the definition of “restoration.” SB 742 clarified that Grants Program restoration funding could be used for restoration planning, defined as “identifying appropriate restoration techniques, strategies and project implementation, including environmental review associated by the project.” This made it possible to use restoration funds to prepare California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents.

The PRC 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 of the available restoration funding. Subsequently, Grants Program administrators increased their restoration outreach efforts to agencies, Resource Conservation Districts and non-profit organizations. As a result the number of project applications and amounts requested increased substantially.

As illustrated by the Restoration Projects Grant Funding chart, in the 2014/2015 grant cycle, restoration grant requests exceeded available funding for the first time. Then in the 2015/2016 grant cycle, the number of projects and amount requested dropped back down closer to 2012/2013 levels.

Restoration in BLM and USFS 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 three years, over \$7.5 million has been awarded to the two largest federal land managers in the state, the Bureau of Land Management and United States Forest Service.

***Since 2008, the
OHMVR Division
Grants Program
has awarded over
\$50,000,000
in Ecological
Restoration
Funding.***

BLM Restoration

Since 2014, the Grants Program has awarded more than \$3.2 million to the BLM for restoration projects. The scale of these projects is highly variable. Depending on available resources, projects range from Field Office-wide programs that address ongoing trespass and degradation issues, to smaller site-specific undertakings.

For example, the BLM Needles Field Office has undertaken a project that will fund preparation of environmental documentation for route restoration projects in the Alabama Hills Special Recreation Management Area. Similarly, the BLM El Centro Field Office has been awarded OHV Restoration funding to protect the North Algodones Dunes Wilderness (approx. 26,000 acres) and the Peirson's Milk-vetch critical habitat (approx. 9,046 acres) in the Imperial Sand Dunes Recreation Area.

GRANT FUNDED RESTORATION PROJECTS

2012/2013 Grant Cycle	\$6,500,000 Available For Restoration Projects
# of Projects Requested	19
Total Requested	\$2,821,000
# of Projects Awarded	19
Total Awarded Amount	\$2,821,000
2013/2014 Grant Cycle	\$13,000,000 Available For Restoration Projects
# of Projects Requested	36
Total Requested	\$12,112,820
# of Projects Awarded	36
Total Awarded Amount	\$12,112,820
2014/2015 Grant Cycle	\$7,000,000 Available For Restoration Projects
# of Projects Requested	35
Total Requested	\$10,020,207
# of Projects Awarded	26
Total Awarded Amount	\$7,000,000
2015/2016 Grant Cycle	\$6,500,000 Available For Restoration Projects
# of Projects Requested	16
Total Requested	\$3,749,076
# of Projects Awarded	16
Total Awarded Amount	\$3,753,326

USFS Restoration

Since 2014, the Grants Program has awarded over \$4.2 million to USFS for restoration projects. Restoration projects on USFS lands have restored and protected areas like the Chiquito Creek watershed on the Sierra National Forest, and repaired unauthorized trails on the Mendocino National Forest. The Tahoe National Forest has undertaken a restoration project to restore unauthorized routes in the Camp Project area, near Camptonville. Those are just a few examples of USFS restoration efforts supported by the Grants Program.

Partnerships

Both the BLM and the USFS have also been the beneficiaries of OHV Grants Program-funded restoration projects conducted by cooperating nonprofit organizations, and educational institutions. In many instances, federal land managers are shorthanded or priorities have been directed elsewhere. State law allows nonprofit organizations, and educational institutions to assist in restoration efforts with the land manager's approval. Since 2014, the Grants Program has awarded over \$11.5 million to nonprofit organizations and educational institutions for restoration projects on public lands in California.

Assistance from groups such as the Friends of Jawbone, the Southern California Mountains Foundation, the Student Conservation Association, and the Center for Sierra Nevada Conservation has leveraged additional restoration funding to repair and restore public lands damaged by OHV recreation. Many of these projects allow concerned OHV recreationists and members of the public to make tangible contributions to the well-being of recreation opportunities provided by the land managers.

Farmworker Institute of Education and Leadership Development, Inc.

The Farmworker Institute of Education and Leadership Development (FIELD) is a 501 (c) 3 nonprofit organization based in California's San Joaquin and Sacramento Valleys. FIELD was founded in 1978 by Farmworker Leader Cesar E. Chavez and is dedicated to strengthening America's agricultural and rural communities through the Core Values of Opportunity, Excellence, Integrity and Si Se Puede (it can be done).

FIELD has received OHV restoration grant funding to support the Kern Service and Conservation Corps. This program is aimed at providing meaningful work experience in environmental conservation and other services for young adults while they obtain high school credit and are paid an hourly wage for their service. Some of the project activities include restoration of:

- 125 acres of Limited Access OHV recreation on BLM land of sensitive habitat within the Trona Pinnacles National Historic Site damaged by illegal OHV activity;
- 1,500 acres of unauthorized routes in the Calico Mountains - Odessa and Mule Canyons where there are significant problems with wilderness and off-route vehicle incursions;
- 164 acres of sensitive habitat in the Middle Knob OHV subregion in the BLM Ridgecrest area where significant problems with off-road vehicle incursions have developed; and
- 238 acres of sensitive habitat in Kiavah Wilderness in a small region of the Eastern Sierra Nevada southeast of Weldon.



UC Davis – Knoxville Recreation Area

The University of California at Davis received Restoration grant funding to restore areas within BLM's Knoxville Recreation Area (KRA) currently closed to OHV access but damaged by past or present OHV use.

The KRA is comprised almost entirely of serpentine soils that support plant communities and plant and animal species of special conservation concern. The KRA also suffers from major infestations of 3 invasive plant species that are directly and indirectly promoted by OHV traffic in sensitive habitats. The project will remedy impacts to two of the most sensitive KRA plant communities—serpentine grasslands and riparian corridors—and benefit serpentine chaparral within the Knoxville ACEC and across the greater KRA. Species that will benefit include the foothill yellow-legged frog, Jepson's milkvetch, pink creamsacs, Snow Mountain buckwheat, Krukeberg's jewel-flower (all listed as rare or endangered by the California Native Plant Society, CNPS), and at least 11 plant species recognized as having limited distribution by CNPS. Restoration will involve control of invasive non-native plants, planting with native species, and installation and bolstering of OHV barriers. UC Davis researchers will evaluate effects of OHVs in these habitats and determine methods for restoration of serpentine areas damaged by OHV use.



Restoration Projects that have been funded from 2013/2014 through the 2015/2016 Grant cycles:

U.S. Forest Service

Project	Amount	Details
Cleveland National Forest		
Forest-wide restoration	1,008,710.00	Restoration of unauthorized routes and trails
Total	1,008,710.00	
Eldorado National Forest		
Georgetown and Pacific Districts	164,826.00	Restoration of unauthorized routes and trails
Georgetown Ranger Districts	79,706.00	Survey, monitor of unauthorized routes
Total	244,532.00	
Humboldt-Toiyabe National Forest		
Carson Ranger District	98,985.00	Restoration of meadow and riparian areas
Total	98,985.00	
Inyo National Forest		
Forest-wide restoration	372,174.00	Closure and restoration of unauthorized road and trails
Forest-wide restoration	295,005.00	
Total	667,179.00	
Mendocino National Forest		
Grindstone Trail 1	58,771.00	Closure and restoration of unauthorized road and trails
Leech Lake Road	200,000.00	Closure and restoration of decommissioned road and trails
17N78	64,841.00	
Total	323,612.00	
San Bernardino National Forest		
Forest-wide restoration	543,620.00	Closure and restoration of unauthorized roads and trails
Total	543,620.00	
Shasta-Trinity National Forest		
Eddy Creek	23,081.00	Restoration of meadow
Total	23,081.00	

Project	Amount	Details
Sierra National Forest		
Bald Mountain	64,158.00	Closure and restoration of unauthorized road and trails
Brewer Lake	71,410.00	Closure and restoration of unauthorized roads and trails
Red Mountain	71,410.00	Closure and restoration of unauthorized roads and trails
Chiquito Creek Watershed	530,000.00	Restoration planning and implementation
Total	736,978.00	
Six Rivers National Forest		
Forest-wide restoration	149,275.00	Closure and restoration of unauthorized road/trails
Total	149,275.00	
Stanislaus National Forest		
Mi-Wok Central District	151,440.00	Restoration of unauthorized routes/trails
Summit Long Valley	53,420.00	Restoration of unauthorized routes/trails
Total	204,860.00	
Tahoe National Forest		
Camp Project	271,080.00	Closure and restoration of decommissioned road/trails
Western Sugar Pine	17,850.00	Closure and restoration of decommissioned roads/trails
Total	288,930.00	

Bureau of Land Management

Project	Amount	Details
Barstow		
Juniper Flats	519,475.00	Closure and restoration of unauthorized routes/trails
Total	1,008,710.00	
Bishop		
Long Valley	19,520.00	Planning for restoration
Alabama Hills	41,439.00	Closure and restoration of unauthorized routes and trails
Field-wide restoration	174,719.00	Restoration and monitoring of unauthorized routes and trails
Total	235,678.00	

Project	Amount	Details
Eagle Lake Field Office		
Fort Sage	134,000.00	Restoration of unauthorized routes and trails
Wilderness Study Area	164,000.00	Restoration of unauthorized routes and trails
Total	298,000.00	
El Centro Field Office		
North Algodones Dunes Wilderness & Peirson Milk-Vetch	300,022.00	Restoration of impacted areas outside of the riding areas
Total	300,022.00	
Ridgecrest Field Office		
Field-wide restoration	626,541.00	Closure and restoration of unauthorized routes/trails
Field-wide restoration	615,914.00	Closure and restoration of unauthorized routes/trails
Pacific Crest Trail	38,308.00	Restoration of unauthorized routes/trails
Field-wide restoration	629,389.00	Closure and restoration of unauthorized routes/trails
Total	1,910,152.00	
BLM - Surprise Field Office		
Coppersmiths Route	26,466.00	Restoration of unauthorized routes/trails
Total	26,466.00	

Educational Institutions

Project	Amount	Details
University of California		
Knoxville Recreation Area	777,839.00	Restoration of unauthorized routes/trails
Total	777,839.00	

Nonprofits

Project	Amount	Details
Alpine Watershed Group		
East Fork of the Carson River	249,792.00	Restoration of unauthorized routes/trails
Total	249,792.00	
American Conservation Experience		
Yuha Area	355,946.00	Restoration of unauthorized routes/trails
Total	355,946.00	

Project	Amount	Details
American Rivers, Inc.		
Sequoia and Humboldt-Toiyabe NF	342,079.00	Restoration planning and implementation
Total	342,079.00	
California Trail Users Coalition (CTUC)		
Los Padres NF	136,750.00	Restoration of unauthorized roads/trails
Total	136,750.00	
Center for Sierra Nevada Conservation		
Eldorado NF	141,987.00	Restoration & monitoring of non-OHV designated areas
Eldorado NF	159,568.00	Restoration & monitoring of non-OHV designated areas
Eldorado NF	165,244.00	Restoration & monitoring of non-OHV designated areas
Total	466,799.00	
Desert Tortoise Preserve Committee, Inc.		
Desert Tortoise Natural Preserve Area	347,437.00	Closure and restoration of unauthorized routes and trails
Total	347,437.00	
Farmworker Institute of Education and Leadership Development Inc. (FIELD)		
Trona Pinnacles	306,880.00	Restoration of unauthorized routes/trails
Calico Mountains	315,197.00	Restoration of unauthorized routes/trails
Middle Knob	390,562.00	Restoration of unauthorized routes/trails
Pinto Mountain Mining District	100,257.00	Restoration of unauthorized routes/trails
Upper Mule Canyon	295,319.00	Restoration of unauthorized routes/trails
Fort Irwin	124,472.00	Restoration of unauthorized routes/trails
Kiavah	269,279.00	Restoration of unauthorized routes/trails
Total	1,801,966.00	
Friends of El Mirage		
El Mirage sub regions	682,580.00	Restoration of unauthorized routes and trails
El Mirage sub regions	563,306.00	Restoration of unauthorized routes and trails
Total	1,245,886.00	

Project	Amount	Details
Friends of Jawbone		
Northern Jawbone ACEC	631,552.00	Closure and restoration of unauthorized routes and trails
Northern Jawbone ACEC	842,480.00	Closure and restoration of unauthorized routes and trails
Northern Jawbone ACEC	901,525.00	Closure and restoration of unauthorized routes and trails
Total	2,375,557.00	
Lassen Land and Trails Trust		
Susanville	83,380.00	Restoration of unauthorized roads and trails
Total	83,380.00	
Native American Land Conservancy		
Eastern Mojave Desert	376,286.00	Restoration of unauthorized routes and trails
Eastern Mojave Desert	166,110.00	Restoration of unauthorized routes and trails
Total	376,286.00	
Pacifica Land Trust		
Pedro Point Headland Area	1,139,274.00	Restoration of unauthorized routes
Total	1,139,274.00	
Southern California Mountains Foundation		
Baldy Mesa	1,089,927.00	Closure and restoration of unauthorized routes and trails
San Bernardino NF	664,152.00	Closure and restoration of unauthorized routes and trails
Total	1,754,079.00	
Student Conservation Association		
BLM Ridgecrest Wilderness Areas	284,913.00	Restoration of impacted areas outside of riding areas
BLM Ridgecrest Wilderness Areas	233,428.00	Restoration of impacted areas outside of riding areas
Total	518,341.00	

Project	Amount	Details
The Chaparral Lands Conservancy		
Proctor Valley	139,704.00	Installation of Vehicle Barriers
Proctor Valley	415,990.00	Restoration of the Vernal Pool & Uplands habitat
Denney Canyon	390,288.00	Habitat restoration
Otay Mesa	331,045.00	Restoration of Otay Mesa Vernal Pool & Uplands habitat
Eastern San Diego County	211,306.00	Restoration of unauthorized routes and trails
Total	1,488,333.00	
Transition Habitat Conservancy		
Fremont-Kramer & Superior-Cronese Desert Wildlife Mgmt Area	305,939.00	Restoration and monitoring of unauthorized routes and trails
Total	305,939.00	

Cities/Counties/Districts

Project	Amount	Details
East Lake Resource Conservation District		
Indian Valley Recreation Area	45,850.00	Wet Meadow restoration
Total	45,850.00	
El Dorado County CAO		
Sacramento, Placerville Transportation Corridor	72,939.00	Restoration and monitoring of the trail rail corridor
Sacramento, Placerville Transportation Corridor	67,410.00	Restoration and monitoring of the trail rail corridor
Total	140,349.00	
Trinity County Resource Conservation District		
Shasta Trinity NF	200,133.00	Restoration of decommissioned roads
Shasta Trinity NF	177,300.00	Restoration of decommissioned roads
Total	377,433.00	
Western Shasta Resource Conservation District		
Chappie-Shasta OHV Area	110,291.00	Closure and restoration of unauthorized routes and trails
Buckhorn Mountain Area	117,621.00	Planning for restoration
Total	227,912.00	

Report Requirement 4

Summary of resource monitoring data compiled and restoration work completed

The key to sustainable management is access to, and use of, monitoring data in all aspects of decision-making. Habitat Monitoring System (HMS) annual reports, discussed in Report Requirement 2, provide managers with the information needed to make informed decisions on where to allow appropriate and sustainable recreation and what areas need protection and rehabilitation. Report Requirement 4 describes the progress and outcomes of monitoring programs at State Vehicular Recreation Areas (SVRA). It also describes projects that restore areas that cannot be maintained to appropriate standards or must be closed to protect sensitive resources and ensure lands are managed for long-term sustainability.

Carnegie SVRA

Carnegie Monitoring Program Overview

Annual wildlife surveys are performed to determine overall species diversity and richness, as well as overall population density. At Carnegie SVRA, a wide variety of species has been documented during annual habitat monitoring for various taxa.

Small mammal surveys take place for rodents and bats. 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, deer mouse, desert woodrat, and Heermann's kangaroo rat. Bat surveys are carried out using both passive acoustic monitoring (records bat calls which are later keyed to species) and visual encounter surveys (VES) within known bat roosting sites. Past surveys have detected seven bat species, including special status: pallid bat, Yuma myotis, and Townsend's big-eared bat.



Coyote

Large mammal surveys consist of two methodologies: passive and active monitoring. Passive surveys involve the use of 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 for species presence and behavior. Daytime large mammal sightings are recorded as incidental, and used as species presence data. While conducting nocturnal

surveys, black-tailed deer, bobcats, coyotes, black-tailed jack rabbit, Audubon's cottontail, American badger, three owl species, and common poorwills (nocturnal bird) have been observed. Mountain lions have only been detected using camera traps, of the two methods.

Aquatic herpetofauna surveys to determine species presence and breeding site use are carried out using two methods: daytime dip-netting surveys and nocturnal VES. Dip-net surveys have detected eight species, of which five are special status: California red-legged frog, California tiger salamander, foothill yellow-legged frog, western spadefoot, and western pond turtle. Nocturnal VES is used to provide supplemental presence data for species that may not be detected during dip-net surveys (i.e. California tiger salamander adults). Targeted nocturnal VES 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 the Park.



California Tiger Salamander

Avian surveys are carried out using standard point-count methods at fixed locations within the Park. These sites are stratified over four habitat types (oak woodland, sage scrub, grassland, and riparian) to allow for 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 and events in the park and avoided if found, while golden eagle nests are monitored closely each year.

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



Tesla Fire, August 2015

Western Spadefoot Toad Monitoring and Management

The western spadefoot toad is a nocturnal amphibian that has been found at Carnegie SVRA in previous years and about which very 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 to avoid predators such as the California tiger salamander.



Western Spadefoot Toad
Metamorph

Although the western spadefoot toad is currently classified as a Species of Special Concern under the California Department of Fish and Wildlife (CDFW), it is currently under review by the U.S. Fish and Wildlife Service (USFW) to be listed as Federally Threatened. Prior to this listing proposal, environmental scientists at Carnegie SVRA began targeted night surveys, starting in December 2014, in an attempt to detect adult western spadefoot toads within the SVRA. In February 2015, this species was found during an explosive breeding event during a warm and rainy night. They were breeding in various puddles that formed throughout the floodplain, including the 4x4-play area and three areas using for staging. Environmental scientists mapped and fenced the breeding pools before the SVRA opened the next day to protect the egg masses from disturbance. Since little to no rain was received after the initial February 2015 storms, many of these breeding pools dried out before metamorphosis could complete, resulting in desiccated tadpoles in some of the puddles. Despite the challenges that the drought and abnormal rainfall patterns presented, some juveniles survived and hid in drying ponds. Protective barriers were left standing until May 2015 when the last of the metamorphs dispersed into their upland habitat during the dark hours.



Western Spadefoot Toad Monitor Fencing

During the winter of 2016, environmental scientists monitored and documented successful breeding throughout the SVRA due to 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. Moving forward, the monitoring program will expand to include dissolved oxygen measurements and possibly telemetry research to discover where these toads are ultimately aestivating (going dormant) during the dry summer months.

Los Osos Knoll/Happiness Connection Trail Area Project

Trail proliferation among Carnegie SVRA's steep topography leads to the decline of vegetative cover, increasing soil erosion and affecting water quality and wildlife. Carnegie SVRA resource and maintenance staff work in collaboration with the Carnegie Advisory Team and California Conservation Crew to bring eroded areas back up to grade and restore vegetation using genetically local native grass seed.

Some areas are temporarily fenced to give vegetation time to re-establish. Another method includes re-contouring a hillside to remove ruts and adding soil recovered from sediment basins. Crews will 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 into place to prevent erosion until vegetation has taken hold.

Many of the 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 that have constraints such as steep topography and high winds. Once vegetation is re-established in previously bare areas, water is slowed enough to infiltrate soils, effectively preventing erosion.

The Los Osos Knoll/Happiness Connection trail area project was completed in 2015 and consisted of 11 acres. The timing of rain was a key component in the success of the project. Due to the success of re-vegetation, the trail is now open for recreation.

Carnegie SVRA follows the guidelines in the OHV Trails and Facilities section of the 2011 Storm Water Management Plan, which includes Best Management Practices and techniques. Carnegie SVRA's resource and trail teams plan and create new sustainable trails to provide a balance between recreation and habitat.



Los Osos Knoll/Happiness Connection Trail - before



Los Osos Knoll/Happiness Connection Trail - after

Harrison Hill Rehabilitation

Carnegie SVRA has been modernizing the trail system to comply with the Storm Water Management Program. Implementation of this modernization is being done from east to west with our Resource Management Areas (RMA). The last completed RMA, Harrison Hill, was a great success. The project took approximately seven months to complete, and has an increase in vegetation, more storm water friendly trails, and a lower overall trail length (7,840 linear feet, compared to the previous 30,000 linear feet). The trail design was established using the Carnegie Advisory Team, which is a group of local enthusiasts that are well versed in enhancing the user experience.



Harrison Hill - before



Harrison Hill - after

Clay Pit SVRA

Avian Survey

The avian survey at Clay Pit SVRA consists of eight point count locations surveyed twice each in the winter and spring. Four of the point count locations are located within OHV recreation riding areas of the SVRA. The other four point counts are located off-property on lands managed by CDFW and the CDWR. The four off-property sites have similar disturbed grassland habitat in close proximity to Clay Pit SVRA, but have no OHV recreation usage. Results from the 2015 survey show slightly higher species richness and diversity in the Clay Pit SVRA riding areas compared to the off-property non-riding areas; however, the difference is not significant using a two-sample t-test with 95% confidence. The two-sample t-test is a statistical



Avian Point Monitoring Map

method used to determine if the numerical means of two independent populations differ. The test consists of a mathematical calculation. In this case, we were comparing the bird population surveyed in the Clay Pit SVRA riding area with the bird population surveyed in a non-riding area outside of the SVRA to see if there were statistical differences in species richness and diversity.

