

**Revised Exhibit A (rev. 12/10/18)**

In consideration of the payments set forth in Exhibit B, Contractor shall provide the following services:

- Technical services (water quality monitoring, best management practice evaluations and recommendations, water conservation programming, technical assistance to landowners)
- Public engagement services (outreach, community events, print and website outreach materials)
- Coordination services (connect stakeholders for integrated approach to resource conservation)
- Program oversight and administration (reporting, project management)
- Internal services (staff training, internal audits, improve business functions)

Details of the scope of these services are provided in Exhibits A1-A12.

## **Exhibit A1: Operational Support**

### **Timeframe**

July 1, 2017 - June 30, 2019

### **Budget**

\$250,000

### **Operational Tasks**

Operational tasks may include, but are not limited to, the following:

- Work in conjunction with government agencies and private parties on projects to provide an integrated approach to resource conservation and management for long term sustainability.
- Conduct follow-up site reviews and evaluations for previously completed projects.
- Migrate the internal audit process from bi-annual to an annual time basis for projects and programs, including non-recoverable time and resources.
- Continue to explore, investigate, and implement methods to improve business functions to carry out the mission of the RCD.
- Provide technical assistance to constituent requests and inquiries regarding issues and concerns that cross property lines such as erosion, flooding, stormwater management, fuel load management, water supply, water security, and new or emerging policies at the local, state and federal levels pertaining to agriculture, food safety, endangered species, water diversions, protecting coastal resources, etc.
- Provide educational outreach, as requested, or in consultation, with public and private organizations through a variety of media services, educational materials, and collaborative activities designed to engage and improve individuals and foster community participation in addressing issues of concern.
- Provide and/or conduct annual training and education for all RCD staff and the public, concentrating on water conservation, agricultural irrigation and nutrient management, climate resilience and adaptation, endangered species recovery, wildland fire, and in addition, emerging issues and policies pertaining to agriculture and resource conservation and management.
- Develop and/or improve new and existing print and website materials.

The RCD shall document work performed under this contract and provide a status report of the work efforts outlined above to the Board of Supervisors and the County Manager's Office on a semi-annual basis.

Advanced payment for services will be made on the first of July and the first of January of each year, in the amount of \$62,500.

## **Exhibit A2: San Vicente Creek Bacteria Water Quality Monitoring Program**

### **Timeframe**

July 1, 2017 - August 30, 2022

### **Budget**

\$100,237

### **Scope of Work**

The *San Vicente Creek Bacteria Water Quality Monitoring Program* is the first monitoring program to cover San Vicente Creek as a continuous system working across multiple jurisdictions from the mouth to the headwaters. The scope of work includes the following tasks:

1. Program Administration
2. Water Quality Monitoring
3. Data Management, Analysis, and Reporting
4. BMP Recommendations

#### ***Task 1: Program Administration***

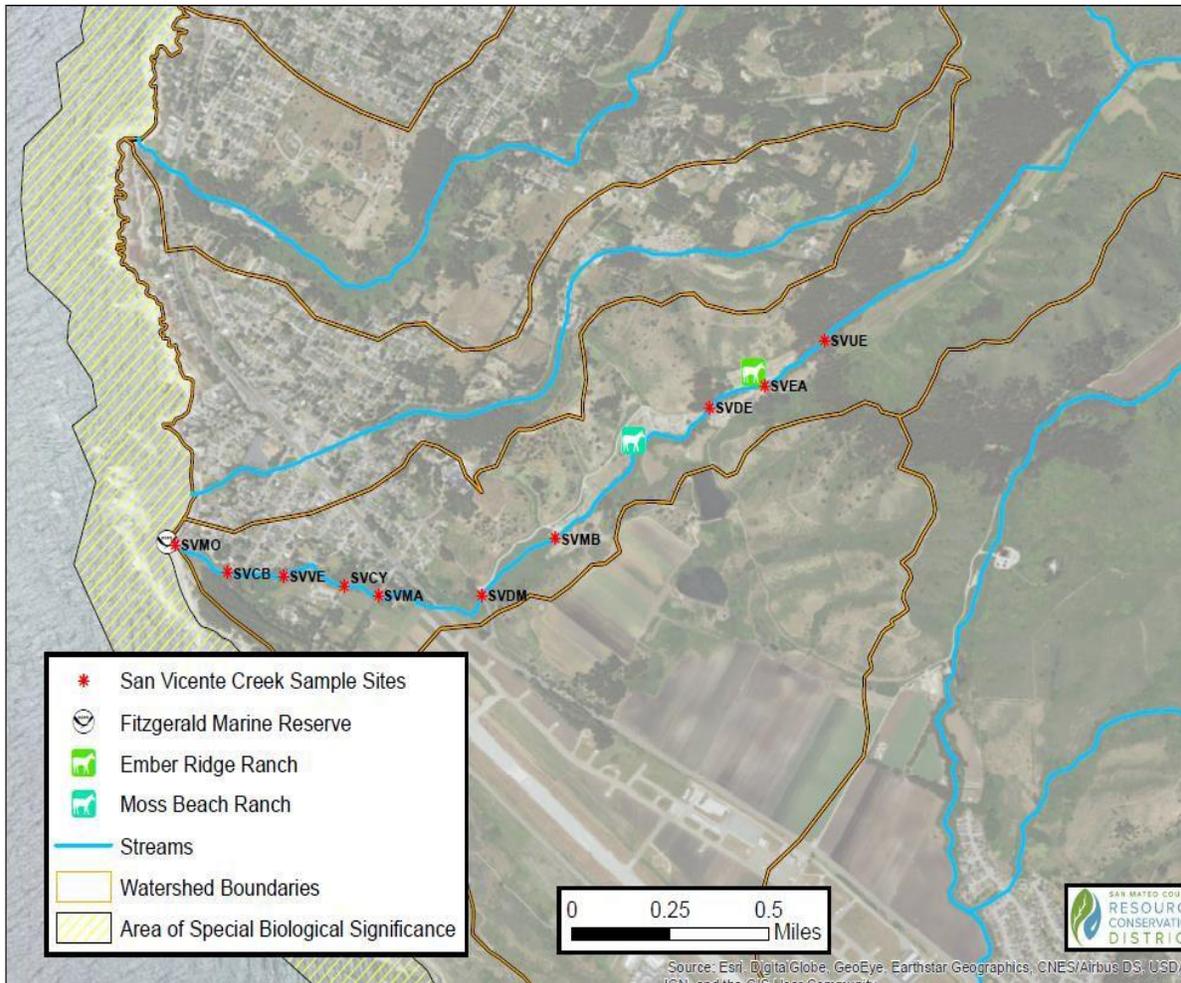
The RCD will implement all aspects of the program except for laboratory processing of the water samples. The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Water Quality Sampling***

