California Regional Water Quality Control Board

North Coast Region

Water Code Sections 13383 Investigative Order R1-2021-0007

Directing the Ukiah Rifle & Pistol Club

To Submit Sampling and Monitoring Reports

Pertaining to Discharges from the Ukiah Rifle & Pistol Club

Mendocino County

FINDINGS

The North Coast Regional Water Quality Control Board (Regional Water Board) finds that:

1. The City of Ukiah owns, and the Ukiah Rifle and Pistol Club (URPC) leases, the property located on 2300 Vichy Springs Road, in Mendocino County (Property). URPC (Discharger) operates multi-discipline shooting ranges and conducts classes on the Property.

2. The Property and the URPC are not currently subject to any monitoring and reporting orders, nor regulated under any waste discharge permit(s) issued by the Regional Water Board or the State Water Resources Control Board.

3. Runoff from the Property drains into a roadside swale along the south side of the property and ultimately discharges into Sulphur Creek, which is a tributary to the Russian River. Both Sulphur Creek and the Russian River are waters of the United States.

4. In response to complaints regarding discharges and/or threatened discharges of waste from the Property to receiving waters, Regional Water Board staff inspected the Property, and subsequently requested that the Discharger prepare a Storm Water Management and Sampling Plan (SWMSP) and implement applicable Best Management Practices (BMPs) to proactively minimize any potential contaminants in runoff from the Property.

5. The Discharger submitted a SWMSP to the Regional Water Board on April 10, 2020 (Attachment 1). This Order includes Regional Water Board staff comments on the SWMSP document under the Requirements section below.

6. On December 3, 2020, Regional Water Board staff inspected the Property to assess site conditions, to confirm that BMPs had been implemented as

described in the SWMSP, and to ensure that the proposed sampling locations were appropriate to collect samples representative of the site discharge as documented in the inspection report (Attachment 2). During the inspection, Regional Water Board staff observed newly installed BMPs including inlet protection, hay bales, riprap, rock-lining in drainage ditches, and wattles; BMPs specified in the SWMSP were in place and well-maintained.

7. Large quantities of spent bullet shells were observed in numerous areas throughout the site (see photos 1 & 6 of the inspection report). As stated in the *Interstate Technology Regulatory Council (ITRC) Technical/Regulatory Guidelines*[1]

> "Empty brass casings represent a potential source of lead into the environment because the initiators, or primers, use shock-sensitive lead compounds with residuals left in the casing after firing. The muzzle blast deposits these same lead compounds, as well as lead dust resulting from the rifling on the barrel of the weapon cutting into the projectile as it leaves the barrel."

8. As stated in the *ITRC Technical/Regulatory Guidelines*[2]

> "The use of lead-containing ammunition at small arms firing ranges, such as URPC, results in a continual contribution of lead into the environment. Lead accumulates in berms and other structures used to backstop targets on ranges. Bullets will lodge into the berm either whole or in fragments. Once there, the erosional processes of storm water can result in the movement of these fragments off the berm and into the environment. In cases where the storm water and/or soils in and around the berm are acidic, lead may leach from the bullets or fragments, further dispersing into the environment. As noted in USAEC (1998), the dispersal of lead through these mechanisms results in a potential ecological risk and may be in violation of the Clean Water Act, the Safe Drinking Water Act, and Section 7003 of the Resource Conservation and Recovery Act (RCRA)."

9. Regulatory Authority and Necessity: California Water Code Section 13383 authorizes the Regional Water Board to require monitoring and reporting for any person discharging or proposing to discharge pollutants into waters of the United States. The technical and monitoring information obtained from the monitoring reports and status reports will allow the

[1] Characterization and Remediation of Soils at Closed Small Arms Firing Ranges; Page 8 – Section 2.3.2.
[2] Characterization and Remediation of Soils at Closed Small Arms Firing Ranges; January 2003; Page E-1

Regional Water Board to assess/determine the level of threat posed by, or pollution created in, waters of the United States by spent ammunition and bullet casings on the Property. The information will also allow the Regional Water Board to determine the effectiveness of pollution control BMPs deployed on the Property and whether discharges from the Property will require coverage under a waste discharge permit. The burden to URPC to submit the monitoring information and reports bears a reasonable relationship to the Regional Water Board's need for the actions, specifically to ensure the protection of water quality and beneficial uses in Sulphur Creek and the Russian River. The Regional Water Board has provided an estimate of the costs to comply with the monitoring and reporting requirements of this order (Attachment 3). The costs are estimates only, actual costs may vary from those provided based on factors within the control of URPC and not the Regional Water Board.

