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## STORMWATER (NPDES) COMMITTEE AGENDA SPECIAL MEETING 2:30 PM, Thursday, November 30, 2023

### San Mateo County Transit District Office 1250 San Carlos Ave, 2nd Fl. Auditorium, San Carlos, CA

#### **\*\*\*HYBRID MEETING - IN-PERSON AND BY VIDEOCONFERENCE\*\*\***

This meeting of the Stormwater Committee will be held in person and by teleconference pursuant to Government Code Section 54953(e). Members of the public will be able to participate in the meeting remotely via the Zoom platform or in person at the location above. For information regarding how to participate in the meeting, either in person or remotely, please refer to the instructions at the end of the agenda.

Join by Zoom Webinar:

#### https://us02web.zoom.us/j/89028946318?pwd=bjZ1TDEwaWgxNjVwbmh2dWpyNFBQQT09 Passcode: 517260

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Persons who wish to address the Stormwater Committee on an item to be considered at this meeting, or on items not on this agenda, are asked to submit written comments to rbogert@smcgov.org. Spoken public comments will also be accepted during the meeting through Zoom. Please see instructions for written and spoken public comments at the end of this agenda.

1.	Call to Order, Roll Call, and brief overview of teleconference meeting procedures.	Bogert	No materials
2.	Public comment on items not on the Agenda (presentations limited to three minutes).	Breault	No materials
3.	Receive presentation from the San Jose Conservation Corps on partnership opportunities in San Mateo County.	Bogert/Echeva rria/Nakamora	Page 1
4.	ACTION – Review and approve September 21, 2023 Stormwater Committee meeting minutes.	Breault	Pages 2-7
5.	INFORMATION – Receive information on stormwater related announcements.	Bogert	Pages 8-12

City/County Association of Governments of San Mateo County (C/CAG) 555 County Center, Redwood City, CA 94063. Telephone 650.599.1406. Fax 650.361.8227.

6.	ACTION – Review and recommend Board approval of a contract with EOA, Inc. for completing the SFBWQIF grant funded Watching Our Watersheds Regional Trash Monitoring Project.	Bogert	Pages 9-34
7.	ACTION – Review and recommend Board approval of a contract with Geosyntec for completing the ICARP grant funded San Mateo County OneWatershed Framework and Community-Led Plan.	Bogert	Pages 35-69
8.	Regional Board Report	Regional Water Board Staff	No materials
9.	Executive Director's Report	Charpentier	No materials
10.	Member Reports	All	No materials
11.	Adjourn	Breault	No materials

**PUBLIC NOTICING:** All notices of C/CAG regular Board meetings, standing committee meetings, and special meetings will be posted at the San Mateo County Court Yard, *555* County Center, Redwood City, CA, and on C/CAG's website at: <u>http://www.ccag.ca.gov</u>.

**PUBLIC RECORDS:** Public records that relate to any item on the open session agenda for a regular Board meeting, standing committee meeting, or special meeting are available for public inspection. Those public records that are distributed less than 72 hours prior to a regular Board meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members, of the Board. The Board has designated the City/County Association of Governments of San Mateo County (C/CAG), located at 555 County Center, 5th Floor, Redwood City, CA 94063, for the purpose of making public records available for inspection. Such public records are also available on C/CAG's website at: http://www.ccag.ca.gov. Please note that C/CAG's office is temporarily closed to the public; please contact Mima Crume at (650) 599-1406 to arrange for inspection of public records.

**ADA REQUESTS:** Persons with disabilities who require auxiliary aids or services to participate in this meeting should contact Mima Crume at (650) 599-1406 or <u>mcrume@smcgov.org</u> by 10:00 a.m. prior to the meeting date.

**PUBLIC PARTICIPATION DURING HYBRID MEETINGS:** During hybrid meetings of the C/CAG Stormwater Committee, members of the public may address the Committee as follows:

Written comments should be emailed in advance of the meeting. Please read the following instructions carefully:

1. Your written comment should be emailed to <a href="mailto:rbogert@smcgov.org">rbogert@smcgov.org</a> with the Subject line "Stormwater

Committee Meeting Comment".

- 2. Your email should include the specific agenda item on which you are commenting or note that your comment concerns an item that is not on the agenda.
- 3. Members of the public are limited to one comment per agenda item.
- 4. If your emailed comment is received at least 2 hours prior to the meeting, it will be provided to the Committee members, made publicly available on the C/CAG website along with the agenda. Emails received less than 2 hours before the meeting will be provided to the Committee members and included in the administrative record of the meeting as soon as practicable.

Spoken comments will be accepted during the meeting in person and through Zoom. Public comments will be taken first by speakers in person followed by via Zoom. Please read the following instructions carefully:

\*In-person participation:

1. If you wish to speak to the Committee, please fill out a speaker's slip located on the 2<sup>nd</sup> floor auditorium side table against the wall. If you have anything that you wish distributed to the Committee and included in the official record, please hand it to the C/CAG staff who will distribute the information to the Committee members and staff.

\*Remote participation:

- 1. The Stormwater Committee meeting may be accessed through Zoom at the online location indicated at the top of this agenda.
- 2. You may download the Zoom client or connect to the meeting using an internet browser. If using your browser, make sure you are using a current, up-to-date browser: Chrome 30+, Firefox 27+, Microsoft Edge 12+, Safari 7+. Certain functionality may be disabled in older browsers including Internet Explorer.
- 3. You will be asked to enter an email address and name. We request that you identify yourself by your name as this will be visible online and will be used to notify you that it is your turn to speak.
- 4. When the C/CAG staff or Chair call for the item on which you wish to speak, click on "raise hand." The Clerk will activate and unmute speakers in turn. Speakers will be notified shortly before they are called on to speak. If calling in via phone, press \*9 to raise your hand and when called upon press \*6 to unmute.
- 5. When called, please limit your remarks to the time allotted.

If you have any questions about this agenda, please contact C/CAG staff: *Executive Director: Sean Charpentier <u>scharpentier@smcgov.org</u> <i>Stormwater Committee Staff: Reid Bogert rbogert@smcgov.org* 

### C/CAG AGENDA REPORT

Date:	November 30, 2023
To:	Stormwater Committee
From:	Reid Bogert, Program Director
Subject:	Receive a presentation from the San Jose Conservation Corps on partnership opportunities in San Mateo County
	(For further information or questions contact Reid Bogert at <u>rbogert@smcgov.org</u> )

#### RECOMMENDATION

That the Stormwater Committee (Committee) receive a presentation from the San Jose Conservation Corps on partnership opportunities in San Mateo County.

#### **BACKGROUND/DISCUSSION**

The San Jose Conservation Corps + Charter School (SJCC+CS) is a 501(c)3 nonprofit with a multi-faceted program combining education and job training. SJCC+CS engages participants (including many at-risk/underserved community members) through rigorous training and development to become active future leaders and environmental stewards. Currently headquartered in San Jose, the SJCC+CS has historically partnered with agencies such as Santa Clara County, City of San Jose, CalTrans, to provide litter abatement services and vegetation management. Potential projects could include litter and weed abatement, construction of fuel breaks, trail construction and rehabilitation, general park landscaping, and tree planting/pruning. SJCC+CS plans to open an office in San Mateo County to support programming in the norther part of the peninsula, and recently C/CAG's Stormwater Program staff has engaged SJCC+CS and Caltrans in evaluating opportunities in San Mateo County to support litter abatement and other maintenance activities that could be mutually beneficial for compliance with NPDES stormwater permit requirements related to litter reduction.

SJCC+CS will provide a summary presentation of their program and partnership opportunities for discussion by the Committee.

#### ATTACHMENTS

None.

### C/CAG AGENDA REPORT

Date: November 30, 2023

To: Stormwater Committee

From: Reid Bogert, Program Director

Subject: Review and approve the September 21, 2023 Stormwater Committee meeting minutes

(For further information or questions contact Reid Bogert at <a href="mailto:rbogert@smcgov.org">rbogert@smcgov.org</a>)

#### RECOMMENDATION

That the Stormwater Committee (Committee) review and approve the September 21, 2023 Stormwater Committee meeting minutes, as drafted.

#### **BACKGROUND/DISCUSSION**

N/A.

#### ATTACHMENTS

1. Draft September 21, 2023 Meeting Minutes

#### STORMWATER COMMITTEE Thursday, September 21, 2023 2:30 p.m.

#### **Draft Meeting Minutes**

The Stormwater Committee meeting was held in a hybrid format (i.e., in person and videoconference) pursuant to Government Code Section 54953(e). Committee members met in-person at the offices of the San Mateo County Transit District in the City of San Carlos. Municipal staff (not part of a legislative body of C/CAG) and members of the public could participate remotely via the Zoom platform or in-person at the location above. Attendance at the meeting is shown in the attached. In addition to the Committee members, also in attendance were Reid Bogert (C/CAG staff and SMCWPPP Program Director), Sean Charpentier (C/CAG Executive Director), Kim Springer (C/CAG staff), Derek Beauduy (Regional Water Quality Control Board), Craig Centis (City of Millbrae), Jennifer Lee (City of San Mateo), Elizabeth Wada (City of Belmont), Melissa Ross-Perkins (County of San Mateo), Sultan Henson (County of San Mateo), Krista McDonald (County of San Mateo), James O'Connell (City of Redwood City), Jon Konnan (EOA), Jill Bicknell (EOA), Bonnie de Berry (EOA), Kristin Kerr (EOA), and Ileana Alvarado (EOA). Chair Breault called the meeting to order at 2:41 p.m.

- 1. Call to Order, Roll Call, and a brief overview of teleconference meeting procedures.
- 2. Public comment on items not on the agenda None.
- ACTION The Committee approved the draft April 20, 2023, Stormwater Committee meeting minutes. Motion: Member Lee (City of San Bruno); Second: Member Underwood (City of San Mateo). Vote: Motion passed unanimously (13:0:0).
- 4. ACTION With the purpose of ensuring contingency coverage in situations where a jurisdiction's representative is unavailable, C/CAG staff updated the draft Stormwater Committee Guidelines to specify alternates for the Stormwater Committee members. The Guidelines were also revised to streamline the process of managing changes in staffing by allowing agencies the option of designating a position within their organization (e.g., Public Works Director) rather than a specific individual. On September 13, 2023, staff emailed a request to each current Committee member to provide each agency's up to date designated member and alternate (person or position for each). The Committee approved the revised draft Stormwater Committee Guidelines, contingent on allowing jurisdictions to update their membership on the roster before submitting to the C/CAG Board. Motion: Vice Chair Ovadia (Town of Atherton); Second: Member Murtuza (City of Burlingame). Vote: Motion passed unanimously (13:0:0).
- 5. INFORMATION Announcements on stormwater related issues:
  - i. <u>May through September 2023 C/CAG Board Updates</u> Some of the updates detailed in the Stormwater Committee packet were highlighted: at the June 8, 2023 meeting, C/CAG authorized the execution of Task Order EOA-16, which is the primary consulting services task order for the Countywide Stormwater Program for FY 2023-24. Also, the Board received a presentation on C/CAG's Countywide Stormwater Green Infrastructure Program. At the July 13, 2023 meeting, C/CAG approved Resolution 23-69 authorizing the C/CAG Executive Director to accept a grant from the U.S. EPA under the San Francisco Bay Water Quality Improvement Fund to implement the Watching Our Watersheds Regional Trash Monitoring Project.
  - ii. <u>FY 2022-23 Annual Reports</u> This year, Annual Reports are due October 2, 2023, via online submission to the Regional Water Quality Control Board (RWQCB) via the SMARTS system. Permittees must submit their respective Annual Reports through an e-authorized Legally Responsible Party (LRP) account or a linked Duly Authorized Representative / Data Entry Person

account. The draft Program Annual Report was emailed to Permittee representatives on September 5, with comments due September 19. The final Program Annual Report will be provided to Permittees by September 22.

- iii. <u>Grants</u> C/CAG staff shared the status of two recent grant-funded projects to support MRP implementation and broader Green Stormwater Infrastructure (GSI) planning and implementation goals. These projects are:
  - Regional Trash Monitoring Project: as mentioned above, the C/CAG Board authorized the C/CAG Executive Director to enter into a grant agreement with the USEPA for a grant amount of \$3,366,000 to implement the project. The agreement was executed, and C/CAG staff developed a Request for Proposals (RFP) in coordination with representatives from each of the partnering Bay Area countywide stormwater programs to procure consultant services to deliver the full scope of work under the grant. Staff provided a summary and recommended approval of the RFP at the August 24 Bay Area Municipal Stormwater Collaborative (BAMSC) Steering Committee. On August 31 staff broadly distributed the RFP with proposals due October 5, 2023. Staff anticipates that, following a recommendation from the Stormwater Committee and approval from the C/CAG Board, a Consultant Agreement for assistance with implementing the project will be executed in November.
  - San Mateo County OneWatershed Climate Resilience Framework and Community-Led Plan: This project will bring together multiple partners to develop a framework for climate resilience for water infrastructure in the County. It will expand and formalize C/CAG's existing Regional Collaborative Stormwater Program in support of regional MRP requirements and climate resilience goals through multi-benefit regional stormwater projects and distributed GSI. The C/CAG Board will consider approving a resolution to authorize the C/CAG Executive Director to execute a Partnership Agreement with the coapplicants and to execute a Grant Agreement with the California Governor's Office of Planning and Research (OPR). Currently, C/CAG staff is planning an RFP process to obtain consultant support with the project. Staff anticipates that, following a recommendation from the Stormwater Committee and approval from the C/CAG Board, a Consultant Agreement for assistance with implementing the project will be executed in November or December.
- iv. <u>FY 2023-24 State Water Resources Control Board NPDES permit fees</u> California State Water Code Section 13260 requires waste dischargers to waters of the state to file a report of waste discharge with the appropriate RWQCB and to pay an annual NPDES permit fee set by the State Water Resources Control Board (State Water Board). The State Water Board adopts an annual schedule of fees and is required annually to evaluate adjusting the fees to conform to the revenue levels set forth in the Budget Act. The State Water Board forecasts surplus funds (2.1% over collection) for FY 2023-24 from municipal NPDES stormwater permit fees. However, for the second consecutive year, the proposed municipal fees are expected to remain the same. Approval of the fees by the State Water Board is currently scheduled for its September 19, 2023 meeting.
- v. <u>Funding and Financing Work Group</u> C/CAG staff informed the Committee that the Program continues to evaluate funding and financing options to support MRP compliance and other stormwater management needs at the local level. A District Appeals Court case determined that there are no viable options for SB 231 related exemptions from Prop 218 voter-approval requirements for stormwater fees. However, the same case identified potential options for trash reduction implementation funding (e.g., inlet-based devices funded through Permittee trash franchise agreements).
- vi. <u>Funding Opportunities</u> The Countywide Stormwater Program continues to track and evaluate opportunities to support C/CAG's member agencies with funding of local stormwater projects and

programs. The California Grants Portal (<u>https://www.grants.ca.gov/</u>) is a useful resource to track statewide and regional funding opportunities. Currently open solicitations related to stormwater management were reviewed and are summarized in the agenda package for today's meeting.