Water samples will be collected along San Vicente Creek during FY18, FY20, and FY22. Samples will be processed for *E. Coli* and analyzed against the *E. Coli* WQO from the San Francisco Bay Basin Plan for water contact recreation in freshwater (<406 MPN/100 mL). In FY18 (7/1/17- 6/30/18), samples will be collected at 10 locations (Figure 1 & Table 1) that were selected based on recent water quality data, access, and to isolate potential sources of FIB. A reference site in the upstream reaches of the watershed is still being scoped so another site may be sampled in the future. In FY18, sampling will be conducted at these locations approximately monthly during five wet weather events and five dry weather events. During the wet weather events, the RCD will also collect *E. Coli* samples from the inflow and outflow of the SMC Contech media filtration unit located between Virginia Ave and Vermont Ave to assess the effectiveness of removing *E. Coli*.

Wet weather events for this program are defined as at least 0.5 inch of precipitation in < 24 hours to capture the effects of stormwater runoff into the creek. Wet weather events will be tracked and determined using several resources such as online weather databases (ex: Wunderground) and a rainfall gage in Montara (<http://www.balancehydrologics.com/mwsd/>). Samples will be collected as soon as possible after a wet weather event but no longer than 48 hours following the event so that the effects of precipitation can still be captured. If the above criteria do not occur or cannot be met, five sampling events will still be completed to capture wet season conditions. Dry weather samples will be collected during the dry season months (~May- September) at all sampling sites with flowing water to capture conditions without any influence of precipitation.

**Figure 1. San Vicente Creek Bacteria Water Quality Monitoring Program sampling sites**



Water samples will be collected using standard protocols and sampling methods that comply with the State of California’s Surface Water Ambient Monitoring Program (SWAMP) for Sampling and Analysis of Indicator Bacteria in Fresh Water. Samples will be collected in factory- sealed, pre-sterilized, plastic bottles (100/125 mL) and new sampling gloves will be worn at each site. If possible, water samples will be collected directly into the sample container that contains sodium thiosulfate to inhibit effects of chlorine if it is present in the water. If a sampling device such as a bucket is necessary to collect samples, the sampling device will be rinsed with distilled water prior to and in between sampling locations and rinsed in the sample water three times. The sampling device will also be soaked in a 10% bleach solution for 30 minutes prior to each sampling event. Samples will be put directly on ice (<10 °C) and delivered to the San Mateo County Public Health Laboratory under Chain of Custody within 6 hours of sample collection. Whenever possible, samples will be delivered to the lab Monday through Thursday before 4 pm to avoid after hours fees. The San Mateo Public Health Laboratory is an ELAP certified laboratory and will quantify FIB using the SM 9223 IDEXX Colilert® method.

**Table 1.** List of San Vicente Creek Bacteria Monitoring Site IDs, Names and Locations

Site ID	Site Name	Site Location
SVMO	San Vicente Mouth	37.5242, -122.5177
SVCB	San Vicente at California Ave Bridge	37.5235, -122.5157
SVVE	San Vicente at Vermont Ave	37.5232, -122.5137
SVCY	San Vicente at Cypress Ave	37.5230, -122. 5114
SVMA	San Vicente at Marine Blvd	37.5228, -122.5101
SVDM	San Vicente Downstream Moss Beach Ranch	37.5224, -122.5062
SVMB	San Vicente at Moss Beach Ranch	37.5244, -122.5037
SVDE	San Vicente Downstream Ember Ridge Ranch	37.5287, -122.4981
SVEA	San Vicente Ember Arenas	37.5294, -122.4960
SVUE	San Vicente Upstream Ember	37.5308, -122.4937

For quality assurance and control (QA/QC), the RCD will collect a field duplicate at a different sampling site during each sampling event, in addition to collecting a field blank once during the dry season and once during the wet season. A field duplicate will be collected by rinsing a bucket three times in sample water, filling the bucket, and pouring it into two sampling containers so that the same sample water is analyzed. A field blank will be collected by directly filling a laboratory bottle with distilled water at one of the sampling sites. Supplementary information such as observations, weather, time, date, and flow rate will be recorded on a field datasheet. Adaptive management will be employed as needed in FY18 and results will inform the monitoring strategy for FY20 and FY22 which may include adjusting sampling sites, microbial source tracking, sampling from storm drains, and testing effectiveness of BMPs.