The limited sample size of four riding sites and four non-riding sites means that one year's worth of data will have a hard time illustrating statistical significance unless the mean differences are drastic. The power of a study with such a low sample size is low; however, multiple years of data can make up for this limitation. Future monitoring reports will compile multiple years of data to determine trends in species richness and diversity both within Clay Pit SVRA and in comparison to the nearby off-riding sites in addition to analysis on population abundances for specific focal species.

Vernal Pool Monitoring Program

The most recent surveys of occupied vernal pools occurred during the 2012 Clay Pit SVRA General Plan process. However, Twin Cities District environmental scientists will take the necessary training and field requirements from USFW in 2016 to obtain permits to begin vernal pool crustaceans monitoring in 2017.

Eastern Kern County, Onyx Ranch SVRA

Resource Conservation Projects

The San Andreas District trails crew has been working on several projects at Eastern Kern County, Onyx Ranch SVRA. These projects include:

- maintaining existing routes and trails;
- placing new trail markers;
- replacing existing fencing to protect sensitive areas; and
- installing new barriers to protect resources.

These projects are ongoing and in conjunction with BLM, the Friends of Jawbone, and the grazing lessee.

Using Boundaries and Education to Protect Resources

Butterbredt Springs is one of the premiere stops when you visit the newest SVRA, Eastern Kern County, Onyx Ranch SVRA. It is a little oasis in the middle of the desert and a





Interpretive Kiosks

very important resource for migrating birds. Filled with willows, cottonwoods, and the only water for miles on end, this sanctuary provides a much-needed resting place for hundreds of thousands of birds migrating through the area.

The SVRA collaborates with local chapters of the Audubon Society Butterbredt Springs, whose volunteers have helped improve the bird habitat and prevent OHV trespass in this sensitive habitat. Members of the Audubon Society also enjoy bird watching and perform species counts.

When escrow closed on the new SVRA, it was decided that the front of Butterbredt Springs needed an updated look and enhanced protection. The old barbed wire fence was removed and a new fence replaced it. After completing this update, boundary markers were placed to indicate the new SVRA and interpretive kiosks installed to inform visitors of rules and these boundaries.



New fence installed at Butterbredt Springs

Heber Dunes SVRA

Aquatic Resources Reconnaissance Survey, South Alamo Canal, Alamo River

In 2016, surface water resources and riparian lands near Heber Dunes SVRA were investigated at a reconnaissance level for two purposes. First, Ocotillo Wells District staff reported occasional to frequent access by visitors to the irrigation canals for angling, an activity not reviewed or considered in the unit's General Plan. This occurs just beyond the east and south unit boundaries. Second, the survey was completed to assess California Department of Transportation (Cal-Trans) owned undeveloped lands to the east of the park that may be desirable for acquisition. The meandering channel of the Alamo River bound these lands.

It is easy to access the South Alamo Canal and its distributaries from numerous locations around Heber Dunes SVRA. The land and facilities of these engineered waterways are owned by Imperial Irrigation District, which has not posted any rules or prohibitions concerning public access. However, there was little evidence of recent angler use of the canal. Water quality appeared good. Fish were seen and one or two species of black bass (*Micropterus salmoides* and *Micropterus dolomieu*) were collected, and what appeared to be a tilapia (*Oreochromis sp.* or *Tilapia sp.*) was observed. The greater Salton Sea region is

not conventionally within the established range of non-native smallmouth bass, but they are present in the Colorado River and thus presumably can be distributed through connected canal systems.

The recreational fishing resources of the South Alamo Canal and the Alamo River are limited, both by access issues and probably by low numbers of desirable fish. While public access to the South Alamo Canal is apparently not prohibited, neither can it be encouraged except by its owner Imperial Irrigation District. While irrigation canals and works are known to pose the potential for public hazard, and state public safety campaigns exist to warn against canal entry, it is worth noting that similar public fishing access is explicitly allowed and even encouraged in other regions of the state.



South Alamo Canal

A scheduled dewatering of the South Alamo Canal by Imperial Irrigation District for periodic maintenance activity preceded this reconnaissance visit by a few days. Ocotillo Well District resources staff took that opportunity to observe residual pools in the bottom of the canal that harbored live fish. The relatively high-quality Colorado River water delivered to this point may occasionally bring with it a diversity of interesting species. All of these subjects (native and non-native fish, irrigation projects, local agriculture) have interpretive value.

The Alamo River appeared to have poor water quality; it is reportedly largely comprised of irrigation return flows. However, it likely harbors fish, and it is worth noting that there is no specific state fish consumption advisory against fish caught from this waterway.

Hollister Hills SVRA

Rancho Road and Lodge Lake Project and Sediment Basin Maintenance

In late July of 2015, Hollister Hills SVRA staff, with the help of other district heavy equipment operators, completed both a large-scale road maintenance project and lake clean out several years in the making. Rancho Road, one of the oldest roads in the park, was deeply incised, roughly eight feet in some sections, and would fail to adequately shed runoff during storm events. Down cutting of the road's tread occurred over several decades due to the original road alignment and geologic setting. The San Andreas Fault, which runs almost directly beneath and parallel to the road, juxtaposes two vastly different, yet erosive

soil types. Due to the close proximity to the fault, the original road cut was a hodgepodge of clay and sedimentary soils.

In 2012, the annual Trail Assessment noted that the road was at risk of noncompliance with the 2008 Soil Conservation Standard and Guidelines because of the road's inability to shed water and the potential for continuous, accelerated erosion. It was decided that the most viable, least environmentally impactful option was to undertake a road rehabilitation effort, and bring the road back to grade using material from Lodge Lake, a sediment basin that drains Rancho Road. Due to the ongoing drought, Lodge Lake, historically one of the largest bodies of water in the park, completely



Rancho Road before rehabilitation

dried up in 2014 and again in 2015. During the summer of 2014, equipment operators from Hollister Hills SVRA took this opportunity to clean out the lake of accumulated sediment and use it as the new roadbed for the rehabilitation of Rancho Road.

Using bulldozers, the equipment operators pushed a large pile of dirt from the bottom of the lake. The material pushed from the lake sat for a season to dry as it was too wet to use for the project during the initial clean out effort. Once the material had dried adequately for a season, it came time to move the sediment back to Rancho Road. Equipment operators from San Andreas District, Central Valley District, Twin Cities District, and Monterey District



Equipment operators moving sediment to project site

worked for ten days to move roughly 10,000 cubic yards of sediment to the project site. By the end of the tenth day, Rancho Road had been completely brought back to grade, which greatly increased the stability and sustainability of the road. New drainage features were installed along the rehabilitated portions of the road and the tread was outsloped to further promote storm water drainage and reduce concentrated flows. Additionally, the project

benefited the rider constituency recreating at the park as the road now has more breaks in grade, which provides a new, more exciting experience and an overall different feel to the road. The project was an outstanding success and was completed well ahead of schedule due to the hard work and collaboration of all those involved.

The Rancho Road and Lodge Lake project is just one example of the annual sediment basin maintenance program at Hollister Hills SVRA. Sediment basins are among the park's top sedimentation control BMPs. Basins were built throughout the park in various drainages and at the bottoms of hill climbs to capture sediment that has been mobilized by rain runoff and OHV use. During the rainy season, sediment basins fill up with water and deposit sediment at the bottom of the basin. Throughout the summer months, the water level in the basins drop and eventually completely desiccate. Following a schedule determined by the park's environmental scientists, the equipment operator uses an excavator to clean out the basin of accumulated sediment. Depending on the type of sediment being removed, the moisture content, and the location of the basin within the park, the equipment operator will either stockpile the material or apply it directly to a road that needs additional material (e.g., Rancho Road). Ideally, sediment that is removed from basins is placed on trails and hills climbs within that sediment basin's watershed.



Rancho Road one year after rehabilitation

Back Field Obstacle Hill Climb Restoration

The Back Field Hill Climb was a location where visitors formed a volunteer hill climb that traveled up to the hilltop to Back Field trail. The site was located in the park's Adobe Property, which is comprised of a clay soil type throughout with outcroppings of sandstone in various locations. The vegetation communities present on these sandstone outcrops consist of low chaparral plant species. This particular hill climb was located on sandstone outcrops. The hill climb's tread became rutted over time due to the frequency in its use and eventually covered a wide swath of the hillside. The hill climb was a popular attraction because the



Black Field Hill Climb before restoration



Black Field Hill Climb after restoration

small mound-like features that formed throughout the tread added an additional challenge, along with its placement with other similar hills and climbs. The site became a big scar in the hillside that continued to widen as vegetation became scant and no longer acted as a barrier.

The site was identified for restoration because there were similar features within close proximity and it would

take time for a chaparral plant community to establish. In order to bring the hill back to grade, heavy equipment operators re-contoured the hillside and replaced soil captured from a sediment retention basin downslope in the watershed. Once all soil movement activities were completed, sediment control fiber rolls were placed along the contour and the site was revegetated using native chaparral plants grown in the park's native plant nursery.

Olive Orchard Culvert Removal Project

In Hollister Hills SVRA's Lower Ranch, the soil substrate is comprised of highly erodible, gully-prone granite material created by millennia of tectonic action. During the early 1900s, wide firebreak roads were constructed in the area and culverts were installed to convey water wherever the road crossed drainages. The resulting approach to managing water actually caused it to back up in the culverts and act like a high-pressure hose, blowing out and eroding the mountain. These culverts not only created a substantial erosional feature in the landscape, but were also a primary sediment producer to the park's creek.



Olive Orchard culvert

Hollister Hills SVRA developed an adaptive management approach to identify and replace all of the culverts along Olive Orchard Return that caused erosion. After identifying the culverts, heavy equipment operators excavated the culverts and replaced them with a hardened crossing. This type of crossing is intended to act as a reinforced streambed that matched the natural drainage profile. The project, completed during the 2016 rainy season, was successful. The true gauge of the management strategy effectiveness will come from the park's water quality monitoring gauges. The gauges have been calibrated to measure the amount of suspended sediment coming through the creek downhill from the project site. This project is an example of how Hollister Hills SVRA implements soil conservation practices and designs monitoring studies to gauge the effectiveness of implemented management actions.

Bonanza Gulch Restoration

The Bonanza Gulch trail is located in the park's Upper Ranch area on the southern extent of the park boundary. The property is designated for four-wheel drive recreation. The soil type in this area is comprised of parent granitic material interspersed with carbonate, limestone, and dolomitic rocks.



Bonanza Gulch before restoration

These types of rocks have a tendency to break down because of the chemical reaction caused by acid found in rainwater. In the upper reaches of Bonanza Gulch trail, the rocks became acid-bleached due to trail alignment, which subsequently led to the inability to shed water. The resulting loamy clay substrate produced a mass wasting of the trail tread and eventually caused the trail to become incised.



Bonanza Gulch after restoration

Hollister Hill SVRA returned the incised section of the trail back to grade using soil captured from a sediment detention basin located downslope in the watershed. Then, staff realigned the trail to follow the natural contour of the trail to promote increased drainage capabilities. Finally, the section of trail was revegetated with native plant species to ensure the soil would stay intact and eventually sustain viable wildlife habitat.

Hungry Valley SVRA

Monitoring Programs

In 2015, Hungry Valley SVRA completed its 18th consecutive year of Habitat Monitoring System (HMS) reporting. This extensive program includes monitoring vegetation, herptiles, birds, bats, and large mammals. It became evident that the drought affects the habitats in the park because of the decreased species numbers found across the board.

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.



Weighing a deer mouse

Barriers for Habitat Protection and Restoration

Protective measures were taken when staff noted a decline in habitat on a habitat monitoring plot within the SVRA. Straw bale barriers were installed to guide the visitor to established trails while the area rehabilitates itself over the next several years. Continued monitoring will occur on the site to determine success.

Hydroseeding

Every fall Hungry Valley SVRA conducts hydroseeding of areas in the park to reduce dust and erosion and to increase habitat in the park. The hydroseeding materials consist of native plant seed (*Nassella (Stipa) pulchra*), Purple Needlegrass (*Elymus elymoides*), Squirreltail (*Eriogonum fasciculatum*), California Buckwheat (*Lupinus bicolor*), Pigmy-Leaved Lupine (*Isomeris arborea*), Bladderpod (*Chrysothamnus nauseosus*), rubber rabbit brush, wood mulch, tactifier, and fertilizer. The mixture is placed into the hydroseeder, mixed with water, and sprayed on the ground to create a mat that will sprout plants. Three applications are needed for an area to revegetate itself. The hydroseeding method of revegetating has been highly successful and is an excellent option



Hydroseeding at Hungry Valley SVRA

for restoration projects that have constraints such as steep topography and high winds. The following areas have been hydro-seeded over the past three years: Honey Valley Group Campground, Redtail Canyon entrance, the ATV Campground Area, areas west of the ATV Campground, Gold Hill Road, Rattler Trail rehabilitation areas, and the 4x4 course area. The restoration effort is currently being monitored for success.

Straw Wattles

Trail proliferation among the steep topography of the area leads to the decline of vegetative cover increasing soil erosion that impact water quality and wildlife. Restoration efforts focus on stabilizing the hillside with straw wattles and native seed and plants. The habitat is then able to reestablish and hold soils in place, meeting soil conservation standards. New sustainable trails are planned and created to provide a balance between recreation and habitat.

After the Grand Fire in May of 2013, restoration was completed in the Stipa Trail and Power Line Road areas. A fire bulldozer made a firebreak from Frazier Park high school to Stipa Trail that removed all vegetation along the firebreak. The resource crew, along with fire crews, installed straw wattles on the firebreak to help decrease the flow of water so vegetation could grow back. This two-acre project was completed in 2013.

Soil Conservation Projects

After the Grand Fire of 2013, Sterling Canyon Trail has been recovering at a rate slower than expected. In 2014, to help with the restoration efforts in the area, the resource crew

planted native plants grown in Hungry Valley SVRA's native plant nursery. Due to the extreme drought experienced by all of California, a product called DriWater has been used to help the success rate of these plants. DriWater is a gel and when comes in contact with naturally occurring enzymes in soil, the enzymes slowly break down the gel, releasing moisture into the soil delivering moisture to plants. As plants become available, they will be planted in this area to help speed the recovery of this burned area.



DriWater usage

At the end of 2014, the Hungry Valley Pavilion and Group Campground opened. This facility has an amphitheater and group seating area that can be rented out to larger groups that want to keep their event separate from the public. With very little vegetation remaining in the area, the resource crew planted native vegetation on the slope and in the newly created walkways. The slope was also hydroseeded with native seed to help the recovery of the slope. As plants become established, signs are placed next to



Native plant signage

them indicating the common name, genus, and species of the plant so visitors can learn the vegetation of Hungry Valley.

In 2016, an over/under feature was added to the Quail Canyon Special Event Area. This over/under feature makes it possible to cross over a racecourse during an event in the area. To create this feature, several tons

of soil was brought in from other areas within the park. In order to stabilize the soil, straw wattles and native plants were added to the area. The wattles stabilize the soil for the short term while the native plants become established. Again, DriWater was used to cut down on the watering and upkeep of the plants.

Oceano Dunes SVRA

Western Snowy Plover and Least Tern Nesting Program

California Least Tern (*Sterna antillarum browni*) Breeding Statistics

In 2014, Oceano Dunes SVRA had a minimum of 47 California least tern breeding pairs. This is above the average of 41 pairs (range 23-55) for this site from 2004 through 2013. During this same time period, the site achieved an average fledge in excess of one fledgling

per breeding pair, and produced approximately 74% (489/657) of all tern fledges recorded in San Luis Obispo and Santa Barbara counties. Chicks hatched and banded at Oceano Dunes SVRA have returned to successfully nest and fledge young at this site.



California Least Tern Juvenile

In 2015, there were an estimated 44-49 least tern breeding pairs. This is similar to 2014 and above the average of 40-43 pairs for the 10-year period 2005-2014. There were 54 known nesting attempts, all within the large seasonally fenced enclosure in the southern portion of the vehicle riding area. The nest-hatching rate was 88.9% (48/54). Sixty-nine of the 84 chicks (including 12 unbanded chicks) are known to have fledged for a chick fledging rate of 82.1% and an estimated 1.41-1.57 chicks fledged per pair. For the 10-year period 2006-2015, average productivity was 1.21-1.28 chicks fledged per pair.

Western Snowy Plover (*Charadrius alexandrinus nivosus*) Breeding Statistics

The western snowy plover also achieved strong nest and fledgling success at Oceano Dunes SVRA. For the five-year period from 2010 through 2014, the SVRA maintained an average snowy plover population of 175 breeding adults and fledged an average of 148



Western Snowy Plover Chicks

birds per year. During this same period, the park had an average of 1.51 fledglings per breeding male, which exceeds the 1.2 ratio that is expected to allow for moderate population growth as per the Recovery Plan for this species. The fledgling rate in 2014 was 35.8% (196/547), which is similar to the average rate of 36.7% for the last 11 years, but the park's population is definitely growing. Oceano Dunes SVRA had the highest total number of breeding adults (226) and fledges produced in 2014.

In 2015, there were a minimum of 205 breeding birds, compared to 226 in 2014. This is a decrease of 9.3% from the minimum estimated number of 226 breeding adults in 2014 and compares to a range of 95-190 adults for 2008-2013. The average minimum number of breeding adults for the last five years (2011-2015) is 189, increasing to 198 for the last three years.

Ongoing HMS Survey with California Polytechnic State University

Ongoing HMS surveys at Oceano Dunes SVRA include shorebird and terrestrial birds, small and large mammals, herpetological resources, fish, and vegetation. Oceano Dunes SVRA resources staff have been working closely with Dr. Villablanca, a professor from the California Polytechnic State University (Cal Poly), San Luis Obispo, to provide technical assistance and consultation on most of the SVRA's monitoring methods. Since 2014,

Dr. Villablanca has helped update, refine, and standardize Oceano Dunes SVRA's small mammal study design to conform to experimental design principles. Together, the SVRA and Dr. Villablanca selected 11 treatment and control locations that include habitat islands in the OHV riding areas and in non-riding areas. A systematic and standardized approach for selecting the small mammal monitoring plots involved mapping the vegetation alliances in the park following the Manual of California Vegetation. Two alliances were found to be most common: Silver Beach Lupine / Mock Heather alliance and the Willow / Wax Myrtle alliance. Consequently, all monitoring plots were placed so they contained 50% of the Silver Beach Lupine / Mock Heather alliance and 50% of the Willow / Wax Myrtle alliance.

Oceano Dunes SVRA has surveyed 11 plots every three months since October 2014. The survey sessions involved putting 352 Sherman live traps on 11 plots (32 traps per plot). Staff checked the traps each morning and baited them each night for three consecutive days. Captured small mammals are identified to species; their sex and reproductive condition are determined; and each received an ear tag. Ear tagging individuals allowed the park to estimate abundance of each species, the probability of detection for each species, and survivorship for each species using Program Mark. Ultimately, the program goal is to determine if there are effects of certain management actions or treatments (such as OHV use) on these animal populations. Oceano Dunes SVRA staff prepared for the fifth trapping session (since October 2014), and data analysis will begin shortly thereafter. This project would not have been possible without the volunteer assistance received from several Cal Poly students and has resulted in a very beneficial relationship between Oceano Dunes SVRA and the University.



Cal Poly students

Oceano Dunes District Restoration Program

The restoration program at Oceano Dunes District was established in 1989 in an effort to protect the natural and cultural resources found within the park. The program is vital to the long-term preservation of habitats and the protection of the unique flora and fauna in the park. Oceano Dunes uses various restoration methods including sand stabilization to prevent soil and habitat loss, revegetation in areas where native vegetation has been displaced or lost by sand encroachment or invasive weeds, weed abatement, and vegetation monitoring to evaluate the effectiveness of the projects.



California Conservation Corps
removing veldt grass

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



Sheep Foot used to punch hay into the sand

Each year, park staff works with California Conservation Corps members to revegetate and stabilize various sites within the park. Prior to the installation of plants and the spreading of 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, provides 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.

Each year the Oceano Dunes greenhouse staff germinates an average of 30,000 plants and collects hundreds of pounds of native seed, which are used for restoration projects. Every native plant grown in the greenhouse comes from seed hand-selected from within the park, ensuring its suitability to grow and subsist in the dune environment.



Oceano Dunes District Greenhouse

There are many invasive species threatening the dune ecosystem. They include European beach grass, Russian wheat grass, ice plant, Veldt grass, and Cape ivy. Invasive species degrade or eliminate important fore dune 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.

Arroyo Grande Creek Fisheries Survey

Arroyo Grande Creek and its lagoon provide sometimes-tenuous sensitive habitat for several species of fish and other aquatic animals in Oceano Dunes SVRA. These aquatic species, including the federally listed Tidewater



Tidewater Goby

Goby (endangered) and Steelhead (threatened), frequently are negatively impacted by water quality and availability. The greatest threat to these species and habitats appear 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 pursuant to 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 2-3 months (4-6 times per year) with the primary purpose of ensuring that SVRA operation and visitor activities do not have any impacts upon these sensitive resources. Since 2003, State Parks has compiled a valuable record of the dynamics of both the estuary and the fish community. As with many water bodies in California, these aquatic features were plagued by record



Fish Survey

drought conditions throughout much of 2014 and 2015. Though waters here became too warm and confined for Steelhead in recent years, enough of the lagoon persisted throughout the drought that Tidewater Goby and a few other species remain established. This is in contrast to 2008-2009, when the estuary completely dried up resulting in fish kills, including documented though temporary loss of the aforementioned species.

In addition to periodic field monitoring, State Parks recognize the relevance of the landmark 2014 Sustainable Groundwater Management Act (SGMA) to water supply issues at Arroyo Grande Creek. While this watershed is partially within the greater Santa Maria Valley groundwater basin, officially an “adjudicated” watershed within only limited jurisdiction of the requirements of SGMA, Oceano Dunes District and OHMVR Division staff have become involved as stakeholders as the process of groundwater sustainability planning in this area moves forward.

