Altamont Sector
Stormwater Management Program
2024 Annual Report

California Department of Parks and Recreation
Diablo Range District
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1 Purpose

The California State Parks Diablo Range District Altamont Sector (Altamont Sector) Stormwater Management Plan's (SWMP, 2012) purpose is to reduce or eliminate potential pollutant discharges from State Parks properties within the Sector using site-specific structural and non-structural best management practices (BMPs) to protect and improve water quality, while also providing high quality Off-Highway Vehicle (OHV) recreational opportunities at Carnegie State Vehicular Recreation Area (Carnegie SVRA).

The Altamont Sector formally implemented the SWMP in February of 2012. The SWMP requires that an annual report be developed, as well as submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB), if requested. The purpose of the annual report is to provide the status of measurable goals and summarize monitoring information collected during the reporting period. In July 2013, Altamont Sector submitted a Notice of Intent for and received coverage under the Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit (Phase II Permit) as a Non-Traditional Permittee. The SWMP implementation is often performed in conjunction with the Phase II Permit compliance activities.

In Year 11, the Organization name was changed from Carnegie SVRA to Altamont Sector, since the State Legislature passed Senate Bill 155 in 2022, which codified that Alameda-Tesla (and accordingly the Tesla Mine) would no longer be part of Carnegie SVRA. Therefore, many references to Carnegie SVRA have been updated throughout this report. The Phase II Permit requires the submittal of an Annual Report to summarize the previous year's compliance efforts. An Effectiveness Assessment (EA) has been created to provide the information requested in question number 55 of the 2023-2024 Annual Report, which includes the following (Appendix A):

- A description of the implementation of the Program Effectiveness Assessment and Improvement Plan (PEAIP);
- A summary of the data obtained by conducting a program EA;
- An analysis of the EA data; and
- A summary of the short and long-term progress of the stormwater program.

The SWMP details requires activities used to evaluate and improve the stormwater program's impact on water quality, such as rehabilitation of OHV riding areas, installing BMPs, inspecting Resource Management Areas (RMAs), and monitoring stormwater. Each year, the Phase II Permit Annual Report, which includes the EA, summarizes the previous year's SWMP activities and is submitted electronically to the State Water Resources Control Board (State Water Board). The SWMP Annual Report summarizes the data in a similar format, and also includes photo points, as well as additional water quality data. The SWMP Annual Report is drafted by Natural Resource staff and submitted for review and approval to the Diablo Range District Superintendent and Off-Highway Motor Vehicle Recreation (OHMVR) Division. SWMP Annual Reports are posted on the OHMVR Division webpage and will be made available to the CVRWQCB upon request.

The 2023-2024 reporting year marks the 13th year of SWMP implementation for Altamont Sector. After the Sector received coverage under the Phase II Permit in July 2013, the Annual Report

evaluating the year from July 2013 to June 2014 became the first reporting period (Year 1). Therefore, all data for the 2023-2024 reporting year will be referenced as "Year 11." The Year 11 SWMP data and analysis are presented in the following sections.

1.1 Site Background

The Altamont Sector comprises Carnegie SVRA, the Diablo Range District office and the Tesla Mine Complex, which is located on the neighboring Alameda-Tesla Property and is currently not open to the public. The Altamont Sector and the park units within it are operated by the Diablo Range District of the California Department of Parks and Recreation (DPR). Carnegie SVRA is located along Corral Hollow Road, between the cities of Livermore and Tracy, California (see Figure 1-1). This unit of the California State Park System is funded by the OHMVR Division and provides approximately 1,445 acres of OHV riding opportunities to the public. The park was purchased by the State in 1979 with the purpose of continuing to provide existing off-highway vehicle recreation previously provided by a private motorcycle park. With a diversity of terrain ranging from rolling hills to steep canyons, Carnegie SVRA has become a popular destination for off-road enthusiasts of all skill levels. The Tesla Mine Complex is located on the neighboring Alameda-Tesla Property and is an abandoned mine complex that is owned, operated, and funded by DPR. The mine is located approximately four miles west of the SVRA. The CVRWQCB has determined that the Tesla Mine Complex should be included under the Phase II Permit. Compliance with the Phase II Permit is achieved through implementation of the SWMP at Sector properties. The Diablo Range District office is located between Carnegie SVRA and the Tesla Mine Complex and is also included under the Phase II Permit coverage. It is assessed annually for potential pollutants that could discharge into Corral Hollow Creek.

Given legislative changes and geographical proximity to each other, the SVRA, the Diablo Range District office, and the Tesla Mine Complex are managed under the same SWMP and Phase II Permit. However, implementation activities are funded according to where activities occur.

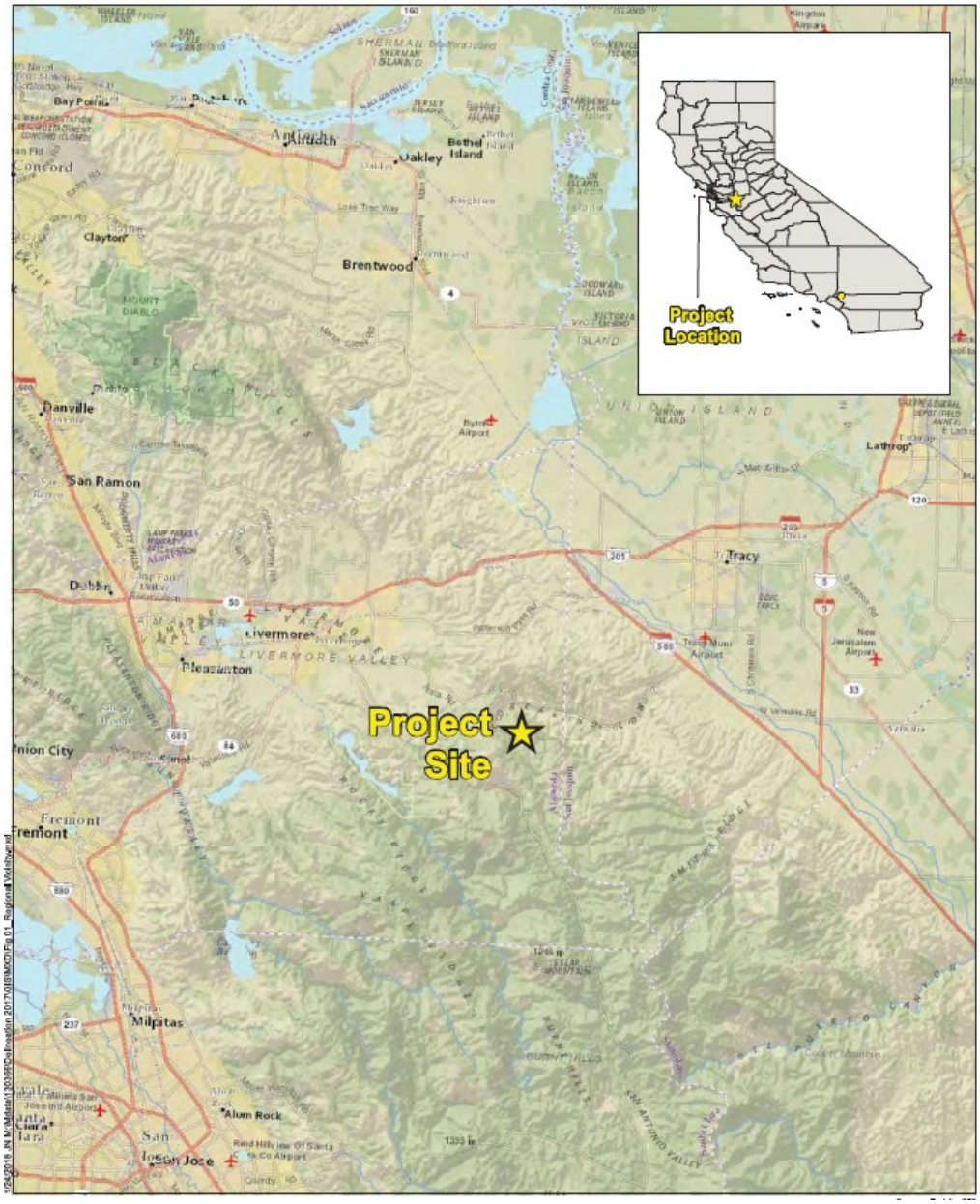

Figure 1-1: Regional Map of Altamont Sector

The OHMVR Division initiated a Stormwater Management Program at the Altamont Sector 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) and the Clean Water Act (CWA). In order to achieve these water quality objectives, a number of projects and programs have been planned and are being implemented.

From 2004 to 2007, the OHMVR Division contracted with Salix Applied Earth Care and Geosyntec consultants to assess the Corral Hollow watershed. The purpose of the Corral Hollow Watershed Assessment (CHWA) was to provide the OHMVR Division, Sector staff, and community stakeholders with an understanding of the historical occurrences that have shaped the watershed.

The assessment was also performed to determine the existing condition of the watershed, which facilitated the development of management practices that could be applied to help improve water quality and the overall health of the watershed. The findings from the CHWA were used to develop design recommendations, which aimed to prevent erosion and control sediment using innovative BMPs, as well as an active, adaptive management framework focused on meeting water quality objectives. The framework incorporated continual assessments for areas prone to erosion, implementation of appropriate BMPs, on-going monitoring, regular effectiveness assessments, and plans for long-term maintenance to help ensure their continued success.

The OHMVR Division Stormwater Management Program also included activities related to the Wildlife Habitat Protection Plan (WHPP) and Soil Conservation Plan (SCP), such as the ongoing development and implementation of the Trails Management Plan (now known as the Resource Management Areas program), annual species surveys, and habitat rehabilitation activities. Additional elements included the implementation, monitoring, and maintenance of projects in compliance with the OHMVR Division Soil Conservation Standard and Guidelines, as well as the use of the OHV BMP Manual for Erosion and Sediment Control (OHV BMP Manual) when selecting, implementing, and maintaining BMPs. These items are discussed in more detail in Section 2.7, Carnegie SVRA OHV Trails and Facility Management.

1.2 Regulatory Background

In February of 2012, this SWMP was implemented with the purpose of reducing or eliminating pollutant discharges from park units within the Altamont Sector by implementing site-specific structural and non-structural BMPs that protect and improve water quality while simultaneously allowing for high quality OHV recreational opportunities at the SVRA. The SWMP addresses discharges of stormwater and authorized non-stormwater to Waters of the United States (as defined by the U.S. Environmental Protection Agency or EPA) and Waters of the State of California (as defined by the Porter-Cologne Water Quality Control Act). 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 SWMP guides Sector staff on how to comply with the requirements of the latest *NPDES Waste Discharge Requirements (WDRS) for Stormwater Discharges from Small MS4s* (Order No. 2013-0001-DWQ, as amended by Order No. 2015-0133-EXEC, Order No. 2016-0069-EXEC, Order No. 2017-XXXX-DWQ, Order No. 2018-0001-EXEC, and Order No. 2018-0007-EXEC), issued by the California State Water Resources Control Board (SWRCB) on February 5, 2013 (SWRCB, 2013) (Phase II Permit) and effective July 1, 2013. The SWMP also helps ensure compliance with the latest *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (State Construction General Permit or State CGP) (Order No. 2022-0057-DWQ) (SWRCB, 2022).

On April 7, 2015, the SWRCB adopted an amendment to the *Water Quality Control Plan for the Ocean Waters of California to Control Trash and Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (together, referred to as the Trash Amendments). The Trash Amendments apply to all Phase I and II permittees that are subject to the NPDES MS4 permits.

2 Description of SWMP Implementation

The purpose of the SWMP is to reduce or eliminate pollutant discharges from Altamont Sector to the Maximum Extent Practicable (MEP), as defined by the Phase II Permit. The SWMP achieves this by providing a description of the BMPs that are currently being used or that have been proposed for stormwater management at the park. A description of BMPs for each of the following seven program areas (also referred to as Minimum Control Measures) is included in the following sections:

- Section 2.1 – Education and Outreach Program
- Section 2.2 – Public Involvement and Participation Program
- Section 2.3 – Illicit Discharge Detection and Elimination Program
- Section 2.4 – Construction Site Runoff Control Program
- Section 2.5 – Pollution Prevention/Good Housekeeping Program
- Section 2.6 – Post-Construction Stormwater Management Program
- Section 2.7 – Carnegie SVRA OHV Trails and Facility Management

The purpose of completing a SWMP Annual Report is to regularly summarize the SWMP activities from the past year. The data collected in any given year will be used to make potential improvements. It is important to note that the SWMP process is iterative, and subject to its own evaluation and revision to ensure the provided feedback is useful.

2.1 Education and Outreach Program

Public education and outreach are essential in effectively implementing the SWMP. Not only do education and outreach help ensure that water quality objectives are met, but they also promote greater support for the projects, BMPs and actions undertaken by Sector staff and Carnegie SVRA to protect water quality. The Education and Outreach Program provides information and resources to staff, volunteers, visitors, and stakeholders (the public) that will improve their understanding of the SWMP. Public education and outreach promote better compliance with minimum control measures by teaching individuals about the potential impact they and others in the community can have on receiving water bodies, including actions the public can take to protect or improve the environment. Altamont Sector has opted to fulfill the education and outreach requirements within its own jurisdiction, with some level of coordination with other organizations, to implement public education campaigns, as well as to participate in public education and outreach activities with neighboring MS4 permittees. Most educational outreach occurs through Carnegie SVRA, since the Tesla Mine Complex is not open to the public.