**Task 3: Data Management, Analysis and Reporting**

Results from the laboratory and data from field sheets will be checked for completeness, errors, and red flags. The RCD will organize and manage this data electronically and assess results against the *E.Coli* WQO (<406 MPN/100 mL). Data will be displayed in a variety of ways (graphs, tables, maps etc.) for the best visual representation. Results will also be entered into the EPA's STORET database.

Results from FY18, FY20, and FY22 will be used to characterize sources of controllable bacteria and identify hot spot areas. To further understand bacterial contamination and contributions, other relevant information will be obtained and analyzed to address the objectives of this program. This will include information such as land use, hydrology, dog waste accumulation areas, sewer/septic and stormwater infrastructure, management practices at residences and confined animal facilities, and past/other water quality studies. For example, the mouth of San Vicente Creek has been monitored for FIB through nine different projects over time and is currently monitored by three ongoing programs. The RCD has most of this background knowledge and information, and access to existing data to compile supplementary resources.

The RCD will submit an annual report to SMC and GGNRA by August 30<sup>th</sup> of each year of the program starting in 2018. This report will be provided in time for submittal of SMC's annual Municipal Regional Permit Report to the RWQCB. RCD annual reports will include analysis of monitoring results, characterization of sources, in addition to BMP recommendations.

**Task 4: Best Management Practice Recommendations**

Analysis of water quality data and identification of bacteria sources will highlight appropriate remediation measures and solutions. The RCD will use information from the comprehensive analysis of current and historical data to scope appropriate structural and non-structural BMPs for reducing bacteria in San Vicente Creek. The RCD will consider requirements of the WQIP, any baseline BMPs, and planned activities or initiatives (ex: septic inspections, confined animal facility management, etc.). The RCD will also coordinate and contribute to the San Vicente Creek BMP Implementation Plan and status reports as requested.

**Timeline**

July 2017-June 2018

- FY18 sampling, data management, and analysis

July 2018-August 2018

- FY18 results analysis and reporting to GGNRA and SMC for FY18 Annual Report

September 2018-June 2019

- Further characterize sources, scope BMPs, determine FY20 monitoring plan, project management and planning

July 2019-June 2020

- FY20 sampling, data management, and analysis
- Reporting to GGNRA and SMC for FY19 Annual Report

July 2020-August 2020

- FY20 results analysis and reporting to GGNRA and SMC for FY20 Annual Report

September 2020-June 2021

- Further characterize sources, scope BMPs, determine the FY22 monitoring plan, and project management and planning. Note if the numeric target has not been achieved by June 2021, a revised BMP Implementation Plan is due to the RWQCB by December 2021.

July 2021-June 2022

- FY22 sampling, data management, and analysis
- Reporting to GGNRA and SMC for FY21 Annual Report

July 2022- August 2022

- FY22 results analysis and reporting to GGNRA and SMC for FY22 Annual Report including an overall assessment of water quality trends and any recommendations to achieve the numeric target by June 2026

**Detailed Budget**

The total cost for the San Vicente Creek Bacteria Monitoring Program is \$200,474 as detailed in the budget table below. The County and the Golden Gate National Recreation Area will split the total cost of the program. The County budget is not to exceed \$100,327.

<b>San Vicente Creek Bacteria Water Quality Monitoring Budget (7/1/17-8/30/22)</b>			
<b>Task 1. Program Administration</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	38	\$170	\$6,460
Program Specialist	100	\$79	\$7,900
Water Resource Specialist	165	\$92	\$15,180
Sampling supplies (gloves, ice, buckets, distilled water, gas etc)	3	\$275	\$825
Management & GIS software	5	\$325	\$1,625
<b>Task 1 Total</b>			<b>\$31,990</b>
<b>Task 2. Water Quality Sampling</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
Program Assistant	400	\$56	\$22,400
Water Resource Specialist	110	\$92	\$10,120
San Mateo County Environmental Health Lab Fees	370	\$32	\$11,840
Adaptive Management/Microbial Source Tracking Lab Fee Placeholder	1	\$15,000	\$15,000
<b>Task 2 Total</b>			<b>\$59,360</b>
<b>Task 3. Data Management, Analysis, Reporting</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
Water Resource Specialist	742	\$92	\$68,264
Program Assistant	360	\$56	\$20,160
<b>Task 3 Total</b>			<b>\$88,424</b>
<b>Task 4. Best Management Practice Recommendations</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
Water Resource Specialist	225	\$92	\$20,700
<b>Task 4 Total</b>			<b>\$20,700</b>
		<b>PROGRAM TOTAL</b>	<b>\$200,474</b>
		<b>COUNTY SHARE</b>	<b>\$100,327</b>

## **Exhibit A3: Pet Waste Education and Outreach Program**

### **Timeframe**

July 1, 2017 - June 30, 2019

### **Budget**

\$35,006

### **Scope of Work**

The Midcoast San Mateo County Pet Waste Education and Outreach Program includes pet waste education and outreach activities for the midcoast region of San Mateo County. This scope of work includes recommendations from the San Vicente Creek Bacteria Water Quality Improvement Plan, the San Pedro Creek and Pacifica State Beach Bacteria TMDL, the NPDES Municipal Regional Permit, and the James V. Fitzgerald ASBS Compliance Plan.