Ocotillo Wells SVRA

The habitat restoration program follows the direction of the Ocotillo Wells SVRA . Restoration work is completed by the Ocotillo Wells resource crew, which includes three environmental scientists and many seasonal staff.

Trail proliferation leads to the destruction of soils and vegetative cover. By removing volunteer trails, native habitat is able to re-establish. Only trails in sensitive habitats are

closed and disguised. Restoration efforts focus on protecting the habitat with “vertical mulching.” Vertical mulching is disguising the volunteer trail by clearing the unwanted vehicle tracks and strategically placing vegetation in its place.

The resource crew use rakes, brooms, and shovels to scrub the trail clean. After vehicle tracks have been removed, vertical mulch (dead vegetative material planted upright like dormant plants) and plants from the SVRA’s native vegetation nursery are scattered throughout the site to break the line-of-sight from approved trails. This technique will encourage the desert in returning to its undisturbed state.

Many of the restoration sites have had great success with only a few intrusions into the closed areas. Some of the sites in heavier use areas require additional monitoring, and on occasion staff will reinforce sections that have been re-disturbed.



Unwanted vehicle tracks on a volunteer trail



Vertical mulch used to disguise volunteer trail

Dust Study

In 2014, Ocotillo Wells SVRA hired a consultant to develop a pilot treatment and testing program for various dust control treatments and to measure their effectiveness. Various treatments included dust palliatives, wind barriers, and signage on selected park roads and trails.

Monitors used during the project to collect fugitive dust data relative to the treatment processes included the truck-mounted TRAKER III (Testing Re-entrained Aerosol Kinetic Emissions from Roads) and several stationary monitoring towers. The TRAKER III measures the mass concentration of the dust plume at the rear of the vehicle created by its travel over unpaved surfaces. The stationary towers measure wind speed and direction, temperature, relative humidity, atmospheric pressure, and particulate matter number concentrations in eight size bins.

A consultant report to Ocotillo Wells District will provide a full summary of the activities conducted and data collected during the study as well as an evaluation of the effectiveness and efficiency of both individual dust control practices and combinations of practices. The report will also provide recommendations for future dust control applications to help Ocotillo Wells District comply with the Imperial Valley Air Pollution Control District's Rule 800 mandate for regulating fugitive dust within the park boundaries. Rule 800 provides general requirements for control of fine particulate matter, most prominently the level of PM10 particulates. PM10, or Particulate Matter 10, is the concentration level of fine particles of dust with an aerodynamic diameter smaller than, or equal to, 10 microns.

Flat-Tailed Horned Lizard Consideration for Listing

On February 12, 2015, the California Fish and Game Commission accepted a petition for the flat-tailed horned lizard to be considered as a candidate species for endangered status in the State of California. The candidacy period will last one year, until the Commission makes a final decision on the status in December of 2016. As CDFW collects data and information on the candidate flat-tailed horned lizard (FTHL), Ocotillo Wells SVRA is working toward management solutions for the interim, as well preparing for possible endangered status. A data collection period has been initiated, and Ocotillo Wells SVRA FTHL data—historic and recent—will be considered as part of the determination. CDFW also has copies of each study performed at Ocotillo Wells SVRA, and it too will be considered. The SVRA conducts occupancy and demography surveys each summer to provide up-to-date information about the lizard.



Flat-Tailed Horned Lizard

The priorities of SVRA management are twofold through PRC Sections 5090.43 and 5090.35 that promote OHV recreation opportunity and resource protection, respectively. Ocotillo Wells SVRA has provided quality OHV opportunity for years, and now one of the park's key species may fall under heavier protection, so staff must take appropriate action to mitigate impacts on the lizard's habitat. Environmental scientists and administrators are working closely with CDFW to assess impacts and address possible solutions. "Take" of the lizard becomes prohibited under the California Endangered Species Act, and this includes approaching, harassing, or handling the animal. Normal park operations are affected by this, so SVRA staff have established an agreement for carrying out operations while taking protective measure for this small, but important lizard.

Ocotillo Wells SVRA Native Plant Propagation Program

The plants in Ocotillo Wells SVRA have adapted to become desert survival experts, and they have been surviving here for thousands of years. Many of the plants at Ocotillo Wells SVRA are drought resistant, meaning they can tolerate periods with very little precipitation. In times of drought or heat, many of these plants will go dormant by dropping leaves just as trees do before winter. One of the best examples of this is the ocotillo plant. After periods of rain, the ocotillo will look like a cluster of giant green pipe cleaners, but when drought-stricken the ocotillo drops its leaves revealing the plant's thorny nature. Dropping leaves allows the plant to use energy for more important life-sustaining functions.



Ocotillo Plant

Ocotillo Wells SVRA is home to a wide array of these specialized desert plants. The pervasive creosote is one of the planet's oldest-growing plants. In the Mojave Desert, scientists have aged a creosote circle at over 11,000 years. Each region of the park has different shrubs that describe the environment depending on soil type and rainfall, among other factors.

Creosote is consistent through much of the park, but in places along Pole Line Road, north of Gas Domes Trail, burro bush tends to dominate. Dune ecosystems are primarily populated with honey mesquite, and the dunes are held together by mesquite's massive root system. Each of these main vegetation stands is punctuated with a wide variety of native annual and perennial shrubs, wildflowers, trees, and cacti.



Beavertail Cactus

Pollinators moving through the desert help pollinate flowering plants allowing seed development. Once seeds drop to the ground, certain conditions of moisture, temperature, nutrient, and scarring must be met for the seed to germinate or sprout. After heavy rains, there are large swaths of land covered in seedlings. Very few of these young plants will be able to survive the harsh conditions of the desert, and most will have died by the next rains. Survival of young plants is crucial to the health of the desert biome, but

becomes a major challenge in a drought like the one California currently faces. Ocotillo Wells SVRA resource team have found a way to help these plants despite the drought.

A native plant nursery allows biologists to propagate native plants in controlled conditions. Seeds are collected from individuals throughout Ocotillo Wells SVRA to maintain genetic integrity. With available materials, seeds are prepared by imitating the effects of a seed

rolling through the desert. Seeds are generally ready to sprout once a protective coating around the seed has been stripped away by the acids inside the stomach of an animal, or by the desert sands as the seed travels across sand by wind or water. Once the seeds are ready to sprout, they are planted in desert soil prepared by the biologists and watered according to each species' requirements. A growing plant will be transplanted into larger pots as its size increases until it is healthy enough to survive on its own in the desert. Plants are then transplanted in Ocotillo Wells SVRA with small cages around them for protection while they establish themselves.

Prairie City SVRA

Avian Survey

Prairie City SVRA conducted a five-year avian survey from 2010-2015. Initially, the primary objective of analysis was to determine the impact of OHV recreation use areas on bird populations. The survey results indicate there is no statistically significant difference in species diversity or richness between OHV use areas and non-OHV use areas. After reviewing collected data from all survey sites within the SVRA, it was determined that not all recorded observations followed the specific guidelines with regard to distance variables. Recorded observations from all survey site locations should be restricted to a fixed distance from the designated survey site, while general observations outside the designated fixed distance was noted but not incorporated into the data analysis. The survey sites in the western portion of Prairie City SVRA achieved statistically significant higher diversity and richness, regardless of OHV presence.

The survey sites located around the more developed OHV areas in the eastern portion of Prairie City SVRA had lower diversity and richness scores. Besides the development and OHV usage in the east, there are also differences in vegetation type. The western zones of the park contain almost all of 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 more woody vegetation of the west provides greater vertical complexity with more habitat niches; therefore, it could be an important factor for greater bird species richness and diversity.



Swainson's Hawk

Vernal Pool Monitoring Program

Vernal pool fairy shrimp, a species federally listed as threatened, was observed in several vernal pools surveyed at the SVRA in 2010 (State Parks 2012). Vernal pool tadpole shrimp (*Lepidurus packardii*), a species federally listed as endangered, has not been observed at the SVRA however, suitable habitat for this species is present in the vernal pools along the terrace and in the excavated basin at the project site. The nearest known occurrence of vernal pool tadpole shrimp is 1.4 miles north of the SVRA (California Natural Diversity Database 2016).



Vernal Pool Tour

Consultants or State Park staff have conducted past studies on vernal pool tadpole shrimp and vernal pool fairy shrimp at the SVRA. In 2015, an initiative was spearheaded to task Prairie City SVRA environmental scientists with taking over responsibility for future studies. In response to this plan, two environmental scientists will receive the training necessary to obtain scientific collection permits from the USFWS in 2016. Training surveys and presence surveys are planned for 2017.



Prescribed burn on vernal pool grasslands

In 2013, a prescribed burn was implemented on 176 acres of vernal pool grasslands. The burn was managed as a partnership between State Parks and Cal Fire. The main objective of the burn plan was the reduction of invasive grasses to increase native plant diversity and restore the hydrologic cycle of the vernal pools. In order to track any changes in vegetation composition, data was collected in April 2011 and April 2014. Methods followed the California Native Plant Society's relevé protocol. A field team consisting of scientists from Twin Cities District, Gold Fields District, and the Natural Resources Division assessed 22 plots within the 176-acre burn site. Eleven plots were selected in upland grassland areas and eleven were selected in vernal pools. Data were collected on vegetative cover (percent of total) for each species identified within a plot.

Monitoring of the prescribed burn indicates some goals were met and others not. Native species richness has not increased; however, the dominance of invasive species has

declined and the survey plots are indicating a more even distribution of plant species, both native and not native to the grasslands of California. These results are promising, and monitoring will continue at Prairie City SVRA to help determine a proper frequency for further prescribed burns or whether management should be shifted to another method for invasive species control in the vernal pool grasslands.

Storm Water Management and Restoration

Storm water management and restoration are key 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 are vital to stay in compliance with water quality standards. The Division updated the Soil Conservation Standard and Guidelines in 2008 to address the issue and have a framework for management.



Restoration and rehabilitation efforts are one component of increasing vegetative cover and limiting the presence of erodible soils. Recontouring of areas that are prone to rutting and gully erosion are prioritized on the maintenance schedule, and seeding both with a hydroseeder 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 the silt fence can be seen in specific areas to help contain and filter.

Twelve sediment basins throughout the SVRA hold and store storm water 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 repair for rehabilitation while other areas are open for hillclimb recreational opportunities.



Hillside Restoration Project

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.

4x4 Improvement Project

The 4x4 Improvement Project transformed the 4x4 area of Prairie City SVRA into one of the most popular recreational areas in the park. The project managed to improve recreational facilities while also prioritizing water quality management. Major features of the project included concrete obstacles, a mud pit, a rock-lined drainage, and vegetated drainage buffers.



4x4 Improvement Area Project

Ariel Imagery Analysis

In March 2014, new aerial imagery was flown for Prairie City SVRA. Aerial Imagery Analysis has been conducted using a variety of methods. The SVRA used both Image Classification analysis within the ArcGIS software as well as point-intercept study design to analyze the change in vegetation cover using three aerial images flown in 2002, 2009, and 2014. Points were then marked every 50 feet along the transect line, creating 20 sample points per HMS site. This yielded 120 sample points for each aerial image. Each point was analyzed for its cover and marked with a designation of vegetation or bare ground. The results can be seen in the table below.

Table 1. Percentage of Bare Ground and Vegetated Cover 2002-2014

Year	Bare Ground (%)	Vegetated (%)
2002	27.5	72.5
2009	41	59
2014	29	71

Image Classification Analysis

Both park staff and a consulting firm that has been coordinating the General Plan, conducted analysis using ArcGIS of the 2002, 2009, and 2014 aerials for vegetation cover. The Image Classification toolbar within the ArcGIS software was utilized to analyze the land classes of vegetated (showing low reflection) and bare ground (showing high reflection). The SVRA created land classification maps for each aerial and then quantified the

classifications to obtain a general quantified acreage for vegetation and bare ground in the park.

Aerial Point-Intercept Analysis

Using field methodology for point-intercept studies (Herrick, et al. 2005), we converted the protocol for use with aerial photography. Six point count sites within the riding area of the park were randomly selected. The aerial imagery was zoomed in on each point and 250-foot buffers were created surrounding the point. Using a compass, four directional points were randomly chosen to create four transect lines. By utilizing multiple methodologies as well as different analysts, we were able to obtain an objective and accurate portrayal of the vegetative cover at Prairie City SVRA. Aerial point-intercept analysis and image classification analysis provided percent cover for the entirety of the SVRA, with both methods obtaining 70 percent vegetative cover for 2014. The image classification of the riding acreage of the SVRA produced a vegetative cover of 64 percent for 2014. Moving forward, the plan is to continue to conduct aerial imagery analysis whenever aerials can be flown, including conducting vegetative cover analysis in each individual zone.

Alan Kilgore from the Roads and Trails Program within California State Parks helped with an analysis of the 2002 and 2009 aerials. The results depicted a net loss of 55.5 acres of vegetation between 2002 and 2009. The full protocol can be seen in Appendix C of the 2013-2014 Habitat Monitoring System Report Prairie City and Clay Pit SVRAs (Heitner and Cumber-Lose, 2013/2014 HMS Report 2014, 71-72). A consultant helped produce an analysis of the 2002, 2009, and 2014 aerials. Table 2 shows the breakdown of vegetation and bare ground in the riding area. This analysis showed a loss of 26 acres of vegetation between 2002 and 2014.

Table 2. Percentage of vegetation and bare ground in the riding area

Year	Bare Ground (%; Acres)	Vegetation (%; Acres)
2002	32; 220.5	68; 469.5
2009	36; 250.5	64; 439.6
2014	36; 246.7	64; 443.5

Other Restoration Projects and Programs

- New low water and culvert crossings were installed at both Prairie City and Clay Pit SVRAs.
- Fence projects are underway to protect waterways from OHV recreational impacts.

- New trail signs have been installed at Prairie City SVRA, signaling the first step in multiple zones of the park towards moving from general open riding to a trail riding management system.
- Environmental scientists conducted a field lecture on-site to students in a Recreational Ecology course at CSU Sacramento.

Report Requirement 5

Actions taken by the Division and department since the last program report to discourage and decrease trespass of OHVs on private property

Preventing trespass onto private property and other areas closed to off-highway vehicle (OHV) recreation is an essential component of the Off-Highway Motor Vehicle Recreation (OHMVR) Program. 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” (Public Resource Code (PRC) Section 5090.02 (b)). Effectively managed areas and adequate facilities provide people with a legal alternative to trespassing onto private lands and closed areas in search of OHV recreation.



OHMVR Division Law Enforcement class

The OHMVR Division coordinates with, and provides grant funding to local, state, federal agencies, and other law enforcement agencies to monitor wilderness boundaries, private property, and other closed areas. These agencies and organizations also implement focused enforcement actions to address specific trespass and wilderness incursion concerns that arise. In an effort 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, as well as the consequences of ignoring applicable laws. This section describes the OHMVR Division’s efforts to reduce trespass in all of its program functions.

The OHMVR Division Public Safety Program

The Public Safety Program provides statewide leadership in OHV-related enforcement. Emphasis is placed on educating the public regarding OHV laws and regulations to encourage voluntary compliance and consistent enforcement aimed at curbing illegal activities. For instance, OHMVR Division State Park Peace Officers (SPPOs) participate at County fairs, youth and career fairs, and other special events to promote responsible recreation and safety. The Remote Control 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 used at outreach events teach safe riding techniques, proper safety gear, and responsible trail use.

OHMVR Division SPPOs assist city, county, and federal law enforcement agencies that provide services related to OHV recreation. For example, SPPOs coordinate with the El Dorado and Placer County Sheriffs and the Eldorado 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 officers on the trail help OHV enthusiasts know where it is legal to recreate. In addition, the OHMVR Division provides training for these agencies to promote consistent implementation of OHV laws.

OHMVR Division SPPOs have collaborated with private landowners in Mendocino County to install barriers in OHV areas and signage to inform people of regulations and boundaries. Costs of the barriers and signage come out of the OHMVR Division's operations budget and are of no cost to the private landowner. Staff also meet with stakeholders and law enforcement agencies around the state to identify issues, encourage cooperation, and facilitate solutions.

SPPOs work with the OHMVR Grants and Cooperative Agreements Program (OHMVR Grants Program) staff to review law enforcements applications and assist grant recipients to implement their programs. Many of these law enforcement grants fund law enforcement positions and equipment to patrol OHV areas in local and federal OHV areas.

Statewide OHV Law Enforcement and Sound Testing Training Class

The OHMVR Division law enforcement team developed curriculum and conducted OHV law enforcement and sound testing training to local, state, and federal agencies that provide OHV recreation opportunities to comply with PRC Section 5090.32 and Division 16.5 of the California Vehicle Code (CVC). The Peace Officer Standards and Training (POST)-certified class applies toward the continued professional training requirement for peace officers and is offered at no cost to the participants.

The OHV law enforcement class is a six-hour course intended for in-service peace officers and other staff assigned to patrol, supervision or management of OHV areas, public safety, and educational programs. Through instructor presentation and hands-on learning activities, students learn how to apply California's OHV laws, OHV requirements, registration, equipment, spark arrestors, and an overview of the green sticker program.



Law Enforcement Sound Training

The OHV sound testing class is an eight-hour course that consists of instructor presentation and practical exercises. Participants learn the basics of human hearing and the effect of sound on the built and natural 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 have the opportunity to meet other peace officers who work in OHV areas, many of whom will coordinate joint law enforcement efforts at large special events on California's public lands.



Sound test equipment

In 2016, OHMVR Division law enforcement staff delivered classes at five locations: Sonora, Truckee, El Centro, Castaic, and Butte County. Several agencies participated including the United States Forest Service, (USFS), Bureau of Land Management (BLM), local County Sheriff departments, and to State Parks cadets. In fact, the request for the Truckee class was so popular that the class was extended to two days.

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

First held on BLM land in 2007 for “bragging rights” amongst friends, the week long King of the Hammers event now draws over 30,000 spectators annually. The OHMVR Division began collaborating with BLM in 2013 in order assist with one of the most attended OHV event in the nation. This was not the first event in which State Parks worked with BLM. The 2011 Glamis President’s Day weekend event had seven State Park Peace Officers working with BLM and officers from the California Department



of Fish and Wildlife and the California Highway Patrol in order to ensure a safe and memorable OHV experience by the visitors to the Imperial Sand Dunes OHV area. In addition to these events, the OHMVR Division collaborates with BLM, the Forest Service, and the Kern County Sheriff to ensure OHV enthusiasts are not trespassing and recreating in unauthorized areas, such as the lands on and around the Pacific Crest Trail in Kern

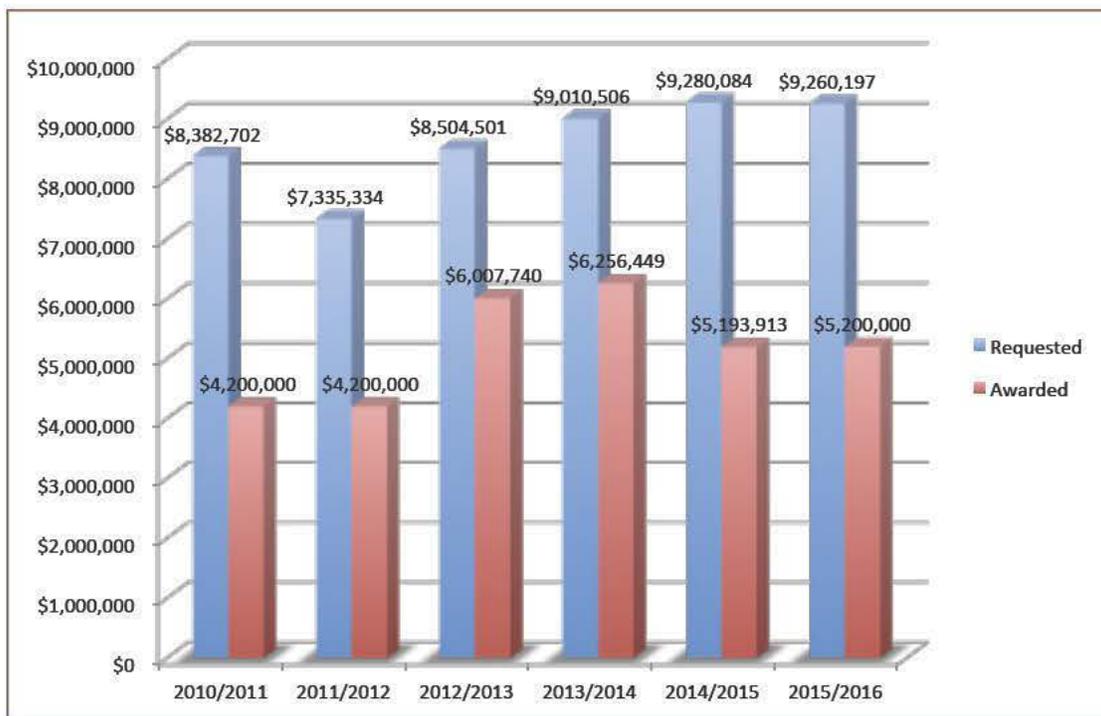
County. Memorandums of Understanding make cooperative management of OHV areas between State Parks and BLM, such as Ocotillo Wells SVRA and the recent Eastern Kern County, Onyx Ranch SVRA (Jawbone area) an effective way to increase OHV riding area opportunities.

OHMVR Division Grants and Cooperative Agreements Program Law Enforcement Funding

The California State Legislature appropriates 20 percent of the OHMVR Grants Program funding for OHV law enforcement. Applicable grant funding is allocated to local and federal law enforcement agencies to hire personnel and related equipment in accordance to Public Resources Code 5090.61 (a). Law enforcement funds are distributed on a non-competitive basis proportionate to the off-highway vehicle needs under each entity's jurisdiction. The set level of funding available in each grant cycle creates a predictable and consistent level of funding support for law enforcement activities. However, as demonstrated by the chart, available funding levels are considerably less than the amount requested by law enforcement agencies in California.