- 6. INFORMATION The Committee received a presentation from Reid Bogert on the status of MRP 3.0 implementation. The presentation included updates on priority challenges, accomplishments, and lessons learned for various Program components and MRP provisions. The full PowerPoint presentation will be available on C/CAG's website. A few highlights are summarized below:
  - <u>Program Budget and Future Funding</u>. Priority challenges include increased compliance costs, especially for Water Quality Monitoring, and RWQCB Executive Officer approval process leading to further cost increases (e.g., for Water Quality Monitoring, PCBs Control Programs, Unsheltered Populations, and Cost Reporting). During FY 2023-24, Program staff will continue to work with the Funding and Financing Work Group and technical and legal experts to explore potential mechanisms to increase revenue for permit compliance assistance and continue to explore grant funding opportunities.
  - <u>Provision C.3 and Green Infrastructure (GI).</u> C/CAG is continuing to support implementation of municipal GI plans and evaluation of opportunities for GI infrastructure to meet numeric retrofit targets at the local and/or countywide scale. The final version of SMCWPPP's new Regulated Products Guide will be shared with Permittees by the end of September. Additionally, a draft Interim MOU-Based Regional Collaborative Program Report has been completed. C/CAG is supporting planning and design of regional SW capture projects and has also facilitated discussions of strategies to share ongoing costs for O&M at the Orange Memorial Park project in South San Francisco, as a case study.
  - <u>Provision C.8 Water Quality Monitoring</u>. Priority challenges include new requirements in this provision for costly types of monitoring that are new to the MRP and Bay Area (Trash and Low Impact Development Monitoring). In addition, comments received on a Trash Outfall Monitoring Plan may lead to the expansion of requirements via the RWQCB Executive Officer approval process. Program accomplishments during FY 2022-23 included obtaining WQIF grant funding for implementing a Trash Receiving Water Monitoring Plan. In addition, progress has been made on Trash Outfall and LID Effectiveness Monitoring (sites identified, permitted, and the equipment installation is underway).
  - <u>Provision C.10 Trash Load Reduction</u>. The main challenges for the implementation of this provision are the achievement of the new trash load reduction benchmarks (i.e., 90% by June 2023 and 100% by June 2025), which result in additional costs for siting new full trash capture devices/systems (capital and ongoing costs for operation and maintenance) and implementing a new inspection program to address trash from private land drainage areas.
  - <u>Provision C.12 PCBs Controls</u>. Priority challenges in this provision include the requirement for San Mateo County Permittees to address PCBs in 445 acres of old industrial land use area or to achieve 81 grams per year of PCBs load reduction from such areas.
  - <u>Provision C.15 Emergency Firefighting Discharges</u>. Implementation of this provision during FY 2023-24 will include the development of a Regional BMP Report that addresses emergency firefighting discharges.
  - <u>Provision C.17 Unsheltered Homeless Populations</u>. This new provision involves several complexities, including the need for engagement from other municipal departments or agencies (not previously involved in stormwater-related issues) to collect data that will allow Permittees to evaluate BMP effectiveness. In FY 2022-23, a Regional BMPs Report for Addressing Non-Stormwater Discharges Associated with Unsheltered Homeless Populations was completed and submitted with Permittee Annual Reports.
  - <u>Provision C.20 Cost Reporting</u>. In FY 2022-23, Permittees collaborated regionally to submit a Final Draft Cost Reporting Framework and Guidance Manual for RWQCB Executive Officer approval.

Conditional approval with some minor comments was received on these products. The State Water Board separately released a draft statewide cost reporting policy on August 17, 2023. A final policy may be adopted around February or March of 2024. SMCWPPP will continue working with other MRP countywide programs and RWQCB and State Water Board staff to try to achieve consistency between the MRP framework and the statewide policy.

- <u>Provision C.21 Asset Management</u>. By June 2025, Permittees are required to develop and implement Asset Management plans for publicly owned, water quality-related hard assets. Starting in FY 2025-26, Permittees must report annually on Asset Management plan implementation in their Annual Reports.
- <u>MRP 3.0 Amendment</u>. SMCWPPP submitted comment letters on the Administrative Draft and Tentative Order of a proposed MRP 3.0 Amendment. A public RWQCB hearing is scheduled for October 11, 2023.
- 7. Regional Board Report: Derek Beauduy noted that RWQCB staff has reviewed Permittee Trash Non-Compliance Reports and has drafted responses that are currently under review by management.
- 8. Executive Director's Report: None.
- 9. Member Reports: None.
- 10. Chair Breault adjourned the meeting at 3:27 p.m.

	2023-24 Stormwater Committee Attendan	ce												
Agency	Representative	Position	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Atherton	Robert Ovadia	Public Works Director			х									
Belmont	Peter Brown	Public Works Director			0									
Brisbane	Randy Breault	Public Works Director/City Engineer			х									
Burlingame	Syed Murtuza	Public Works Director			х									
Colma	Brad Donohue	Director of Public Works and Planning			х									
Daly City	Richard Chiu	Public Works Director			х									
East Palo Alto	Humza Javed	Public Works Director			х									
Foster City	Vacant (through August)/Andrew Brozyna (starting September)	Public Works Director	6	~										
Half Moon Bay	Maziar Bozorginia	Public Works Director	C A	C										
Hillsborough	Paul Willis	Public Works Director	A	A	х									
Menlo Park	Nikki Nagaya	Public Works Director	C IN	C N										
Millbrae	Sam Bautista	Public Works Director	F	F	0									
Pacifica	Roland Yip	Deputy Public Works Director/City Engineer	1	1										
Portola Valley	Howard Young	Public Works Director	F	F	х									
Redwood City	Vacant	Supervising Civil Engineer	D	D	0									
San Bruno	Matthew Lee	Public Works Director	-	-	х									
San Carlos	Steven Machida	Public Works Director			х									
San Mateo	Azalea Mitch (through July)/Brad Underwood (starting September)	Public Works Director/Interim Public Works Director			х									
South San Francisco	Eunejune Kim	Public Works Director			х									
Woodside	Sean Rose (through August/Vacant (starting September)	Public Works Director												
San Mateo County	Ann Stillman	Public Works Director			х									
Regional Water Quality Control Board	Tom Mumley	Assistant Executive Officer			0									

"x" - Committee Member Attended

"x/r/v" - Committee Member Attended Remotely/Voting under AB 2449 beginning March 2023

"x/r/nv" - Committee Member Attended Remotely/Non-voting beginning March 2023 "o" - Other Jurisdictional Representative Attended

### C/CAG AGENDA REPORT

Date: November 30, 2023

To: Stormwater Committee

From: Reid Bogert, Program Director

Subject: Receive information on stormwater related announcements

(For further information or questions contact Reid Bogert at <a href="mailto:rbogert@smcgov.org">rbogert@smcgov.org</a>)

#### RECOMMENDATION

That the Stormwater Committee receive information on stormwater related announcements from May through September 2023.

#### **BACKGROUND/DISCUSSION**

C/CAG's Stormwater Committee provides policy and technical advice and recommendations to the C/CAG Board of Directors and direction to technical subcommittees on all matters relating to stormwater management and compliance with associated regulatory mandates from the State Water Resources Control Board and San Francisco Bay Regional Water Quality Control Board. Staff provides regular updates on information regarding stormwater compliance and other Countywide Stormwater Program activities, as detailed below for the months May through September.

- 1) Recent C/CAG Board updates:
  - October Approved Resolution 23-85 adopting the revised membership guidelines to include alternate positions for Stormwater Committee.
  - November Approved Resolution 23-96 authorizing the C/CAG Executive Director to execute an agreement with Climate Resilient Communities for an amount not to exceed \$225,400 to complete its portion of the scope of work for the San Mateo County OneWatershed Framework and Community-Led Plan.
- 2) <u>Fiscal Year 2022-23 Annual Reports:</u> According to the public portal on the SMARTS website, all San Mateo County permittees successfully submitted their Annual Reports, along with the Program Annual Report. If you submitted your reports via the Regional Water Board's FTP website, due staff transitions for Legally Responsible Persons/Duly Authorized Representatives, please be sure to upload your reports to SMARTS as soon as you have new staff in place and are able to link your e-authorized LRP/DAR accounts to the appropriate NPDES stormwater permit submittal process.
- 3) <u>MRP 3.0 Amendment:</u> On October 11, the Regional Water Quality Control Board approved the Revised Tentative Order of the Municipal Regional Stormwater Permit (MRP) Order No.

R2-2022-0018 to amend Provision C.3 – New Development and Redevelopment and section C.3 of the Fact Sheet pertaining to alternative treatment systems and Category C Special Project (Affordable Housing) low impact development credits. The Regional Water Board also adopted a Supplemental to the Revised Tentative Order of the permit amendment (nonsubstantive changes). The overall consensus among Permittees, Stormwater Programs and other stakeholders was that the changes to allow less prescriptiveness on affordability criteria and exemptions for "emergency temporary housing" are more supportive of community, affordable housing, and water quality goals. Regarding the Alternative Treatment Systems amendments, generally, Water Board members reflected concerns regarding the stated infeasibility and unlikely success regarded by the stormwater programs and other stakeholders of the proposed regulations (notably, requiring a commensurate benefit analysis for non-LID AND infeasibility assessment for onsite LID (including evaluation of all options within the county), limiting the geographic areas to hydromodification exempt locations and/or areas that drain directly to hardened channels that drain all the way to the Bay/Ocean, and limiting applicability to onsite (i.e., not allowed for regional projects). No amendments were made regarding impacts of road reconstruction requirements on Disadvantaged Communities, though Water Board members continued to express concern regarding the potential unintended consequences of these new requirements.

With the adoption of the Amended Tentative Order, the Board asked staff to convene a workgroup/subcommittee of the Board members with a set of tentative objectives, including to 1) better understand the effectiveness and potential for innovation with Alternative Treatment Systems, 2) evaluate any unintended consequences of new road requirements, 3) support a consistent approach with other Regional Water Boards on new/redevelopment, 4) continue to evaluate progress toward pollutant of concern load reductions, and 5) and ensure Annual Reports are supporting progress towards informing the next permit term. The Board requested a report back from the subcommittee by July 2024. Representatives from the Bay Area Municipal Stormwater Collaborative (SCVURPPP and CCCWP) provided testimony on the C.3 amendments, asking that the Alternative Treatment Systems subprovision and information in the Fact Sheet be removed entirely. C/CAG staff and other MRP program representatives (SCVURPPP and CCCWP) also provided testimony during an information item on MRP 3.0 updates, focusing on the significant technical and financial challenges of the new water quality monitoring provisions of the permit. Water Board members (and to some extent staff) were receptive to the fact that agencies are highly constrained to fund stormwater programs and recognized attempts to increase stormwater revenue at the local/countywide scale, although in many cases unsuccessfully. Water Board staff also recognized the importance of integrated water planning and aligning permit requirements with multi-benefit stormwater capture goals, i.e., flood reduction and capture and use. SMCWPPP staff will continue to engage Water Board staff on flexibility for regional capture stormwater projects as they relate to a variety of MRP compliance goals.

4) <u>Grants:</u> C/CAG's staff has pursued two recent grant-funded projects to support MRP implementation and broader Green Stormwater Infrastructure (GSI) planning and implementation goals. The projects include the Regional Trash Monitoring Watching Our Watersheds Project (in partnership with the other Phase I MRP stormwater programs in the Bay Area) with funding from the San Francisco Water Quality Improvement Fund,

administered by Region 9 of the US Environmental Protection Agency (US EPA), and the San Mateo County OneWatershed Climate Resilience Framework and Community-Led Plan (in partnership with multiple regional partners focused on climate resilience for water infrastructure in San Mateo County) with funding from the Integrated Climate Adaptation and Resilience Program Adaptation Planning Grant Program administered by the California Governor's Office of Planning and Research (OPR). The following provides a status on each grant:

• <u>Regional Trash Monitoring Project:</u>

Following the C/CAG Board approval of Resolution 23-69, authorizing the C/CAG Executive Director to enter into a grant agreement with the US EPA for a grant amount of \$3,366,000 to complete the project, and following execution of said agreement, C/CAG staff developed a Request for Proposals (RFP) in coordination with representatives from each of the partnering countywide stormwater programs to procure consultant services to deliver the full scope of work under the grant. Staff provided a summary and recommended approval of the RFP at the August 24 Bay Area Municipal Stormwater Collaborative (BAMSC) Steering Committee). Staff subsequently released the RFP on August 31 on C/CAG's Request for Proposals website and broadly distributed the opportunity through the California Stormwater Quality Association, BAMSC, and Caltrans Certified Disadvantaged Business Enterprise Database. Proposals are due October 5, 2023 no later than 5 p.m. Pacific Standard Time via email to C/CAG's Stormwater Program Director. Staff anticipate executing a Consultant Agreement in November with a recommendation from the Stormwater Committee and approval from the C/CAG Board.

<u>San Mateo County OneWatershed Climate Resilience Framework and Community-Led</u>
 <u>Plan:</u>

In August, C/CAG and the project partners (co-applicants), including OneShoreline, the Bay Area Water Supply and Conservation Agency (BAWSCA), San Mateo County Office of Sustainability, City of San Bruno and City of South San Francisco (Water Quality Control Plant) met with the OPR grant managers to discuss the next steps towards developing a Grant Agreement between C/CAG (lead applicant) and OPR and a Partnership Agreement between C/CAG and the co-applicants. C/CAG also worked with the project partners and the OPR to modify the application scope and budget to include a subtask to develop a grant application under the National Oceanic and Atmospheric Administration Regional Resilience Challenge to fund implementation of several pilot "OneWatershed" projects and to expand and formalize C/CAG's existing Regional Collaborative Stormwater Program in support of regional MRP requirements and climate resilience goals through multi-benefit regional stormwater projects and distributed GSI. The C/CAG Board will consider approving Resolution 23-80, authorizing the C/CAG Executive Director to execute a Partnership Agreement with the co-applicants and to execute a Grant Agreement with OPR. Following execution of said agreements, C/CAG staff will work with the project partners to develop and release an RFP for consultant support services to complete the project. Staff anticipate executing a Consultant Agreement in November or December with a recommendation from the Stormwater Committee and approval from the C/CAG Board.

5) FY 2023-24 State Water Resources Control Board NPDES permit fees:

California State Water Code Section 13260 requires each person who discharges waste or proposes to discharge waste that could affect the quality of the waters of the state to file a report of waste discharge with the appropriate regional water board and to pay an annual fee set by the State Water Resources Control Board (State Water Board), the funds from which are deposited in the Waste Discharge Permit Fund (WDPF). Water Code Section 13260 requires the State Water Board to adopt, by emergency regulations, an annual schedule of fees for persons discharging waste to the waters of the state. Water Code Section 13260 further requires the State Water Board to adjust the annual fees each fiscal year to conform to the revenue levels set forth in the Budget Act. State Water Board Staff review all WDPF programs' fees on an annual basis and hold several stakeholder meetings throughout the year that coincide with the various iterations of the Governor's Budget.

The NPDES permit fee did not increase in FY23-24 from the prior two years. The following summarizes the approved NPDES municipal permit fee schedule for FY23-24 by permittee population:

Population	Fee
Equal to or greater than 250,000	\$70,667
200,000 to 249,999	\$61,833
150,000 to 199,999	\$53,352
100,000 to 149,999	\$44,169
75,000 to 99,999	\$35,333
50,000 to 74,999	\$26,498
25,000 to 49,999	\$17,666
10,000 to 24,999	\$10,602
1,000 to 9,999	\$7,067
Less than 1,000 population	\$3,535
Statewide Permit Holders	\$282,664
High Speed Rail Authority	\$165,739

#### ANNUAL FEE SCHEDULE FOR AREAWIDE MUNICIPAL STORM WATER SEWER SYSTEM PERMITS AND CO-PERMITEES

CASQA and permittee representatives throughout the state plan to participate in upcoming fee schedule stakeholder workshops for the FY24-25 fee setting process, as the State Water Resources Control Board has been over-collecting for the NPDES Stormwater Program in recent years.

Reference - <u>https://www.waterboards.ca.gov/resources/fees/stakeholder/docs/2023/fy2324-wq-feeschedule.pdf</u>

5) <u>State MS4 Cost Reporting Policy</u>; The State Water Resources Control Board Draft Municipal Stormwater Cost Reporting Policy, for which SMCWPPP and other Bay Area Countywide stormwater programs and CASQA provided public comment on, is going through revisions and the State Board is tentatively planning to release a revised draft in February. In parallel,

the Bay Area Municipal Stormwater Collaborative Cost Reporting Framework will be finalized this winter to enable testing and training this fiscal year. The first cost reporting requirements for the MRP will coincide with the September 2025 Annual Reports.

