



2019 Annual Report
Storm Water Management Plan
Carnegie State Vehicular Recreation Area

Off-Highway Motor Vehicle Recreation Division
Department of Parks and Recreation
State of California

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Table of Contents

Executive Summary	7
Introduction	7
Development and Implementation of the SWMP	10
Public Education and Outreach	14
Public Involvement and Participation	18
Illicit Discharge Detection and Elimination	25
Construction Site Storm Water Runoff Control	28
Post-Construction Storm Water Management	31
Pollution Prevention Good Housekeeping	33
OHV Trails and Facilities Management	36

Maps

Map 1:	Regional Map of Carnegie SVRA	9
Map 2:	Illicit Discharge Detection and Elimination Program Monitoring Locations	26
Map 3:	Resource Management Areas	40
Map 4:	The Status of the RMAs and the Sub-RMAs	50
Map 5:	2015 Tesla Fire	57
Map 6:	BMP Monitoring-Turbidity Locations	62
Map 7:	Annual Named Trail Evaluations	65

Figures

Figure 1:	The Information Station	16
Figure 2:	Preparation for OHV Night Ride Event	19
Figure 3:	Black Bear Sub-RMA Fact Sheet	21
Figure 4:	Carnegie Advisory Team at Black Bear Opening	22
Figure 5:	Revegetation Efforts	29
Figure 6:	Electric Charging Station	33
Figure 7:	OHV Trails and Facilities Adaptive Management Flowchart	42
Figure 8:	Corral Hollow Creek Floodplain restoration	45
Figure 9:	SRI Loop RMA	46
Figure 10:	Signage Used to Communicate to Recreationalist the Purpose of the Closure	47
Figure 11:	Off-trail Routes Repair in Harrison Hill Sub-RMA	49
Figure 12:	Black Bear Sub-RMA, Before and After Rehabilitation	51
Figure 13:	Wattles Installation within Black Bear Sub-RMA	52
Figure 14:	Trail Work within Black Bear Sub-RMA	52
Figure 15:	Placing BMPs in Black Bear Sub-RMA	53
Figure 16:	New Fencing in Black Bear Sub-RMA	53
Figure 17:	Trailhead sign in Black Bear Sub-RMA	54

Figure 18:	The Harrison Hill Sub-RMA, Before and After Rehabilitation	55
Figure 19:	Phase 3 Sub-RMA	56
Figure 20:	Los Osos Sub-RMA	59
Figure 21:	Volunteers Planting Native Riparian Vegetation	64
Figure 22:	Mine Tailings Before and After Compost and Native Seed Application	68

Tables

Table 1:	Permit Staff Assessment Results	16
Table 2:	Measurable Goals for Public Education and Outreach BMPs	17
Table 3:	Measurable Goals for Public Participation/Involvement BMPs	23
Table 4:	Measurable Goals for Illicit Discharge Detection and Elimination BMPs	27
Table 5:	Measurable Goals for Construction Site Storm Water Runoff Control BMPs	30
Table 6:	Measurable Goals for Post-Construction Storm Water Management BMPs	32
Table 7:	Measurable Goals for Pollution Prevention/ Good Housekeeping BMPs	34
Table 8:	Measurable Goals for OHV Trails and Facilities Management BMPs	43
Table 9:	RMA Status	48
Table 10:	Turbidity (NTU) Data for BMP Monitoring Effectiveness	58
Table 11:	Total Suspended Sediments (TSS) Data for BMP Monitoring Effectiveness	58
Table 12:	Wet Weather Closures	60
Table 13:	Results from Vegetation	64

List of Attachments

Attachment A:	Education Brochure and Certification Sheet
Attachment B:	Storm Water and Habitat/Wildlife Panels
Attachment C:	Locations of Interpretive Panels
Attachment D:	Maps of Pollutant Sources for the Illicit Discharge Detection and Elimination Program
Attachment E:	Photo Points for the Illicit Discharge Detection and Elimination Program
Attachment F:	Forms for the Illicit Discharge Detection and Elimination Program
Attachment G:	Inspections for the Illicit Discharge Detection and Elimination Program
Attachment H:	Informational Sign for the Illicit Discharge Detection and Elimination Program
Attachment I:	Construction Site Inspection Form
Attachment J:	Photo Monitoring-RMAs
Attachment K:	Turbidity/TSS Data
Attachment L:	Revised Trail Evaluation Form
Attachment M:	Precipitation Data
Attachment N:	CVRWQCB Letter

Executive Summary

Carnegie State Vehicular Recreation Area (SVRA) formally implemented the Storm Water Management Plan (SWMP) in February of 2012. The SWMP requires that an annual report be submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB). 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, Carnegie SVRA submitted a Notice of Intent for and received coverage under the Phase II Small Municipal Separate Storm Sewer Systems (MS4) Permit (Order No. 2013-0001-DWQ) as a Non-Traditional Permittee. This reporting cycling work began on the West Franciscan Sub-RMA. The Black Bear Sub-RMA also received improvements.

Introduction

The purpose of this annual report is to summarize the progress of the implementation of the Storm Water Management Plan (SWMP) for Carnegie (SVRA). The SWMP outlines goals and benchmarks in annual increments. The SWMP was implemented in February of 2012 and we are now at the end of Year 7. This report summarizes this past year's progress and provides the opportunity to review the data and confirm the best management practices (BMPs) chosen and/or make adjustments if deemed necessary. In July 2013, Carnegie SVRA submitted a Notice of Intent for and received coverage under the Phase II Small Municipal Separate Storm Sewer Systems (MS4) Permit (Order No. 2013-0001-DWQ) as a Non-Traditional Permittee.

Site Background

The SVRA is operated by the Off-Highway Motor Vehicle Recreation Division (OHMVRD) of the California Department of Parks and Recreation (DPR). The park is located along Corral Hollow Road, between the cities of Livermore and Tracy, California (Map 1). This unit of the California State Park System provides approximately 1,200 acres of off-highway vehicle riding opportunities to the public. The park was purchased by the State in 1979 to continue providing existing off highway vehicle (OHV) recreation previously provided by a private motorcycle park. With a diversity of terrain ranging from rolling hills to steep canyons, Carnegie has become a popular destination for off-road enthusiasts of all skill levels.

The OHMVRD has initiated a storm water management program at Carnegie SVRA in an effort to protect the park's natural resources, improve water quality and meet the requirements of the National Pollution Discharge Elimination System (NPDES) and the Clean Water Act (CWA). In order to achieve these water quality objectives, a number of projects and programs have been planned and/or are being implemented.

In the spring of 2004, the OHMVRD contracted with Salix Applied Earth Care and Geosyntec consultants to assess the Corral Hollow watershed; it was finalized in 2007. The purpose of the Corral Hollow Watershed Assessment (CHWA) was to provide the OHMVRD, Carnegie staff, and community stakeholders with an understanding of the historical occurrences that have shaped the watershed. The assessment was also performed to define the current state of the watershed in order

to develop future management practices that can be implemented to improve water quality and the health of the watershed.

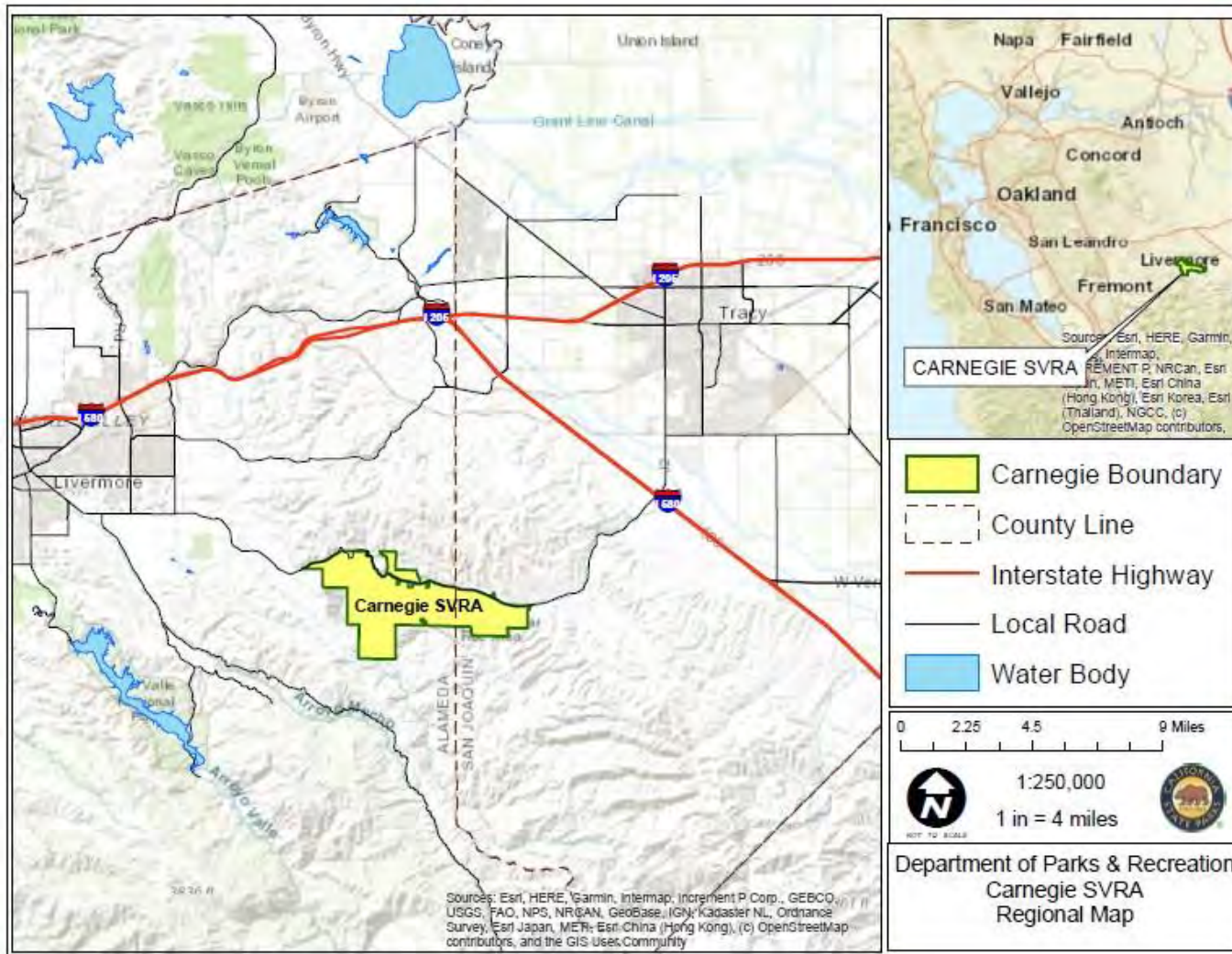
The findings from the watershed assessment were used to develop a number of recommendations designed to reduce erosion and sediment issues through innovative BMPs and an active adaptive management framework focused on meeting water quality objectives. This framework includes continual assessment of erosion and sediment generators, implementation of appropriate BMPs, ongoing monitoring and evaluation of these actions and plans for long-term maintenance to ensure the success of these actions.

Other components of the OHMVRD Storm Water Management Program (SWMP) include the ongoing development and implementation of the Trails Management Plan and implementation of annual species surveys and habitat rehabilitation activities related to the Habitat Monitoring System program. Also, the implementation, monitoring and maintenance of projects associated with the OHMVRD Soil Conservation Standard and Guidelines and use of the OHV-specific BMP manual for selecting, implementing and maintaining appropriate BMPs. These components are discussed in more detail in the OHV Trails and Facilities Management section.

In February of 2012, the SWMP was implemented. The purpose of this SWMP is to reduce or eliminate pollutant discharges from Carnegie SVRA by implementing site-specific structural and non-structural BMPs in order to protect and improve water quality while allowing for high quality OHV recreational opportunities. Elements of the SWMP include public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site storm water management, and post-construction storm water management as well as pollution prevention/good housekeeping. This SWMP also includes an OHV element dedicated to discussing management goals and activities for maintaining OHV trails and facilities as they relate to meeting our water quality objectives.

This SWMP is designed to meet the requirements set forth in the California State Water Resources Control Board's (SWRCB) Water Quality Order No. 2003-0005-DWQ, General Permit No. CAS000004, NPDES Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Water Systems, (General Permit) adopted on April 30, 2003. As described in more detail in Section 3 of this SWMP, Phase II of the Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s) and construction sites disturbing between 1 and 5 acres of land. An MS4 is defined by the USEPA as a "conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) owned or operated by a state, city, town, borough, or county." The MS4 permits require the discharger to develop and implement a SWMP with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP).

Carnegie SVRA is committed to responsible land management, including conservation and improvement of habitat, recreation maintenance, as well as meeting our water quality objectives. This SWMP provides an outline for and implementation of Phase II compliance using our OHV adaptive management framework (Figure 7). OHMVRD and SVRA staff, including the senior environmental scientist, environmental scientists, archaeologist, maintenance supervisor, park maintenance worker 1, park interpreter and seasonal staff assist in the implementation of the SWMP. The annual report is drafted by environmental staff and submitted for review and approval to the Diablo Range District Superintendent and the RWQCB.



Map 1: Regional Map of Carnegie SVRA.

Development and Implementation of the SWMP

The purpose of the SWMP is to reduce or eliminate pollutant discharges from Carnegie SVRA to the Maximum Extent Practicable (MEP). The SWMP achieves this by providing a description of the BMPs that are currently being used or that have been proposed for storm water management at the park. A description of BMPs for each of the following seven program areas (also referred to as Minimum Control Measures) is below:

- Public Education
- Public Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post Construction Storm Water Management
- Pollution Prevention/Good Housekeeping
- OHV Trails and Facilities Management

In order to monitor the 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. Examples of measurable goals include the maintenance of a sediment basin, the implementation of a public awareness program, or the continued use of a properly installed and maintained wheel wash facility. Measurable goals could also include quantifiable assessments of the number of educational brochures distributed, the averaging score on a training quiz, or the number of illicit discharges recorded during the permitting cycle.

The SWMP also includes an implementation schedule for each BMP. The implementation schedule generally follows the five-year permitting cycle. For example, the SWMP might indicate that a sediment basin will be installed by the end of year 1 and that routine maintenance of the basin will occur in years 2, 3, 4, and 5. The implementation schedule (i.e. year 1) will start the year following the adoption of the SWMP.

Pollutants of Concern

Pollutants of concern consist of any pollutants that could potentially be stored or generated onsite and that could have an adverse impact on the quality of the receiving waters. The pollutants of concern for Carnegie SVRA were selected based on applicable water quality regulations and potential activities that could act as sources of pollutants. The purpose of the SWMP is to prescribe BMPs that will reduce or remove the pollutants of concern to the MEP.

Selection Criteria

Pollutants of concern include any pollutants that could potentially be generated by past, present, and future land-use activities. This includes historic activities such as mining that may have created a perpetual source of pollutants (i.e. tailing piles), present activities such as OHV use, and planned future activities that could create a new source of pollutants.

The Water Quality Control Plan (Basin Plan) for the Central Valley Region sets forth water quality standards for the surface and ground waters of the region, which include both designated beneficial uses of the water and the narrative and numeric objectives that must be maintained or attained to protect those uses. The Basin Plan does not specify beneficial uses or specific water quality objectives for Corral Hollow Creek. According to the tributary rule, the beneficial uses assigned to any downstream water body would also apply to the creek. The Basin Plan does specify general water quality objectives for all water bodies within the Sacramento and San Joaquin River Basin. These objectives include numeric and narrative standards designed to preserve the quality of the receiving waters.

When selecting the pollutants of concern, the past, present, and planned future activities at Carnegie SVRA were evaluated to identify potential pollutant sources. Once the sources had been identified, the typical pollutants associated with each source were then compared to regulatory criteria to select the pollutants of concern for Corral Hollow Creek and its tributaries.

Selected Pollutants of Concern

Based on the potential pollutant sources at Carnegie SVRA and water quality objectives presented in the Basin Plan, the following constituents were selected as pollutants of concern:

- Sediment
- Heavy Metals
- Nutrients
- Pathogens
- Petroleum Hydrocarbons
- Trash and Debris

The following sections provide a description of the potential sources and hazards of each pollutant of concern.

Sediments include total suspended solids (TSS), total dissolved solids (TDS), and bed load material. Erosion, transport, and deposition of sediment in surface waters has proven to be a significant form of pollution resulting in water quality problems, which have impaired riparian habitat by inundating riparian vegetation, and reducing beneficial habitat structure in stream channels. Sources of sediment include deposition of materials from Mitchells Ravine and the adjacent County Road, earth disturbance by OHV activities, low volume (access) roads, wind and water erosion, and construction and maintenance activities. Sediments are associated with the following pollutant categories provided in the Basin Plan: Sediment, Suspended Sediment, Settleable Sediment and Turbidity.

Water quality sampling conducted by Geosyntec (OHMVRD, 2007) revealed the heavy metal concentrations were generally low and only exceed the California Toxics Rule (CTR) criteria for copper in one sample. However, metals such as copper, zinc, and chromium have been selected as pollutants of concern since they are prevalent in OHV components and can be deposited in the watershed through typical vehicle wear and leaks. Additional sources of metals include fuels, adhesives, paints and other coatings, buildings, infrastructure, and the remnants of tailing piles associated with historic mining activities. Metals are of concern because of their acute and chronic toxic effects on aquatic life and the potential to bio-accumulate in aquatic organisms. Heavy metals are associated with the following pollutant categories provided in the Basin Plan: Taste, Odor and Toxicity.

Nutrients are inorganic forms of nitrogen and phosphorus. The potential sources of nutrients at Carnegie SVRA include decomposition of organic matter, fertilizers from landscaped areas, and atmospheric deposition. Excess nutrients can contribute to surface algal scum and water discoloration. Nutrients are inclusive of the following pollutant categories provided in the Basin Plan: Biostimulatory Substances.

Elevated levels of pathogens are typically caused by the transport of domestic animals, wildlife, or human fecal wastes from the watershed. Even runoff from natural areas can contain pathogens (e.g., from wildlife). At Carnegie SVRA, potential sources of pathogens include domestic pet waste, wildlife waste, cattle and livestock waste, human waste, and leaking septic tanks. If transported to the receiving waters, pathogens can pose a direct health risk to humans. Pathogens are associated with the following pollutant categories provided in the Basin Plan: bacteria.

Pesticides (including herbicides, insecticides and fungicides) are chemical compounds commonly used to control insects, rodents, plant diseases, and weeds. Excessive application of a pesticide may result in runoff containing toxic levels of its active component. Common types of pesticides include organochlorine pesticides or organophosphorus. However, the use of organophosphorus pesticides, including diazinon and chlorpyrifos, has been restricted by USEPA and are not used by Carnegie SVRA. Herbicides, insecticides, and fungicides are associated with the following pollutant categories provided in the Basin Plan: pesticides.

The potential sources of oil, grease, and other petroleum hydrocarbons at Carnegie SVRA include spills and leaks of fuels and lubricants, atmospheric deposition, wearing of tires, and deposition from vehicle exhaust. Petroleum hydrocarbons, such as polycyclic aromatic hydrocarbons (PAHs), can accumulate in aquatic organisms from contaminated water, sediments, and food and are toxic to aquatic life at low concentrations. Hydrocarbons can persist in sediments for long periods and result

in adverse impacts on the diversity and abundance of benthic communities. Hydrocarbons can be measured as total petroleum hydrocarbons (TPH), oil and grease, or as individual groups of hydrocarbons, such as PAHs. Petroleum Hydrocarbons are associated with the following pollutant categories provided in the Basin Plan: Oil, Grease and Floating Materials.

Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products deposited by anthropogenic and natural processes. The primary source of trash and debris at Carnegie SVRA is deposition by park visitors. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower the water quality. In addition, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide. Trash and Debris are associated with the following categories provided in the Basin Plan: Dissolved Oxygen, Floating Materials, Taste and Odor.

Public Education and Outreach

Public education and outreach are needed for effective implementation of the SWMP to ensure water quality objectives are met. More specifically, education is one of the main tools used to ensure recreationalists stay on trail. With education and outreach, the public will support projects, BMPs and actions undertaken by management to protect water quality. The public education and outreach program will provide information and resources to our park visitors and stakeholders that will improve each person's understanding of the SWMP and effectively inform people about the importance of protecting and improving water quality by recreating responsibly. Public education and outreach promote better compliance with other minimum control measures by teaching individuals about the responsibilities expected of them and others in the community, including individual actions they can take to protect or improve their environment.

To meet the minimum requirements for public education and outreach, the USEPA encourages operators to use educational materials, such as brochures, fact sheets, guides, signage, educational programs, and seminars to address the viewpoints and concerns of all members of the public. The USEPA has developed an extensive database of public education and outreach materials that can be used at Carnegie SVRA. Whenever appropriate, the OHMVRD will work with other governmental agencies, as well as utilize these materials, as they are peer-reviewed documents that target specific storm water management issues.

Educational Brochure

Carnegie staff created an educational brochure to help visitors understand how they can protect their riding opportunity and improve water quality by reducing sediments, vehicle parts, vehicle fluids, and trash in storm water runoff. During this reporting period, the distribution of this brochure continued at in-park special events (two hill climbs and Carnegie Visitor Appreciation Day), at the Information Station on the weekends, through the park kiosk, and at some outside special events (Supercross Oakland and Earth Day at Sandia Lab). The brochure was used as part of a staff training which included a survey. New staff and contractors continue to receive the brochure (Attachment A). It is also available on-line at http://ohv.parks.ca.gov/?page_id=26339. The certification sheet can also be found in Attachment A.

Interpretive Panels

An interpretive panel about protecting water quality was created and placed throughout the park. Visitors can further learn about their role in preventing water pollution through reading this panel (Attachment B). In addition, several habitat and wildlife panels, as well as rehabilitation project and water conservation panels, were printed and displayed in the fall of 2013, and their current locations are mapped in Attachment C. For this reporting period, additional panels have been placed throughout the park to communicate project progress and the importance of staying-on-trail (Attachment B).

Educational Booth and Information Station

Carnegie hosts approximately four special events per year. At each of these events, an educational booth is set up. Each weekend during the riding season (October through April) an information station is set up in the park. Both outreach booths allow us to educate and inform our park users about protecting wildlife and habitat, cultural resources, and water quality. The educational booth at special events typically reaches three hundred visitors per weekend. The information station reaches around thirty visitors per day.

Additionally, the park managers hold periodic town hall programs to inform and educate the public on the SWMP. A town hall typically lasts two hours followed up by a question and answer session. The interest regarding the SWMP, especially about staying-on-trail, was evident by the attendance and participation of the visitors.

Additionally, handouts are provided at the kiosk during rehabilitation projects that explain the need for the project, the location, and the process for reopening.

Social Media

Carnegie's Facebook page is an effective means for communicating with the public about the Storm Water Management Plan and its requirements. Posts are made several times weekly during riding season, often about the storm closures. The public have frequent questions about this policy, and this forum allows Carnegie Staff to respond effectively to already curious users. As of February 2020, the page has over 8,000 followers, with an average reach of 3,500 persons per post.

Public Assessments

No assessments were required for this reporting period. An assessment will be completed for the 2019-2020 fiscal year. Carnegie SVRA will continue posting and distributing educational materials in support of continuing to achieve this goal.

Staff Assessments

Assessments are done every other year and were not done this reporting cycle. The 23-question assessment covers topics related to sediment, Illicit Discharge Detection and Elimination (IDDE), Pollution Prevention and Good Housekeeping (PPGH), and other potential water quality pollutants. Assessment results from the last reporting cycle are presented in Table 1 below:

Table 1: Permit Staff Assessment Results (2018-previous reporting cycle)

Pollutant of Concern Questions	Average % Correct	Number of Questions
Sediment	92%	6
Trash	100%	5
Pesticides/Herbicides	100%	2
IDDE	77%	5
PPGH	100%	5
All Questions	96%	23



Figure 1: The Information Station. The information station is open during peak visitation periods and is near the concession store.

Table 2: Measurable Goals for Public Education and Outreach BMPs

BMP	Year of Implementation	Measurable Goals
Educational Brochures	1	Generate an educational brochure Generate a certification sheet for the brochure Post the brochure on the Carnegie SVRA website
	2	Existing staff will read the brochure and will sign the certification sheet Contractors and subcontractors currently conducting work in the park will read the brochure and will sign the certification sheet Carnegie staff will begin distributing the brochure to park visitors
	3	Continue to distribute the brochure to park visitors
	4	Continue to distribute the brochure to new staff and contractors
	5	Update the brochure as necessary
Interpretive Panels And Informational Signage	1	Complete a draft of the interpretive panels for wildlife and habitat Complete a draft of the informational signs Identify the posting locations for each interpretive panel and sign Obtain funding and materials for panels and signs
	2	Post the interpretive panels in their designated locations near the associated habitat type Post the informational signs in their designated locations Develop and post interpretive panels for rehabilitation and rehabilitation projects as they arise
	3	Inspect, update, and maintain each panel and sign Develop and post interpretive panels for rehabilitation and rehabilitation projects as they arise
	4	
	5	
Educational Booth And Information Station	1	Continue to provide the Educational Booth and Information Station
	2	Assemble the booth at the hill climbing events and cross country event Continue to provide the Information Station
	3	Assemble the booth at the hill climbing events and cross country event
	4	Assemble the booth at all events that are expected to attract at least 2,000 spectators
	5	Continue to provide the Information Station Inspect, maintain and update the material in the booths
Law Enforcement	1	Continue enforcement of regulations and laws pertaining to resource protection and water quality Effective communications with park visitors, both verbal and written Annual evaluation of law enforcement program effectiveness
	2	
	3	
	4	
	5	

Public Involvement and Participation

The success of the SWMP is largely dependent on the involvement and support of the community. Stakeholders who participate in the development and decision making processes of the SWMP become partially responsible for deciding what actions should be taken and ensuring success of the program. Stakeholders who are involved with the development of the SWMP are more likely to take an active role in its implementation. Public involvement and participation will 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.

Individuals who involve themselves in the development of the SWMP can serve as valuable connections to other citizen and government groups in the community. This promotes an intra-community distribution of knowledge and support and can be particularly valuable when implementing a watershed-based approach to storm water management.

To meet the minimum requirements for public participation and outreach, the USEPA encourages operators to include the public in developing, implementing, updating, and reviewing their SWMP. Carnegie SVRA's web site currently has a link to the Storm Water Management Plan and a link to current weather conditions. Educational materials related to the SWMP are available on the website. SWMP related materials are also available on the park's Facebook page.

Public Meetings

Park managers meet with members of the public throughout the year. These meetings are used to discuss general park topics: a portion is dedicated to discussing the rehabilitation efforts that are ongoing throughout the park.

Public Interpretive Program

Components:

- Panels program
- Brochures
- Project fact sheets
- Social media
- Education booth
- Public meetings
- Campfire program



Figure 2: Preparation for Night Ride Talk (Oct 2018): Staff discussed projects and the SWMP with members of the public

Component Summaries:

Panels: A series of 12 panels help to explain the SWMP and its components to Carnegie SVRA’s visitors was created. Four of the panels are about different habitats in the park, the plants and animals that live in those habitats, and how they are affected by water quality. Other panels discuss preventing illicit discharges, outlining the pollutants of concern and explaining what visitors can do to protect water quality. A few of these panels were installed at the park store, where visitors congregate. Additional panels are placed throughout the park in well-trafficked areas. The goal of these panels is to make visitors aware of the importance of protecting water quality, and ways in which they can help.

Brochures: A brochure has been developed that describes the pollutants of concern and how visitors can prevent them from affecting water quality. This brochure is available on Carnegie

SVRA's web site, at the entrance station, and at the educational booth during special events and some weekends.

Project fact sheets: An informational handout is made at the beginning of project implementation to describe the location and reasoning of temporary closures for projects in the park. Another one is created and handed out when the area reopens to describe the rehabilitation work that was done, the types of trails that have been put back in, the need for staying on trail, who to contact with any questions or concerns, and a map of the new trails layout on the back. These fact sheets are handed out by park staff at the park kiosk, the interpretive booth, and during temporally relevant events.

Social media: Carnegie seeks to inform and educate visitors through its Facebook page. Park conditions are regularly updated on the page, to which visitors then may ask questions regarding park policies. This gives us an opportunity to inform our users about the SWMP and the importance of protecting water quality. Twenty-seven social media posts were made this reporting cycle that discussed the water quality improvements and regulations in the park.

Education booth: An education booth is set up at least four weekends a year within the park for special events. This same booth is taken to events outside the park two to three times a year. The same materials used in the booth are set up on Sundays during riding season next to the park store. Materials available at the education booth include the SWMP brochure and information on animals and habitats found within the park.

Public meetings: The Park hosts a night ride each year as well as volunteer days. Superintendent holds two or three town hall meeting each year to discuss rehabilitation projects and other management actions. This gives the public a chance to listen to the reasons why projects are occurring and allows managers to get feedback from the public.

Presentation: Training was given by Michael Baker Inc. to staff for an update on the SWMP and MS4 and the good housekeeping, pollution prevention, and illicit discharge detection and elimination procedures.

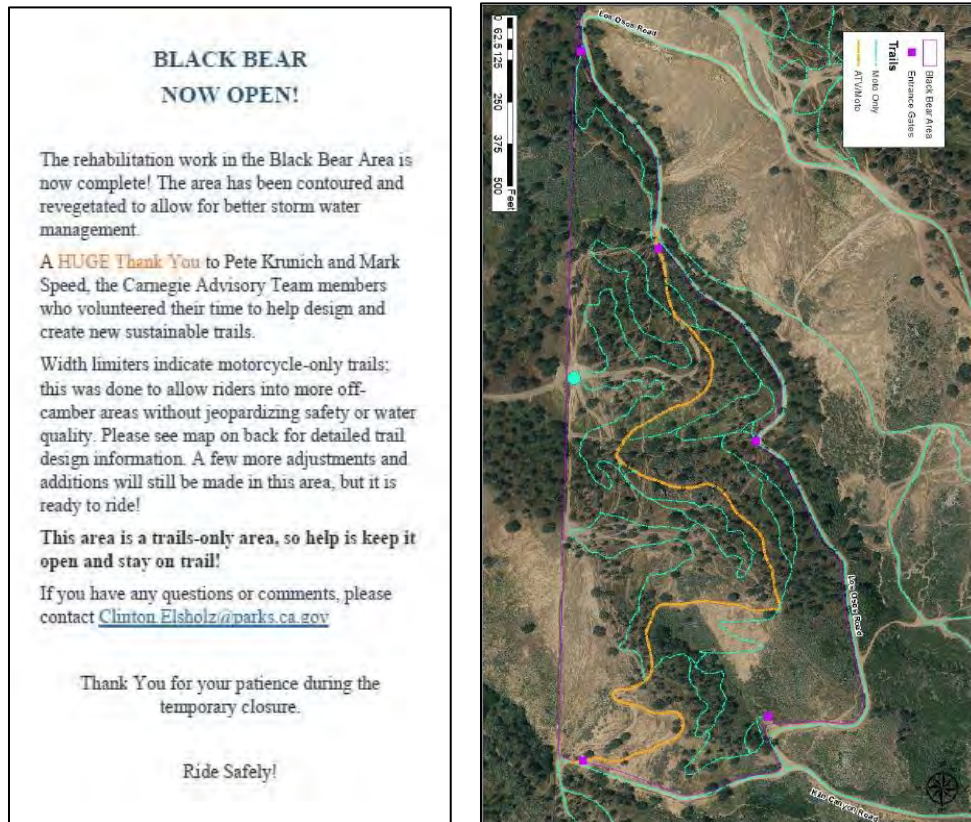


Figure 3. Fact sheet handed out upon completion of the Black Bear RMA rehabilitation project.

Volunteer Led OHV Maintenance Training Program

On February 21, 2013, the Carnegie Advisory Team (CAT) met for the first time. The CAT's mission is to provide input on park projects and operations that relate to the user's recreational experience and safety. The overall goal is to give stakeholders a voice 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 on park functions, park 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 on activities that will affect the park. The partnership also brings transparency to the stakeholders on management decisions regarding park planning and operations. Meetings are held as needed depending on projects that are occurring in the park. Duties also include trail creation and review, educating other visitors and point of contacts for the public to voice concerns and discuss with park staff.

Website

A copy of the SWMP is available on the Carnegie SVRA website at <http://ohv.parks.ca.gov/pages/25010/files/carnegie-swmp-august-2012.pdf>



Figure 4. Carnegie Advisory Team member talking to visitors at Black Bear RMA about the project and why it is important to stay on trail in these areas.