Law Enforcement Grant Funding



Law enforcement grants go to BLM, USFS, and County Sheriffs to hire personnel and equipment, such as vehicles, to patrol OHV areas to protect resources and prevent unauthorized access onto public and private lands. Interest in law enforcement grant funds increased. To accommodate the increased interest, the Grants Program team developed a workshop segment specifically for this grant category. In the 2015/2016 OHMVR grants cycle workshop, the separate law enforcement segment was well attended and allowed participants to ask focused questions on this category.

The following are examples of how grant funds have aided local, state, and federal agencies in their law enforcement needs since 2014:

- The Napa Valley Sheriff was awarded funding to increase enforcement patrols and purchase OHV patrol equipment for the Knoxville Recreation Area. Knoxville is a 17,700-acre park that spans Napa, Yolo and Lake Counties, deputies have caught illegal marijuana growers, illegal hunters and discouraged garbage dumping. Over the years, the Sheriff's Office had received \$5,000 to \$60,000 in law enforcement grants for the Knoxville program.
- The Placer County Sheriff was awarded funds to purchase all-terrain vehicles (ATVs) to patrol the remote and rugged OHV areas in the county, such as the Rubicon Trail. Much of an officer's time is used to educate enthusiasts of OHV laws, vehicle safety, and to ensure they know where it is legal to recreate.
- The San Bernardino National Forest was awarded funds to hire an additional law enforcement officer, purchase sound monitoring equipment, and provide training certification for sound testing and spark arrester tools. There was an urgent need for additional law enforcement and monitoring at the Baldy Mesa OHV Area due to the 2013 designation of 23 miles of OHV routes, approval for staging area improvements and 55 miles of unauthorized route restoration. The Baldy Mesa OHV area is a popular recreation area for OHV, equestrian and hiking use, is close to urban areas, and has adjacent County and private land on the USFS boundary. This position provides increase patrol and contacts with users to promote responsible OHV use and prevent trespass in unauthorized areas. Two additional grants fund the installation of a fence on the USFS border to prevent trespass and an education grant to increase outreach to recreationists to inform them of authorized recreation areas.
- The BLM South Cow Mountain OHV Area was awarded funds to purchase 1,391 acres of private land located on either side of Highway 175, just south of the South Cow Mountain OHV Recreation Area. This acquisition secures and improves public access to the OHV area, increases recreational opportunities, and prevents trespass on adjacent private lands. Before the acquisition, OHV users accessed BLM trails using private landowners' access roads and trespassed to access this area. This acquisition solves this trespass issue by providing secured access for recreational uses.

Pacific Crest Trail Kiosk Update in Kern County

The Western Mojave Region is one of the OHMVR Division's active areas for resource management and outdoor recreation. OHMVR Grant Program recipients in the area include BLM Ridgecrest, California City, Kern County Sheriff's Office, and the Friends of Jawbone. During grant site visits and at OHMVR Commission meetings, stakeholders expressed concerns over OHV trespass on the Pacific Crest Trail. From 2011-2014, the OHMVR Division held meetings with representatives from Kern County, BLM, USFS, the Pacific Crest Trail Association, the Los Angeles Department of Water and Power (LADWP), the Kern Recreational Landowners Association, Community ORV Watch, and Friends of Jawbone. The meeting resulted in a decision to install informational kiosks, which clearly show areas where OHV riding is prohibited and guides riders to legal riding areas.



Kiosk structures installed near the PCT

The OHMVR Division statewide OHV law enforcement program funds the kiosk project. Kiosk structures have been installed at four locations since 2014 near the Pacific Crest Trail and the LADWP aqueduct. In 2016, OHMVR Division staff and a private landowner visited key access sites for installation of OHV educational kiosks on its property in relation to the Pacific Crest Trail. An informational kiosk will be installed near the Flume Crossing approximately 1.5 miles west of the 172nd Street kiosk. Two additional kiosk sites are currently being considered.

Hungry Valley SVRA Visitor Services Program

SPPOs at Hungry Valley SVRA consists of five rangers and one supervising ranger. The Rangers patrol the park using four-wheel drive vehicles, ROVs and dirt bikes. The main responsibilities of the park Ranger at Hungry Valley is to patrol the park, enforce the laws, provide medical assistance, and be of service to the park visitors.



Hungry Valley SVRA First Responders

Rangers are trained as First Responders in Emergency Medical Response/Emergency Medical Technician skills. They respond to injured visitors at the park by providing basic life support treating a wide range of traumatic injuries. Rangers respond to over 100 calls for assistance each year in the 20,000-acre park. Most injuries are minor; however, some require transport to the local hospital by ambulance or in cases that are more critical, by helicopter.

Rangers work with local agencies and provide backup as necessary. Adjacent to Hungry Valley is the Los Padres National Forest, which has numerous off-highway trails, several which connect to Sterling Canyon in Hungry Valley. Rangers have joined the Ventura County Sheriff Department on numerous search and rescue operations in the National Forest.

In 2016, the Ventura County Sheriff's Office joined forces with Ranger staff to eradicate an illegal marijuana cultivation site near the Tataviam Trail at Hungry Valley. One suspect was arrested and 8,000 plants eradicated. Ranger staff has worked with both Los Angeles and Kern Counties in evacuating local communities during dangerous wildfire conditions. All Rangers are certified in basic wildland fire training and assist in wildfire suppression efforts.



Hungry Valley SVRA Medical Emergency Technician Team

In-Lieu Funding Distributions

A \$4 fee is imposed for the issuance or renewal of identification for each off-highway motor vehicle 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. In-lieu funds are distributed to counties based on how much OHV activity occurs in the county. Previously, the population of a county determined the amount of in-lieu funds each county would receive. This resulted in some counties with very 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 that are visited by large numbers of OHV recreationists are now receiving a more appropriate share of the available funds (CVC § 38240). Since 2008, over \$22 million has been distributed directly to the counties. A listing of in lieu distributions to the counties is shown on the following page.

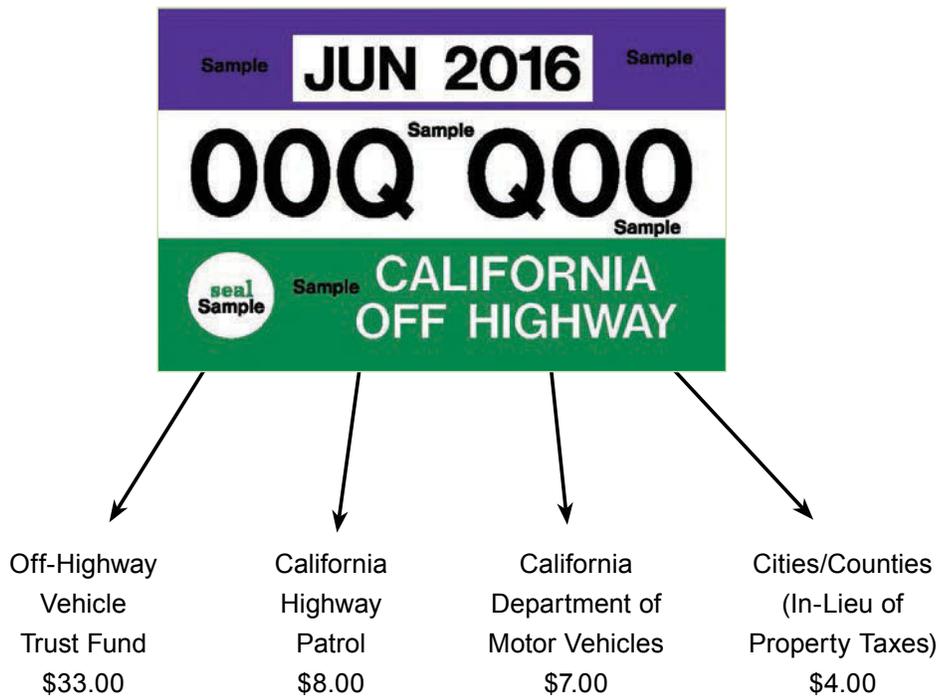
State Controller's Office

Division of Accounting and Reporting

Allocation of Off-Highway License Fee - 2008 through June 2016

COUNTY	Year 2015
Alameda	\$147,914
Alpine	39,771
Amador	51,283
Butte	120,812
Calaveras	32,870
Colusa	467,813
Del Norte	2,217
El Dorado	784,598
Fresno	99,550
Glenn	3,338
Humboldt	27,247
Imperial	5,564,520
Inyo	7,097
Kern	1,467,889
Lake	32,772
Lassen	204,894
Los Angeles	1,631,867
Modoc	5,597
Mono	193,511
Napa	155,615
Nevada	351,370
Orange	176,536
Placer	323,603
Plumas	679,080
Riverside	1,074,510
Sacramento	80,973
San Benito	1,123,268
San Bernardino	3,218,482
San Diego	572,633
San Joaquin	176,271
San Luis Obispo	1,602,109
Santa Barbara	6,204
Santa Clara	194,118
Shasta	338,146
Sierra	238
Siskiyou	145,594
Solano	23,683
Stanislaus	20,334
Tehama	37,947
Trinity	92,265
Tulare	103,661
Tuolumne	231,293
Ventura	679,770
Yolo	5,912
Yuba	77,675
TOTAL	22,376,855

**Annual Distribution of Off-Highway Motor Vehicle Registration Fees
(Registrations are \$52.00 Biennially Effective January 1, 2009)**



OHMVR Grants Program Funding for Interactive Recreational Maps

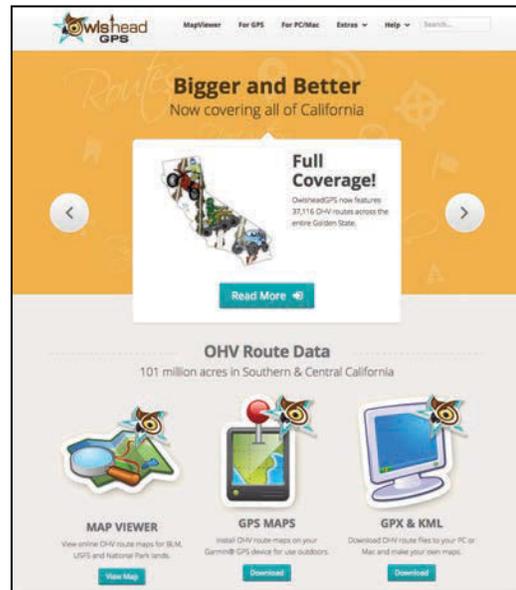
The OwlsheadGPS Project brings official government OHV-designated route map data to ordinary consumers using global positioning system (GPS) devices (mobile devices and GPS-enabled phones) and computers. The Friends of Jawbone, with substantial funding from the OHMVR Grants Program, developed a unique, internet-based system that allows the public to view and download OHV route data. The project has real-time feedback that makes it easy for OHV users to stay on authorized OHV routes and areas and is scalable to accommodate future OHV route data sets. In addition, the project assists with many recreational activities that depend on motorized access, such as hunting, rock hounding, camping, wildlife viewing, and stargazing.

OHV routes are color coded specifically for ATV, motorcycle, snowmobile, full size 4x4's, street legal vehicles, and green sticker vehicles such as dune buggies and side-by-sides. The OwlsheadGPS.com website provides three products for GPS and computer users:

- a tool to view a map of the designated OHV route network;
- a global positioning system map (GPS) that can be installed on most GPS devices; and
- downloadable OHV route files for computers and GPS devices

The OwlsheadGPS Project's tools and data are free to use and are available to the public via any computer or mobile device – with or without an internet connection. Route maps and data can be downloaded, stored and used outdoors by the end user at any time.

As of 2016, the project area covers 101 million acres, 37,116 routes encompassing 57,077 miles of trails with the goal of expanding to all California public lands. The latest phase of this project was funded through an 2014/2015 OHMVR education and safety grant to convert the OwlsheadGPS.com web-based data and system to applications for GPS-enabled iOS and Android mobile devices, and to the route data with the new OHV route designations expected in BLM's West Mojave planning area.



Report Requirement 6

Other relevant program-related environmental issues that have arisen since the last Program report

Bureau of Land Management

Johnson Valley Off-Highway Vehicle Recreation Area

Johnson Valley is a popular Off-Highway Vehicle (OHV) Recreation Area administered by the Bureau of Land Management (BLM), Barstow Field Office. In 2008, the United States Marine Corps (USMC) expressed an interest in acquiring all, or a portion of, the Johnson Valley OHV Area to meet training requirements for a large-scale training range facility. The USMC prepared a National Environmental Protection Act (NEPA) Environmental Impact Statement (EIS) in support of land acquisition. The Final EIS was released in July 2012. On February 11, 2013, the Department of the Navy issued the Record of Decision and the transfer request was referred to the United States Congress for consideration and possible action.



Johnson Valley OHV Area OHMVR Commission Tour 2011

On December 26, 2013, the President signed the 2014 National Defense Authorization Act (NDAA) transferring approximately 79,000 acres from BLM to the Secretary of the Navy for exclusive military use and designating 53,000 acres for shared use with the public. The Johnson Valley Shared Use Area is open to the public except for two 30-day periods annually, when the USMC conducts training. The Marine Corps and BLM collaborate to inform the public of the closure well in advance of military training. The first closure of the Shared Use Area for military training was August 14-21, 2016.

As part of the 2014 National Defense Authorization Act (H.R. 3304), Johnson Valley was designated by Congress as the Johnson Valley Off-Highway Vehicle Recreation Area under the continued management of BLM.

Clear Creek Management Area

The Clear Creek Management Area (CCMA) consists of approximately 75,000 acres of mostly public land within the southern Diablo Mountains of Central California. It extends from southeastern San Benito County into western Fresno County. BLM manages 63,000 acres of the public land within CCMA.

The CCMA has been recognized as one of the top motorcycle trail riding areas in the nation. Hiking, mountain biking, rock-hounding, hunting, and camping are also popular activities at CCMA. In years past, CCMA received approximately 35,000 visitors annually.

In 1984, the BLM designated 31,000 acres of CCMA as the Serpentine Area of Critical Environmental Concern (ACEC). This was based on the mapping of soils derived from the New Idria Serpentinite geologic inclusion and on perceived health concerns related to naturally occurring asbestos (NOA). Serpentinite may or may not contain asbestos—the terms are not synonymous. The name serpentinite is used because the



metamorphic rock is mostly composed of the serpentine group of minerals—a collection of about 20 minerals with similar chemistry but varying micro-crystalline structures. Most of these minerals have a platy structure, which makes the rock feel smooth and waxy. A few of the minerals, such as chrysotile, appear fibrous because their internal structure is elongated and flexible. The fibrous serpentine minerals often appear as veins within serpentinite rock. This small subset of minerals is generically called asbestiform or asbestos. That said, the New Idria Serpentinite contains NOA, particularly in the eastern third of the ACEC, where the rock has been mined for the chrysotile it contains.

After the 1984 delineation of the ACEC, BLM produced maps with NOA information and posted signs regarding NOA exposure risk, which included recommendations for minimizing risk, such as avoiding the area during the hottest and driest months of the year. From 2006 to 2008, the BLM managed CCMA using a seasonal closure that extended from June through mid-October as a means to mitigate NOA risk to CCMA visitors.

In May 2008, BLM issued a temporary closure of CCMA. The closure was in response to a May 2008 health risk assessment study by Region 9 of the U.S. Environmental Protection Agency (Region 9) which stated that exposure to NOA at CCMA was “of concern.” The Region 9 study examined NOA exposure for various recreational activities at CCMA, including camping, hiking, and OHV recreation. The Region 9 investigation team collected

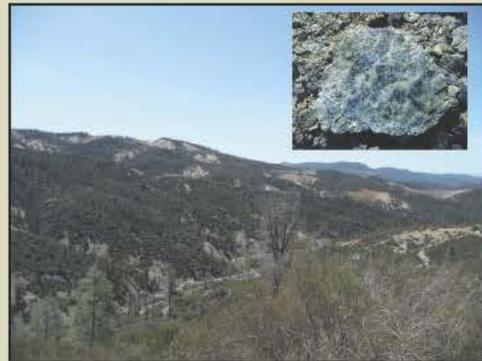
air filter samples for these activities in September and November 2004 and February and September 2005.

The OHMVR Division Grants and Cooperative Agreements Program (Grants Program) awarded BLM nearly \$7,000,000 for CCMA infrastructure and maintenance specific to OHV-related recreation. Since the potential loss of OHV-related investments at CCMA was warranted, the OHMVR Division asked BLM for access to CCMA to conduct an OHV-focused risk assessment study.

The OHMVR Division hired a consultant to initiate the study in April 2010. The consultant directed motorcycle trail riders outfitted with air filtration sampling equipment to traverse the same CCMA trails used for the Region 9 study. Then, the consultant collected filter samples and determined health risk of NOA exposure using the same risk assessment methodology Region 9 used in its study. The completed report, produced in April 2011, concluded

Serpentinite

Serpentinite rock originated as oceanic crust. For the New Idria Serpentinite, previous plate tectonic dynamics pushed the crust toward the west coast, where over millions of years, it slid beneath the continent via a process called subduction. While most of the crust slid to the earth's mantle, some of the oceanic rock smeared onto the leading edge and underside of the continental crustal rock and so was only partially subducted. Nonetheless, these ocean floor remnants were subjected to considerable heat and pressure, causing the rock and its chemistry to change, or metamorphose, into serpentinite. Generally, the changed chemistry makes serpentinite less dense than overlying rock. This allowed the New Idria Serpentinite rock body to push overlying rock slowly upward and aside, and eventually the serpentinite was exposed by erosion.



The name serpentinite is used because the metamorphic rock is mostly composed of the serpentine group of minerals—a collection of about 20 minerals with similar chemistry but varying microcrystalline structures. Most of these minerals have a platy structure, which makes the rock feel smooth and waxy. A few of the minerals, such as chrysotile, appear fibrous because their internal structure is elongated and flexible. The fibrous serpentine minerals often appear as veins within serpentinite rock. This small subset of minerals is generically called asbestiform or asbestos.

the NOA risk was miniscule and well below the threshold of concern used by BLM and Region 9.

The CCMA closure ended in March 2014 when BLM finalized its update to the area's Resource Management Plan (RMP). The updated RMP incorporated Region 9 risk assessment calculations as a means to evaluate NOA exposure to potential CCMA recreationists under different visitation and activity scenarios—also known as management alternatives. Under the preferred and implemented management alternative specified in the RMP, visitation to CCMA is allowed year-round but is limited to a total of five days per year. Permissible activities include “non-motorized activities” (e.g., hiking, rock hounding, and horseback riding), the “non-hunting discharge of firearms,” and the driving of highway-licensed vehicles into or through the ACEC. Driving of highway-licensed vehicles would primarily be on Clear Creek Road at the west end of the ACEC. Camping is prohibited though camping at the Jade Mill campground, which is adjacent to the western perimeter of the ACEC, is allowed. All OHV recreation within the ACEC is prohibited—trail riding is not allowed. A CCMA ACEC access permit is required for any individual entering the ACEC. The permit is free and is obtained via the website www.recreation.gov. A \$5 vehicle use permit is required for all vehicles entering CCMA and can be obtained from the same website.

Due to the findings of the 2011 study, BLM included in the CCMA RMP a stipulation for adaptive management regarding restrictions associated with NOA in the ACEC. The CCMA RMP states “BLM would reinstate travel management planning in the ... ACEC to modify transportation and travel management decisions adopted in this RMP” based on “adaptive management criteria” including “activity based studies that establish effective strategies for reduction in personal exposure to asbestos from off-highway vehicle recreation.” It is for this reason that the OHMVR Division asked the consultant to broaden its initial risk assessment investigation. As in April 2010, the consultant investigation team of motorcycle trail riders equipped with air sampling gear rode trails within the ACEC in November and December 2013 and January, February, and March 2014. Coupled with the April 2010 data, this created a consecutive-month dataset that spans the traditionally popular fall, winter, and spring CCMA visitation months. Additionally, the dataset contains more than twice as many motorcycle-trail-riding air filter samples as the Region 9 dataset.

The results of the expanded study are presented in an updated report dated July 2016. The report presents airborne fiber concentrations that were determined based on the consultant's air filter analyses and the duration of air filtration for each air filter sample. Those concentrations were then extrapolated to determine exposure to an individual riding a motorcycle on trails within the ACEC of CCMA for eight hours per day, five days per year, which is very similar to visitation scenarios now allowed by BLM for other activities at

CCMA. Risk for contracting asbestos-related cancer for that activity and exposure was then calculated according to Environmental Protection Agency methodology. As presented in their report, the consultant determined the risk to be less than one asbestos-related cancer per million visitors riding trails within the ACEC of CCMA.

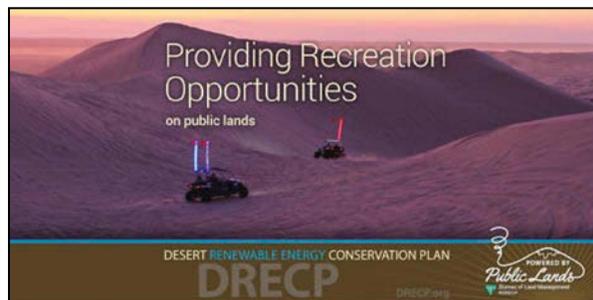
BLM and Region 9 will review the updated report and related materials to determine if the allowable recreational activities at CCMA should be reconsidered and the RMP appropriately modified, based on the adaptive management criteria presented in the CCMA RMP.