- 6) <u>Funding and Financing Workgroup</u>: The Countywide Stormwater Program continues to evaluate funding and financing options to support MRP compliance and other stormwater management needs at the local level. The Funding and Financing Workgroup was convened in April to discuss the status of current funding options, including the feasibility of stormwater revenue options under SB 231 (Herzberg), and the potential for C/CAG to play a role in advancing options at the countywide or local scale. It was noted, following a District of Appeal Court case regarding a San Diego Regional Stormwater Permit unfunded mandate test claim, the options for SB 231 related exemptions from Prop 218 voter-approval requirements for stormwater fees have been broadly deemed intractable, because the Court upheld that the exemptions are unlawful under SB 231 due to the distinctions identified in Prop 218 regarding "sewer" as distinguished from "flood control." The case did substantiate increased options for funding a broader array of trash reduction related work, including trash capture systems. The San Mateo Program will continue to engage the Funding and Financing Ad-hoc Workgroup on current and future fee initiatives, locally and countywide.
- 7) <u>Funding Opportunities:</u> The Countywide Stormwater Program continues to track and evaluate funding opportunities to support program developments and C/CAG's member agencies with opportunities to fund local stormwater projects and programs. The California Grants Portal is a useful resource to track statewide and regional funding opportunities <u>https://www.grants.ca.gov/</u>. The following includes currently open solicitations related to stormwater management:
  - Clean Water State Revolving Fund including stormwater infrastructure projects with dedicated funds for the San Francisco Bay region; ongoing; no match; low interest loans with potential principal forgiveness for Disadvantaged/Severely Disadvantaged Communities - <u>https://www.grants.ca.gov/grants/clean-water-state-revolving-fund-cwsrfprogram-construction-2/</u>
  - FEMA Building Resilient Infrastructure and Communities (BRIC) including hazard mitigation and climate resilience projects that reduce flood risk (nature based solutions); 25% match; due December 13, 2023 <u>https://www.grants.ca.gov/grants/building-resilient-infrastructure-and-communities-bric-and-flood-mitigation-assistance-fma-2023/</u>
  - State Coastal Conservancy Grant Program including projects that improve public access, natural resources, climate resilience; ongoing; grant amount between \$200,000 and \$5,000,000; no match <u>https://scc.ca.gov/grants/</u>
  - Fiscal Year 2023-24 State Budget and legislation C/CAG staff will continue to work with state and federal representatives on advancing regional scale multi-benefit stormwater capture project implementation funding (including seeking support for the planned OneWatershed Climate Resilience Infrastructure NOAA funding proposal due in February)

### ATTACHMENTS

None.

### C/CAG AGENDA REPORT

Date: November 30, 2023

To: Stormwater Committee

From: Reid Bogert, Program Director

Subject: Review and recommend Board approval of a contract with EOA, Inc. for completing the SFBWQIF grant funded Watching Our Watersheds Regional Trash Monitoring Project.

(For further information or questions, contact Reid Bogert at rbogert@smcgov.org)

#### RECOMMENDATION

That the Stormwater Committee review and recommend Board approval of a contract with EOA, Inc. for completing the SFBWQIF grant funded Watching Our Watersheds Regional Trash Monitoring Project.

#### FISCAL IMPACT

The San Francisco Bay Water Quality Improvement Fund grant program requires a 50% local match of \$3,366,000 million. The local match will be provided by C/CAG and four other participating agencies through in-kind contributions. C/CAG's commitment for the grant match is \$651,450 in in-kind program funds to be expended over the approximately 5-year project term, including existing planned consultant services related to trash outfall monitoring activities. The other four participating agencies will provide the remaining \$2,714,555 of the local match through in-kind contributions. See Attachment 2 for more details. C/CAG will save approximately \$500,000 in mandated trash monitoring costs over the course of the project via the grant funds. The grant also includes funding to reimburse C/CAG for its administrative expenses incurred through the administration of the grant.

#### SOURCE OF FUNDS

Matching funds will be provided as in-kind match through C/CAG's planned consultant services from the NPDES and Measure M countywide stormwater funds.

#### BACKGROUND

After submitting a successful application in September 2022, C/CAG was awarded a Fiscal Year 2023-24 San Francisco Bay Water Quality Improvement Fund (SFBWQIF) grant from the U.S. Environmental Protection Agency (USEPA) to administer and complete the Watching Our Watersheds (WOW) Regional Trash Monitoring Project. The WOW project is a regional project in collaboration with the Bay Area Municipal Stormwater (BAMS) Collaborative, which represents all municipal agencies and supporting countywide stormwater programs that are subject to the Municipal Regional NPDES Stormwater Permit (MRP), including the Countywide Water Pollution Prevention Program (Countywide Program) and the San Mateo County MRP co-permittees. The USEPA manages the SFBWQIF as a competitive grant program to support projects to protect and restore the San Francisco Bay. Eligible projects must occur in one of the nine Bay Area counties draining to the San Francisco Bay and must help restore wetlands and watersheds, and/or reduce polluted runoff. The WOW project grant application was submitted under the Fiscal Year 2022-23 Request for Applications, but with substantially increased funding allocated by Congress for the subsequent year, the WOW project was recommended for funding under the Fiscal Year 2023-24 SFBWQIF program. The grant award amount is \$3,366,000 with a 50% (1:1) local match requirement (\$3,336,000 in matching funds), for a total project amount of \$6,732,000 to be expended over approximately 5.5 years. The matching funds will be provided by in-kind contributions from each of the participating countywide stormwater program partners based on population-based percentages of each countywide program (see Attachment 2). The WOW project will be implemented by local jurisdictions and countywide program representatives from the Alameda Countywide Clean Water Program (ACCWP), Contra Costa Clean Water Program (CCCWP), San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), and the Solano Stormwater Alliance (SSA). C/CAG will administer the project with support from a Project Management Team with representatives from each of the participating countywide programs and will be reimbursed for all staff time spent managing the project. A selected consultant project manager will lead overall project execution and administration support. The proposed project timeline is Fiscal Year 2023-24 through Fiscal Year 2027-28.

A primary goal of the WOW project is to support C/CAG's member agencies as well as municipal stormwater programs throughout the Bay Area achieve cost effective compliance with new trash monitoring requirements in the reissued MRP. Specifically, the grant will help evaluate the effectiveness of installed trash controls and other on-land trash reduction actions and to assess the potential impacts of stormwater related trash discharges into receiving waters, as required by the MRP. The tasks proposed under the WOW project (as detailed in Attachment 1) will result in new monitoring protocols and networks that directly measure the levels of trash in stormwater discharges and in receiving waters. Additionally, the project will enhance regional partnerships between Bay Area municipalities and transportation agencies via the implementation of a regional anti-littering outreach campaign and expand engagement with environmental organizations via the characterization and analysis of trash monitoring data that will inform future trash source control implementation. Lastly, the project will disseminate the data-driven outcomes and conclusions with Bay Area stakeholders about effective trash controls and monitoring results.

The grant project is designed to achieve three key objectives:

- 1. Inform the effective implementation of **Stormwater Trash Controls and the application of On-land Visual Trash Assessment (OVTA) Methods** to demonstrate improvements in stormwater quality by:
  - Collecting data and compiling information on the effectiveness of local single-use plastic ordinances to reduce the generation of trash that ends up in stormwater and receiving waters;
  - Developing and implementing a regional litter reduction public education and outreach plan using materials developed by the Caltrans Clean California Initiative (CCI); and

- Identifying the extent of OVTA data needed to effectively demonstrate (with an acceptable level of statistical confidence) that stormwater trash reduction goals have been achieved in a catchment area.
- 2. Develop and implement a **Stormwater and Receiving Water Trash Monitoring Network** to test and refine methods to collect and interpret trash monitoring data and:
  - Verify that stormwater trash control measures have achieved mandated trash reduction goals;
  - Engage communities and stakeholders to evaluate trash reduction effectiveness alongside stormwater managers; and
  - Understand whether trash discharged from stormwater (or other trash pathways) is impacting local waterways.
- 3. Synthesize and **Disseminate Information and Knowledge** about best practices to reduce and prevent trash from entering the SF Bay to Project Partners, the public, and stakeholders by:
  - Developing a <u>*Trash Monitoring Methods Guidance Document*</u> with new information on tested stormwater outfall and receiving water monitoring methods;
  - Launching a web-based <u>Stormwater Trash Information Portal</u> with relevant information on effective stormwater trash control measures and trash monitoring and assessment methods; and
  - Conducting a <u>*Trash Symposium*</u> to present Project findings including lessons learned on stormwater trash control measure and monitoring program implementation.

At its July meeting, the C/CAG Board of Directors approved Resolution 23-69, authorizing the C/CAG Executive Director to execute a grant agreement with the USEPA to complete the WOW project. Following execution of the grant agreement, C/CAG staff led a procurement process to solicit consultant support to deliver the WOW project and help administer the grant. Working with the project partners, staff developed a Request for Proposals (RFP) and issued the RFP on August 31, 2023 with a deadline for submitting proposals by no later than 5 p.m. PST on October 5, 2023. Staff received two proposals from EOA, Inc. and Stone Creek Consulting. Both proposals included a primary consultant leading a team of subconsultants to achieve all 4 Tasks described in the RFP. After initial screening it was determined both firms met the minimum qualifications and after initial review by the selection panel, consisting of representatives from the five participating programs, including the San Mateo Countywide Program, both firms were invited for interviews on October 27, 2023. Based on the combined scores for the written proposals and the scores for the interviews, the selection panel determined that EOA, Inc. is the recommended consultant.

With a recommendation from the Stormwater Committee, C/CAG staff will finalize the contract with EOA and bring a recommendation to the C/CAG Board of Directors at the December 14, 2023 meeting, requesting authorization to execute an agreement with EOA, for an amount not to exceed \$3,171,000 to complete the WOW project with a contract term through June 30, 2028.

#### ATTACHMENTS

- 1. EOA Watching Our Watersheds Regional Trash Monitoring Project Scope of Work, Schedule and Budget
- 2. Table of Bay Area Municipal Stormwater Collaborative Partnering Program In-kind Matching Contributions

### A-1. WORK PLAN

This section provides the EOA Project Team's detailed Work Plan to implement the Scope of Work described in the RFP. Based on the information presented in the RFP, it is understood that Project Partners will provide defined levels of in-kind services for all tasks described below. The in-kind contributions collectively committed by Project Partners are listed in Table A3-1 (Section A-3 – Cost Proposal).

### **TASK 1 – STORMWATER TRASH CONTROLS**

The primary objective of this task is to inform the effective implementation of stormwater trash controls and the application of On-land Visual Trash Assessment (OVTA) methods to demonstrate improvements in the trash levels in stormwater discharges. There are three (3) subtasks included under Task 1. The approaches that the EOA Project Team will implement to successfully complete these subtasks are described below. Completion of these subtasks will assist Project Partners in reducing the generation of trash (1a), reducing littering behaviors (1b), and measuring trash reductions in trash-contributing watersheds (1c).

#### Task 1a – Single-use Plastics Source Control Ordinance Effectiveness Evaluation

The objective of Task 1a is to evaluate the effectiveness of local ordinances implemented by Project Partners to reduce the levels of single-use plastic items on streets and sidewalks that are available for transport to receiving waters by stormwater runoff. Task 1a is a continuation of a SMCWPPP study (Phase I – Trash Characterization pre-Ordinance) started in 2021 prior to the effective date of expanded source control ordinances. Phase I of the study was designed to document the baseline (pre-Ordinance) levels of trash on streets and sidewalks. Task 1a of the WOW Project represents Phase II of the study, where trash levels at the same sites monitored during Phase I will be reassessed after local Ordinances have gone into place and are being actively implemented in San Mateo County. The study is intended to not only be representative of actions implemented by SMCWPPP member agencies, but also of similar actions taken by other Bay Area municipalities. Therefore, the results of the study will inform implementation actions that have occurred or are planned to occur in other areas of California. EOA staff will lead the completion of Task 1a.

The EOA Project Team will develop a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) as a first step under Task 1a. The SAP will describe the monitoring design and methodology that will be used in the study. Methods included in the SAP will include both qualitative and quantitative approaches to documenting trash levels and types. Trash monitoring will be conducted during two sample events: May/June 2024 (dry season) and Feb/March 2025 (wet season). The study will sample the same or similar monitoring sites included in the Phase I Study, which included more than 50 sites representing a range of land use types and jurisdictions. Trash collected during both sampling events will be stored for characterization using existing Standard Operating Protocols (SOPs) developed for the Phase I Study. The QAPP will outline methods to ensure that sampling and characterization events yield high quality, comparable data.

All data will be compiled into a Microsoft Excel or a Microsoft Access database. Statistical analyses will be performed to evaluate if local ordinances have reduced the levels of trash on streets and sidewalks within the project areas. Sampling results and conclusions will be presented in a technical report. The EOA Project Team will distribute the draft report to PMT for review and comment. The final technical will be completed by EOA during Quarter 2 of 2025.

No.	Deliverable	Completion Date	Lead Project Team Member
1a-1	Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP)	March 2024	EOA
1a-2	Technical Report	December 2025	EOA

#### Task 1b - Regional Litter Reduction Campaign

As a subcontractor to EOA, SGA will lead the effort to conduct a three-month regional litter reduction Public Education and Outreach Campaign in the Bay Area utilizing either existing resources developed by Caltrans as part of the Caltrans Clean California Initiative (CCI) campaign or developing new materials that align with the goals of the WOW Project. To implement a coordinated, regional outreach campaign, SGA will obtain and review existing litter reduction public education and outreach resources created through the CCI campaign or Project Partners. SGA will work with the PMT to modify the messages to create compelling messages that communicate the linkages between on-land littering, illegal dumping, and the detrimental impacts on local water bodies. SGA will develop a Regional Outreach Work Plan, in coordination with the PMT, that identifies various channels and tactics and establishes clear campaign goals and key performance indicators to measure effectiveness. Below are some key steps that will be used in developing and implementing the campaign:

- Audience Segmentation: The target audience will be segmented based on demographics, behavior, and interests. This will help tailor messages and outreach methods for maximum impact. For example, young adults might respond better to social media campaigns, while older generations might engage more with print collateral.
- 2. **Content Creation:** The outreach materials will emphasize the importance of litter reduction and its impact on the local environment. As resources are available, we will use visuals, storytelling, and data to make the message compelling and create tailored content for each channel.
- Multi-Channel Approach: A multi-channel approach will be used to reach a wider audience, which allocates resources to bus/transit panels/shelters, print collateral, paid digital ad space (e.g., Google/Facebook Ads), social media, and engaging website content. A consistent message and branding across all channels will be ensured.
- 4. **Partnerships and Collaboration**: Collaborations with local organizations, environmental groups, relevant government agencies, and more importantly, with disadvantaged and underserved communities will be sought. Their support can enhance the credibility and reach of the campaign, and their networks and resources can help promote the trash characterization events.
- 5. **Media Relations**: A media relations strategy that includes press releases and engagement with local media outlets to leverage their reach to amplify campaign messages and share success stories will be implemented. SGA can help prepare statements, if needed.
- 6. **Data Collection and Survey**: Data on campaign reach and engagement, such as monitoring social media metrics, website traffic, ad performance, and attendance at the trash characterization events, will be collected. An online pre- and post- campaign survey will be implemented to evaluate changes in awareness and behavior.

Once the three-month campaign is completed, a comprehensive summary report of the regional outreach campaign and its outcomes will be prepared. The report will include the results of the online survey and an evaluation of each advertising channel (e.g., reach, impressions, ad clicks). This report will serve as a valuable resource for assessing the impact of the campaign and refining strategies for ongoing litter reduction efforts in the Bay Area.

No.	Deliverable	Completion	Lead Project Team
		Date	Member
1b-1	Regional Outreach Work Plan for Litter Reduction Campaign	Nov 2024	SGA
1b-2	End-of-campaign summary report including effectiveness assessment	Sep 2025	SGA

#### Task 1c - Streamlining On-land Trash Assessment Methods

In 2025, Project Partners will be required to comply with the MRP 100% trash reduction benchmark. Project Partners previously established baseline (2009) trash generation levels for land areas within their jurisdictional areas that drain to MS4s and have used established On-land Visual Trash Assessment (OVTA) protocols tested through a State of California grant-funded project<sup>1</sup> to demonstrate trash reductions achieved to date within areas that are not addressed by Full Trash Capture (FTC) systems. To support the cost-effective and sustainable implementation of these OVTA methods, the EOA Project Team will conduct an analysis of existing OVTA data to inform on-going data collection efforts designed to effectively demonstrate that the levels of trash in local watersheds have been controlled and that the stormwater trash reduction benchmark of 100% trash reduction has been (and will be continue to be) achieved.

EOA will lead this task, obtaining OVTA data from Project Partners and compiling these data into a single Microsoft Excel or Access database for analysis. EOA will develop a draft Work plan for PMT review and finalize the work plan based on PMT input. The Work Plan will include a description of the task objectives and management questions that will be addressed, and the methods that will be employed to address these objectives/questions. Once the Work Plan is finalized, EOA will perform a statistical analysis of the compiled OVTA data to inform the extent of data needed by Project Partners to effectively demonstrate the 100% trash load reduction benchmark has been achieved, with an acceptable level of statistical confidence. Based on the results of the analysis, EOA will develop a technical report that will detail the methods, results, and conclusions.