Table 3: Measurable Goals for Public Participation/Involvement BMPs

BMP	Year of Implementation	Measurable Goals
Public Meeting	1	<ul style="list-style-type: none"> • Public meeting notification • Hold public meeting • Distribute the survey at the end of the meeting
	2	<ul style="list-style-type: none"> • If necessary, 2nd public meeting notification • If necessary, hold 2nd public meeting • If necessary, distribute the survey at the end of the 2nd meeting • Compile results from the survey(s) and include in the Annual Report • Report the number of attendees for each meeting in the Annual Report
Public Interpretive Program	1	<ul style="list-style-type: none"> • Develop a draft of the interpretive program
	2	<ul style="list-style-type: none"> • Finalize the program presentation • Provide presentation on the status of SWMP implementation • Distribute the survey at the end of the presentation • Compile results from the survey and include in the Annual Report • Report the number of attendees in the Annual Report
	3	<ul style="list-style-type: none"> • Update the presentation • Give annual presentation on the status of SWMP implementation
	4	<ul style="list-style-type: none"> • Distribute the survey at the end of the presentation • Compile results from the survey and include in the Annual Report
	5	<ul style="list-style-type: none"> • Report the number of attendees in the Annual Report
Volunteer Led OHV Maintenance Training Program	1	<ul style="list-style-type: none"> • Develop a volunteer lead OHV maintenance training program
	2	<ul style="list-style-type: none"> • Use existing park volunteers and seek a qualified volunteer instructor for the program • Train the volunteers • Organize and implement the training session • Provide a survey at the end of the training session • Record the number of participants and the results of the survey in the Annual Report
	3	<ul style="list-style-type: none"> • Continue to implement the training sessions
	4	<ul style="list-style-type: none"> • Continue to seek qualified volunteer instructors • Provide a survey at the end of the training session

BMP	Year of Implementation	Measurable Goals
	5	<ul style="list-style-type: none"> • Record the number of participants and the results of the survey in the Annual Report • Evaluate and adapt the training program as necessary
Website	1	<ul style="list-style-type: none"> • Develop a link to the SWMP and a water quality based programs and projects section
	2	<ul style="list-style-type: none"> • Evaluate and update the website link and programs and projects section as needed
	3	
	4	
	5	

Illicit Discharge Detection and Elimination

One of the primary objectives of the illicit discharge detection and elimination program is to encourage operators to develop an extensive awareness of their storm sewer system and the potential situations that can result in an illicit discharge. Runoff from the park infiltrates into the subsurface, evaporates, or directly enters Corral Hollow Creek and its tributaries as surface water runoff. A storm drain system is not needed since less than 5 percent of the area is impervious. Most of the impervious areas are not directly connected, and not all non-storm water discharges are detrimental to the receiving waters. According to the General Permit, the following categories of non-storm water discharges do not need to be addressed and as such are not addressed in this illicit discharge detection and elimination program provided they are not a significant source of pollutants:

- Water line flushing
- Incidental runoff from landscaped areas
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration to separate storm sewers
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensation
- Springs
- Water from crawl space pumps
- Footing drains
- Individual residential car wash water
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool discharges

Pollutant Source Maps

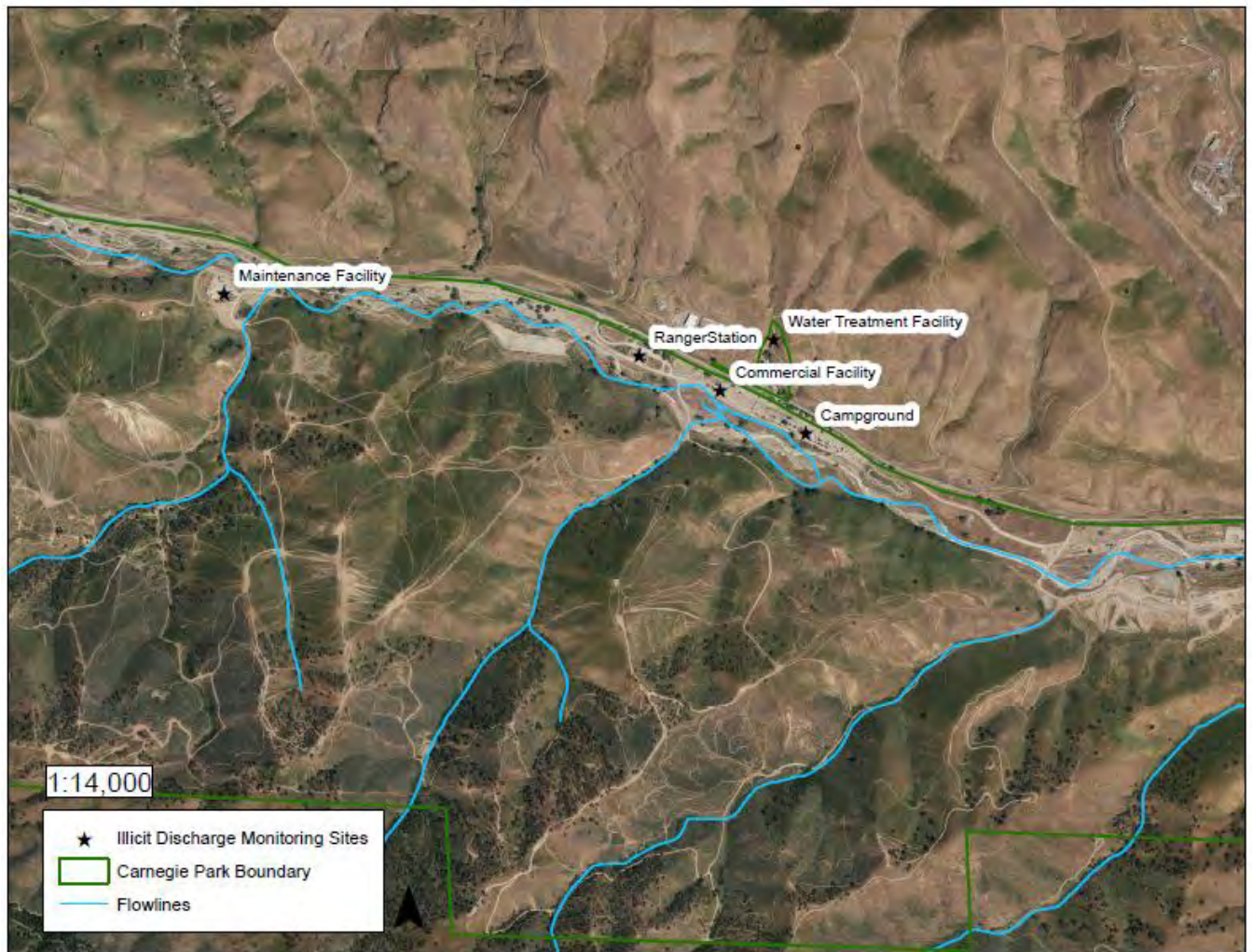
The pollutant source maps can be found in Attachment D. Five facilities are monitored as part of the illicit discharge detection elimination program and include the maintenance yard, the ranger station, the store, the campground, and the water treatment facility. The baseline photos for the photo points are included in Attachment E.

Illicit Discharge Detection and Elimination Program

The inspection forms for monthly and storm event inspections can be found in Attachment F. Beginning in April 2013, monthly inspections have been made for the facilities identified previously and the inspections are included in Attachment G. Inspections were not conducted during the 2018 calendar year, and in 2019 they will take place on a quarterly basis, simultaneously with the MS4 hotspot inspections. There were no “complaint” driven inspections for this reporting cycle.

Notification Signage

An illicit discharge information panel was created and can be found in Attachment H. These signs have been posted near the store and on the campground ramadas. Sign locations were chosen based on their proximity to areas where visitors commonly congregate.



Map 2: Illicit Discharge Detection and Elimination Program Monitoring Locations. The locations of the five facilities monitored as part of the illicit discharge detection and elimination program.

Table 4: Measurable Goals for Illicit Discharge Detection and Elimination BMPs

BMP	Year of Implementation	Measurable Goals
Pollutant Source Mapping	1	Generate a map of pollutant sources within Carnegie SVRA
	2	Update the pollutant source map as necessary
	3	
	4	
	5	
Illicit Discharge Inspection and Elimination Program	1	Generate an inspection form for monthly and storm event inspections Generate an inspection form for complaint-driven inspections and incidents
	2	Begin conducting monthly and storm event inspections of pollutant sources Update inspection forms to be consistent with pollutant source map Implement complaint-driven illicit discharge inspection and elimination program Record the number of complaints and responses in the Annual Report
	3	Conduct monthly inspections of pollutant sources
	4	Update inspection forms to be consistent with pollutant source map
	5	Continue to implement complaint-driven illicit discharge inspection and elimination program Record the number of complaints and responses in the Annual Report
Notification Signage	1	Complete a draft of the informational sign Identify the posting locations for each sign
	2	Post all signs
	3	Inspect, update, and maintain each sign
	4	
	5	
Educational Materials	1	See Table 1
	2	
	3	
	4	
	5	

Construction Site Storm Water Runoff Control

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. Because of this, runoff from construction sites can have a significant impact on the quality of the receiving waters.

Construction sites can be a source of several pollutants, including nutrients from fertilizers, pesticides, oil and grease, alkalinity from concrete washouts, hydrocarbons from fuels, lubricants and sealants, and construction debris. However, the primary pollutant of concern at construction sites is sediment since it is available in such large quantities. Excess sediment can cause physical, chemical, and biological harm to the receiving waters and reduce water quality. Particulate-bound pollutants, such as heavy metals and hydrocarbons, can also be transported to the receiving waters with the sediment.

Per the USEPA's minimum requirements, permittees are required to develop, implement, and enforce a program to minimize or prevent water quality impacts associated with runoff from all construction sites greater than or equal to one acre. The program shall also include disturbances of less than one acre if the disturbance is part of a larger common plan of development. This would include any site or feature specific to the current or future General Plan.

Construction Site Inspection Form

The inspection form can be found in Attachment I. No construction project greater than one acre during the reporting period called for inspections.



Figure 5 Revegetation Efforts: Hydro-seeding the bare soil of the quad track in preparation of the wet season

Table 5: Measurable Goals for Construction Site Storm Water Runoff Control BMPs

BMP	Year of Implementation	Measurable Goals
Construction Site Inspection Program	1	Develop the construction site inspection forms
	2	Conduct monthly SWPPP inspections of each active construction site Summarize the number and nature of the deficiencies in the Annual Report Review and update the construction site inspection form as necessary
	3	
	4	
	5	
BMP Manual	1	Continue to use the BMP Manual
	2	Conduct monthly inspections of each active construction site for compliance with the BMP Manual Summarize the number of deficiencies for each BMP in the Annual Report Update the Manual to incorporate new innovative BMPs cross referenced with CASQA and CalTrans specifications
	3	
	4	
	5	
Engineer and Contractor Training	1	Develop the presentation phase of the training program
	2	Develop the field-demonstration phase of the training program or find an existing BMP workshop Generate the training quiz Implement the training program Summarize the effectiveness of the training in the Annual Report
	3	Evaluate and update the training program and quiz Summarize the effectiveness of the training in the Annual Report
	4	
	5	

Post-Construction Storm Water Management

Permanent storm water management and control is essential to protecting the quality of the state's receiving waters. New development and redevelopment projects can be a considerable source of pollutants. If exposed to storm water runoff, these pollutants are readily transported into the receiving waters through ditches and pipes or as sheet flow. Increases in impervious area associated with new development and redevelopment typically increase the volume and peak flow rate of the runoff, thus increasing the mobilization potential of the pollutants. Development of storm water management controls and practices during the planning stages of new development and redevelopment projects is one of the most effective and economical ways of meeting the requirements of the General Permit and the storm water management objectives of this SWMP.

New development projects that require coverage under the General Permit consist of projects that disturbed one or more acres of land during the construction phase. Similarly, redevelopment projects are defined as projects that alter the footprint of an existing site or building in such a way that there is a disturbance of at least one acre. At Carnegie SVRA, facility development and modification could be considered new development or redevelopment projects. Each will have to be evaluated for compliance requirements.

Post-construction storm water management primarily consists of non-structural and structural BMPs. Non-structural BMPs include strategies and planning procedures for guiding growth and development away from sensitive areas. Preservation of riparian zones, minimization of disturbance and imperviousness, and maximization of open space are also considered non-structural BMPs. Structural BMPs include treatment devices designed to reduce pollutants through sedimentation, adsorption, decomposition, filtration, plant up-take and infiltration. Sediment basins, media filtration, vegetated buffers and bioswales are all considered structural BMPs

This section's measurable goals are being met and are reported in the next section.

Table 6: Measurable Goals for Post-Construction Storm Water Management BMPs

BMP	Year of Implementation	Measurable Goals
BMP Manual	1	Continue to utilize the BMP Manual for all post-construction BMPs Review and update the BMP Manual as necessary
	2	
	3	
	4	
	5	
Site Planning Procedures	1	Continue to review all projects using the Project Evaluation Form Continue to plan and implement projects to avoid and minimize impacts to resources and water quality
	2	
	3	
	4	
	5	
Site Specific BMPs	1	Continue to evaluate all project sites to determine which BMP is most appropriate Continue to implement BMPs that avoid and minimize impacts to resources and water quality Continue to assess and adapt BMPs as necessary
	2	
	3	
	4	
	5	
Structural BMPs	1	Continue to implement Structural BMPs Continue to assess projects for compatibility with BMPs Continue to monitor and evaluate BMPs Continue to maintain BMPs Adapt BMPs as necessary
	2	
	3	
	4	
	5	

Pollution Prevention/Good Housekeeping

The goal of proper pollution prevention and housekeeping practices is to ensure that routine operation and maintenance activities are conducted in a manner that minimizes the potential for pollutants to encounter storm water runoff. Typical operation and maintenance activities include equipment and vehicle fueling, repair, and maintenance, equipment and vehicle washing, roadway and trail repair, landscaping, vector and weed control, painting, sanitary waste removal, and litter control.

Routine operation and maintenance activities often require the use of chemicals and materials that can be detrimental to the quality of the receiving water including fuels, lubricants, paints, solvents, waste materials, fertilizers, insecticides, and herbicides. Proper storage and use of these materials can provide an effective and economical means of reducing pollutant-laden storm water runoff.

During this reporting period, several oil spill kits with absorbent pads were readily accessible to the public in the case of an incident.

Additionally, a charging station was installed to provide for the emerging electric motorcycle market and the riders that use them in the park.



Figure 6. New charging station installed for use by electric dirt bikes.

Table 7: Measurable Goals for Pollution Prevention/Good Housekeeping BMPs

BMP	Year of Implementation	Measurable Goals
Employee Training	1	Develop a training presentation for the maintenance personnel Develop a quiz for the presentation
	2	Implement the training program and quiz Evaluate the training program and update accordingly Summarize the effectiveness of the training in the Annual Report
	3	
	4	
	5	
Vehicle and Equipment Maintenance	1	Continue to implement the current vehicle and equipment maintenance procedures
	2	
	3	
	4	
	5	
Vehicle and Equipment Fueling	1	Continue to implement the current vehicle and equipment fueling procedures
	2	
	3	
	4	
	5	
Vehicle and Equipment Washing	1	Develop plans for a vehicle and equipment washing facility Continue to use appropriate vehicle and equipment washing procedures
	2	Continue to use appropriate vehicle and equipment washing procedures Secure funds for the vehicle and equipment washing facility Install vehicle and equipment washing facility when funds are available
	3	
	4	
	5	
Material Handling and Storage	1	Continue to implement the current materials handling and storage procedures
	2	
	3	

BMP	Year of Implementation	Measurable Goals
	4	
	5	
Spill Prevention and Control	1	Continue to implement the current spill prevention and control procedures
	2	
	3	
	4	
	5	
Waste Storage and Litter Control	1	Continue to implement the current waste storage and litter control procedures
	2	
	3	
	4	
	5	
Sanitary/Septic Waste Management	5	Continue to implement the current sanitary and septic waste management procedures
	2	
	3	
	4	
	5	

OHV Trails and Facilities Management

Site Background

Trail systems have the potential to alter a landscape's storm water drainage patterns. These alterations can lead to higher rates of erosion and have a negative effect on storm 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 SVRA's facilities are found 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, the north side, is open riding, which typically consists of grassland habitat with durable clay soils. While park visitors are generally free to travel throughout this area, many portions, including 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 is the trails-only area, which consists mostly of coastal scrub, oak woodlands and friable sand/loam soils. Here, visitors are required to stay on established trails and fencing, along with signage and law enforcement actions, is used to increase compliance.

The trails are categorized as primary, secondary, tertiary, and other. The primary trails are accessible by all sizes of vehicles including emergency vehicles. The secondary trails are accessible to All Terrain Vehicles and motorcycles. The tertiary trails are assessable for motorcycle only. Lastly, the "other" trails are trails that have been created by unauthorized OHV recreation. The primary and secondary trails receive annual maintenance, which includes grading, out sloping, installing and reconditioning of BMPs, removing outside berms and pruning vegetation.

Exclusion of OHV activities occurs throughout the park. Access for OHV use has been restricted in several areas of the park in order to improve storm water quality and protect natural and cultural resources. For example, 70 acres of the Corral Hollow Creek floodplain are permanently closed to OHV activity using split-rail fencing. Designated creek crossings were installed for park visitors to travel from parking and staging facilities to the trail system south of the creek. A minimum 75-foot buffer was established between the creek and recreational use for a majority of the creek's reach. In a few areas, the creek meanders within 75 feet of established park facilities or historic sites. While the maximum allowable flood plain area has been closed in these instances, meeting the 75-foot goal would significantly alter park operations. Solution measures are being explored which involve realigning portions of the creek and reestablishing riparian vegetation within the closure zone, which will also improve creek function. The closed areas are patrolled by the park's law enforcement officers in order to achieve a high level of compliance from the public. The public is restricted to five creek crossings, two of which are hard-surfaced (hard surfacing is being planned for each crossing). The closure of portions of the flood plain is allowing for a vegetative buffer between the

creek and OHV use areas. This vegetative buffer allows for the storm water to slow and sediments to settle prior entering the creek.

Just upslope of the creek, running the length of the park unit, are several steep hills that were used for OHV recreation during the 20th century. In 2002, these hills were closed to the public due to the proximity to the creek and the difficulty of settling the sediment out of the storm water. Most of the hills were restored to a more natural contour while others have recovered naturally. Use is still allowed on one hill, known as the hill climb facility, for occasional competitive hill climbing events only. This hill has a berm at the bottom to collect sediment and capture storm water, and the hillside is seeded and covered with straw twice each year.

Throughout the park, pockets of sensitive areas are closed permanently to OHV use. These include culturally significant sites including the Carnegie Brick and Pottery Company ruins and Carnegie lime kiln and quarry site. Environmentally sensitive areas are also closed for various reasons. For example, the exclusion of OHV activity from the lower sections of the main tributaries and the sediment basins protect breeding habitat of amphibian species as well as storm water quality. As a part of the park's strategic trail plan (see *Trails Plan* section), all major drainages will be targeted for protective measures using fencing, rock, and/or landscape features to ensure OHV use is limited.

In other instances, portions of the park are closed temporarily in order to repair and rehabilitate the trails and habitat. These closures allow vegetation to become reestablished providing clearer distinctions between sanctioned trails and unauthorized routes. A unique example of this management tactic was utilized when the 2009 Corral Fire burnt approximately two hundred acres of vegetation within the park. The result was a barren landscape. The area was subsequently closed to the public in order to allow the vegetation to recover and ensure no off-trail riding occurred. The trail system and all erosion features were rehabilitated, and this area was opened in 2011 (aka Kiln-East RMA).

Hillside rehabilitation activities are performed throughout the year to reduce the density of trails, prevent soil loss, and restore habitat. Typically, these activities include permanent removal of unauthorized trails by closing, re-contouring, seeding, and protecting the hillside. Denuded areas are often seeded with a native grass and legumes seed mix, along with mulch and tackifier. Straw wattles are also installed across the slopes to slow storm water velocity. The rolls are spaced 20 to 50 feet apart, depending on hill slope and contour, and are anchored with wooden stakes every four feet. Occasionally, in certain grassland areas, wattless are installed with biodegradable jute netting to create a mutually reinforcing system. Monitoring and evaluation of these BMPs reveal that project activities and erosion control materials are highly effective in minimizing erosion, stabilizing soil and rapidly reestablishing vegetation. These types of projects have been implemented for many years and reaffirm that the BMPs, which protect and improve water quality to the maximum extent practicable, are being selected.

The Trails Plan

Although several projects and programs were developed and implemented successfully, there was a need to consolidate the years of experience and outline a strategy to provide more substantial, environmental improvements. The trails program is a strategy developed by the park to address a variety of trail issues. It distills the years of experience in rehabilitation and park management along with the OHV BMP manual into one cohesive approach aimed at reducing voluntary trails, increasing vegetation cover, improving water quality, conserving and improving habitat and providing a quality recreational experience.

A new trails program was adopted in 2009. This program uses the lessons of the past to derive the key principals that make up the foundation of the new plan. Similar to the SWMP program, the goal of this program is to protect the health of the soil and bring the trails system into a well-managed trail network. The principals that guide this plan are:

- The new approach is long term. The problem is often fixed within one or two seasons, but may take several years of monitoring, and possible maintenance, to ensure sustainability.
- Individual projects use a three-tiered approach of physical barriers, education, and enforcement to help ensure off-trail riding does not reoccur.
- The implementation of the trails program focuses on one resource management area (RMA) with subsequent projects being implemented within adjacent areas. This continuity helps with enforcement and education.
- Individual projects are designed with sustainable trails that anticipate upcoming projects in the adjacent areas. This is done in order to provide connectivity from one project area to another resulting in an improved park wide trails network and better recreational experience, thereby lessening the temptation to go off-trail.
- The type of riding use allowed is determined by soil characteristics. Some soils are durable enough to allow for longer vertical trails while other areas only permit trails that are cross slope, with frequent breaks in grade.

Resource Management Areas (RMA)

Following these principals, RMAs have been established for the park. The RMAs are discrete zones established to better plan and implement management activities of areas that share common characteristics. A majority of the RMAs were divided by sub-watersheds, and cover the entire SVRA (Map 3).

Implementing the SWMP Tactics

The trails program utilizes five of the six erosion control tactics of the SWMP program and two of the three sediment control tactics.

Erosion Control

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

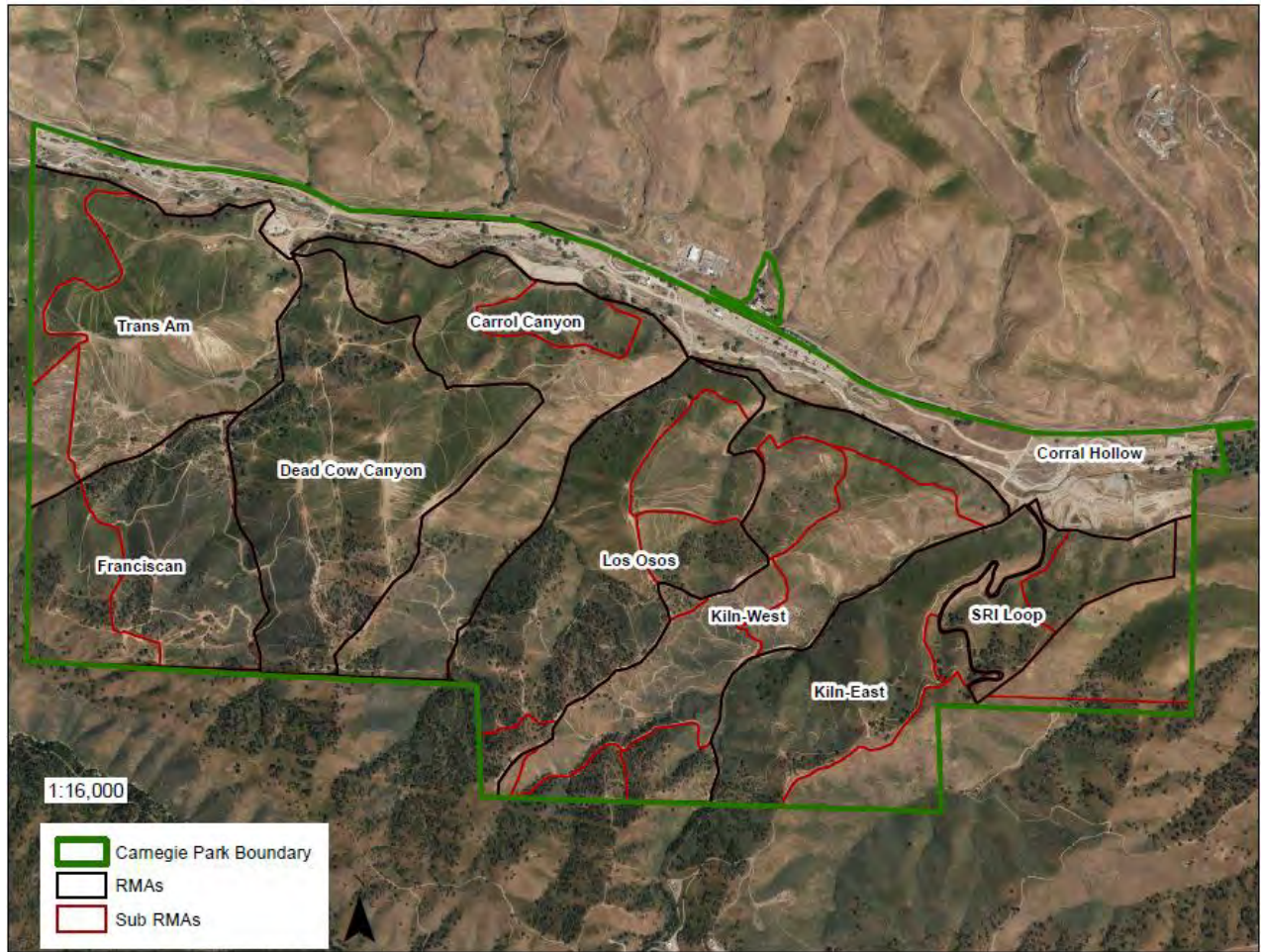
Sediment Control

- Increase vegetation cover near drainages
- Slow and settle storm water in the sub-tributaries

RMA Rehabilitation Projects-The Process

Scoping: Rehabilitating 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.

Rehabilitation: 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 storm water elsewhere. These trails are usually incorporated into the RMA's trail network. Trails that have been identified as erosive per the soil conservation programs dataset are eliminated from the trails network and the area 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. Typically, the BMPs used are a combination of straw wattles, which prevent the concentration of water, and hydro mulch, which protects the soil from precipitation. If the hydro mulch machine is unable to access the area, then straw 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 shortening of hydrological connections, two tactics outlined in this program. Special attention will be given to developing buffer zones near drainages by limiting trail density and soil disturbance within these areas to provide adequate bio-filtration (sediment control).



Map 3: Resource Management Areas.

Corral Hollow, SRI-Loop, and Kiln-East RMAs are completed and open as “trails-only”. Portions of Kiln-West, Los Osos, and Trans Am RMAs are undergoing rehabilitation efforts.

Once the 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 of the U.S. Forest Service, on proper trail design and construction to achieve minimal impact on the soil and habitat. This is achieved primarily by preventing accumulation of storm water using a BMP called breaks-in-grade. By changing the elevation to a positive grade at regular intervals, storm water volume is divided into lower concentrations. Most of these methods have been used in the park for several years, exhibiting high levels of success.

The most innovative approach to the trails plan 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. In this plan, fencing will be used differently. Each rehabilitated RMA will now have perimeter fencing with access gates at the entry points. If/when 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 the next section.

Education: The public education and outreach component of the trail plan includes working with the public through the Carnegie Advisory Team (CAT), handing out brochures, and drafting interpretive panels. The CAT assists with trail design and communicating to the public the need to stay-on-trail.

Enforcement: After the rehabilitation work is completed and the area is open to the public, the RMA is inspected by park staff regularly. Off-trail violations result in temporary closure of the entire area 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 the users understand the consequences of riding off-trail. This publicized message is inclusive of photos and details of the damage and displayed on the bulletin boards at the trailhead and at the kiosk.

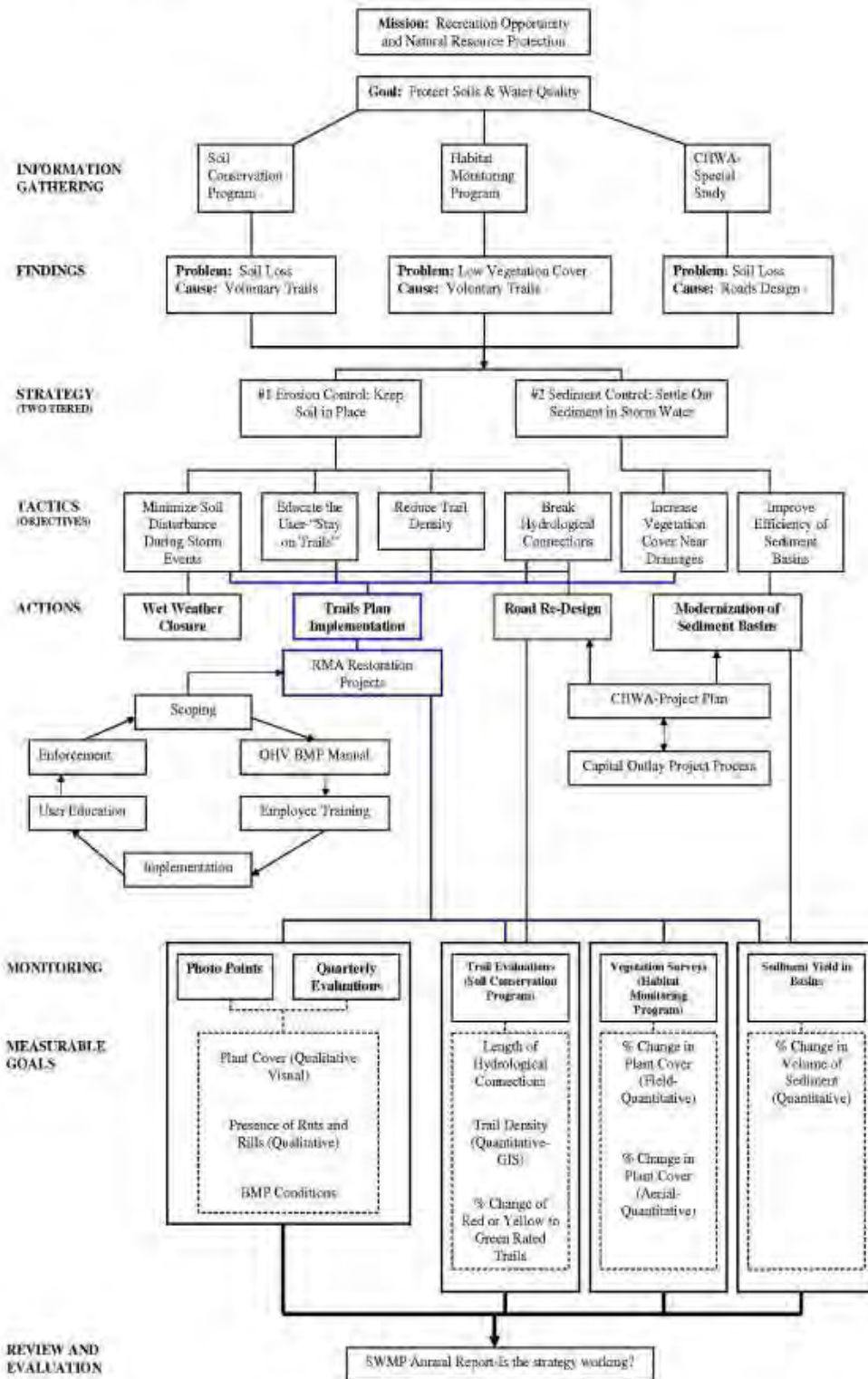


Figure 7: OHV Trails and Facilities Adaptive Management Flowchart

Table 8: Measurable Goals for OHV Trails and Facilities Management BMPs

BMP	Year of Implementation	Measurable Goals
Trails Program Projects	1	Continue to evaluate, rate and record soil conditions (Soil Standards) Continue to perform on-site monitoring and assessment of vegetation (HMS) Continue to connect trail systems and corridors Improve trail design, trail signage and enforcement within all 8 Resource Management Areas Customize trail designs to best fit the local soil type, terrain and habitat Continue to implement rehabilitation and rehabilitation activities Continue to monitor and evaluate the effectiveness of BMPs Record activities in Annual Report
	2	
	3	
	4	
	5	
Road Redesign and Sustainability Project	1	Continue to maintain existing Roads Complete the preliminary plan designs Complete environmental review Develop construction plans Submit permit requests to regulatory agencies Obtain final funding for construction Obtain permit approvals from regulatory agencies Implement construction activities Implement construction activities Monitor and evaluate the effectiveness of BMPs Record activities in Annual Report
	2	
	3	
	4	
	5	
Wet Weather Closure Policy	1	Continue to restrict OHV access during wet weather events Continue to maintain and patrol closed areas Continue to restrict access in sensitive areas to protect resources and improve water quality Continue to patrol closed areas Restrict OHV access in all major drainages
	2	
	3	
	4	
	5	
	1	Continue to restrict OHV access during wet weather events Develop construction designs for hardened crossings

Corral Hollow Creek Limited Access	2	Continue environmental review Obtain funding to install crossings
	3	Submit permit applications to regulatory agencies
	4	Construct creek crossings Monitor and evaluate effectiveness of creek crossings
	5	Adapt and implement additional BMPs and/or basin modification designs if necessary Record activities in Annual Report

Trails Program Projects

The trails program continued with the RMA model of rehabilitating areas with the goal of reopening them for trails-only recreation and closing areas if off-trail riding occurs (Table 8). During this reporting period, Black Bear Sub-RMA and Phase 3 Sub-RMA were reopened and large portions of West Franciscan Sub-RMA received rehabilitation (Table 9). As a recap, Corral Hollow Creek RMA was established and operational in 2009, the SRI Loop RMA reopened in January of 2011 and the Kiln East RMA reopened in October of 2011. The next efforts focused on what is now called the Seven Trails Sub-RMA (aka Zone 47 and Happiness) and the Los Osos Knoll Sub-RMA, which reopened in 2014. In 2015 three areas, Harrison Hill Sub-RMA, Los Osos Climb Sub-RMA, and West Pottery Sub-RMA were implemented. Harrison Hill Sub-RMA was reopened in the spring of 2016. In 2016, rehabilitation was initiated for Phase 3 Sub-RMA (7 acres). In 2017, rehabilitation efforts focused on the Black Bear Sub-RMA (27 acres). This reporting cycle these two Sub-RMAs reopened. Initial steps were taken to begin the rehabilitation of large portions of the West Franciscan Sub-RMA. This area was closed in 2015 due to the Tesla Fire. For more details regarding past RMA projects, please refer to previous SWMP annual reports.