Figure 2-1: Public Education and Outreach

A majority of Public Education and Outreach is conducted through Carnegie SVRA's existing Interpretive Program. The Interpretive Program addresses natural and cultural resource topics, and is composed of a variety of outreach programs including:

- Junior Ranger Programs;
- School Group Tours;
- Roving Interpretation;
- Information Station booth and displays
- Family Rides
- Interpretative Panels
- Brochures (available in English and Spanish) and other written information
- Social Media Posts

2.1.1 Website

The Carnegie SVRA website has a Resource Management page with information on Resource Management Areas (RMAs) and Stormwater Quality. On this page, links to the Stormwater Quality Brochure and RMA map are available, as well as a copy of the SWMP, Carnegie's wet weather closure policy, and other educational resources.

In the previous reporting period, Carnegie SVRA was affected by a destructive series of atmospheric river storms in early 2023, resulting in an extended closure of the entire park while staff conducted extensive repairs. This closure affected Sector staffs' ability to host interpretive events for the public in Year 10, but in Year 11 the Altamont Sector Interpretation staff continued to keep members of the public informed about park updates and repair progress. One creative way that Sector staff conveyed the extensive damages and necessary repairs to the public was by sharing an ESRI StoryMap in August 2023 on Carnegie's website via social media and via QR code at park events. The StoryMap was also shared with the Carnegie Advisory Team and with regulatory agencies as a tool to portray the damage the park received from the winter storms and to highlight how diligently staff worked to get the park reopened after the storms.

2.1.2 Educational Brochures

Sector staff created an educational SWMP brochure to help SVRA visitors understand how they can protect and improve water quality. The brochure describes the pollutants of concern and how visitors can prevent them from negatively affecting water quality. In 2023, the interpretation staff updated the SWMP brochure with a new design (Appendix B) to be shared with visitors through the website, social media, and in the park. In Year 11, the distribution of this brochure continued at the park kiosk, the Information Station on the weekends, and at in-park special events such as the three Hill Climb events hosted in October 2023 and the April 2024 Carnegie Visitor Appreciation Day. The SWMP brochure was also used as part of staff training was provided to all new staff and contractors.

In Year 11, Sector staff created two new brochures in both English and Spanish for Carnegie SVRA visitors, relaying information about the importance of SWMP compliance at Carnegie SVRA and how visitors can help minimize pollutants. One brochure addresses illegal dumping within the park and directs visitors to report illegal dumping to park staff immediately if witnessed (Figure 2-2). The brochure identifies several ways that visitors can address pollutants of concern, such as fixing drips or leaks on their OHV, throwing trash away in a garbage can, and recycling old tires and motor oil. The second brochure discusses RMAs and the importance of staying on trail when riding in these areas, then displays a map of the RMAs in Carnegie SVRA where OHV-users are expected to stay on trail (Figure 2-3). Both brochures are included in Appendix B.

Figure 2-2: Illegal Dumping Educational Brochure

Figure 2-3: RMA Educational Brochure

During this reporting period, the Altamont Sector Interpreter received posters from Tread Lightly to post in highly trafficked areas of Carnegie SVRA to encourage users to stay on trail. Sector staff noticed that incidences of off-trail riding seemed to decrease with the increased posting of this message. The Altamont Sector Interpreter also hung these posters in restrooms throughout the SVRA, which was also believed to have been correlated with the decrease in incidences of off-trail riding. Altamont Sector Interpretation staff will continue to post these posters throughout Carnegie SVRA, including restrooms, to help further spread the message.

2.1.3 Interpretive Panels

A series of interpretive panels help explain the SWMP and its components to Carnegie SVRA's visitors. Four of the panels describe different habitats in the park and discuss how different plants and animals are affected by water quality. Other panels explain how water quality is impacted by illicit discharges and erosion. Panels are installed at the park store where visitors congregate and throughout the park in highly trafficked areas. These panels aim to make visitors aware of the importance of protecting water quality and suggest practical ways to help, such as staying on trail when recreating in RMAs. All interpretive panels installed in the park are included in Appendix B.

In 2023, staff began creating a riparian area panel that describes how park staff are working to restore Corral Hollow Creek and what park visitors can do to continue to protect it (Figure 2-4). The panel includes a watercolor painting of the riparian area and explains how native plants and animals use the creek. The panel is interactive with flaps that visitors can lift to see what is happening underground in the riparian area. Design for this panel was completed in June 2024 and installation is expected to be completed in late 2024.

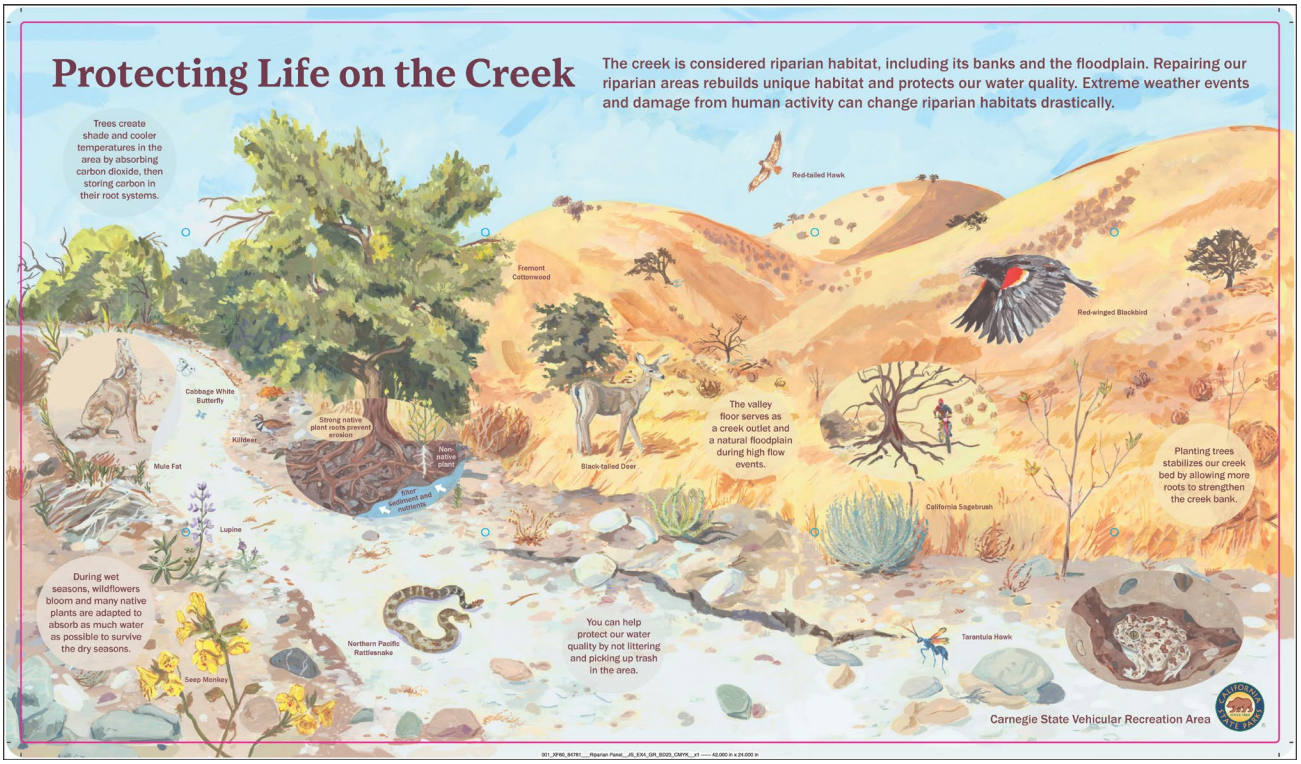

Figure 2-4: Restoring Riparian Area Panel

2.1.4 Special Events

Carnegie SVRA hosts and organizes special events for the public throughout the year, from extreme motosport events to safety rides. In December 2023, Altamont Sector hosted its first annual Parade of Lights at Carnegie SVRA, which is set to become a new annual tradition for the park. Sector staff also participated in various local community events during this reporting period, including the Mountain House Fire Department Pancake Breakfast, Livermore Police Department Trunk or Treat, and the City of Tracy Light Parade, where Carnegie SVRA took home the second-place award for the best dressed float. In June 2024, Altamont Sector staff attended an event hosted by the Tracy Chamber of Commerce at the neighboring Tracy Fire Department. Neighboring MS4 permittees, the Tracy Fire Department, and the Tracy Hills Housing Development were in attendance. Sector staff were able to tour the Fire Department's facilities to learn about how potential pollutants are reduced at their facility.

Figure 2-5: Park Staff Touring the Tracy Fire Department

2.1.5 Educational Booth and Information Station

An educational booth and information station is set up once per month during the busy season (typically from October through April) and at all special events hosted within the Altamont Sector to allow Sector staff to educate and inform SVRA visitors about protecting wildlife, habitats, cultural resources, and water quality. Materials available at the booth include the SWMP brochure, an RMA flyer, and information on animals and habitats found within the park. The same materials are offered at the information station that is set up on Sundays during the busy season, typically October through April, next to the park store. The educational booth at special events typically reaches three hundred visitors per weekend, whereas the information station that is set up over the weekends reaches around thirty visitors per day.

During Year 11, Sector staff noticed a decrease in public interest and participation at the information station. Sector staff may opt not to host the information station in future years and focus their efforts on other opportunities to inform the public on how they can protect water quality and other resources while recreating at Carnegie SVRA.

Figure 2-6: The Information Station

The Altamont Sector Interpreter is constantly developing new and creative ways to effectively inform SVRA visitors of SWMP elements. In Year 9, the Altamont Sector Interpreter constructed an erosion box to demonstrate how vegetation helps keep sediment in place and captures it as it erodes, which helps reduce the amount of sediment that ends up in a receiving water body (Figure 2-7). During this reporting period, the Interpreter initiated the process of obtaining a model of the Corral Hollow Creek Watershed to use for future demonstrations. Having this watershed model will allow the Altamont Sector Interpreter to present SVRA visitors with visual examples of how processes in the watershed can be influenced by illicit discharges or illegal dumping, as well as how these things can affect recreational opportunities at Carnegie SVRA. The watershed model is expected to be completed during the 2024-2025 (Year 12) reporting period.

Figure 2-7: Erosion Box

2.1.6 Social Media

Carnegie SVRA's Facebook and Instagram pages are effective means for communicating with the public about the Altamont Sector's SWMP and its requirements. Posts are made several times a week to keep the public informed about park projects, events, and closures. The social media pages also include "Wildlife Wednesday" posts to highlight how to identify, respect, and protect wildlife species that inhabit the SVRA, such as the 15 different species of snakes in the area. Several times throughout this reporting period, posts and photos were shared on social media discussing the completed work to repair the severe storm damage that Carnegie SVRA experienced in early 2023, including sharing the ESRI StoryMap to showcase the original storm damages. Updates from the Carnegie Volunteer Trail Maintenance crew were posted to spread awareness about the volunteer program and let followers know how they can get involved. Social media posts were also made to promote community engagement programs at Carnegie SVRA, such as the partnership with Brighter Christmas to collect gift donations for local families in need in exchange for a free day-use entry into the park. As of June 28, 2024, Carnegie's Facebook account has over 10,000 followers and Facebook posts have an average reach of 33,130 Facebook users per year. During this reporting period, Carnegie SVRA's Facebook posts were liked, commented on, or shared by 4,674 users. Carnegie SVRA's Instagram account has 8,057 followers, with an average reach of 5,826 users per year, and over 1,100 engagements with Instagram users. with Instagram users.

2.1.7 Junior Rangers

Since 2021, the Sector's Interpretation staff have hosted an educational booth for kids at Carnegie SVRA known as the Junior Rangers. The booth is stationed near the kids track area and is set up one to two times per month between September and May. Each Junior Ranger booth has a different theme, including Safety, Archaeology, Wildlife, Geology, Birds of Prey, Insects, Snakes, and Wildflowers. The Interpretation staff plans to create more themes, including a Watershed theme planned for the 2024-2025 reporting period that will incorporate the watershed model discussed in Section 2.1.5. The Junior Ranger booths are a great opportunity to reach the younger generation of riders and educate them about protecting wildlife, habitats, and the importance of mitigating the effects of stormwater by staying on trail when riding at Carnegie SVRA.

Figure 2-8: Junior Rangers Educational Booth

During this reporting period, the Sector Interpretation staff arranged various field trips from local school groups to visit Carnegie SVRA. In Fall of 2023, Carnegie SVRA hosted three field trips for third grade classes where students explored the theme of "Nature Everywhere." Students learned about animal adaptations by looking at taxidermy animals, animal skulls, tracks, and hides. The Altamont Sector Interpreter then led students on a guided hike through the riparian area of Carnegie SVRA and discussed how to protect water quality. The Interpreter also talked to students about the work that Altamont Sector staff undertake at the SVRA and how it helps protect species that use this habitat as their home. In Spring of 2024, Interpretation staff conducted one field trip for local fifth graders that focused on ecosystems. This class hiked through the riparian area of Carnegie SVRA and learned about habitats, riparian ecology, photosynthesis, and plant life cycles. Students had the opportunity to explore the riparian area, document their observations in a notebook, and discuss their observations and take-aways with the Interpreter.