No.	Deliverable	Completion Date	Lead Project Team Member
1c-1	Data analysis Work Plan	February 2024	EOA
1c-2	Technical Report	August 2024	EOA

<sup>&</sup>lt;sup>1</sup> <u>https://basmaa.org/wp-content/uploads/2021/07/Evaluation-of-the-On-land-Visual-Assessment-Protocol-as-a-Method-to-Establish-Baseline-Levels-of-Trash-and-Detect-Improvements-in-Stormwater-Quality-with-Appendices.pdf</u>

### **TASK 2 – TRASH MONITORING METHODS**

The primary goals for the three (3) subtasks under Task 2 (Trash Monitoring Methods) are to develop trash stormwater outfall and receiving water monitoring methods and establish a trash monitoring network. Through the implementation of this Task, the EOA Project Team will coordinate the MRP Trash Monitoring Technical Advisory Group (TAG), previously established by BAMSC, to provide input on the development/refinement of receiving water and stormwater outfall trash monitoring plans to ensure that they are regionally consistent and accepted by the regulatory and scientific community (Task 2a). Trash monitoring data collection will be conducted by the EOA Project Team via Tasks 2b and 2c using standardized methods described in the monitoring plans. As part of the trash data characterization efforts described in Task 2c, the EOA Project Team will characterize all data collected as part of the WOW Project (Task 2c-1) and conduct outreach to increase public awareness of trash litter and reduction efforts being implemented by Project Partners (Task 2c-2). Additional details on each subtask are provided below.

#### Task 2a – Technical Advisory Group

Prior to the WOW Project, Project Partners convened a Trash Monitoring Technical Advisory Group (TAG) and held two meetings, consistent with MRP requirements. The TAG includes Project Partner representatives, Regional Water Board staff, and impartial science advisors. To date, the TAG has provided guidance and scientific peer-review on the monitoring design and approach for stormwater outfall monitoring. The Project Partners incorporated the TAG comments into the Regional Trash Outfall Monitoring Plan (Outfall MP) and QAPP that were submitted to the Regional Water Board Executive Officer for approval on July 1, 2023. Conditional approval of the Outfall MP and QAPP was granted on September 1, 2023 and the Project Partners are currently working together to address the comments.

During the entire term of the WOW Project, the Trash Monitoring TAG will continue to provide technical guidance on the methods and approach used to conduct trash monitoring at stormwater outfalls and in receiving waters. Under this task, EOA will lead the coordination of all TAG communications and meetings. EOA will schedule and coordinate six remaining TAG meetings, seek feedback and comments from the TAG members on trash planning and monitoring efforts, and provide applicable compensation to TAG members through the WOW Project funding. As described in the RFP, it is anticipated that Project Partner representatives will participate in TAG meetings as an in-kind contribution to the WOW Project. It is anticipated that three TAG meetings will be conducted in 2024, with a primary goal of informing development of receiving water monitoring methods and site selection. One TAG meeting will be conducted in each of the subsequent calendar years of the WOW Project (i.e., 2025, 2026, 2027). These TAG meetings will inform monitoring method refinements, data interpretation, and reporting. As subcontractors to EOA, Bal Hydro will participate in TAG meetings, as needed, to receive input on receiving water monitoring methods and approaches that will be used to complete Task 2.b.

No.	Deliverable	Completion Date	Lead Project Team Member
2a-1	Meeting agendas and summaries for the six (6) remaining coordinated TAG meetings	Three (3) meetings 2024; One (1) meeting per year in three (3) subsequent years	EOA

#### Task 2b – Outfall Trash Monitoring Data Management and Reporting

As described in the RFP, Project Partners will conduct stormwater outfall monitoring beginning in Water Year 2024 (WY 2024; October 1, 2023 through September 30, 2024) and continue through the term of the MRP (i.e., WY 2027) in compliance with the Outfall MP and QAPP. In-kind resources expended by Project Partners to conduct outfall monitoring will be used (in part) as the matching funds to the WOW Project.

To support the implementation of the Outfall MP, the EOA Project Team will conduct the following subtasks:

- Standardized Data Management. The WOW Project will ensure standardized storage and management of the outfall trash monitoring data collected by Project Partners in compliance with Provision C.8.e. The EOA Team will develop a regionally consistent data management template in Microsoft Excel for the Project Partners use when entering and storing the trash outfall monitoring data collected during the WOW Project. The first version of the template will focus on outfall monitoring data. Receiving water monitoring data will also be stored in the template and therefore the second version will be updated to include data fields associated with receiving water monitoring.
- Trash Outfall Monitoring Reporting. Consistent with MRP Provision C.8.e, the five (5) Project Partners will summarize outfall monitoring data results in separate Outfall Monitoring Progress Reports relevant to their counties. Resources expended to develop the reports will be used (in part) as match funds for the WOA Project. In addition, the EOA Team will annually compile (beginning in 2023) the five (5) Outfall Monitoring Progress Reports into one reporting package and develop an executive summary for submittal to the Regional Water Board by March 31 of each year. One draft and one final executive summary will be developed each year.

No.	Deliverable	Completion Date	<b>Responsible Party</b>
2b-1	Data Management Template	April 2024	EOA
2b-2	Annually compiled Trash Outfall	March of 2024; 2025;	EOA
	Monitoring Reports	2026; 2027; and 2028	

Task 2b will be led and completed by EOA.

#### Task 2c - Receiving Water Monitoring

Trash monitoring in receiving waters is the largest task included in the WOW Project. As such, the EOA Project Team includes a number of very experienced subcontractors that will assist C/CAG and other Project Partners in completing the subtasks described in the RFP and in compliance with MRP Provision C.8.e. This task will be led by Balance Hydrologics (Bal Hydro), with support from EOA and other monitoring subcontractors. Details of the approaches that the EOA Project Team will use to complete this task are described below, including the development and implementation of an updated Trash Monitoring Plan to quantify the volumes of trash transported during storm events at six receiving water sites.

#### Task 2c-1. Literature Review on Methods for Receiving Water Monitoring

The EOA Project Team will conduct a literature review of existing methods on trash monitoring in receiving waters, with major emphasis given to the 2016 Tracking California Trash Report, which describes trash monitoring in receiving waters in SF Bay conducted by 5 Gyres and the San Francisco Estuary Institute

(SFEI). Methods implemented in the 2022 Santa Ana River macroplastic flux study (Cowger et al. 2022<sup>2</sup>) and other recent studies will also be evaluated. For the WOW Project, 5 Gyres, a southern California non-profit organization focused on monitoring plastics in receiving waters, will provide technical guidance on the selection of sampling methods, process, and equipment for trash monitoring in receiving waters. Based on the literature review and technical guidance from 5 Gyres, the EOA Project Team will develop a technical memorandum that summarizes approaches previously used to monitor trash during storm events, identifies successes and challenges experienced during previous studies, and identifies recommended monitoring method(s) and approaches that should be used to complete Task 2c-2. The EOA Project Team will present these findings at a Trash Monitoring TAG meeting (likely in early 2024) to receive input from TAG members.

#### Task 2c-2. Receiving Water Monitoring Site Selection

The EOA Project Team will work closely with the Project Partners to develop criteria for the selection of receiving water monitoring sites where methods identified in Task 2c-1 will be deployed. Several members of the EOA Project Team developed a similar approach to select outfall monitoring sites for the Project Partners and will apply lessons learned from that process to identify sites for receiving water trash monitoring.

Site selection criteria will be highly influenced by the methods that are determined in the previous task. For example, if the preferred method requires sampling from bridges, then creek sites at bridge locations will be the initial criteria. The EOA Project Team will attempt to satisfy guidance on site selection provided in the MRP. The MRP states *"to the extent feasible, in-stream monitoring sites should be co-located with MS4 outfall monitoring sites"*. The permit also states that monitoring sites should be located at *"sample sections of receiving waters that receive runoff primarily from MS4 outfalls that drain tributary drainage areas controlled to the Low trash generation"*. The EOA Project Team will attempt to select sites that meet these conditions, to the extent practicable, with the understanding that other criteria (described below) may preclude applying these criteria included in the MRP.

The EOA Project Team will conduct GIS desktop analysis to characterize the upstream drainage area for potential sites (e.g., land use, trash generation, existing trash controls). Sites that are downstream of direct discharge sites (e.g., homeless encampments and illegal dumping sites) will be excluded from consideration. Additional site-specific factors will also be considered, such as channel size and type, ownership, and proximity to existing stream flow gages. Environmental permitting constraints associated with the presence of sensitive/protected species will likely be a critical factor that will influence site selection. For example, some sites may be eliminated if it appears that permitting constraints will delay the project. Sites that meet criteria based on desktop analysis will then be evaluated in the field for access and safety issues (e.g., use of sampling equipment on bridges with heavy traffic). The list of sites that meet both desktop and field criteria will then be presented to the Project Partners and Trash Monitoring TAG members. The EOA Project Team will attempt to select sites that are representative of the range of urban creeks/channels found in the SF Bay Area.

#### Task 2c-3. Evaluate Permit Requirements and Obtain Permits

Once Project Partners, the PMT, and Trash TAG members have agreed upon the six (6) site locations (along with a list of priority back-up locations), the EOA Project Team will work with property owners and easement holders to identify and obtain the necessary permits and right-to-enter agreements needed to

access the sites for the installation of monitoring equipment and conducting sampling events. Site descriptions will be developed for each site to assist in permit applications. As a subcontractor to EOA, WRA will lead an evaluation of potential environmental permit requirements from State and Federal Agencies (Army Corps, CDFW, Water Board) at the proposed monitoring sites. WRA will evaluate the presence of special status species and provide technical guidance on necessary steps to obtain environmental permits and/or exemptions with the appropriate agency in a timely manner. Permit fees required by State and Federal agencies will be paid by the EOA Project Team and reimbursed via grant funds.

### Task 2c-4. Update Trash Monitoring Plan and QAPP

The EOA Project Team will update the Outfall MP and QAPP to incorporate the methods and data quality objectives applicable to receiving water trash monitoring. The updated MP will identify and summarize receiving water monitoring sites, monitoring methods and the sample design. The QAPP will follow SWAMP comparable QA/QC protocols, data management methods, and reporting procedures, as applicable. As a subcontractor to EOA, AMS, the author of the existing QAPP, will be responsible for QAPP updates. A draft updated MP and QAPP (Version 2.0) will be submitted to the Project Partners and PMT for review and comment prior to submittal to the Trash Monitoring TAG for review and comment. Following updates to the MRP in response to TAG comments, the Final Trash Monitoring Plan and QAPP (version 2.0) will be submitted to the Regional Water Board (no later than July 31, 2023) for Executive Officer (EO) approval. The EOA Project Team will address all comments received by the Regional Water Board and develop a Final MP and QAPP if needed to address these comments.

#### Task 2c-5. Conduct Receiving Water Trash Monitoring Field Sampling

Immediately following the endorsement of the methods and sites for receiving water monitoring by the Trash Monitoring TAG and Regional Water Board, which is anticipated in advance of formal EO approval of the Final Trash Monitoring Plan and QAPP, the EOA Project Team will work with equipment vendors and/or fabricators to procure the necessary monitoring equipment. 5 Gyres will work directly with fabricators to ensure trash monitoring equipment is obtained in a timely manner so it will be available to deploy by October 2024. Bal Hydro will procure all sampling equipment related to stream flow monitoring at sites that do not have existing stream gages.

After approval of the sampling locations and procurement of necessary permits and permissions, Bal Hydro will commence setting up the sites for sampling, which may include establishing anchors and fixed lines to facilitate gaging, installation of staff plates and water level and flow measurement equipment, if necessary. Prior to the wet season, Bal Hydro will lead a training session with all team members which will cover safety, go over standard operating procedures to maintain consistency in sampling methods between teams to consistently meet the standards laid out in the MRP, the Updated MP, and the QAPP. Bal Hydro has developed a highly-qualified roster of field experts with long successful records for safe stream-based field work and high standards for data quality, including staff from Bal Hydro, Total Flow Inc., and Blaine Tech to meet sampling demands of this project with at least three (3) staff per team and six (6) teams per storm to cover the six (6) sample locations for three sample events per year.

Following the procurement of sampling equipment and permits, receiving water trash monitoring field work and data collection at all six (6) sites will be conducted. As required by the MRP, receiving water monitoring will be conducted during the wet season over the term of the MRP, beginning October 1, 2024 and continuing through the end of Water Year 2027 (May 2027). The receiving water storm monitoring experts included on the EOA Project Team understand the challenges of reading weather forecasts and predicting rainfall patterns, especially within the microclimates of the Bay Area. We have allocated

adequate budget to coordinate the sampling team, and will leverage our experience to direct teams to the appropriate locations for sampling. We understand the MRP guidance is to sample the first forecasted significant storm and at least one (1) event greater than the one-year, one-hour storm event, and will endeavor to meet those requirements on an annual basis.

Stream flow rates will either be extrapolated from nearby stream gages or derived from gages installed by the EOA Project Team expressly for this project, where necessary. Streamflow equipment will be installed near trash sampling locations and will include self-contained pressure transducers. Water level-flow rating curves will be developed and employed to convert water level to an estimate of flow for each of the stations, where necessary. For the sampled streams, these data will help interpret which flow rates contribute the most trash to the San Francisco Bay.

All samples will be handled according to procedures described in the Trash MP and QAPP. The EOA Project Team will transport all trash samples to a single location where they will be stored and processed. Trash processing will follow procedures described in the MP and QAPP. All trash items will be separated from organic matter and placed in bags and stored for later characterization. Organic matter will be disposed of appropriately. The EOA Project Team will maintain a high standard for QA/QC and data management by following the QAPP and by using data templates developed under Task 2b.

The EOA Project Team will compile all receiving water monitoring data collected during the WOW Project into a Microsoft Excel spreadsheet. Monitoring data will include trash characterization data, described in Task 2d. Monitoring data will be evaluated using procedures described in the MP and QAPP. The data results will be summarized each year in Trash Monitoring Progress Reports. As required by the MRP, the Progress reports will include a description of receiving water sampling events and locations (including maps), descriptions of storm events that were sampled, summary of data results, including statistical analyses; data quality assurance procedures that were implemented for samples collected; lessons learned and recommended changes to monitoring plan for the subsequent year. Draft Progress reports will be submitted to Project Partners and PMT for review. Progress reports will be finalized by March 31 each year beginning in 2025 for submission to the Regional Water Board with each of the Project Partners Urban Creeks Monitoring Report.

No.	Deliverable	Completion	Responsible Team
		Date	Member
2c-1	Trash Receiving Water Methods Literature Review	March 2024	Balance, 5 Gyres
	Technical Memorandum		
2c-2	Revised Trash Monitoring Plan and QAPP (Version	July 2024	EOA, Geosyntec,
	2.0)		AMS, Balance
2c-3	Annual Trash Receiving Water Monitoring Progress	March of 2025;	EOA, Balance
	Reports	2026; and	
		2027; and 2028	

#### Task 2d - Trash Characterization and Public Engagement Events

There are two subtasks associated with Task 2.d - 1) Trash Characterization and 2) Community Engagement Events. Both are described below.

#### Task 2-d-1. Trash Characterization

The EOA Project Team will conduct trash characterization for all samples collected at the eleven (11) outfall monitoring sites and the six (6) receiving water monitoring sites during each year of the WOW Project, beginning with characterization of outfall samples collected in WY 2024. EOA will lead this task, with support from Geosyntec as a subcontractor to EOA, and conduct trash characterization of all samples following procedures described in the Trash Outfall Monitoring Plan and QAPP. Trash data will consist of measured volume of trash items sorted into 13 possible categories of trash (e.g., single-use carryout plastic bags). Replicate characterizations of one (1) sample from each of the five (5) counties participating in trash outfall and receiving water monitoring will be performed each year for a minimum total of 20 replicates by the end of the WOW Project. The trash characterization data will be incorporated into the data management template (see Task 2b) and reported in Annual Progress Reports, as described in Task 2c. Task 2d includes budget to store and transport trash samples, as needed.