Currently, approximately 40 percent (704 ac) of the park has been placed in the RMA model (Map 4). Table 10 summarizes the status of each RMA and sub-RMA in regards to the planning effort.



Figure 8: Corral Hollow Creek Floodplain Restoration. Tree planting done by staff; including Sycamore, Willow, and Mule Fat species.



Figure 9: SRI Loop RMA. This was the first RMA in the hills and reopened in 2011. Off-trail riding has been minimalized and vegetation cover maintained through education, inspections, enforcement, and trail design (photo from April 2018).

The monitoring results suggest the RMA model in general is effective and it is an appropriate approach for achieving the Park’s water quality objectives. As stated earlier, sediment is a pollutant of concern for the park and one of the ways to address this concern is increasing vegetation cover and providing for long-term protection. In general, the photo points show an increase in vegetation cover despite the drought and little to no off-trail activity persists in the RMAs completed. Although violations and off-trail riding do occur (Table 8 and Figure 4), the photos show that, they do not persist. This is a result of a combination of education, visitor cooperation, inspections, enforcement, physical barriers, and signage (Figure 7).

Trail inspections occur on a regular basis. Inspections resulted in at least 42 RMA closures during this reporting period. Increases in strategic fencing, reroutes, education, and signage are often needed. These inspections are not the only method used to detect off-trail riding as staff also observe, report, and close areas based on their observations in these areas.



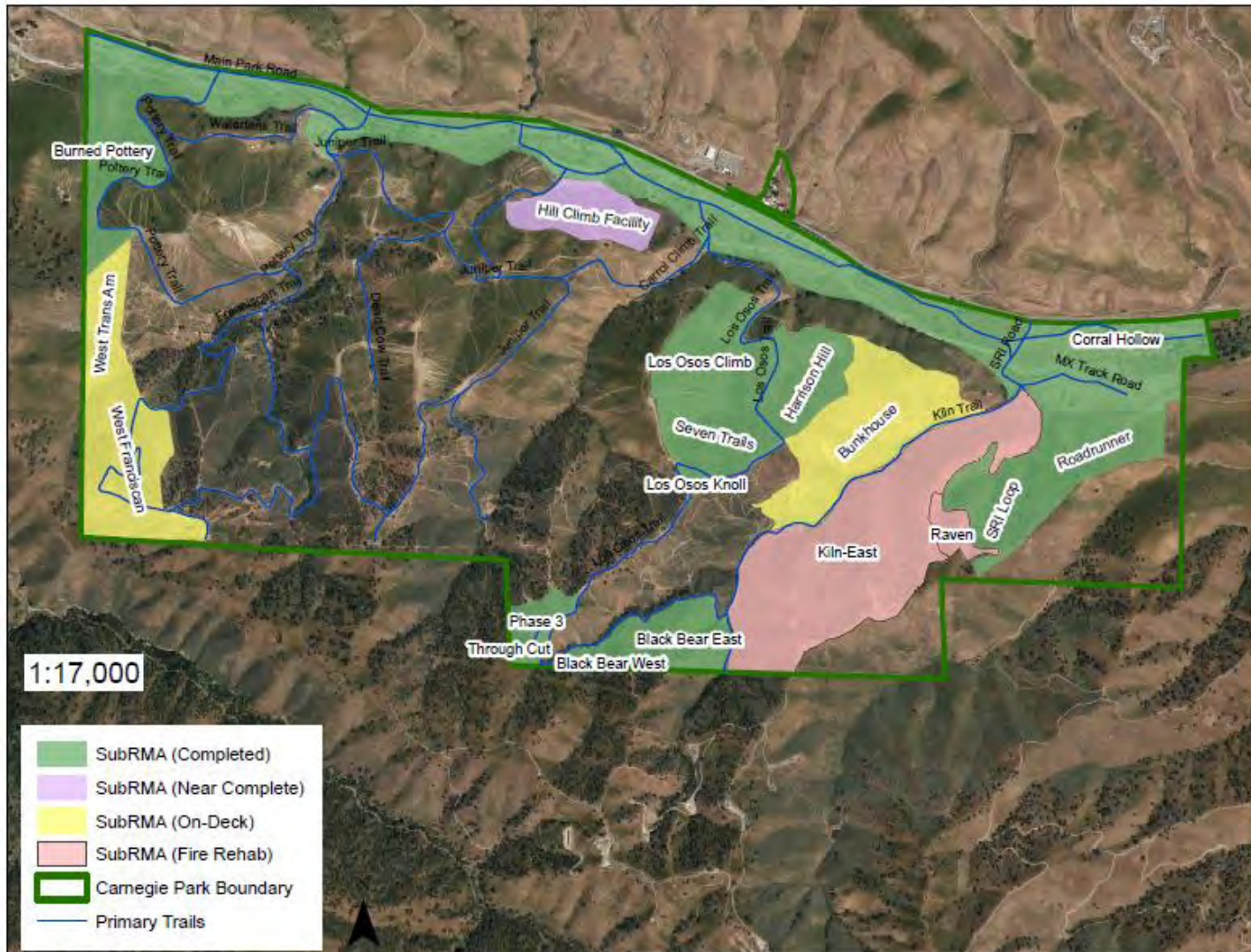
Figure 10: Signage Used to Communicate to Recreationalist the Purpose of the Closure.

Table 9: RMA Status

RMA	SubRMAs	Rehab Efforts Phase			Acres
		Planning	Implementation	Complete	
Corral Hollow Creek	4x4 Facility		x		9
	Hillclimb Facility		x		9
	Remaining Areas			x	142
SRI Loop	-			x	108
Kiln East	-			x	140
Kiln West	Black Bear			x	27
	Through-cut			x	0.5
	Bunkhouse	x			39
	Remaining Areas	x			139
Los Osos	Seven Trails			x	8
	Knoll			x	11
	Harrison Hill			x	21
	Los Osos Climb			x	26
	"Phase 3"			x	9
	Remaining Areas	x			120
Carrol Canyon	Hillclimb Facility	x			41
	Remaining Areas	x			136
Dead Cow Canyon	-	x			195
Franciscan	-West Franciscan	x	x		50
TransAm	West Pottery			x	31
TransAm	- Remaining Areas	x			165



Figure 11: Off-trail route repair. CCC Members covers unauthorized trails with rice straw.



Map 4: The Status of the RMAs and the Sub-RMAs. This map shows the areas of the park that are either completed, near completed, or planned for rehabilitation efforts in 2020

Kiln-West RMA

Rehabilitation activities were reinitiated within the Black Bear Sub-RMA in May 2017. The project area is 27 acres and prior to rehab efforts, the parks trail database had 5.58 miles of inventoried trails. Most of the perimeter fence was installed in 2013 in preparation of this effort. Soils were placed on the hillsides and wattles were installed where trails had become incised. The area was hydroseeded in the fall of 2017 and trail work began once the area has had time to regrow. This area reopened to recreation in January of 2019. The RMA still has Black Bear Trail bisecting the area, which is open to ATVs and motorcycles. Single-track trails were designed by the CAT and installed above and below the main Black Bear Trail. These trails are highly technical and developed for the most advanced rider.

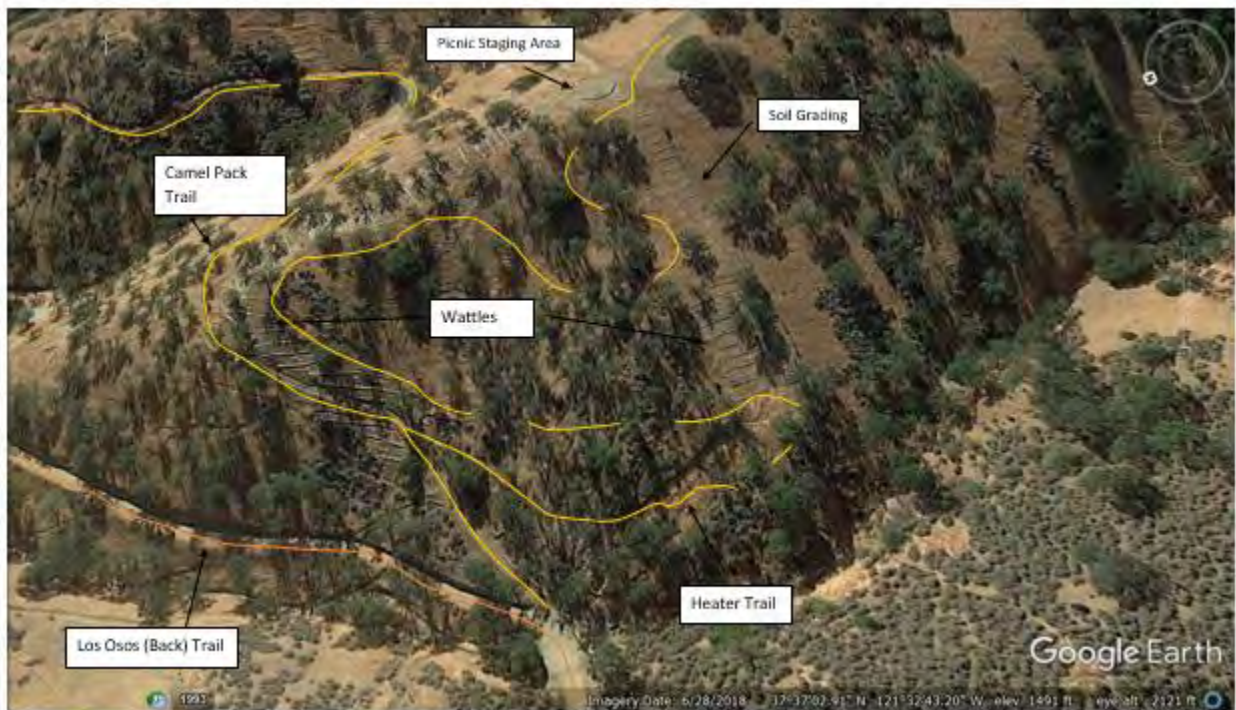


Figure 12: Black Bear Sub RMA Rehabilitation. Image date from before opening of Sub RMA January 2019.



Figure 13: Wattle installation within Black Bear Sub-RMA.



Figure 14: Trail Work within Black Bear Sub-RMA.



Figure 15 Staff and the CCCs hand-placing rock to prevent erosion on the side of a new trail in Black Bear Sub-RMA. (2018)



Figure 16: Example of new fencing installed in Black Bear RMA (July 2018)



Figure 17: New trailhead signs placed within Black Bear RMA

The Bunkhouse Sub-RMA (39 acres) is scheduled for rehabilitation over the next few years. Once this is rehabbed, 70 percent of the State Parks owned portion of the Kiln Canyon watershed will be under RMA model (Map 4).

Los Osos RMA

The Los Osos RMA was further modernized during this reporting cycle. The Sub-RMAs known as Los Osos Knoll (3 acres) and Seven Trails (24 acres) were finalized during the 2014/15 reporting period. The area was closed, re-contoured, wattles were placed, and hydro mulching took place in fall 2014 before the first rains. Both the Los Osos Knoll and Seven Trails Sub-RMAs were reopened in spring 2015 after working closely with the CAT to create new sustainable trail routes in these areas. A fence was also installed around the perimeter of the area consistent with the RMA strategy.

The focus within this RMA then turned to the Sub-RMAs of Harrison Hill and Los Osos Climb. The Harrison Hill area (21 acres) was an open riding area that had numerous vertical trails and an erosional feature in the drainage. The area was closed, re-contoured, wattles installed, and hydromulch applied. Once the vegetation became established, the CAT assisted with designing trails that were aimed at providing recreational opportunity for both All-Terrain Vehicles (ATV) and motorcycles. The area reopened to recreation in May 2016 and the new trails make up approximately 2.7 percent of the area.



Figure 18: The Harrison Hill Sub-RMA, Before and After Rehabilitation. The left photo was taken in 2012. The area subsequently was closed and rehabbed. The right photo was taken 2017 after rehabilitation efforts were completed and the area reopened.

Concurrently, the Los Osos Climb Sub-RMA (26 acres) was also closed and rehabilitated. Trail design was completed in 2017 and strategic fencing was placed throughout this reporting cycle. An additional single-track trail was designed and will likely be implemented in the 2019/20 reporting period. Vertical routes are a part of the trail design that will be monitored and rotated along with a variety of other type of trails. The rotation will limit potential impacts to storm water while also providing a popular type of riding.

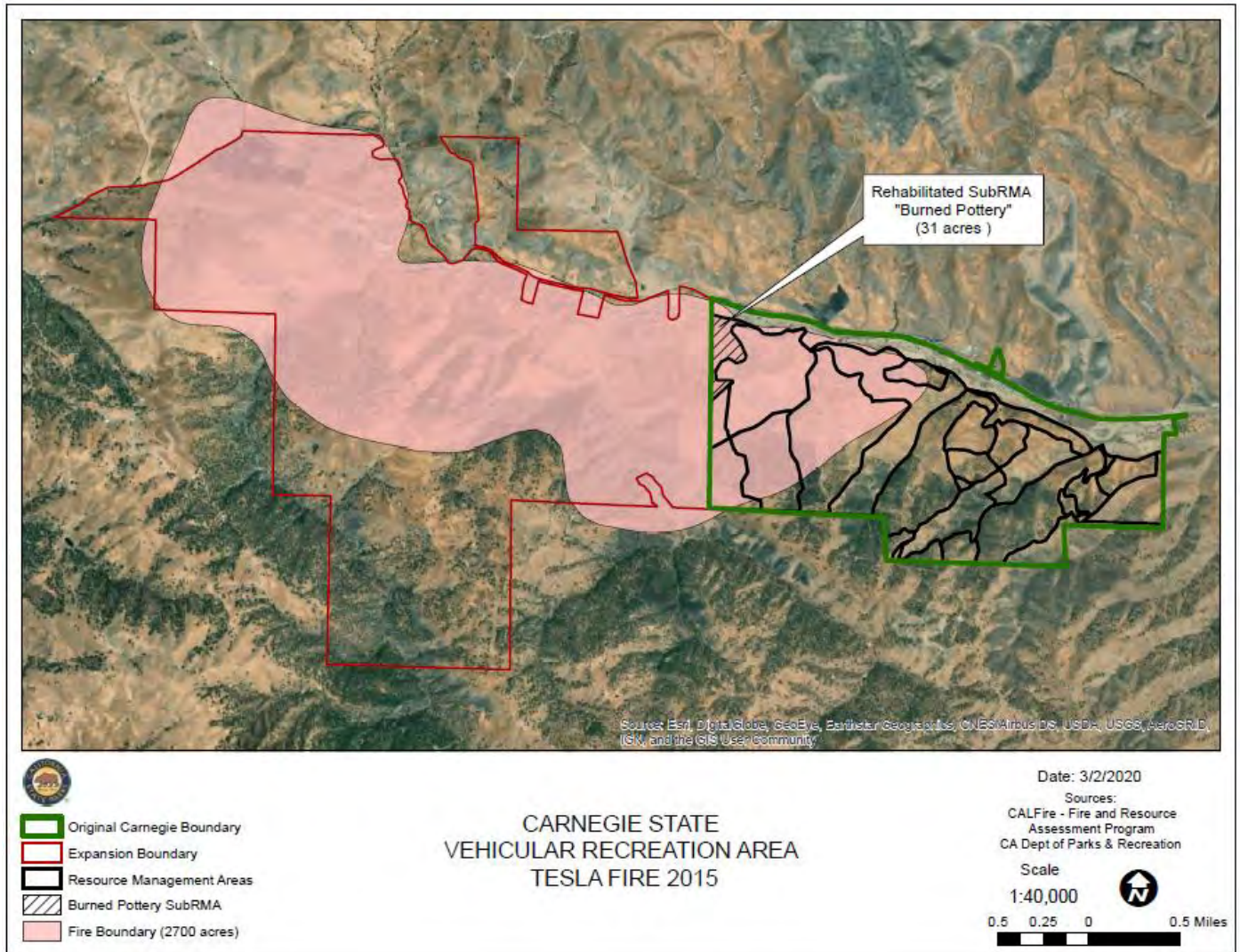
Another smaller Sub-RMA, Phase 3, was also opened this reporting cycle (Figure 19). This area is approximately 8.5 acres and prior to rehab efforts had 1.52 miles of inventoried trails (as stored in the park's trail database). A perimeter fence was installed, and a sustainable trail route will be designed and reestablished.



Figure 19: Phase 3 Sub-RMA. The aerial on the left shows the area prior to rehabilitation (Oct. 2015) and the photo on the right is from June 2018 after work was completed.

West Franciscan RMA

In August 2015, a fire burned approximately 2,700 acres of the park however only 93 acres of the original Carnegie burned. In order to protect the area, a fence was installed and the area was closed to recreational activity until the vegetation could reestablish itself. Approximately 31 of the 93 acres was in grassland habitat that was regenerated and stabilized by the spring of 2016. The 31 acres is now known as the Burned Pottery Sub-RMA and opened after the Carnegie Advisory Team helped design and establish a single-track trail system. Although no other BMPs were installed in this area, a trails-only policy is enforced in this area along with the corresponding inspections and closures. In this reporting cycle, white markers were added to better define the trail system. The remaining 62 acres of the burned area will open with some in the 2019/20 reporting period and enforced under the RMA policy. Once all BMPs have been implemented, finalized trails will be established and the area will be opened again.



Map 5: 2015 Tesla Fire

Storm Water Monitoring

The results of the storm water monitoring are below (Table 10 and Table 11). This data can be used to evaluate the effectiveness of the BMPs chosen as part of the strategy. Turbidity, measured in nephelometric turbidity units (NTU), was analyzed for four storm events and total suspended solids was analyzed for four events. Lab analysis of water samples can be viewed in Attachment K. See Map 6 for sampling locations.

Table 10: Turbidity (NTU) Data for BMP Monitoring Effectiveness.

Date	CHC In	Ty 1	Ty 2	Car 1	Car 2	Kiln 1	Kiln 2	CHC Out
10/3/2018						3855		
11/21/2018						2980		
11/29/2018		2220		4560	2950	2700		
12/1/2018	Bottle requirements changed- no NTU results for this event.							
12/17/2018					876			
12/25/2018		6820		2970	1060	238	880	
1/7/2019					515			
1/16/2019		388		318	269	194	145	207
1/21/2019					422			
2/2/2019	974*	536	815*	354	379	794	357	675
2/10/2019	764	840	610	884	646	604	720	605
2/13/2019	350	662	715	864	832	915	792	921
3/2/2019	55	563		920	895	725	720	660
3/23/2019	51	536		855	891	708	515	357

* Samples taken during same storm system but two days later after more rainfall; no flow was detected at these sites during initial sampling on 2/2/2019.

Table 11: Total Suspended Sediments (TSS) Data for BMP Monitoring Effectiveness.

Date	CHC In	Ty 1	Ty 2	Car 1	Car 2	Kiln 1	Kiln 2	CHC Out
10/3/2018						85400		
11/21/2018						57090		
11/29/2018		5700		29520	25200	6007		
12/1/2018		38280		27026	36461	15841	934	111
12/17/2018					443			
12/25/2018		1798		748	602		416	
1/7/2019					164			
1/16/2019		15704		7279	5731	4020	1354	158
1/21/2019					193			
2/2/2019	572*	5563	598*	3526	1127	1905	1149	1846
2/10/2019	484	1340	213	941	630	559	625	559
2/13/2019	137	4861	2545	3850	2496	2216	2717	1566
3/2/2019	40	10038		3946	462	1236	376	785
3/23/2019	69	1115		463	185	565	472	110

* Samples taken during same storm system but two days later after more rainfall; no flow was detected at these sites during initial sampling on 2/2/2019.



Figure 20: Los Osos RMA, April 2018. Several Sub-RMAs are visible in this screenshot. The trails have been reduced in this area by converting from an open-riding to a trails-only system. Source: Google Earth 2020.

Wet Weather Closures

Once precipitation reaches the identified thresholds, the trailhead gates are closed and recreational access to the hills is restricted. The hills remain closed for a minimum of 12 hours only reopened once condition assessments determine the soils are stable, and safety concerns are minimized. Wet weather closures occurred at least 6 times during this reporting cycle (Table 12). Wet weather resulted in full or partial day closures on 19 calendar days. The precipitation for the reporting cycle was 11.31 inches.

Table 12: Wet Weather Closures

Area	Closed	Opened
All Hills	Thursday, October 4, 2018	Friday, October 5, 2018
All Hills	Wednesday, November 21, 2018	Thursday, November 22, 2018
All Hills	Wednesday, November 28, 2018	Friday, November 30, 2018
All Hills	Saturday, December 2, 2018	Sunday, December 3, 2018
All Hills	Wednesday, December 5, 2018	
All Hills	Sunday, December 16, 2018	Tuesday, December 18, 2018
SRI Loop	Sunday, December 16, 2018	Sunday, December 30, 2018
Phase 3	Wednesday, December 19, 2018	Friday, December 28, 2018
All Hills	Sunday, January 6, 2019	Thursday, January 10, 2019
All Hills	Tuesday, January 15, 2019	
East Hills	Tuesday, January 15, 2019	Wednesday, January 16, 2019
West Hills	See above	Tuesday, January 22, 2019
All Hills	Sunday, January 20, 2019	
East Hills	See above	Monday, January 21, 2019
West Hills	See above	
All Hills	Saturday, February 2, 2019	
East Hills		Wednesday, February 6, 2019
West Hills		Thursday, February 7, 2019
West Hills	Saturday, February 9, 2019	
All Hills	Sunday, February 10, 2019	
East Hills		Monday, February 11, 2019
West Hills		Tuesday, February 12, 2019
All Hills	Thursday, February 14, 2019	
East Hills		Monday, February 18, 2019
West Hills		Friday, February 22, 2019
All Hills	Saturday, March 2, 2019	
East Hills	Monday, March 4, 2019	
All Hills	Wednesday, March 6, 2019	
East Hills		Thursday, March 7, 2019
West Hills		Unknown
All Hills	Saturday, March 23, 2019	Sunday, March 24, 2019



Map 6: BMP Monitoring-Turbidity Locations.

Photo Monitoring Program

The photo-monitoring 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 needed for the monitoring of the RMA model discussed in the introductory section since limiting off-trail riding is the primary goal of the trail plan strategy. Landscape photos can reveal the success or failure of the tactics chosen as off-trail activity is easily visible. The results of these efforts can be found in Attachment J.

Annual Trail Evaluations

Over the past several years, the soil standard trail assessments have been conducted in the fall using the trail evaluation form found in the 2008 Soil Conservation Standard and Guidelines. Last reporting cycle the form was reviewed, and staff determined a revised form was needed to inform maintenance activities better (Attachment L). The revision was needed based on the following deficiencies:

- 1) The information proposed to be collected was not always applicable to the trail being evaluated.
- 2) Jargon was extensive.
- 3) The averaging of the applicable scores to inform the overall score of the trail had not been the most informative to the maintenance needs of a trail.
- 4) The coarseness of the evaluation often leads to a single rating to an entire trail, regardless of length, which lead to inefficiencies in maintaining the trail.

This revision consolidates the nine categories found on the previous form into five categories with plain language to assist the evaluator. A rubric was created to help determine the overall rating of the trail based on the five categories. The trails were segmented into 200 m sections (generally) to create ratings that are more precise.

The ratings were conducted on all the named trail system in late summer and early fall of 2018. The total trail length rated was 40 miles. The trails ratings determined 50 percent as not needing any maintenance, 24 percent as needing some level of maintenance, and 3 percent as needing a higher level of maintenance. The remaining 24 percent of trails were unrated.

New protocols were implemented in 2017 to capture unnamed trail systems within the park. Following a zone rating form, each evaluator estimates vegetation cover, visible erosion features in the area, the stability of the drainage below it, and overall tread wear. The details on the evaluation method for trail zones can be found in Attachment Q.

Vegetation Surveys

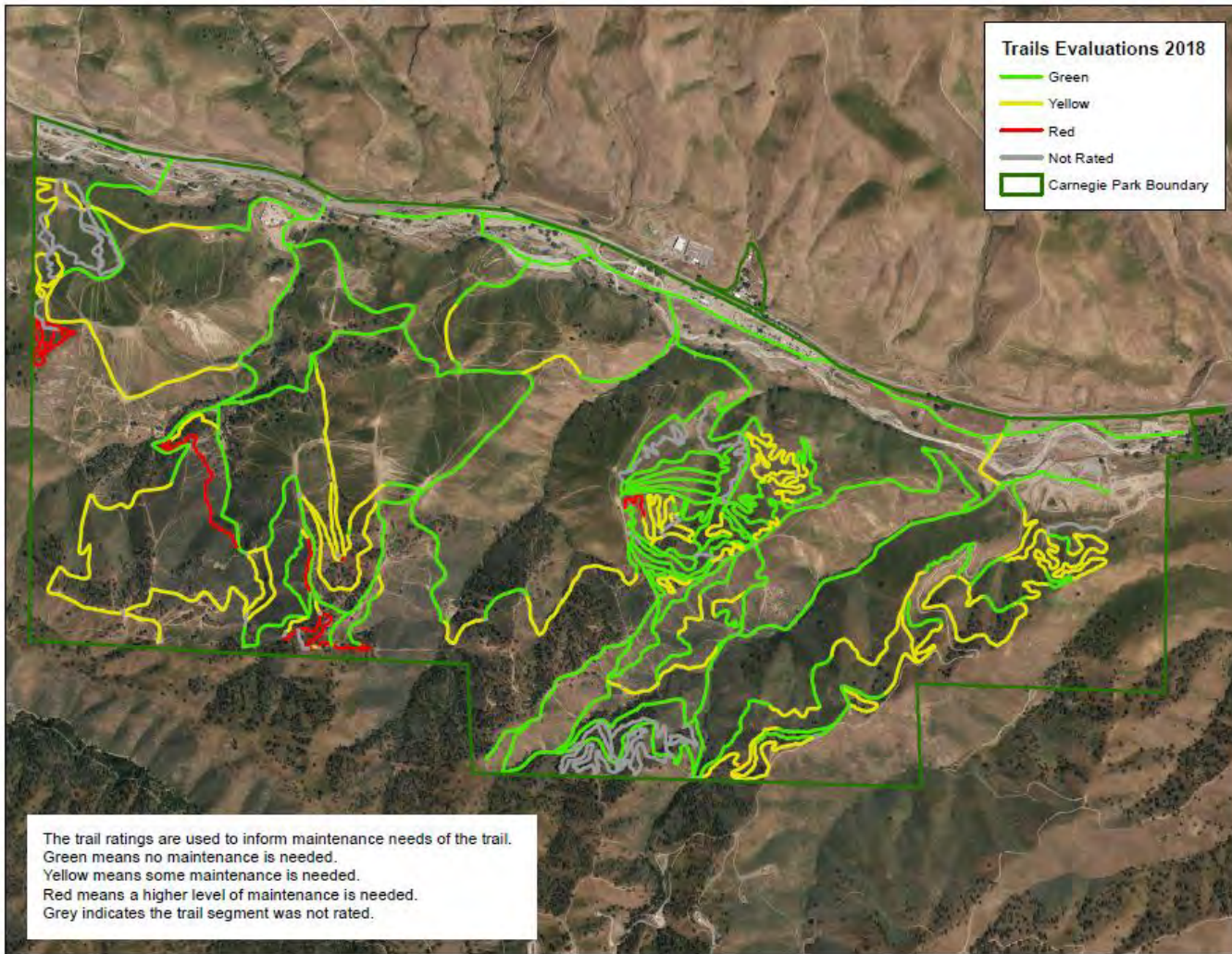
The vegetation/ trail density surveys have been completed for the riparian habitat (Table 13). Over 850 plants were planted in the floodplain of Corral Hollow Creek within the Original Carnegie this year. These species included California sycamore (*Plantanus racemosa*), Fremont cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), and mulefat (*Baccharis salicifolia*). The first year plantings were watered during the dry months (approximately June through October) once per week, while the older plantings are watered once every two weeks.

Table 13: Results of Vegetation Surveys within the Riparian Habitat

	2010		2016		2017		2019	
	OHV use	Non-use	OHV use	Non-use	OHV use	Non-use	OHV use	Non-use
Forbes/Grasses	33%	91%	43%	85%	32%	61%	61%	83%
Shrubs	2%	7%	3%	6%	6%	3%	5%	1%
Tree Canopy	3%	3%	1%	1%	2%	2%	7%	1%
Bare Soil	26%	4%	35%	1%	39%	9%	36%	4%
Gravel Mix	39%	11%	10%	0%	5%	0%	0%	0%
Channel	4%	1%	1%	6%	19%	26%	14%	18%



Figure 21: Staff and CCCs Planting Native Riparian Vegetation. Approximately 850 native riparian trees were planted in Corral Hollow Creek during the 2018/2019 winter



Map 7: Annual Trail Evaluations. Named trails are rated using the revised protocol.

Sediment Yield from Basins

Tyson's Basin, Carrol Basin, Kiln Basin and the maintenance bridge culverts were maintained in the summer of 2018. The total project excavated 6265 cubic yards of sediment.

Precipitation Data

The precipitation total for the reporting period was 11.31 inches. The records can be found in Attachment M.

Project Summaries

Road Reconstruction Project

One of the recommendations from the Corral Hollow Watershed Assessment (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. The researchers used a "geomorphic" approach to the inventory that was 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 (gullies, landslides, and sediment delivery). The recommended rehabilitation efforts would be implemented by Carnegie SVRA staff, equipment contractors, and/or Trails Unlimited. California Conservation Corps (CCC) members, California Department of Forestry and Fire Protection (CDFFP) inmate crews and other volunteer groups may also be included in the rehabilitation process to provide an additional workforce or assist with public education and outreach.

Many of the 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). This project has been delayed due to permitting complications; more information is currently being compiled to satisfy Section 1600 permit application needs. Fall Creek Engineering Inc. has is updating the drawings for resubmittal. The anticipated timeline for this project is for the permitting and construction is unknown at this time.

Sediment Basin Modernization

Over the past thirty years, the sediment control strategy of the park has relied on three basins at the mouths of the three largest tributaries within the park. Collectively, these basins receive runoff from approximately 70 percent of the park's hills, which is the primary area of recreation. The basins appear to be effective at reducing sediment loads to Corral Hollow Creek as indicated by the amount of sediment that is recovered from the basins each year. Once dry and permits in place, the sediment in the basins is removed and used for upland rehabilitation projects throughout the park. In order to maintain the treatment effectiveness of the existing basins, the OHMVRD redesigned the basins to provide a more stable and effective means of sediment control. However, due to the erosion-control efforts implemented through the RMA process, and those planned in the future along with the impacts to wetlands by the construction of the basins themselves, the new basins were determined to no longer be needed by the CVRWQB (Attachment N).

Hill climb Facility

The purpose of this project is to implement BMPs to improve storm water quality within the hill climb facility. Hill climb competitions are closed-course special events that occur four times each year (October, November, March, April) at Carnegie SVRA. These events are part of the national and state competition circuit series. Features within the 50 acre facility include varying uses within the boundary including a competition hill (11.25 ac), a practice hill (4 ac), a pit area/parking area (3.25 ac), secondary parking (3.5 ac), and a low impact use area that allows competitors to return to the pit area (22 ac).

The facility has several BMPs in place currently. The competition hill has a berm (2-3' tall) at the base to collect sheet flow and sediment. The competition and practice hills are covered in straw and seed after the events in November and April. Soil is placed back on the hill as needed to prevent rutting and accelerated erosion.

The goal of the project is to evaluate the hydrology of the hill climb facility and upgrade the BMPs to reduce the potential of sediment discharging from the hill climb facility. Through this evaluation, a site-specific wet weather policy could be established using less stringent precipitation thresholds. These thresholds could be justified by a combination of data, modeling, and BMP upgrades. This project will have three tasks and we will utilize the Department's engineer resources to assist in completing each task.