Objectives of this program are to prevent and reduce pet waste discharges to local creeks and beaches, and help achieve bacteria water quality objectives for polluted waterbodies (San Pedro Creek, San Vicente Creek, Fitzgerald Marine Reserve, and Pillar Point Harbor). These objectives will be achieved by initiatives to increase community understanding about the connection between land-based activities and water pollution in addition to directly cleaning up dog waste in high accumulation areas. The program involves the following tasks:

#### ***Task 1: Program Oversight and Administration***

- Invoicing, correspondence, reporting, project management

#### ***Task 2: Community Outreach***

- Create and distribute informational items such as brochures, fliers, and other resources about watersheds, pet waste, and associated impacts to creeks and beaches. These materials will be submitted as deliverables to the County in an unlocked format for reuse and reprinting.

Thousands of people will be reached through the following mechanisms:

- Mailers (~500) to local residents in focus watersheds (San Pedro Creek, San Vicente Creek, Pillar Point Harbor) and groups (Coastside Dog Group, Peninsula Humane Society, veterinary clinic clients)
- Print ads and articles in local press (Coastsider, Peninsula Press, Half Moon Bay Magazine/Review, Pacifica Riptide, Friends of Fitzgerald Newsletter, NextDoor)
- Website page and periodic facebook posts for relevant organizations as permitted (RCD, San Mateo County, Sewer Authority Mid Coastside- SAM, San Mateo County Harbor District, Coastside County Water District, Surfrider, Midcoast Community Council, Peninsula Humane Society, Coastside Dog Group, Pacifica Beach Coalition, San Pedro Creek Watershed Coalition, Coastside Veterinary Clinic)
- Bulletins/Flyers (~250) posted at local businesses including pet supply stores, groomers, veterinary clinics, and dog park informational boards
- Brochures/Fact Sheets (~250) made available at relevant organizations as permitted (San Mateo County Harbor District, Coastside County Water District, RCD, SAM, Fitzgerald Marine Reserve Education Center)
- Information emails sent periodically to dog owners, especially before wet weather events to remind residents to pick up pet waste before rain events

**Task 3: Community Events**

- Conduct bi-annual pet waste cleanups towards the beginning and end of the rainy season in high accumulation areas as identified during visual watershed inspections. Focus will likely be placed on Pillar Point Harbor and San Pedro Creek watersheds and will involve an educational component and community volunteers when possible. This task will also involve getting in touch with existing clean up groups (e.g. Pacifica Beach Coalition) and events (e.g. Coastal Clean Up Day) to educate volunteers about dog waste and provide supplies for picking up dog waste during the clean-ups.
- Conduct a minimum of four classroom lessons/workshops at local schools (K-12) to educate students about watersheds and how pet waste can contribute to local water pollution. Various age groups will be targeted and the lessons will likely coincide with existing initiatives such as Oceans Week. Each lesson will involve demonstration of the land to sea connection with the EnviroScape watershed model in addition to an age appropriate interactive activity such as artwork about the impacts of pet waste or learning how to test for bacteria in water. Materials developed for classroom lessons will be submitted as deliverables to the County in an unlocked format for future use.

**Detailed Budget**

<b>Midcoast San Mateo County Pet Waste Education and Outreach Program- FY18 and FY19</b>			
<b>Personnel</b>	<b>Hours</b>	<b>Rate</b>	<b>Total</b>
<b>Task 1: Program Oversight/Administration</b>			
Executive Director	18	\$162	\$2,916
Water Resource Specialist	24	\$85	\$2,040
Program Specialist	36	\$70	\$2,520
<b>Task 2: Community Outreach</b>			
Water Resource Specialist	80	\$85	\$6,800
Project Assistant	120	\$52	\$6,240
<b>Task 3: Community Events</b>			
Water Resource Specialist	110	\$85	\$9,350
Project Assistant	70	\$52	\$3,640
<b>Supplies/Materials</b>			
Printing, postage, trash bags etc)	1	\$1,500	\$1,500
<b>PROGRAM TOTAL</b>			<b>\$35,006</b>

**Exhibit A4: Butano Channel Restoration and Resilience Project**

**Project**

Butano Channel Restoration and Resilience

**Timeframe**

July 1, 2017 – June 30, 2019

**Budget**

\$150,000

**Scope of Work**

Tasks related to planning and permitting may include, but are not limited to, the following:

- Data Collection and Analysis (e.g. coring, sediment, water quality, biological, and/or geotechnical, as needed)
- Design Alternatives Evaluation (includes model updates and integration)
- Permitting Strategy and Materials Development
- Community and Stakeholder Outreach
- Project Management and Administration (reporting, invoicing, contracting, contractor oversight, project tracking, coordination)

The RCD shall document work performed under this contract and provide a status report of the work efforts outlined above on a quarterly basis until funds are expended. The work will be completed by the RCD and its consultants (Alnus Ecological, cbec eco-engineering, ESA, and others, as needed). The agreement amount is not to exceed \$150,000.