#### Task 2-d-2. Community Engagement/Outreach Events

To engage stakeholders and increase public awareness of trash issues in receiving waters and to communicate the linkages between on-land littering and illegal dumping and trash impacts on local waterways, the EOA Project Team, led by SGA (as subcontractors to EOA), will conduct trash characterization demonstration events in public locations (e.g., public parks). Four community-based trash characterization events will be conducted, likely during the last two years of the WOW Project. The following strategies will be used for each public engagement event:

- **Community-Centered Events**: The trash characterization demonstration events will be conducted in accessible public locations such as parks, where community members can see the impacts of littering. The events will provide opportunities for hands-on involvement, like sorting and categorizing a small sample of trash, to create a tangible connection between litter on land and its impact on local waterways. This direct engagement fosters a sense of ownership and responsibility among participants.
- Involve Disadvantaged Communities: The EOA Team recognizes the importance of involving Disadvantaged Communities in these efforts. As we reach out to community members, we will ensure our outreach addresses specific accessibility needs and interests. We will work diligently to find locations that are easily reachable for these communities and provide educational resources in multiple languages. This inclusive approach not only spreads awareness but also fosters a sense of inclusivity.
- Involve Local Non-profits The EOA Team will involve local non-profit organizations, such as Save the Bay, Surfrider Foundation San Mateo County, Watershed Project, Grassroots Ecology, and Santa Clara Clean Creeks Coalition in promoting the events. Their networks will be very important in promoting these events to the general public. A number of these non-profit organizations provided support letters for the WOW Project to USEPA during the grant application stage.
- **Media Engagement and Press Coverage**: We will reach out to journalists and invite them to attend the events.<sup>3</sup> We will also provide them with compelling story angles that highlight the connection

between on-land littering, illegal dumping, and their adverse effects on local waterways. More importantly, we will offer access to experts or community representatives who can provide firsthand accounts and insights. This media engagement serves as a powerful amplifier, extending the reach of the campaign beyond the immediate participants.

No.	Deliverable	Completion Date	Responsible Team Member
2d-1	If needed, updated methods for Trash Characterization will be incorporated into the Trash Monitoring Plan and QAPP (Version 2.0)	July 2024	EOA, AMS
2d-2	Trash characterization data from all outfall and receiving water samples (132 outfall, 54 receiving water)	June 2027	EOA
2d-3	Four community-based trash characterization events (two per year in 2026 and 2027)	August 2026 and August 2027	SGA, EOA

### **TASK 3 - INFORMATION DISSIMINATION**

The objective of Task 3 (Information Dissemination) is to synthesize and disseminate the information and knowledge gained during the project to the Project Partners, stakeholders, and the general public. This objective will be achieved through the implementation of three tasks led by the EOA Project Team as described in the following sections.

#### Task 3a - Trash Monitoring Methods Guidance Document

The EOA Project Team will incorporate both outfall and receiving water trash monitoring methods developed for the WOW Project into a Trash Monitoring Methods (TMM) Guidance Document. The TMM Guidance Document will supplement the *Trash Monitoring Methods Playbook*, developed by the Ocean Protection Council (OPC) in December 2020, and other monitoring guidance documents developed by environmental organizations and agencies. The objective of this subtask is to create a foundation for developing a consistent, standardized approach to stormwater and receiving water trash monitoring and a process for updating those methods to address both the challenges and insights gained from over a decade of implementing and evaluating trash control measures in the Bay Area. The TMM Guidance Document will include all field sampling and QA/QC considerations, data management and standardization needs, and training considerations. The TMM Guidance Document will be developed collaboratively with the Project Partners, Regional Water Board and the Trash Monitoring TAG. EOA will lead this task with support from both Bal Hydro and Geosyntec.

No.	Deliverable	Completion Date	Responsible Team Member
3a-1	Trash Monitoring Methods (TMM) Guidance Document	October 2027	EOA, Balance, Geosyntec

#### Task 3.b - Trash Prevention and Monitoring Information Portal

The WOW Project will produce several documents, data sets, and reports. To make this information widely available, the EOA Project Team will create a new Stormwater Trash Management and Monitoring portal on the public BAMSC website. The information presented will be visually appealing and easy to understand. Other stormwater trash management and monitoring reports, factsheets, guidance documents, and protocols will also be made available on the portal, as applicable. Content will be reviewed by the PMT and Project Partners as part of their match contribution to the project via in-kind services.

No.	Deliverable	Completion Date	Responsible Team Member
3b-1	Stormwater Trash Management and Monitoring Web Portal	May 2028	EOA

### Task 3.c - Bay Area Trash Symposium

The EOA Project Team will organize a Bay Area Trash Symposium to share the lessons learned from the stormwater trash control measure and monitoring implementation with a broad audience, including the Project Partners, water quality regulatory agencies, technical advisors, and other interested parties and public agencies throughout the Bay Area and California. The symposium will be a virtual event and include at least four presentations on conclusions and lessons learned from the WOW Project. The presentations

will be recorded and made available on the web portal developed in task 3.b. EOA will lead this task with support from Bal Hydro and SGA, as subcontractors to EOA.

No.	Deliverable	Completion	Responsible
		Date	leam Wember
3c-1	Symposium agenda and materials, high-profile keynote	October 2027	EOA
	speaker presentation, recording of symposium		
3c-2	At least four presentations on project conclusions and	November 2027	EOA, Balance,
	lessons learned		SGA

### TASK 4 – PROJECT ADMINISTRATION AND MANAGEMENT

The EOA Project Team will provide project coordination and management services throughout the WOW Project to ensure that all grant tasks and deliverables are completed within budget and the grant schedule. Descriptions of the tasks that the EOA Project Team will complete are described below. EOA will lead this task.

#### Task 4.a. Project Management

The EOA Project Manager will provide oversight over all WOW Project tasks described in this Work Plan and serve as the central point-of-contact for the C/CAG Grant Manager and all EOA subcontractors. The Project Manager will schedule and facilitate PMT meetings, including preparation of agendas and meeting minutes, and presenting updates. Additionally, the Project Manager will identify issues that arise during the project, evaluate potential solutions, formulate recommendations, and discuss options with the C/CAG Grant Manager as needed. The Project Manager will also communicate with the USEPA Project Manager and attend coordination meetings as directed by the C/CAG Grant Manager.

No.	Deliverable	Completion Date	Responsible Team Member
4a-1	Project Management – PMT meeting preparation and	July 2028	EOA
	facilitation (i.e., agendas, meeting minutes, presentations, and facilitation)		

#### Task 4.b. Invoicing and Progress Reporting

In addition to leading project implementation and coordinating with the PMT, the EOA Project Team will also conduct the following activities:

- <u>Track In-kind Match Funds</u> Create a template to track match funds and distribute it to the Project Partners. The spreadsheet will be collected quarterly from Project Partners.
- <u>Track Grant Expenditures</u> Track all EOA and sub-contractor grant expenditures.
- <u>Develop Quarterly progress and financial reports</u> Develop and submit quarterly progress reports and invoices in USEPA's preferred format.
- <u>Prepare final grant documentation</u> Prepare and submit final grant report.

All invoicing and progress reporting for the WOW Project will be completed by EOA.

No.	Deliverable	Completion	Responsible Team
		Date	Member
4b-1	In-kind match cost tracking template for Project	January 2025	EOA
	Partners		
4b-2	Quarterly project progress reports (4 reports per grant	January, April,	EOA
	year) and subsequent invoices	July, and	
		October of each	
		year	
4b-3	Annual Federal Financial Report	September of	EOA
		each year	
4b-4	Final Grant Report	July 2028	EOA

### **A-2. SCHEDULE OF WORK**

The detailed implementation schedule for the WOW Project is shown in Table A2-1 below. The schedule includes significant milestones, such as meetings, plans, reports, monitoring timeframes, and events.

#### Table A2-1. Schedule of Work

Took #	Task # Grant Program Function or Activity			2024		2025		2026				2027				20	28			
Task #	Grant Program Function of Activity	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Stormwater Trash Controls																			
1a	Single-use Plastics Source Control Ordinance Effectiveness Evaluation		R							R										
1b	Regional Expansion of Clean California Initiative Public Outreach Campaign			R					R											
1c	Streamlining On-land Trash Assessment Methods		R		R															
2	Trash Monitoring Methods																			
2a	Technical Advisory Group		М		М		М				М				М				М	
2b	Stormwater Outfall Monitoring	F	F, R			F	F, R			F	F, R			F	F, R				R	
2c	Receiving Water Monitoring				R	F	F, R			F	F, R			F	F, R				R	
2d	Trash Characterization & Public Engagement Events						R				R		E		R		E		R	
3	Information Dissemination																			
3a	Trash Monitoring Methods Handbook																	R		
3b	Trash Prevention and Monitoring Information Portal								Е				R				R			
3c	Bay Area Trash Symposium																	E		
4	Project Administration/ Management																			
4a	Project Management	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М
4b	Invoicing & Progress Reporting		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

Notes: Task Implementation

M = meeting

F = field monitoring

E = event / portal launch

R = plan / report / portal update

### A-3. COST PROPOSAL

This section provides the EOA Project Team's Cost Proposal for implementing the Work Plan described in Section 1. Consistent with the RFP, cost estimates are provided in three types of cost breakdown tables - Table A3-1 provides the cost breakdown by task and subtask for grant funds and match funds, Table A3-2 provides the cost breakdown by task and team member, and Table A3-3 provides the cost estimate for the EOA Project Team by task and fiscal year. The Project Manager will be responsible for tracking all budgets and making sure that grant funds are expended as planned. The Project Manager will inform C/CAG staff if any adjustments to the budget are required. Invoices will be submitted quarterly, as required by the RFP.

#### Table A3-1. EOA Project Team Cost Breakdown by Task, Sub-task, Grant Funds and Match Funds

Subtask				Grant-Fur	nded Costs	Match-	Total
#	Subtask Name	Work Products/Deliverables	Timeframe	C/CAG	EOA Project Team	Funded Costs	Project Costs
Task 1 St	ormwater Trash Controls						
1a	Single-use Plastics Source Control Ordinance Effectiveness Evaluation	<ul> <li>Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP).</li> <li>Technical Report documenting observed reductions in trash generation.</li> </ul>	Nov 2023 – Dec 2025	\$0	\$81,000	\$1,500	\$82,500
1b	Regional Expansion of Clean California Initiative Public Outreach Campaign	<ul> <li>Regional Outreach plan for Clean California Initiative.</li> <li>End-of-campaign summary report including effectiveness assessment.</li> </ul>	Jul 2024 - Mar 2025	\$0	\$205,000	\$11,000	\$216,000
1c	Streamline On-land Trash Assessment Methods	<ul> <li>Technical report that effectively demonstrates that trash levels on land have achieved stormwater trash reduction goals.</li> <li>Regionally consistent OVTA data management system populated with all Bay Area OVTA data.</li> </ul>	Nov 2023 - Dec 2024	\$0	\$66,000	\$5,000	\$71,000
			Subtotal	\$0	\$352,000	\$17,500	\$369,500
Task 2 Tr	ash Monitoring Methods						
2a	Technical Advisory Group	Meeting agendas and summaries for six (6) TAG meetings.	Duration of WOW Project	\$0	\$75,000	\$100,000	\$175,000
2b	Stormwater Outfall Monitoring	<ul> <li>Regionally consistent data management template.</li> <li>Annually compiled Trash Outfall Monitoring Reports.</li> </ul>	Duration of WOW Project	\$0	\$78,000	\$3,000,000	\$3,078,000
2c	Receiving Water Monitoring	<ul> <li>Trash Receiving Water Methods Technical Memorandum.</li> <li>Revised Trash Monitoring Plan and QAPP (Version 2.0).</li> <li>Annual Trash Receiving Water Monitoring Progress Reports.</li> </ul>	Duration of WOW Project	\$0	\$1,900,000	\$100,000	\$2,000,000
2d	Trash Characterization & Public Engagement Events	<ul> <li>If needed, updates to trash characterization sections of Trash Monitoring Plan and QAPP.</li> <li>Trash characterization data from 132 outfall 54 receiving water monitoring samples.</li> <li>Four community-based trash characterization events.</li> </ul>	Duration of WOW Project	\$0	\$425,000	\$10,000	\$435,000
			Subtotal	\$0	\$2,478,000	\$3,210,000	\$5,688,000
Task 3 In	formation Dissemination					T	Γ
3a	Trash Monitoring Methods Guidance	• Trash Monitoring Methods (TMM) Guidance Document.	Jul 2026 - Dec 2027	\$0	\$87,000	\$7,500	\$94,500
3b	Trash Prevention and Monitoring Portal	Updated BAMS Collaborative website, including new trash monitoring portal.	Jul 2024 - Jun 2028	\$0	\$36,000	\$3,500	\$39,500
3c	Bay Area Trash Symposium	<ul> <li>Symposium agenda and materials, high-profile keynote speaker presentation, recording of symposium.</li> <li>At least four presentations on project conclusions and lessons learned.</li> </ul>	Oct 2026 - Jun 2028	\$0	\$50,000	\$11,500	\$61,500
	·		Subtotal	\$0	\$173,000	\$22,500	\$195,500
Task 4 Pr	oject Administration				1	1	1
4a	Project Management (Including PMT)	• Project Management – PMT meeting preparation and facilitation (i.e., agendas, meeting minutes, presentations, and facilitation).	Duration of WOW Project	\$45,000	\$40,000	\$64,000	\$0
4b	Invoicing & Progress Reporting	<ul> <li>In-kind match tracking template</li> <li>Quarterly project progress reports (4 reports per grant year) and subsequent invoices.</li> <li>Annual Federal Financial Reports.</li> <li>Final Grant Report.</li> </ul>	Duration of WOW Project	\$150,000	\$128,000	\$52,000	\$0
			Subtotal	\$195,000	\$168,000	\$116,000	\$0
			TOTAL	\$195,000	\$3,171,000	\$3,366,000	\$6,253,000

### Table A3-2. EOA Project Team Cost Breakdown by Project Team Member

Subtask #	Subtask Name	ΕΟΑ	Balance Hydrologics <sup>a</sup>	SGA	Geosyntec	AMS	5-Gyres	WRA	Total EOA Team Project Costs
Task 1 Sto	rmwater Trash Controls								
1a	Single-use Plastics Source Control Ordinance Effectiveness Evaluation	\$81,000	\$0	\$0	\$0	\$0	\$0	\$0	\$81,000
1b	Regional Expansion of Clean California Initiative (or Other) Public Outreach Campaign	\$9,762	\$0	\$195,238	\$0	\$0	\$0	\$0	\$205,000
1c	Streamline On-land Trash Assessment Methods	\$61,000	\$0	\$0	\$0	\$5 <i>,</i> 000	\$0	\$0	\$66,000
	Subtotal	\$151,762	\$0	\$195,238	\$0	\$5,000	\$0	\$0	\$352,000
Task 2 Tra	sh Monitoring Methods								
2a	Technical Advisory Group	\$65,000	\$10,000	\$0	\$0	\$0	\$0	\$0	\$75,000
2b	Stormwater Outfall Monitoring	\$78,000	\$0	\$0	\$0	\$0	\$0	\$0	\$78,000
2c	Receiving Water Monitoring		\$800,380	\$0	\$25,000	\$25,000	\$160,000	\$48,000	\$1,900,000
2d	Trash Characterization & Public Engagement Events	\$380,000	\$0	\$40,000	\$5,000	\$0	\$0	\$0	\$425,000
	Subtotal	\$1,364,620	\$810,380	\$40,000	\$30,000	\$25,000	\$160,000	\$48,000	\$2,478,000
Task 3 Info	ormation Dissemination	I	Γ			Γ	Γ	1	
За	Trash Monitoring Methods Guidance	\$74,000	\$13,000	\$0	\$0	\$0	\$0	\$0	\$87,000
3b	Trash Prevention and Monitoring Portal	\$36,000	\$0	\$0	\$0	\$0	\$0	\$0	\$36,000
3c	Bay Area Trash Symposium	\$49,000	\$0	\$1,000	\$0	\$0	\$0	\$0	\$50,000
	Subtotal	\$159,000	\$13,000	\$1,000	\$0	\$0	<b>\$0</b>	\$0	\$173,000
Task 4 Pro	ject Administration								
4a	Project Management (Including PMT)		\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
4b	Invoicing & Progress Reporting		\$0	\$0	\$0	\$0	\$0	\$0	\$128,000
	Subtotal	\$168,000	\$0	\$0	\$0	\$0	\$0	\$0	\$168,000
	TOTAL	\$1,843,382	\$823,380	\$236,238	\$30,000	\$30,000	\$160,000	\$48,000	\$3,171,000

<sup>a</sup> Balance Hydrologic costs include those associated with field subcontractors - Total Flow and Blaine Tech Services.