Below is a summary of the BMP features that are planned for the hill climb facility:

- Extend the berms to include containment of the practice hill and pit/parking areas (a berm at the competition hill already exists). This was completed this reporting cycle.
- Improve (hard face) or reroute a portion of the return path the competitors use to re-enter the pit area. This still needs to be implemented.

- Use fill to slope the parking areas away from the creek. Also, use a base rock and/or amendment to allow for more infiltration and reduce the turbidity from the parking areas. This was completed in 2017.
- At the facility’s discharge locations, provide vegetative buffers to help filter storm water. While the area was hydroseeded with native grass seed, mule fat is still planned for planting.

Tesla Mine Complex

The Tesla Mine Complex (122 acres) current condition consists of historic industrial mine sites including disturbed soils, tailing piles, adits/mine shafts, and the remnants of towns constructed to support the former mining activities. The site no longer has mining activities and is closed to the public. In order to limit erosion on site, several temporary BMPs have been installed over the last several years including gravel bag check dams and silt fences. This reporting cycle portions of the tailing’s piles were covered with compost and hydro-mulch. 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 this reporting cycle. In addition, approximately 600 feet of silt fence was installed to help capture sediment from entering the creek. Longer term BMPs are still being evaluated and scoped.



Figure 22: Mine Tailings Before and After Compost and Native Seed Application. The photo on the left was taken in 2015 and the photo on the right is from 2017 following the compost and seed applied in the fall of 2016.

BMP Status Update

A summary of the status of the park’s BMPs is submitted to the CVRWQCB annually and this year was submitted in December 2018. Over 1000 BMPs have been inventoried throughout the park. Evaluations were made during November and December when conditions were amenable to hiking. Majorities of BMPs were evaluated and a photo was taken of many of the BMPs. A few photos are

included in this report while the entire library of photos is available upon request (electronically). During the evaluation, the BMPs were assigned a condition code: Green+, Green, Green-, Yellow+, Yellow, Yellow-, Red+, Red, and Red-. A “green” rating means the BMP is fully functional and shows no signs of wear. A “yellow” rating means the BMP is still functional but is showing signs of wear. A “red” rating means the BMP is no longer serving its original purpose and needs to be repaired, removed, or replaced. More specifically, a “red-“rating means there is no benefit being realized from the BMP. The overall result showed 10 percent of the Park’s BMPs were not evaluated, 75 percent were green, 10 percent were yellow, and 5 percent were red.

Attachment A

Education Brochure and Certification Sheet

Pathogens

Pathogens are disease causing germs from human and animal waste in the water. At Carnegie SVRA pathogens might come from dogs, wildlife, humans, and leaking septic tanks. If pathogens end up in the water, they can pose a direct health risk to humans.

What you can do to help reduce pathogens:

- Dispose of pet waste in the trash or toilet.
- Make sure the septic tank in your RV doesn't leak.
- Never empty the tank from your RV in the park.
- Always use park bathrooms or bury waste.



Trash and Debris

Trash (such as paper, plastic, packing foam, and aluminum cans) and biodegradable organic matter (such as food waste) left behind by humans can have a significant impact on water quality. Too much trash in the stream will lower the water quality. In stagnant water the presence of trash can cause toxic conditions, bad smells, and hazardous compounds such as hydrogen sulfide which will make you sick.

What you can do to help reduce trash and debris:

- Always dispose of trash, including food waste, in trash cans.
- Don't let plastic bags and paper trash blow away.



Carnegie SVRA

18600 Corral Hollow Road
Tracy, CA 95376

www.ohv.parks.ca.gov

Carnegie State Vehicular Recreation Area is located in the hills of southern Alameda and San Joaquin counties in between Livermore and Tracy. Carnegie offers 1,500 acres of varying terrain, from rolling hills to steep canyons, providing exciting riding opportunities for off-road enthusiasts of all skill levels.

The park provides day use and camping facilities and the MotoMart store has motorcycle parts, food and riding gear.

What You Can Do To Protect Water Quality

Carnegie Storm Water Management Plan



Carnegie SVRA: Building a tradition of responsible recreation

For more information please call:
(925) 447-9027



Carnegie State Vehicular
Recreation Area

CERTIFICATE OF COMPLETION

THIS IS TO CERTIFY THAT

Has read and shown comprehension of Carnegie SVRA's
Storm Water Management Plan educational brochure

Awarded this ____ day of _____, 20__

Certified by



Attachment B

Storm Water and Habitat/Wildlife Panels



CARNEGIE STORM WATER MANAGEMENT PLAN: WHAT YOU CAN DO TO PROTECT WATER QUALITY



Carnegie SVRA has created a Storm Water Management Plan to improve the quality of the water that flows through the park. Help us keep Carnegie open for future generations by learning about what you can do to protect water quality.

Here are the things that can damage water quality at Carnegie and some easy things you can do to prevent pollution:

Pathogens cause diseases in people and animals that touch or drink the water. They come from human and animal waste.

What you can do to help reduce pathogens in water:

- Dispose of pet waste in the trash/toilet
- Stop septic tank leaks in your RV
- Never empty your RV tank in the park
- Always use park bathrooms or bury waste

Trash and biodegradable organic matter (such as food waste) left behind by people will lower water quality and make water smell bad.

What you can do to help reduce trash and organic debris:

- Always dispose of trash in trashcans
- Do not let plastic bags and trash blow away

Sediments cover and damage plants and destroy animal habitats. Sediments are the dirt that wash down the hills and end up in the stream.

What you can do to help reduce sediments:

- Stay on designated and existing trails only
- Ride through water only at designated crossings
- Stay out of the streambed, even when it is dry, so plants can keep soil around them and grow

Heavy metals and petroleum hydrocarbons accumulate over time in the bodies of animals that live in the water, poisoning them. Heavy metals are found in OHV parts and can end up in water through vehicle wear. Petroleum products are fuel, oil, grease, and tires. They pollute water through spills and leaks, wearing of tires, and vehicle exhaust.

What you can do to help reduce heavy metals and petroleum hydrocarbons:

- Keep your off-highway vehicle well maintained. Make sure all parts are securely attached and nothing leaks
- Replace your worn OHV tires and always recycle them

Your work at reducing pollution at Carnegie has a huge effect on the park's ability to continue to provide a high quality recreational opportunity. Help us keep this a great place to ride and have fun.



STORM WATER MANAGEMENT PLAN PROTECTING COASTAL SCRUB



Black Sage



California Thrasher



Kangaroo Rat



Desert Olive

Despite its name, coastal scrub habitat isn't always on the coast. About 20% of Carnegie is coastal scrub, including Kiln Canyon and Franciscan Loop. This habitat is marked by dry places with rocky soils. Coastal scrub plants are drought-loving, adapted for fire, and have shallow roots. Black sage and desert olive are two plants you'll find in Carnegie's coastal scrub. Animals like the Alameda whipsnake, kangaroo rat, and California thrasher are adapted for this warm, dry area with low, dense shrubs.

The shallow root systems of plants in Carnegie's coastal scrub plants soak up rain water on the surface quickly, before it can run down into gullies and carry dirt with it. When you ride in coastal scrub areas, stay on trail to avoid damaging the plants that hold the dirt in place and prevent runoff. Protecting coastal scrub areas means protecting Carnegie's water quality.

The Alameda whipsnake is a threatened species that needs the warm environment of the coastal scrub. The lizards they like to eat are found

in the rocky parts of the coastal scrub. You might see them on warm days in the spring and late summer, but don't look for them in winter, since they hibernate. Whipsnakes need the low brush of the coastal scrub to hide from predators like hawks and coyotes.

Kangaroo rats get all the water they need from the sage seeds they eat, and can live their whole lives without drinking water. They're well suited to this dry habitat because their bodies keep almost all of the water they take in. Their kidneys reabsorb so much water that their urine is a dry powder. Underground burrows and low-growing plants provide shelter from the heat and a place to hide from predators, such as coyotes, badgers, and owls.

The California thrasher uses its curved beak to dig up berries and insects in the leaf litter below the sage and olive plants. You might hear this bird thrashing around in the undergrowth, looking for food. You might not recognize its song, because it's good at mimicking other birds.



Alameda Whipsnake



STORM WATER MANAGEMENT PLAN PROTECTING GRASSLANDS



Golden Eagle



Coyote



Ground Squirrel



San Joaquin
Coachwhip

California's grasslands are easy to overlook. They're everywhere, and for most of the year they're brown. Here at Carnegie things are green for a short time every year, depending on rainfall. About 60% of Carnegie is grassland, including Pottery Loop, Bunkhouse Trail, and Juniper Trail. If you're here at just the right time in spring, grasslands are the place to look for wildflowers like California poppies and baby blue eyes.

Animals you might see in grassland are either looking for grass seeds or hunting the seed eaters. Either way, these animals depend on grasslands for food and shelter. Roots of grasses keep the soil in place when it rains so it doesn't wash into Corral Hollow Creek. Protecting Carnegie's grassland means protecting water quality.

The San Joaquin coachwhip is a coral colored snake that lives in other animals' burrows in the grassland. It's named after a braided whip because of its scale pattern, which looks like a braid. Like most snakes they eat rodents, smaller reptiles, and insects. The coachwhip is a species of special concern, because of habitat loss.

If you're lucky, you might see a golden eagle soaring above the

grasslands at Carnegie looking for a rodent or snake to eat. The golden eagle is also a species of special concern, and one of the highest population densities is right here in Livermore and the Altamont Pass area. There are three ways to tell whether what you're seeing in the sky is a red tailed hawk or a golden eagle: eagles are larger, soar with their wings in a slight upward V shape, and sometimes have white on the underside of their wings.

Coyotes blend in with dry grasslands with their golden-brown fur. Tall grasses are a good place for them to find the rabbits, mice, and squirrels they like to eat. You may be familiar with a coyote's howl, but did you know that they use it to find each other? If you head east into Corral Hollow Canyon on your way to Carnegie, keep your eyes open for coyotes near the top of Tesla Road.

Ground squirrels have it tough in the grasslands. All three of the other animals mentioned here eat them! It's a good thing there are plenty of them to be found in the grasslands, where they find seeds, flowers, bulbs, and roots to eat.



Blue Eyed Grass



STORM WATER MANAGEMENT PLAN PROTECTING OAK WOODLANDS



Acorn Woodpecker



Black-Tailed Deer



American Badger



Northern Alligator Lizard

Blue, valley, and coast live oaks are common throughout Carnegie, and 20% of the park is oak woodland. Oak woodland habitat can be found in Dead Cow Canyon, parts of Los Osos, and Happiness Trail. Blue oaks and valley oaks lose their leaves in winter, while coast live oaks are evergreen. The shadiest parts of Carnegie in the summer are the oak woodlands. Animals living in this habitat depend on the oaks for food, shelter, and shade.

Oak tree roots are easily damaged by the soil around them being compacted. Compaction can be caused by vehicles being driven over the roots, and causes the trees to weaken and be susceptible to disease. Unauthorized trails above oak woodlands can cause water to run down the trails, instead of flowing down to water the oaks. Carnegie's oaks need to be strong and healthy so they can keep soil in place and prevent erosion. When you ride in oak woodland areas, stay on trail to avoid damaging tree roots. Protecting oak woodlands means protecting Carnegie's water quality.

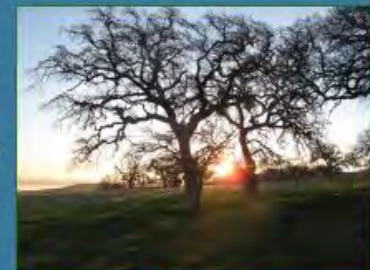
American badgers will eat just about anything that moves, but they mainly prey on animals that eat acorns, like pocket gophers and squirrels. Badgers are excellent diggers, and dig out the dens of their prey as well as creating shelter for themselves. You probably won't see a badger at Carnegie, since they're mostly active at night.

Acorn woodpeckers use their tough beaks to make holes in trees, which they stuff with acorns in the fall. A group of woodpeckers will use a single tree to store food for the winter and spring, called a granary tree. Acorn woodpeckers rely on mature oak trees for food, food storage, and nesting. Did you know that Woody Woodpecker's song was modeled on the acorn woodpecker?

Mule deer can be found in oak woodlands eating acorns and oak seedlings, or resting in the leaf litter under the trees. If you spend any time in the hills at Carnegie, you've probably seen them. In the spring you might see does with their twin fawns. They're called mule deer

because they have big ears that move independently, like a mule's.

Alligator lizards like the cool, damp areas under oak trees. They hide under bark and rocks or in rotten logs. If they're threatened, they shed their tail and can grow a new one. Insects, snails, and worms make up the alligator lizard diet. If you see one, don't try to pick it up; they bite!





STORM WATER MANAGEMENT PLAN PROTECTING RIPARIAN AREAS



A riparian habitat is one that's along a river or stream. Corral Hollow Creek is home to the threatened California tiger salamander as well as the more common desert cottontail and roadrunner. Cottonwood trees stay green year-round, thanks to permanent ground water. Mule fat grows in the creek bed and helps keep soil in place.

Riding in the creek bed or off trail, even when it's dry, loosens the dirt, making the water muddy when it rains. Animals that live in riparian areas either need clean water to live and reproduce, or they rely on the plants and animals that live in the water for their food. Protecting water quality means protecting riparian habitat.

California tiger salamanders live in underground holes where they eat worms, snails, and insects. They breed in the creek during the first rainfall in winter, and then return to their burrows. Like frogs, the young hatch out of eggs and live in the water. In spring when the creek dries up they lose their gills and develop lungs, then look for a burrow. Tiger

salamanders are considered a threatened species by both the federal and state governments, and they need clean water to reproduce.

Desert cottontail rabbits can sometimes be seen in the plants along Corral Hollow creek. They blend in with the scenery at Carnegie with their light grayish-brown fur, but you can see their white cotton-ball tail when they hop away. Birds of prey, coyotes, and bobcats all prey on desert cottontails. Cottontails survive in this dry canyon by getting their water from the grasses and other plants they eat. These plants need clean water to grow.

Roadrunners really are fast! They can run at 20 miles per hour, and they'd rather run than fly. They'll eat just about anything that moves, including rattlesnakes. Roadrunners rely on frogs and toads that live in the creek for their food, and those animals need clean water to breed and thrive.





LOS OSOS CLIMB



In 2015 this area was closed and rehabilitation work begun due to unsustainable trails and erosion. The lack of plant life on the hill made water coming off the hill move so fast that it eroded stable vegetated areas downstream, causing gullies.

Now that the area has been rehabilitated and vegetation established, it's ready to ride. As with all Resource Management Areas, it's important to stay on trail. This area has six different climbs,

each with its own flag colors and its own crossing. Stay between the flags on your climb, as going out of the flags is off-trail. Use designated crossings to avoid obstacles.

Unlike other areas of the park, this area is suitable for hillclimbing because of its high clay content and stable soils. It's also different than other RMAs because there's no trail fencing.

We're relying on YOU to stay on trail, so we don't have to build more fences.

To ask questions, give comments, or participate in future projects, contact the trails team at (925) 455-7873. Huge thanks to the Carnegie Advisory Team for helping design this area.



BLACK BEAR REHABILITATION PROJECT



Carnegie SVRA is rehabilitating approximately twelve acres in the Black Bear resource management area. Projects like this minimize soil loss during storms and reduce off-trail riding by better marking authorized trails. Taking good care of the soil keeps us in compliance with our regulatory requirements.

Replacing soil and revegetating the area will help rain water sink in and keep soil in place. About a thousand cubic

yards of dirt will be moved onto the hills to bring them up to grade, then wattles will be installed and native grass seed sprayed on.

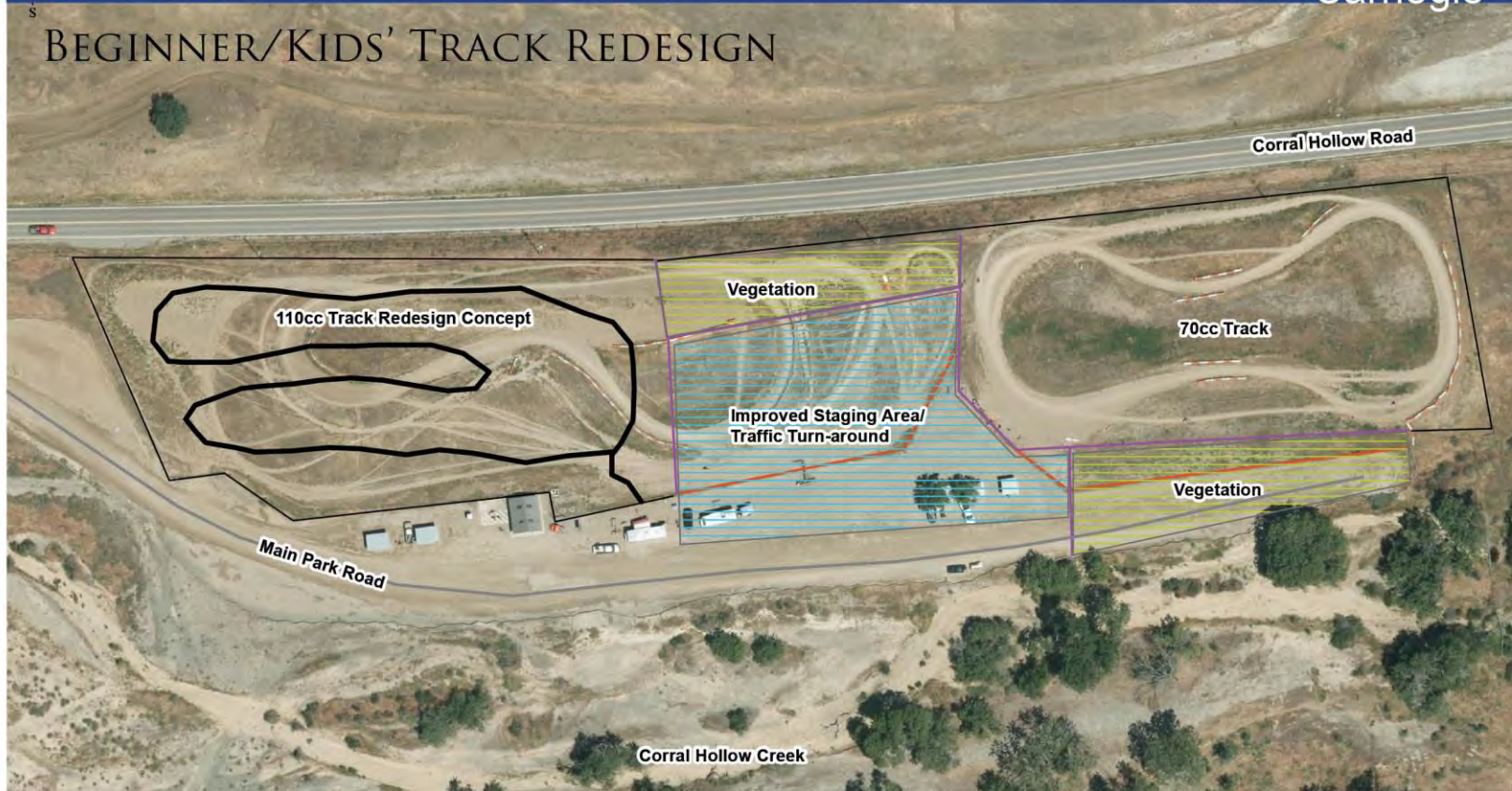
The trails only area policy will be strictly enforced in this area per the Storm Water Management Plan (2012). Projects like this are necessary to keep Carnegie in compliance with regulations and open and available for recreation.

- Please watch out for heavy equipment in the hills, especially along the haul route (yellow highlighted path on the map above).
- The area in orange is closed temporarily.
- When the project is complete the area will be open for riding.
- Questions? Please call 925-455-7876.



S

BEGINNER/KIDS' TRACK REDESIGN



Carnegie is preparing to remodel the 110cc track area this fall. The goals of the project are to improve public safety in the area, provide better visibility for spectators, and protect water quality.

The redesigned area will include a staging area with room to turn vehicles around and six new ramadas with picnic benches.

The 110 track will be redesigned to improve safety and make it easier to

supervise young riders.

New vegetated areas along Corral Hollow Road and adjacent to the creek will help protect and improve water quality.

Help Carnegie Protect Western Spadefoots

This area is closed to protect western spadefoot toads.

The protected spadefoot uses this pool for breeding and to hide during the dry summer months. We haven't seen this in other parts of Carnegie SVRA.

While it usually looks dry on the surface, toads are actually under the cracked clay pieces (as seen in the photo below) for months after metamorphosing. They come back periodically and use the site as a refuge from the dry heat, since staying moist is important for their survival.



Find or create burrows for the summer/fall



Adult

Breeding
Late winter/early spring



Juvenile

Life cycle of the western spadefoot (*Spea hammondi*)



Eggs

Metamorphosis in 30-70 days



Tadpoles

Hatch in 3-14 days

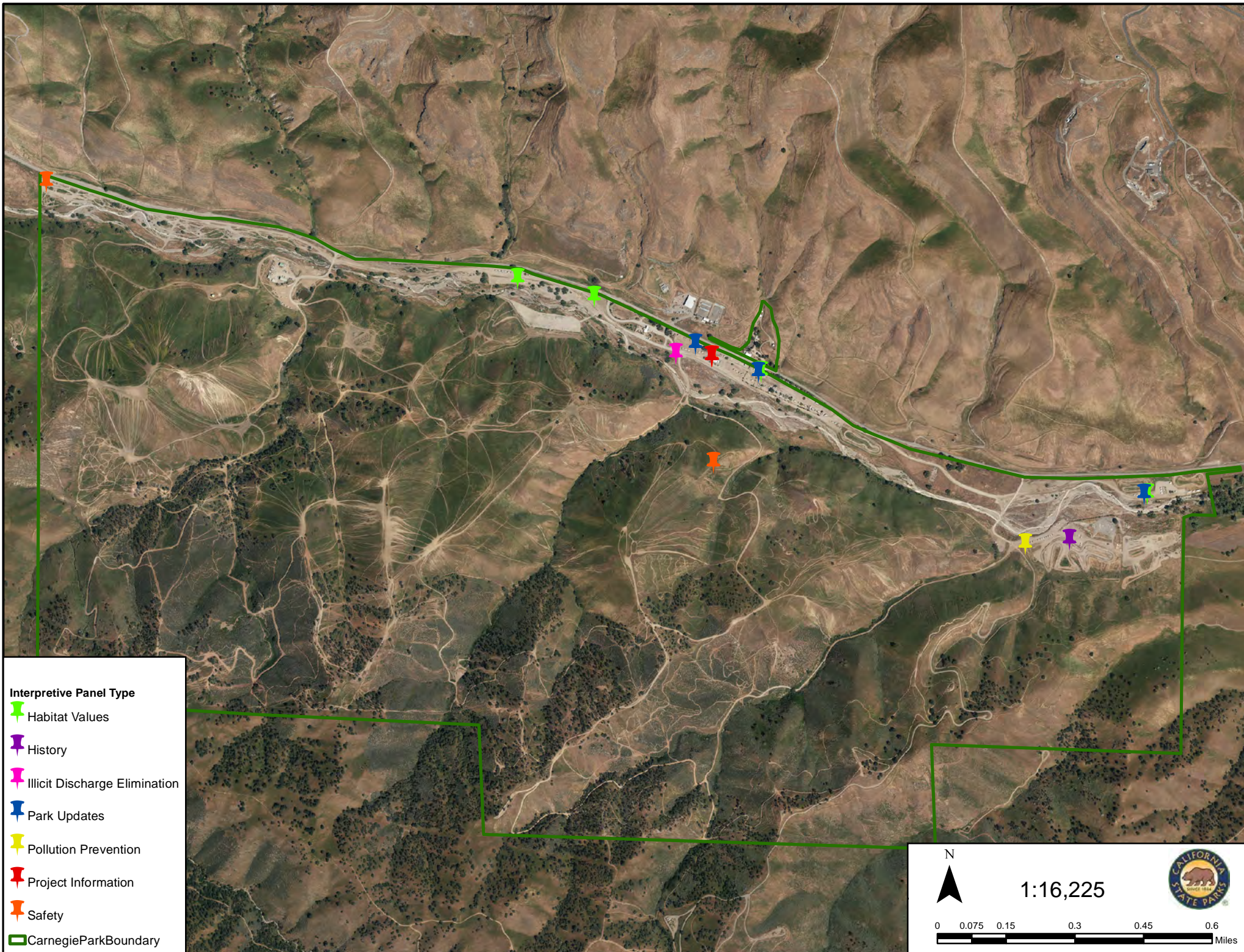
You can protect these animals by staying out of this area, not riding through puddles, and sharing with other riders what you know about Carnegie's wildlife.

Carnegie SVRA has a responsibility to protect western spadefoot toads, as they are a Species of Special Concern per the California Department of Fish and Wildlife. Disturbing the species or its protected habitat by entering this area or collecting tadpoles is a citable offense and you can be ticketed (get code from Rangers).

For more information about protected species as Carnegie, please contact staff at the ranger station.

Attachment C

Locations of Interpretive Panels



Interpretive Panel Type

- Habitat Values
- History
- Illicit Discharge Elimination
- Park Updates
- Pollution Prevention
- Project Information
- Safety
- CarnegieParkBoundary

N

1:16,225

0 0.075 0.15 0.3 0.45 0.6 Miles

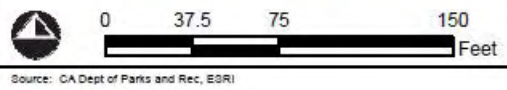
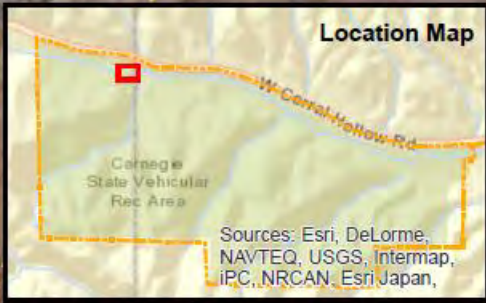
Attachment D

Maps of Pollutant Sources for the Illicit Discharge
Detection and Elimination Program

4222013 21M 0000110102744253-Carnegie 300 E Map_Maintenance Yard



- Culverts
- Fuel Pump
- Storage Units
- Discharge Point
- Photo Points
- Grade Break
- Creek Flow Main Stem and Wetlands Line
- Roads and Trails
- Carnegie State Vehicular Recreation Area









Source: CA Dept of Parks and Rec, ESRI

CARNEGIE
Carnegie IDDE Map
 Maintenance Yard



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-  Storage Units
-  Ranger Station
-  Photo Points
-  Creek Flow Main Stem and Wetlands Line
-  Roads and Trails
-  Carnegie State Vehicular Recreation Area













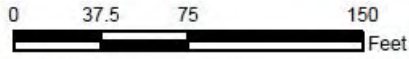

Source: CA Dept of Parks and Rec, ESRI

CARNEGIE
Carnegie IDDE Map
 Ranger Station



-  Store
-  Storage Units
-  Bathrooms
-  Day Use Areas / Ramadas
-  Photo Points
-  Creek Flow Main Stem and Wetlands Line
-  Roads and Trails
-  Carnegie State Vehicular Recreation Area

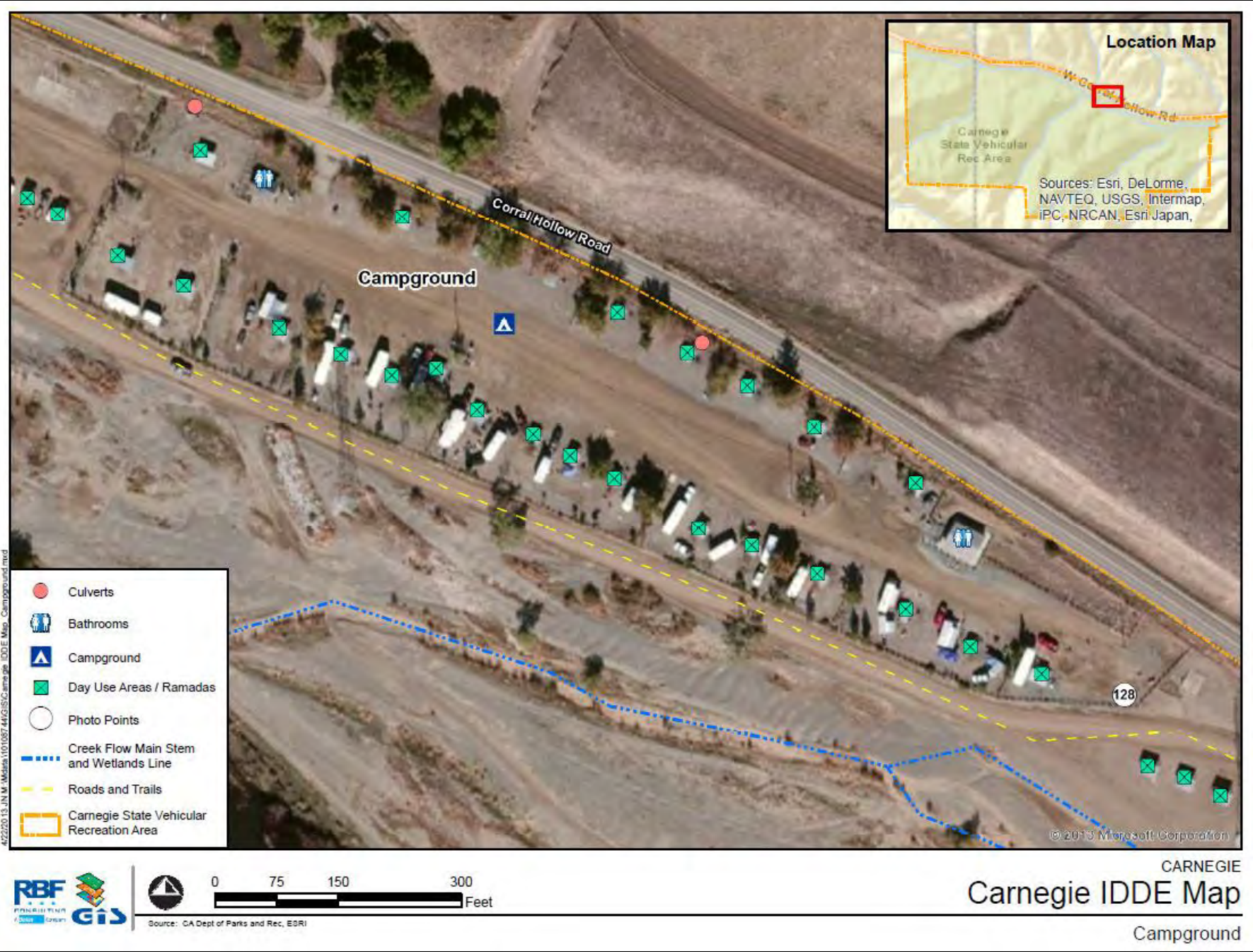
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Source: CA Dept of Parks and Rec, ESRI

CARNEGIE
Carnegie IDDE Map

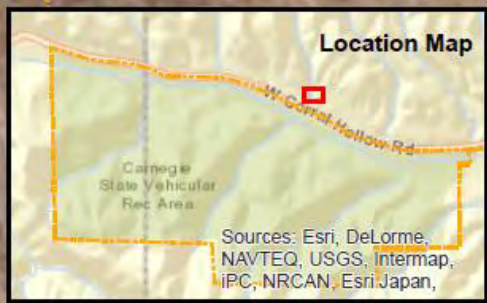
Store



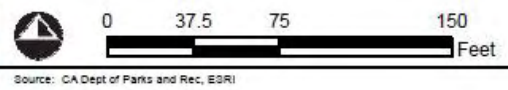
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- Water Treatment Plant
- Photo Points
- Creek Flow Main Stem and Wetlands Line
- Roads and Trails
- Carnegie State Vehicular Recreation Area



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan,



Source: CA Dept of Parks and Rec, ESRI

CARNEGIE
Carnegie IDDE Map
 Water Treatment Plant

Attachment E

Photo Points for the Illicit Discharge Detection and Elimination Program



Maintenance Yard, Photo Point 125



Ranger Station, Photo Point 126



Store, Photo Point 127



Campground, Photo Point 128



Water Treatment Facility, Photo Point 129

Attachment F

Forms for the Illicit Discharge Detection and Elimination Program



ILLCIT DISCHARGE, DETECTION, AND ELIMINATION (IDDE) ROUTINE INSPECTION FORM

SECTION 1: GENERAL INFORMATION			
Park Name	Carnegie SVRA	Location	
Inspector's Name		Inspector's Title	
Consultant Company (If applicable)			
Pictures taken?		Time of Inspection	
Date of Inspection		Date Inspection Report Written	
Inspection Type (Check Applicable)	<input type="checkbox"/> Monthly <input type="checkbox"/> During Qualifying Storm Event <input type="checkbox"/> Other _____ <input type="checkbox"/> After Qualifying Storm Event		
Weather (Check all that apply)	<input type="checkbox"/> Sunny <input type="checkbox"/> Partly Sunny <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Windy		
Most Recent Storm Data	Storm Start Date & Time		Storm Duration (hrs)
	Rain Gauge Reading (Inches)		Total Storm Rainfall (Inches)
Outfall Identification Number			
Outfall Location (Reference Pollutant Sources Map – Section 6.3.2.1 of SWMP)			
Receiving Waterbody			
SECTION 2: ILLICIT DISCHARGE DETECTION			
Active illicit discharge detected?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Evidence of a past illicit discharge detected?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If either of the questions above are answered "Yes," complete information below, otherwise skip to next Section			
Qualitative Observations (Check all that Apply)			
Odor	<input type="checkbox"/> None <input type="checkbox"/> Sulfide <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Rancid <input type="checkbox"/> Other:		
Color	<input type="checkbox"/> None <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Other:		
Floatables	<input type="checkbox"/> None <input type="checkbox"/> Foam <input type="checkbox"/> Staining <input type="checkbox"/> Sheen <input type="checkbox"/> Sewage <input type="checkbox"/> Other:		
Damage to Outfall Structures	<input type="checkbox"/> None <input type="checkbox"/> Cracking <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Other:		
Turbidity	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other:		
Vegetation	<input type="checkbox"/> Normal <input type="checkbox"/> Excessive Growth <input type="checkbox"/> Inhibited Growth <input type="checkbox"/> Other:		
Quantitative Observations			
Estimated Flow Rate (cfs)			
Estimated Discharge Volume (gal)			



SECTION 3: GENERAL COMMENTS

Potential Sources: _____

Measures taken to stop illicit discharge: _____

Measures taken to mitigate impacts caused by illicit discharge: _____

Measures taken to prevent future illicit discharges: _____

Additional Notes: _____

Date Corrective Measure Identified	_____	Date Corrective Measure Implemented	_____
------------------------------------	-------	-------------------------------------	-------

Sign the following certification:
"I certify that this inspection form is true, accurate, and complete, to the best of my knowledge and belief."