The RCD billing rates are as follows:

<b>RCD Staff</b>	<b>Rate</b>
Executive Director	\$132/hr
Project Manager	\$90/hr
Conservation Program Specialist	\$67/hr
Program Specialist	\$60/hr
Project Coordinator	\$51/hr
Program Assistant	\$45/hr

## Exhibit A5: Composting Technical Assistance

### **Project**

Composting Technical Assistance

### **Timeframe**

August 1, 2018 – June 30, 2020

### **Budget**

\$20,000

### **Scope of Work**

Resource Conservation Districts (RCDs) are the entities established by California law to provide technical assistance to residents, business owners, and farmers for the best management of their natural resources. RCD staff is in the field daily with these constituents, addressing integrated, comprehensive natural resource management. As requested by constituents or OOS, the RCD will be available to provide composting technical assistance.

The RCD will also assist OOS in development of a program to install a composting unit with local businesses and landowners. The RCD regularly provides technical assistance to businesses and landowners for a variety of environmental improvements and natural resource-related matters, with particular additional expertise in permitting/ regulatory compliance. The RCD will help the County find ways to reduce its own permitting/ regulatory barriers to develop composting systems.

Billing rates for FY 19 and FY 20 are:

Executive Director - \$170

Water Quality Specialist- \$92

Program Specialist - \$79

Project Coordinator - \$52

Administrative Officer - \$72 (for billing, contracting associated with this program)

For work assisting agricultural operations with permitting, the RCD would be paid through an existing contract with the Agricultural Commissioner's Department.

## Exhibit A6: School Composting Demonstration Project

### **Project**

School Composting Demonstration Project

### **Timeframe**

August 1, 2018 – August 30, 2020

### **Budget**

\$9,994.00

### **Scope of Work**

Science and special education teachers at Manuel F. Cunha Intermediate School in Half Moon Bay are interested in partnering with the RCD for a composting project at Cunha Middle School. This project would support their existing curriculum (e.g., 6th grade soils unit, and the special education's gardening program). Goals for this project include developing students' understanding of composting practices, and the role of compost in building soil health and mitigating climate change. Additionally, through interpretive signage and outreach communications about this demonstration project signage, the RCD seeks to increase awareness of and support for composting among members of the public.

This project includes the following tasks:

#### ***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Project Planning***

The RCD will work with teachers at Manuel F. Cunha Middle School to incorporate composting and soil health into their curriculum.

#### ***Task 3: Project Implementation***

The RCD will design and create small-scale compost testing of a few of different source materials (e.g., food scraps, chipped wood), engaging Cunha Middle students and teachers in the design, monitoring, and maintenance. This project will include an education/outreach component (e.g., interpretive signage) to reach the thousands of visitors to Cunha's sports fields that are adjacent to the planned demonstration site.

### **Timeline**

<b>Activity</b>	<b>Timeline</b>
Enter into contract with OOS	September 2018
Project planning	August 2019 – September 2019
Project design	September-November 2019
Project implementation	January – February 2020
Project monitoring and maintenance	February – June 2020
Final report to OOS	September 2020

**Detailed Budget**

<b>Task 1: Program administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	2	\$170.00	\$340.00
Program Specialist	12	\$79.00	\$948.00
Administrative Officer	4	\$72.00	\$288.00
<b>Task 2: Project planning</b>			
Program Specialist	18	\$79.00	\$1,422.00
<b>Task 3: Project Implementation*</b>			
Program Specialist	40	\$79.00	\$3,160.00
Project Coordinator	18	\$52.00	\$936.00
Expenses (signage, tools, monitoring kit)			\$2,900.00
<b>PROGRAM TOTAL</b>			<b>\$9,994.00</b>

\* Note that it is assumed that permits (and related fees) will not be required because of the project type and size which will be below thresholds for regulatory review.

## Exhibit A7: Feasibility Study for Composting Facility

### **Project**

Feasibility of Coastside Composting Facility/ies Serving Agricultural Producers and Equestrian Facilities

### **Timeframe**

September 1, 2018 – March 30, 2020

### **Budget**

\$31,516.00

### **Scope of Work**

The RCD will conduct a preliminary feasibility analysis for a composting facility (or multiple facilities) on the San Mateo coast to process agricultural waste and horse manure. The facility(s) would redirect these organic wastes from the waste stream, and create a local source of compost. Included in this project would be obtaining information on agricultural waste generation, demand for compost, assessment of regulatory and food safety considerations, and describing next steps. RCD staff has expertise in local, State, and federal regulatory requirements as well as food safety considerations that often interact with programs to generate and utilize compost. Benefits of this project include reduction of wastes from the waste stream, and conservation of resources by repurposing these wastes into a soil amendment that increases water retention and infiltration, builds soil health and soil carbon, and sequesters CO<sub>2</sub>.

This project includes the following tasks:

#### ***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Data Collection***

The RCD will gather data on waste generation from agricultural producers and equestrian facilities, and current or planned management of waste. The RCD will also survey producers on their current annual compost use and desired level of use, and barriers to utilizing compost, such as cost and concerns about compost quality. This task also includes a review of applicable regulations that impact the waste management, composting, or use of compost of agricultural producers and livestock facilities.

#### ***Task 3: Recommendations***

Using the data collected from Task 2, the RCD will analyze potential composting systems and scales that would best meet the demand and best serve coastal San Mateo County. The RCD will produce a report for Office of Sustainability detailing recommendations and next steps.