### Table A3-3 EOA Project Team Cost Estimates by Fiscal Year.

Subtask #	Subtask Name	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total EOA Project Team Costs
Task 1 Stormwater	Trash Controls						
1a	Single-use Plastics Source Control Ordinance Effectiveness Evaluation	\$22,800	\$35,700	\$22,500	\$0	\$0	\$81,000
1b	Regional Expansion of Clean California Initiative (Or Other) Public Outreach Campaign	\$5,200	\$195,450	\$4,350	\$0	\$0	\$205,000
1c	Streamline On-land Trash Assessment Methods	\$19,400	\$46,600	\$0	\$0	\$0	\$66,000
	Subtotal	\$47,400	\$277,750	\$26,350	\$0	\$0	\$352,000
Task 2 Trash Monit	oring Methods					-	
2a	Technical Advisory Group	\$17,646	\$14,411	\$14,411	\$14,411	\$14,123	\$75,000
2b	Stormwater Outfall Monitoring	\$21,200	\$14,200	\$14,200	\$14,200	\$14,200	\$78,000
2c	Receiving Water Monitoring	\$200,000	\$800,000	\$300,000	\$300,000	\$300,000	\$1,900,000
2d	Trash Characterization & Public Engagement Events	\$40,000	\$71,125	\$105,325	\$102,775	\$105,775	\$425,000
	Subtotal	\$278,846	\$899,736	\$433,936	\$431,386	\$434,098	\$2,478,000
Task 3 Information	Dissemination					-	
За	Trash Monitoring Methods Guidance	\$0	\$0	\$0	\$77,000	\$10,000	\$87,000
3b	Trash Prevention and Monitoring Portal	\$0	\$0	\$0	\$18,000	\$18,000	\$36,000
3c	Bay Area Trash Symposium	\$0	\$0	\$0	\$13,800	\$36,200	\$50,000
	Subtotal	\$0	\$0	\$0	\$108,800	\$64,200	\$173,000
Task 4 Project Adm	inistration					-	
4a	Project Management (Including PMT)	\$6,316	\$8,421	\$8,421	\$8,421	\$8,421	\$40,000
4b	Invoicing & Progress Reporting	\$20,211	\$26,947	\$26,947	\$26,947	\$26,947	\$128,000
	Subtotal	\$26,526	\$35,368	\$35,368	\$35,368	\$35,368	\$168,000
	TOTAL	\$352,772	\$1,212,854	\$495,654	\$575,554	\$533,666	\$3,171,000

Attachment 2 - Table of Bay Area Municipal Stormwater Collaborative Partnering Program In-kind Matching Contributions Over the 5.5-year Project Period

	Wate	Watching Our Watersheds Project Partnering Countywide Programs							
	Alameda County Clean Water Program	Contra Costa Clean Water Program	San Mateo Countywide Water Pollution Prevention Program	Santa Clara Valley Urban Runoff Pollution Prevention Program	Solano Stormwater Alliance	Total			
Program In-kind Contributions	\$854,950	\$649,950	\$651,450	\$854,950	\$354,700	\$3,366,000			
Percentage of Partnering In-kind Contributions	25.4%	19.4%	25.4%	19.3%	10.5%	100.0%			

### C/CAG AGENDA REPORT

Date: November 30, 2023

To: Stormwater Committee

From: Reid Bogert, Program Director

Subject: Review and recommend Board approval of a contract with Geosyntec Consultants for completing the ICARP grant funded San Mateo County OneWatershed Framework and Community-Led Plan.

(For further information or questions, contact Reid Bogert at rbogert@smcgov.org)

#### RECOMMENDATION

That the Stormwater Committee Review and recommend Board approval of a contract with Geosyntec Consultants for completing the ICARP grant funded San Mateo County OneWatershed Framework and Community-Led Plan.

#### FISCAL IMPACT

C/CAG will receive \$649,648 in grant award monies on a reimbursement basis from the Governor's Office of Planning and Research to complete the Project. A portion of funding (\$225,400) will be allocated to Climate Resilient Communities as the community-based partner project lead under a separate agreement. The remaining \$424,248 will be allocated to Geosyntec Consultants under this proposed contract. There is no matching fund requirement under the Integrated Climate Adaptation and Resilience Program's Adaptation Planning Grant Program.

#### SOURCE OF FUNDS

All Project funds will be provided through the ICARP grant.

#### BACKGROUND

After submitting a successful application in March 2023, C/CAG staff received a notice of award from the Governor's Office of Planning and Research (OPR) in June, stating the intent to award C/CAG and its project partners a grant of \$649,648 under the Fiscal Year 2023-24 Integrated Climate Adaptation and Resilience Program's (ICARP) Adaptation Planning Grant Program (APGP) to complete the *San Mateo County OneWatershed Climate Resilience Framework and Community-led Plan* (OneWatershed Framework Project/Project). The OneWatershed Framework Project is a countywide climate resilience planning project in collaboration with C/CAG, Climate Resilient Communities, OneShorline, the Bay Area Water Supply and Conservation Agency (BAWSCA), the San Mateo County Office of Sustainability, the City of San Bruno, and the South San Francisco-San Bruno Regional Water Quality Control Plant (Partners). The Project builds on years of prior work among and in collaboration with the

proposed Partners to address the call to action to collectively and at a regional scale provide immediate and lasting relief from current and future climate impacts. The intent of the Project is to support a holistic "OneWater" approach in San Mateo County, focusing on multi-scale, multi-benefit Green Stormwater Infrastructure (GSI) to address the shared risk of climate change impacts on water infrastructure (stormwater/flood, water supply, wastewater), to provide direct benefits to the most at-risk and vulnerable communities, and, through a community-led process, develop a OneWatershed Climate Resilience Plan for the San Bruno Creek Watershed area. The San Bruno Creek Watershed was selected as a pilot watershed study area for addressing near-term and longer-term GSI implementation and climate risk reduction goals for communities that are heavily impacted by severe flooding from the combined effects of larger and more frequent atmospheric river storms, sea level rise, and periodic drought and for the combination of regional entities, represented by the Project Partners, already engaged in supporting resilience in this watershed, though largely through separate programs. The Project will help find solutions that work across governance and infrastructure silos, leveraging earlier planning efforts, creating a path forward towards increased funding and cost-sharing opportunities to build and maintain much needed infrastructure improvements. As the lead applicant on the grant, C/CAG staff will administer the Project and be the Project Manager coordinating all aspects of project delivery and grant oversight. The Co-applicants (Partners) will support the Project throughout the Project term via participation on a Project Management Team (PMT) and will provide technical input and expertise within each infrastructure type and/or area of focus represented by the Partners. The Project timeline is currently conceived of as initiating project kick-off in December 2023 and completing all Project work and deliverables by the end of September 2025.

Building on prior GSI planning led by C/CAG and in collaboration with other agencies and stakeholders in the county, the Project will add a new and critically important dimension to watershed management, which is addressing the shared risk to water infrastructure under future climate conditions, as the guiding principle behind further evaluating and prioritizing new and already identified high priority opportunities for implementing multi-benefit GSI projects. At its core, the Project will also create a model for effective and equitable community engagement, centered on strategies and processes of cocreation/empowerment and trust, leveraging the expertise of the community-based organization, Climate Resilient Communities, located in East Palo Alto, which is a pioneer and trusted leader in climate resilience efforts rooted in social justice. Lastly, the Project is poised to advance implementation and to create a proven and replicable OneWatershed Climate Resilience Infrastructure approach for comprehensive, integrated climate adaptation planning, serving as a novel paradigm in climate resilience and GSI integration for coastal communities throughout the nation, via a planned task to develop a implementation grant for the current National Oceanic and Atmospheric Administration (NOAA) Climate Resilience Regional Challenge grant, for which C/CAG submitted a Letter of Intent on August 28. C/CAG has since been notified by NOAA that the proposed project has proceeded to the next level in the competitive process, and C/CAG is being invited to submit a complete application by February 13, 2023.

As detailed in the Project Work Plan (see Attachment 1), the Project is designed to achieve three primary objectives:

 Establish and advance a <u>cross-asset climate change adaptation framework and community of</u> <u>practice</u> as a model for community-led risk and project opportunity area identification throughout San Mateo County and beyond. Includes aggregating existing and new climate risk and resilience data, integration with C/CAG's Green Infrastructure Tracking and Mapping Tool, and establishing a community-led planning process to drive equitable OneWatershed project planning and implementation;

- Establish <u>a replicable OneWatershed approach</u> and expand opportunities for collaboratively managing stormwater, flooding, heat, SLR, and drought hazards cost-effectively and equitably. Includes a focused interagency/stakeholder coordination and collaboration process to align goals and objectives for prioritizing OneWatershed Climate Resilience Infrastructure;
- 3) Create <u>more resilient neighborhoods and watersheds and demonstrate how to effectively and</u> <u>responsibly breakdown longstanding silos</u> in water-related infrastructure planning and management to holistically solve climate adaptation challenges related to water. Focus on applying the newly created OneWatershed Framework to the flood prone areas of the San Bruno Creek Watershed and developing a Community-Led OneWatershed Climate Resilience Plan.

The Work Plan, budget, and timeline for the Project are included in Attachment 1 below. Pursuant to C/CAG Board approved Resolution 23-80 and Resolution 23-96 C/CAG's Executive Director executed 1) a Partnership Agreement, outlining the roles and responsibilities of C/CAG as the lead applicant and the Partners as co-applicants on the grant; 2) a Grant Agreement with OPR to complete the project and receive reimbursement for all deliverables under the scope of work; and 3) an Agreement with Climate Resilient Communities to complete the portion of the scope of work allocated to Climate Resilient Communities under the Grant Agreement.

Following execution of the Partnership and Grant Agreements, C/CAG staff, in collaboration with the Partners, led a procurement process to solicit consultant support to complete the consultant-specified portions of the scope of work. C/CAG staff released a Request for Proposals on October 20, 2023 with a deadline to submit proposals by no later than 5:00 p.m. PST on November 10, 2023. Staff received two proposals from Geosyntec Consultants and Black & Veatch. Both proposals included a primary consultant leading a group of subconsultants to complete all project deliverables. After initial screening it was determined both firms met the minimum qualifications and after initial review by the selection panel, consisting of representatives from four of the seven participating programs, including the San Mateo Countywide Stormwater Program, both firms were invited for interviews on November 22, 2023. Based on the combined scores for the written proposals and the scores for the interviews, the selection panel determined that Geosyntec was the higher qualifying and recommended consultant.

With a recommendation from the Stormwater Committee, C/CAG staff will finalize the contract with Geosyntec and bring a recommendation to the C/CAG Board of Directors at the December 14, 2023 meeting, to request authorization to execute an agreement with Geosyntec Consultants, for an amount not to exceed \$424,248 to complete the OneWatershed Project with a contract term through January 30, 2026.

#### ATTACHMENTS

1. Geosyntec Project Work Plan and Budget from Proposal

# 5. Work Plan

### **Project Understanding**

The City/County Association of Governments of San Mateo County (C/CAG) is seeking a Consultant Team to lead the OneWatershed Project, which will develop and implement the *OneWatershed Framework* for equitable climate resilience planning for San Mateo County (County). OneWatershed infrastructure includes stormwater, groundwater, water supply, and wastewater infrastructure, along with water-sector-related utilities and transportation infrastructure assets.

The climate crisis is projected to cause impacts to all facets of water and stormwater systems in the 21<sup>st</sup> century (and beyond), including stormwater management, flood management, water quality, water supply, groundwater, and drainage systems. The County is one of the most vulnerable in California to sea level rise and emergent groundwater, is experiencing increased extreme rainfall and other climate impacts, and could experience water supply impacts due to hydrologic drought. Unfortunately, disadvantaged communities in the County are projected to be disproportionately affected by these climate impacts. In 2019, the San Mateo County Board of Supervisors declared a Climate Emergency in the County in response to current and projected impacts from climate change. The Emergency Declaration emphasizes the importance of protecting vulnerable communities by focusing on equitable climate solutions.

Jurisdictions within the County are also subject to the San Francisco Bay Municipal Regional National Pollutant Discharge Elimination System (NPDES) Stormwater Permit (MRP), which includes substantial and growing stormwater quality requirements relating to the implementation of low impact development (LID)/green stormwater infrastructure (GSI) and compliance with total maximum daily loads (TMDLs).

As County jurisdictions' risk of climate impacts and regulatory compliance burdens increase, jurisdictions are facing challenges in funding multi-benefit water infrastructure solutions that could provide climate resilience and meet regulatory goals. C/CAG's Advancing Regional Stormwater Projects White Paper identified a regional collaborative approach to implementation to provide cost savings and increased

project benefits. C/CAG's Regional Collaborative Program is intended to provide a mechanism for cost-sharing of multi-benefit stormwater capture projects between MRP permittees and, potentially, other water infrastructure owners and operators.

A substantial amount of work has been conducted in San Mateo County and the greater Bay Area to begin to define and address some of these known challenges. These include but are not limited to the Sustainable Streets Master Plan, the Stormwater Resource Plan, the TMDL Reasonable Assurance Analysis, permittee GSI Plans, permittee climate action plans, permittee storm drain master plans, the County's Sea Level Rise Vulnerability Assessment, Creek Resiliency Studies, and



other local infrastructure plans. These studies have demonstrated that there are opportunities for projects that could address the many overlapping objectives, and additional work to integrate these studies and plans through the OneWatershed Project is valuable.

The OneWatershed Project combines meaningful engagement with climate-vulnerable residents and a robust technical approach to identify mitigation measures for vulnerable OneWatershed Infrastructure. The OneWatershed Project will build upon the extensive body of existing studies and compile a comprehensive database relevant to climate risk for OneWatershed Infrastructure. The OneWatershed Framework will include a method for examining OneWatershed Infrastructure shared risk to overlapping climate hazards at the Countywide level. A San Bruno Creek Watershed community-led watershed-scale pilot of the OneWatershed Framework will examine community sensitivity to climate impacts and identify mitigation measures or "OneWatershed Climate Resilience projects".



The OneWatershed Project must also consider longer-term funding for OneWatershed Climate Resilience projects across the County. The OneWatershed Framework should address the ability for projects, policies, or programs to be funded through the Regional Collaborative Program, available grant dollars, or as part of funded capital improvement program projects. To procure funding for OneWatershed Climate Resilience projects, C/CAG submitted a letter of intent to the NOAA Climate Resilience Regional Challenge and was invited to develop a grant application, due February 13, 2024. The NOAA Climate Resilience Regional Challenge grant

application will also be developed as part of this OneWatershed Project.

### **Scope of Work**

The scope of work includes technical tasks, outreach tasks and meetings, and administrative tasks for three major project phases: (1) Establishing a Countywide OneWatershed Climate Resilience Framework and Dashboard; (2) Piloting the OneWatershed Framework and Dashboard in the San Bruno Creek Watershed; and (3) Developing a Grant Application for the NOAA Climate Resilience Regional Challenge. Individual tasks within these three major phases are shown in the schematic.

The Geosyntec Team has the substantial background and qualifications needed to complete the required tasks and produce OneWatershed Project products that are informed by the large body of existing studies and data available (many of which our team members developed or extensively reviewed through previous projects with C/CAG) and consider the need for a sustainable, replicable, and fundable approach. Geosyntec Team member Craig Communications, who has extensive experience with community engagement and has familiarity with the City of San Bruno community members will provide up to \$10,000 of outreach and engagement consulting as part of the project. We have provided options for what this engagement consulting could include throughout this scope.

### Task 1: Project Work Plan and Initial Countywide Partner and Community Engagement

#### Task 1.1: Kick-off, Work Plan, and Engagement Plan

The Geosyntec Team will facilitate a one-hour kick-off meeting with the project management team (PMT) to discuss the Work Plan and Countywide Partner and Community Engagement Process (through Task 5.2). The PMT will include representation from C/CAG's San Mateo Countywide Water Pollution Prevention Program, the Bay Area Water Supply Conservation Agency (BAWSCA), the City of San Bruno, City of South San Francisco- San Bruno Water Quality Control Plant, Climate Resilient Communities, OneShoreline, and San Mateo County Office of Sustainability.