Signature _____



ILLICIT DISCHARGE, DETECTION, AND ELIMINATION (IDDE) COMPLAINT-DRIVEN INSPECTION FORM

SECTION 1: GENERAL INFORMATION			
Incident No.			
Park Name		Location	
Inspector's Name		Inspector's Title	
Consultant Company (if applicable)			
Pictures taken?		Time of Inspection	
Date of Inspection		Date Inspection Report Written	
Inspection Type (Check Applicable)	<input type="checkbox"/> Monthly <input type="checkbox"/> During Qualifying Storm Event <input type="checkbox"/> Other _____ <input type="checkbox"/> After Qualifying Storm Event		
Weather (Check all that apply)	<input type="checkbox"/> Sunny <input type="checkbox"/> Partly Sunny <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Windy		
Most Recent Storm Data	Storm Start Date & Time		Storm Duration (hrs)
	Rain Gauge Reading (Inches)		Total Storm Rainfall (Inches)
Outfall Identification Number			
Outfall Location (Reference Pollutant Sources Map - Section 6.3.2.1 of SWMP)			
Receiving Waterbody			
SECTION 2: ILLICIT DISCHARGE DETECTION			
Active illicit discharge detected?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Evidence of a past illicit discharge detected?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If either of the questions above are answered "Yes," complete information below, otherwise skip to next Section			
Qualitative Observations (Check all that Apply)			
Odor	<input type="checkbox"/> None <input type="checkbox"/> Sulfide <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Rancid <input type="checkbox"/> Other:		
Color	<input type="checkbox"/> None <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Other:		
Floatables	<input type="checkbox"/> None <input type="checkbox"/> Foam <input type="checkbox"/> Staining <input type="checkbox"/> Sheen <input type="checkbox"/> Sewage <input type="checkbox"/> Other:		
Damage to Outfall Structures	<input type="checkbox"/> None <input type="checkbox"/> Cracking <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Other:		
Turbidity	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other:		
Vegetation	<input type="checkbox"/> Normal <input type="checkbox"/> Excessive Growth <input type="checkbox"/> Inhibited Growth <input type="checkbox"/> Other:		
Quantitative Observations			
Estimated Flow Rate (cfs)			
Estimated Discharge Volume (gal)			



SECTION 3: GENERAL COMMENTS

Potential Sources: _____

Measures taken to stop illicit discharge: _____

Measures taken to mitigate impacts caused by illicit discharge: _____

Measures taken to prevent future illicit discharges: _____

Additional Notes: _____

Date Corrective Measure Identified: _____ Date Corrective Measure Implemented: _____

Sign the following certification:
"I certify that this inspection form is true, accurate, and complete, to the best of my knowledge and belief."

Signature _____

Attachment G

Inspections for the Illicit Discharge Detection and
Elimination Program

(Quarterly Hotspot Inspection)



HOTSPOT INSPECTION FORM

SECTION 1: GENERAL INFORMATION			
Park Name	CARNEGIE SURA	Hotspot	MAINTENANCE YARD
Inspector's Name	DANIEL RECHTER	Inspector's Title	ES
Consultant Company (if applicable)			
Pictures taken?	YES	Time of Inspection	1418
Date of Inspection	6/11/2019	Date Inspection Report Written	
Inspection Type (Check Applicable)	<input checked="" type="checkbox"/> Quarterly Visual <input type="checkbox"/> Quarterly Comprehensive <input type="checkbox"/> Other _____ <input type="checkbox"/> Quarterly Discharge		
Weather (Check all that apply)	<input checked="" type="checkbox"/> Sunny <input type="checkbox"/> Partly Sunny <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Windy		
Most Recent Storm Data	Storm Start Date & Time		Storm Duration (hrs)
	Rain Gauge Reading (inches)		Total Storm Rainfall (inches)
SECTION 2: QUARTERLY VISUAL			
Are material/equipment storage areas clean and orderly?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are all erosion and sediment control BMPs installed and maintained according to the SWPPP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If either of the questions above are answered "No," complete Section 5; otherwise skip to Section 6, "Additional Notes".			
SECTION 3: QUARTERLY COMPREHENSIVE			
Are all waste storage areas clean and free of litter?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are all dumpsters properly maintained and emptied on a regular basis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are vehicle/equipment fueling areas free of any spills/leaks?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are all material handling areas clean and orderly?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are all public areas clean and free of litter?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are all erosion and sediment control BMPs installed and maintained according to the SWPPP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If either of the questions above are answered "No," complete Section 5; otherwise skip to Section 6, "Additional Notes".			



SECTION 4: QUARTERLY DISCHARGE		
Are there any discharges from the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If question is answered "Yes," complete information below; otherwise skip to "Additional Notes"
Is the discharge...	<input type="checkbox"/> Storm water	<input type="checkbox"/> Non-Storm water
Odor	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Sulfide <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Rancid <input type="checkbox"/> Other:
Color	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Other:
Floatables	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Foam <input type="checkbox"/> Staining <input type="checkbox"/> Sheen <input type="checkbox"/> Sewage <input type="checkbox"/> Other:
Damage to Outfall Structures	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Cracking <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Other:
Turbidity	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other:
Vegetation	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Excessive Growth <input type="checkbox"/> Inhibited Growth <input type="checkbox"/> Other:

NEVER MINOR THE CHECKS. THERE ARE NO DISCHARGES

SECTION 5: GENERAL COMMENTS	
Describe material/equipment storage area deficiencies:	_____

Measures taken to correct material/equipment storage area deficiencies:	_____

Describe BMP deficiencies:	<p>STRAW WATTLES ARE MISSING SURROUNDING THE FUELING STATION. THIS IS EXEMPT BECAUSE CARNEGIE DOES NOT USE THIS FACILITY ANYMORE. FUELING IS DONE IN TOWN AT A COMMERCIAL GAS STATION</p>



SECTION 5: GENERAL COMMENTS

Measures taken to correct BMP deficiencies:

Describe site discharges:

Measures taken to control site discharges:

SECTION 6: ADDITIONAL NOTES

Additional Notes:

Date Corrective Measures Identified

Date Corrective Measures Implemented

Sign the following certification:

“I certify that this inspection form is true, accurate, and complete, to the best of my knowledge and belief.”

Signature



Quarterly Hot Spot Inspection Form

General Information

Park Name: **Hot Spot:** **Date:**

Inspector's Name: **Inspector's Title:**

Weather (Check all that apply):

- Sunny Partly Sunny Cloudy Partly Cloudy
- Rainy Windy

Most Recent Storm Data:

Date and Time: Duration (hrs):

Rain Gauge Reading (in.): Total Rainfall (in.):

Visual Inspection

Are material and equipment storage areas clean and orderly?

- Yes No

Are all erosion and sediment control BMPs installed and maintained according to the SWPPP?

- Yes No

For any questions answered "No," describe deficiencies:

Measures taken to correct deficiencies:

Carnegie's efforts to produce vegetation on the Tesla mine tailings are proving to work. The furthest mine tailing has some vegetation, but should be looked at in the future to be hydro-seeded and mulched completely. This is not a priority as the valley beneath it is fully vegetated and

ENCAPSULATED. *PKR*

Quarterly Comprehensive

Are all waste storage areas clean and free of litter?

Yes No

Are all public areas clean and free of litter?

Yes No N/A

Are all material handling areas clean and orderly?

Yes No N/A

Are all vehicles/equipment areas free of any spills/leaks?

Yes No N/A

Are all dumpsters properly maintained and emptied on a regular basis?

Yes No N/A

Are all erosion and sediment control BMPs installed and maintained according to the SWPPP?

Yes No

For any questions above answered "No," describe deficiencies:

Measures taken to correct deficiencies:

Quarterly Discharge

Are there any discharges from the site?

Yes No

If answered "Yes," complete the following section:

Is the discharge: Storm water Non-storm water

Odor: None Sulfide Oil Gas
 Rancid Other:

Color: None Yellow Brown Green Red
 Other:

Floatables: None Foam Staining Sheen Sewage
 Other:

**Damage to
Outfall
Structures:** None Cracking Corrosion Peeling Paint
 Other:

Turbidity: Clear Cloudy Opaque

Vegetation: Normal Excessive Growth Inhibited Growth
 Other:

Describe site discharges:

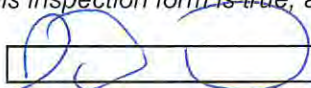
Measures taken to control site discharges:

Date corrective
measures identified:

Date corrective measures
taken:

I Certify that this inspection form is true, accurate and complete, to the best of my knowledge and belief.

Signature:



Date:

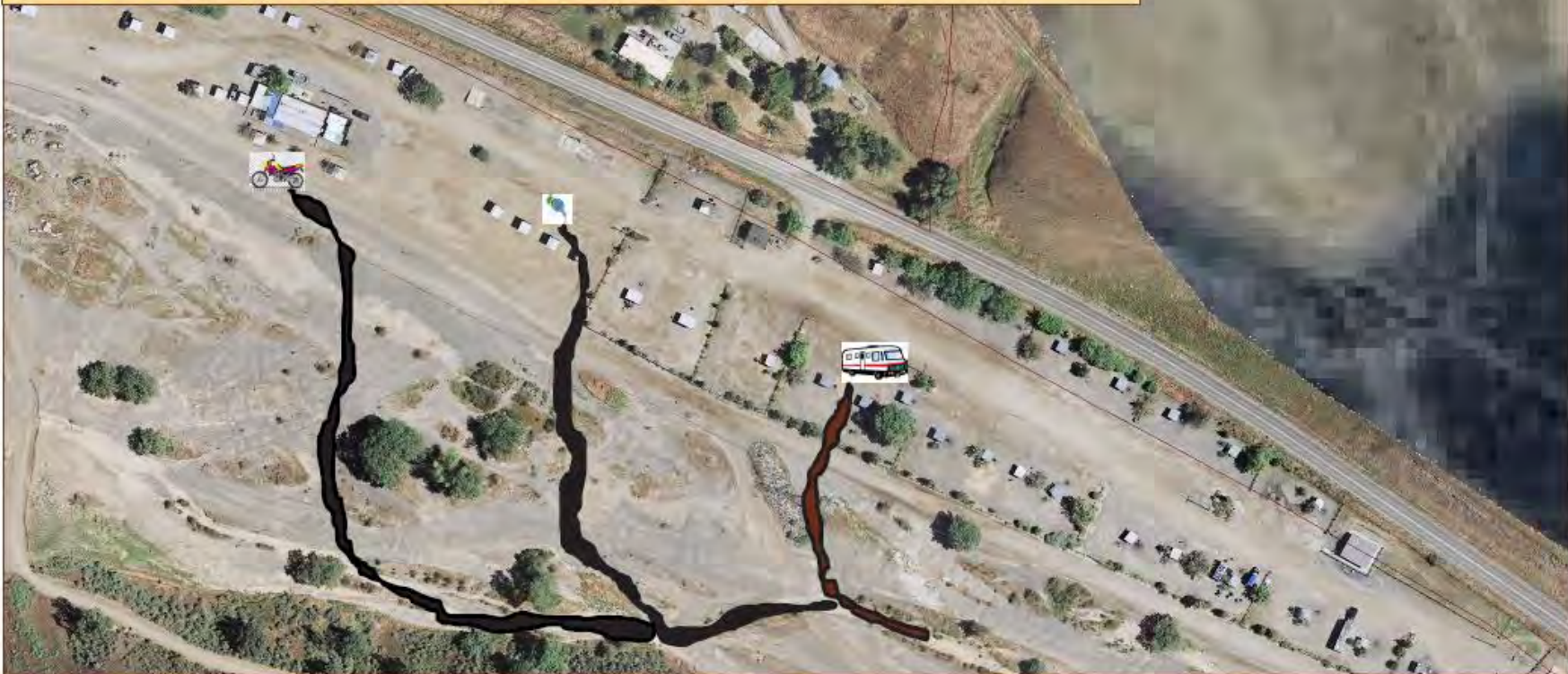
6/11/2019

Attachment H

Informational Sign for the Illicit Discharge Detection and
Elimination Program



CARNEGIE STORM WATER MANAGEMENT PLAN: ELIMINATING ILLICIT DISCHARGES



What is an illicit discharge?

An illicit discharge is a discharge of something other than storm water to the creek. When it rains, things on the ground can be washed into the creek. Water in the creek can make it into larger water ways without being treated, affecting water quality and damaging wildlife and habitat. Because of this, it is very important that we do not put anything onto the ground that we don't want in the creek.

Some examples of illicit discharges include spilling and leaving oil, grease, or trash, or emptying an RV's septic tank on the ground. Never empty any liquids onto the ground in the park.

What do I do in case of an illicit discharge?

If you accidentally spill oil, gasoline, grey water, or water from your septic tank, or you see someone else do this, you should contact park staff at the kiosk to report it. Staff will respond with a spill kit.

Illicit discharges are illegal and punishable by fines or incarceration. If you think you may have witnessed illegal dumping, please contact park staff at the ranger station. Reports may be anonymous. The park is required to have an Illicit Discharge Detection and Elimination Program as a part of our Storm Water Management Plan.

How do I prevent illicit discharges?

- Make sure your OHV is in good condition with no leaks
- Use caution when fueling or your OHV to prevent spilling
- Never empty the tank from your RV in the park
- Keep your RV's tanks maintained so it doesn't leak

Attachment I

Construction Site Inspection Form

**WEEKLY BMP AND PRE-STORM VISUAL
INSPECTION REPORT**

Date and Time of Inspection:			Date Report Written:		
Inspection Type: (Circle one)	Weekly Complete Parts I,II,III and VII	Pre-Storm Complete Parts I,II,III,IV and VII	During Rain Event Complete Parts I, II, III, V, and VII	Post-Storm Complete Parts I, II, III, VI, and VII	Quarterly Complete Parts I,II,III, and VII
Part I. General Information					
Site Information					
Construction Site Name:					
Construction stage and completed activities:			Approximate area of site that is exposed:		
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:		
Weather					
Estimate storm beginning: (date and time)			Estimate storm duration: (hours)		
Estimate time since last storm: (days or hours)			Rain gauge reading and location: (in)		
Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N) If yes, summarize forecast.					
Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.					
Inspector Information					
Inspector Name:			Inspector Title:		
Signature:				Date:	

Part II. BMP Observations. Describe any deficiencies in Part III.

Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Material:			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction materials not actively in use (14 days of non-use) are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and inspected regularly for leaks and spills			
Waste disposal containers are covered at the end of each business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available on site			
Washout areas (e.g., concrete) are contained appropriately to prevent any discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

Part II. BMP Observations Continued. Describe any deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials:			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials:			
Good housekeeping measures are implemented on site to control the air deposition of site materials and from site operations			
Non-Storm water Management			
Non-storm water discharges are properly controlled			
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm water discharges to surface waters or drainage systems. Authorized discharges include fire hydrant flushing, irrigation, pipe flushing, and dust control.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls:			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			

Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?			
Has the District Environmental Services been notified of any Reportable Quantity Discharges or discharges listed in Table 6?			

Part III. Descriptions of Any BMP Deficiencies		
Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification.	
	Start Date	Action
1.		
2.		
3.		
4.		

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of 1/8 inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify any additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

Attachment

Photo Monitoring-RMA



April 2010



April 2018

Photo Point 6



Photo Point 177

West Franciscan RMA



Photo Point 175

West Franciscan RMA



Photo Point 174

West Franciscan RMA



Photo Point 176

West Franciscan RMA

Attachment K

Turbidity / TSS Data

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

07 December 2018

Clinton Elsholz

Department of Parks and Rec - Carnegie SVRA

15751 Tesla Rd

Livermore, CA 94550-9167

RE: Carnegie SVRA

Work order number:1811110

Enclosed are the results of analyses for samples received by the laboratory on 11/26/18 14:40. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "John Somers", on a light-colored rectangular background.

John Somers, Lab Director

Excelchem Environmental Labs

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/07/18 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Kiln Ln	1811110-01	Water	11/21/18 16:57	11/26/18 14:40

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Environmental Labs

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/07/18 11:23

Kiln Ln 1811110-01 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	204000	53.6	mg/L	A\K0227	11/27/18	11/29/18	SM 2540D	
Turbidity	29800	1.0	NTU	A\K0237	"	11/27/18	EPA 180.1	O-10

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Environmental Labs

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie SVRA Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 12/07/18 11:23
---	--	----------------------------------

Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A\K0227 - SM 2540D

Blank (A\K0227-BLK1)										
					Prepared: 11/27/18 Analyzed: 11/29/18					
Total Suspended Solids	ND	15.0	mg/L							
Duplicate (A\K0227-DUP1)										
					Source: 1811040-16 Prepared: 11/27/18 Analyzed: 11/29/18					
Total Suspended Solids	37.0	15.0	mg/L		31.0			17.6	20	

Batch A\K0237 - EPA 180.1

Blank (A\K0237-BLK1)										
					Prepared & Analyzed: 11/27/18					
Turbidity	ND	0.1	NTU							
Duplicate (A\K0237-DUP1)										
					Source: 1811110-01 Prepared & Analyzed: 11/27/18					
Turbidity	32400	1.0	NTU		29800			8.42	20	

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/07/18 11:23

Notes and Definitions

- O-10 This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Carnegie SVRA
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 12/07/18 11:23

Sample Integrity

WORK ORDER: **1811110**

Date Received: 11/26/2018

Section 1 – Sample Arrival Info.	
Sample Transport: <u>EXCELCHEM Courier</u>	Transported In: <u>Ice Chest</u>
Describe type of packing materials: <u>N/A</u>	
Has chilling process begun? <u>Yes</u>	Samples Received: <u>On Ice</u>
Temperature of Samples (°C): <u>3</u>	Ice Chest Temperature(s) (°C): <u>6</u>

Section 2 – Bottle/Analysis Info.					
	Yes	No	N/A	-	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			-	
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			-	
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			-	
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			-	
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			-	
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	-	

Section 3 – Summa/Flow regulator Info.	
Used Summa#:	N/A
Unused Summa#:	
Cleaning Summa#:	
Regulator#:	
Was there any visual damage to summa canisters or flow regulators? Explain.	

Section 4 – COC Info.							
	Completed		Info From		Completed		
	Yes	No	Comment		Yes	No	Comments
Was COC Received	<input checked="" type="checkbox"/>		-	Analysis Requested	<input checked="" type="checkbox"/>		-
Date Sampled	<input checked="" type="checkbox"/>		-	Samples arrived within holding time	<input checked="" type="checkbox"/>		-
Time Sampled	<input checked="" type="checkbox"/>		-	Any hold times less than 72 hrs.	<input checked="" type="checkbox"/>		-Turbidity
Sample ID	<input checked="" type="checkbox"/>		-	Client Name	<input checked="" type="checkbox"/>		-
Rush TAT		<input checked="" type="checkbox"/>	-	Address/Telephone #	<input checked="" type="checkbox"/>		-

Section 5 – Comments / Discrepancies	
Was Client notified of discrepancies: <u>N/A</u>	Notified by: <u>N/A</u>
Explanations / Comments:	

Samples Labeled by:	DC
BIN:	40
COC Scanned/Attached by:	DC
Sample labels reviewed by:	DC

Filled out by: <i>Dominik Curless</i>	Date: 11/26/2018
	Time: 14:54



EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

18 December 2018

Clinton Elsholz

Department of Parks and Rec - Carnegie SVRA

15751 Tesla Rd

Livermore, CA 94550-9167

RE: Carnegie SVRA

Work order number:1811141

Enclosed are the results of analyses for samples received by the laboratory on 11/30/18 14:25. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Carnegie SVRA [none] Clinton Elsholz	Date Reported: 12/18/18 10:21
---	---	--	----------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TYSON IN	1811141-01	STORM WATER	11/29/18 12:15	11/30/18 14:25
CARROL IN	1811141-02	STORM WATER	11/29/18 12:45	11/30/18 14:25
CARROL OUT	1811141-03	STORM WATER	11/29/18 12:50	11/30/18 14:25
KILN IN	1811141-04	STORM WATER	11/29/18 08:15	11/30/18 14:25

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/18/18 10:21

**TYSON IN
1811141-01 (STORM WATER)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	22800	60.0	mg/L	A\L0110	12/04/18	12/13/18	SM 2540D	
Turbidity	2220	0.1	NTU	A\L0030	12/03/18	12/03/18	EPA 180.1	O-04

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/18/18 10:21

**CARROLIN
1811141-02 (STORM WATER)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	123000	62.5	mg/L	A\L0110	12/04/18	12/13/18	SM 2540D	
Turbidity	91200	2.0	NTU	A\L0030	12/03/18	12/03/18	EPA 180.1	O-04

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Carnegie SVRA
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
12/18/18 10:21

**CARROL OUT
1811141-03 (STORM WATER)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	105000	62.5	mg/L	A\L0110	12/04/18	12/13/18	SM 2540D	
Turbidity	59000	2.0	NTU	A\L0030	12/03/18	12/03/18	EPA 180.1	O-04

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie SVRA Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 12/18/18 10:21
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**KILN IN
1811141-04 (STORM WATER)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	16700	41.7	mg/L	A\L0110	12/04/18	12/13/18	SM 2540D	
Turbidity	2700	0.1	NTU	A\L0030	12/03/18	12/03/18	EPA 180.1	O-04

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie SVRA Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 12/18/18 10:21
---	--	----------------------------------

Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A\L0030 - EPA 180.1

Blank (A\L0030-BLK1)

Prepared & Analyzed: 12/03/18

Turbidity	ND	0.1	NTU
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Duplicate (A\L0030-DUP1)

Source: 1811141-04

Prepared & Analyzed: 12/03/18

Turbidity	2530	0.1	NTU	2700	6.47	20
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Batch A\L0110 - SM 2540D

Blank (A\L0110-BLK1)

Prepared: 12/04/18 Analyzed: 12/13/18

Total Suspended Solids	ND	15.0	mg/L
------------------------	----	------	------

Duplicate (A\L0110-DUP1)

Source: 1811135-01

Prepared: 12/04/18 Analyzed: 12/13/18

Total Suspended Solids	14.0	15.0	mg/L	13.0	7.41	20
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Duplicate (A\L0110-DUP2)

Source: 1811135-02

Prepared: 12/04/18 Analyzed: 12/13/18

Total Suspended Solids	28.0	15.0	mg/L	27.0	3.64	20
------------------------	------	------	------	------	------	----

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie SVRA Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 12/18/18 10:21
---	--	----------------------------------

Notes and Definitions

- O-04 This sample was analyzed outside the EPA recommended holding time.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.







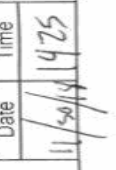

Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Carnegie SVRA
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 12/18/18 10:21

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST		Electronic Data Deliverables Request: <input type="checkbox"/> PDF <input checked="" type="checkbox"/> Geotracker (Global ID) <input checked="" type="checkbox"/> Other (please specify) _____		Email Address: Clinton.Elsholz@parks.ca.gov	
Excelchem Environmental Labs 1135 W. Sunset Blvd. Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449		Project Name: Carnegie SVRA Sample Signature: 		Page 1 of 1	
Project Manager: Clinton Elsholz Company/Address: 15751 Tesla Rd. Livermore, CA 94550		Project Number/P. Of: STORM WATER Project Location: 15751 Tesla Rd. Livermore, CA 94550		Requested TAT: Standard Bin#: _____ Due Date: _____ Work Order: _____ LAB USE ONLY: _____	
Sample ID	Date	Time	Container	Method Preserved	Matrix
	11/24	1215	125 mL Poly Pxy (2oz)	HCl	Soil
	11/24	1245	HNO3 Poly NaOH Poly	ICE	WATER
	11/24	1250	HNO3 Poly	NONE / OTHER	NONE / OTHER
	11/24	815	40 mL VOA	HNO3	HNO3
Relinquished by: 		Date	Time	Received by Laboratory: 	
Relinquished by: 		11/30/18	12:26	Received by Laboratory: 	
		11/30/18	1425	Received by Laboratory: 	
Remarks/Condition of Sample: Bin: SAF 1811141 Please provide 32 more sample bottles & label.					
				Bill To: Excelchem Environmental Labs Rocklin, Ca	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Carnegie SVRA
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 12/18/18 10:21

Sample Integrity

WORK ORDER: 1811141

Date Received: 11/30/2018

Section 1 – Sample Arrival Info.

Sample Transport: EXCELICHEM Courier Transported In: Ice Chest

Describe type of packing materials: N/A

Has chilling process begun? Yes Samples Received: On Ice

Temperature of Samples (°C): 3.8 Ice Chest Temperature(s) (°C): 2

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	

Section 3 – Summa/Flow regulator Info.

Used Summa#: _____

Unused Summa#: _____

Cleaning Summa#: _____

Regulator#: _____

Was there any visual damage to summa canisters or flow regulators? Explain.

N/A

Section 4 – COC Info.

	Completed			Info From	Comment	Completed			Comments
	Yes	No				Yes	No		
Was COC Received	<input checked="" type="checkbox"/>								
Date Sampled	<input checked="" type="checkbox"/>								
Time Sampled	<input checked="" type="checkbox"/>								-TURBIDITY
Sample ID	<input checked="" type="checkbox"/>								
Rush TAT		<input checked="" type="checkbox"/>							

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments

Samples Labeled by:	MS
BIN:	S2F
COC Scanned/Attached by:	MS
Sample labels reviewed by:	MS

Filled out by:	MATTHEW SHERMAN	Date: 11/30/2018
		Time: 14:57

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

18 December 2018

Clinton Elsholz

Department of Parks and Rec - Carnegie SVRA

15751 Tesla Rd

Livermore, CA 94550-9167

RE: Storm Water

Work order number:1812004

Enclosed are the results of analyses for samples received by the laboratory on 12/03/18 14:00. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Cox', is written over a horizontal line.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: C1655C14
Project Manager: Clinton Elsholz

Date Reported:
12/18/18 10:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tyson's In	1812004-01	Storm Water	12/01/18 11:06	12/03/18 14:00
Carrol In	1812004-02	Storm Water	12/01/18 11:20	12/03/18 14:00
Carrol Out	1812004-03	Storm Water	12/01/18 11:29	12/03/18 14:00
Kiln In	1812004-04	Storm Water	12/01/18 11:45	12/03/18 14:00
Kiln Out	1812004-05	Storm Water	12/01/18 11:52	12/03/18 14:00
CHC Out	1812004-06	Storm Water	12/01/18 12:03	12/03/18 14:00

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
---	---	--	----------------------------------

**Tyson's In
1812004-01 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	319000	125	mg/L	A/L0059	12/07/18	12/14/18	SM 2540D	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
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**Carrol In
1812004-02 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	169000	93.8	mg/L	A/L0059	12/07/18	12/14/18	SM 2540D	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
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**Carrol Out
1812004-03 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	228000	93.8	mg/L	A/L0059	12/07/18	12/14/18	SM 2540D	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: C1655C14 Project Manager: Clinton Elsholz	Date Reported: 12/18/18 10:34
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**Kiln In
1812004-04 (Storm Water)**

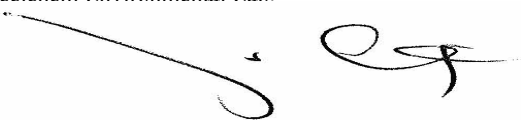
Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	113000	107	mg/L	A/L0059	12/07/18	12/14/18	SM 2540D	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: C1655C14
Project Manager: Clinton Elsholz

Date Reported:
12/18/18 10:34

Kiln Out
1812004-05 (Storm Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	934	15.0	mg/L	ANL0059	12/07/18	12/14/18	SM 2540D	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
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**CHC Out
1812004-06 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	111	15.0	mg/L	A/L0059	12/07/18	12/14/18	SM 2540D	
-------------------------------	------------	------	------	---------	----------	----------	----------	--

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A\L0032 - EPA 180.1

Blank (A\L0032-BLK1)				Prepared & Analyzed: 12/04/18						
Turbidity	ND	0.1	NTU							

Duplicate (A\L0032-DUP1)				Source: 1812004-06		Prepared & Analyzed: 12/04/18				
Turbidity	106	0.1	NTU		103			3.35	20	

Batch A\L0059 - SM 2540D

Blank (A\L0059-BLK1)				Prepared: 12/06/18 Analyzed: 12/07/18						
Total Suspended Solids	ND	15.0	mg/L							

Blank (A\L0059-BLK2)				Prepared: 12/07/18 Analyzed: 12/14/18						
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A\L0059-DUP1)				Source: 1812005-01		Prepared & Analyzed: 12/07/18				
Total Suspended Solids	67.0	15.0	mg/L		67.0			0.00	20	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water C1655C14 Clinton Elsholz	Date Reported: 12/18/18 10:34
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Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: C1655C14
 Project Manager: Clinton Elsholz

Date Reported:
 12/18/18 10:34

Excelchem		CHAIN OF CUSTODY	
Environmental Labs		1135 W. Sunset Blvd, Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449	
Project Manager: <u>Clinton Elsholz</u>		Phone #: <u>925 455 7873</u>	
Email Address for Reporting: <u>Clinton.Elsholz@parks.ca.gov</u>		Cell #: _____	
Email Address for Reporting: _____		Fax #: _____	
Company Name & Address: <u>Carnegie SVRA</u> <u>15751 Tesla Rd.</u> <u>Livermore, CA 94550</u>		P.O.# / Project Name: <u>Storm Water</u>	
Billing Address: <u>same</u>		Project Location: <u>Carnegie SVRA</u>	
		Sampler Name: <u>Tara de Silva</u>	
		Sampler Signature: <u>[Signature]</u>	
Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water		Preserved? (Mark yes and no if both available) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Matrix (See Matrix Table)		Tedlar / Summa	
SAMPLE ID: Source Codes		Coliform Tube	
DATE TIME		250ml plastic	
		500ml plastic (?)	
		1000ml plastic	
		1 Gallon plastic	
		1 Liter Amber	
		40ml Voa - Clear	
		40ml Voa - Amber	
		250ml Amber	
		500ml Amber	
		Soil Jar	
Tysons IN		Turbidity (NTU)	
12/1 1100 SW		Total Suspended Solids	
Carnel IN			
12/1 1120 SW			
Carnel OUT			
12/1 1129 SW			
KLN IN			
12/1 1145 SW			
KLN OUT			
12/1 1152 SW			
CHC OUT			
12/1 1203 SW			
Retinquished by: _____		DATE TIME	
Retinquished by: _____		12/3/18 1400	
Retinquished by: _____		Received by Laboratory: _____	
Retinquished by: _____		Received by Laboratory: _____	
Remarks:		BIN 1812004 38	
		LAB USE: _____	
		Bin #: _____	
		Work Order: _____	
		Microbiology: _____	
		ANALYSIS REQUEST	
		page _ of _	
		Data to be reported to State's Database ? Yes ___ No ___	
		EDT / CDPH - Provide Source Codes / PWS ID: _____	
		PDF / Standard Format	
		Geotracker / EDF / Provide Global ID: _____	
		EDD / Equis / Data Table	
		MDL Format	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: C1655C14
 Project Manager: Clinton Elsholz

Date Reported:
 12/18/18 10:34

Sample Integrity

WORK ORDER: 1812004

Date Received: 12/03/2018

Section 1 – Sample Arrival Info.	
Sample Transport: <u>EXCELCHEM Courier</u>	Transported In: <u>Ice Chest</u>
Describe type of packing materials: <u>N/A</u>	
Has chilling process begun? <u>Yes</u>	Samples Received: <u>On Ice</u>
Temperature of Samples (°C): <u>0.8</u>	Ice Chest Temperature(s) (°C): <u>1.4</u>

Section 2 – Bottle/Analysis Info.				
	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			-
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			-
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			-
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			-
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			-
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	-

Section 3 – Summa/Flow regulator Info.	
Used Summa#:	N/A
Unused Summa#:	
Cleaning Summa#:	
Regulator#:	
Was there any visual damage to summa canisters or flow regulators? Explain.	