### **Timeline**

<b>Activity</b>	<b>Timeline</b>	<b>Notes</b>
Enter into contract with OOS	September 2018	
Data collection	October 2018 – February 2019	Speak with farmers, equestrian facilities, waste management operators, etc.
Analysis	March-July 2019	

Mid-project progress report to OOS	August 2019	
Assess alternatives	August-November 2019	
Write draft report	December 2019-January 2020	Share with OOS and partners for feedback
Finalize report	January-March 2020	

Detailed Budget

<b>Task 1: Program administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	4	\$ 170.00	\$ 680.00
Program Specialist	40	\$ 79.00	\$ 3,160.00
Administrative Officer	6	\$ 72.00	\$ 432.00
Mileage		\$ 0.55	\$ 200.00
<b>Task 2: Data collection</b>			
Program Specialist	113	\$ 79.00	\$ 8,927.00
Water Resources Specialist	12	\$ 92.00	\$ 1,104.00
Subcontractor			\$ 3,300.00
<b>Task 3: Recommendations</b>			
Executive Director	4	\$ 170.00	\$ 680.00
Program Specialist	120	\$ 79.00	\$ 9,480.00
Subcontractor			\$ 3,700.00
<b>PROGRAM TOTAL</b>			<b>\$ 31,663.00</b>

## Exhibit A8: HMB High School Composting

### **Project**

Half Moon Bay High School Composting Project

### **Timeframe**

September 1, 2018 – July 30, 2021

### **Budget**

**\$63,508.00**

### **Scope of Work**

The RCD will work with Half Moon Bay High School Agricultural Program and with a local horse boarding facility (at least one) in the San Vicente Creek watershed on developing a program that will provide composting services for equestrian facilities. The project has the potential to remove approximately 400 tons of manure a year from a watershed that has excessive amounts of fecal bacteria in the creek system. Other expected benefits of the project include:

- reducing greenhouse gas emissions;
- removing horse manure from the waste stream;
- teaching high school students about composting and soil health;
- creating a locally generated soil amendment for use by farms and residents;
- helping the County comply with new water quality regulations for San Vicente Creek; and
- providing a business enterprise program for local students.

This program may include construction of a manure bunker, development of a composting plan and help with ideas for its distribution.

This project includes the following tasks:

#### ***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Project Planning***

The RCD will work with the High School and equestrian facilities to conduct project planning, design, and permitting, and to develop a compost distribution plan. This task includes the development of a manure management plan for the High School, which will be created collaboratively with the High School teachers and students.

#### ***Task 3: Project Implementation***

The RCD will assist with the development (potential construction) on a composting system that will meet the needs of the High School.

#### ***Task 4: Post-Implementation Assistance***

The RCD will monitor the composting, evaluate the program, and if needed, make recommendations for program alterations or next steps.

**Timeline**

<b>Activity</b>	<b>Timeline</b>
Enter into contract with OOS	September 2018
Project planning	September 2018 – June 2020
Project implementation	July- September 2020
Post-Implementation Assistance	September – June 2021
Final report to OOS	July 2021

**Detailed Budget**

<b>Task 1: Project administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	4	\$170.00	\$680.00
Program Specialist	18	\$79.00	\$1,422.00
Administrative Officer	8	\$72.00	\$576.00
Mileage		\$0.55	\$80.00
<b>Task 2: Project Planning</b>			
Executive Director	2	\$170.00	\$340.00
Program Specialist	120	\$79.00	\$9,480.00
Water Resources Specialist	15	\$92.00	\$1,380.00
Expenses (design and permits)			\$19,000.00
<b>Task 3: Project Implementation</b>			
Program Specialist	40	\$79.00	\$3,160.00
Project Coordinator	20	\$52.00	\$1,040.00
Expenses (Construction and supplies)			\$22,400.00
<b>Task 4: Post-Implementation Assistance</b>			
Program Specialist	50	\$79.00	\$3,950.00
<b>PROGRAM TOTAL</b>			<b>\$63,508.00</b>

## Exhibit A9: Brussel Sprouts Composting

### **Project**

Brussels Sprout and Eucalyptus Greenwaste Composting Pilot Project

### **Timeframe**

August 1, 2018 – June 30, 2019

### **Budget**

\$18,038

### **Scope of Work**

Brussels sprouts are the most produced (by acreage and weight) vegetable crop in San Mateo County, with nearly 9,000 tons of production in 2016. Brussels sprout waste, when left to sit in the fields, produces CO<sub>2</sub> and NO<sub>2</sub>- harmful greenhouse gases. Eucalyptus is an invasive species that is harmful to soil health and wildlife, accelerates erosion, consumes high amounts of local water resources, and greatly increases the risk of catastrophic wildfire. Several farmers have expressed interest in working with the RCD to manage the waste generated by Brussels sprout harvest and eucalyptus removal.

Composting this greenwaste is an innovative waste management solution that has the potential to provide comprehensive, integrated co-benefits. These include, reduced emissions from unmanaged waste; enhanced sequestration of greenhouse gases from enhanced soils; improved resiliency to climate change, including drought and fire; enhanced streamflows for endangered salmon; and enhanced agricultural production.

This project includes the following tasks:

#### ***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Project Planning***

The RCD will conduct project planning and design, and obtain necessary permits for project implementation. Additionally, this task includes development of a compost use plan by the RCD.

#### ***Task 3: Project Implementation and Monitoring***

This task includes the construction a composting system that will meet the needs of the farm. This task includes monitoring the composting process and analyzing the finished product.