The Geosyntec Team will use our experience working on multi-jurisdictional stormwater, OneWater, and climate resilience-related projects to develop the guiding OneWatershed Project Work Plan. The OneWatershed Project Work Plan will describe the Project tasks and deliverables and include a comprehensive project schedule. The project schedule will include deliverable deadlines along with key touchpoints with the PMT, TAC, EPC, and CCC, and review periods for the PMT, TAC, and/or EPC/CCC. The Geosyntec Team will compile comments on the draft Work Plan from the PMT, TAC, EPC, and CCC to develop the final Work Plan. The Work Plan will be used throughout the project to guide project deliverables and schedule.

#### **Consultant Team Community Engagement Approach**

The Geosyntec Team will support Climate Resilient Communities to develop the Community Engagement Plan. Geosyntec Team member Craig Communications will work collaboratively with Climate Resilient Communities to develop a Community Engagement Plan (CEP) that will 1) identify a diverse group of potential additional County-wide agencies, organizations and stakeholders to participate in the project, and 2) set forth goals and supporting strategies and outreach activities for gaining deep and meaningful participation of partners and community representatives in the Project, and 3) a schedule for completing all outreach tasks in alignment with technical milestones. Craig Communications will hold a two-hour, in person meeting with with Climate Resilient Communities key staff to develop a CEP framework including identifying potential stakeholders, best outreach tactics, community issues/concerns, and communications collateral. Other Geosyntec Team members will help identify the technical boundaries and messaging, given the Project focus and resources, which could be formalized in the CEP. The Geosyntec Team will also work with Climate Resilient Communities to establish the number of community meetings that the Geosyntec Team will support, the topics, length, format (i.e., virtual, hybrid, or in-person), and the roles and responsibilities of the Geosyntec Team for each meeting, which would be included in the Plan. The Geosyntec Team would also support Climate Resilient Communities to develop stipends for meeting participants, which would be paid from the "engagement team and community member compensation" grant budget line item. The Geosyntec Team will supplement this information with research to write the first draft of the CEP, which will then be provided to Climate Resilient Communities and the PMT for review and comment. Comments will be incorporated, and a final draft prepared.

We have developed assumptions for the level of effort provided by the Geosyntec Team to prepare this scope and budget. These assumptions are provided below.

The Geosyntec Team will conduct the following engagement support:

• Host a total of three virtual TAC meetings, including developing and distributing the agenda, preparing meeting materials, hosting and facilitating meetings.

- Support a total of three virtual EPC meetings (consistent with a response included in the RFP Questions and Responses), including agenda development, presentation/meeting materials, and virtual translation. The Geosyntec Team can also host and facilitate virtual meetings if needed.
- Support a total of six in-person CCC meetings, including agenda development, presentations, written materials/handouts, written material translations and language interpretation (Spanish/Mandarin/Tagalog/Samoan/Tongan), food, and venue and equipment rental.
- Support a total of four in-person Workshops, including agenda development, presentations, written materials/handouts, written material translations and language interpretation (Spanish/Mandarin/Tagalog/Samoan/Tongan), and food.

For additional EPC or CCC meetings, attend and take notes only.

- Details of meeting content as well as justification for the proposed number of meetings supported by the Geosyntec Team are provided in the applicable project tasks.
- Climate Resilient Communities will provide the following engagement support:
- Provide electronic meeting advertising and meeting facilitation for three EPC meetings, six CCC meetings, and six in-person Workshops.
- Secure accommodations for CCC members attending in-person CCC meetings or EPC meetings (for example, streamed by Climate Resilient Communities at an in-person location), including transportation and childcare.
- Secure meeting venues that are comfortable and easily accessible to the community and equipment for community Workshops, including identifying existing community gathering spaces and negotiating rental fees.

Provide on-line meeting advertising, distributing meeting advertising via email, agenda development, presentation and meeting materials, secure accommodations, secure meeting venues and equipment, provide food, and facilitate additional CCC meetings (beyond the six described).

#### Assumptions:

 The Geosyntec Team will work collaboratively with Climate Resilient Communities to develop the Community Engagement Plan. The Geosyntec Team will draft the Community Engagement Plan, incorporating input from discussions with Climate Resilient Communities and supporting research, distribute the draft Community Engagement Plan to Climate Resilient Communities and C/CAG for review/comment, and edit the Plan to develop the final Community Engagement Plan

#### **Deliverables:**

- 1. Draft and Final Project Work Plan.
- 2. Draft and Final Community Engagement Plan.

#### Task 1.2 Equity Priority Community Group Formation and Kick-Off Meeting

The Geosyntec Team will support the formation of the Equity Priority Community (EPC) Group, including working collaboratively with Climate Resilient Communities to identify members of the EPC and CCC and reviewing the EPC charter. The Geosyntec Team will prepare a Work Plan presentation for the virtual 1-hour EPC kick-off meeting, take notes during the meeting, and compile comments from the EPC following the meeting to be incorporated into the Work Plan.

#### Assumptions

1. Refer to Task 1.1 for other assumptions relating to Geosyntec Team and Climate Resilient Communities engagement meeting support.

#### **Deliverables:**

- 1. Agenda, presentation, translation, and notes for virtual EPC Kick-Off Meeting.
- 2. Compiled EPC comments on the Work Plan.

#### Task 1.3 Technical Advisory Committee Formation and Kick-Off Meeting

The Geosyntec Team will support the PMT in identifying the Technical Advisory Committee (TAC) members who will provide technical advising and technical work product review for the OneWatershed Project. Geosyntec Team members have recent experience leading TACs for related San Mateo County projects, including the Workgroup Advancing Regional Projects (WARP), and will use this experience to assist in identifying TAC members and leading a productive and efficient TAC. The Geosyntec Team will develop a brief TAC charter with input from the PMT, describing the roles, responsibilities, and objectives of the TAC. Geosyntec will lead a 1-hour TAC kick-off meeting to discuss the OneWatershed Project Work Plan and initiate a discussion around data availability, collection needs, and known data gaps.

#### Deliverables:

- 1. TAC Contact List and brief charter.
- 2. 1-hour TAC Kick-Off Meeting Agenda, Presentation, Facilitation, and Notes.
- 3. Compiled TAC comments on the Work Plan.

#### Task 1.4 Establish Climate Change Community Team

The Geosyntec Team will support Community Resilient Communities in establishing the San Bruno Creek Watershed Climate Change Community (CCC) Team. The Geosyntec Team will provide input to Climate Resilient Communities to identify participants and guide meetings through one dedicated 1.5-hour brainstorming meeting to identify discussion topics, and key constituencies, and scheduling information for Climate Resilient Communities to share during the CCC establishment meetings.

#### Assumptions:

1. Climate Resilient Communities will perform outreach to potential CCC members, develop the contact list and charter and lead all CCC meetings.

#### **Deliverables:**

2. Agenda, facilitation, and notes for 1.5-hour brainstorming meeting with Climate Resilient Communities to prepare for CCC establishment meetings.

### Task 2 – Countywide OneWatershed Asset and Community Data Inventory Creation

#### Task 2.1 Data Collection and Gap Analysis

The Geosyntec Team will compile available countywide datasets that will be used to address shared-risk to OneWatershed infrastructure and resources from the impacts of climate change. These datasets will range from water supply and wastewater infrastructure data, physical land characteristics, meteorology and climate, and other risk and vulnerability datasets, including sea level rise projections, emergent groundwater projections, high heat days, and changes to large precipitation events. As different existing climate impact data may represent different climate scenarios, the Global Circulation Models (GCM) and Representative Concentration Pathways (RCPs) used to develop climate impact data will be documented, such that a consistent future climate scenario could be used for climate shared-risk analysis.

The Geosyntec Team will compile key water supply infrastructure in the County including, but not necessarily limited to Reservoirs/dams/storage facilities, raw/treated/recycled water pipelines, pump stations, BAWSCA member agency turnouts from the SFRWS, raw water intakes, water/recycled water treatment facilities, wells, canals/channels, natural assets critical to water supply (e.g., groundwater basins, creeks) along with key asset information. The Geosyntec Team will work with Agency partners to obtain access and permission to existing databases, models, and reports to support the inventory creation.

Wastewater infrastructure data will include existing data from electronically available Sewer System Management Plans on sewer infrastructure in the County (Bayside) that might be at risk of climate impacts, as well as climate resilience planning that has or is being done by the Bayside Publicly Owned Treatment Works (POTWs) in the County as part of their NPDES permit requirements. Potentially, utilities and transportation infrastructure



Geosyntec Team Member Hazen has developed water supply reliability models encompassing major portions of the Bay Area, including all of San Mateo County (BAWSCA's Regional Reliability Model).

assets may be included as they relate to other water sectors (for example, sustainable streets contain both stormwater and transportation elements).

The Geosyntec Team will conduct a thorough review of existing datasets. Geosyntec Team member Paradigm has compiled substantial existing data through the development of the Countywide Reasonable Assurance Analysis (RAA), Stormwater Resource Plan (SRP), and Sustainable Streets Master Plan (SSMP) that will kickstart data compilation efforts. Available existing datasets will be assessed for data quality, completeness, and relevancy to a OneWatershed Framework. The Geosyntec team will identify data gaps and, with input from the PMT and TAC, determine which gaps are essential to fill for the subsequent analyses and devise an approach to fill the gaps. The Geosyntec Team will create a list of compiled data and data gaps. The Geosyntec Team will coordinate with data providers to discuss any issues with data quality.

#### **Deliverables:**

1. Data List (including file names, description, source, and contact info for questions).

#### Task 2.2 Inventory Development

Using the data gathered through Task 2.1, the Geosyntec Team will develop a countywide geospatial database inventory. Collected data will be uploaded to C/CAG's existing online GIS map viewer (<u>http://54.183.214.51/maps/SMC project prioritization</u>), which already houses data relevant to the OneWatershed Project. This tool (see bottom right), created and maintained by Paradigm, can facilitate the review of many datasets by multiple review parties. The map viewer will allow for efficient review by the PMT, TAC, EPC, and CCC, is user-friendly for non-technical team members, and provides the ability to

visualize and assess data at varying scales as opposed to static maps. During data collection, datasets may be simultaneously uploaded to the map viewer and added to the Data List.

The online GIS map viewer will display the locations affected by climate impact drivers based on available climate study data, including projected sea level rise inundation and magnitude of increased frequency or amount of precipitation, along with risk factors, including locations of flooding, high urban heat, or water supply reliability challenges. The online GIS map viewer will show how OneWatershed infrastructure assets are co-located with the climate impact drivers or risk factors for which data is available.



#### **Assumptions:**

1. Review of the datasets by Project Partners will be facilitated by C/CAG's existing online GIS Web Viewer rather than static maps for each layer.

#### **Deliverables:**

- 1. OneWatershed Climate Resilience Geodatabase in ESRI ArcGIS format and Inventory Slidedoc
- 2. Link to online GIS map viewer

#### Task 2.3 Vulnerability and Risk Assessment Materials Review Workshops

The Geosyntec Team will lead one 1.5-hour virtual meeting with the TAC to discuss data collection, inventory creation, and approach to vulnerability/risk analysis at the countywide scale. The Geosyntec Team is proposing one meeting (rather than two) for this topic to provide budget efficiencies and focus feedback from the TAC.

In advance of the meeting, the Geosyntec Team will send out a link to the online GIS map viewer with the compiled climate risk and water infrastructure data to guide the discussion with the TAC and support an engaging and actionable meeting. The Geosyntec Team will prepare a TAC presentation to present available data, how data was compiled, and how the data will be used to assess the climate shared risk of OneWatershed infrastructure. The Geosyntec Team will provide meeting notes.

The Geosyntec Team will participate in one 1.5-hour EPC virtual meeting to present the data collection, inventory creation, and approach to vulnerability/risk analysis. The Geosyntec Team will modify the TAC presentation based on input from the PMT to focus on community risk exposure and vulnerability. The Team will provide notes.

The Geosyntec Team will develop a brief OneWatershed Framework Approach memorandum using feedback from the TAC and EPC meetings. The OneWatershed Framework Approach Memorandum will describe the data, statewide guidance, local plans, and other frameworks (e.g., infrastructure risk register approaches) that will be used to develop the OneWatershed Framework. The Geosyntec Team will distribute the draft OneWatershed Framework Approach to the PMT, TAC, and EPC, compile comments, and create the final OneWatershed Framework Approach memorandum.

#### Assumptions:

- 1. Refer to Task 1.1 for assumptions relating to Geosyntec Team and Climate Resilient Communities engagement meeting support.
- If Climate Resilient Communities and other PMT members would like to hold a second data collection, inventory creation, and vulnerability/risk analysis EPC meeting, it is assumed that Climate Resilient Communities or other PMT members would facilitate/host, present, and guide discussion during this meeting. Geosyntec Team members could attend and take notes.

#### **Deliverables:**

- 1. Develop presentation (based on Inventory Slidedoc) and agenda package including online GIS map viewer link, schedule, facilitate/present, and take notes for one 1.5-hour virtual TAC meeting.
- 2. Develop presentation, provide online GIS map viewer link, present, and take notes for one 1.5-hour virtual or hybrid EPC meeting.
- 3. Draft OneWatershed Framework Memorandum, compiled comments from PMT, TAC, and EPC, Final OneWatershed Framework Memorandum.

### Task 3 – Countywide OneWatershed Framework

Using the approach outlined in the Task 2.3 memorandum, the Geosyntec Team will develop the OneWatershed Framework. The Framework will follow guidance provided in the California Adaptation Planning Guide, see right (Governor's Office of Emergency Services, 2020) and will also be informed by the Geosyntec Team's experience developing water infrastructure risk registers and conducting impact analyses for Sea Level Rise Adaptation Plans. The Geosyntec Team will describe the Framework in a Report and will implement the Framework through updates to C/CAG's GI Tracking Tool to incorporate the OneWatershed Dashboard. A slidedoc user guide will be developed to describe how to use the Dashboard to apply the OneWatershed Framework to a target subwatershed area.



#### Task 3.1 OneWatershed Infrastructure Shared-risk Analysis

The OneWatershed Framework will first describe metrics for evaluating the County-wide climate-related "shared risk" or risk exposure of OneWatershed assets using the data compiled through Task 2. The metrics will include:

- The climate impact drivers, including sea level rise, extreme precipitation, heat, and hydrologic drought;
- The resulting risk factors and the magnitude of impact, for example, flooding, heat impacts, water supply shortage, water quality impacts (up to ten climate risk factors for which data is available); and
- The probability of impact, using available existing studies.

The OneWatershed Framework will present an approach to use the Task 2 base GIS data to compile metrics that are used to evaluate climate shared risk Countywide. The metrics will be used to identify how many climate impact driver risk factors are present for a given OneWatershed asset location, the relative magnitude of the risks present, for example, depth of flooding or projected temperature increase; and the probability of impact, for example, 1% annual probability or 5% annual probability, using available studies. As the probability of impact may change depending on the climate scenario and timeframe, up to three different future climate conditions may be examined or reanalyzed for the shared-risk assessment, depending on the base climate risk data.

The result may look as follows for an individual OneWatershed infrastructure asset (note that climate impact drivers/risk factors and metric scales are subject to change):

<b>Climate Impact Driver</b>	<b>Risk Factor</b>	Magnitude of Impact	Probability of Impact
Sea Level Rise	Present	Low	Low
Extreme Precipitation	Present	Moderate	High
Extreme Heat	Present	Moderate	Low
Hydrologic drought	Present	Low	Low

For example, for water supply assets, the approach would examine the potential magnitude of shortages (i.e., demand for water exceeding available supply) caused by climate risk factors due to short-term disruptions (e.g., intense storms and/or flooding, which have a current and future projected probability of

occurrence) as well as long-term changes in water supply availability (e.g., due to climate change caused drought).

A draft OneWatershed Framework Report Section describing the shared risk analysis approach will be distributed to the PMT for review. Comments received from the PMT will be addressed in the Task 3.2 OneWatershed Framework Report. The shared-risk analysis methodology will be integrated into the OneWatershed Dashboard in C/CAG's GI Tracking Tool (https://web.paradigmh2o.com/smc-gi/map) and the Countywide shared-risk analysis will be completed as part of Task 3.3.



#### Assumptions:

1. Climate Resilient Communities will provide input on how the metrics are weighted to develop an overall risk score for OneWatershed infrastructure assets. Climate Resilient Communities will base this input on EPC and CCC feedback.