Congressional legislation sponsored by United States Representative Sam Farr seeks to establish CCMA as the Clear Creek National Recreation Area. The bill, HR 1838 (formerly HR 1776 in the previous congressional session), promotes environmentally responsible OHV recreation on the public land and supports other forms of recreation, such as those already allowed under BLM's 2014 CCMA RMP. It instructs BLM to use an interim management plan for the area the 2006 CCMA RMP Amendment and Record of Decision, which designated areas and trails within CCMA for OHV use. Additionally, BLM is to prepare a permanent management plan that includes a hazards education program to inform people entering the area of NOA risks associated with the various recreational activities. In July 2016, the bill passed through the U.S. House of Representatives on a voice vote and currently awaits action by the U.S. Senate.

Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) is a multiagency conservation and planning document intended to guide renewable energy project siting in the Mojave and Colorado/Sonoran deserts of California. The DRECP is designed to provide for the conservation of sensitive species and ecosystems and streamline environmental review and permitting for renewable energy and transmission projects. The plan will meet the requirements of the federal Endangered Species Act, California Endangered Species Act, Natural Community Conservation Planning Act, and the Federal Land Policy and Management Act.

The DRECP planning area encompasses seven California counties, including Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego and 22.5 million acres of private, state, and federal lands. Approximately 50 percent of the planning area is on BLM-administered lands.



Thirteen State Parks lay within the planning area, including Ocotillo Wells SVRA; Hungry Valley SVRA; and Eastern Kern County, Onyx Ranch SVRA.

The California Energy Commission, California Department of Fish and Wildlife (CDFW), United States Forest Service (USFS), and the BLM, also known as the Renewable Energy Action Team or REAT, are the leading the monumental planning effort. Other state and federal agencies actively participating include the California Public Utilities Commission, the California State Lands Commission, California State Parks, the United States Department of Defense, and the National Parks Service. Proposed alternative energy development siting on public lands in California has the potential to affect access to and use of these lands for recreation and other purposes. Active participation in this planning effort helps ensure that State Parks' interests are sustained through the planning and implementation period of the DRECP, which extends to the year 2040.

The DRECP consists of several components:

- a BLM Land Use Plan Amendment (LUPA) in accordance with the Federal Land Policy and Management Act;
- a Natural Community Conservation Plan (NCCP) to comply with the California NCCP Act and the California Endangered Species Act; and
- a General Conservation Plan (GCP) to comply with the Federal Endangered Species Act.

Each of these planning components requires extensive interagency involvement, public outreach, review, and comment periods. The Draft DRECP and Environmental Impact Report/Environmental Impact Statement was published in September 2014, with the public review period ending in February 2015.

In March 2015, REAT announced a phased approach to completing the DRECP. Phase I consisted of developing the BLM LUPA and associated Environmental Impact Statement (FEIS). These documents propose to “amend the California Desert Conservation Area (CDCA) Plan as well as the Bishop and Bakersfield Resource Management Plans, specifically related to natural resource conservation and renewable energy development (DRECP Proposed LUPA and Final EIS October 2015, I.0-1).” The Proposed LUPA and FEIS were published on November 15, 2015 for public review and comment. State Parks reviewed the LUPA and FEIS and submitted substantial comments.

Timing for Phase II of the DRECP has not been determined and will concentrate on renewable energy development and resource conservation on nonfederal lands, including State Park lands.

National Monument Designation in California

National monuments protect critical habitat and species, preserve cultural heritage sites, and provide outdoor recreation opportunities to the public. The designation of public lands as a national monument provides specific protections and land management directives. For the most part, national monuments protect existing rights, meaning that most activities that were allowed prior to becoming a national monument would be allowed after designation. For example, if OHV recreation had been allowed on designated roads, it would continue after the monument is established. One possible concern of outdoor recreation enthusiasts is that national monument designations could curtail existing recreation opportunities and restrict the potential to expand or change recreation opportunities in the future.

When Congress establishes national monuments, the legislative process allows for discussion of bill components, such as wilderness designations, mining activities, energy production, and recreation allowed. It also allows for public review and comments on the proposed legislation. The President designates national monuments through Executive Orders, which under the 1906 Antiquities Act, gives the President the authority to set policy without going through Congress for approval.

California has 15 national monuments, seven of which were established in the last eight years through Executive Orders. Three of these monuments were created from BLM-managed lands in the Southern California desert. While OHV recreation on existing trails has been preserved, the recreation cannot be expanded within the monument area. OHV recreation is a popular sport in the area, and the existing BLM-managed OHV areas are already impacted. Moreover, the Grants Program awarded over \$14 million since the 2008/2009 grants cycle to fund projects that support BLM-administered OHV areas in the California Desert Conservation Area (CDCA). Given the substantial investment of California public funds, the OHMVR Commission has an interest in protecting OHV recreational opportunities in the CDCA well into the future.



Secretary of Interior Sally Jewell addresses the crowd

More recently, there have been efforts to involve OHV stakeholders in the discussion of potential land uses, even when lands have been designated through Executive Order. Berryessa Snow Mountain National Monument, designated in July 2015, is a good example of this. The BLM and the USFS administer the lands in the Monument, which consists of 330,780 acres that stretch from Napa County to the mountains of the Mendocino National Forest north of Clear Lake. The area contains one of the greatest concentrations of biodiversity in California and is home to threatened and endangered plant and wildlife species. Hiking, horseback riding, and fishing are popular activities and OHV recreation is allowed on designated routes and trails.



l to r: Don Bastien, USFS (former DPR ranger); Secretary of Interior Sally Jewell; Rick LeFlore, DPR; Donna McGuire, DPR; Don Schmidt, DPR (Photo by: U.S. Department of the Interior)

The process for establishing Berryessa Snow Mountain National Monument, even by executive order, was a collaborative effort that involved a balanced approach to resource protection with multi-use recreation. The BLM and the USFS worked closely with OHV enthusiasts, many different public agencies and private partnerships, including State Parks, to ensure OHV recreation continued within the national monument. At the dedication ceremony in March 2016, the event organizers invited the OHMVR Division to provide an interpretive booth in order to highlight the continued OHV recreational opportunities previously established in this area. Approximately 700 people visited the booth, including U.S. Secretary of Interior Sally Jewell, and participated in interactive programs. As public lands that allow OHV recreation become more scarce, this multi-agency and stakeholder approach to designating national monuments becomes more important to finding a balance of conservation and recreation with which all parties agree.

Overview of State Vehicular Recreation Areas

Carnegie SVRA

Carnegie SVRA is located in the hills of southern Alameda and San Joaquin Counties between the cities of Livermore and Tracy. Dry rocky washes, rolling hills, and steep, rugged canyons rising abruptly out of the floodplain characterize the landscape at the park.

The SVRA provides 1,200 acres of OHV

recreation opportunities. The park is a distinctive setting for OHV recreation of all skill levels and offers beautiful scenic vistas for trail riding. It is especially suited for motorcycle use because of its steep hills and narrow trails. The canyons offer 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. In 1998, the Alameda-Tesla parcels, totaling more than 3,000 acres located west of the current OHV area, were purchased by the state as part of Carnegie SVRA.

Location: Alameda & San Joaquin Counties

Total Park Acreage: 5,058

Year Park became an SVRA: 1980

2015 Annual Visitation: 66,603

Camping: Yes

Facilities and Recreational Opportunities

Visitor facilities include multiple restrooms scattered throughout the SVRA, day use sites for picnicking and staging, and the following recreational facilities.

Day Use and Camping: Day use staging areas are located throughout the park and offer shade ramadas, picnic tables, and restrooms. Day use hours vary depending upon the time of year; however, the park is closed to OHV recreation at night. Twenty-three designated campsites are available on a first-come, first-serve basis. Sites are equipped with a picnic table, shade ramada, and fire ring. Potable water, flush toilets, and showers are provided near the campsites.



While Carnegie SVRA is known for its challenging hill climbs and single track trails that traverse the hills, there is also great opportunity for full sized vehicles, all-terrain vehicles (ATVs), and recreational off-highway vehicles (ROVs) including trails, distributed riding, a



4x4 play area and obstacle course, and motorcycle and ATV tracks. The valley floor offers a variety of tracks including a motocross track for dirt bikes only, an ATV and dirt bike track, a beginner track designated for vehicles with small engines up to 70cc, and an intermediate track designated for vehicles with engines up to 110cc. The riparian area through the valley floor is protected with designated crossings to access trails in the hills.

OHV Trails: Available for a range of skill levels, main trails are marked by the level of difficulty. Off-highway motorcycles are allowed on all trails. Most trails are multi-use, but some trails are not wide enough for ATVs.

Motocross Track: This popular track is open to motorcycles only. Formalized competitive events are held on some weekends causing periodic closures to the public.

ATV/MC Track: Open to both ATVs and motorcycles.

70cc Children's Track: Designated for motorcycles and ATVs with small engines up to 70cc displacement, this track offers young riders an opportunity to practice and improve their riding skills.

110cc Beginner Track: Designated for motorcycles and ATVs with small engines up to 110cc displacement.

4x4 Challenge Area: Open to four-wheel-drive vehicles only. The area is not currently available to trials bikes.

Hillclimb Special Event Area: Open to off-highway motorcycles. This area is closed to the public except during formal hillclimb events several weekends a year.



Park Concession: Provides SVRA visitors access to purchase off-highway motorcycle and ATV parts, safety gear, and OHV accessories. Food service and minor OHV repair service are also available.

Outreach and Education

The Carnegie SVRA interpretive staff create interpretive materials, engage in special events, provide outreach to local schools, and use social media to support the park's

mission of educating recreationists and the public about the need to protect the environment while providing recreational opportunities.

An informational booth with OHV related kids' activities, animal mounts, maps, brochures on local history, responsible riding, and the Storm Water Management Plan, and information on park projects is set up at farmers' markets, county fairs, community events, the annual Oakland Supercross, and special events held at the SVRA. The interpretation team also provides educational information to park visitors who attend the annual Visitor Appreciation



Day event held each October. Interpreters also visit schools and present an animal program to kindergarten or first grade students, a third grade history program, or a career in parks program for high school students. Carnegie SVRA offers the Junior Ranger program and hosts the Off-Highway PALs program. The SVRA also hosts a variety of OHV special events at which park visitors are educated on the importance of staying on trails, out of creeks and streams, away from wildlife, and out of closed areas.

Social media is the primary means for SVRA staff to connect with visitors on a daily basis. Carnegie SVRA's Facebook page enables staff to communicate park conditions, educational opportunities, special events, and the status of park projects.

Park History

In 1855, railroad surveyors discovered coal in Corral Hollow that led to the building of California's first commercial coal mine and the town of Tesla. High quality clay was later found in the area, leading to the construction of the Carnegie Brick and Pottery Company in 1902. Owner John Treadwell named his newest enterprise after a man he admired, philanthropist Andrew Carnegie. A small town



Carnegie Brick and Pottery Company plant

of about 350 residents sprung up that included a hotel, two bunkhouses, a bakery, saloon, slaughterhouse, school, and 17 homes. By 1910, as many as 110,000 bricks a day were being shipped all over California stamped with the name "Carnegie." Despite high demand for the products, boiler explosions, repeated floods, and a bank failure ruined Carnegie Brick and Pottery, and the company was sold to a competitor in 1916.

The new owners destroyed the town's remaining buildings and sold off the factory's equipment. Remnants of Carnegie's past, including building foundations, railroad routes, and lime kilns can still be seen throughout the park today. Carnegie Brick and Pottery Company's legacy continues in buildings built with Carnegie brick and terra cotta such as the Oakland Hotel, the Los Angeles County Natural History Museum, and the Carnegie Libraries in Livermore and Lodi. Private ranches, predominantly for cattle grazing, next occupied the land.

By the early 1940s, motorcyclists had discovered the durable clay soils of Corral Hollow were good for OHV recreation. In 1970, Carnegie was purchased for a private motorcycle park, known as the Carnegie Cycle Park. Improvements were made to the park, but due to increasing insurance costs and operating expenses, the property was sold to the state for \$1.2 million in 1979.



Clay Pit SVRA

Clay Pit SVRA is located approximately two miles west of the town of Oroville and approximately 30 miles north of Yuba City, in Butte County. Present-day Clay Pit SVRA was excavated to construct Oroville Dam in 1964. Clay was mined from the area to construct the core of the dam. The result of this work left a depression in the ground—a large, shallow, bowl-shaped pit and an undulating landscape ringed with low hills. Clay Pit SVRA is a 220-acre fenced distributed riding area that offers beginner riding terrain for motorcycle, ATV, 4x4, and dune buggy enthusiasts.

Location: Butte County

Total Park Acreage: 220

Year Park became an SVRA: 1981

2015 Annual Visitation: 18,556

Camping: No

The elevation of Clay Pit SVRA varies from 50 feet to 150 feet above sea level. The climate is variable—generally warm during the summer with temperatures in the 90s, and cold during the winter with temperatures averaging in the 40s.

Facilities and Recreational Opportunities

Clay Pit SVRA is for day use only and there is no camping. It is open from 8:00 a.m. until sunset, seven days a week. Facilities available at the park include shade ramadas, picnic tables, and a vault toilet.

Clay Pit SVRA offers primarily distributed riding and informal trails for those riding motorcycles, ATVs, and dune buggies. The SVRA provides ideal beginner OHV terrain, and is a nice place for families to gather, watch people recreate, and picnic under the cottonwood trees.



Outreach and Education

The interpretive program at Clay Pit SVRA promotes sustainable OHV recreation by educating visitors on safe and environmentally responsible recreational practices. Hands-on interpretive programs and interpretation kiosks within the park allows visitors to learn about the wildlife, vegetation, history of the park, and the importance of protecting the park's natural and cultural resources. Interpretive programs are presented at special events within the park and community outreach events outside of the park. The practice of responsible OHV recreation will ensure that Clay Pit SVRA will be available for future generations.

Park History

The history of Clay Pit is tied to the statewide effort to create reservoirs during the construction of the State Water Project. The State Water Project was authorized by the voters in 1960 and is now the nation's largest state-built water and power development and distribution system. It was primarily created to help supply additional water to the expanding populations in San Francisco and Los Angeles, but also helped to address concerns about devastating floods that



happened a few years before. Included in the project was the construction of Oroville Dam. After the dam was completed, site ownership was retained by the California Department of Water Resources (CDWR) and California Department of Fish and Wildlife (CDFW). Further study of Clay Pit may yield information about early California gold dredging activities and additional information about the State Water Project.

In 1981, State Parks was issued an operating agreement for the site for the purpose of establishing, operating, and maintaining an OHV area and providing for associated recreation on the property. The Northern Buttes District of State Parks managed the area until July 1, 2009, when it was then transferred to the OHMVR Division. Today, the Twin Cities District operates the SVRA.

Eastern Kern County, Onyx Ranch SVRA

In December 2014, the OHMVR Division acquired 50 privately-owned parcels (approximately 26,000 acres) in eastern Kern County from ReNu Resources, LLC. California's Public Works Board approved the acquisition at its November 14, 2014, meeting as the Eastern Kern County, Onyx Ranch SVRA.

Location: Kern County
Total Park Acreage: 26,000
Year Park became an SVRA: 2014
Camping: Yes

Eastern Kern County, Onyx Ranch SVRA is the second largest of nine SVRAs and is the newest acquisition. It is adjacent to Red Rock State Park, where the Mojave Desert abuts the southern-most extent of the Sierra Nevada, and includes the Jawbone Canyon OHV Open Area, Kelso Valley, and Dove Springs OHV Area. The property is laid out in a checkerboard fashion of mostly one-mile square parcels and offers scenic and challenging terrain for OHV recreation. The SVRA is surrounded by mostly Bureau of Land Management (BLM) land that also offers visitors varied OHV recreational opportunities.



Major population centers of Bakersfield and Los Angeles are approximately 75 miles to the west and 120 miles to the south, respectively. All of the adjacent BLM lands are within the jurisdiction of the BLM

Ridgecrest Field Office. Within the undeveloped lands are a few developed improvements the most notable two Los Angeles Department of Water and Power (LADWP) aqueduct pipelines.

Elevations range from 2,200 feet to over 6,400 feet. Occasional snowfalls occur in the winter months and summers are mostly hot and dry. The most pleasant times of the year for OHV recreation occurs between October and April when temperatures are cool and occasional rains provide for reduced dust and improved traction. Nighttime temperatures frequently drop below freezing in the winter, spring, and fall.

On October 3, 2013, the OHMVR Division approved the Eastern Kern County Acquisition project and certified the Acquisition Environmental Impact report (EIR). The EIR considers the environmental effects of the OHMVR Division acquiring and managing the project properties and is required under CEQA (PRC § 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Title 14, § 15000 et seq.). In accordance with the EIR,

the OHMVR Division and San Andreas District manage the SVRA and hired full-time law enforcement and environmental scientist staff in the summer of 2016.

Facilities and Recreational Opportunities

There are no visitor facilities within the SVRA.



BLM Open Riding Area

Surrounding land uses include motorized and non-motorized recreation, livestock grazing, energy development (primarily wind and solar), forestry/forest management, and rural residential areas. Eastern Kern County, Onyx Ranch SVRA offers OHV recreation on identified routes and trails for ATVs, motorcycles, and 4-wheel drive vehicles. Roads and trail systems also provide access to non-motorized recreation such as

hiking, backpacking, camping, birding, mountain biking, and equestrian riding. The Pacific Crest National Scenic Trail (Pacific Crest Trail) crosses the SVRA and is accessible from motorized routes.

The BLM operates two OHV open areas adjacent to the SVRA. Dove Springs OHV Area encompasses over 3,000 acres to the north of the SVRA and Jawbone Canyon OHV Open Area has 8,500 acres to the south. While these areas allow open riding, there are also parts that allow OHV travel only on designated routes. The BLM and Friends of Jawbone have received OHMVR Grants program funds to install signs and barriers and for trail restoration to prevent resource damage and keep people on the trails. Some of the SVRA lands intersect with both of these BLM OHV areas.

Much of Eastern Kern County, Onyx Ranch SVRA and BLM areas are open to primitive camping. No hook-ups or water for camping is available in the SVRA; however, there are pit toilets and other facilities at Dove Springs and Jawbone Canyon.

Butterbredt Springs: Butterbredt Springs is one of the premiere stops in the SVRA. It is an oasis in the middle of the desert and a very important resource for migrating birds. Filled with willows, cottonwoods, and the only water for miles on end, this sanctuary provides a much-needed resting place for hundreds of thousands of birds migrating through the area.



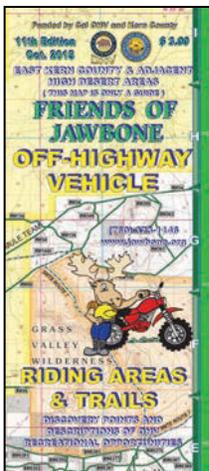
The SVRA collaborates with local chapters of the Audubon Society Butterbredt Springs, whose volunteers have helped improve the bird habitat and prevent OHV trespass in this sensitive habitat. Members of the Audubon Society also enjoy bird watching and perform species counts. The San Andreas District recently installed new fencing and boundary markers to indicate the new SVRA and interpretive kiosks placed to inform visitors of rules and these boundaries.



Outreach and Education

The San Andreas District installed orientation kiosks at key destinations, staging areas, and along major travel routes to inform visitors about the SVRA boundaries, regulations, and other pertinent information.

The OHMVR Division statewide OHV law enforcement program has several funded Pacific Crest Trail kiosks that are installed in and around the SVRA. Interpretive content describes local plant and animal species, conservation messaging, and clearly show areas where OHV riding is allowed and/or prohibited.



Friends of Jawbone (FOJ) is a non-profit organization that supports the BLM Ridgecrest Field Office in their operations and maintenance, restoration, and outreach. The FOJ operates the Jawbone Station Visitor Center, which is located at the intersection of State Route 14 and Jawbone Canyon Road. The visitor center provides detailed recreation maps, guidebooks, and information about the region, including Eastern Kern County, Onyx Ranch SVRA, and visitor amenities such as exhibits, restrooms, picnic areas, native plant garden, and meeting rooms.

The California Trail Users Coalition (CTUC) is a non-profit organization that publishes recreation maps. The CTUC has received OHMVR Grants Program funds to develop and produce the maps. The “Friends of Jawbone map” includes motorized and non-motorized trails and information about Eastern Kern County, Onyx Ranch SVRA, Jawbone OHV Open Area, Dove Springs Open Area, Jawbone Canyon, and surrounding areas.

Park History

The southeast region of the Sierra Nevada, bordering on the vast Mojave Desert, is the ancestral home of the Niwi or Kawaiisu people. For 2000 years these relatives of

the nearby Paiute and Shoshone peoples lived in small villages close to streams and ephemeral springs, and ranged far and wide for food, as well as for salt, from nearby Koehn dry lake.

In 1776 Father Francisco Garces, the first European to cross the Mojave Desert and enter the San Joaquin Valley, returned to Arizona via Bird Spring Pass and Canyon. Fifty years later, Jedediah Smith was an early pioneer in the area and the first American to lead a party across the Great Basin. Other intrepid explorers included Joseph Walker and John C. Fremont, both of whose names grace the landscape today.



The California gold rush brought Argonauts to the area in the early 1850s and 1860s, and the Indian trails served as important transportation corridors for the miners and teamsters. Other later mineral discoveries, including borax, silver, and tungsten, fueled the development of nearby towns, railroads, roads and highways.

As more and more miners came to the southern Sierra Nevada gold fields, entrepreneurs came to the mining camps to establish businesses at Keyesville and Havilah to supply them with food and provisions. This created a market for local ranchers, whose profits would surpass those of the miners. The first was William Weldon, who in 1857 purchase land in the foothills adjacent to Kelso Valley's southwest section. His stock ranch supplied much of the beef consumed by the Keyesville miners. The town of Weldon was named after him in 1871.

Henry L. Mack settled in the Kelso Valley area around 1864. The Mack Ranch's best feature was a well-watered meadow that straddled Kelso Valley Road. Sometime after 1877, William Wallace Landers purchased the Mack Ranch.