2.1.8 Volunteer Programs

Two volunteers were added to the growing trail maintenance team in Year 10, and one more was added in Year 11. Currently, the SVRA has a total of eleven volunteers within two volunteer programs: Trail Patrol and Trail Maintenance. The Trail Patrol has been active for over 30 years and assists the Rangers with monitoring park trails to enhance visitor safety. The Trail Maintenance program was created in October 2021 and works with the Natural Resources Trail Crew to help maintain park trails. All volunteers help to educate the public about the importance of staying on the trails. Volunteers learn about the Sector's SWMP and its importance during training and in the volunteer manual.

In February 2023, Altamont Sector held a volunteer day at Carnegie SVRA to put up fencing to delineate the area where riding is not permitting in the riparian zone of Corral Hollow Creek. The creek delineation fencing was damaged in the 2022-2023 winter storms and new temporary fencing needed to be installed to prepare the park for reopening after the closure caused by the storm damage. A team of ten volunteers attended a half-day of work to install approximately 6,000 feet of temporary fencing. Lunch was provided for the volunteers and was sponsored by CA Adventours, a company that offers ATV training classes at local SVRAs.

2.1.9 Biannual Staff Training

Over the last decade, Michael Baker International has served as the SVRA's stormwater consultant and has developed and presented biannual training for Altamont Sector staff. Training courses typically review Altamont Sector's Illicit Discharge Detection and Elimination (IDDE) Program, as well as the Pollution Prevention/Good Housekeeping (PPGH) Program.

Figure 2-9: Biannual Staff Training Presentation

In Year 11, Michael Baker International and Park staff set out to identify opportunities to make its stormwater training an even more enjoyable process by improving training activities and increasing excitement, access, and participation. In addition to competitive games such as Stormwater Bingo, hands-on activities were also included to enhance the attendees' understanding of potential stormwater pollutants and required IDDE procedures. Additionally, contained samples of common stormwater pollutants were created to show attendees what to look for when identifying potential illicit discharges (Figure 2-10).

Figure 2-10: Contained Samples of Common Stormwater Pollutants for Staff Training

Several IDDE scenarios were then simulated outdoors, where training groups were encouraged to collaborate and discuss next steps for handling the IDDE (Figure 2-11). For these simulated scenarios, groups had the opportunity to fill out and submit IDDE inspection forms, as well as discuss pollution prevention methods related to the illicit discharge.

Figure 2-11: Simulated IDDE Scenario for Staff Training

Additionally, the annual assessment was administered after the training to gauge Sector staff's understanding of water quality issues. Results are discussed in Section 2.2.2, Target Audience Awareness.

2.1.10 Carnegie Advisory Team

The Carnegie Advisory Team (CAT) first met in 2013 to provide input on park projects and operations that relate to the user's recreational experience and safety. The overall goal of CAT meetings is to give stakeholders and members of the public the opportunity to meet with park staff to present ideas, complaints, and views on current projects, future projects, operations, and public outreach. CAT meetings provide a forum for park staff to inform stakeholders of park functions, planning and regulations, and how they pertain to the way the park is or will be operated. This partnership allows management to hear the visitor's ideas and concerns and consider them when making decisions that will affect the park. After a brief hiatus due to COVID-19, the CAT meetings resumed in January of 2023 and continue to be held monthly with Sector staff, SVRA visitors, and stakeholders in attendance. Information about how to join Carnegie's Advisory Team and when meetings are hosted are available on the SVRA's main website, as well as shared on social media throughout the year. Figure 2-12 shows Fiona Catalano, Altamont Sector Interpreter, talking to CAT about the SWMP and how off-trail riding may lead to additional sediment in Corral Hollow Creek.

Figure 2-12: Carnegie Advisory Team

2.2 Public Involvement and Participation Program

2.2.1 Public Involvement

To effectively implement a SWMP, engaging the public is critical to fostering an understanding of their role in its implementation. Public involvement and participation help ensure the SWMP reflects the actions and efforts stakeholders have committed to in support of reducing pollutant discharges, promoting safe and responsible use of park facilities, and following all park rules in order to protect and improve water quality. In addition, engaged individuals will be valuable connections to other citizen and government groups in the community.

2.2.2 Target Audience Awareness

The primary target audience for the Altamont Sector Stormwater Program includes Altamont Sector staff and visitors to the SVRA. Assessing awareness is achieved by surveying and/or testing the target audience.

Assessments were completed by 30 permanent Sector staff in December 2023 and January 2024. The assessment's level of difficulty was increased slightly in recent years to better gauge Sector staff's understanding of more in-depth water quality issues. The 24-question assessment included questions related to sediment, trash, IDDE, PPGH, and general stormwater awareness. Assessment results are presented in Table 2-1 below:

Table 2-1: 2024 Phase II Permit Altamont Sector Staff Assessment Results

Question Category [1]	Average % Correct	Number of Questions
Sediment	94%	2
Trash	99%	2
IDDE	93%	9
PPGH	99%	7
General Stormwater Awareness	95%	4
All Questions	**95%**	**24**

NOTES:
(1) The IDDE, PPGH, and General Stormwater Awareness questions addressed specific water quality concerns associated with the topic, while simultaneously incorporating potential pollutants into the questions as well (e.g., sediment and trash).

The results suggest that the Altamont Sector staff have a high level of understanding of the water quality topics covered, despite the increased level of assessment difficulty.

Knowledge assessments were also completed by 95 SVRA visitors in Spring of 2024. The average score of the completed visitor assessments was 87% percent correct. Table 2-2 summarizes the subject of each assessment question, as well as the average percent correct for each question.

Table 2-2: 2024 Public Assessment Results

Subject of Assessment Question	Average % Correct
The main goal of establishing Resource Management Areas	80%
Carnegie's biggest stormwater pollutant of concern	61%
Where polluted runoff ends up after entering a storm drain	84%
Recreational impacts associated with excess sediment in creeks	95%
Environmental impacts associated with excess sediment in creeks	86%
Environmental impacts associated with off-trail riding	87%
Oil and grease impact on water quality	99%
How riders can help reduce sediment in water	97%
Why trash is a stormwater pollutant	99%
Approved vehicle washing locations *	47%
Proper disposal of waste from gray/black water tanks	100%
Approved vehicle maintenance/repair locations *	68%
How to prevent pathogens from entering nearby creeks *	80%
Best practices when refueling OHV	98%
Appropriate trash disposal practices	95%
Approved motor oil disposal location	100%
What to do in the event of an oil, gas, or waste spill	100%
All Questions	**87%**

* Multi-part question (i.e. needed to select all correct answers to receive the point)

Typically, the visitor survey is made available in-person, but during the COVID-19 pandemic, surveys were posted on social media. SVRA visitors were incentivized to complete the assessment with a coupon for a free day of entry to the park. The survey continued to be offered online post-pandemic to increase the potential reach of the visitor survey.

The goal set by the Altamont Sector Stormwater Program was to achieve an average visitor assessment score greater than 90 percent, which would indicate a high level of understanding of water quality issues. With this goal not met, Altamont Sector staff will continue to post and distribute educational materials in support of achieving a high level of visitor awareness. SVRA knowledge assessments will continue to be administered annually to measure target audience awareness of water quality issues. Assessment questions are reevaluated annually based on the previous year's results and updates are made in an effort to decrease confusion while continuing to accurately assess and educate the public.

2.2.3 Target Audience Actions

The actions of target audiences are evaluated by performing site investigations and by internally tracking stormwater program progress (e.g., illicit discharges, RMA closures, sediment and erosion control evaluations). The progress of these stormwater programs is discussed in the following sections.

2.3 Illicit Discharge Detection and Elimination Program

The Altamont Sector developed and implemented an IDDE Program to detect, investigate and eliminate illicit discharges, including illegal dumping, into its MS4 system. Although some constructed drainage features do exist within the Sector, there are no large storm drain systems to manage stormwater runoff from the park units within the Sector. Runoff from Altamont Sector infiltrates, evaporates, or directly enters local water bodies. The IDDE Program helps identify locations with high risk of pollutant introduction, identify illicit non-stormwater discharges, report illegal dumping and eliminate these issues.

2.3.1 IDDE Program Monitoring Locations

Five facilities at Carnegie SVRA within the Altamont Sector were originally identified as areas that had potential to generate an illicit discharge to a receiving water: the Maintenance Yard, the Ranger Station, the Store, the Campground, and the Water Treatment Facility. These five facilities were monitored quarterly as part of the IDDE Program from April 2013 to 2017; however, in 2018, IDDE inspections shifted from a quarterly monitoring schedule to incidental inspections. The Tesla Mine Complex and the Carnegie Maintenance Yard were both identified as Hotspots. As such, they have continued to be inspected on a quarterly basis, as required by the Phase II Permit. Incidental IDDEs that are detected from daily monitoring by Sector staff are immediately reported on and the source of the IDDE is inspected within 72 hours of detection. Pollutant source maps for the original five facilities are included in Appendix C.

2.3.2 IDDE Source Investigation and Corrective Actions

Beginning in April 2013, monthly and post-storm event inspections were performed for the five facilities identified in Section 2.3.1. The forms used for monthly and storm event inspections can be found in Appendix D. In 2015, the OHMVR Division updated their IDDE program procedure to better align with the Phase II Permit requirements, which identified that illicit discharges will be detected in one of two ways:

1. Sector staff identification during normal day-to-day operations
2. Complaint-driven investigation from SVRA visitor reports

Beginning in 2018, the Altamont Sector began to implement the new IDDE procedure. However, the Carnegie Maintenance Yard and the Tesla Mine Complex have continued to be inspected on a quarterly basis, in compliance with the Phase II Permit (i.e., Hotspot inspections). The campgrounds are inspected once per year during the Annual Facility Assessments (discussed in Section 2.5.2). The three other facilities identified in Section 2.3.1 are not inspected on a set schedule; instead, any illicit discharge that may originate from these sites is identified by Sector staff during normal day-to-day operations and is reported immediately to the Altamont Sector Environmental Scientist.

In Year 11, the reporting procedure for IDDEs within the Altamont Sector was updated and report collection was moved to Survey123, an ArcGIS managed platform. Survey123 easily allows Sector staff to access the IDDE report format using a QR code, where staff answer a set of questions and uploads photos from the inspection. Although the Altamont Sector Environmental Scientist

typically responds to reports of illicit discharges, the staff training provided in this reporting period included a hands-on activity where each staff member in attendance completed an IDDE report.

All 2023-2024 inspections have been compiled and are available in Appendix D. There were five "complaint" driven inspection during the Year 11 reporting cycle. Pollutant-related illicit discharge tracking will continue annually, with the goal of ensuring continued elimination of their occurrence.

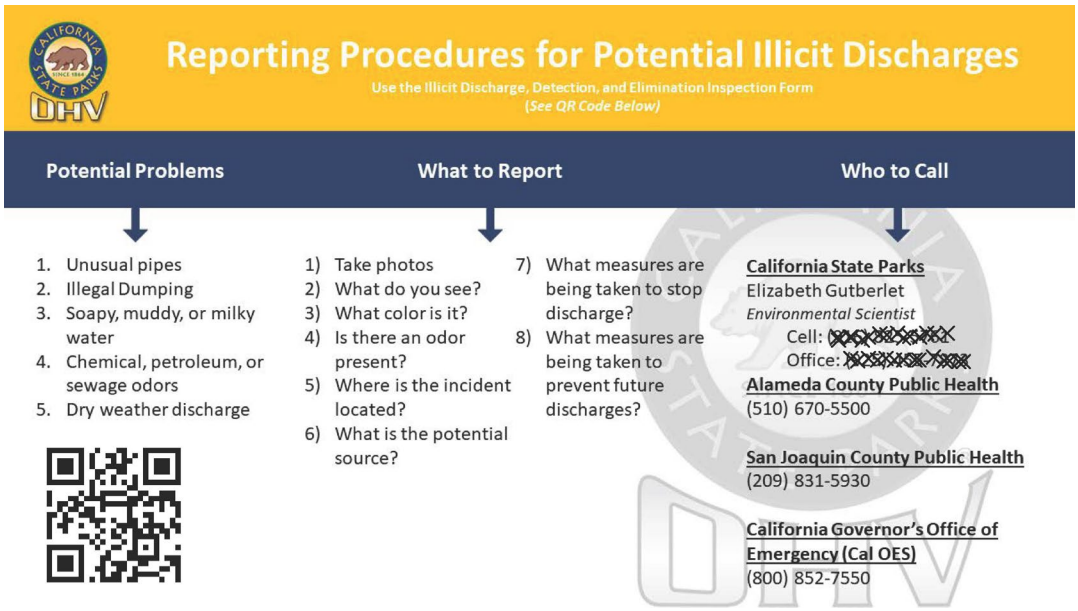

Figure 2-13: Reporting Procedures for Potential Illicit Discharges

2.3.3 IDDE Information Panel and Brochure

In an effort to help prevent future illicit discharges, an IDDE information panel was created and is included in Appendix B. These information panels have been posted in areas where visitors commonly congregate, such as near the park store and on the campground ramadas. Educational brochures, discussed in Section 2.1.2, and interpretive panels, discussed in Section 2.1.3, are also used to convey how visitors can help keep the Altamont Sector in compliance by reporting illegal dumping and maintaining OHVs to eliminate potential pollutants. These brochures are distributed to SVRA visitors at events and at the entrance kiosk, and interpretive panels are evaluated annually and updated as-needed. Storm drain markers have been installed throughout the park to remind visitors of the park's policy on illicit discharges: "No Dumping – Drains to Creek".