Section 4 – COC Info.							
	Completed		Info From		Completed		
	Yes	No	Comment		Yes	No	Comments
Was COC Received	<input checked="" type="checkbox"/>		-	Analysis Requested	<input checked="" type="checkbox"/>		-
Date Sampled	<input checked="" type="checkbox"/>		-	Samples arrived within holding time	<input checked="" type="checkbox"/>		-
Time Sampled	<input checked="" type="checkbox"/>		-	Any hold times less than 72 hrs.	<input checked="" type="checkbox"/>		-turbidity
Sample ID	<input checked="" type="checkbox"/>		-	Client Name	<input checked="" type="checkbox"/>		-
Rush TAT		<input checked="" type="checkbox"/>	-	Address/Telephone #	<input checked="" type="checkbox"/>		-

Section 5 – Comments / Discrepancies	
Was Client notified of discrepancies: <u>N/A</u>	Notified by: <u>N/A</u>
Explanations / Comments	

Samples Labeled by:	RL
BIN:	88
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filled out by:	Rachele Lang	Date:	12/4/2018
		Time:	10:59

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

09 January 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Carnegie

Work order number:1812118

Enclosed are the results of analyses for samples received by the laboratory on 12/18/18 11:07. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox', written over a horizontal line.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Carnegie [none] Clinton Elsholz	Date Reported: 01/09/19 15:57
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CAR 2	1812118-01	Water	12/17/18 08:44	12/18/18 11:07
CAR 2	1812118-02	Water	12/17/18 08:44	12/18/18 11:07
KILN IN	1812118-03	Water	10/03/18 05:41	12/18/18 11:07

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/09/19 15:57
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CAR 2
1812118-01 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	443	15.0	mg/L	A/L0185	12/20/18	12/21/18	SM 2540D	
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Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/09/19 15:57
---	---	----------------------------------

CAR 2
1812118-02 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Turbidity	876	0.1	NTU	ANL0216	12/19/18	12/19/18	EPA 180.1	
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Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/09/19 15:57
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**KILN IN
1812118-03 (Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	85400	15.0	mg/L	A/L0185	12/20/18	12/20/18	SM 2540D	O-10
Turbidity	77100	2.0	NTU	A/L0217	12/20/18	12/20/18	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/09/19 15:57
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A\L0185 - SM 2540D

Blank (A\L0185-BLK1)										
					Prepared: 12/20/18 Analyzed: 12/21/18					
Total Suspended Solids	ND	15.0	mg/L							
Duplicate (A\L0185-DUP1)										
					Source: 1812120-01 Prepared: 12/20/18 Analyzed: 12/21/18					
Total Suspended Solids	12.0	15.0	mg/L		12.0			0.00	20	
Duplicate (A\L0185-DUP2)										
					Source: 1812120-02 Prepared & Analyzed: 12/21/18					
Total Suspended Solids	84.0	15.0	mg/L		85.0			1.18	20	

Batch A\L0216 - EPA 180.1

Blank (A\L0216-BLK1)										
					Prepared & Analyzed: 12/18/18					
Turbidity	ND	0.1	NTU							
Duplicate (A\L0216-DUP1)										
					Source: 1812118-02 Prepared & Analyzed: 12/18/18					
Turbidity	869	0.1	NTU		876			0.814	20	

Batch A\L0217 - EPA 180.1

Blank (A\L0217-BLK1)										
					Prepared & Analyzed: 12/20/18					
Turbidity	ND	0.1	NTU							
Duplicate (A\L0217-DUP1)										
					Source: 1812149-02 Prepared & Analyzed: 12/20/18					
Turbidity	10.1	0.1	NTU		10.3			1.97	20	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/09/19 15:57
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Notes and Definitions

- R-07 This sample was diluted due to matrix interference, resulting in elevated reporting limits
- O-10 This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

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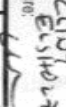
Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Carnegie
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 01/09/19 15:57

Excelchem Environmental Labs		CHAIN OF CUSTODY					
Project Manager: CLINTON ELSHOLZ Email Address for Reporting: CLINTON.ELSHOLZ@PARKS.CA.GOV		1136 W. Sunset Blvd, Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fx: 916-543-4449					
Company Name & Address: 15751 TESLA RD, LIVERMORE CA 94550		Billing Address: 15751 TESLA RD, LIVERMORE CA 94550					
Email Address for Reporting: CLINTON.ELSHOLZ@PARKS.CA.GOV		Phone #: 916 705 3072					
Project Location: CARNEGIE		Cell #: _____					
Project Name: CARNEGIE		Fax #: _____					
Sample Name: CLINTON ELSHOLZ		P# / Project Name: _____					
Sampler Signature: 		Date to be reported to State's Database ? Yes ___ No ___					
Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water		EDT / CDPH - Provide Source Codes / PWS ID: page ___ of ___					
SAMPLE ID:	Source Codes	SAMPLING DATE TIME	Matrix (See Matrix Table)	Preserved? ² Mark yes and no if both available Yes ___ No ___	Metars Sic Total	ANALYSIS REQUEST	LAB USE: Bin #
CAR 2		12/17/18					
CAR 2		12/17/18					
KLN IN		12/19/18 5:41					
Requisitioned by: _____ Received by: _____ Date: 12/17/18 Time: _____ Relinquished by: _____ Received by Laboratory: _____ Date: 12/19/18 Time: 11:07							
Remarks: 1812118 BIN 32							

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Carnegie
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 01/09/19 15:57

Sample Integrity

WORK ORDER: 1812118

Date Received: 12/18/2018

Section 1 – Sample Arrival Info.

Sample Transport: EXCELICHEM Courier Transported In: Ice Chest
 Describe type of packing materials: N/A
 Has chilling process begun? Yes Samples Received: On Ice
 Temperature of Samples (°C): 4 Ice Chest Temperature(s) (°C): 7

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			-
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			-
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			-
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			-
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			-
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	-

Section 3 – Summa/Flow regulator Info.

Used Summa#: N/A
 Unused Summa#: N/A
 Cleaning Summa#: N/A
 Regulator#: N/A
 Was there any visual damage to summa canisters or flow regulators? **Explain.**

Section 4 – COC Info.

	Completed		Info From	Comment	Completed		Comments
	Yes	No			Yes	No	
Was COC Received	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-
Date Sampled	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-
Time Sampled	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-Turbidity
Sample ID	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-
Rush TAT		<input checked="" type="checkbox"/>	-	-	<input checked="" type="checkbox"/>		-

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A
 Explanations / Comments

Samples Labeled by:	RL
BIN:	32
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filled out by:	Rachele Lang	Date:	12/19/2018
		Time:	9:54

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

14 January 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1812167

Enclosed are the results of analyses for samples received by the laboratory on 12/26/18 18:15. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water [none] Clinton Elsholz	Date Reported: 01/14/19 14:28
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tysons In	1812167-01	Storm Water	12/25/18 07:40	12/26/18 18:15
Carrol In	1812167-02	Storm Water	12/25/18 08:34	12/26/18 18:15
Carrol Out	1812167-03	Storm Water	12/25/18 08:40	12/26/18 18:15
Kiln In	1812167-04	Storm Water	12/25/18 09:02	12/26/18 18:15
Kiln Out	1812167-05	Storm Water	12/25/18 09:18	12/26/18 18:15

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/14/19 14:28
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**Tysons In
1812167-01 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	8990	75.0	mg/L	AJA0045	12/31/18	01/07/19	SM 2540D	
Turbidity	6820	0.1	NTU	ANL0244	12/27/18	12/27/18	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/14/19 14:28

Carrol In
1812167-02 (Storm Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	2020	40.5	mg/L	AJA0045	12/31/18	01/07/19	SM 2540D	
Turbidity	2970	0.1	NTU	ANL0244	12/27/18	12/27/18	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/14/19 14:28

**Carrol Out
1812167-03 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	718	17.9	mg/L	AJA0045	12/31/18	01/07/19	SM 2540D	
Turbidity	1060	0.1	NTU	ANL0244	12/27/18	12/27/18	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/14/19 14:28

Kiln In
1812167-04 (Storm Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Turbidity	238	0.1	NTU	ANL0244	12/27/18	12/27/18	EPA 180.1	
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Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/14/19 14:28
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**Kiln Out
1812167-05 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	546	19.7	mg/L	AJA0045	12/31/18	01/07/19	SM 2540D	
Turbidity	880	0.1	NTU	A\L0244	12/27/18	12/27/18	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/14/19 14:28
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A\L0244 - EPA 180.1

Blank (A\L0244-BLK1)

Prepared & Analyzed: 12/27/18

Turbidity	ND	0.1	NTU							
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Duplicate (A\L0244-DUP1)

Source: 1812167-05

Prepared & Analyzed: 12/27/18

Turbidity	899	0.1	NTU		880			2.16	20	
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Batch A\A0045 - SM 2540D

Blank (A\A0045-BLK1)

Prepared: 12/31/18 Analyzed: 01/07/19

Total Suspended Solids	ND	15.0	mg/L							
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Duplicate (A\A0045-DUP1)

Source: 1812165-01

Prepared: 12/31/18 Analyzed: 01/07/19

Total Suspended Solids	10.0	15.0	mg/L		10.0			0.00	20	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/14/19 14:28
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Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 01/14/19 14:28

Excelchem Environmental Labs		CHAIN OF CUSTODY								
Project Manager: <u>CLINT ELSHOLZ</u> Email Address for Reporting: <u>CLINTON.ELSHOLZ@PARKS.CA.GOV</u> Email Address for Reporting: <u>CLINTON.ELSHOLZ@PARKS.CA.GOV</u> Company Name & Address: <u>CARNEGIE SVRA</u> <u>15751 TESLA ROAD</u> <u>LIVERMORE, CA</u>		1135 W. Sunset Blvd, Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449								
Billing Address: <u>same as above</u> Project Location: <u>Tracy, CA</u> Sampler Name: <u>Tara deSura</u> Sampler Signature: <u>[Signature]</u>		Phone #: <u>(915) 455-7876</u> Cell #: _____ Fax #: _____ P.Ord / Project Name: <u>Storm Water</u> Project Location: <u>Tracy, CA</u> Date to be reported to State's Database ? Yes ___ No ___ EDT / CDPH - Provide Source Codes / PWS ID: _____								
REPORTING REQUIREMENTS BELOW:										
PDF / Standard Format		GeoTracker / EDF / Provide Global ID								
EDD / Equis / Data Table		MDL Format								
ANALYSIS REQUEST										
page ___ of ___		LAB USE: Bin # _____								
Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water <u>Stormwater SW</u>										
SAMPLE ID:	Source	SAMPLING DATE	DATE	TIME	Matrix (See Matrix Table)	Preserved ? (Mark yes and no if both available)	Metals	Turbidity (NTU)	Total Suspended Solids (TSS)	LAB USE: Bin # _____
	Codes	DATE	TIME	Summa #	Tedlar / Summa	Yes	Sic Total			
TYSONS LN		12/25	7:40	SW	2			X	X	
CAROL LN		12/25	8:34	SW	2			X	X	
CAROL OUT		12/25	8:40	SW	2			X	X	
CLIN LN		12/25	9:02	SW	1			X	X	
CLIN OUT		12/25	9:18	SW	2			X	X	
Relinquished by: <u>[Signature]</u> DATE: <u>12/20/18</u> TIME: <u>4:00</u> Received by: <u>[Signature]</u> Relinquished by: <u>[Signature]</u> DATE: <u>12/20/18</u> TIME: <u>6:15</u> Received by Laboratory: <u>[Signature]</u>										
BIN 41 1812167										

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

18 January 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1901033

Enclosed are the results of analyses for samples received by the laboratory on 01/07/19 15:45. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water [none] Clinton Elsholz	Date Reported: 01/18/19 11:12
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Carrol Out	1901033-01	Water	01/07/19 07:45	01/07/19 15:45

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/18/19 11:12
---	--	----------------------------------

**Carrol Out
1901033-01 (Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	164	15.0	mg/L	AJA0129	01/10/19	01/10/19	SM 2540D	
Turbidity	515	0.1	NTU	AJA0137	"	"	EPA 180.1	Z-01

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/18/19 11:12
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|A0129 - SM 2540D

Blank (A A0129-BLK1)				Prepared & Analyzed: 01/10/19						
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A A0129-DUP1)				Source: 1901020-03 Prepared & Analyzed: 01/10/19						
Total Suspended Solids	9.0	15.0	mg/L		10.0			10.5	20	

Duplicate (A A0129-DUP2)				Source: 1901042-03 Prepared & Analyzed: 01/10/19						
Total Suspended Solids	29.0	15.0	mg/L		31.0			6.67	20	

Batch A|A0137 - EPA 180.1

Blank (A A0137-BLK1)				Prepared & Analyzed: 01/10/19						
Turbidity	ND	0.1	NTU							

Duplicate (A A0137-DUP1)				Source: 1901033-01 Prepared & Analyzed: 01/10/19						
Turbidity	531	0.1	NTU		515			3.06	20	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/18/19 11:12

Notes and Definitions

- Z-01 Sample was originally run withing holding time. It was re-analyzed out of hold due to failing quality control.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 01/18/19 11:12

Sample Integrity

WORK ORDER: 1901033

Date Received: 1/07/2019

Section 1 – Sample Arrival Info.

Sample Transport: EXCELICHEM Courier Transported In: Ice Chest

Describe type of packing materials: N/A

Has chilling process begun? Yes Samples Received: On Ice

Temperature of Samples (°C): 0.4 Ice Chest Temperature(s) (°C): 5.0

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			
Did all bottle labels agree with COC?	X			
Were correct containers used for the tests requested?	X			
Were correct preservations used for the tests requested?	X			
Was a sufficient amount of sample sent for tests indicated?	X			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			X	

Section 3 – Summa/Flow regulator Info.

Used Summa#: N/A

Unused Summa#: N/A

Cleaning Summa#: N/A

Regulator#: N/A

Was there any visual damage to summa canisters or flow regulators? **Explain.**

Section 4 – COC Info.

	Completed		Info From Comment		Completed		Comments
	Yes	No			Yes	No	
Was COC Received	X		-	Analysis Requested	X		
Date Sampled	X		-	Samples arrived within holding time	X		
Time Sampled	X		-	Any hold times less than 72 hrs.	X		-Turbidity
Sample ID	X		-	Client Name	X		
Rush TAT		X	-	Address/Telephone #	X		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments

Samples Labeled by:	RL
BIN:	7
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filed out by:	Rachele Lang	Date: 1/8/2019
		Time: 11:32

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

28 January 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1901107

Enclosed are the results of analyses for samples received by the laboratory on 01/18/19 12:50. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox', written over a horizontal line.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water [none] Clinton Elsholz	Date Reported: 01/28/19 08:55
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tyson's In	1901107-01	Storm Water	01/16/19 16:19	01/18/19 12:50
Carrol In	1901107-02	Storm Water	01/16/19 16:42	01/18/19 12:50
Carrol Out	1901107-03	Storm Water	01/16/19 16:50	01/18/19 12:50
Kiln In	1901107-04	Storm Water	01/16/19 17:09	01/18/19 12:50
Kiln Out	1901107-05	Storm Water	01/16/19 17:17	01/18/19 12:50
CHC Out	1901107-06	Storm Water	01/16/19 17:30	01/18/19 12:50

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 08:55
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**Tyson's In
1901107-01 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	71400	68.2	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	38800	10.0	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/28/19 08:55

**Carrol In
1901107-02 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	42800	88.2	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	31800	10.0	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 08:55
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**Carrol Out
1901107-03 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	33700	88.2	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	26900	10.0	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 08:55
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**Kiln In
1901107-04 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	40200	150	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	19400	10.0	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 08:55
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**Kiln Out
1901107-05 (Storm Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	9660	107	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	14500	10.0	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/28/19 08:55

**CHC Out
1901107-06 (Storm Water)**

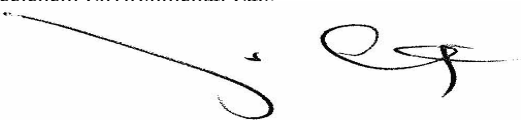
Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	158	15.0	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	207	0.1	NTU	AJA0174	01/18/19	01/18/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 08:55
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|A0174 - EPA 180.1

Blank (A|A0174-BLK1)

Prepared & Analyzed: 01/18/19

Turbidity	ND	0.1	NTU							
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Duplicate (A|A0174-DUP1)

Source: 1901107-06

Prepared & Analyzed: 01/18/19

Turbidity	214	0.1	NTU		207			3.33	20	
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Batch A|A0178 - SM 2540D

Blank (A|A0178-BLK1)

Prepared: 01/22/19 Analyzed: 01/23/19

Total Suspended Solids	ND	15.0	mg/L							
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Duplicate (A|A0178-DUP1)

Source: 1901113-01

Prepared: 01/22/19 Analyzed: 01/23/19

Total Suspended Solids	192	15.0	mg/L		193			0.519	20	
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Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
01/28/19 08:55

Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 01/28/19 08:55

Sample Integrity

WORK ORDER: 1901107

Date Received: 1/18/2019

Section 1 – Sample Arrival Info.

Sample Transport: EXCELICHEM Courier Transported In: Ice Chest

Describe type of packing materials: N/A

Has chilling process begun? Yes Samples Received: On Ice

Temperature of Samples (°C): 2.2 Ice Chest Temperature(s) (°C): 0.6

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	

Section 3 – Summa/Flow regulator Info.

Used Summa#: N/A

Unused Summa#: N/A

Cleaning Summa#: N/A

Regulator#: N/A

Was there any visual damage to summa canisters or flow regulators? Explain.

Section 4 – COC Info.

	Completed		Info From	Completed	Completed		Comments
	Yes	No			Yes	No	
Was COC Received	<input checked="" type="checkbox"/>		-	Analysis Requested	<input checked="" type="checkbox"/>		
Date Sampled	<input checked="" type="checkbox"/>		-	Samples arrived within holding time	<input checked="" type="checkbox"/>		
Time Sampled	<input checked="" type="checkbox"/>		-	Any hold times less than 72 hrs.	<input checked="" type="checkbox"/>		-Turbidity
Sample ID	<input checked="" type="checkbox"/>		-	Client Name	<input checked="" type="checkbox"/>		
Rush TAT		<input checked="" type="checkbox"/>	-	Address/Telephone #	<input checked="" type="checkbox"/>		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments:

Samples Labeled by:	<u>RL</u>
BIN:	<u>18</u>
COC Scanned/Attached by:	<u>RL</u>
Sample labels reviewed by:	<u>RL</u>

Filled out by:	<u>Rachele Lang</u>	Date:	<u>1/21/2019</u>
		Time:	<u>12:27</u>

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

28 January 2019

Clinton Elsholz

Department of Parks and Rec - Carnegie SVRA

15751 Tesla Rd

Livermore, CA 94550-9167

RE: Carnegie SVRA

Work order number:1901113

Enclosed are the results of analyses for samples received by the laboratory on 01/21/19 14:10. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Carnegie SVRA [none] Clinton Elsholz	Date Reported: 01/28/19 09:02
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Car Out	1901113-01	Water	01/21/19 08:54	01/21/19 14:10

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Carnegie SVRA [none] Clinton Elsholz	Date Reported: 01/28/19 09:02
---	---	--	----------------------------------

**Car Out
1901113-01 (Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	193	15.0	mg/L	AJA0178	01/22/19	01/23/19	SM 2540D	
Turbidity	422	0.1	NTU	AJA0176	"	01/22/19	EPA 180.1	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Carnegie SVRA [none] Clinton Elsholz	Date Reported: 01/28/19 09:02
---	---	--	----------------------------------

Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|A0176 - EPA 180.1

Blank (A A0176-BLK1)				Prepared & Analyzed: 01/22/19						
Turbidity	ND	0.1	NTU							
Duplicate (A A0176-DUP1)				Source: 1901113-01 Prepared & Analyzed: 01/22/19						
Turbidity	410	0.1	NTU		422			2.88	20	

Batch A|A0178 - SM 2540D

Blank (A A0178-BLK1)				Prepared: 01/22/19 Analyzed: 01/23/19						
Total Suspended Solids	ND	15.0	mg/L							
Duplicate (A A0178-DUP1)				Source: 1901113-01 Prepared: 01/22/19 Analyzed: 01/23/19						
Total Suspended Solids	192	15.0	mg/L		193			0.519	20	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Carnegie SVRA Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 01/28/19 09:02
---	--	----------------------------------

Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

12 February 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1902016

Enclosed are the results of analyses for samples received by the laboratory on 02/04/19 15:30. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/12/19 12:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tyson's In	1902016-01	Storm water	02/02/19 08:24	02/04/19 15:30
Carrol In	1902016-02	Storm water	02/02/19 08:50	02/04/19 15:30
Carrol Out	1902016-03	Storm water	02/02/19 09:01	02/04/19 15:30
Kiln In	1902016-04	Storm water	02/02/19 09:15	02/04/19 15:30
Kiln Out	1902016-05	Storm water	02/02/19 09:22	02/04/19 15:30
CHC Out	1902016-06	Storm water	02/02/19 09:32	02/04/19 15:30
CHC In	1902016-07	Storm water	02/04/19 07:19	02/04/19 15:30
Tyson Out	1902016-08	Storm water	02/04/19 08:04	02/04/19 15:30

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**Tysons In
1902016-01 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	21400	57.7	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	26800	5.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/12/19 12:08

Carrol In
1902016-02 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	12600	53.6	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	17700	5.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**Carrol Out
1902016-03 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1480	19.7	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	3790	1.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**Kiln In
1902016-04 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	4330	34.1	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	7940	1.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**Kiln Out
1902016-05 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1570	20.5	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	3570	1.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**CHC Out
1902016-06 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	2720	22.1	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	6750	1.0	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	O-10

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/12/19 12:08

CHC In
1902016-07 (Storm water)

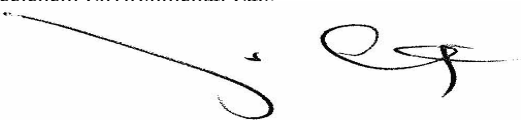
Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	572	15.0	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	974	0.1	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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**Tyson Out
1902016-08 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	598	15.0	mg/L	AJB0054	02/08/19	02/11/19	SM 2540D	
Turbidity	1630	0.2	NTU	AJB0061	02/05/19	02/05/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A|B0054 - SM 2540D

Blank (A B0054-BLK1)				Prepared & Analyzed: 02/07/19						
Total Suspended Solids	ND	15.0	mg/L							

Blank (A B0054-BLK2)				Prepared: 02/08/19 Analyzed: 02/11/19						
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A B0054-DUP1)				Source: 1902006-03		Prepared & Analyzed: 02/08/19				
Total Suspended Solids	8.0	15.0	mg/L		10.0			22.2	20	Z-01

Duplicate (A B0054-DUP2)				Source: 1902027-04		Prepared: 02/08/19 Analyzed: 02/11/19				
Total Suspended Solids	11.0	15.0	mg/L		10.0			9.52	20	

Batch A|B0061 - EPA 180.1

Blank (A B0061-BLK1)				Prepared & Analyzed: 02/05/19						
Turbidity	ND	0.1	NTU							

Duplicate (A B0061-DUP1)				Source: 1902016-07		Prepared & Analyzed: 02/05/19				
Turbidity	939	0.1	NTU		974			3.66	20	

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Laboratory Representative

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Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/12/19 12:08
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Notes and Definitions

- Z-01 Large RPD value due to small sample and duplicate values.
- O-10 This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 02/12/19 12:08

Excelchem		CHAIN OF CUSTODY				
Environmental Labs		1135 W. Sunset Blvd, Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449				
Project Manager: <u>Clinton Elsholz</u>		Phone #: <u>916 455 7874</u>				
Email Address for Reporting: <u>clinton.elsholz@parks.ca.gov</u>		Cell #: _____				
Email Address for Reporting: _____		Fax #: _____				
Company Name & Address: <u>CARNEGIE SVRA</u> <u>15751 Tesla Rd</u> <u>LIVERMORE CA 94550</u>		P-CH / Project Name: <u>Storm Water</u>				
Billing Address: _____		Project Location: <u>Tracy, CA</u>				
Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water		Sample Name: <u>Tara de Silva</u> Sampler Signature: <u>[Signature]</u>				
Matrix (See Matrix Table)		Preserved? (Mark yes and no if both available)				
SAMPLE ID:	Source Codes	DATE	TIME	Yes (No)	Metals	ANALYSIS REQUEST
	SAMPLING	DATE	TIME	Summa #	Sic Total	
Tysons In	2/2	0824 SW	2			
Carroll In	1	0850 SW	2			
Carroll Out	1	0901 SW	2			
KLN In	1	0915 SW	2			
KLN Out	1	0922 SW	2			
CHC Out	2	2/4/19 0932 SW	2			
CHC In	2	2/4/19 0719 SW	2			
Tyson Out	2	2/4/19 0804 SW	2			
Relinquished by: <u>[Signature]</u>		DATE	TIME	Received by: <u>[Signature]</u>	Remarks:	
Relinquished by: <u>[Signature]</u>		DATE	TIME	Received by: <u>[Signature]</u>	Remarks: <u>Out of Hold time, run anyway</u>	
BIN <u>1902016</u>		BIN <u>88</u>				
LAB USE: _____		Date to be reported to State's Database? Yes ___ No ___		EDT / CDPH - Provide Source Codes / PWS ID: _____		
Microbiology		page <u> </u> of <u> </u>				
Work Order: _____						

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

18 February 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1902049

Enclosed are the results of analyses for samples received by the laboratory on 02/11/19 14:20. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox', written over a horizontal line.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CHC In	1902049-01	Storm water	02/10/19 08:45	02/11/19 14:20
Tyson's In	1902049-02	Storm water	02/10/19 08:54	02/11/19 14:20
Tyson's Out	1902049-03	Storm water	02/10/19 09:00	02/11/19 14:20
Carrol In	1902049-04	Storm water	02/10/19 09:15	02/11/19 14:20
Carrol Out	1902049-05	Storm water	02/10/19 09:20	02/11/19 14:20
Kiln In	1902049-06	Storm water	02/10/19 09:40	02/11/19 14:20
Kiln Out	1902049-07	Storm water	02/10/19 09:46	02/11/19 14:20
CHC Out	1902049-08	Storm water	02/10/19 09:50	02/11/19 14:20

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**CHC In
1902049-01 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	484	15.0	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	764	0.1	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**Tyson's In
1902049-02 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	3190	35.7	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	4200	0.5	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/18/19 11:23

Tyson's Out
1902049-03 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	213	15.0	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	610	0.1	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**Carrol In
1902049-04 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	2690	42.9	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	4420	0.5	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**Carrol Out
1902049-05 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1370	32.6	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	3230	0.5	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**Kiln In
1902049-06 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1510	40.5	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	3020	0.5	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**Kiln Out
1902049-07 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1300	31.2	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	3600	0.5	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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**CHC Out
1902049-08 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	559	15.0	mg/L	AJB0080	02/12/19	02/12/19	SM 2540D	
Turbidity	1210	0.2	NTU	AJB0074	02/11/19	02/11/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/18/19 11:23
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|B0074 - EPA 180.1

Blank (A B0074-BLK1)										
Prepared & Analyzed: 02/11/19										
Turbidity	ND	0.1	NTU							

Blank (A B0074-BLK2)										
Prepared & Analyzed: 02/11/19										
Turbidity	ND	0.1	NTU							

Duplicate (A B0074-DUP1)										
Source: 1902045-01										
Prepared & Analyzed: 02/11/19										
Turbidity	69.7	0.1	NTU		70.2			0.715	20	

Duplicate (A B0074-DUP2)										
Source: 1902045-02										
Prepared & Analyzed: 02/11/19										
Turbidity	35.9	0.1	NTU		33.0			8.42	20	

Batch A|B0080 - SM 2540D

Blank (A B0080-BLK1)										
Prepared & Analyzed: 02/12/19										
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A B0080-DUP1)										
Source: 1902040-01										
Prepared & Analyzed: 02/12/19										
Total Suspended Solids	9.0	15.0	mg/L		9.0			0.00	20	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/18/19 11:23

Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 02/18/19 11:23

Sample Integrity

Date Received: 2/11/2019

WORK ORDER: 1902049

Section 1 – Sample Arrival Info.

Sample Transport: EXCELICHEM Courier Transported In: Ice Chest

Describe type of packing materials: N/A

Has chilling process begun? Yes Samples Received: On Ice

Temperature of Samples (°C): 4.0 Ice Chest Temperature(s) (°C): 0.6

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			-
Did all bottle labels agree with COC?	X			-
Were correct containers used for the tests requested?	X			-
Were correct preservations used for the tests requested?	X			-
Was a sufficient amount of sample sent for tests indicated?	X			-
Were bubbles present in VOA Vials?: (Volatile Methods Only)			X	-

Section 3 – Summa/Flow regulator Info.

Used Summa#:	N/A
Unused Summa#:	
Cleaning Summa#:	
Regulator#:	
Was there any visual damage to summa canisters or flow regulators? Explain.	

Section 4 – COC Info.