In the early 20th century the construction of the first aqueduct from Owens Valley to Los Angeles brought more activity to the region. The advent of automobiles enabled more people to visit the desert, camping and exploring and reveling in the grand open spaces. When a paved section of Highway 14 was constructed through Red Rock Canyon in the early 1930s, more than 3,000 people showed up for the ribbon cutting celebration. World War II brought a new era of nearby development with large military bases and the infrastructure and population centers to support them.

By the end of World War II, Oscar Rudnick and his family owned and operated a multi-million dollar ranching enterprise, which included the Onyx Ranch in Kern County. The Mack Meadow Ranch played an important role in the upper Kelso Valley area's historic land

use during the immediate post-war period. It continued to serve as the destination of long-range cattle drives from desert ranges to mountains pastures. For example, in June 1965 the Rudnick Land and Cattle Company drove 3,000 steers from Ridgecrest to the Mack Meadow Ranch. Until the sale of the ranch in 2008, it was part of the largest independent family-run ranching operations in the United States.

Heber Dunes SVRA

Heber Dunes SVRA is located three miles north of the Mexican border crossing at Highway 7 (Calexico/Mexicali) in Imperial County. The SVRA is situated in the southern Imperial Valley, which is a rich and intensively farmed agricultural area in the California desert. Elevations at Heber Dunes SVRA are typical of low desert environments. The park is approximately 11 feet above sea level, has intensely hot summers, with several months of temperatures over 100 degrees, often exceeding 115 degrees. Nighttime lows for most of the summer are in the high 80s. Winters are mild and frosts uncommon.

Location: Imperial County

Total Park Acreage: 341

Year Park became an SVRA: 2007

Annual Visitation: 6,293

Camping: No



Heber Dunes became an SVRA in 2007. Although relatively small, encompassing 341 acres, it fulfills an important recreational need for local residents and is a setting for many families to gather, picnic, and socialize. The SVRA is especially popular with ATV riders; however, some dune buggies, utility vehicles, and motorcycle riders also visit the park. The park is for day use only; there

are no camping facilities. The SVRA offers a variety of recreational challenges including winding trails through the creosote-studded sand dunes, large “fine sand” sand dunes, and dry lakebeds with hard packed clay.

Facilities and Recreational Opportunities

A recently completed ADA compatible group area with raised viewing area, grills, picnic tables, and wash station is available for large family or group gatherings. This area is conveniently located next to the park’s water fountains, restroom/pay shower facilities, paved parking, the training and practice area, and the park administration and maintenance building.

Additional shade ramadas, picnic tables, and fire rings are located throughout the park.



Families and friends frequent Heber Dunes SVRA and enjoy picnicking, barbecuing, and recreating, or watching people recreate. The sand dunes and dense groves of tamarisk trees that prevail throughout the park offer a unique desert recreation experience, providing winding trails and paths, and interesting terrain for the OHV enthusiast. The trees provide shade—an oasis in the desert environment. The SVRA is a popular



destination for the local community and those who enjoy recreating on ATVs. Dune buggy, ROV, and motorcycle enthusiasts visit the park as well.



The SVRA offers OHV enthusiasts an opportunity to experience the thrills of riding the “dunes” but on a smaller scale. The dune topography challenge riders with bowls, slip faces, and areas of deep soft sand. Due to the dynamic nature of the dunes, the terrain is constantly changing providing riders of all types of OHVs with a unique desert riding experience. Heber Dunes offers families with young riders a safe place to keep interested and challenged while improving riding skills.

Training and Practice Area: Heber Dunes SVRA has a centrally located youth training and practice track for riders 12-years-old and under, riding 70cc or less. This speed-restricted area is designed to reinforce the skills beginning riders learn in the ATV and motorcycle safety courses. The area is open to beginners of all ages. ATV and ROV safety courses are held in this location throughout the desert-riding season from October-May.

Remote Control Vehicles: It is not unusual to find miniature 4x4s, dune buggies, and pickup trucks skimming across the more remote areas of Heber Dunes. Remote Control (RC) “duning” is a popular pastime at the park. There are no RC-only designated areas, and all users are reminded to share the dunes.

Non-Motorized Recreation: Heber Dunes SVRA is often described as an island surrounded by agriculture. The agricultural fields and canals that surround the park as well as the tamarisk trees within it 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.

Outreach and Education

The SVRA offers ATV safety classes and educational materials in both English and Spanish. Education and outreach programs focus on safe OHV operation, Junior Ranger activities, and protecting park resources.

At the SVRA, Junior Rangers learn about the importance of nature and their heritage while participating in fun activities and earning their Junior Ranger badges. For example, members of the 4H ATV Safety Project play OHV safety-themed games and then challenge parents, sheriff's deputies, and park rangers on their knowledge through games and activities. Interpretive outreach programs take the park to the people whether it is organizing and leading an after school Junior Ranger Club or staffing the Heber Dunes SVRA booth at popular community events like the Heber Annual Car Show, the Mid-Winter Fair and Fiesta, or the Annual Children's fair. These outreach efforts introduce current and future park visitors to Heber Dunes SVRA and all it has to offer to the local off-highway recreation community.

After School Junior Ranger Club

Heber Dunes SVRA interpretive staff offer an After School Junior Ranger Club program as part of existing After School Education and Safety programs at local schools. This community outreach program is offered to third and fourth graders at five El Centro elementary schools. Junior Ranger Club meetings are 60-90 minutes long and are held weekly throughout the school year.

The After School Junior Ranger Club expands the beloved California State Parks Junior Ranger program into a series of meetings that follow the guidelines in the Junior Ranger Handbook. Kids learn the Junior Ranger promise, play games, make crafts, explore nature, and have the opportunity to earn their Junior Ranger badges and certificates. The meetings are also mini-lessons tied to state common core and science education standards, which are intended to help introduce or reinforce what is currently being taught in the K-12 classroom.



Heber Dunes SVRA has an oral history project that provides visitors from older generations who have recreated at the park and remember its history to share their stories. Oral histories are added to the information gleaned from local newspapers, photograph albums, and museums. These “voices of the past” helped make Heber Dunes SVRA what is it today and are being treasured and preserved.

In addition, there are many opportunities for park stewardship and community involvement. For example, park volunteers help replace hay bales in the training/practice area and offer suggestions on how to improve the area design to make it more challenging.

Park History

The area now known as Heber Dunes SVRA is as dynamic as the Colorado River that created it. No less so are the peoples who through time have utilized its resources to survive in an often-harsh unyielding environment. The Cucapah and Kamia peoples who lived along Lake Cahuilla’s southern shores, had long left the area when explorers discovered only sand dunes.

At the turn of the 20th century, the California Development Company and its subsidiary, the Imperial Land Company, tapped into the Colorado River through a series of irrigation canals. These early entrepreneurs had realized that water was the key to unlocking the bounty of the rich but parched soils of the area. Commercial farming was established, and what was once only a stopover became an agricultural community.

The abundant trees, heavy clay, sand dunes, and salt accumulations in the soils made the conversion of Heber Dunes SVRA to farmland a daunting task unlikely to result in economic gain. The very reasons this area was not well suited for farming made it an ideal location for recreation. Farmers were known to say that “Heber Beach was too salty to farm and too much work to bulldoze.” The only crops ever successfully planted there were tamarisk trees. With the trees providing ample shade and the canals a convenient place to fish and cool off, Heber Dunes became a spot to gather and recreate. For 30 years, Imperial County administered Heber Dunes SVRA until State Parks entered into a lease agreement to operate the park in 2000. Title to the park was officially deeded to State Parks in 2007.

Hollister Hills SVRA

Hollister Hills SVRA was California's first SVRA. Tucked into the Gabilan Mountains, the park is located in San Benito County, approximately eight miles south of the town of Hollister, and about an hour's drive south of San Jose. Oak-studded hillsides form the backdrop for the park, which also features picturesque rolling hills and springtime wildflower displays.

Agricultural lands, homes, and wineries surround this island of open space. The park covers more than 6,600 acres of varied terrain divided between the Upper Ranch and Lower Ranch.

In addition to the rich cultural history, visitors are drawn to the park's extraordinary landscape, ranging from deep oak forests, lush canyons, native grasslands, and the many miles of OHV opportunities. Hollister Hills SVRA is a family-oriented park that provides a wide selection of OHV adventures for campers, picnickers, and outdoor enthusiasts. Elevations at the park range from 660 feet to 2,425 feet. The average monthly temperature varies from the low to mid 90s in summer, to the low 30s to upper 50s in winter.

Location: San Benito County

Total Park Acreage: 6,623

Year Park became an SVRA: 1975

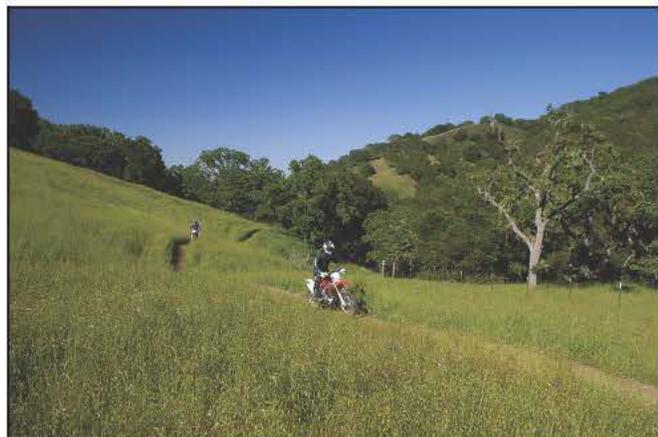
Annual Visitation: 48,739

Camping: Yes

Facilities and Recreational Opportunities

Hollister Hills SVRA offers diverse recreational opportunities for the entire family. The SVRA is divided into two areas—the Lower Ranch and the Upper Ranch. Each area has been set aside for specifically dedicated forms of OHV recreation.

Hollister Hills SVRA is open year-round for OHV use. There are multiple day use sites throughout the park, which offer shade ramadas, picnic tables, and restroom facilities. There are ten campgrounds differing in size, from smaller sites to areas set aside for large groups. There are no defined campsites within the campgrounds and spots are available on a first-come, first-serve basis. Campsite amenities include showers, flush toilets, picnic tables, and fire rings. The group campsite is available by reservation and can accommodate up to 250 people.



Special Events: Areas within the park can be reserved for special events such as the GP Track (Grand Prix Motorcycle Track) and Area 5 (Large Private Group Camping Area). Over 100 special events take place annually in these special use areas including Regional and National Motorcycle races (Motocross and Cross Country/Hare Scrambles) and 4x4 poker runs, guided trail rides, and 4x4 obstacle course challenges, to name a few. Over 16,000 guests attend special events held at the park each year. Other events that draw visitors to the special event areas include everything from weddings to club outings, group camping, and vehicle manufacturer product release events.

The Lower Ranch: This 3,300-acre area is set aside for dirt bike and ATV use on more than 128 miles of trails. The Lower Ranch consists of three distinct areas: Granitic, Adobe, and Renz. The trails in all areas are mostly one way and are designated by difficulty rating.

The Granitic Area is characterized by steep hills, sandy soil, and dense chaparral vegetation. This area offers year-round riding with excellent traction in the winter months. Most of the trails in this area are wide enough to accommodate ATVs with the exception of a few single tracks that are for dirt bikes only.



The Adobe Area is characterized by rolling hills, clay soil, and a mix of grassland and oak woodlands. This area is popular among both ATV and dirt bike riders. There are several hill climbs of varying difficulty and a mix of narrower ATV trails and single track. Due to the soil in this area, wet weather closures occur frequently throughout the rainy season.

Campground Infrastructure and Rehabilitation Project

In the fall of 2014, the much anticipated Campground Infrastructure and Rehabilitation project got under way. The scope of the work focused on rehabilitating the infrastructure in three outdated campgrounds to bring them to a consistent level of service and to replace ageing underground utilities to make them more reliable. Work performed consisted of upgrading the water systems, providing new combo buildings with showers and flushing toilets (gone are the pit toilets), electrical and sewer upgrades, replacing campsite furnishings, improving vehicle circulation, correcting drainage, and providing other amenities like Wi-Fi. The project also included a new well, storage tanks, and a portion of the distribution system that was problematic. The project took almost a year to complete and was finished in summer 2015.

The Renz Area has become very popular among dirt bike riders and consists of 22 miles of single track trails. The trails were designed using state-of-the-art techniques to limit erosion, sound, and noise from OHV activities while maintaining rider interest. This area consists of clay based soil and is subject to frequent wet weather closures throughout the year.

Additional OHV opportunities in the Lower Ranch include a variety of tracks and open play areas. Specific riding areas are also available for children, limited to 90cc or smaller motorcycles and ATVs.

The Upper Ranch: The 870-acre Upper Ranch offers exciting and challenging off-highway fun for 4x4 recreation. The trails in this area are rated by difficulty and offer everything from easy trails for beginners to very difficult trails for the more advanced. Additional recreation opportunities in the Upper Ranch include three obstacle courses, several hill climbs, and a Grand Prix area for special events.



Hudner Ranch 4x4 Area Now Available for Public Use at Hollister Hills SVRA

Opened daily to the public in June of 2015, Hudner Ranch provides approximately 15 miles of narrow 4x4 trails spread across nearly 1,600 acres of rolling grasslands, chaparral, and beautiful oak woodlands. State Parks purchased the property from the Hudner family in 1991, and it took many years of planning and hard work to open. The Hudner Ranch is a showcase example of sustainable trails in a beautiful setting. The Ranch is home to several sensitive species of plants and animals including Gairdner's Yampah, Michael's rein orchid, the golden eagle, and the California tiger salamander.



The Hudner Ranch is the perfect setting for a family outing, ROV driving, or a four-wheel drive club looking for an experience in nature rather than a technical challenge. Due to the narrow nature of the trails, most trails are one way only. It is open for day use with two campsites available only by reservation. The campsites offer spectacular views of the night sky coupled with the distant city lights of Hollister. Like the Renz and Adobe areas, Hudner Ranch is closed during wet weather due to the extremely slippery clay soil.

Hudner Ranch: This 950-acre area is set aside for 4x4 recreation and consists of rolling hills and beautiful views characterized by adobe soil, grasslands, and narrow trails. The trails were designed to limit OHV impacts by using frequent grade changes, rolling contours, and Best Management Practices. Access to the Hudner is available by permit only and is subject to frequent wet weather closures.

Non-Motorized Recreation: Hollister Hills SVRA provides much more than just OHV recreation. The park has over 1,700 acres of buffer land where motorized use is not appropriate. This area was created to minimize sound and dust from OHV recreation on neighboring properties. It also serves as natural open space parkland. Within the buffers, non-motorized trails were developed in the fall of 2013 for hiking, mountain biking, and equestrian recreation. 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 large mouth bass and black crappie.

Outreach and Education

Hollister Hills SVRA staff offer a wide variety of programs throughout the year. During the red sticker season, much of the efforts are tailored to OHV visitors and conducting in-park interpretive programs such as Junior Ranger programs, history hayrides, campfire programs, caffeine kick-start, as well as others. The majority of the outreach occurs during the summer. Some of the larger events staff participate in are the San Benito County Fair, National Night Out, and Hollister Street Festival. Curriculum-based outdoor education programs are offered during the school year.

Science Camp: Five years of science camp has brought over 2,000 local 6th grade students to Hollister Hills. For many this was their first experience in a park environment. This program has always been a collaborative effort between all sections of the park. The combined strengths create a stunning network of experience and knowledge to enhance and enrich the programs delivered to the students.



G.E.A.R.S.: The G.E.A.R.S. (Gaining Experience Awareness Responsibility and Science) program found success in a partnership between Hollister Hills SVRA, Pinnacles Continuation School, and San Benito County Probation Office. This resulted in providing a small group of at-risk students with previous interaction with the juvenile justice system



an opportunity to experience the park, interact with park professionals and have an opportunity to become an intern at the conclusion of the program.

Outreach: Hollister Hills SVRA Interpretive staff attend close to 20 outreach events a year ranging from local to regional and national events. Staff make on average of 11,000 contacts a year at these events. The outreach efforts highlight the

recreation opportunities, park resources, and management efforts of park resources. These efforts have increased the park's constituency and stakeholders in addition to establishing strong ties within the community.

New Technologies: With technologies like virtual reality and the physical web, staff are reaching park visitors with relevant information in new and fun ways. Virtual reality provides an immersive park experience for people that may never visit the park. This technology can be utilized in person or by providing these 360 videos/photos on the park's website/social media. Furthermore, utilizing beacon technology and the physical web allows staff to provide visitors with site-specific information on mobile devices with a touch of a button. These, along with other technologies, help the park remain relevant and connected with visitors in real and meaningful ways.

Interpa-Quad: Hollister Hills SVRA does not have a permanent visitor center, so engaging the riders in interpretive programs or hands-on activities can be challenging. Interpretive staff came up with a creative solution to deliver interpretive programs and activities to this mobile audience.

Meet "Interpa-Quad". Interpa-Quad began in 2010 as an activity table stationed at a turnaround location. Interpreters found that no one was stopping, so they investigated where people gathered and took breaks, like campgrounds, overlooks and trailheads. Often, regular vehicles could not access these locations, so staff equipped an ATV with a removable metal box and a rack. The back rack serves as the foundation for a tabletop, which was custom-made by one of Hollister Hills SVRA's volunteers. Interpreters scaled down the size of the hands-on activities to fit in a banker's box and packed it with informational handouts, brochures, park maps, and hands-on activities that engage park visitors.



Interpreters then parked the Interpa-Quad at these gathering areas and riders were curious and stopped. Interpretive staff found that this innovative method of bringing the visitor center to the visitors was a fun way to meet our audience where they recreate.

Visitor Services Program

Hollister Hills SVRA Visitor Services program assists over 150,000 visitors a year and patrols over 6,500 acres of parkland with SUVs, dirt bikes, ATVs, and ROVs. The law enforcement staff consists of two supervisors and six rangers who promote a family atmosphere and encourage rider safety.



Law enforcement staff patrol more than 180 miles of OHV trails throughout the park. They respond to law enforcement and medical needs within the park and assist allied agencies and other State Park Districts when off-highway operations are needed for Search and Rescue and law enforcement. Examples include:

- patrols on the Rubicon with El Dorado County and Eldorado National Forest,
- providing support at events like King of the Hammers with the BLM and at Prairie City SVRA's Hangtown,
- patrolling Santa Cruz beaches on the 4th of July, and
- assisting San Benito County Sheriff's Office with search and rescue in the San Benito riverbed.

Octagon and Interpretive Displays

A key feature in the SVRA's day use area is the Octagon Discovery Center (ODC). The ODC serves as a place where visitors can explore the park in new ways. It highlights the flora, fauna, soil, park history and partners—all through interactive exhibits. The exhibits provide insight to resource management and staff activities. In addition, new interpretive panels in the campgrounds and at the Windmill highlight park history and natural resources. All of these interpretive efforts create a more meaningful connection between visitors and Hollister Hills SVRA.



Rangers also assist with patient transports by moving injured riders off the trails to an awaiting ambulance or helicopter, and respond to medical calls using dirt bikes, ATVs, and ROVs depending on the weather, size of the trail, and needs of the incident.

Hollister Hills SVRA has nine Visitor Services park aides whose primary duties are to work at the kiosk collecting fees and answering visitors question about OHV safety, rules and regulation, and OHV recreational opportunities throughout California. The park aides assist the rangers with checking for spark arresters and performing sound tests on dirt bikes and ATVs to ensure compliance. They also assist with resource management and public safety by clearing trails of downed trees and landslides and helping visitors recover broken dirt bikes and ATVs. In addition, park aides assist with resource interpretation in the park, at the San Benito County Fair and at multiple parades and community outreach events with Law Enforcement, Search and Rescue, and Emergency Medical Services.

Hollister Hills SVRA has 29 active trail patrol volunteers who assist law enforcement staff by responding to medical calls, and being the eyes and ears for the rangers throughout the park. Volunteers are trained in first aid and CPR, assist with medicals, overdue rider searches, and answer questions about the park.

Some of the rangers and volunteers have become Motorcycle Safety Foundation dirt bike instructors, American Safety Institute ATV instructors, and Recreation Off-Highway Vehicle Association driver coaches to teach safety and operation to all ages, from kids on ATVs to soldiers driving ROVs.

Hollister Hills SVRA 40th Anniversary Celebration

On October 10, 2015, Hollister Hills SVRA celebrated its 40th Anniversary since becoming California's first SVRA. To commemorate this milestone the San Andreas District staff hosted the Hollister Hills SVRA 40th Anniversary Celebration. Hollister Hills SVRA staff planned the festivities with help from the OHMVR Division, volunteers, clubs, promoters, neighbors, and the Hollister Hills Off-Road Association (HHORA).

To celebrate the 40th Anniversary, the public was treated to free day use and \$5 camping on Saturday night. During the event, Assemblymember Luis Alejo and Senator Anthony Canella presented a California Legislature Assembly Resolution. The Commemoration Ceremony featured San Benito County Supervisor Jerry Muenzer, HHORA President Des Hughes, OHMVR



Commissioners Paul Slavik and Kevin Murphy, and the OHMVR Division Deputy Director Chris Conlin.

The event included the unveiling of the new Octagon Discovery Center that features exhibits highlighting the park's history and abundant natural and cultural resources. In addition to Junior Ranger programs that were offered throughout the day, staff provided guided interpretive walks in the park's nature area. Free poker runs in the Upper and Lower Ranches were popular activities that included prizes donated by HHORA and other vendors and organizations.

Three guest speakers from our "Olden Days Chat" series including Ann Marie Sayers, Indian Canyon Chairperson; Glenn Harris, son of previous land owner Howard Harris; and Dan Dungy, previous Hollister Hills District Superintendent. The speakers highlighted much of the region's history.