Figure 2-14: Example of Storm Drain Marker in place at Carnegie SVRA

2.4 Construction Site Runoff Control Program

Clearing, grubbing, and grading activities associated with construction sites can denude large areas of vegetation, which can expose and destabilize the underlying soils. Since the natural erosion control mechanisms are removed, sediment is more easily detached and entrained in surface water runoff. As such, runoff from construction sites can have a significant impact on the quality of the receiving waters.

Construction within Altamont Sector is typically required for facilities maintenance, and occasionally a new building will be constructed, or an old building may be replaced. The Phase II Permit and State CGP specify that any construction project that is more than one acre is subject to the State CGP requirements. In addition, the Phase II Permit requires that contract language be developed to ensure that Park staff or outside contractors comply with the State CGP requirements. Accordingly, a new clause was added to the Contractor Certification Clauses (CCCs) Form CCC-307 in Exhibit C, General Terms and Conditions, in the “Doing Business with the State of California” section (CA State Parks, 2007).

A runoff control program was developed and implemented to prevent construction site discharges. The program requires use of the OHV BMP Manual during construction and training for engineers and contractors. An inspection program was implemented by Sector staff using the Construction Site Management Program Checklist (Appendix E).

There were no construction projects greater than one acre in size during the 2023-2024 reporting period. As such, no construction-related inspections were performed.

2.5 Pollution Prevention/Good Housekeeping Program

2.5.1 High Priority Pollutants of Concern

Altamont Sector's Program Effectiveness Assessment and Improvement Plan (PEAIP) was developed and implemented as part of the Phase II Permit Year 2 compliance effort. It provides a focused evaluation of priority program elements and BMPs, ensuring that they are well targeted and assists in determining whether intended results are being achieved. Altamont Sector's Stormwater Program addresses many pollutants of concern (POCs) and implements a wide range of BMPs. Consistent with Provision F.5.h. requirements, the PEAIP also presents a plan for assessing the effectiveness of a subset of prioritized BMPs that are focused on high priority POCs.

The PEAIP identifies sediment as the only high priority pollutant of concern for Altamont Sector. The potential sources of sediment within the Sector include park activities, rehabilitation activities and construction. The Altamont Sector employs several erosion control methods to manage sediment throughout the park units, including sediment basins, rock check dams, and road and trail BMPs such as rolling dips. Trail evaluations and BMP inspections occur annually at Carnegie SVRA and determine the maintenance schedule for the BMPs and trails.

2.5.2 Pollution Prevention and Good Housekeeping Practices

PPGH practices serve as Altamont Sector's first line of defense in preventing potential negative impacts to downstream water bodies. These practices help prevent discharges from Sector facilities and activities, which ultimately help eliminate sources of potential pollution. Knowing the location of facilities and activities with a high probability of potential pollutants and inspecting them regularly are essential components of implementing this part of the program. If repairs are needed, they are prioritized for maintenance.

The Phase II Permit requires that an annual review and assessment be performed of all owned or operated facilities to determine their potential impact to surface waters. Each year, the Altamont Sector facilities listed below and identified in Figure 2-15 are reviewed and assessed for issues that may potentially increase their negative impact to surface waters.

- Carnegie SVRA Campgrounds
- Carnegie SVRA Hill Climb Facility
- Carnegie SVRA Maintenance Yard
- Diablo Range District (formerly Sector) Office
- Tesla Mine Complex

Based on the facility assessment, those facilities that have a high potential to generate stormwater and non-stormwater pollutants are classified as Hotspots. A Storm Water Pollution Prevention Plan (SWPPP) is developed for each facility designated as a Hotspot. The Hotspots identified as part of the Facility Assessment are visually inspected quarterly to ensure that materials and equipment are clean and orderly, to minimize the potential for pollutant discharge into the MS4 system, and to ensure effective implementation of BMPs (see Appendix F for the Hotspot inspection form). To date, the only two Hotspots covered under the Altamont Sector Phase II Permit are the Tesla Mine Complex and the Carnegie SVRA Maintenance Yard.

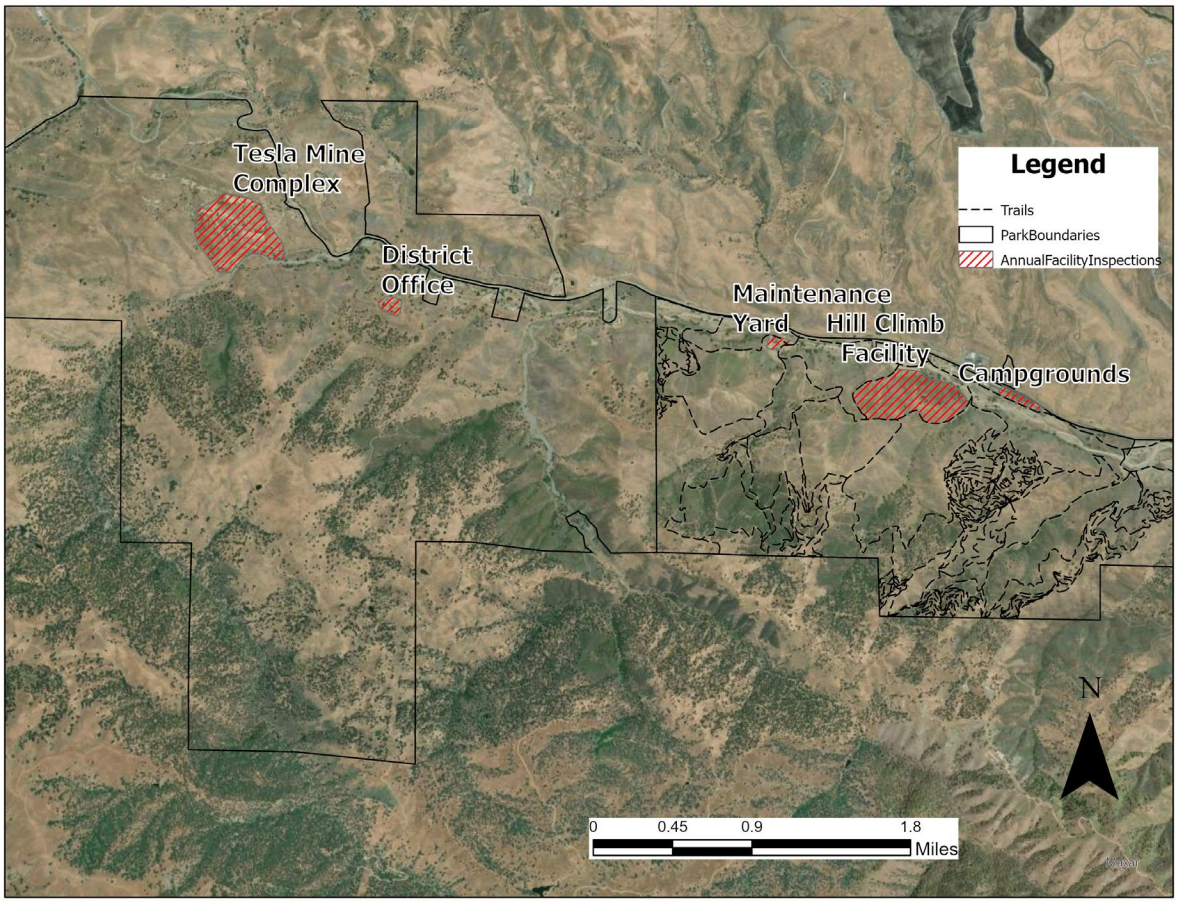

Figure 2-15: Facilities in Altamont Sector to be Inspected Annually

The inventoried facilities that are not identified as Hotspots are inspected at least once per Phase II Permit term (once every five years until rescinded by the SWRCB, or until a new Order is issued). These facilities are evaluated annually at the Altamont Sector, typically in June of the reporting period (see Appendix F for Year 11 Annual Facility Assessment Forms). The facilities that are annually evaluated for their potential to discharge pollutants to surface waters are the Carnegie SVRA campgrounds, the Carnegie SVRA Hill Climb Facility used during special events, the Diablo Range District (formerly Sector) office, as well as the two Hotspots, the Carnegie SVRA Maintenance Yard and the Tesla Mine Complex.

In the previous reporting period, park staff installed a new oil containment system outside of the Carnegie SVRA maintenance shop. Prior to this new system, oil was stored on a large yellow spill containment system in the shop behind the mechanic's toolbox. The new oil containment building is fireproof with its own spill containment system. This building can store several 55-gallon drums of oil with connections to a pneumatic air system that delivers oil into the shop through a hose. This new oil containment system creates more space within the Carnegie SVRA maintenance shop and has made adding fluids to vehicles for equipment servicing much easier while also reducing the chance of a potential oil spill in the shop since oil is no longer stored inside. The system also

allows for used oil and fluids to be sucked back through the same system and funnels the used oil back into a 55-gallon drum. The current contractor, American Valley Waste Oil, collects the oil once the drums are filled. Sector maintenance staff then switch out the drums of oil when they are emptied and hook the air system up to a new container of oil.

Figure 2-16: New Oil Containment System at the Carnegie SVRA Maintenance Shop

An electric vehicle (EV) charging station was installed during the 2018 reporting period to provide for the emerging electric motorcycle market and the riders that use them in the park. Several charging stations were also installed near the Diablo Range District Office down the road from the park in 2020. In 2022, an updated EV charging system was installed at the park entrance that now services two vehicles on a trickle charge (Figure 2-17). During this reporting period, a solar charging station was donated by BEAM Global to be stationed at the Altamont Sector office. This charging station will be available in the 2024-2025 reporting period for public use. Visitors may access this charging station while at the park for no additional cost.

Figure 2-17: EV Charger installed in 2022 near the Carnegie SVRA Ranger Station

2.6 Post-Construction Stormwater Management Program

Site design measures are required for all projects that create and/or replace (including projects with no net increase in impervious footprint) between 2,500 and 5,000 square feet of impervious surface, including detached single-family homes that are not part of a larger plan of development.

“Regulated” projects, which include projects that create and/or replace 5,000 square feet or more of impervious surface, must incorporate site design measures, source control, runoff reduction, stormwater treatment and baseline hydromodification management to the extent feasible.

There were no projects within the Sector that met the criteria listed above during the Year 11 reporting period.

2.7 Carnegie SVRA OHV Trails and Facility Management

2.7.1 Site Background

Trail systems have the potential to alter a landscape’s stormwater drainage patterns. These alterations can lead to higher rates of erosion, which have a negative impact on water quality. For this reason, careful consideration must be given to trail system design and layout. Once trails are established, careful monitoring is warranted to ensure excessive erosion does not occur.

While most of the Carnegie SVRA facilities are within the flood plain of Corral Hollow Creek, the trail system is primarily located in the steep hills to the south of the creek. These hills have four well-defined sub-watersheds, which drain to Corral Hollow Creek. Several smaller drainages proceed to Corral Hollow Creek, typically in the form of sheet flow. The trail system itself is divided into two areas: open riding and trails-only. Approximately half of the trail system is open riding, which typically consists of grassland habitat with durable clay soils. While park visitors are generally free to travel throughout the open riding area, many portions such as the hill slopes adjacent to the valley floor have been fenced and closed in order to maintain vegetation cover and limit erosion. The other half of the park is the trails-only area, where visitors are required to stay on established trails to maintain the surrounding vegetation and limit erosion. Fencing, signage and law enforcement actions are used to increase compliance. The trails-only area consists mostly of coastal scrub, oak woodlands and more friable sand/loam soils.

The trails are categorized as primary, secondary, tertiary, and voluntary. The primary trails are accessible by all sizes of vehicles, including emergency vehicles. The secondary trails are accessible to All Terrain Vehicles (ATVs) and motorcycles. The tertiary trails are accessible by motorcycle only. Lastly, the voluntary trails are trails that have been created by unauthorized OHV recreation. Voluntary trails are blocked off or rehabilitated upon detection to prevent these trails from being used further. The primary and secondary trails receive annual maintenance, which includes grading, out sloping, installing and reconditioning of BMPs, removing outside berms and pruning vegetation. Tertiary trails are maintained as needed or as determined by annual trail evaluations and are maintained by hand tool only as equipment cannot access these trails.

Exclusion of OHV activities occur throughout the park as needed. Access for OHV use has been restricted in several areas of the park in order to improve stormwater quality and protect natural and cultural resources.