10. California Environmental Quality Act: This Order is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to: California Code of Regulations, title 14, section 15306, because, by requiring submittal of technical and/or monitoring reports, this Order merely requires information collection; California Code of Regulations, title 14, section 15308, because issuance of this Order is an action by a regulatory agency for protection of the environment; and California Code of Regulations, title 14, section 15304 (minor alterations to land), because it is unlikely that compliance with this Order, including implementation of any work plans, could result in anything more than minor physical changes to the environment that will not result in significant environmental effects.

Pursuant to the requirements of section 13383 of the Water Code, the URPC is directed to submit the following information to the Regional Water Board **no later than March 16, 2021:**

REQUIREMENTS

1) Sampling and Monitoring Program

   a) The monitoring shall include photographic documentation of storm water discharges from the URPC and sampling activities. All samples shall be collected by personnel trained by a QSP/QSD or QISP and submitted to a State of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory for chemical analysis.

   b) Samples must be collected during all storm events that generate runoff from the Property at all discharge points. This requirement applies during business and

daylight hours until a total of ten sample sets have been collected. If a rain event does not generate runoff, or a sample was not successfully collected or analyzed, a description of the event must be documented and reported in the Annual Report. It may be necessary to sample over multiple years in order to successfully collect ten samples and complete the Sampling and Monitoring Program requirement of this order.

i) In addition, hardness must be measured in the receiving water (Sulphur Creek) whenever discharge samples are collected. Hardness must be measured immediately upstream of the point where the roadside swale that conveys runoff from the site to the creek. It shall be noted in the inspection log whether or not discharge from the roadside swale was reaching the creek at the time of measurement.

c) Only National Oceanic and Atmospheric Administration (NOAA) sourced precipitation data shall be used and included.

d) Storm water samples must be analyzed for pH, turbidity, hardness, Polynuclear Aromatic Hydrocarbon (PAH), and total lead.

e) Properly calibrated field meters may be used for pH, turbidity, and hardness.

2) Submittal of a Revised SWMSP

a) Revise the previously submitted SWMSP to address the following comments within 30 days of the issuance of this Order. The revised SWMSP shall be reviewed and approved by the Assistant Executive Officer prior to implementation.

i) Update SWMSP, Table 4.5 Sample Collection, “Preservation and Analysis for Water Quality Samples” to remove sampling for Oil and Grease and TSS, and revise the analytical methods for total Lead to EPA 200.8

ii) Update SWMSP, Table 4.5 Sample Collection, “Preservation and Analysis for Water Quality Samples” to include field measurement of Turbidity in addition to pH using calibrated field meters and the data recorded on field sampling sheets. Also, note that a properly calibrated pH meter must be utilized instead of a litmus.

iii) Update SWMSP, Table 4.5 Sample Collection, “Preservation and Analysis for Water Quality Samples” to change the minimum sample volume for PAH to 2,000ml. Also, Lead sample must be properly preserved for lab analysis.

iv) Add a sampling location to collect samples at internal location(s) where the runoff drains from the shooting range areas such as main shooting range and pistol areas to evaluate whether source control may need to be implemented by additional BMP installations.

v) Revise the SWMSP to indicate the whole drainage system including all culverts, pipes, drop inlets, and French drain(s). Also, show the BMP types and locations on the site map.

3) Reporting and Documentation

a) All sampling results shall be submitted within 30 days after lab results are received.
b) Monthly visual observation reports shall be kept on site, be made available upon request, and included in the Annual Reports.
c) The SWMSP shall be kept up to date such that it reflects the current site conditions and associated BMPs. All updated versions must be submitted to the NCRWQCB within 30 days of the issuance of this Order, and following any revision or change in site conditions.
d) Employee training logs (Storm water management training log) shall be kept on site, be made available upon request, and included in the Annual Reports.
e) Annual report shall be submitted no later than July 15th of each year to the NCRWQCB and shall include items a, b, and d above, as well as tabulation of all monitoring results to date and all supporting documentation (such as lab reports and chain of custody).