In addition, there were vintage dirt bikes and classic military Jeeps® on display. These vehicles were commonly seen during the early years of Hollister Hills SVRA. The success of this event was a team effort and highlighted how the public, clubs, associations,

Mudstone Ranch – Non-Motorized Recreation Trail System

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 in need of outdoor recreation

opportunities. The trail system features casual, exciting, and challenging trails for hikers, mountain bikers, and equestrians through grasslands, chaparral, and deep wooded canyons that are otherwise in very limited supply in San Benito County. Additionally, a pump track, a track that is designed for cyclists to build momentum over various

rollers and jumps, will be constructed in the near future. Also included at Mudstone Ranch will be multiple interpretive and educational components describing the cultural and geologic history of the land and current rangeland management practices.

The buffer lands that comprise Mudstone Ranch were acquired with the purchase of the Renz and Hudner Ranches in the late 80s. A sizeable portion of both the Renz and Hudner Ranch were set aside as buffers and excluded from motorized use. Park management determined that the most appropriate use of this land was to open it for non-motorized use.



community, and volunteers collaborate to make Hollister Hills SVRA such a fantastic resource. Without the combined effort, the event would not have been possible.

Park History

The Ohlone Indians, a Native American people of the central California Coast, once inhabited the lands of Hollister Hills. Descendants of these Indians are still living in this area and evidence of their past residence has been found and documented at various archaeological sites within the SVRA.

During the late 1700s, Spain established control of the region and built the nearby Mission San Juan Bautista. The Mexican government later divided the San Juan Bautista lands into two land grants—Rancho San Justo and Rancho Cienega del Gabilan. Today, Hollister Hills SVRA is located on portions of both of these former land grants.

When the land grants were divided and sold, Jesse Whitton obtained the property and created a family ranch. Jesse was a civilian surveyor for the John C. Fremont expedition that traveled through the area in 1846. After the expedition, Jesse returned to the area and purchased 600 acres for \$50 per acre. Upon his death, the land passed on through the family and was eventually inherited by Howard Harris in 1959.

Mr. Harris used the land for a multitude of activities including ranching, hunting, and mining. Evidence of the mining that occurred here can be seen at the quarry in the Upper Ranch. Dolomite and limestone were the primary mineral deposits mined from this location. The remnants of ranching can be seen at the Lower Ranch. Other cultural resources available for the public to visit include the Vineyard School, a one-room historic schoolhouse at the Upper Ranch, and the historic Olive and Walnut Orchards located in the Lower Ranch. These resources provide insight to the culture and lifestyle of time past.

The park store located in Lodge Campground was once the location of the Bird Creek Hunting Lodge. In 1948, when the Bird Creek Hunting Club was organized, OHVs were introduced on the ranch. Jeeps®, motorcycles, and “tote-goats” were used for transportation around the ranch and to control trespassing. As OHVs became more popular, Mr. Harris began to allow motorcycle events, including track races and hill climb competitions.

Eventually, Mr. Harris built the majority of existing park trails and began operating the ranch as a motorcycle park called the Howard Harris Motorcycle Playground. He continued to manage the ranch until October 1, 1975, when the land, purchased 110 years earlier by Mr. Harris’ great-grandfather, was sold to the State and became Hollister Hills, California’s first SVRA.

Hungry Valley SVRA

Hungry Valley SVRA is located directly south of the town of Gorman near Tejon Pass, paralleling Interstate 5. The park lies in parts of Los Angeles, Ventura, and Kern Counties. The SVRA provides recreation and OHV opportunities serving the needs of the Central Valley and the greater Los Angeles metropolitan area. Hungry Valley is a distinctive area, where diverse geological and biogeographical elements converge. The topography in the SVRA ranges from flat, broad valleys and gentle rolling landscapes, to sharp hills and steep-sided canyons that set off the more rugged hills and mountains within the park. This varied terrain provides unique opportunities for OHV enthusiasts, not to mention beautiful panoramic views of vast open spaces and vista.

Elevations at the SVRA range from 3,000 feet to nearly 6,000 feet. Hungry Valley is a semi-arid place. Summers are often hot, with temperatures ranging from the mid-90s to low 100s. In contrast, the winters can be quite cold; snow is not uncommon. Spring provides some of the most spectacular wildflower displays in the California State Park system.

Location: Kern, Los Angeles and Ventura Counties

Total Park Acreage: 19,000

Year Park became an SVRA: 1980

Annual Visitation: 104,654

Camping: Yes

Facilities and Recreational Opportunities

Individuals with all levels of OHV operator skills can enjoy the wide variety of terrain and trails available at the SVRA and the adjoining Los Padres National Forest. Motorized recreational opportunities include open areas, identified trails, tracks, play areas, special use areas, and a 4x4 obstacle course. In addition to the more than 4,000 acres available for distributed riding, there are approximately 130 miles of developed trails. The SVRA also features the Quail Canyon Special Event Area that includes the Quail Canyon Motocross Track, a premier motocross track designed by Roger Decoster. This area is a family-oriented facility offering track opportunities for a broad variety of OHV events.





ATV Safety Classes: Hungry Valley SVRA offers ATV safety classes for kids ages 6-18. Students practice basic safety techniques with hands-on exercises that cover starting and stopping, turning, negotiating hills, emergency stopping and swerving, and riding over obstacles. Particular emphasis is placed on safe OHV operation and maintaining vehicle control. The course offers students an opportunity to increase awareness of the environment and to practice basic riding skills in a controlled environment under the direct supervision of a licensed instructor.

ATV Tracks: Hungry Valley SVRA opened two ATV tracks. One track is for ATVs under 200cc and one is for ATVs over 200cc.

Open Use / Camping Area: More than 4,000 acres of open use area is located in the main valley on either side of Gold Hill Road and along Hungry Valley Road. The area contains mixed designated trails and unmarked trails that traverse a variety of terrain from sand washes to rolling hills to hill climbs.

Hungry Valley SVRA has approximately 150 campsites throughout the park. Located adjacent to Gold Hill Road and Hungry Valley Road are nine semi-developed campgrounds which provide shade ramadas, picnic tables, fire rings, vault restrooms, and trash cans. Smith Forks campground also provides a mini track for young riders to recreate under the watchful eye of their parents. Due to the arid environment, drinking water is not available anywhere in the park.

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 western boundary of the park. 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. This level of Valley Oak regeneration in existing mature woodlands is extremely rare. The low numbers of invasive species in this woodland is also very rare. It is apparent that heavy cattle grazing never affected this area and the plant diversity of the understory is a unique feature of this woodland. This is a natural spring-fed area with many wetland species as well as the sage scrub plant community. Many rare native bunch grasses are present in the understory of the oaks in their natural historic habitat assemblage. The Valley Oaks appear to be free of disease and parasites with the notable exception of a natural infestation of mistletoe in a small percentage of the mature oaks.



Native Grasslands Management Area:

Hungry Valley SVRA protects over 4,000 acres of the finest examples of native grasslands remaining in the state today. This is one of the largest contiguous tracts of native grasses left in California. Due to historic grazing and agricultural practices, these native grasslands are extremely rare. Twenty varieties of grasses intermingle here with very few examples of non-native plants. These grasses support a robust rodent population. Hungry Valley’s Native Grassland Management Area is committed to preserving the park’s native grasses. Rather than prohibiting off-highway activities in the grassland areas, OHVs are allowed, provided operators obey the signs and use the established trails.

Special Events: Hungry Valley SVRA hosts a variety of special events throughout the year. The Quail Canyon Special Event Area holds three major American Motorcycle Association races that attract thousands of visitors. Educational OHV groups often hold safety education events at the SVRA and the park has served as a dramatic backdrop for many commercial filming projects, due to its close proximity to Los Angeles and Hollywood. In addition, the Hungry Valley Pavilion and Group Camp is an excellent venue for community fundraisers, weddings, birthday celebrations, family reunions, and OHV riding clubs.

Outreach and Education

Hungry Valley SVRA's interpretation program continues to grow and evolve with the introduction of Junior Ranger programs at local schools and in the park. Many of the local children are frequent visitors to Hungry Valley SVRA. The Junior Ranger program, called Junior Ranger Clubs at the schools, promotes fun and safe OHV recreation while installing a strong sense of park stewardship. Park staff collaborate with the local Boys and Girls Club to hold the multi-session program at the Frazier Park Public Library.



Within the park, there are self-guided activity booklets and Junior Ranger programming on weekends during the busy season. Park staff set up interpretive booths in the SVRA on weekends through the spring and summer months and at special events. The interpretive booths house interactive exhibits that introduce visitors to the local flora and fauna, OHV safety, and responsible recreation. Since high winds make delivering programs in the park difficult, the SVRA developed an interpretive trailer to take into the park as an information station and Junior Ranger headquarters.

Geocaching is a popular self-guided activity that gets visitors to explore the park. Interpretive geocache cards placed in cache boxes provide a fun and informative way for visitors to learn about a variety of topics. The first geocache cards focus on mammals native to the park.

Interpretive panels are under development for Condor Mesa. Topics for these panels include the California condor and the San Andreas Fault's role in the formation of the Transverse Range as seen from the mesa. The panels are another way for the park user to learn more about the area and connect with the park.



Visitor Services

The law enforcement staff consists of five Rangers and one Supervising Ranger. The Rangers patrol the park using four-wheel drive vehicles, ROVs and dirt bikes to enforce the laws, provide medical assistance and be of service to the park visitors.

Rangers are trained as first responders in Emergency Medical Response/Emergency Medical Technician skills. They respond to injured visitors at the park by providing basic life support and treat a wide range of traumatic injuries. Rangers respond to over 100 calls for assistance each year in the 20,000-acre park. Most injuries are minor; however, some require transport to the local hospital by ambulance or in cases that are more critical, by helicopter. All rangers are certified in basic wildland fire training and assist in wildfire suppression efforts.

Rangers work with local agencies to provide backup as necessary. Hungry Valley SVRA's boundary crosses into Ventura, Los Angeles and Kern Counties. Rangers work closely with Los Angeles County Fire #77, which has a paramedic on staff and whose station is near the Quail Motocross Track. Los Angeles County Fire #77 also responds to emergencies at Hungry Valley and is often the first notified by 911 callers.



The Los Padres Forest borders the SVRA and has numerous off-highway trails, several which connect to Sterling Canyon in Hungry Valley. Rangers have joined the Ventura County Sheriff Department on numerous search and rescue operations in the Forest.



Recently, Ventura County Sheriff joined forces with Hungry Valley SVRA law enforcement staff to eradicate an illegal Marijuana cultivation site near the Tataviam Trail at Hungry Valley. One suspect was arrested and 8,000 plants eradicated. Rangers work with Los Angeles and Kern Counties in evacuating local communities during dangerous wildfire conditions.

The local elementary school and community look forward to visits from rangers and interpreters. Rangers participate in the annual community parade and present lectures to community groups.

Park History

The parklands were originally home to the Tataviam tribe of Native Americans who practiced a hunting and gathering lifestyle. The tribe occupied the area until they were displaced by Euro-American influence in the 18th century.

Hungry Valley was also the site of homesteading and ranching activities for more than 100 years. Mainly Anglo settlers between 1890 and 1940 used the sparsely inhabited region of Hungry Valley. The ruggedness of the terrain and the barren and marginally productive farmland meant that homesteaders in Hungry Valley lived under harsh economic conditions and settlement came slowly.



Besides agriculture activities, construction and installation of oil pipelines and roads, as well as mining activities, occurred in the early 1900s. The 1920s and 1930s saw a variety of homesteading activities. However, most of these small homesteads failed and were ultimately wiped out by drought. Thereafter, most of the land in the Hungry Valley area was maintained by large landowners until it was purchased from the 1940s through the 1970s by state and federal government agencies. State Parks acquired most of the land in Hungry Valley SVRA between 1978 and 1980.

Native Plant Landscaping at the Honey Valley Group Campground

The Honey Valley Group Campground and Pavilion was established in the main valley of the SVRA and opened in late 2013. All vegetation islands were saved and incorporated into the Pavilion design and construction. In addition, the resource crew incorporated native plants found in the park as natural landscaping around the Pavilion. Each plant is identified with a sign that has both the common and scientific name. This landscaping project will continue until a majority of the species found in the park is represented at the Pavilion.



Oceano Dunes SVRA

Oceano Dunes SVRA is located on California's Central Coast in San Luis Obispo County, within the Guadalupe-Nipomo Dunes complex. The SVRA is bordered on the north by the cities of Grover Beach and Pismo Beach, on the east by the city of Oceano, on the south by Guadalupe-Nipomo Dunes National Wildlife Refuge, and on the west by the Pacific Ocean.

The SVRA offers 3,600 acres of beautiful

scenery along the Pacific Ocean, including the beach, coastal sand dunes, wetlands, lakes, and riparian areas. Oceano Dunes' topography includes an active dune complex (shifting sand) that is geologically unique. The sand that formed these dunes was carried



down to the ocean by rivers and streams, deposited on the beach by ocean currents, and then shaped by the wind into the dunes seen today in an ongoing process. The sand dunes' distinctive features provide for impressive recreational opportunities for OHV enthusiasts visiting from all over the world.

The park provides a unique opportunity for visitors to participate in motorized recreation on several miles of beach and coastal sand

dunes. The SVRA has been a favorite camping and recreation site for families for over 100 years. Elevations at the park range from sea level to 200 feet. Oceano Dunes experiences typical Central California coastal weather conditions, with daytime temperatures ranging from the low 50s to the high 70s throughout much of the year. Gusty afternoon wind and morning coastal fog are prevalent in the spring and summer months.

Facilities and Recreational Opportunities

Of the 3,600 acres managed by Oceano Dunes staff, 1,500 acres of beach and dunes are available for OHV recreation. The SVRA is a favorite area for Californians to recreate on the beach and dunes in a wide range of motorized vehicles, from standard highway vehicles to highly specialized dune buggies.

Day Use and Camping: The park offers primitive beach and dune camping with no designated campsites. Day use access to the beach is available daily from 6:00 a.m.

Location: San Luis Obispo County

Total Park Acreage: 3,600

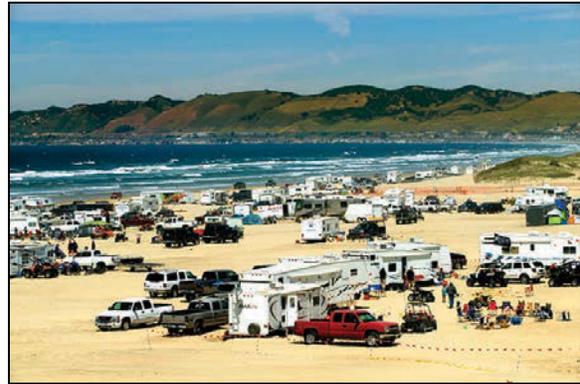
Year Park became an SVRA: 1982

Annual Visitation: 1,083,490

Camping: Yes

to 11:00 p.m. The camping limit is 1,000 street legal vehicles per day. Camping is also available off the beach at the North Beach and Oceano Campgrounds. These two campgrounds provide conventional amenities such as picnic tables, fire rings, and restrooms.

Training Area: ATV safety classes are available at the park in a secure training area. Comprehensive ATV safety education programs provide an important opportunity to educate the public on safe and responsible use of OHVs and raise awareness of the park's resources.



Hiking/Bird Watching: In addition to motorized recreation, Oceano Dunes SVRA provides a wide array of non-motorized recreation opportunities including hiking, nature walks, 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 important stopover for waterfowl traveling along the Pacific Flyway.

Horseback Riding: 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 located near the park.



Water Recreation: Surfing, boating, operating personal watercraft, kiteboarding, and paddling are some of the 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 easily unload gear near the water's edge.

Outreach and Education

Oceano Dunes District offers many interpretive and educational programs to enhance the experience of park visitors. During the weekends of the peak visitation summer season, interpretive staff provide Junior Ranger and campfire programs at the campground amphitheaters. The programs cover a wide range of topics, from the geology of the dunes and OHV rider safety to marine mammals and whale migrations, and everything in-between. The Junior Lifeguard program offers children ages 9-17 an opportunity to learn aquatic safety, leadership skills, and enjoy other beach activities. Each summer, Oceano Dunes SVRA hosts a Summer Fun Day where kids of all ages learn about the cultural, natural, and recreational treasures of the park through fun, hands-on activities. Staff, volunteers, and docents also provide summer-long, informal presentations throughout the park and trail system to add to the visitor experience.



During the school year, interpretive staff provide tours in the Butterfly Grove and the park to educate children about the monarch life cycle, the local native Chumash, and the many other natural resources of Oceano Dunes. As one of the largest, overwintering monarch butterfly sites in California, volunteers provide formal presentations to visitors on weekends during the four-month winter season.

Oceano Dunes SVRA staff attend OHV trade shows and local fairs to promote safe recreation and the unique natural, cultural, and recreational resources at Oceano Dunes SVRA and the park also hosts the Off-Highway PALs program.

Vegetation and Wildlife

The Oceano Dunes area is home to a surprisingly wide range of plant and animal life. Those who take the time to explore will see wildflowers, the tracks of countless small mammals and insects, a variety of small birds at the water's edge, and hawks, owls, pelicans, or gulls flying overhead.

A variety of shorebirds can be found on the beach, while other small birds such as the Audubon warbler or the long-billed marsh wren, as well as red-tailed hawks and American kestrels are often sighted among the sand dunes. Both the threatened snowy plover and the endangered California least tern nest within the SVRA.



During the March 1-September 30 breeding season, small fenced enclosures are constructed around the nests to protect the snowy plover and the California least tern and their offspring from the surrounding recreational use. With ongoing support from OHVs, this nesting program has been a huge success.



Most of the wildflowers, shrubs, and grasses that can be found on the dunes are fragile and easily destroyed. Plants that are native to the area include the arroyo willow, California sagebrush, sand verbena, and bush lupine. European beach grass is an introduced species, brought in around the turn of the century to stabilize the dunes. Rare plants that may be seen here include surf thistle and giant coreopsis.

Pismo clam populations fluctuate dramatically due to a variety of natural influences. A fragile and valuable resource, Pismo clams may be taken with specific regulations.

Park History

The Chumash Indians lived in the Oceano Dunes area for thousands of years. Evidence of their presence can be seen in several locations in the dunes in the form of “middens,” which are piles of shells left after the Chumash collected them for food. State and federal law protects these middens.

The first documentation of motorized vehicles being operated on the beach was a 1906 newspaper article announcing that Ford Motor Company was meeting in Pismo Beach for a rally between California’s northern and southern car dealerships. Early photos depict families enjoying the beach and dunes in horse drawn carriages and on bicycles.

Pavilion Hill, a large vegetated dune, is named for the huge Victorian style dance pavilion, which was built at the turn of the 20th century. There was also a pier extending into the ocean in front of the Pavilion. The Pavilion was torn down in 1921 as it was in disrepair after years of existence on a naturally moving sand dune. During the depression years of the

1930s extending into the 1940s, a colony of artists, writers, and others known as the Dunites lived east of the dunes.

The original park property was acquired and operated as an SVRA in 1974. It was then called the Pismo Dunes SVRA and State Parks San Luis Obispo Coast District managed it as an extension of Pismo State Beach. Over the years, additional adjacent properties were acquired. In 1982, the California Park and Recreation Commission established a new district and the Division took over active management of the park. Thereafter, the park was named Oceano Dunes SVRA.



The Junior Lifeguard Program at Oceano Dunes SVRA

The Junior Lifeguard program is a fun and challenging aquatic course aimed at educating community youth about safe ocean recreation. The four-week program is open to kids age 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 business and donations provide the students with free transportation, supplies, occasional lunches, and a banquet at the close of the program. There is no limit to the class size, and participation doubled in size from the first year to the second.



Participants learn leadership skills and critical thinking through physical activity and competitive events. Instructors teach self-rescue, first aid, and safety with activities such as open water swimming, paddle boarding, body surfing, surfboarding, and skin diving. In addition, a four-hour ATV safety training class teaches kids to ride responsibly on the dunes.

Throughout the program, interpreters engage students in discussions about the coastal environment. Knowledge of coastal currents, rip tides, swells, and aquatic life helps students make informed decisions about their safety. During lunch breaks, kids learn about cultural history, natural resources, and conservation topics. These sessions broaden the students' knowledge of the area and promote a sense of stewardship for the park and its resources. What are the results? Kids are excited about going to the park with their families. Parents see their kids gain self-confidence and maturity, as they establish themselves in sports. Students feel empowered to talk to park visitors about safety and responsible recreation. The program is training our next generation of state lifeguards.

Ocotillo Wells SVRA

Ocotillo Wells SVRA is the largest of the SVRAs consisting of over 85,000 acres of Southern California desert lands that include state, federal, and recently acquired additions. The SVRA is located near the Salton Sea and covers portions of both San Diego and Imperial Counties. Ocotillo Wells SVRA offers a wide range of opportunities for OHV recreation and exploration, as

well as for hiking, biking, geocaching, and camping. In fact, it is possible to explore the park's open environment and varied terrain for days without having to retrace your tracks. Visitors marvel at the many exotically named natural wonders such as Blowsand Hill, Devil's



Slide, Shell Reef, Gas Domes, Pumpkin Patch, and the badland features in the northwestern portion of the SVRA. Elevations at Ocotillo Wells SVRA range from 176 feet below sea level to approximately 400 feet above sea level. The extreme terrain and intense climate have challenged both the skills and endurance of OHV recreation enthusiasts for generations.

Location: San Diego & Imperial Counties

Total Park Acreage: 85,000

Year Park became an SVRA: 1981

Annual Visitation: 412,819

Camping: Yes

Facilities and Recreational Opportunities

Day Use and Camping: Day use and camping facilities are available throughout most of the park, including open camping for up to 30 days per calendar year. Developed campsite areas include vault restrooms, shade ramadas, picnic tables, and fire rings. Additional shade ramadas and picnic tables are also available throughout the park for day use.