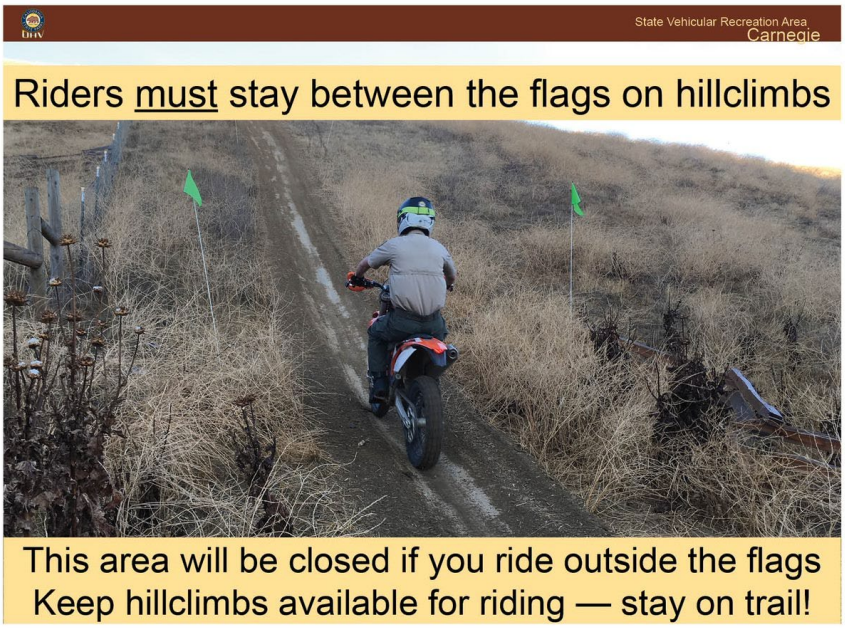

Figure 2-18: Hill Climb Information Panel

2.7.2 Trails Program

Carnegie SVRA's Trails Program aims to reduce sediment discharges resulting from park activities by creating sustainable, well-designed OHV trail systems, and rehabilitating erosive areas of the park. The park is divided into Management Units and Resource Management Areas, as described in Section 2.7.4. The program includes the annual evaluation and classification of trail conditions throughout the SVRA.

2.7.3 Implementing the SWMP Tactics

The tactics described below are utilized to prevent erosion and ensure successful sediment control to the MEP.

Erosion Prevention

- Reduce trail density
- Break hydrological connections
- Reduce the velocity of concentrated flows
- Develop sustainable trails
- Educate the OHV user to stay on-trail

Sediment Control

- Increase vegetation cover near drainage facilities
- Slow and settle stormwater in the sub-tributaries

2.7.4 Management Units and Resource Management Areas

Management Units are discrete zones established to better plan and implement management activities of areas that share common characteristics. There are ten Management Units at Carnegie SVRA, which are further divided into smaller areas known as Resource Management Areas (RMAs) that allow Parks staff to make more refined management decisions based on known resources, topography, soil type, and other factors (Figure 2-19).

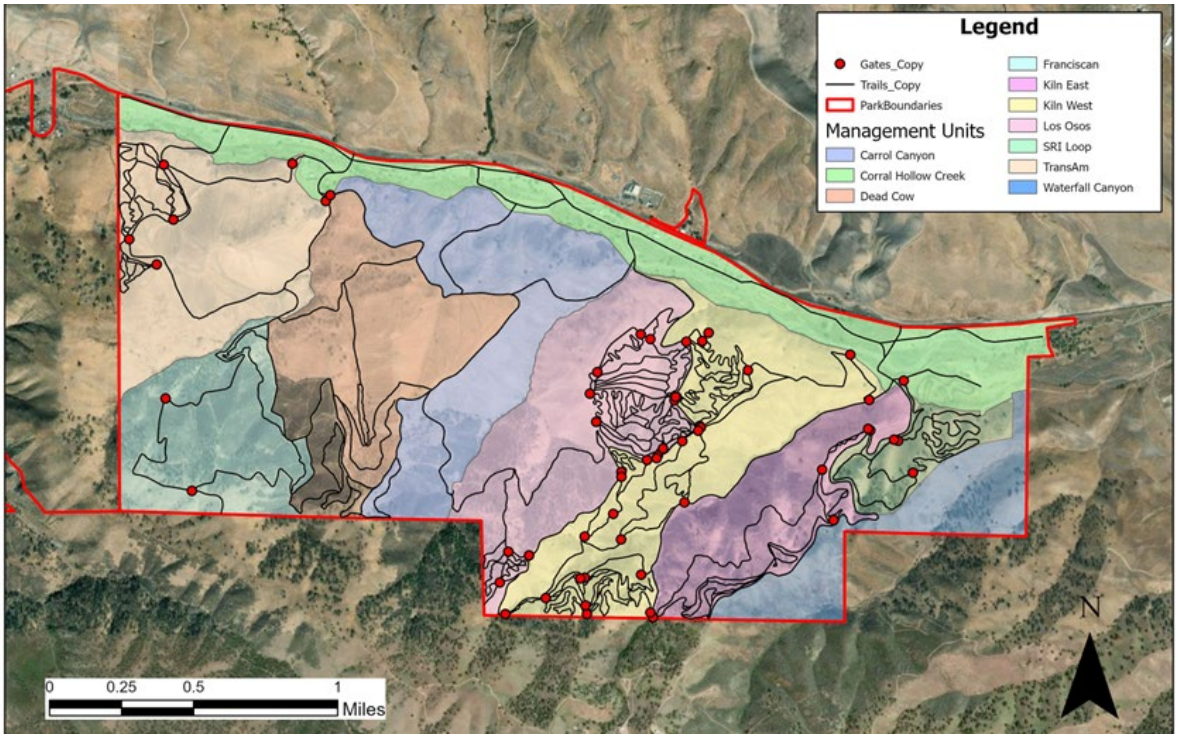

Figure 2-19: Map of Carnegie SVRA Management Units

RMA Rehabilitation Projects

Rehabilitation of an RMA begins with a scoping meeting that identifies the problems and goals for each project. The project planning process takes into consideration 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 rehabilitation work begins with identifying any trails that have proven to be sustainable and that do not convey high concentrations of stormwater elsewhere. These trails are usually incorporated into the RMAs trail network. Trails that have been identified as erosive per the soil conservation program dataset are eliminated from the trails network so the area can be restored. Eliminating these trails from the network often involves using heavy equipment to place soil back on the hillside and bring the hillside back to grade. Once in place, the soil is protected using BMPs from the OHV BMP Manual. The typical BMPs used are a combination of straw wattles, which prevent soil erosion, water runoff and control sediment, and hydromulch, which protects the soil from precipitation. If the hydromulch machine is unable to access the area, then

straw or native seed is used to cover the bare soil. Staff is trained in proper implementation techniques, and the work is supervised by experienced rehabilitation specialists. These efforts result in an overall reduction in trail density for the area, along with a reduction of hydrological connections, two tactics outlined in this program. Special attention is given to developing buffer zones near drainages by limiting trail density and soil disturbance within these areas to provide adequate biofiltration (sediment control). RMA closures for rehabilitation can be monitored by the public on the Carnegie SVRA website, on social media, and on the bulletin board near the main park entrance kiosk (Figure 2-20).

Figure 2-20: Bulletin Board for RMA Closures

When rehabilitation is complete, the focus turns toward providing sustainable trail access. Over the past several years, park personnel have received classroom and field training from Trails Unlimited, an enterprise unit of the U.S. Forest Service, on proper trail design and construction to minimize impact on the soil and habitat. This is achieved primarily by preventing accumulation of stormwater using breaks-in-grade BMPs as described in the OHV BMP Manual, which change the elevation to a positive grade at regular intervals to divide stormwater volumes into lower concentrations. These rehabilitation methods have been used in the park for several years, exhibiting high levels of success.

Table 2-3 summarizes the current rehabilitation efforts for each Management Unit and RMA. Figure 2-21 illustrates the RMAs that have been fully established as of June 2024.

Table 2-3: RMA Rehabilitation Status

Management Units	RMAs	Rehab Efforts Phase		
		Planning	Implementation	Complete
Corral Hollow Creek	MX Track/ 4x4 Area			x
	Kids Tracks Area			x
	ATV Track Area			x
	Remaining Areas			x
SRI Loop	Roadrunner			x
	SRI Loop			x
Kiln East	Raven			x
	Kiln East			x
Kiln West	Black Bear East			x
	Black Bear West			x
	Through-cut			x
	Bunkhouse			x
	Harrison Hill			x
	The Knoll			x
	Kiln West		x	
	Remaining Areas	x		
Los Osos	Seven Trails			x
	Los Osos Climb			x
	Phase 3			x
	Remaining Areas	x		
Carrol Canyon	Hillclimb Facility			x

Management Units	RMAs	Rehab Efforts Phase		
		Planning	Implementation	Complete
	Remaining Areas	x		
Dead Cow Canyon	Remaining Areas	x		
Franciscan	West Franciscan		x	
	Franciscan	x		
TransAm	Burned Pottery			x
	Remaining Areas	x		

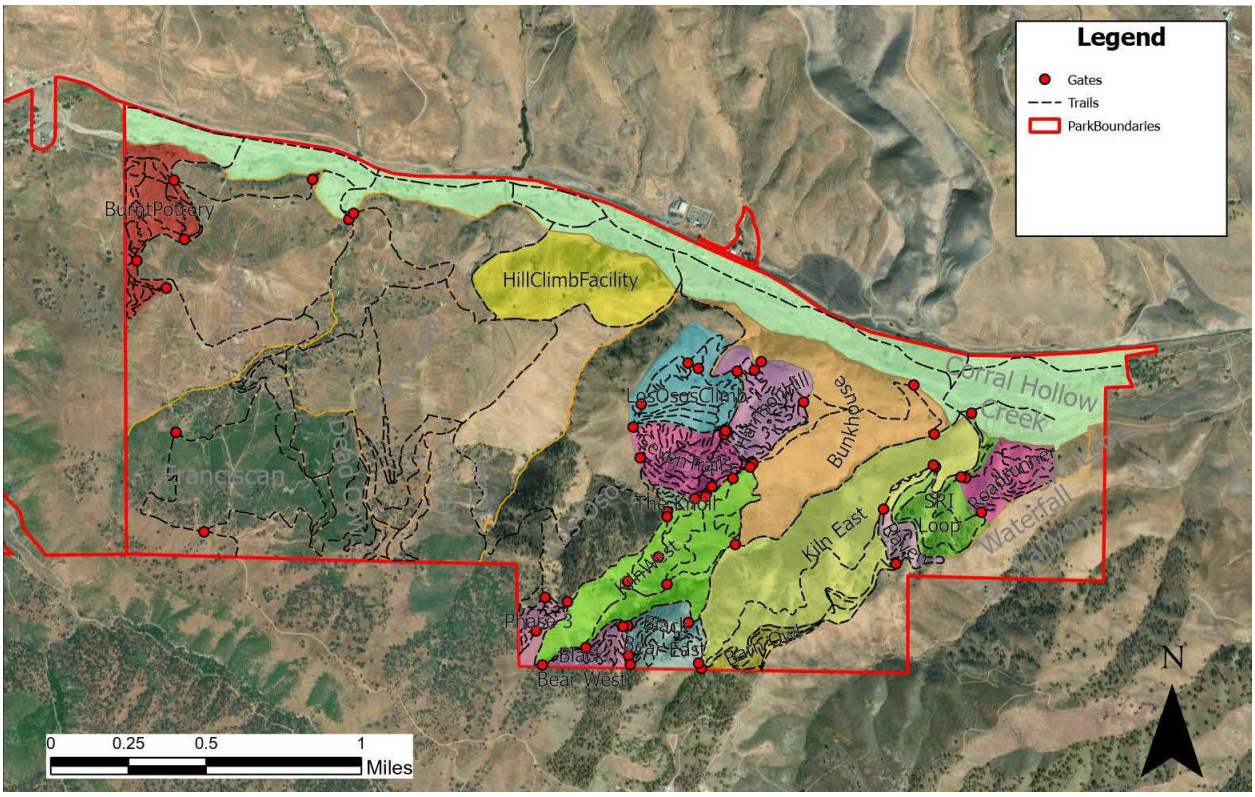

Figure 2-21: Map of Rehabilitated RMAs as of June 2024

The most innovative approach to the trails program has been a redesign of the methods used to protect the trails and restored areas. In the past, drift fencing was the primary tool to keep riders off a rehabilitated area. This method was re-evaluated and now each rehabilitated RMA is surrounded by perimeter fencing with access gates at the entry points. If voluntary trails are created, the access gates are closed for a predetermined amount of time to allow staff to make repairs and to reinforce the "trails only" message. The progress of this methodology is discussed in Section 3.2.

Figure 2-22: Signage for Trail Closures

RMA Rehabilitation Education and Enforcement

The importance of staying on-trail is communicated to the public through educational brochures and interpretive panels. The Trail Patrol and the CAT also interact with the public to enforce RMA rehabilitation rules and to reiterate the need to stay on-trail.

After the rehabilitation work is completed and the area is open to the public, the RMA is inspected by park staff weekly from October through April and every other week from May through September in an effort to track and prevent off-trail riding. Park staff completes a Trail Inspection Form after each assessment of the trails (Appendix G). Off-trail violations result in temporary closure of the entire RMA and citation(s) are given to the offender(s) when possible. This is critical to ensure the areas do not relapse into eroded hillsides and rutted trails. The violations that resulted in the closure are highly publicized so that users understand the consequences of riding off-trail. This publicized message is inclusive of photos and details of the damage and is displayed on the bulletin boards at the kiosk, as well as posted on the Carnegie SVRA website and social media.

RMA Rehabilitation Progress

As shown in Table 2-3, approximately 53.1 percent of Carnegie SVRA is managed as a completed (or near complete) RMA. If public OHV access is allowed in an RMA, it is operated as a trails-only facility. When instances of non-compliance are found, the area is closed, repairs are conducted, and often barriers are put up to dissuade visitors from going off-trail.