PROVISIONS

1. **Signatory Requirements:** The annual report shall be signed and certified by a principal executive officer, ranking elected official, or the person with overall responsibility for environmental matters by the URPC. Additional reports submitted in support of the annual report must be signed by the principal author.

2. **Certification Statement:** Any person signing a document under this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

3. **Use of Registered Professionals:** The Discharger shall provide documentation that each technical report required by this Order was prepared under the direction of appropriately qualified professionals. In preparing each technical report required by this Order, any engineering or geologic evaluations and judgments must be performed by or under the direction of registered professionals pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. A statement of qualifications and registration numbers of the responsible lead professional shall be included in the report submitted by the Discharger. The lead professional shall sign and affix his or her registration stamp to the report.

4. **Delayed Compliance:** If for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Assistant Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as a delay is recognized and prior to the compliance date. An extension may only be granted by modification of this Order or by a letter from the Executive Officer or his/her delegee.

5. **Report Submittal:** The annual report required under this Order shall be submitted electronically to NorthCoast@waterboards.ca.gov and cc:

   Farzad Kasmaei
   Water Resources Control Engineer, NPDES Unit
   North Coast Regional Water Quality Control Board
   5550 Skylane Blvd, Suite A
   Santa Rosa, CA 95403

   Farzad.Kasmaei@waterboards.ca.gov

NOTIFICATIONS

1. **Enforcement Discretion:** The Regional Water Board reserves its rights to take any enforcement action authorized by law for violations of the terms and conditions of this Order. Furthermore, compliance with this Order is wholly distinct from any possible enforcement that may follow from the discharges themselves, pursuant to violations of the Water Code or other orders issued by the Regional Water Board.

2. **Enforcement Notification:** Pursuant to Water Code section 13385, failure to submit the required technical reports as required by Water Code section 13383, or falsifying any information provided therein, may result in the imposition of administrative civil liability of up to $10,000 per violation per day.

Any actual unauthorized discharge to waters of the United States may subject the Discharger to up to $10,000 for each day of discharge, and $10 for each gallon over 1,000 gallons not cleaned up pursuant to Water Code section 13385.

3. **Appeal Notification:** Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00pm, 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00pm on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

   https://www.waterboards.ca.gov/public_notices/petitions/water_quality/

   or will be provided upon request.

If you have questions about this Order please contact: Farzad Kasmaei at Farzad.Kasmaei@waterboards.ca.gov

Sincerely,

Digitally signed by Claudia E. Villacorta
Date: 2021.02.16 13:59:52 -08'00'

Claudia Villacorta, P.E.
Assistant Executive Officer

21_0007_Ukiah Rifle & Pistol Club_13383 Order

Attachment 1: SWMSP

Attachment 2: December 3, 2020 Inspection Report

Attachment 3: Estimates of Monitoring and Reporting Costs

North Coast Regional Water Quality Control Board

INSPECTION MEMO

Name and Location of Facility Inspected
Ukiah Rifle & Pistol Club, 2300 Vichy Springs Road, Ukiah, Mendocino County

Inspection Date
December 3, 2020

Inspection Time
9:30 AM

Names & Titles of Site Representative
Cheryl Trapani, Ukiah Gun Club staff
David Kindopp, Ukiah Gun Club attorney
Mark Fickes, Ukiah Gun Club attorney
Matt Earnshaw, Ukiah Gun Club consultant
David Noren, Ukiah Gun Club consultant

Consent for inspection Provided?
Therese Cannata , counsel for the Discharger, provided consent via December 2, 2020 email, prior to inspection.

Notified of Inspection?
Yes, Regional Water Board staff provided advance notification to Therese Cannata.

Inspector Name(s) & Affiliation(s)
Farzad Kasmaei, Regional Water Board
Josh Luders, Regional Water Board

Weather Conditions at the Time of the Inspection: Sunny

Site Receiving Water Name(s): Sulphur Creek

Inspection Memo Prepared By: Farzad Kasmaei

A. Background

The Ukiah Rifle & Pistol Club (URPC or Gun Club) is a non-profit organization located at 2300 Vichy Springs Road, in an unincorporated portion of eastern Mendocino County to the east of Ukiah Valley. The Gun Club is located at a latitude and longitude of 39.16418 and -123.16689. The site consists of four outdoor shooting ranges and sheds related to shooting range activities.