	Completed		Info From	Completed	Completed		Comments
	Yes	No			Yes	No	
Was COC Received	X		-	Analysis Requested	X		-
Date Sampled	X		-	Samples arrived within holding time	X		-
Time Sampled	X		-	Any hold times less than 72 hrs.	X		-Turbidity
Sample ID	X		-	Client Name	X		-
Rush TAT		X	-	Address/Telephone #	X		-

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments:

Samples Labeled by:	RL
BIN:	82
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filled out by:	Rachele Lang	Date:	2/11/2019
		Time:	16:07

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

21 February 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1902090

Enclosed are the results of analyses for samples received by the laboratory on 02/14/19 15:30. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox'.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CHC In	1902090-01	Storm water	02/13/19 09:30	02/14/19 15:30
Tyson's In	1902090-02	Storm water	02/13/19 09:45	02/14/19 15:30
Tyson's Out	1902090-03	Storm water	02/13/19 09:49	02/14/19 15:30
Carrol In	1902090-04	Storm water	02/13/19 10:09	02/14/19 15:30
Carrol Out	1902090-05	Storm water	02/13/19 10:15	02/14/19 15:30
Kiln In	1902090-06	Storm water	02/13/19 10:45	02/14/19 15:30
Kiln Out	1902090-07	Storm water	02/13/19 10:58	02/14/19 15:30
CHC Out	1902090-08	Storm water	02/13/19 11:05	02/14/19 15:30

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
---	--	----------------------------------

**CHC In
1902090-01 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	137	15.0	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	350	0.1	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/21/19 17:26

**Tyson's In
1902090-02 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	22100	68.2	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	33100	5.0	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
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**Tyson's Out
1902090-03 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	6210	36.6	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	14300	2.0	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
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Carrol In
1902090-04 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	15400	60.0	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	21600	2.5	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
---	--	----------------------------------

**Carrol Out
1902090-05 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	10400	62.5	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	20800	2.5	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
02/21/19 17:26

Kiln In
1902090-06 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	6160	41.7	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	9150	1.0	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
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Kiln Out
1902090-07 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	9710	53.6	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	19800	2.5	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
---	--	----------------------------------

**CHC Out
1902090-08 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	3820	36.6	mg/L	AJB0118	02/19/19	02/19/19	SM 2540D	
Turbidity	9210	1.0	NTU	AJB0105	02/15/19	02/15/19	EPA 180.1	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
---	--	----------------------------------

Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|B0105 - EPA 180.1

Blank (A B0105-BLK1) Prepared & Analyzed: 02/15/19										
Turbidity	ND	0.1	NTU							
Blank (A B0105-BLK2) Prepared & Analyzed: 02/15/19										
Turbidity	ND	0.1	NTU							
Duplicate (A B0105-DUP1) Source: 1902090-01 Prepared & Analyzed: 02/15/19										
Turbidity	354	0.1	NTU		350			1.14	20	
Duplicate (A B0105-DUP2) Source: 1902080-01 Prepared & Analyzed: 02/15/19										
Turbidity	96.1	0.1	NTU		93.9			2.32	20	

Batch A|B0118 - SM 2540D

Blank (A B0118-BLK1) Prepared & Analyzed: 02/19/19										
Total Suspended Solids	ND	15.0	mg/L							
Blank (A B0118-BLK2) Prepared & Analyzed: 02/19/19										
Total Suspended Solids	ND	15.0	mg/L							
Blank (A B0118-BLK3) Prepared & Analyzed: 02/19/19										
Total Suspended Solids	ND	15.0	mg/L							
Duplicate (A B0118-DUP1) Source: 1902074-01 Prepared & Analyzed: 02/19/19										
Total Suspended Solids	ND	15.0	mg/L		ND				20	
Duplicate (A B0118-DUP2) Source: 1902100-01 Prepared & Analyzed: 02/19/19										
Total Suspended Solids	ND	15.0	mg/L		ND				20	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Project Number: Project Manager:	Storm Water [none] Clinton Elsholz	Date Reported: 02/21/19 17:26
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|B0118 - SM 2540D

Duplicate (A|B0118-DUP3)

Source: 1902100-02

Prepared & Analyzed: 02/19/19

Total Suspended Solids	ND	15.0	mg/L		ND				20	
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Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 02/21/19 17:26
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Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

12 March 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1903022

Enclosed are the results of analyses for samples received by the laboratory on 03/04/19 14:10. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Cox', written over a horizontal line.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CHC In	1903022-01	Storm water	03/02/19 07:34	03/04/19 14:10
Tysons In	1903022-02	Storm water	03/02/19 07:50	03/04/19 14:10
Carrol In	1903022-03	Storm water	03/02/19 08:10	03/04/19 14:10
Carrol Out	1903022-04	Storm water	03/02/19 08:15	03/04/19 14:10
Kiln In	1903022-05	Storm water	03/02/19 08:37	03/04/19 14:10
Kiln Out	1903022-06	Storm water	03/02/19 08:40	03/04/19 14:10
CHC Out	1903022-07	Storm water	03/02/19 08:49	03/04/19 14:10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 03/12/19 17:31
---	--	----------------------------------

**CHC In
1903022-01 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	40.0	15.0	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	55.1	0.1	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

**Tysons In
1903022-02 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	52800	78.9	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	56300	10.0	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

Carrol In
1903022-03 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	14100	53.6	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	23000	2.5	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

**Carrol Out
1903022-04 (Storm water)**

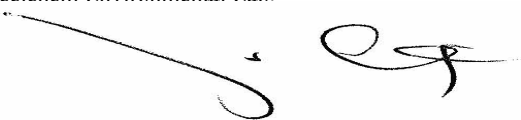
Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	462	15.0	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	1790	0.2	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

Kiln In
1903022-05 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	4120	50.0	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	14500	2.0	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

Kiln Out
1903022-06 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	376	15.0	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	1440	0.2	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
03/12/19 17:31

CHC Out
1903022-07 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	785	15.0	mg/L	AJC0077	03/08/19	03/08/19	SM 2540D	
Turbidity	2640	0.4	NTU	AJC0074	03/06/19	03/06/19	EPA 180.1	O-10, R-07

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 03/12/19 17:31
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|C0074 - EPA 180.1

Blank (A C0074-BLK1)				Prepared & Analyzed: 03/06/19						
Turbidity	ND	0.1	NTU							O-10

Duplicate (A C0074-DUP1)				Source: 1903022-01		Prepared & Analyzed: 03/06/19				
Turbidity	56.4	0.1	NTU		55.1			2.33	20	

Batch A|C0077 - SM 2540D

Blank (A C0077-BLK1)				Prepared & Analyzed: 03/08/19						
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A C0077-DUP1)				Source: 1903022-01		Prepared & Analyzed: 03/08/19				
Total Suspended Solids	42.0	15.0	mg/L		40.0			4.88	20	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 03/12/19 17:31
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Notes and Definitions

- R-07 This sample was diluted due to matrix interference, resulting in elevated reporting limits
- O-10 This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 03/12/19 17:31

Excelchem		CHAIN OF CUSTODY																			
Environmental Labs		1135 W. Sunset Blvd. Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fx: 916-543-4449																			
Project Manager: <u>Clinton Elsholz</u>		Phone #: <u>925 455 7876</u>																			
Email Address for Reporting: <u>Clinton.Elsholz@parks.ca.gov</u>		Cell #: _____																			
Email Address for Reporting: _____		Fax #: _____																			
Company Name & Address: <u>Carnegie SVRA 15751 Tesla Rd. Livermore, CA 94550</u>		P.Off / Project Name: <u>Storm Water</u>																			
Billing Address: _____		Project Location: <u>Tracy, CA</u>																			
Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water		Sampler Name: <u>T. DE SILVA</u> Sampler Signature: <u>[Signature]</u>																			
Matrix (See Matrix Table)		Analyses Requested: Data to be reported to State's Database ? Yes ___ No ___ EDT / CDPH - Provide Source Codes / PWS ID: _____ page ___ of ___																			
SAMPLE ID:	Source Codes	SAMPLING DATE TIME	Summa #	Preserved ? (Mark yes and no if both available)										Metals		Turbidity (NTU)	Total Suspended Solids (TSS)	LAB USE: Bln # _____	Microbiology	Work Order	
				Yes	No	Silic Total	Total														
CHC In		3/2 0734 SW	2	X																	
Tyson's In		3/2 0750 SW	2	X																	
Parrel In		3/2 0810 SW	2	X																	
Parrel Out		3/2 0815 SW	2	X																	
Kln In		3/2 0837 SW	2	X																	
Kln Out		3/2 0846 SW	2	X																	
CHC Out		3/2 0849 SW	2	X																	
Relinquished by: <u>[Signature]</u>		DATE: <u>3-4-19</u>	TIME: <u>12:39</u>	Received by: <u>[Signature]</u>		DATE: <u>3-4-19</u>		TIME: <u>14:10</u>		Requested by Laboratory: <u>[Signature]</u>		Remarks: _____		BIN: <u>1903022</u>		BIN: <u>2</u>					

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 03/12/19 17:31

Sample Integrity

Date Received: 3/04/2019

WORK ORDER: 1903022

Section 1 – Sample Arrival Info.

Sample Transport: **EXCELCHEM Courier** Transported In: **Ice Chest**

Describe type of packing materials: **N/A**

Has chilling process begun? **Yes** Samples Received: **On Ice**

Temperature of Samples (°C): **N/A** Ice Chest Temperature(s) (°C): **N/A**

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			-
Did all bottle labels agree with COC?	X			-
Were correct containers used for the tests requested?	X			-
Were correct preservations used for the tests requested?	X			-
Was a sufficient amount of sample sent for tests indicated?	X			-
Were bubbles present in VOA Vials?: (Volatile Methods Only)			X	-

Section 3 – Summa/Flow regulator Info.

Used Summa#: **N/A**

Unused Summa#: **N/A**

Cleaning Summa#: **N/A**

Regulator#: **N/A**

Was there any visual damage to summa canisters or flow regulators? **Explain.**

Section 4 – COC Info.

	Completed		Info From	Completed	Completed		Comments
	Yes	No			Yes	No	
Was COC Received	X		-	Analysis Requested	X		-
Date Sampled	X		-	Samples arrived within holding time		X	-expired; run analysis
Time Sampled	X		-	Any hold times less than 72 hrs.	X		- Turbidity
Sample ID	X		-	Client Name	X		-
Rush TAT		X	-	Address/Telephone #	X		-

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: **N/A** Notified by: **N/A**

Explanations / Comments:

Samples Labeled by:	RL
BIN:	02
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filled out by: Rachele Lang	Date: 3/5/2019
	Time: 13:49

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

04 April 2019
Clinton Elsholz
Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167
RE: Storm Water

Work order number:1903140

Enclosed are the results of analyses for samples received by the laboratory on 03/25/19 16:00. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read 'JC' followed by a stylized flourish.

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
04/04/19 18:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CHC In	1903140-01	Storm water	03/23/19 08:53	03/25/19 16:00
Tyson's In	1903140-02	Storm water	03/23/19 09:15	03/25/19 16:00
Carrol In	1903140-03	Storm water	03/23/19 09:40	03/25/19 16:00
Carrol Out	1903140-04	Storm water	03/23/19 09:45	03/25/19 16:00
Kiln In	1903140-05	Storm water	03/23/19 10:05	03/25/19 16:00
Kiln Out	1903140-06	Storm water	03/23/19 10:15	03/25/19 16:00
CHC Out	1903140-07	Storm water	03/23/19 10:25	03/25/19 16:00

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
04/04/19 18:39

CHC In
1903140-01 (Storm water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Wet Chemistry

Total Suspended Solids	69.0	15.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	51.2	0.1	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**Tyson's In
1903140-02 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	1360	18.3	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	5360	1.0	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**Carrol In
1903140-03 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	463	15.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	1710	0.2	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**Carrol Out
1903140-04 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	185	15.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	891	0.1	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**Kiln In
1903140-05 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	715	19.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	2830	0.4	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**Kiln Out
1903140-06 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	472	15.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	2060	0.4	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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**CHC Out
1903140-07 (Storm water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Suspended Solids	110	15.0	mg/L	AJD0046	03/29/19	03/29/19	SM 2540D	
Turbidity	357	0.1	NTU	AJC0216	03/26/19	03/26/19	EPA 180.1	O-10

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA 15751 Tesla Rd Livermore, CA 94550-9167	Project: Storm Water Project Number: [none] Project Manager: Clinton Elsholz	Date Reported: 04/04/19 18:39
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Wet Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|C0216 - EPA 180.1

Blank (A C0216-BLK1)				Prepared & Analyzed: 03/26/19						
Turbidity	ND	0.1	NTU							O-10

Duplicate (A C0216-DUP1)				Source: 1903140-01		Prepared & Analyzed: 03/26/19				
Turbidity	48.8	0.1	NTU		51.2			4.80	20	O-10

Batch A|D0046 - SM 2540D

Blank (A D0046-BLK1)				Prepared & Analyzed: 03/29/19						
Total Suspended Solids	ND	15.0	mg/L							

Blank (A D0046-BLK2)				Prepared & Analyzed: 03/29/19						
Total Suspended Solids	ND	15.0	mg/L							

Duplicate (A D0046-DUP1)				Source: 1903140-01		Prepared & Analyzed: 03/29/19				
Total Suspended Solids	66.0	15.0	mg/L		69.0			4.44	20	

Duplicate (A D0046-DUP2)				Source: 1903152-01		Prepared & Analyzed: 03/29/19				
Total Suspended Solids	5.0	15.0	mg/L		5.0			0.00	20	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
04/04/19 18:39

Notes and Definitions

- O-10 This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
 15751 Tesla Rd
 Livermore, CA 94550-9167

Project: Storm Water
 Project Number: [none]
 Project Manager: Clinton Elsholz

Date Reported:
 04/04/19 18:39

Sample Integrity

Date Received: 3/25/2019

WORK ORDER: 1903140

Section 1 – Sample Arrival Info.

Sample Transport: EXCELCHEM Courier Transported In: Ice Chest

Describe type of packing materials: N/A

Has chilling process begun? Yes Samples Received: On Ice

Temperature of Samples (°C): 2.8 Ice Chest Temperature(s) (°C): 0

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			-
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			-
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			-
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			-
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			-
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	-

Section 3 – Summa/Flow regulator Info.

Used Summa#: N/A

Unused Summa#: N/A

Cleaning Summa#: N/A

Regulator#: N/A

Was there any visual damage to summa canisters or flow regulators? Explain.

Section 4 – COC Info.

	Completed		Info From	Comment	Completed		Comments
	Yes	No			Yes	No	
Was COC Received	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-
Date Sampled	<input checked="" type="checkbox"/>		-	-		<input checked="" type="checkbox"/>	- Expired; run analysis
Time Sampled	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-Turbidity
Sample ID	<input checked="" type="checkbox"/>		-	-	<input checked="" type="checkbox"/>		-
Rush TAT		<input checked="" type="checkbox"/>	-	-	<input checked="" type="checkbox"/>		-

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments:

Samples Labeled by:	RL
BIN:	83
COC Scanned/Attached by:	RL
Sample labels reviewed by:	RL

Filled out by: <u>Rachele Lang</u>	Date: <u>3/26/2019</u>
	Time: <u>11:48</u>

Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
04/04/19 18:39

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Laboratories, Inc.

Department of Parks and Rec - Carnegie SVRA
15751 Tesla Rd
Livermore, CA 94550-9167

Project: Storm Water
Project Number: [none]
Project Manager: Clinton Elsholz

Date Reported:
04/04/19 18:39

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Attachment L

Revised Trail Evaluation Form

Carnegie SVRA Trail Condition Evaluation Code Key

Category		Green	Yellow	Red
Water Control Is there rilling and/or gullying on the trail? (Rill is 1" to 6" depth, Gully is >6" depth and 12" wide)		No rilling or gullying present Water control is sufficient to divert runoff	Rilling is present but no gullying Rilling is not prevented by existing BMPs because they've been degraded and are in need of maintenance, e.g. existing rolling dip is worn down.	Gully is present and/or rilling is present Rilling is occurring because existing BMPs are inadequate and BMPs need to be added, e.g. additional rolling dips need to be added.
Erosion on the Shoulder of Trails Is there accelerated erosion occurring on the shoulder of the trail?		No accelerated erosion is occurring on the shoulder of the trail.	Rill erosion is occurring on the shoulder of the trail.	Gully erosion is occurring on the shoulder of the trail.
Tread Wear Is the tread showing signs of wear?		Tread wear is minimal. Tread is compacted and easy to transverse.	Tread wear is evident. Tread is loose and challenging to transverse for over 1/3 of the trail or trail segment.	Tread wear is severe. Tread is loose and challenging to transverse for over 2/3 of the trail or trail segment.
Tread Widening Is the trail wider than designed?		Trail is not wider than designed or trail is wider but not more than 1.5 times wider.	Trail is 2 times wider but not greater than 3 times wider than designed for over 1/3 of the trail or trail segment.	Trail is 3 times or more wider than designed for over 1/3 of the trail or trail segment.
Off-trail Travel Are there unauthorized trails or routes that intercept this trail? *Mark as green if in an open riding area		No unauthorized trails or routes are occurring along this trail.	Unauthorized trails or routes are occurring off trail. Unauthorized trails or routes are not effecting the trail design.	Unauthorized trails or routes are occurring off trail. Unauthorized trails or routes are effecting the trail design.
Cause Codes				
C1	Water breaks/rolling dips not constructed to design standards	C11	Rocks or roots exposed in tread	
C2	Water breaks/rolling dips spacing too wide for conditions	C12	Barriers (natural or constructed) to control traffic is lacking	
C3	Cascading runoff from a trail or road upslope	C13	Mechanical erosion makes maintenance ineffective	
C4	Cascading runoff from an impervious surface upslope	C14	Excessive tread width	
C5	Wet area caused by a seep or spring	C15	Design/layout/construction prevents effective drainage	
C6	Excess soil moisture at time of use	C16	Uncompact side cast on outboard slope	
C7	Trail section is poorly located	C17	Berms, whoops, and stutter bumps	
C8	Trail gradient is too steep for the type and/or amount of use occurring	C18	Crossing alters channel dimensions and/or stream gradient	
C9	Segment is not designed for the type or amount of use occurring	C19	Rutting or vegetation damage to sensitive habitat	
C10	Trail blockage, e.g. brush, logs, rock fall, landslide	C20	Excessive tread wear	

Attachment M

Precipitation Data

July 2018 - June 2019

MONTHLY CLIMATOLOGICAL SUMMARY for JUL. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	HIGH		DIR
1	80.6	93.0	3:00p	67.6	11:45p	0.0	15.6	0.00	13.2	31.0	5:00p	E
2	71.9	85.3	3:15p	60.1	6:00a	0.8	7.8	0.00	11.6	30.0	4:00p	ESE
3	69.6	83.1	1:45p	58.8	6:00a	1.7	6.3	0.00	10.9	27.0	3:00p	ESE
4	67.3	79.4	3:45p	55.3	6:00a	2.6	5.0	0.00	8.6	25.0	1:00p	ESE
5	73.6	90.1	4:45p	53.6	5:30a	2.0	10.6	0.00	6.0	17.0	8:45a	ESE
6	82.6	94.4	5:00p	72.8	3:15a	0.0	17.6	0.00	7.4	22.0	7:15p	E
7	84.3	95.1	4:15p	72.5	5:15a	0.0	19.3	0.00	11.2	32.0	5:30p	ESE
8	83.9	94.4	2:00p	65.8	6:00a	0.0	18.9	0.00	12.3	31.0	4:45p	E
9	85.0	96.2	3:45p	73.3	3:45a	0.0	20.0	0.00	12.4	28.0	9:45a	ESE
10	82.7	95.1	2:00p	75.7	10:45p	0.0	17.7	0.00	12.8	39.0	6:15p	ESE
11	81.5	95.6	3:45p	64.4	6:45a	0.0	15.8	0.00	7.4	21.0	5:30p	ESE
12	81.9	93.7	5:30p	69.2	6:45a	0.0	16.9	0.00	7.1	21.0	9:00p	E
13	83.5	95.3	4:15p	73.9	5:30a	0.0	18.5	0.00	9.3	25.0	6:45p	ESE
14	81.1	91.9	3:00p	70.3	12:00m	0.0	16.1	0.00	14.7	32.0	4:30p	E
15	79.0	91.5	2:45p	61.8	4:45a	0.1	14.1	0.00	14.5	32.0	5:15p	ESE
16	83.6	96.8	3:45p	65.7	5:30a	0.0	18.6	0.00	11.8	28.0	6:30p	E
17	84.7	98.0	4:00p	68.8	7:15a	0.0	18.9	0.00	11.3	29.0	3:30p	ESE
18	86.5	100.5	1:30p	73.7	6:15a	0.0	21.5	0.00	9.0	24.0	6:15p	E
19	85.7	100.4	4:30p	69.4	6:30a	0.0	20.7	0.00	8.2	26.0	5:30p	ESE
20	80.8	95.4	2:15p	66.9	5:15a	0.0	15.8	0.00	7.6	25.0	6:45p	ESE
21	78.2	92.2	3:30p	68.3	6:15a	0.0	13.2	0.00	10.4	33.0	5:45p	ESE
22	78.7	91.9	3:15p	67.3	6:30a	0.0	13.7	0.00	12.6	30.0	4:15p	E
23	83.2	95.5	4:15p	72.2	5:30a	0.0	18.2	0.00	12.1	28.0	6:15p	E
24	87.9	99.3	2:00p	76.9	12:15a	0.0	22.9	0.00	12.5	31.0	5:00p	ESE
25	90.5	100.3	4:30p	80.2	6:00a	0.0	25.5	0.00	12.9	30.0	7:00p	ESE
26	89.3	101.7	12:45p	77.7	6:15a	0.0	24.3	0.00	11.0	29.0	5:00p	E
27	85.6	99.7	4:30p	73.3	12:00m	0.0	20.6	0.00	12.4	32.0	3:15p	ESE
28	84.1	97.6	5:15p	70.1	6:45a	0.0	19.1	0.00	9.4	23.0	4:15p	ESE
29	84.7	95.1	5:15p	75.9	6:30a	0.0	19.7	0.00	11.5	29.0	3:30p	E
30	86.4	97.4	3:45p	73.1	7:00a	0.0	21.4	0.00	10.0	27.0	3:00p	ESE
31	85.3	95.2	4:15p	69.3	7:00a	0.0	20.3	0.00	9.4	28.0	5:15p	E
	82.1	101.7	26	53.6	5	7.2	534.6	0.00	10.7	39.0	10	ESE

Max >= 90.0: 28

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.00 ON 07/01/18

Days of Rain: 0 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for AUG. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	DIR		
1	84.0	94.8	2:30p	71.5	6:30a	0.0	19.0	0.00	11.7	31.0	5:45p	E
2	82.1	92.8	3:00p	67.9	6:45a	0.0	17.1	0.00	13.2	32.0	5:45p	ESE
3	83.3	95.9	4:00p	69.2	4:00a	0.0	18.3	0.00	8.8	22.0	3:30a	ESE
4	85.2	94.9	3:15p	76.5	7:00a	0.0	20.2	0.00	11.2	32.0	9:00p	ESE
5	80.8	90.7	3:00p	71.0	6:45a	0.0	15.8	0.00	11.7	28.0	4:30p	ESE
6	82.7	94.4	2:45p	70.6	6:00a	0.0	17.7	0.00	9.3	26.0	6:00p	E
7	82.3	90.3	4:00p	73.3	7:00a	0.0	17.3	0.00	9.5	28.0	4:15p	ESE
8	80.3	96.4	4:00p	66.4	6:00a	0.0	15.3	0.00	7.1	24.0	6:15p	E
9	83.9	100.1	5:00p	68.7	3:30a	0.0	18.9	0.00	6.1	19.0	2:00p	E
10	87.8	98.6	1:30p	75.7	3:45a	0.0	22.8	0.00	10.3	28.0	2:45p	ESE
11	87.3	96.0	2:00p	79.8	6:15a	0.0	22.3	0.00	12.3	30.0	2:15p	ESE
12	82.9	95.3	2:15p	71.1	6:30a	0.0	17.9	0.00	8.9	28.0	8:00p	ESE
13	78.0	88.7	2:30p	64.8	12:00m	0.0	13.0	0.00	11.7	34.0	4:00p	ESE
14	68.0	80.2	3:00p	59.6	7:00a	1.6	4.6	0.00	15.7	31.0	3:15p	ESE
15	68.5	81.1	2:45p	59.9	4:30a	1.6	5.1	0.00	15.6	31.0	5:30p	ESE
16	74.3	91.7	3:00p	59.9	6:45a	1.0	10.3	0.00	11.1	25.0	4:15a	ESE
17	82.9	97.3	1:45p	65.3	6:45a	0.0	17.9	0.00	7.2	23.0	4:30p	ESE
18	85.3	99.8	4:15p	71.7	6:30a	0.0	20.3	0.00	8.7	21.0	4:00p	E
19	82.5	96.4	3:30p	63.4	7:00a	0.0	17.5	0.00	8.2	24.0	6:15p	ESE
20	73.4	87.0	1:00p	60.3	12:00m	0.4	8.8	0.00	10.0	27.0	6:00p	E
21	65.5	78.0	4:00p	57.5	6:30a	2.8	3.3	0.00	14.3	27.0	4:15p	ESE
22	67.5	81.4	5:00p	57.9	6:15a	2.2	4.7	0.00	11.3	24.0	11:30p	ESE
23	66.5	80.0	3:45p	57.8	7:00a	2.5	4.1	0.00	13.2	29.0	10:00p	ESE
24	67.6	82.3	4:00p	57.8	6:15a	2.4	5.1	0.00	10.8	26.0	12:15a	ESE
25	70.9	87.3	4:30p	55.3	7:00a	1.9	7.8	0.00	7.2	23.0	3:45p	ESE
26	70.4	84.8	4:00p	58.0	6:30a	1.2	6.6	0.00	9.7	25.0	4:30p	E
27	67.0	82.5	3:00p	57.6	4:00a	2.8	4.8	0.00	10.8	27.0	11:45p	ESE
28	65.3	76.6	3:00p	57.9	4:15a	2.7	3.0	0.00	13.6	28.0	4:30a	ESE
29	66.8	80.1	3:45p	57.5	7:00a	2.2	4.0	0.00	10.9	25.0	10:15p	ESE
30	65.2	75.9	5:00p	54.6	7:00a	3.0	3.2	0.00	8.1	22.0	5:45p	E
31	70.0	85.5	4:00p	57.2	6:30a	2.3	7.3	0.00	10.1	25.0	4:30p	ESE
	76.1	100.1	9	54.6	30	30.6	374.0	0.00	10.6	34.0	13	ESE

Max >= 90.0: 16

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.00 ON 08/01/18

Days of Rain: 0 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for SEP. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	HIGH		DIR
1	74.0	87.8	4:30p	59.9	7:00a	0.6	9.6	0.00	10.2	23.0	5:45p	E
2	77.8	93.6	4:30p	61.3	7:15a	0.4	13.2	0.00	7.2	25.0	5:15p	ESE
3	76.7	90.3	3:45p	60.5	7:00a	0.2	11.9	0.00	9.1	26.0	5:00p	ESE
4	77.5	93.4	3:30p	57.1	7:00a	0.8	13.4	0.00	6.0	19.0	4:15p	E
5	74.5	88.9	1:45p	62.5	5:30a	0.2	9.7	0.00	8.5	23.0	6:15p	ESE
6	74.3	89.6	3:30p	58.4	6:45a	1.3	10.6	0.00	9.1	23.0	3:45p	ESE
7	81.7	96.5	4:00p	67.5	6:30a	0.0	16.7	0.00	6.9	21.0	5:30p	ESE
8	82.2	91.7	2:15p	70.9	11:00p	0.0	17.2	0.00	10.9	27.0	5:00p	ESE
9	77.6	91.8	4:45p	63.9	7:15a	0.0	12.6	0.00	7.8	21.0	2:00a	E
10	77.8	89.8	4:00p	64.1	6:45a	0.0	12.9	0.00	8.6	22.0	5:15p	E
11	78.1	90.0	2:45p	63.3	11:45p	0.0	13.1	0.00	9.9	25.0	4:15p	ESE
12	68.5	77.2	2:00p	61.0	7:30a	0.5	4.0	0.00	12.7	31.0	2:30a	E
13	65.5	73.5	2:30p	59.7	10:30p	1.8	2.3	0.00	10.7	28.0	1:15p	E
14	67.6	81.0	5:00p	55.1	7:00a	2.3	4.9	0.00	8.1	19.0	6:45p	ESE
15	64.5	72.2	3:15p	56.9	12:00m	2.4	1.9	0.00	13.4	33.0	2:45p	E
16	65.2	77.1	3:45p	55.0	2:30a	3.0	3.2	0.00	10.7	24.0	8:15a	E
17	64.8	76.7	2:15p	56.0	6:15a	3.2	3.0	0.00	12.1	28.0	4:45p	ESE
18	65.5	79.1	4:00p	53.8	5:45a	3.6	4.0	0.00	9.5	26.0	12:15a	ESE
19	70.8	85.1	4:45p	57.1	5:45a	1.7	7.6	0.00	6.6	17.0	2:00p	E
20	75.6	88.9	4:30p	64.0	4:00a	0.0	10.6	0.00	5.7	22.0	5:00a	E
21	75.9	92.0	2:30p	61.7	6:30a	0.4	11.4	0.00	6.7	17.0	3:00p	E
22	77.4	90.2	2:45p	64.4	7:15a	0.0	12.4	0.00	6.9	22.0	5:15p	E
23	76.3	88.2	1:30p	61.2	6:30a	0.2	11.5	0.00	7.1	25.0	8:15p	ESE
24	73.4	88.7	4:30p	58.1	7:15a	0.9	9.2	0.00	6.0	16.0	10:15a	ESE
25	76.4	91.0	4:15p	63.7	6:30a	0.1	11.5	0.00	7.4	20.0	10:15a	E
26	78.5	94.4	3:00p	64.6	7:00a	0.0	13.5	0.00	6.1	16.0	2:30a	E
27	79.3	96.7	3:45p	65.8	7:15a	0.0	14.3	0.00	6.8	17.0	10:00p	E
28	67.1	74.7	3:45p	58.0	12:00m	1.6	3.7	0.00	13.0	32.0	10:00p	ESE
29	64.0	73.8	1:30p	54.4	7:45a	3.2	2.2	0.00	5.9	23.0	2:30a	E
30	65.6	76.7	5:00p	54.5	7:30a	2.7	3.3	0.00	4.5	19.0	5:30p	ESE
	73.1	96.7	27	53.8	18	31.1	275.4	0.00	8.5	33.0	15	E

Max >= 90.0: 12

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.00 ON 09/01/18

Days of Rain: 0 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for OCT. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	HIGH		DIR
1	68.3	79.6	5:15p	58.7	6:00a	1.2	4.5	0.00	4.1	14.0	7:00p	E
2	70.5	80.2	6:00p	64.7	7:45a	0.0	5.5	0.00	4.1	21.0	9:15p	ESE
3	67.0	74.9	1:00p	61.5	7:30a	0.5	2.1	0.81	3.8	15.0	12:45a	E
4	64.5	72.8	4:00p	58.8	12:00m	2.1	1.6	0.00	8.4	24.0	1:45p	ESE
5	64.3	74.9	4:00p	53.3	7:30a	3.5	2.8	0.00	6.3	16.0	6:15a	ESE
6	66.8	75.9	5:15p	59.1	6:45a	1.3	3.2	0.00	9.0	24.0	4:30p	ESE
7	69.3	77.3	4:15p	62.0	7:00a	0.4	4.7	0.00	9.5	30.0	10:45a	ESE
8	67.2	78.5	4:45p	55.6	7:30a	2.1	4.3	0.00	6.3	23.0	2:00p	ESE
9	68.2	81.6	2:15p	57.2	7:30a	2.1	5.2	0.00	7.7	25.0	4:45p	E
10	61.2	72.5	3:15p	51.5	6:45a	5.4	1.5	0.00	8.2	23.0	5:45p	E
11	61.9	73.9	4:30p	51.2	7:00a	4.9	1.8	0.00	5.3	16.0	12:00m	ESE
12	66.8	81.3	4:30p	54.5	6:00a	2.9	4.7	0.00	6.1	16.0	12:30a	ESE
13	70.7	81.7	2:30p	57.7	7:00a	0.6	6.4	0.00	7.2	21.0	2:15p	E
14	66.5	77.5	4:30p	56.0	7:15a	1.9	3.5	0.00	6.1	18.0	10:45a	ESE
15	63.2	77.9	4:15p	51.0	7:00a	4.8	3.0	0.00	6.4	16.0	11:15a	ESE
16	67.2	80.7	5:15p	53.7	7:30a	2.4	4.6	0.00	5.9	16.0	2:30p	ESE
17	63.9	78.0	5:00p	52.0	7:30a	4.2	3.0	0.00	5.3	15.0	4:45a	E
18	64.2	79.6	4:15p	53.0	7:30a	4.1	3.3	0.00	5.6	14.0	3:15p	E
19	66.8	82.2	4:30p	54.7	7:15a	3.0	4.8	0.00	5.4	15.0	12:30p	E
20	68.1	82.8	3:15p	56.3	6:45a	2.4	5.5	0.00	5.8	15.0	12:45a	E
21	66.9	81.6	2:30p	54.2	6:30a	2.9	4.8	0.00	6.2	18.0	4:45p	E
22	64.7	78.0	3:00p	54.8	7:45a	3.4	3.1	0.00	7.7	19.0	4:45p	E
23	60.4	72.1	3:45p	52.8	5:15a	5.6	1.0	0.00	8.6	25.0	3:30a	ESE
24	63.5	77.2	3:00p	51.3	7:30a	4.5	3.0	0.00	5.8	18.0	2:15a	E
25	66.1	80.5	3:00p	55.4	6:45a	3.2	4.3	0.00	4.6	12.0	1:45p	ESE
26	66.8	79.6	4:45p	56.2	7:45a	2.4	4.1	0.00	4.7	14.0	2:00p	ESE
27	68.9	82.5	4:30p	58.0	7:45a	1.6	5.5	0.00	5.9	16.0	11:15p	ESE
28	66.6	75.6	2:30p	61.1	1:45a	0.9	2.5	0.00	12.1	30.0	11:45a	E
29	60.6	69.7	3:45p	52.9	8:15a	5.0	0.6	0.00	7.8	30.0	1:00a	ESE
30	59.7	73.3	4:30p	48.9	7:45a	6.7	1.4	0.00	4.9	21.0	10:30a	ESE
31	62.5	74.4	2:45p	51.6	8:15a	4.8	2.3	0.00	5.6	25.0	11:30a	ESE
	65.6	82.8	20	48.9	30	90.8	108.6	0.81	6.5	30.0	7	ESE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.81 ON 10/03/18