The number of documented off-trail riding incidents in a given reporting year provides a measure of target audience (i.e., rider) actions. In 2016-2017, 118 off-trail incidents were documented, compared to three documented incidents in 2015-2016. This increase was primarily attributed to more frequent trail inspections and an expansion of available riding trails. In 2017-2018, SVRA staff elected to modify the measure of rider actions by tracking the number of RMA closures resulting from off-trail incidents, rather than the number of incidents themselves. RMA closures allow areas damaged by off-trail riding to recover, and alert riders of the consequences associated with riding off-trail. There were 34 RMA closures documented in 2017-2018, 45 RMA closures in 2018-2019, 47 RMA closures in 2019-2020, 87 RMA closures in 2020-2021, and 89 RMA closures in 2021-2022. Year 10 (2022-2023) was an especially wet year (compared to previous years), resulting in several wet weather closures where access into the RMAs is restricted, as well as an extended park-wide closure due to damage from severe weather, reducing the number of riding days. In Year 10, only 12 off-trail incidents were documented, resulting in 31 RMA closures. There were 78 RMA closures due to off-trail riding in during this reporting period. Although Year 11 saw an increase, compared to Year 10, RMA closures will continue to be tracked in this manner, with a goal of observing a decrease over time.

2.8 Summary of Current Projects

2.8.1 Road Reconstruction Project

One of the recommendations from the CHWA was to redesign the roads within the park to reduce their erosion potential. The CHWA identified past, present, and future sources of erosion from the road and trail reaches, stream crossings, and the associated gullies within the park. The researchers evaluated the relative quantities of sediment lost, the probability of future erosion, the likelihood of sediment delivery to the creek, and the feasibility and chance of successful treatment with a “geomorphic” approach developed by the National Park Service and California State Parks. Once the issues were identified, rehabilitation measures were developed for each inventoried feature. These rehabilitation measures were designed to provide economical and feasible solutions to mitigate current erosion and sediment mobilization issues while preventing potential future issues.

The road and trail reconstruction measures are intended to be cost effective, reduce maintenance, increase seasonal access for staff and, most importantly, reduce the down slope impacts of improper road and trail drainage (e.g., gullies, landslides, and sediment delivery). The recommended rehabilitation efforts will be implemented by a contractor and the State Parks Northern Service Center. Many of the project objectives are aimed at reducing the overall soil disturbance and hydrological connections that currently exist. Breaking these connections will rely on a number of methods including out sloping, rolling dips, reducing trail width, and reroutes. The improvements will be made to 8.1 miles of roads along with several stream crossings.

This project has been funded as a capital outlay improvement and the CEQA work has been completed (State Clearinghouse #2011092030). Construction is anticipated to take place in Summer of 2025.

2.8.2 Bunkhouse Bridge

The purpose of the Bunkhouse Bridge project was to implement BMPs to improve stormwater quality within the Bunkhouse RMA. The RMA is accessible via Kiln Canyon Trail but requires that OHV users ride through a drainage channel to access. To avoid the negative impacts on water quality, the Trails Team installed a bridge to allow riders to get across the drainage area without encountering the water below. The bridge was initially installed in November of 2022 with no side railings, since the bridge was not higher than 3 feet off the ground per OSHA standards. After the severe winter storms of 2023, the drainage under the bridge had incised and was now over 3 feet off the ground, prompting the installation of side railings. This bridge is the first of its kind at Carnegie SVRA and is only open to motorcycles.

Figure 2-23: Bunkhouse Bridge without Railing (Left) and with Railing (Right)

2.8.3 Tesla Mine Complex

The Tesla Mine Complex is a 122-acre area that consists of various historic industrial mine sites, including disturbed soils, tailing piles, adits/mine shafts, and remnants of towns constructed to support the former mining activities. The site no longer has mining activities and is closed to the public. Several temporary BMPs have been installed over the last several years to limit erosion on site, including gravel bag check dams and silt fences.

Previously, portions of the waste rock piles were covered with compost and hydromulch. The compost application that was implemented in late 2013 continued to support vegetation even after a fire had burned portions of the composted area. An additional 1.42 acres of tailing was covered in compost during the 2019 reporting cycle. In addition, approximately 600 feet of silt fence was installed to help capture sediment from entering the creek. Longer term BMPs are being evaluated and scoped. In June 2022, there was another fire that burned the waste rock

piles. The BMPs were replaced after the fire and inspections continued quarterly. The rock piles continue to support vegetation (Figure 2-24).

Figure 2-24: Waste Rock Piles (May 2023)

Because the Tesla Mine Complex is near Tesla Road, a popular commute corridor, the public often uses the area for illegal dumping of trash. In December 2022, State Parks teamed with Alameda County Public Works to hold a roadside clean-up of the Tesla property. Over 15 tons of trash were removed from the side of Tesla Road and from the perimeter of the Tesla Mine property.

During this reporting period, Tesla Road was closed for construction for an extended period of time. The storms of 2023 created soil piping along Tesla Road, which began to collapse from the heavy use of being a commute corridor. The road closed in February 2024 and is expected to reopen in December 2024 after repairs have been completed. The road closure has greatly reduced vehicle traffic along Tesla Road and Corral Hollow Road, and illegal dumping near the Tesla Mine Complex was not as prominent in this reporting period.

3 Progress of the Altamont Sector Stormwater Program SVRA Stormwater Program

3.1 Short-Term Progress

The Altamont Sector Stormwater Program completed all 2023-2024 compliance requirements associated with the Phase II Permit as described in the Effectiveness Assessment (Appendix A), as well as the 13th year of the SWMP implementation. The SWMP implementation, which is often performed in conjunction with Phase II Permit compliance activities, includes the following:

- Education and Outreach Program;
- Public Involvement and Participation Program;
- Illicit Discharge Detection and Elimination Program;
- Construction Site Runoff Control Program;
- Pollution Prevention/Good Housekeeping Program;
- Post-Construction Stormwater Management Program;
- OHV Trails and Facilities Management;
- Program Effectiveness Assessment and Improvement;
- Total Maximum Daily Loads Compliance Requirements; and
- Online Annual Reporting.

Short-term progress was demonstrated by the stormwater program's implementation through the successful completion of Phase II Permit compliance and SWMP implementation activities. In addition to Phase II Permit compliance, the following SWMP activities have been completed or initiated, and are continuing to have a positive impact on short-term progress.

- Wet Weather OHV Road and Trail Closures – use of minimum closure times, cumulative precipitation measurements over specified durations, and more stringent re-opening criteria to determine the necessity of trail closures. This practice was originally implemented for Carnegie SVRA but is also employed throughout the Sector, limiting vehicle access on unpaved road surfaces after rain events.
- Limited Vehicle Access in Riparian Areas (Corral Hollow Creek) – OHV and vehicle access is limited to five crossings (i.e., one bridge and four hardened low-water crossings) to allow for the re-establishment of riparian vegetation and habitat. Sector staff enhance the opportunity for vegetation re-establishment throughout the creek corridor by supplementing plantings and watering of native riparian plants within Carnegie SVRA.

3.1.1 Stormwater Monitoring Data

The results of stormwater monitoring for turbidity in nephelometric turbidity units (NTU) and total suspended solids (TSS) are included below in Table 3-1 and Table 3-2, respectively. This data can be used to evaluate the effectiveness of the BMPs chosen as part of the strategy.

There were eleven storm events during this reporting period for which stormwater monitoring was attempted. It is worth noting that that sampling only occurs when sufficient flow is observed and when it is safe to do so. During the 103-day closure of the park, stormwater sampling was not

conducted since the park was not open to visitors. Lab analysis of water samples can be viewed in Appendix H. See Figure 3-1 for sampling locations.

Table 3-1: Turbidity (NTU) Data for BMP Monitoring Effectiveness

Date	CHC In	Ty 1	Ty 2	Car 1	Car 2	Kiln1	Kiln2	CHC out
1/3/2024			200		150			
1/17/24			180		200			
1/22/24		700	3900	1800	600	2900	600	1200
1/24/24	240	850	700	5800	1000	4600	8000	4200
1/25/24	12							38
2/1/24	270	2100	180	85	150	800	1500	
2/2/24	55							19
2/7/24	3.8		80			17		6.4
3/4/24	1.9		130	3.0	28	23	24	3.5
3/7/24	0.85				55			4.2
4/5/24	0.65				130			8.1
4/14/24	1.1				65			7.2
5/4/24	2.73	40900	560	7920	1710	18400		0.376

Table 3-2: Total Suspended Sediments (TSS) Data for BMP Monitoring Effectiveness

Date	CHC In	Ty 1	Ty 2	Car 1	Car 2	Kiln1	Kiln2	CHC out
1/3/2024			57.1		64.1			
1/17/24			64.2		219			
1/22/24		9040	28400	988	215	756	3360	8290
1/24/24	426	6210	739	2280	589	1730	3550	2040
1/25/24	24.4							43.5
2/1/24	452	502	81.9	129	46.4	322	296	

Date	CHC In	Ty 1	Ty 2	Car 1	Car 2	Kiln1	Kiln2	CHC out
2/2/24	32.7							12.5
2/7/24	2.87		29.8			9.60		7.34
3/4/24	2.40		13.8	16.3	29.4	5.81	15.3	5.53
3/7/24	1.02				30.3			7.62
4/5/24	0.640				122			5.46
4/14/24 *	-	-	-	-	-	-	-	-
5/4/24	0.800	18100	5.41	6290	4030	793		522

* No TSS data collected for 4/14/24 storm event.

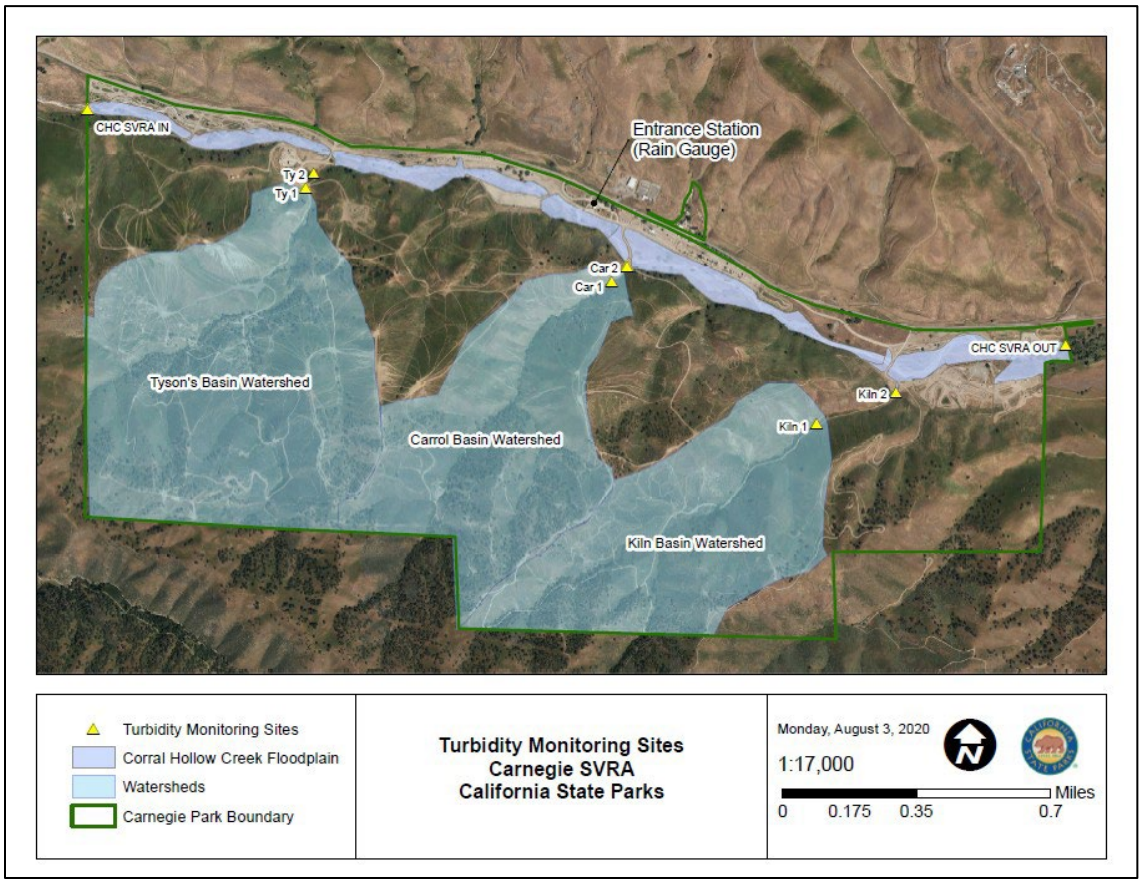

Figure 3-1: Turbidity Monitoring Sites

3.1.2 Wet Weather Trail Closures

A quantitative, cumulative precipitation measurement is used to trigger a park closure at Carnegie SVRA. Using hydrological models and historic conditions, the following thresholds were determined to be representative of when soil becomes saturated enough for sheet flow to occur.

- More than 0.30 inches within 12 hours
- More than 0.50 inches within 24 hours
- More than 0.65 inches within 48 hours

The SVRA's trails are closed if any of the above thresholds are realized, measured using the rain gauge at the entrance station. Similarly, trails remain closed as precipitation continues to be above the threshold.

The trails, or portions of the trails, are re-opened only when **all** of the following conditions are met, which is determined at the monitoring locations:

- Site conditions are safe;
- No environmental or resource concerns exist;
- Stormwater BMPs are functional and in good condition (e.g., rolling dips, basins);
- The trails have been closed for at least 12 hours; and
- The trail slopes have dried sufficiently, and soils are stable enough to support OHV use.