Per the attached site map, the topography is mostly a downward gradient to the south toward Vichy Springs Road. The site runoff drains into a roadside ditch along Vichy Springs Road and ultimately discharges into Sulphur Creek which is a tributary to the Russian River.

In response to North Coast Regional Water Board staff request in late 2019, the Gun Club submitted a Storm Water Management and Sampling Plan (SWMSP) on April 10, 2020. After receiving the SWMSP, staff requested the December 3, 2020 inspection in order to evaluate the site conditions and the Best Management Practices (BMPs) installed throughout the site, and to determine whether the proposed sampling locations were appropriately selected to ensure samples would be representative of site discharge.

B. Inspection Narrative and Findings

On December 3, 2020, Regional Water Board staff (referred to as the inspection team) visited the Gun Club to conduct the site inspection.

The inspection team met Gun Club representatives Cheryl Trapani, David Kindopp, Mark Fickes, Matt Earnshaw, and David Noren (together referred to as “Gun Club”) outside of the main building at the parking lot and started our inspection within the drainage area 3 as identified on the attached site map.

The inspection team and Gun Club walked through the shooting range area in DA-1. Staff observed recently installed fiber rolls serving as perimeter control BMPs and as check dams along the rock-lined ditch and the rip rap area (Pictures 1 to 5).

The inspection team proceeded into the pistol area in DA-2. According to the Gun Club, stormwater run-off from this area enters a French drain and culvert and is then discharged into the riprap area where a fiber roll is installed at the low point of the hill side (Pictures 6 & 7).

We inspected the main range area inspected in DA-2, and observed several fiber rolls installed on the slope above the range areal (Picture 9). Runoff generated from this area discharges through a vegetated swale along the west side of the main range, where several hay bales were installed. The runoff drains into a protected inlet at the low point of the swale and is ultimately discharged to sampling point No. 2 via culvert and pipes (Picture 10).

After inspecting the shooting range areas, the inspection team inspected all 3 sampling points. Based on the inspection team's observation, sampling points No. 1 & 2 have the potential to receive concentrated runoff from drainage areas 1 and 2 (Pictures 10 & 12). The runoff at sampling point No. 3 is expected to be in the form of sheet flow (Picture 11).

Recommendations:

- Update SWMSP, Table 4.5 Sample Collection, "Preservation and Analysis for Water Quality Samples" to remove sampling for Oil and Grease and TSS, and revise the analytical methods for Lead to EPA 200.8

- Update SWMSP, Table 4.5 Sample Collection, "Preservation and Analysis for Water Quality Samples" to include field measurement of Turbidity in addition to pH using an appropriate calibrated field meter.

- Add a sampling location to collect samples at internal location(s) where the runoff drains from the shooting range areas to evaluate whether source control may need to be implemented by additional BMP installations.

- Ensure that the proposed 3 discharge sampling points are appropriately located to provide representative samples of stormwater runoff from the site and there are no additional discharge points to be monitored.

- The proposed frequency of sample collection (two samples during each reporting year) stated in SWMSP is inadequate. Consistent with monitoring requirements in the Storm Water Industrial General Permit, the sampling plan must specify that samples be collected from all discharge points during all storm events that generate runoff during business and daylight hours until a total of ten sample sets have been collected. If a rain event does not generate runoff, that should be documented and reported in the Annual Report. It may be necessary to sample over multiple years in order to successfully collect ten samples.

- The SWMSP shall specify all sampling and monitoring locations, site conditions, and installed BMPs, and shall be revised as needed to ensure that the sampling and monitoring plan is appropriately designed to characterize the quality of runoff leaving the site and entering/ discharging into receiving waters.

- All sampling results, lab reports, supporting documentation and amendments to the SWMSP shall be submitted to NorthCoast@waterboards.ca.gov, and cc Farzad Kasmaei at farzad.kasmaei@waterboards.ca.gov

- Revise the SWMSP to indicate the whole drainage system including all culverts, pipes, drop inlets, and French drain(s). Also, show the BMP types and locations on the site map.