Main Street Event Facility: The park is excited to announce the completion of the new Ocotillo Wells Special Events Facility. These new facilities are ideal for vendors, product showcases, concerts, presentations, raffles, award ceremonies, family gatherings, and maybe even a wedding reception or two. The new fully-accessible event center supports group sizes up to 300, and its amenities include three large shade ramadas, group barbecues, large serving tables, picnic tables, and a 10-foot diameter central fire pit for

bonfires. A combo building with restrooms, pay showers, and dish washing sinks is adjacent to the new event area.

Destination Discovery: Located in the southeast corner of the park lays a treasure trove of resources designed to improve visitors' off-roading experience at Ocotillo Wells SVRA. No trip to the SVRA is complete with a stop at the SVRA's Discovery Center. The Center is home to a variety of interactive displays that tell the behind-the-scenes stories of the park. Surrounding the Discovery Center is the native plant garden. Here, representative plants from the various desert habitats are arranged along the one-third mile ADA accessible walkway. This area is also home to ocotillo themed shade ramadas and picnic tables, which is a perfect place to take break from the days' ride. Each weekend, park interpreters offer a variety of family-fun programs and activities at the park's amphitheater.

Recreation

The SVRA offers a variety of OHV recreational opportunities for different types of OHVs. In much of the SVRA, OHV recreation is not confined to identified trails and routes, while other areas of the park allow riding only on designated trails and roads. In partnership with the BLM, Ocotillo Wells manages and operates BLM lands to the east of the park as part of the larger SVRA. The western boundary and part of the northern boundary borders the half-million-acre Anza-Borrego Desert State Park, which is open to exploration only by highway-legal vehicles along the park's primitive road system.

Youth Tracks: The Harold Soens Youth Track is designated for riders 12 years old or younger, riding 70cc or less. Recently, the track was improved to include several new elements that mimic riding conditions in the park. The hay bale lined track includes alternative trail routes, a miniature hill climb to test rider's skills, boulders and rocks to traverse, small rolling hills, route signage, and two desert safety interpretive panels. The track is a great place for kids to ride under the guidance of parent supervision.

The Roy Denner ATV Training Track is the site of the park's ATV Safety Institute classes, which are offered to the public most weekends during riding season.



4x4 Obstacle Course: Located on the north end of Ocotillo Wells SVRA is the 30-acre state-of-the-art 4x4 obstacle course. The course offers 22 different obstacles ranging in difficulty from beginner to expert. The obstacles are constructed out of a variety of materials including tractor tires, logs, boulders, rip-rap, concrete tubes, and Shot-Crete. The 4x4 course allows visitors the opportunity to

push the extremes of their vehicle and skills with nearly vertical hill climbs, a tight steep canyon, large rocks and massive tire obstacles. The area also includes picnic tables and shade ramadas for spectators.



Rock Crawler Remote Control Adventure Trail: The park opened its Remote-Controlled (R/C) Rock Crawler Adventure Trail located near the Discovery Center. This destination provides “RC-ers” numerous challenging obstacles to maneuver while traveling along the quarter-mile trail. Obstacles include bridges, tunnels, canyons, the mountain of doom, a teeter-totter, and of course, plenty of rocks to challenge your patience and route planning. The R/C trail has something for everyone—easier routes for first-timers and moderate to difficult routes for the higher-skilled operators.

Geocaching: Ocotillo Wells SVRA offers a unique location for those interested in geocaching, an exciting recreational activity for the entire family. Participants use GPS coordinates to locate hidden “caches.” While the park fully supports responsible geocaching, damage to the cultural and natural resources is never tolerated. Each year, Ocotillo Wells SVRA hosts California State Parks’ largest geocaching event, the Roughneck Rendezvous. This one-of-a-kind event attracts hundreds of geocaching enthusiasts from as far away as Canada to the park each year in late January. The event provides innumerable opportunities for staff to engage park visitors in the discovery and understanding of the park’s natural and cultural resources.



Wildflowers: Annual wildflower blooms are fickle in the desert, but in a good year, Ocotillo Wells SVRA puts on a good show. Maps and displays provide information and direct visitors to the best blooms throughout the region. Park interpreters also offer guided walks, 4x4 adventure tours and digital photography workshops to aid visitors in their discovery of one of nature’s grandest spectacles.



Hiking: In addition to the OHV recreation opportunities within the park, there are also many opportunities to explore on foot. While the park does not provide developed hiking trails, visitors are encouraged to enjoy the natural landscape around them.

Park Destinations

Blowsand Hill: Wind-blown sand is a highly effective agent of abrasion, as anyone who has been in a sandstorm will agree. Wind is one of the few agents that can and do carry material uphill. Here, the wind carries sand for miles before piling it up into this huge dune. Perhaps the most popular spot in the park, Blowsand Hill is illuminated by a circle of headlights on many weekend nights.

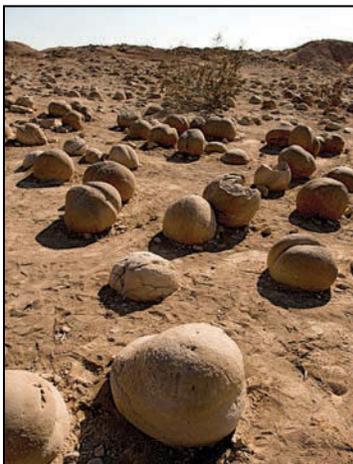
Devil's Slide: This 200 foot-high granite and sand island is named for the challenge it presents to the OHV enthusiast. It is actually an ancient decomposing mountaintop. A dark coat of desert varnish covers the rocks because of exposure to sunlight. There are several old hidden mineshafts along the mountainside.

Gas Domes: These mysterious waterholes produce large gas bubbles that rise up through muddy water. The water travels to the surface, emerging through a natural crack in the desert floor.

Barrel Springs: These mesquite sand dunes are an oasis for wildlife. The springs seep from the ground, especially after a heavy rain. Coyotes often dig holes to drink. Part of the area is designated as a cultural preserve. Archaeological investigations indicate that several Native American groups and early settlers used the area. The shade and availability of water made it a convenient spot to rest, to meet, and to trade goods. Some of the dunes have been fenced to allow for natural restoration.



Shell Reef: Park beneath the reef and examine the soil. You will find not rock or sand but fragments of fossilized oyster shells. Look closer and you will find entire shells and even pieces of the reef, which have fallen down the slope. The reef is estimated to be four million years old! It was pushed out of an ancient sea during a time of tremendous upheaval when the distant mountain ranges were formed.



Pumpkin Patch: This unique landscape is the result of wind and water continuously eroding the surface soil and revealing these globular sandstone concretions. Such concretions are believed to be formed by the natural cementing of sand particles to a small object such as a piece of shell, a grain of sand, or even an insect.

Outreach and Education

The Ocotillo Wells SVRA interpretation and education staff offers a dazzling array of fun and educational programs designed to enhance the experience of its visitors throughout the desert-riding season. Each weekend, park interpreters host day-long interactive field exhibits at the popular riding destinations in the park. Visitors can get up close and personal with fossil replicas of mammoths, saber-toothed tigers, giant sharks, and other “gnarly” beasts of the past. Trivia games such as “Who’s Scat is That?” and live scorpion demonstrations provide a glimpse into the lives of desert animals, while geology exhibits



introduce visitors to the unique and powerful forces that have sculpted the park’s landscape. A variety of Junior Ranger programs geared for youngsters ages 5 to 12 also provide a fun-filled way for families to discover the hidden stories of Ocotillo Wells.

On Saturday nights, stargazing programs highlight the park’s amazingly dark night sky. Peering through an 11-inch telescope, visitors are treated to spectacular views of glittering star clusters, wispy nebulas, and swirling galaxies. The award-winning interpretive team also offers weekly off-highway adventure tours. Visitors are led on an exciting four-wheel drive tour through the park’s fascinating geology, colorful history, and amazing biology. The park also hosts a number of interpretive festivals, which combine OHV recreation with resource education. These festivals include the Roughneck Rendezvous Geocaching Extravaganza, Halloween Spooktacular, Kid’s Adventure Connection Campout, Critter Olympics, Geology Daze, as well as Hot Stars and Heavenly Bodies Astronomy Festival.

Interpretive Publications: The visitor’s experience is also enhanced by several informational and interpretive publications that are produced by the park. They include a park map, the annual visitor guide, five different natural history guides, as well as resource trading cards. All are available at the Discovery Center or online at the park’s website.

Park Visitor Guide: The park released its new 24-page, Your Adventure Starts Here park visitor guide. The guide is the go-to publication for visitors and includes a variety of short, fun-to-read articles about the park. The guide is also available online at the park’s website.



Desert Sky Programs: The skies come alive each weekend at Ocotillo Wells SVRA. Using giant telescopes, the park’s team of astronomers guide visitors on a trip through the galaxy and beyond during the astronomy programs. In the afternoon, solar telescopes allow visitors to get a great view of solar flares and sunspots. When the skies darken, the astronomy team sets up its powerful telescope for an evening of night sky viewing. Hot chocolate and NASA produced movies round out this true desert experience.

School Outreach Programs: Each year, the Ocotillo Wells interpretive team takes the desert to 32 regional elementary schools. Through these programs, more than 1,000 third and fourth grade students have the opportunity to explore desert wildlife in an interactive and educational manner. From live animals to taxidermy mounts, from skulls and skins to animal scat, this Desert Biome program is a hit with students and teachers alike.

Park History

Ocotillo Wells SVRA has a rich and varied history. Native peoples lived and traveled throughout the region for centuries. Early Spanish explorers trekked across the land leading scouting parties in search of an overland route to Alta California. For several decades in the early 20th century, wildcatting oil speculators unsuccessfully drilled for “black gold” in Ocotillo Wells. In the 1930s, movie moguls sent Hollywood production companies to Ocotillo Wells where they filmed a number of well-known movies. During World War II, the United States Government commandeered portions of the land for military training and a firing range. Surplus Jeeps® were among the first recreational vehicles used to explore the park just after the war.

General Plan

The OHMVR Division, in cooperation with the BLM, is preparing a General Plan/ Recreation Area Management Plan/California Desert Conservation Area Land Use Plan Amendment (General Plan/RAMP/LUPA; or “Ocotillo Wells SVRA Plan”) and associated EIR/EIS for Ocotillo Wells SVRA. The Ocotillo Wells SVRA Plan will establish a benchmark for land managers, staff, and the public to evaluate decisions about Ocotillo Wells SVRA over the long-term. The Ocotillo Wells SVRA Plan will guide future and day-to-day decision-making, and will serve as the basis for developing feasibility and management plans, planning and implementing projects, and conducting other management actions. For more information about the Ocotillo Wells General Plan, visit planocotillowells.org.

Ocotillo Wells SVRA was established in 1976. Prior to this, the area was part of the Anza-Borrego Desert State Park. Many different people owned these lands before the area became a State Park. Today, there are still over 600 private in-holdings in the park.

Solar Energy Project

Ocotillo Wells SVRA has gone solar! Staff flipped the switch on the new solar arrays, which began providing renewable energy to the District in May 2014. The District's entire system is composed of 312 panels, which were installed on the roofs of the District Office (105), the Auto Shop (45), the Maintenance Shop (90), as well as three stand-alone arrays (72). The existing electrical meters on these structures were replaced with bi-directional meters, which can accommodate power being fed back to the grid. The Imperial Irrigation District was on-hand at system start up to make the necessary changes and to confirm it was producing renewable energy.

For the most part, every two panels are linked to the system with an Enphase® micro-inverter that provides for ideal levels of energy production—each ground array is set up with micro-inverters on each panel that provides the highest level of energy production. The Enphase® micro-inverters report directly (through data connections) to an Envoy® communication module that collects data for each individual system, giving Ocotillo Wells District the ability to track production rates and quickly identify individual panels that are experiencing any issues.

According to the latest Imperial Irrigation District accounting in 2016, the Ocotillo Wells maintenance shop, auto shop, and three ground arrays had an accumulated net consumption of 11,600 kWh last year. These arrays produced a net generation of 45,200 kWh. This is a difference of 33,600 kWh, earning the District a credit on their account of almost \$2,000! That translates into roughly 181.94 U.S. tons of averted emissions! Note: the District Office is not included on this measurement.

This solar project furthers the OHMVR Division's 2008 Strategic Plan by contributing to Goal 1, Objective 1.3 to "achieve a 25 percent reduction in carbon footprint from management of the SVRAs by 2020 (California State Parks 2009, 49). In addition, the solar project meets the 2013-2014 California State Park Strategic Action Plan Goal 5, Objective 5.2.4 to "explore renewable and/or alternative energy options that would meet park needs and reduce long-term energy costs" (California State Parks March 2013, 8).

Kid's Adventure Connection

Each winter, Ocotillo Wells SVRA holds its annual Kids' Adventure Connection Weekend. This fun-filled festival is based on the Children's Outdoor Bill of Rights—only with an off-highway recreation twist. In 2015, the event kicked off with the kids learning about the Tread Lightly!® principles and trail safety while operating remote-controlled Jeeps® to maneuver over obstacles.

After learning about safe, responsible recreation, families geared up for an off-highway trail ride to discover California's past. Once riders arrived at their destination, members of the Imperial Gem and Mineral Society were on hand to talk about the history of prospecting in the area. They followed up with a hands-on activity where the kids dry-panned for gold. "Eureka!" one kid exclaimed as he saw gold come into view. Once back at camp, an interpretive version of the Olympics filled the afternoon with fun. The kids jumped like jack rabbits, did push-ups like an iguana, howled like coyotes, and identified smells like a kit fox, all in hopes of winning the coveted gold coyote paw medal.



The day's activities were topped off by a hot dog dinner, stargazing, songs and stories around a blazing campfire, and of course, s'mores. Following a night in sleeping bags under the stars, families spent the morning exploring the desert around them, playing tug-o-war, participating in a pickup football game, and doing arts and crafts activities. Then, participants assembled for the big awards ceremony where they were presented their coyote paw Olympic medals and Safe Rider t-shirts. Participants are already looking forward to next year's adventure. We would like to convey a special thank you to our partners, Tierra Del Sol 4-Wheel Drive Club, for their generous support for this event.

Prairie City SVRA

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. Flat, open grasslands, rolling hills with native blue oak trees, and acres of cobbled mine tailings span the park providing for an array of OHV recreation opportunities. The SVRA offers OHV enthusiasts a variety of terrain, trails, distributed riding, and an extensive selection of tracks. Park elevations range from 240 feet to 350 feet above sea level. Summers at the park are dry and hot, while winters tend to have dense fog in the mornings and occasional heavy rains.

Location: Sacramento County

Total Park Acreage:

Year Park became an SVRA: 1989

Annual Visitation: 43,816

Camping: No



Today, a wide range of birds and other wildlife reside in the area. The open grasslands attract golden eagles, red-tailed hawks, kestrels, and an occasional prairie falcon. Oak trees and brushy areas provide shelter for quail, wild turkeys, and pheasants. Lewis' woodpeckers, acorn woodpeckers, and northern flickers can be seen on the blue oaks. Deer are seen in the morning or evening hours when they come out to graze, and coyotes are seen on occasion.

Facilities and Recreational Opportunities

Prairie City SVRA's recreational opportunities include terrain, trails, and tracks for motorcycles, ATVs, 4x4s, ROVs, Karts, and Quarter Midgets. Most of the trails in the park available for motorcycles and ATVs are beginner or intermediate level with a few expert trails. Privately operated concessionaires provide a number of specialty tracks including the Hangtown Track, a Quarter Midget Track, Kart Track, and Arena Cross TT.

Staging Area: The SVRA offers shaded picnic sites, barbecue grills, fire pits, and restrooms in the staging area. Day use parking is provided in the staging area and at designated areas near the various tracks and the 4x4 area. While camping is generally not allowed, overnight stays are permitted on a limited bases in conjunction with permitted special events.

Environmental Training Center: The Environmental Training Center (ETC) at Prairie City SVRA was designed to teach safe and environmentally responsible off-highway recreation practices. The facility consists of a classroom, two training ranges, and a three-acre trail system landscaped with native plants from six different California ecosystems: desert, chaparral, oak woodland, conifer forest, sand dunes, and a riparian zone plants. The ETC building, which houses a classroom, office and locker room, was constructed of recycled materials and uses solar panels to provide 100 percent of its energy.



The ETC training area consists of a level dirt-riding arena and a three-acre trail system designed to mimic natural riding conditions. Certified professional trainers use the level training area to introduce new riders to proper riding techniques. The OHV safety-training program teaches students safe and responsible riding and allows trainers to instill respect for the land in students while challenging them to real-life riding conditions.

Concession Store/Rentals: The Mud Mart concession at Prairie City SVRA provides day riders with spare parts and accessories for motorcycles and ATVs, apparel and safety gear, plus snacks and beverages.

Practice Tracks: The MX Practice Track and ATV Practice Track consist of jumps and banked turns intended for intermediate to advanced level riders. Tracks are groomed and watered on a semi-regular basis.

Kid's Tracks: The Kid's Track facility is limited to riders aged 14 years and younger. The facility is divided into two separate tracks. The 70cc Beginner Kid's Track is for beginner-level children on motorcycles and ATVs 70cc and under. The 110cc Intermediate Kid's Track is for intermediate-level riders on motorcycles and ATVs 110cc and under. Both areas are for young OHV enthusiasts to develop riding skills under the safety of direct adult supervision.



Motorcycle/ATV Area: There are many trails throughout the motorcycle/ATV area. Most of the trails in the park are beginner or intermediate with just a few expert trails. The trails are designated as two-way in direction.

4x4 Area: The 4x4 area is open to 4x4s, buggies, Pilots, and Odysseys. For safety reasons, motorcycles and ATVs are not permitted in this area. The 4x4 area is a haven for 4x4 enthusiasts that love mud as Prairie City SVRA has very heavy clay that is extremely challenging. In addition, the SVRA constructed obstacles in the 4x4 obstacle course. There are Stairsteps, Frametwister, Mini-Rubicon, Mud Pit, Gravel Pit, and Dry River Bed. The obstacles range from very easy to extremely difficult.



Mini MX Track: The Mini MX Track is a short dirt Oval TT/Flat Track and Arena Cross style track combination. The track is designed to accommodate the growing sport of Supermotard type motorcycles and allow riders to improve their skills. There are three variations including a flat track, oval with dirt jumps, and arena style jumps with use of the oval.



Hangtown MX Track: A private concessionaire operates the Hangtown MX Track. Just over a mile in length with challenging terrain and high jumps, this track is designed for expert level motocross riders. In the spring, the track is home to the annual Hangtown National Motocross Classic. The first Hangtown race took place in 1969, making it the longest running national series motocross race. It has been held at Prairie

City since 1979, and is one of the largest outdoor sporting events in Sacramento County with more than 25,000 spectators. It is the only outdoor national race still promoted by a nonprofit club, the Dirt Diggers North Motorcycle Club.

Go-Kart Track: Concessionaire All Star Karting operates the Go-Kart Track. The Go-Kart Track is a Grand Prix-style track that has many intricate twists and turns. This track is used by several categories of competitive go-karts.



Quarter Midget Track: The American Quarter Midget Association uses the Quarter Midget Track for both practice and competitive events. Five to 16-year-olds race these scaled down versions of midget racing cars for trophies and prestige. This track now has lights allowing for racing in the cooler evenings.

Mountain Biking: On Wednesday evenings, during the spring and fall, mountain bike enthusiasts can enjoy the park as they practice and test their skills.



Outreach and Education

Through portable staffed exhibits, programs, and special events, Prairie City SVRA provides an important opportunity to teach kids about responsible OHV use, safety, rider ethics, and awareness and protection of the park's natural and cultural resources. The park also hosts the Off-Highway PALs program.



Vernal Pool Interpretive Program: While Prairie City SVRA offers a variety of recreational opportunities for motorcycles, 4-wheel drive vehicles, and bicycles on unique terrain, there are hiking trails and wildlife viewing areas. One activity that hundreds of people flock to see every spring is a tour of the vernal pools. Prairie City SVRA's vernal pools are home to the federally endangered Vernal Pool Tadpole Shrimp, as well as the federally threatened Vernal Pool Fairy Shrimp. The vernal

pools are also home to a variety of beautiful flora such as Spokepod, Valley Tassels, Royal Larkspur, Fremont's Tidy Tips, White Meadowfoam, Miniature Lupine, Vernal Pool Goldfields, and many others. Every April Prairie City SVRA hosts an annual Vernal Pool tour. The free tour is open to the public and shows visitors the splendor of this complex micro-ecosystem.

Park History

The parklands were originally home to the Valley Nisenan Maidu Native Americans. The Maidu people occupied the eastern portions of the middle and lower Sacramento Valley and Sierra Nevada foothills until the discovery of gold and the ensuing Gold Rush. Prairie City SVRA takes its name from the gold rush mining community that was located just northeast

of the present-day park. Today, reminders of that 1850s community can be seen in the acres of cobbled mine tailings left after dredges combed the ancient river beds in search of gold in the late 1800s, and a historical marker just outside the park—California Historical Landmark #464. After the gold mining days, the area became home to a number of cattle ranches.

In the early 1960s, Aerojet General Corporation purchased the southern portion of what is currently the existing park to build and test rocket engines for the federal government. Today, you can still see both the test rocket launch pit, and the dome-shaped control room called the “Moon Room”. In 1972, Roy and Mary McGill leased 435 acres of the present park site from Aerojet General Corporation and created a motorcycle riding and competition facility called McGill Off-Highway Vehicle Park. Sacramento County purchased the area in 1975. An additional 401 acres was purchased in 1976, and in July 1988, the park was turned over to the Division.



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Glossary of Terms and Abbreviations

WILL BE ADDED IN FINAL DOCUMENT



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