Wet weather closures occurred fifteen times during this reporting cycle, resulting in full or partial day closures (Table 3-3). The precipitation total for the 2023-2024 reporting cycle was 11.85 inches.

Table 3-3: Wet Weather Closures

Area	Closed	Opened
All Hills	Monday, December 18, 2023	Friday, December 22, 2023
All Hills	Saturday, December 30, 2023	East Hills: Sunday, December 31, 2023 West Hills: Monday, January 1, 2024
All Hills	Wednesday, January 4, 2024	Thursday, January 5, 2024
All Hills	Wednesday, January 17, 2024	Thursday, January 18, 2024
All Hills	Monday, January 22, 2024	East Hills: Tuesday, January 23, 2024 West Hills: Remained Closed
All Hills	Wednesday, January 24, 2024	Thursday, January 25, 2024, at noon
All Hills	Thursday, February 1, 2024	Friday, February 9, 2024
Entire Park	Sunday, February 4, 2024 Due to flooding and poor conditions	Wednesday, February 7, 2024

Area	Closed	Opened
All Hills	Friday, March 1, 2024	Tuesday, March 5, 2024
Entire Park	Saturday, March 2, 2024 Due to flooding on Corral Hollow Rd	Sunday, March 3, 2024
All Hills	Wednesday, March 6, 2024	Thursday, March 7, 2024
All Hills	Sunday, March 31, 2024	Monday, April 1, 2024
All Hills	Friday, April 5, 2024	Saturday, April 6, 2024
All Hills	Saturday, April 13, 2024	Monday, April 15, 2024
All Hills	Saturday, May 4, 2024	Sunday, May 5, 2024

3.2 Long-Term Progress

Long-term progress of the program demonstrates a determinate shift in park staff and visitor behavior and a measurable reduction in sediment discharges from the SVRA. In order to monitor the progress of the program and effectiveness of the BMPs, the SWMP includes a series of measurable goals established for each Minimum Control Measure. Measurable goals are intended to gauge the effectiveness of the SWMP and specifically selected for each BMP. They consider the site conditions, climate, and land use activities.

As a Phase II permittee, Altamont Sector anticipates that the completion of recurring compliance activities will aid in achieving long-term water quality improvement goals. In addition, the following long-term program activities have been initiated as part of the SWMP implementation.

- Implementing the Carnegie SVRA RMA Program (formerly the Trails Program) – Delineates the park into RMAs, and includes erosion and sediment control installations, vegetation rehabilitation, rider education, reduction of trail density, increase of vegetation, and enforcement actions.
- Trail Redesign and Sustainability – Aims to redesign trails with the goal of reducing overall soil disturbance and breaking hydrologic connections.

3.2.1 Annual Trail Condition Evaluations

Carnegie SVRA's OHV Trails Program aims to reduce sediment discharges resulting from park activities by creating sustainable, well-designed trail systems, and rehabilitating erosive areas of the park. RMAs – park sub-areas generally delineated by sub watershed boundaries – have been designated throughout the park to help manage the implementation of the Trails Program. The program includes the annual evaluation and classification of trail conditions throughout the park. All trails are assigned a rating as follows:

- **Green** - Indicates the trail is in good condition and the water features (used to reduce erosion) are functioning properly.
- **Yellow** - Assigned when the water features or trail tread are beginning to show signs of deterioration. (***Note: This category was expanded in Year 4 to also include minor deficiencies that warrant attention.***)
- **Red** - Indicates the trail has deteriorated and its water features are no longer functioning as designed.
- **Not Rated** - Trails that were not rated in the past reporting year.

Trail condition is an important metric for evaluating sediment management because poor trail condition is a leading source of erosion in the SVRA. Trail evaluations provide a feedback loop for determining the effectiveness of sediment and erosion control measures employed, as well as help guide future maintenance activities. Trail evaluations are typically conducted in late Spring or early Fall, depending on staffing availability and soil conditions. The overall goal is to observe an increase in Green trail ratings and a reduction in the percent of Yellow and Red ratings. The Yellow rating scale was expanded in Year 4 to also include minor deficiencies (i.e., marginally deficient areas were classified as Green in Year 3). The park-wide trail ratings for Years 3 through 10 are presented as percentages in the table below. The trail ratings were not conducted in Year 11 due to staffing constraints, but are scheduled to be conducted in Year 12.

Table 3-4: Annual Trail Ratings

Trail Rating (Color)	**Year 3 Ratings** (2015-16)	**Year 4 Ratings** (2016-17)	**Year 5 Ratings** (2017-18)	**Year 6 Ratings** (2018-19)	**Year 7 Ratings** (2019-20)	**Year 8 Ratings** (2020-21)	**Year 9 Ratings** (2021-22)	**Year 10 Ratings** (2022-23)	**Year 11 Ratings** (2023-24)
Green	**43%**	**27%**	**22%**	**12%**	**49%**	**70%**	**77%**	**49%**	**-**
Yellow	**34%**	**57%**	**50%**	**62%**	**44%**	**18%**	**22%**	**14%**	**-**
Red	**22%**	**16%**	**13%**	**7%**	**7%**	**1%**	**1%**	**11%**	**-**
Not Rated	**0%**	**0%**	**15%**	**19%**	**0%**	**10%**	**0%**	**26%**	**100%**

While the trail ratings are not solely a representation of soil loss because there are other factors that are measured simultaneously, they provide a useful general overview of trail conditions that can be used to measure progress over time. Trail ratings will continue to be tracked annually with the goal of observing higher percentages of Green trail ratings in the future.

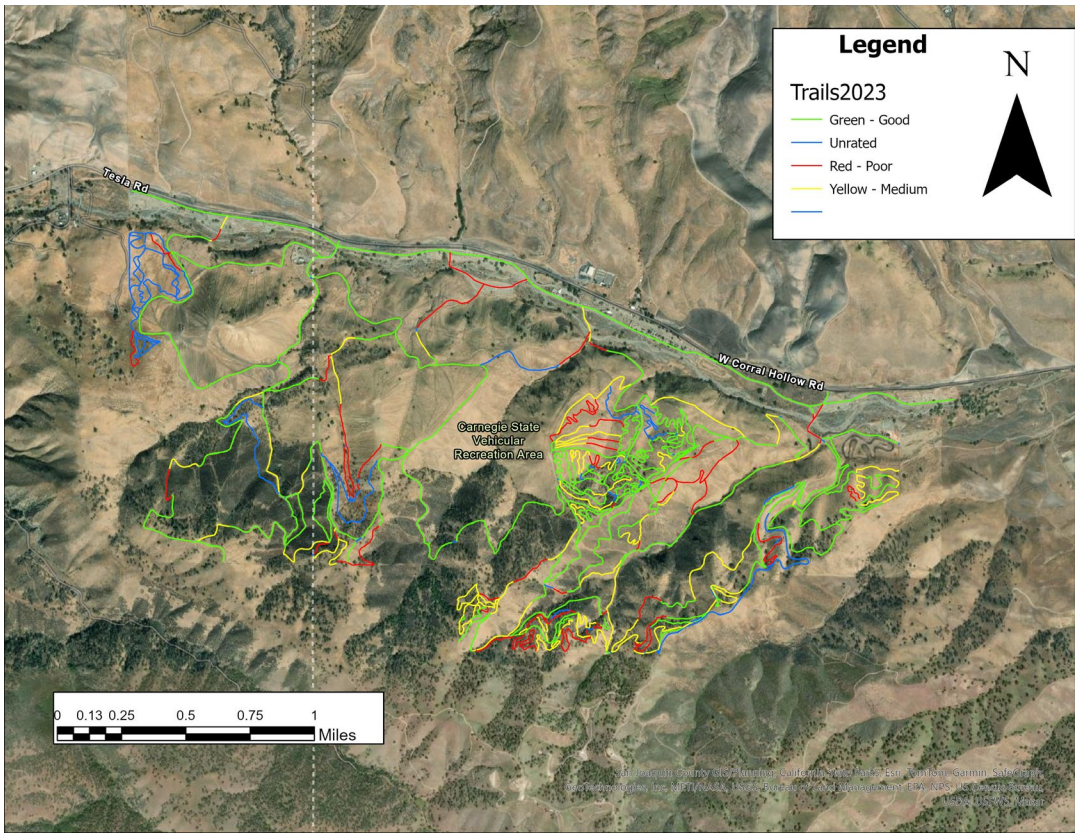

Figure 3-2: Most Recent Results from Carnegie SVRA Trail Evaluations

3.2.2 Sediment Basin Maintenance

Sediment basins are typically cleaned annually to remove accumulated sediment and other material. Environmental permits, which are required to perform maintenance activities in the basins, were not issued in time to remove accumulated sediment in Years 4 or 10.

The amount of material deposited in the sediment basins is a function of rainfall intensity and duration. It does not necessarily reflect the effectiveness of upstream erosion and sediment controls (i.e., a single, short-duration, high-intensity storm can deposit the same volume of sediment in a basin as numerous longer, low-intensity storms). This measurement solely indicates how much material the basins prevented from discharging to receiving waters. Rainfall totals and corresponding basin material removal volumes are presented in Table 3-5 below.

Table 3-5: Rainfall Totals and Sediment Basin Material Removal Volumes

Measurement	Year 3 (2015-2016)	Year 4 (2016-2017)	Year 5 (2017-2018)	Year 6 (2018-2019)	Year 7 (2019-2020)	Year 8 (2020-2021)	Year 9 (2021-2022)	Year 10 (2022-2023)	Year 11 (2023-2024)
Rainfall Total (inches) *	16.10	22.00	11.00	14.45	7.71	5.46	11.33	20.06	11.85
Volume of Material Removed from Basins (cubic yards)	8,010	N/A **	3,311	6,265	2,594	2,126	1,290	N/A **	6,560 ***

* Rainfall totals are measured from July 1st to June 30th
** Environmental permits not issued
*** Sediment removal occurred under California Governor Executive Order N-10-23

3.2.3 Sediment and Erosion Control BMP Evaluations

Evaluations of sediment and erosion control BMP installation and performance began with the 2016-2017 Effectiveness Assessment. While deficiencies are not necessarily an indicator of improper installation (e.g., damage from heavy storms or off-trail riding are probable), the high percentage of properly installed and functional BMPs demonstrates that SVRA staff are continuing to perform installations correctly. The overall results for the 2023-2024 BMPs installation evaluations are presented in Table 3-6.

Table 3-6: Evaluation Summary of BMP Installations

BMP Installation Evaluation Criteria	Year 4 Ratings (2016-17)	Year 5 Ratings (2017-18)	Year 6 Ratings (2018-19)	Year 7 Ratings (2019-20)	Year 8 Ratings (2020-21)	Year 9 Ratings (2021-22)	Year 10 Ratings (2022-23)	Year 11 Ratings (2023-24)
Properly installed, continuing to function as intended	**62%**	**78%**	**81%**	**71%**	**68%**	**71%**	**46%**	**53%**
Minor deficiencies identified	**5%**	**10%**	**9%**	**15%**	**11%**	**13%**	**16%**	**16%**
Not installed correctly, or not functioning properly. Replacement required.	**4%**	**10%**	**6%**	**9%**	**8%**	**14%**	**13%**	**24%**
Not Rated	**29%**	**2%**	**4%**	**4%**	**14%**	**2%**	**25%**	**7%**

After an especially wet year that left many trails damaged and/or inaccessible (i.e., resulting in a higher number of not rated trails in Year 10), there was a significant decrease in BMPs that were not rated in Year 11. Accordingly, there were also slight increases of both properly installed BMPs and BMPs with major deficiencies in Year 11. BMP evaluations will continue to be performed annually, with the goal of observing high percentages of properly installed BMPs each year. The form used to evaluate trails can be found in Appendix I.

3.2.4 Trash Assessment

On June 1, 2017, Altamont Sector received a Water Code Section 13383 Order (13383 Order) to select and submit a compliance track to comply with the Trash Amendments.

The 13383 Order required that permittees identify the locations and land uses that generate substantial amounts of trash within their facility, as well as select and submit a compliance track by September 1, 2017. Altamont Sector selected the Track 2 compliance option in a letter to the SWRCB submitted via the Stormwater Multiple Application and Report Tracking System website. Since Track 2 requires a combination of controls that will achieve Full Capture System Equivalency, the submittal also included preliminary jurisdictional maps that identified proposed park-specific Priority Land Uses (PLUs), as well as the MS4 network that conveys the discharges from those land uses. The 13383 Order also specified that by December 1, 2018, permittees that selected the Track 2 compliance option must submit updated jurisdictional map(s) and an Implementation Plan.

The Trash Amendments define typical PLUs as high density residential, industrial, commercial, mixed urban, or public transportation station areas. The 13383 Order states that "[non-traditional Phase II MS4 permittees] may not have typical Priority Land Uses; therefore, the application of the Priority Land Use definition is subject to interpretation for such permittees." As a non-traditional permittee, Altamont Sector does not have typical PLUs, and therefore identified the following park-specific PLUs:

- Campgrounds
- Day Use Areas
- Parking Areas

The recommended On-land Visual Trash Assessment (OVTA) approach to conduct the Baseline Trash Assessments (Baseline Assessments) involved are based surveys that were conducted in park-specific PLUs. OVTA scores from the Baseline Assessments are presented in Table 3-7.