### **Timeline**

<b>Activity</b>	<b>Timeline</b>
Enter into contract with OOS	August 2018
Project planning	August 2018 – October 2018
Project implementation	October- November 2018
Post-Implementation Assistance	December 2018- May 2019

Final report to OOS	June 2020
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**Detailed Budget**

<b>Task 1: Project administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	2	\$170.00	\$340.00
Program Specialist	10	\$79.00	\$790.00
Administrative Officer	4	\$72.00	\$288.00
Mileage		\$0.55	\$200.00
<b>Task 2: Project Planning</b>			
Program Specialist	25	\$79.00	\$1,975.00
Expenses (subcontractor, permits)			\$2,485.00
<b>Task 3: Project Implementation</b>			
Program Specialist	40	\$79.00	\$3,160.00
Project Coordinator	25	\$52.00	\$1,300.00
Expenses (Construction, supplies, and subcontractor)			\$7,500.00
<b>PROGRAM TOTAL</b>			<b>\$18,038.00</b>

## Exhibit A10: Elkus Ranch Composting

### **Project**

Elkus Ranch Composting and Demonstration Project

### **Timeframe**

September 1, 2018 – March 31, 2020

### **Budget**

\$36,440

### **Scope of Work**

The RCD will work with Elkus Ranch to complete designs and construction of a manure bunker for the livestock, develop a composting plan, and implement an outreach element (a demonstration workshop and/or project signage). This project would reduce at least 250 tons of manure and bedding annually.

This project includes the following tasks:

#### ***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

#### ***Task 2: Project Planning***

The RCD will work with Elkus Ranch to plan, design, and obtain necessary permits for the manure bunker, as well as to develop the compost distribution plan. This task includes the development of a manure management plan for the Ranch.

#### ***Task 3: Project Implementation***

The RCD will oversee construction of a composting system that will meet the needs of the Ranch and their livestock program.

#### ***Task 4: Post-Implementation Assistance***

The RCD will monitor the composting, evaluate the program, and if needed, make recommendations for program alterations or next steps.

### **Timeline**

<b>Activity</b>	<b>Timeline</b>
Enter into contract with OOS	September 2018
Project planning	September 2018 – June 2019
Project implementation	July- September 2019
Post-implementation assistance	September – March 2020
Final report to OOS	March 2020

**Detailed Budget**

<b>Task 1: Project Administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	4	\$170.00	\$680.00
Program Specialist	18	\$79.00	\$1,422.00
Administrative Officer	6	\$72.00	\$432.00
Mileage		\$0.55	\$100.00
<b>Task 2: Project Planning</b>			
Executive Director	2	\$170.00	\$340.00
Program Specialist	50	\$79.00	\$3,950.00
Water Resources Specialist	8	\$92.00	\$736.00
Expenses (permits)			\$5,000.00
<b>Task 3: Project Implementation</b>			
Program Specialist	40	\$79.00	\$3,160.00
Project Coordinator	20	\$52.00	\$1,040.00
Expenses (Construction and supplies)			\$18,000.00
<b>Task 4: Post-Implementation Assistance</b>			
Program Specialist	20	\$79.00	\$1,580.00
<b>PROGRAM TOTAL</b>			<b>\$36,440.00</b>

**Exhibit A11: Rangeland Application of Compost**

**Project**

Demonstration of Rangeland Application of Compost

**Timeframe**

September 1, 2018 – September 30, 2020

**Budget**

\$18,096

**Scope of Work**

The RCD has completed three Conservation and Carbon Plans for ranches in San Mateo County that identify sites that would benefit from the application of compost to improve soil health, water holding capacity, and sequester and store CO<sub>2</sub>. To demonstrate these benefits, the RCD will select one of these sites for rangeland compost application. Based on the carbon sequestration modeling used for Carbon Farm Planning, a 4-acre demonstration project will sequester almost 6 tonnes of CO<sub>2</sub>e per year, and more than 119 tonnes after 20 years. To build awareness and support for rangeland compost application as a conservation practice, the RCD will do outreach to local ranchers about the demonstration project, explaining the benefits of utilizing compost, and install educational signage at the project site.

This project includes the following tasks:

***Task 1: Project Administration***

The program administration task involves program oversight, planning, and project management including drafting internal resources (i.e. checklists, maps), communicating with partners and stakeholders, and invoicing on a quarterly schedule.

***Task 2: Project Planning***

The RCD will work with ranchers with existing Conservation and Carbon Farm Plans to identify a site for a compost application. This task will include project design and permitting.

***Task 3: Compost Application***

The RCD will do a one-time ¼" application of compost to at least 4 acres of rangeland. This task includes sourcing, delivery, and supervision of compost application.

***Task 3: Monitoring***

The RCD will conduct pre- and post-implementation monitoring of soil health, soil carbon, forage, and vegetation community. The monitoring will occur for 1 year following project implementation.

***Task 3: Outreach***

The RCD will conduct outreach to the local ranching community about the benefits of utilizing compost on rangelands. This will include either a workshop or field visit, and project signage.