- The existing BMPs include riprap, fiber rolls, check dams, inlet protection, and hay bales deployed throughout the site. The newly installed fiber rolls were in good condition and kept in place with wood stakes. The rock-lined drainage ditch and riprap area were clean during the inspection. Installed BMPs appeared to be in good condition and properly installed. However, if sampling results show exceedances for any applicable parameters, Regional Water Board staff may request that the discharger reassess the site to evaluate whether additional BMPs are needed to address the pollutants of concern, and revise the SWMSP accordingly.

Attachment(s):

1. Photos
2. Site map

Photos:

Picture 1- View of the shooting area in DA-1. Fiber rolls installed as a perimeter control BMPs. Picture taken by Farzad Kasmaei.

Picture 2- View of a drain inlet that is protected with fiber rolls in DA-1. The fiber rolls are kept in place with wood stakes. Picture taken by Farzad Kasmaei.

Picture 3- View of the riprap area within Drainage Area 1 (DA-1) where the runoff is discharged on the hill side.

Picture 4- View of the rock lined drainage ditch and installed fiber rolls as check dams in DA-1.

Picture 5- View of the rock lined drainage ditch and the protected inlet in DA-1.

Picture 6- View of the pistol area in DA-2. Picture taken by Farzad Kasmaei.

Picture 7- View of a black pipe that receives the runoff from the pistol area shown in Picture 6 and discharges the water on the rip rap area where a fiber roll has been installed down gradient of the hill side. Located in DA-2. Picture taken by Farzad Kasmaei.

Picture 8- View of a vegetated swale along the west side of the main range area. Several hay bales are installed along the swale. The runoff is discharged into a protected inlet at the low point and drains through a pipe via a culvert. Located in DA-2. Picture taken by Farzad Kasmaei.

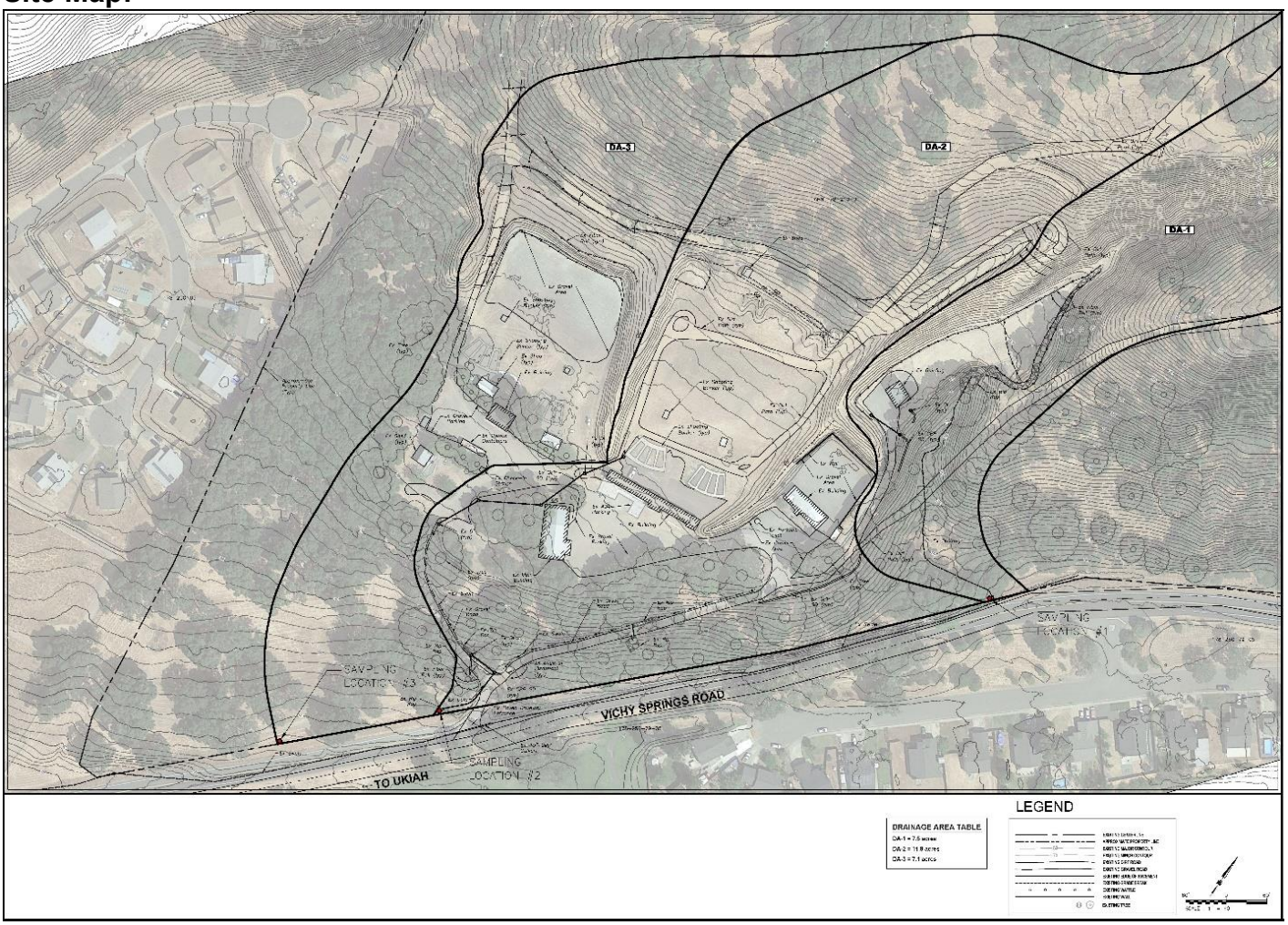
Picture 9- View of the northeast corner of the main range area where several fiber rolls are installed for sediment/erosion control. Located in DA-2 Picture taken by Farzad Kasmaei.