Table 3-7: Baseline Trash Assessment

Area	Trash Rating	OVTA Score	Area (acres)
Day Use Area	Low	A	8.13
Hillclimb Facility Parking	Low	A	40.59
Park Store Parking	Low	A	44.42
Campground	Low	A	55.39
Quad Track Parking	Low	A	4.40
MX Track Parking	Low	A	36.06
110cc Track Parking	Low	A	16.11
Total	-	-	**205.11**

The 13383 Order states that Phase II MS4 non-traditional permittees who have selected the Track 2 compliance option must "install, operate, and maintain any combination of Full Capture Systems, Multi-Benefit Projects, other Treatment Controls, and/or institutional controls (equivalent Full Capture Systems Best Management Practices) within either: (1) their own jurisdiction, or (2) their own jurisdiction and the jurisdiction of contiguous MS4 permittees." Correspondingly, "permittees selecting the Track 2 compliance option and not installing Full Capture Systems must demonstrate that the proposed implementation plan will achieve Full Capture System Equivalency."

Altamont Sector has an estimated Annual Baseline Trash Load of zero gallons per the Baseline Trash Load Calculations (see Table 3-8). Consequently, no additional trash reduction measures will be necessary for the Day Use Area, Hillclimb Facility Parking, Park Store Parking, Campground, Quad Track Parking, MX Track Parking, or 110cc Track Parking, since the Baseline Assessments yielded "Low" OVTA scores for these areas.

Table 3-8: Baseline Trash Load Calculations

Category	Low	Moderate	High	Very High	Total
Average Trash Generation Rate (gallons/acre/year)	N/A	7.50	30	100	-
PLU Area (acres)	205.11	0	0	0	205.11
Estimated Baseline Trash Load (gallons/year)	N/A	0	0	0	0

Altamont Sector is in compliance with the 13383 Order and will continue to apply current trash control measures to ensure ongoing compliance. The forms used to document trash assessment data are located in Appendix J.

3.2.5 Rehabilitating Trails and Re-Establishing Vegetation

Vegetation and trail density surveys were developed to track the progress of trail rehabilitation and vegetation re-establishment (Figure 3-3; Table 3-9). Around 300 riparian trees were planted in the floodplain of Corral Hollow Creek within Carnegie SVRA during the reporting period. These species included California sycamore (*Plantanus racemosa*), Fremont cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), and mulefat (*Baccharis salicifolia*). Initially, new plantings were watered weekly and monitored for survival rates.

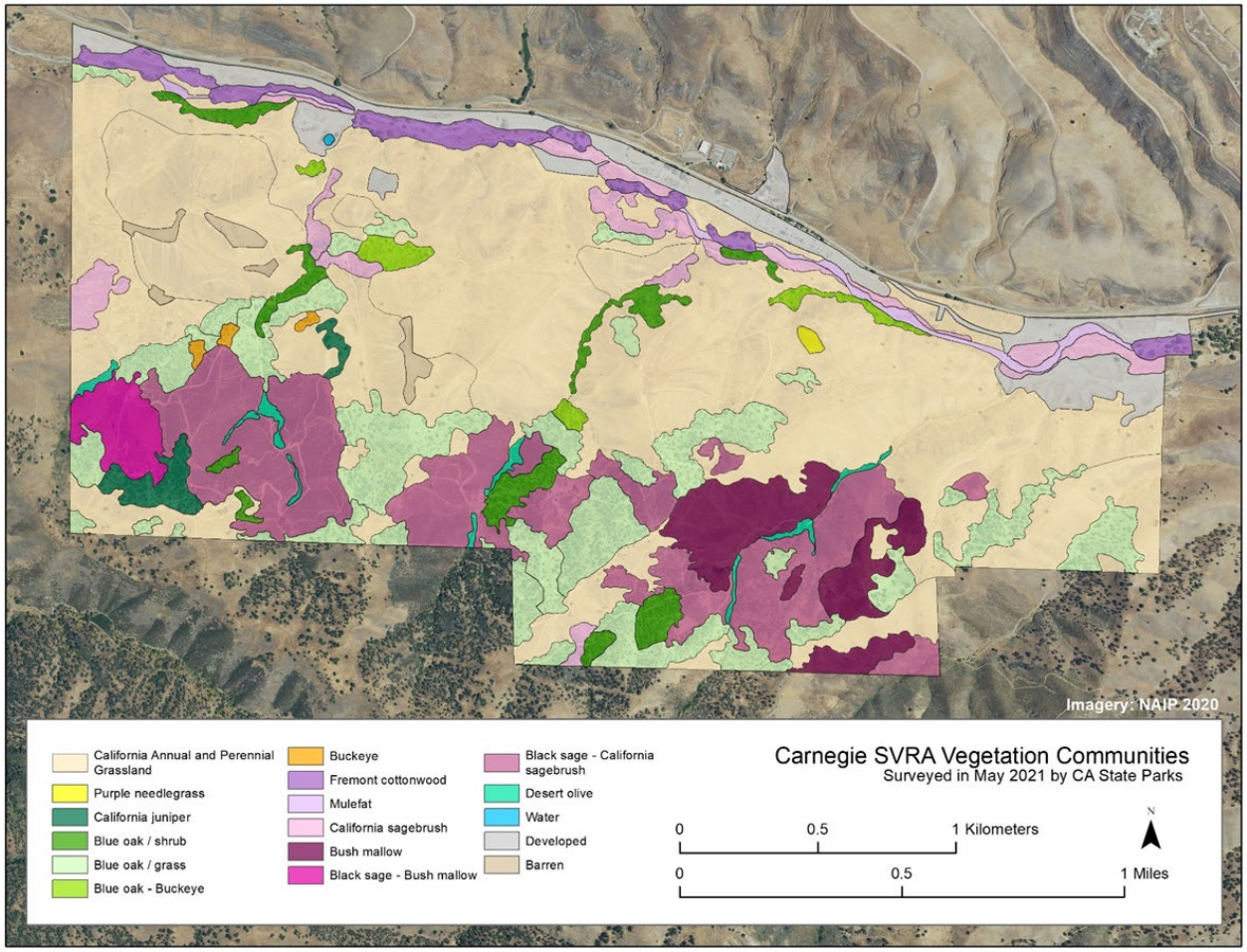

Figure 3-3: Vegetation Community Map at Carnegie SVRA

Table 3-9: Carnegie SVRA Mapped Vegetation Types and Acreage

	NVCS Name	Common name map label	Total Acres
Tree Overstory (Woodland / Forest) Vegetation	***Juniperus californica* woodland alliance**	California juniper	13.9
	***Aesculus californica* forest and woodland alliance**	Buckeye	2.9
	Quercus douglasii forest and woodland alliance		
	***Quercus douglasii* / Mixed herbaceous association**	Blue oak / grass	194.4
	***Quercus douglasii* - *Aesculus californica* / grass association**	Blue oak - Buckeye	13.3
	***Quercus douglasii* / *Ericameria linearifolia* association**	Blue oak / shrub	37.5
	***Populus fremontii* - *Fraxinus velutina* - *Salix gooddingii* Forest and woodland alliance**	Fremont cottonwood	35.4
Shrubland Vegetation	***Rhus trilobata* - *Crataegus rivularis* - *Forestiera pubescens* shrubland alliance**	Desert olive	9.6
	***Baccharis salicifolia* shrubland alliance**	Mulefat	12.3
	***Malacothanmus fasciculatus* - *Malacothamnus* spp. shrubland alliance**	Bush mallow	60.9
	***Salvia mellifera* – *Artemisia californica* alliance**	Black sage - California sagebrush	195.9
	***Salvia mellifera* - *Malacothamnus fasciculatus* association**	Black sage - Bush mallow	21.1
	Artemisia californica - (Salvia leucophylla) shrubland alliance		
	***Artemisia californica* association**	California sagebrush	49.8
Herbaceous Vegetation	**California annual and perennial grassland macrogroup**	California annual and perennial grassland	761.8
	***Nassella* spp. - *Melica* spp. alliance**	Purple needlegrass	1.5
Non-Vegetated	**Barren**	Barren	11.1
	Developed	Developed	90.1
	Water	Water	0.3
		SUM	1,512

In 2021, Carnegie SVRA reassessed its method for watering the newly planted trees in the creek. Sector staff ran irrigation lines to the new plantings and maintains these lines to water the trees for an estimated three to five years until the trees are well enough established to access groundwater on their own. Before drip irrigation, survival success was low because young plantings were not well enough established to maintain nutrients on their own. Since the drip irrigation was installed and used, less than one percent of the new trees planted have not survived. 214 trees that have been planted have survived, which include the 20 trees that were planted during the 2021-2022 reporting period. Monitoring of the surviving trees continued in the 2023-2024 reporting period, but Sector staff saw a decrease in tree survival, as well as frequent damage to irrigation lines as a result of a boom in the rodent population (Figure 3-4).

Figure 3-4: Corral Hollow Creek Trees Damaged by Rodents

3.2.6 Photo Monitoring Program

This program is aimed at collecting photos from fixed locations over time to detect changes, both natural and manmade. These allow for objective evaluations of the BMPs and methods chosen to manage the park's natural resources. These photo points are helpful for the monitoring of the RMA model since limiting off-trail riding is the primary goal of the Trails Program strategy. Landscape photos can reveal the success or failure of the tactics chosen as off-trail activity is easily visible. Photo points were set up throughout the park starting in 2010. To date, there are over 100 photo points, with more points added as needed. Data is collected at these points one

to two times per year and is used to illustrate the progress made on the trail system with the various restrictions over the years. In Year 11, the photo point system was re-evaluated in an attempt to make the process more concise. With the new process, photo points will be positioned and numbered on stationary items throughout the SVRA, such as gates or fence posts, with arrows to indicate which direction to point the camera to collect the photo. Photo point signs would potentially allow Sector staff to open the photo monitoring program up for public participation and create a more consistent collection of photo point conditions over time. Due to the change in the process, photo points were not collected in Year 11. Sector staff aims to spend Year 12 setting up the infrastructure for this updated program and plans to introduce the new photo point system in Year 13.

3.3 Program Modifications

Beginning in Year 5, the Phase II Permit required that permittees identify modifications to control measures or significant activities based on information obtained through the EA process. After reviewing the available EA data and discussing program functionality with park staff, the following modifications were identified, implemented, as well as further revised as part of the Year 6 through Year 11 EA process.

- Earlier Initiation of the EA Process: In previous years, the EA process had been initiated after the conclusion of the respective reporting year. In Years 6 through 11, however, the process began during the reporting year to help ensure that all of the required activities were completed and goals identified in the previous year's EA were met. In Year 12, the EA review process will once again begin in May.
- Perform Inspections, Assessments, and Observations earlier in the Quarter: In Year 7, DPR received approval from the State Water Board for temporary regulatory relief for specific provisions in the Phase II MS4 Permit. COVID-19 highlighted how unforeseen circumstances can impact a permittee's ability to meet permit requirements. As such, the Altamont Sector will aim to perform quarterly inspections, assessments, and observations earlier in each quarter to help mitigate impacts, should a similar event occur in the future.
- Enhance Target Audience Awareness: Opportunities to enhance target audience awareness were identified in Year 9, such as developing new informational panels and offering new educational material in multiple languages. As such, the development of additional public education and outreach material has been prioritized in recent years. In Year 11, the Altamont Sector offered one digital brochure, two paper brochures, and one informational panel in both English and Spanish. In response to an increase in recent wet weather closures, an ArcGIS Story Map was also made available in Year 11 to educate the public on the extensive damage caused throughout the park. A new display box was also created to help educate visitors regarding the possible downstream impacts of erosion, as well as the importance of staying on trail throughout the SVRA. Additional educational materials and programs will be explored in Year 12.
- Digitize Data Collection Efforts: In Year 11, State Parks digitized additional inspection forms, including:
    - Annual Facility Assessments Forms
    - Quarterly Hotspot SWPPP Inspection Forms, and

- Quarterly O&M Activity and BMP Assessment Forms.

The new, digital system allows inspectors to efficiently collect and upload field data, including photos, and allows for improved analysis of the data as well.

Additionally, mobile applications have also been used in previous years. For example, Survey 123 has been used to collect IDDE information, and Field Maps has recently been used to collect storm drain data. As we continue to improve ease of access and provide additional staff training, we may see a short-term increase in the number of inspection forms filled out by park staff. Despite the increase in completed forms, this may not necessarily signify that more incidents, such as illicit discharges, have taken place.

The Altamont Sector Storm Water Program has successfully performed all planned activities (Outcome Level 1), identified data gaps, and closed several data gaps across various Outcome Levels. The program has also improved Target Audience Awareness (Outcome Level 2), measuring staff awareness of stormwater issues at a “High” level (over a 90 percent average assessment score) and visitors at an “Acceptable” level (75-90 percent average assessment score) in Year 11. Data pertaining to Target Audience Actions (Outcome Level 3) and Pollutant Source Contributions (Outcome Level 4) has not yielded any significant trends to date. However, continuing the annual collection of EA data through the next permit term is expected to help identify programmatic improvements.

Appendix A

2023-2024 Effectiveness Assessment

Appendix B

Public Education and Outreach Material

Appendix C

Pollutant Source Maps

Appendix D

IDDE Inspection Program

Appendix E

Construction Site Management Program Checklist

Appendix F

MS4 Hotspot Inspection Form

Appendix G

Off-Trail Riding Inspection Forms

Appendix H

Stormwater Quality Data

Appendix I

Trail Evaluation Form

Appendix J

On-Land Visual Trash Assessment Form

Appendix K

Photo Point Data