**Timeline**

<b>Activity</b>	<b>Timeline</b>	<b>Notes</b>
Enter into contract with OOS	September 2018	

Project planning	October 2018 – March 2019	Work with landowner to identify site, permitting
Pre-implementation monitoring	April-July 2019	
Compost application	September -October 2019	
Post-project monitoring	October 2019 –October 2020	
Outreach	December 2019-September 2020	
Final report to OOS	December 2020	

### Detailed Budget

<b>Task 1: Project administration</b>	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Executive Director	4	\$ 170.00	\$ 680.00
Program Specialist	16	\$ 79.00	\$ 1,264.00
Administrative Officer	8	\$ 72.00	\$ 576.00
Mileage		\$ 0.55	\$ 100.00
<b>Task 2: Project Planning</b>			
Program Specialist	22	\$ 79.00	\$ 1,738.00
Project Coordinator	10	\$ 52.00	\$ 520.00
Expenses			\$ 800.00
<b>Task 3: Compost application</b>			
Program Specialist	14	\$ 79.00	\$ 1,106.00
Project Coordinator	6	\$ 52.00	\$ 312.00
Expenses			\$ 6,500.00
<b>Task 4: Monitoring</b>			
Program Specialist	10	\$ 79.00	\$ 790.00
Project Coordinator	10	\$ 52.00	\$ 520.00
Expenses (Soil samples)			\$ 1,200.00
<b>Task 5: Outreach</b>			
Program Specialist	30	\$ 79.00	\$ 2,370.00
Project Coordinator	10	\$ 52.00	\$ 520.00
Expenses (signage, supplies)			\$ 400.00
<b>PROGRAM TOTAL</b>			<b>\$ 19,396.00</b>

## **Exhibit A12: South Coast Sea Level Rise Vulnerability Assessment**

### **Project**

South Coast Sea Level Rise Vulnerability Assessment

### **Timeframe**

January 1, 2019 – December 31, 2019

### **Budget**

\$30,000

### **Scope of Work**

#### ***Background and Purpose***

In 2015, the County launched [Sea Change SMC](#), which is a County program addressing the issue of sea level rise. In 2018, Sea Change SMC released a [Sea Level Rise Vulnerability Assessment \(Assessment\)](#) for the entire Bayshore and the North Coast (Half Moon Bay north). The County worked with a broad coalition of governments and community stakeholders to develop the Assessment. The Scope of Work below is part of the South Coast Sea Level Rise Vulnerability Assessment for the coast from Half Moon Bay south to the County line.

The San Mateo Resource Conservation District (RCD) serves as a local hub for conservation, connecting people with the technical, financial and educational assistance they need to conserve and manage natural resources. The district provides comprehensive, integrated services addressing wildlife, water, climate, and agriculture. The RCD serves as a focal point for local conservation efforts, and collaborates with private and public land owners, land managers, public agencies, interest groups, and others. The district will play an integral role in reaching people and organizations most affected by sea level rise and in providing alignment with on the ground efforts underway to achieve resiliency to a changing climate.

#### **Task 1: Project Coordination and Management**

- Participate in monthly project team meetings.
- Coordinate with additional outreach and engagement consultants and staff as needed.

#### **Task 2: Stakeholder Engagement**

Stakeholder engagement will consist of the following tasks:

- Co-develop stakeholder lists of agencies, residents and landowners, non-profits and community-based organizations and businesses in the project area.
- Conduct outreach to stakeholders, co-plan and facilitate up to 8 engagement activities, including but not limited to workshops, site tours and community conversations. This includes but is not limited to:
  - Planning and facilitating an ecosystem based workshop focused of resiliency of natural resources in the project area.
  - Coordinating and leading up to 3 site tours of areas affected by sea level rise and erosion.

Task 3 (Optional): Co-Lead development of ecosystem based scenarios and adaptation options

- Lead the development of 1-2 natural resource based adaptation case studies in collaboration with selected consultant and consistent with existing work. Work with consultant and County of San Mateo staff to develop and vet ecosystem based adaptation strategies. This includes, but is not limited to:
  - Providing data and support for watershed-based case studies.
  - Providing support for other climate risks and stressors beyond sea level rise.
  - Providing input and support for strategies that include climate mitigation (e.g. C seq).

**Timeline**

<b>Activity</b>	<b>Timeline</b>	<b>Notes</b>
Enter into contract with OOS	September 2018	
Project planning	October 2018 – February 2019	
Outreach activities	March-November 2019	
Adaptation case studies	May -September 2019	
Final report to OOS	December 2019	

**Detailed Budget**

A detailed budget will be developed collaboratively between the Office of Sustainability and the RCD prior to the project planning phase.

**Revised Exhibit B (rev. 12/10/18)**

In consideration of the services provided by Contractor described in Exhibit A and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

<b>Exhibit</b>	<b>Fee schedule and terms</b>
Exhibit A1 Operational Support	RCD shall bill the County on a semi-annual basis (July and January) beginning July 2017 for four (4) equal payments of sixty two thousand and five hundred dollars (\$62,500).
Exhibit A2 San Vicente Creek Bacteria Water Quality Monitoring Program	RCD will submit invoices on a quarterly basis identifying the task, specific work completed, and breakdown of charges. RCD will make reference to the tasks and staffs rates provided in <i>Exhibit A2 – San Vicente Creek Bacteria Water Quality Monitoring Program</i> .
Exhibit A3 Pet Waste Education and Outreach Program	RCD will submit invoices on a quarterly basis identifying the task, specific work completed, and breakdown of charges. RCD will make reference to the tasks and staff rates provided in <i>Exhibit A3 - Pet Waste Education and Outreach Program</i> .
Exhibit A4	RCD will submit invoices on a quarterly basis identifying the specific work completed, breakdown of charges, and any consultant invoices. RCD will make reference to the staff rates provided in Exhibit A4 – Butano Channel Restoration and Resilience Project.
Exhibit A5-A12	RCD will submit invoices on a quarterly basis identifying the task, specific work completed, and breakdown of charges. RCD will make reference to the tasks and staff rates provided in the respective Exhibit as appropriate.

Invoices are due and payable to the San Mateo County Resource Conservation District within 30 days of submission.