Picture 10 - View of sampling point No. 2. Samples are collected from the small rock-lined ditch show which collects runoff from DA-2. Picture taken by Farzad Kasmaei.

Picture 11 - View of sampling point No. 3. The samples are collected from the small riprap area down gradient of the wattle shown in the picture. Runoff to this discharge point is not concentrated, but rather is anticipated to sheet flow from DA-3 to the approximate location shown. Picture taken by Farzad Kasmaei.

Picture 12 – View of sampling point No. 1 where the run-off from DA-1 is discharged into the shown drop inlet via the swale shown. Picture taken by Farzad Kasmaei.

Site Map:



Picture 13 – Site map, excerpt from SWMSP submitted by the Discharger on April 10, 2020, that shows the drainage areas site features, and all proposed sampling points.

UKIAH GUN CLUB ORDER COST ESTIMATE

Task	Designation	Events	Hours/Units	Rate (hourly)		Subtotal		Task Total	
				Low	High	Low	High	Low	High
Stormwater Monitoring and inspection (10 rain events)	Facility stormwater staff / Consultant	10	3	$50	$90	$ 1,500	$ 2,700		
Field sampling collection and analysis for turbidity, and pH (10 rain events w/ runoff)	Facility stormwater staff / Consultant	10	3	$50	$90	$ 1,500	$ 2,700		
	Incidental Costs	10	1	$200	$300	$ 2,000	$ 3,000		
Lab Costs / 3 sampling locations / 10 rain events	Lead (200.8)	10	3	$30	$30	$ 900	$ 900		
	PAHs (EPA 8270C)	10	3	$175	$175	$ 5,250	$ 5,250		
	Hardness	10	3	$50	$50	$ 1,500	$ 1,500		
								$12,650	$16,050
Monthly Visual Observation Report & inspection (Anticipated 10 rain events w/ runoff in 30 months)	Facility stormwater staff / Consultant	10	2	$50	$90	$ 1,000	$ 1,800		
Annual Report (3 years)	Consultant	3	16	$90	$120	$ 4,320	$ 5,760		
Annual stormwater staff training (3 years)	QSP/QSD/QISP	3	12	$120	$150	$ 4,320	$ 5,400		
						-	-	$ 9,640	$12,960
BMP maintenances and reinstallation for 30 events	Stormwater staff/contractor	30	4	$50	$70	$ 6,000	$ 8,400		
								$ 6,000	$ 8,400

Task	Designation	Events	Hours/Units	Rate (hourly)		Subtotal		Task Total	
				Low	High	Low	High	Low	High
SWMSP revision	Stormwater Consultant	2	20	$120	$150	$ 4,800	$ 6,000		
								$ 4,800	$ 6,000
							TOTAL COST	**$33,090**	**$43,410**
Incidental Costs = Truck Rental, equipment, fuel, repair parts, etc.									
Note: This estimate of cost excludes work done prior to the issuance of this 13383 order, such as BMP installation and SWMSP Preparation.									