Days of Rain: 1 (>.01 in) 1 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for NOV. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	DIR		
1	67.5	78.9	4:30p	60.4	7:00a	1.2	3.7	0.00	6.0	17.0	9:45a	E
2	67.2	81.3	2:45p	57.1	6:15a	2.3	4.5	0.00	6.6	17.0	12:45p	E
3	67.5	81.0	2:15p	54.9	8:00a	1.9	4.4	0.00	5.2	21.0	2:45p	ESE
4	68.8	82.2	2:30p	57.8	6:15a	1.3	5.0	0.00	6.1	18.0	4:00p	ESE
5	63.2	76.4	2:45p	54.6	10:30p	4.6	2.8	0.00	6.2	21.0	11:30a	ESE
6	62.2	74.3	3:30p	53.1	7:15a	4.5	1.7	0.00	5.5	18.0	10:30a	ESE
7	59.8	73.0	2:15p	51.4	6:45a	6.8	1.6	0.00	6.2	18.0	10:15a	E
8	57.6	66.9	2:45p	49.1	12:00m	7.5	0.1	0.00	5.7	27.0	1:00a	ESE
9	53.0	68.8	2:15p	43.8	7:00a	12.4	0.4	0.00	6.5	16.0	4:15a	E
10	49.5	61.1	12:45p	38.6	7:15a	15.5	0.0	0.00	5.1	15.0	9:00p	E
11	51.9	63.0	2:45p	43.5	10:00p	13.1	0.0	0.00	5.4	18.0	3:15a	ESE
12	49.9	64.4	1:45p	36.2	6:30a	15.1	0.0	0.00	4.3	11.0	12:15a	ESE
13	49.2	62.0	1:15p	37.5	7:00a	15.8	0.0	0.00	2.9	10.0	12:30a	ESE
14	51.2	65.4	2:45p	41.2	3:45a	13.8	0.0	0.00	5.4	13.0	7:00a	ESE
15	48.2	60.9	2:15p	39.3	12:00m	16.8	0.0	0.00	3.5	11.0	2:00a	ESE
16	48.1	63.5	1:30p	36.8	4:30a	16.9	0.0	0.00	3.2	10.0	12:45p	ESE
17	48.8	62.1	2:00p	37.2	6:30a	16.2	0.0	0.00	3.7	11.0	12:15p	ESE
18	49.2	62.2	2:30p	39.7	6:00a	15.8	0.0	0.00	4.2	12.0	11:30a	ESE
19	48.5	62.3	12:00p	37.7	5:00a	16.5	0.0	0.00	2.8	11.0	11:45a	ESE
20	49.3	62.9	2:30p	36.4	7:30a	15.7	0.0	0.00	3.5	10.0	11:45a	ESE
21	55.5	68.3	1:15p	45.8	2:30a	9.8	0.3	0.40	3.3	25.0	12:15p	ESE
22	56.1	62.2	12:45p	49.4	5:15a	8.9	0.0	0.18	3.4	16.0	5:45a	E
23	57.0	65.5	1:30p	51.5	5:45a	8.0	0.0	0.08	4.0	27.0	3:15p	E
24	58.3	63.6	10:00a	49.9	10:30p	6.7	0.0	0.00	5.8	23.0	10:45a	ESE
25	54.8	64.2	2:00p	47.4	7:15a	10.2	0.0	0.00	4.7	15.0	11:45a	ESE
26	53.3	62.1	2:00p	44.3	7:15a	11.7	0.0	0.00	3.7	11.0	12:15p	ESE
27	53.8	60.0	12:45p	44.4	5:00a	11.2	0.0	0.02	3.9	21.0	11:00a	ESE
28	56.8	61.3	12:15p	54.4	12:45a	8.2	0.0	0.10	3.6	19.0	9:30p	W
29	54.3	57.8	8:15a	51.3	5:00a	10.7	0.0	0.70	7.3	30.0	6:00p	E
30	52.6	58.0	2:30p	46.9	11:45p	12.4	0.0	0.00	9.9	36.0	2:00a	E
	55.4	82.2	4	36.2	12	311.5	24.5	1.48	4.9	36.0	30	ESE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.70 ON 11/29/18

Days of Rain: 6 (>.01 in) 3 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for DEC. 2018

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	HIGH		DIR
1	51.5	55.0	10:15a	46.1	11:45p	13.5	0.0	0.49	10.2	28.0	9:45a	E
2	45.7	54.4	11:45a	38.7	6:45a	19.3	0.0	0.00	4.9	16.0	9:30a	ESE
3	44.4	50.5	1:15p	38.3	7:30a	20.6	0.0	0.00	2.6	10.0	11:15a	ESE
4	45.8	48.5	12:00m	43.4	7:45a	19.2	0.0	0.04	1.6	19.0	12:00m	W
5	48.4	52.4	4:00p	43.1	7:00a	16.6	0.0	0.25	2.5	16.0	12:15a	ESE
6	49.6	56.5	2:45p	44.3	12:00m	15.4	0.0	0.01	4.2	14.0	1:45p	E
7	47.6	58.7	2:00p	41.5	2:45a	17.4	0.0	0.00	4.1	11.0	4:00a	ESE
8	44.8	54.5	12:45p	37.1	12:00m	20.2	0.0	0.01	3.1	11.0	1:00p	ESE
9	41.1	47.7	3:15p	32.3	5:15a	23.9	0.0	0.00	1.5	10.0	11:30p	ESE
10	45.8	53.0	3:00p	37.8	12:45a	19.2	0.0	0.01	3.1	13.0	11:30p	ESE
11	46.6	59.3	2:00p	39.4	7:30a	18.4	0.0	0.00	3.8	16.0	10:15a	ESE
12	47.9	57.3	12:45p	40.4	12:30a	17.1	0.0	0.00	4.3	21.0	8:00a	ESE
13	46.6	56.9	1:30p	39.2	12:00m	18.4	0.0	0.00	5.0	14.0	12:30a	ESE
14	49.9	62.9	1:45p	38.3	12:45a	15.1	0.0	0.00	3.5	21.0	3:00p	ESE
15	49.3	58.9	11:45a	41.6	7:45a	15.7	0.0	0.00	3.0	10.0	12:15p	ESE
16	51.9	64.1	1:45p	41.6	1:15a	13.1	0.0	0.23	2.3	18.0	1:45p	ESE
17	52.4	59.1	1:45p	45.0	12:00m	12.6	0.0	0.21	3.9	22.0	2:15a	E
18	50.8	61.0	2:30p	41.5	5:30a	14.2	0.0	0.00	4.2	11.0	1:15p	E
19	50.8	58.9	2:15p	43.9	11:15p	14.2	0.0	0.00	3.2	11.0	3:30a	ESE
20	46.4	51.6	2:15p	38.6	3:30a	18.6	0.0	0.00	2.9	9.0	12:15a	WNW
21	51.7	58.0	10:45a	48.2	4:00a	13.3	0.0	0.01	3.3	14.0	12:45p	ESE
22	48.4	56.5	1:00p	38.4	7:30a	16.6	0.0	0.00	4.1	17.0	12:00p	ESE
23	47.6	55.5	2:00p	41.2	5:00a	17.4	0.0	0.00	3.3	11.0	10:15a	E
24	49.7	62.7	1:00p	40.6	4:45a	12.1	0.0	0.07	4.1	28.0	10:30p	ESE
25	50.6	58.7	2:15p	43.8	8:00a	14.4	0.0	0.36	8.2	36.0	1:45a	ESE
26	47.2	59.4	1:30p	38.1	7:30a	17.4	0.0	0.00	4.3	18.0	12:00p	E
27	49.5	55.3	2:00p	43.4	4:45a	15.5	0.0	0.00	10.0	35.0	11:45a	ESE
28	44.9	53.5	2:30p	39.6	7:30p	20.1	0.0	0.00	5.7	21.0	11:00a	ESE
29	46.7	59.2	2:45p	38.9	2:15a	18.3	0.0	0.00	6.2	18.0	10:15a	E
30	46.5	59.2	2:45p	34.8	5:45a	18.5	0.0	0.00	5.7	23.0	8:00p	ESE
31	46.4	51.7	2:15p	35.0	12:00m	18.6	0.0	0.00	10.1	35.0	8:45a	ESE
	48.0	64.1	16	32.3	9	524.9	0.0	1.69	4.5	36.0	25	ESE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.49 ON 12/01/18

Days of Rain: 7 (>.01 in) 5 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for JAN. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	DIR		
1	40.5	50.4	2:30p	33.4	7:30a	24.5	0.0	0.00	4.8	22.0	12:00p	ESE
2	40.5	50.3	2:30p	34.9	9:45p	24.5	0.0	0.00	5.2	13.0	2:00a	ESE
3	39.1	50.3	3:15p	28.5	7:45a	25.9	0.0	0.00	3.3	10.0	12:45p	ESE
4	39.8	51.1	1:30p	30.3	7:00a	25.2	0.0	0.00	3.6	11.0	5:00a	ESE
5	47.0	58.4	12:45p	36.4	12:45a	18.0	0.0	0.11	4.8	38.0	2:45p	E
6	46.3	54.6	6:45p	37.8	3:30a	18.7	0.0	0.62	4.4	30.0	5:15p	W
7	52.1	57.3	3:00p	47.0	12:45a	12.9	0.0	0.00	2.1	19.0	1:00a	E
8	53.1	60.2	12:00m	47.3	7:30a	11.9	0.0	0.00	1.9	19.0	12:00m	W
9	55.0	61.2	2:00p	45.1	12:00m	10.0	0.0	0.07	3.4	16.0	12:15a	E
10	49.5	57.4	12:00p	42.3	7:15a	15.5	0.0	0.01	4.0	12.0	12:00p	E
11	51.0	60.5	7:15p	44.9	5:00a	14.0	0.0	0.02	2.7	17.0	6:15p	E
12	49.4	55.8	4:00p	42.8	12:00m	15.6	0.0	0.00	3.5	14.0	11:15a	ESE
13	44.8	52.2	4:00p	38.0	7:15a	20.2	0.0	0.01	3.5	12.0	11:45a	ESE
14	46.5	52.7	1:30p	41.9	11:45p	18.5	0.0	0.10	2.8	15.0	7:15p	ESE
15	50.4	57.8	8:45p	42.5	12:15a	14.6	0.0	0.13	7.1	24.0	5:15p	W
16	55.6	61.2	12:15p	50.2	2:30a	9.4	0.0	1.12	6.2	30.0	10:15a	W
17	56.0	59.4	12:15p	49.8	9:45p	9.0	0.0	0.04	6.4	37.0	1:15a	E
18	52.5	59.8	2:45p	48.3	5:45a	12.5	0.0	0.00	2.4	9.0	1:15p	E
19	55.1	64.1	1:00p	48.1	6:30a	9.9	0.0	0.01	3.2	9.0	11:45a	ESE
20	53.6	65.1	12:45p	46.4	8:00p	11.4	0.0	0.39	9.5	43.0	6:30p	E
21	48.6	55.6	3:00p	41.2	11:00p	16.4	0.0	0.00	11.0	43.0	3:15a	E
22	45.7	56.6	3:15p	38.4	7:30a	19.3	0.0	0.00	3.9	21.0	12:45p	ESE
23	45.8	56.7	1:30p	37.4	7:00a	19.2	0.0	0.00	5.0	13.0	9:30p	ESE
24	48.5	61.5	3:00p	39.1	10:45p	16.5	0.0	0.00	5.4	23.0	10:45a	ESE
25	47.5	60.2	3:00p	36.9	3:15a	17.5	0.0	0.00	5.6	16.0	9:45p	ESE
26	48.9	59.9	11:45a	39.8	5:00a	16.1	0.0	0.00	3.6	14.0	12:15a	ESE
27	51.6	64.2	3:30p	39.7	6:30a	13.4	0.0	0.00	3.8	13.0	10:30p	ESE
28	54.6	63.3	12:30p	46.8	10:30p	10.4	0.0	0.00	3.8	11.0	12:15a	E
29	53.5	63.0	4:30p	44.8	1:45a	11.5	0.0	0.01	3.9	14.0	8:30a	ESE
30	52.8	62.5	3:15p	44.0	2:45a	12.2	0.0	0.03	3.0	10.0	11:45a	ESE
31	54.8	62.2	12:45p	48.2	12:00m	10.2	0.0	0.05	2.7	17.0	1:00p	E
	49.4	65.1	20	28.5	3	484.9	0.0	2.72	4.4	43.0	20	ESE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 2

Min <= 0.0: 0

Max Rain: 1.12 ON 01/16/19

Days of Rain: 11 (>.01 in) 5 (>.1 in) 1 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for FEB. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	SPEED		DIR
1	51.6	56.3	2:00p	44.4	4:30a	13.4	0.0	0.15	5.4	29.0	11:15p	W
2	54.0	59.8	2:30p	48.4	10:45p	11.0	0.0	0.67	8.6	34.0	9:00a	W
3	50.4	55.7	10:00a	44.1	10:30p	14.6	0.0	0.16	5.8	32.0	4:45p	W
4	45.2	51.1	12:15a	39.9	11:00p	19.8	0.0	1.22	8.0	34.0	12:15p	ESE
5	41.3	47.4	3:00p	36.5	9:30p	23.7	0.0	0.08	7.0	27.0	1:45a	E
6	41.7	51.3	1:30p	34.4	12:00m	23.3	0.0	0.00	5.0	19.0	11:15a	E
7	37.1	46.5	10:45a	32.3	7:30a	20.6	0.0	0.00	4.9	11.0	10:00p	ESE
8	43.5	52.0	1:15p	36.4	7:15a	21.5	0.0	0.17	2.6	15.0	1:30p	E
9	45.8	55.6	2:00p	36.1	7:30a	19.2	0.0	0.10	5.0	28.0	10:30p	E
10	42.9	48.2	2:45p	36.2	7:00a	22.1	0.0	0.30	8.0	31.0	12:30a	E
11	41.1	51.1	1:30p	32.2	7:00a	23.9	0.0	0.00	4.4	15.0	2:45p	ESE
12	42.8	57.5	7:15p	33.7	12:45a	22.2	0.0	0.05	3.8	19.0	7:00p	ESE
13	55.2	66.0	3:00p	44.6	12:30a	9.8	0.0	0.53	9.8	53.0	3:45a	WNW
14	55.1	65.0	5:45a	45.4	8:00p	9.9	0.0	0.46	8.8	36.0	2:00p	E
15	45.9	50.8	11:45a	40.2	12:00m	19.1	0.0	0.25	7.2	31.0	12:00p	ESE
16	46.0	50.6	12:45p	39.9	12:15a	19.0	0.0	0.11	12.4	37.0	7:15p	ESE
17	43.8	50.7	3:30p	37.8	11:30p	21.2	0.0	0.19	8.8	32.0	8:15a	E
18	41.0	50.6	3:15p	33.2	6:30a	24.0	0.0	0.00	6.1	22.0	12:30p	ESE
19	42.5	54.4	3:15p	32.6	6:30a	22.5	0.0	0.00	4.4	21.0	9:30a	E
20	47.0	53.1	1:30p	40.8	1:15a	18.0	0.0	0.06	9.8	32.0	4:00a	E
21	44.8	51.6	4:15p	37.2	7:15a	20.2	0.0	0.01	8.9	27.0	3:15p	ESE
22	42.5	54.5	4:00p	34.1	6:30a	22.5	0.0	0.00	5.3	21.0	2:30a	ESE
23	44.2	55.4	1:30p	33.1	4:15a	20.8	0.0	0.00	5.2	13.0	8:00a	ESE
24	48.9	56.9	12:45p	41.6	7:00a	16.1	0.0	0.00	3.0	14.0	12:00m	E
25	51.4	58.5	2:45p	44.2	7:15a	13.6	0.0	0.00	3.4	20.0	2:00p	WNW
26	55.6	59.1	12:30p	52.2	6:45a	9.4	0.0	0.04	4.1	34.0	9:30p	W
27	55.1	63.2	4:00p	50.2	6:30a	9.9	0.0	0.09	7.8	20.0	1:15a	W
28	48.8	51.9	12:30p	46.2	3:15a	16.2	0.0	0.03	5.3	18.0	1:45a	E
	46.6	66.0	13	32.2	11	507.5	0.0	4.67	6.4	53.0	13	E

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 1.22 ON 02/04/19

Days of Rain: 18 (>.01 in) 11 (>.1 in) 1 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for MAR. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	SPEED		DIR
1	49.1	53.5	12:15p	42.6	6:30a	15.9	0.0	0.00	3.1	11.0	3:30p	WNW
2	51.7	54.6	10:15a	48.6	3:30a	13.3	0.0	0.56	3.4	31.0	5:00a	SSE
3	52.6	57.9	3:00p	49.4	12:00m	12.5	0.0	0.06	6.5	32.0	10:30p	E
4	51.0	56.0	3:30p	44.3	5:15a	14.0	0.0	0.00	4.4	19.0	1:45a	ESE
5	51.4	56.4	2:15p	47.3	2:30a	13.6	0.0	0.00	4.6	26.0	4:45p	W
6	55.1	62.9	1:15p	49.5	12:30a	9.9	0.0	0.27	5.0	28.0	1:30p	WNW
7	48.8	53.5	12:45p	44.9	11:30p	16.2	0.0	0.01	7.2	25.0	11:00p	E
8	46.9	52.2	1:15p	40.5	12:00m	18.1	0.0	0.02	11.6	35.0	6:30a	E
9	45.2	53.3	1:15p	35.2	5:15a	19.8	0.0	0.00	2.9	21.0	3:00p	ESE
10	45.9	51.9	1:00p	40.4	5:45a	18.3	0.0	0.05	3.8	14.0	1:45p	ESE
11	49.2	62.1	5:00p	38.9	6:00a	15.8	0.0	0.00	6.5	18.0	9:45a	E
12	52.6	59.3	1:30p	46.5	11:45p	12.4	0.0	0.00	11.9	37.0	2:30p	E
13	50.0	59.3	4:45p	41.0	11:00p	15.0	0.0	0.00	10.6	29.0	5:30a	ESE
14	48.3	60.7	5:45p	38.8	5:15a	16.7	0.0	0.00	6.2	18.0	9:15a	ESE
15	50.8	65.2	4:30p	39.4	7:15a	14.2	0.0	0.00	5.5	13.0	5:00p	E
16	53.8	67.4	3:45p	41.2	7:30a	11.4	0.3	0.00	5.3	13.0	12:30a	ESE
17	55.6	69.6	3:15p	45.2	5:15a	9.9	0.6	0.00	5.3	13.0	6:15a	ESE
18	58.2	72.1	4:30p	45.3	7:30a	8.1	1.3	0.00	4.9	13.0	12:00p	ESE
19	58.4	66.9	5:15p	49.6	6:15a	6.9	0.3	0.04	5.4	22.0	11:00p	ESE
20	53.4	60.0	4:45p	48.8	11:00p	11.6	0.0	0.09	5.4	25.0	3:15p	E
21	51.5	61.8	4:30p	41.7	7:00a	13.5	0.0	0.00	6.6	19.0	2:15p	E
22	51.3	59.5	3:45p	41.0	5:15a	13.7	0.0	0.13	2.9	13.0	12:15a	ESE
23	53.3	60.8	2:45p	46.2	11:30p	11.7	0.0	0.39	5.4	22.0	3:30p	E
24	49.3	60.7	5:00p	38.5	6:15a	15.7	0.0	0.00	5.2	13.0	12:00p	ESE
25	54.8	68.1	4:15p	41.7	7:00a	10.4	0.2	0.00	4.4	22.0	7:00p	ESE
26	55.9	62.8	6:15p	49.9	5:00a	9.1	0.0	0.16	3.4	13.0	5:00a	WNW
27	56.7	63.9	12:45p	43.6	12:00m	8.3	0.0	0.01	6.2	34.0	5:15p	E
28	51.0	64.0	3:00p	41.9	5:00a	14.0	0.0	0.07	4.4	21.0	3:45p	ESE
29	51.4	61.3	5:15p	42.1	5:00a	13.6	0.0	0.01	4.8	18.0	12:45p	ESE
30	54.3	67.1	5:15p	42.2	6:45a	10.8	0.2	0.00	6.3	17.0	11:30a	E
31	59.1	71.6	3:15p	46.8	6:45a	7.4	1.5	0.00	5.9	14.0	4:00a	E
	52.1	72.1	18	35.2	9	401.8	4.4	1.87	5.6	37.0	12	E

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.56 ON 03/02/19

Days of Rain: 11 (>.01 in) 5 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for APR. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	SPEED		HIGH
1	58.4	68.9	1:15p	50.2	7:15a	7.1	0.5	0.07	4.4	15.0	10:15p	ESE
2	55.5	62.4	3:30p	47.7	12:00m	9.5	0.0	0.01	5.6	27.0	6:00p	ESE
3	52.6	61.2	2:45p	42.8	5:45a	12.4	0.0	0.00	2.8	10.0	11:45a	ESE
4	55.0	62.0	6:00p	49.0	7:00a	10.0	0.0	0.00	3.3	10.0	1:30a	ESE
5	53.2	61.3	4:15p	45.8	2:15a	11.8	0.0	0.07	3.4	18.0	3:30p	ESE
6	58.3	69.9	3:00p	48.7	12:30a	7.4	0.7	0.00	3.3	18.0	11:45a	E
7	62.0	75.7	4:30p	49.4	7:15a	5.2	2.2	0.00	4.0	18.0	1:15p	E
8	63.3	72.6	1:45p	54.6	7:00a	3.5	1.8	0.00	8.2	27.0	11:15p	E
9	57.4	65.1	3:15p	52.5	7:00a	7.6	0.0	0.00	11.6	40.0	6:45a	ESE
10	58.1	69.6	5:30p	48.1	5:30a	7.4	0.5	0.00	9.5	30.0	8:15a	ESE
11	56.6	63.0	3:45p	51.3	4:30a	8.4	0.0	0.00	9.9	27.0	12:00p	ESE
12	58.1	71.2	4:45p	48.2	6:30a	7.9	1.0	0.00	9.1	23.0	12:00p	ESE
13	61.7	75.7	4:00p	47.9	7:00a	5.9	2.6	0.00	5.7	16.0	7:45p	E
14	58.4	69.5	3:45p	49.2	7:00a	7.0	0.4	0.00	12.7	33.0	7:00p	ESE
15	56.2	62.7	1:45p	49.9	11:30p	8.8	0.0	0.01	7.6	24.0	9:45a	E
16	55.4	63.4	4:15p	49.5	1:45a	9.6	0.0	0.06	7.3	27.0	7:00a	E
17	61.1	74.8	5:00p	49.0	5:45a	6.2	2.3	0.00	5.5	15.0	4:15p	E
18	65.2	81.5	6:15p	50.7	5:15a	4.4	4.6	0.00	5.4	15.0	12:45p	ESE
19	67.0	81.5	1:45p	55.1	11:15p	3.0	5.0	0.00	8.3	25.0	10:30p	E
20	56.5	62.3	11:30a	50.9	12:00m	8.5	0.0	0.00	14.3	44.0	6:15p	E
21	59.7	73.1	4:45p	47.8	6:45a	6.7	1.4	0.00	8.5	26.0	3:00p	ESE
22	67.7	82.5	5:45p	53.0	6:15a	2.8	5.5	0.00	7.2	25.0	3:15p	ESE
23	71.4	84.9	3:30p	56.8	6:30a	1.7	8.0	0.00	6.7	22.0	11:15a	ESE
24	76.0	90.2	4:45p	60.6	6:30a	0.2	11.3	0.00	6.7	18.0	5:30p	E
25	75.0	87.2	3:30p	60.8	6:00a	0.2	10.2	0.00	8.4	24.0	4:00p	E
26	72.3	86.2	3:00p	53.0	4:45a	1.4	8.7	0.00	6.8	19.0	6:00p	ESE
27	66.4	78.9	3:30p	55.2	11:45p	2.3	3.7	0.00	9.4	26.0	3:30p	ESE
28	61.7	75.6	3:45p	50.1	6:45a	6.0	2.8	0.00	9.0	19.0	12:15a	ESE
29	59.9	71.9	3:45p	50.0	6:45a	6.7	1.6	0.00	12.0	25.0	9:30a	ESE
30	58.4	68.8	1:30p	48.1	6:30a	7.1	0.5	0.00	9.1	27.0	4:00p	ESE
	61.3	90.2	24	42.8	3	186.7	75.3	0.22	7.5	44.0	20	ESE

Max >= 90.0: 1

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.07 ON 04/01/19

Days of Rain: 3 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for MAY. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	HIGH		DIR
1	62.7	74.9	4:15p	51.3	6:45a	4.7	2.4	0.00	6.4	21.0	2:00p	ESE
2	65.8	80.0	4:00p	50.0	6:30a	4.1	4.9	0.00	6.2	21.0	5:45p	E
3	66.4	80.6	3:00p	51.2	4:45a	4.1	5.4	0.00	7.0	21.0	4:45p	E
4	63.7	78.1	4:00p	52.2	6:45a	4.8	3.5	0.00	9.5	25.0	5:45p	E
5	56.9	67.3	2:15p	49.4	6:00a	8.2	0.1	0.01	16.0	32.0	5:15a	ESE
6	57.6	68.3	2:45p	51.1	6:00a	7.7	0.3	0.00	13.1	30.0	4:30p	ESE
7	60.4	72.9	3:30p	51.8	5:15a	6.1	1.5	0.00	8.9	29.0	7:30p	ESE
8	63.5	77.5	4:00p	52.8	6:00a	4.6	3.1	0.00	10.1	26.0	1:30a	ESE
9	61.0	71.0	3:30p	54.4	5:15a	5.0	1.0	0.00	15.1	34.0	3:15p	ESE
10	64.9	81.4	4:00p	53.4	6:15a	4.1	4.0	0.00	10.3	29.0	1:45a	ESE
11	64.7	78.4	3:15p	54.4	6:30a	4.0	3.8	0.00	9.8	26.0	5:45p	E
12	64.7	79.9	3:00p	52.7	6:15a	4.1	3.8	0.00	12.0	29.0	6:00p	ESE
13	68.0	80.9	3:30p	55.1	12:00m	1.9	4.9	0.00	12.6	29.0	5:45p	ESE
14	59.9	70.8	1:30p	52.7	2:45a	5.7	0.6	0.00	13.6	29.0	4:15p	ESE
15	60.5	68.0	3:45p	56.5	3:45a	4.9	0.4	0.04	5.6	23.0	3:45a	WNW
16	54.0	59.9	1:30p	50.1	9:00p	11.0	0.0	0.33	8.7	30.0	2:45p	E
17	55.3	63.8	5:15p	49.6	1:30a	9.7	0.0	0.01	10.5	30.0	1:45a	ESE
18	52.9	59.7	11:00a	46.3	6:45a	12.1	0.0	0.19	4.5	17.0	1:15a	ESE
19	52.2	59.8	12:15p	44.5	6:45a	12.8	0.0	0.28	3.9	32.0	8:15a	E
20	54.3	64.8	4:00p	44.0	6:15a	10.7	0.0	0.01	8.2	28.0	4:30p	ESE
21	54.3	58.7	1:15p	50.7	1:15a	10.7	0.0	0.11	11.6	43.0	5:00p	E
22	60.3	71.4	3:15p	50.2	6:15a	5.6	0.9	0.00	9.3	27.0	12:15a	ESE
23	64.2	74.1	1:45p	55.5	7:00a	3.1	2.3	0.00	8.4	21.0	1:00p	ESE
24	62.8	75.6	4:45p	52.1	6:30a	4.9	2.7	0.00	8.3	26.0	5:00p	ESE
25	59.9	71.4	4:30p	52.8	6:30a	6.2	1.0	0.00	12.2	28.0	6:30p	ESE
26	54.4	60.2	4:15p	49.3	11:30p	10.6	0.0	0.01	13.5	46.0	1:45a	E
27	56.4	65.0	4:15p	49.1	2:00a	8.6	0.0	0.00	10.8	27.0	1:00p	ESE
28	63.8	75.7	3:00p	51.9	5:30a	4.6	3.4	0.00	9.4	27.0	2:30a	ESE
29	68.6	82.3	2:30p	55.5	6:00a	2.9	6.5	0.00	8.5	24.0	5:00p	ESE
30	62.0	75.0	3:00p	52.9	6:30a	5.2	2.2	0.00	13.6	30.0	6:45p	ESE
31	71.5	83.6	3:15p	56.9	4:00a	1.9	8.4	0.00	7.0	23.0	2:45p	E
	60.9	83.6	31	44.0	20	194.6	67.1	0.99	9.8	46.0	26	ESE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.33 ON 05/16/19

Days of Rain: 5 (>.01 in) 4 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for JUN. 2019

NAME: Carnegie SVRA CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN		TIME	LOW	TIME	HEAT	COOL	RAIN	AVG		TIME	DOM
	TEMP	HIGH				DEG	DEG		WIND	DIR		
1	75.8	87.4	3:00p	64.9	6:00a	0.0	10.8	0.00	8.3	25.0	5:30p	ESE
2	68.9	82.3	4:45p	56.9	5:00a	1.8	5.7	0.00	11.3	29.0	3:15p	ESE
3	73.6	89.0	3:00p	57.4	4:30a	1.6	10.2	0.00	8.7	23.0	6:30p	ESE
4	80.9	94.7	5:00p	67.0	5:45a	0.0	15.9	0.00	6.0	17.0	1:00p	ESE
5	82.0	95.4	2:45p	69.1	6:15a	0.0	17.0	0.00	9.2	30.0	6:00p	ESE
6	71.2	78.8	12:15a	59.5	11:30p	0.4	6.6	0.00	13.9	41.0	9:00a	E
7	64.8	76.2	5:15p	52.7	4:30a	3.5	3.3	0.00	8.8	25.0	2:45a	ESE
8	70.3	83.2	5:15p	57.8	1:30a	1.3	6.6	0.00	7.0	28.0	8:00a	ESE
9	76.6	92.2	3:45p	59.9	6:30a	0.6	12.2	0.00	4.6	15.0	9:15a	ESE
10	84.6	99.7	5:15p	69.5	5:45a	0.0	19.6	0.00	4.9	14.0	3:15p	ESE
11	87.3	101.6	3:45p	71.9	6:15a	0.0	22.3	0.00	5.9	15.0	1:15a	E
12	87.1	99.6	2:15p	74.1	12:00m	0.0	22.1	0.00	8.7	24.0	7:15p	ESE
13	76.4	89.2	4:15p	64.1	5:30a	0.0	11.4	0.00	14.6	31.0	5:00p	ESE
14	68.7	84.1	3:15p	57.0	6:00a	2.3	5.9	0.00	13.8	33.0	6:45a	ESE
15	64.1	77.8	4:30p	54.4	6:00a	4.3	3.4	0.00	15.3	30.0	3:45p	ESE
16	67.8	83.6	2:45p	54.7	6:15a	3.3	6.2	0.00	13.3	29.0	4:30p	ESE
17	76.3	91.2	1:15p	59.1	5:45a	1.1	12.4	0.00	8.4	22.0	4:15p	ESE
18	83.0	98.3	3:00p	70.3	4:15a	0.0	18.0	0.00	9.5	28.0	6:15p	ESE
19	78.2	90.2	3:45p	60.9	6:30a	0.2	13.3	0.00	11.5	30.0	8:30p	ESE
20	69.0	82.1	3:15p	58.3	6:30a	1.7	5.7	0.00	13.7	29.0	7:00p	ESE
21	71.8	84.0	3:45p	59.1	2:45a	1.1	7.9	0.00	7.8	26.0	4:00p	ESE
22	78.0	90.6	4:45p	63.4	5:15a	0.1	13.1	0.00	7.9	25.0	12:45p	ESE
23	81.6	95.3	4:00p	66.6	6:15a	0.0	16.6	0.00	6.8	22.0	5:15p	ESE
24	80.1	91.3	3:15p	66.3	6:00a	0.0	15.1	0.00	8.7	28.0	6:00p	ESE
25	76.5	86.0	3:45p	67.4	5:30a	0.0	11.5	0.00	11.9	36.0	11:45p	E
26	67.9	75.9	3:30p	58.0	11:00p	1.0	3.9	0.00	14.8	34.0	7:45a	N
27	64.4	76.6	2:45p	54.8	5:00a	3.2	2.6	0.00	11.4	27.0	1:30p	ESE
28	69.0	82.0	3:30p	59.3	6:15a	1.2	5.2	0.00	9.1	22.0	6:15p	ESE
29	71.0	83.1	4:00p	55.3	6:15a	1.7	7.7	0.00	8.5	21.0	5:45p	N
30	72.9	84.1	2:15p	61.6	4:15a	0.4	8.3	0.00	11.9	32.0	4:30p	ESE
	74.7	101.6	11	52.7	7	30.8	320.5	0.00	9.9	41.0	6	ESE

Max >= 90.0: 12

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.00 ON 06/01/19

Days of Rain: 0 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Attachment N

CVRWQCB Letter



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

15 April 2016

Mr. Randy Caldera
Sector Superintendent
15751 Tesla Rd
Livermore, CA 94550

PROPOSED SEDIMENT BASINS AT CARROL, KILN AND TYSON WATERSHEDS, CARNEGIE STATE VEHICLE RECREATION AREA, SAN JAUQUIN AND ALAMEDA COUNTIES

We have observed current conditions in the Carrol, Kiln and Tyson watersheds and reviewed the proposed sediment control basins now under consideration. State Parks management has made significant progress in the following areas regarding storm-water protection.

1. Resource Management Area rehabilitation program underway
2. Road improvements to reduce erosion
3. Better creek protection, including exclusion fencing
4. Reduced and improved creek crossings
5. Improved trail designs that reduce hydrologic connectivity
6. Reduced open riding
7. Reduced trail density
8. Increased plant cover
9. Gully repairs
10. Ongoing planting and erosion control of Tesla mine tailings
11. Wet season trail condition monitoring and closures as needed
12. Reduced trail pioneering
13. Ongoing riparian planting along Corral Hollow Creek floodplain

Based on the above improvements, expected additional erosion reduction, and potential wetland impacts from installation of the basins, the proposed sediment control basins are no longer needed.

If you have any questions, please contact Guy Chetelat of my staff at (530)224-4997 or the footer address.

A handwritten signature in black ink, appearing to read "George D. Day".

George D. Day, P.E. Chief
Senior Water Resources Control Engineer
Storm Water & Water Quality Certification Unit

GFC:reb

cc list on following page

cc: Department of Fish and Wildlife, Rancho Cordova.
Army Corps of Engineers, Sacramento
US Fish and Wildlife Service, Sacramento
Celeste Garamendi, Tracy
Mark Connolly, Connolly Ranch, Tracy
Bill Jennings, CALSPA, Stockton