#### Deliverables:

1. Draft OneWatershed Framework Report Section describing the shared risk analysis approach.

#### Task 3.2 OneWatershed Framework Development and Report

Using the California Adaptation Planning Guide recommended approach, the OneWatershed Framework will describe how OneWatershed Infrastructure asset vulnerability will be established through identifying potential community impacts (by combining community risk exposure identified through Task 3.1 and community sensitivity) and considering community adaptive capacity. It is assumed that community sensitivity, community impacts, and adaptive capacity would be developed at the watershed scale through detailed analyses and a Climate Vulnerability Analysis or similar approach that involves a high level of engagement with residents, businesses, and other stakeholders.

Example impacts could include infrastructure or property damage, human health risks (e.g., lack of refillable water stations at a park during high heat event, stagnant water causing vector concerns), vegetation loss, or other economic impacts (e.g., loss of transportation route due to flooding, inability for residents to get to work due to flooding).

The OneWatershed Framework would also describe potential processes to identify climate vulnerability mitigation measures, or OneWatershed Framework Climate Resilience projects, that could address climate-related impacts. Given regulatory requirements and funding constraints for County jurisdictions, the OneWatershed Framework approaches for identifying projects, policies, or programs should include defining whether the projects could meet regulatory requirements or receive funding. The OneWatershed Framework could consider funding options such as the Regional Collaborative Program (i.e., by generating units of exchange), grant opportunities, or incorporating projects into funded capital improvement program projects.

The draft OneWatershed Framework Report will be distributed to the PMT, TAC, EPC, and CCC and



presented in one meeting with the TAC and one meeting with the EPC. Comments from the PMT, TAC, EPC, and CCC will be compiled in a comment log and addressed in the Final OneWatershed Framework Report.

A slide deck presentation of the OneWatershed Framework and demonstration of the OneWatershed Dashboard, which will display the results of the countywide sharedclimate risk analysis, will be developed to guide meetings. The Geosyntec Team will lead one 1.5 hour virtual meeting with the TAC and one 1.5 hour EPC virtual meeting. The Geosyntec Team will prepare meeting summary notes for both meetings.

#### Assumptions:

1. Refer to Task 1.1 for assumptions relating to Geosyntec Team and Climate Resilient Communities engagement meeting support.

#### **Deliverables:**

- 1. Draft and Final OneWatershed Framework Report.
- 2. Presentation (slide deck) describing OneWatershed Framework.
- 3. Agenda package, schedule, facilitate/present, and take notes for one 1.5-hour virtual TAC meeting.
- 4. Present and take notes for one 1.5-hour virtual or hybrid EPC meeting.
- 5. Compiled comment log from TAC and EPC on Draft Framework.

#### Task 3.3 OneWatershed Dashboard/Visualization Tools

To support the application of a OneWatershed Framework countywide, the Geosyntec Team will develop a OneWatershed Dashboard. The Geosyntec Team will develop a memo that will outline the proposed OneWatershed Dashboard features and approach. Through memo review and discussion, the Geosyntec Team will collaborate with the PMT to create a shared vision for the OneWatershed Dashboard. The Geosyntec Team will refine the visual presentation of OneWatershed Climate Resilience data and climate impact shared-risk analysis results and identify data analysis needs to support the application of the OneWatershed Framework through the OneWatershed Dashboard. The memo will propose a format for any new data forms that may be required for inputs.

As the developers of the GI Tracking Tool, Geosyntec Team member Paradigm has an in-depth understanding of the current system's open-source technology, functionalities, limitations, and potential for expanded capabilities that will be critical to ensuring OneWatershed datasets are effectively integrated into the tool. Paradigm is currently supporting C/CAG in the development of a GI Tracking Tool Workplan, which charts out how the tool will be updated over the next several years. The GI Tracking Tool asset management features can be developed to simultaneously address asset management for OneWatershed infrastructure.

After the approach has been refined with the PMT, the Geosyntec Team will begin development of the OneWatershed Dashboard, which will be hosted within the GI Tracking Tool. To streamline development and review, the Dashboard will be delivered in three versions: a partially functioning, a draft, and a final version. The partially functioning version of the tool will have a functional user interface but will not be connected to the database inventory developed in Task 2.2. Instead, sample data may be used. This version will be shared with the PMT to receive early feedback on execution of the vision and to identify refinements to the updates outlined in the memo. Refinements based on this early feedback will be integrated into the draft OneWatershed Dashboard, which will be connected to the database inventory.

### Countywide OneWatershed Infrastructure Risk Exposure



The OneWatershed Dashboard will include automated data processing to estimate OneWatershed Infrastructure asset climate shared-risk using the method developed through Task 3.1. Climate shared-risk exposure results for Countywide

OneWatershed Infrastructure assets will be calculated using this automated process and displayed in the OneWatershed Dashboard. Results can also be visualized through various chart types, summarized by

filters (e.g., jurisdiction, watershed, neighborhoods, receiving water), and exported into spreadsheet format.

The OneWatershed Climate Resilience data inventory and geospatial results of the Countywide climate impact shared-risk analysis will be displayed in the OneWatershed Dashboard. The draft Dashboard will be presented to the PMT, TAC, EPC, and CCC for their input and/or testing. The final version will address comments that arise during the review of the draft version. A brief Slidedoc user guide will be developed to describe the OneWatershed Dashboard functions.

#### Assumptions:

- 1. Planned features will be documented in the Approach Memo and reviewed by the PMT before the development of the OneWatershed Dashboard features.
- A partially functioning version of the dashboard features will be used to collect early feedback from the PMT on the visualization and general user experience of the tool. This version will feature a mostly completed user interface (front-end) using sample data, but will not be connected to the database inventory (back-end).
- 3. The draft and final versions of the OneWatershed Dashboard features will have a fully functional frontend and back-end.

#### Deliverables:

- 1. OneWatershed Dashboard Approach Memo
- 2. Partially functioning, draft, and final OneWatershed Dashboard for visualizing ranked project opportunities, building on C/CAG's existing GI Tracking Tool
- 3. Brief slidedoc user guide for new OneWatershed visualization tools
- 4. Geospatial results of Countywide shared-risk assessment

### Task 4 San Bruno Creek OneWatershed Climate Resilience Plan (Community Led Plan)

### Task 4.1 Adaptive Capacity Evaluation

The Geosyntec Team will support Climate Resilient Communities to conduct an adaptive capacity evaluation for the San Bruno Creek watershed. The work completed through Tasks 2 and 3 will provide information about community OneWater infrastructure shared risk exposure to climate impacts. It is assumed that Climate Resilient Communities will use a Community Vulnerability Assessment approach examine the community sensitivity, or characteristics that could make the community susceptible to climate hazards, potential climate impacts, or the effects based on the risk exposure and sensitivity, and the adaptive capacity, or the mechanisms, resources, assets, institutions, or relationships that the community has to avoid minimize or cope with the negative



community has to avoid, minimize, or cope with the negative effects of climate risks.

The Geosyntec Team will work with Climate Resilient Communities to develop methods to gather, document, and/or translate sensitivity and adaptive capacity identified through the Community Vulnerability Assessment to inform OneWatershed Infrastructure vulnerability. The Geosyntec Team will conduct one brainstorming session to discuss these methods and document them in a memorandum, which will also describe how the Geosyntec Team will incorporate results of the Community Vulnerability 49 of 66 Assessment into the OneWatershed Framework application to San Bruno Creek Watershed to prioritize vulnerable OneWatershed Infrastructure assets. It is anticipated that a CCC meeting and the Task 4.7 community workshops will be used to gather information to complete the Community Vulnerability Assessment.

Hydrologic & Hydraulic modeling data in the watershed will be reviewed by the Geosyntec Team to determine how additional modeling data may be integrated into the Community-Led Plan. Geosyntec Team member Paradigm has completed extensive hydrologic modeling countywide for various climate scenarios through the development of the Countywide RAA and SSMP. The Geosyntec Team will incorporate existing H&H model results into the community-led plan where it may inform the vulnerability of specific OneWatershed Infrastructure assets. Some of this data may also be compiled as part of Task 2 and incorporated into the risk analysis. If water supply is considered to be a major threat in the watershed, Geosyntec Team member Hazen could run a Water Supply Systems Model for specific scenarios. This is an existing BAWSCA product and running the model would need to be budgeted separately. If included, the memorandum would describe the Water Supply Systems Model and the Model would be run for Task 4.2.

#### Assumptions:

 Climate Resilient Communities will gather community input and other data to inform community sensitivity and adaptive capacity, complete the Community Vulnerability Assessment to measure vulnerability, and author the Adaptive Capacity Evaluation Results write up or presentation for the San Bruno Creek watershed community.

#### **Deliverables:**

- 1. Brainstorming session with Climate Resilient Communities.
- 2. Brief Memorandum describing how the San Bruno Creek Community Vulnerability Assessment outcomes will be incorporated into the pilot OneWatershed Framework application using the OneWatershed Framework approach.

#### Task 4.2 Apply OneWatershed Framework to San Bruno Creek Watershed

Using the approach described in the memorandum produced as part of Task 4.1, the Geosyntec Team will complete the OneWatershed Framework pilot application for the San Bruno Creek watershed. The Community

Community Prioritized Vulnerable OneWatershed Infastructure



Vulnerability Assessment will be combined with the results of the Countywide shared-risk assessment to identify the OneWatershed Infrastructure assets that are most vulnerable in the San Bruno Creek watershed. The results will be displayed within the OneWatershed Dashboard, along with the watershed-specific climate shared-risk analysis results. The results will be summarized in a brief Slidedoc.

To inform potential mitigation measures, available infrastructure plans within the watershed, such as the City of San Bruno's GI Plan (which was supported by Geosyntec Team member Paradigm), will also be compiled and displayed in the OneWatershed Dashboard.

The results of the combined OneWatershed Framework application to the San Bruno Creek Watershed will be presented to the CCC, who will also be asked to select or brainstorm potential mitigation measures. This meeting is discussed further in Task 4.6.

#### Deliverables:

- 1. Results of OneWatershed Framework application to the San Bruno Creek watershed displayed in the OneWatershed Dashboard.
- 2. Brief Slidedoc showing results of OneWatershed Framework application.
- 3. (Optional Deliverable) Water Supply Systems Modeling

#### Task 4.3 Project Opportunity/Policy/Program Developments

Using input from the CCC regarding prioritizing vulnerable OneWatershed Infrastructure assets and communityidentified potential mitigation measures, the Geosyntec Team would



develop brief 1-paragraph descriptions for up to 10 project, policy, or program opportunities in the San Bruno Creek Watershed and a GIS storymap of the prioritized opportunities for initial review by the PMT. The descriptions would include details such as the location of proposed infrastructure, the potential agency or organization that would lead a program, or other specifics, and will be informed by existing plans (City of San Bruno CIP plans, City of San Bruno GI plan, City of San Bruno Walk n' Bike Plan, Storm Drain Master Plan, relevant specific plan(s), the San Bruno/Colma Creek Resiliency Study, Countywide plans, Regional Collaborative Program). The types of projects, policies, or programs represented could include but would not be limited to:

- Remedy poor drainage areas through low impact development site design or multi-benefit stormwater capture projects (also referred to as green stormwater infrastructure) and/or "grey" drainage upgrades, including consideration of other community, environmental, or water supply co-benefits that could be provided;
- Install refillable water stations at community centers, parks, or other public areas;
- Provide more opportunities for community education around climate impacts and climate resilience through permanent signage and/or programs;
- Tools for quickly informing local government of flood or climate impact damage; or
- Plans for rehabilitating infrastructure damaged from flooding so the asset can get back online more quickly and/or updating maintenance systems.

After incorporating suggestions from the PMT, the Geosyntec Team will present the draft descriptions in an interactive meeting for the CCC to propose edits to the project descriptions to better align with community needs and vision. The CCC meeting would also be designed to select one multi-benefit green stormwater infrastructure project to move forward to concept design. The deliverables for this CCC meeting are included in Task 4.6. The Geosyntec Team would produce a final GIS storymap and project, program, or policy updates following input from the CCC.

#### **Deliverables:**

1. Draft and Final top 10 project, program, or policy descriptions, GIS story map, and display on OneWatershed Dashboard.

#### Task 4.4 San Bruno Creek OneWatershed Climate Resilience Plan

The Geosyntec Team will draft the San Bruno Creek OneWatershed Climate Resilience Plan as part of Task 4.4. The outputs from Tasks 4.1, 4.2, and 4.3 will be compiled along with the notes and documentation from the Task 4.6 CCC meetings. The Plan will describe the community-led process for applying the OneWatershed Framework at the watershed scale through combining the Climate Resilient Communities

Community Vulnerability Assessment with the shared-risk results, gaining input from Community members on the priorities for vulnerable OneWatershed Infrastructure assets and potential mitigation measures, developing project descriptions with the community, and selecting one project for concept design.

The draft Climate Resilience Plan will be presented in a CCC meeting to obtain community input on the Plan. Details of this CCC meeting are included in Task 4.6. The Climate Resilience Plan will be distributed to the PMT, TAC, EPC, and CCC for input. Using input received, the Geosyntec Team will finalize the Climate Resilience Plan. The final Climate Resilience Plan will be presented in workshops conducted for Task 4.7.

#### Deliverables:

- 1. Draft and Final San Bruno Creek OneWatershed Climate Resilience Plan.
- 2. Results of the San Bruno Creek OneWatershed Climate Resilience Plan displayed in the OneWatershed Dashboard.

#### Task 4.5 San Bruno Creek OneWatershed Project Concept Design

The Geosyntec Team will prepare a draft concept design, 1-page fact sheet, including a description of the proposed project and potential climate resilience and co-benefits achieved, high-level cost based on acretreated cost formulas, and visual isometric rendering for the top selected multi-benefit green stormwater infrastructure project, identified through CCC meeting #5. The draft concept design will be presented to the CCC through CCC meeting #6 using a design charette type approach, by providing up to three slightlymodified versions of the same project plan view concept. This will enable interactive input from the community on the preferred concept design for the project. The concept design will also be distributed to the PMT and TAC for input. Using this input, the Geosytnec Team will finalize the OneWatershed Project concept design. The final concept design will be described in the final Climate Resilience Plan.

#### **Deliverables:**

1. Draft and Final San Bruno Creek OneWatershed Concept Design.

#### Task 4.6 CCC Team Meetings

The Geosyntec Team will support CCC meetings. The Geosyntec Team would take an active role in five CCC meetings, either through presenting or participating in interactive decision-making led by the community. The Geosyntec Team understands that Climate Resilient Communities may want to hold other separate CCC meetings, and Geosyntec Team staff could support up to 15 additional meetings through attendance and note-taking. The suggested meetings that the Geosyntec Team would take an active role in are provided in the table below.

CCC Meeting	Date	Торіс
1	May 2024	Project Introduction, Data Inventory, and Risk Analysis Summary
2	Nov 2024	OneWatershed Framework, Dashboard, and Risk Analysis Results for San Bruno Creek Watershed, Introduction for Community Vulnerability Assessment
3	Mar 2025	Results of OneWatershed Framework Application and Potential Mitigation Measures
4	Jun 2025	Top Ten OneWatershed Climate Resilience Project Opportunities

5	Oct 2025	Climate Resilience Plan and OneWatershed Climate Resilience Project Concept

The Geosyntec Team could provide additional full support for CCC meetings for additional budget. This is provided as an optional deliverable item if budget could be moved or reallocated.

#### Assumptions:

- 1. Refer to Task 1.1 for assumptions relating to Geosyntec Team and Climate Resilient Communities engagement meeting support.
- 2. For the up to 14 additional CCC meetings held by Climate Resilient Communities, the Geosyntec Team will attend the meeting and deliver notes only.

#### **Deliverables:**

- 1. Assistance with agenda development and material preparation, presenting, active participation, and note-taking for seven CCC meetings.
- 2. Attendance at and note-taking for up to 14 additional CCC meetings.
- 3. Optional Deliverable: Additional CCC meeting(s), including assistance with agenda development and material preparation, presenting, active participation, and note-taking for seven CCC meetings.

#### Task 4.7 Workshops

The Geosyntec Team will support Climate Resilient Communities with four interactive Community Workshops supporting the San Bruno Creek OneWatershed Climate Resilience Plan. The Geosyntec Team assumes that these workshops would be held at community center venues where community members regularly gather and be mono-lingual, with language used depending on the community center.

Two workshops would be held in support of Climate Resilient Communities Community Vulnerability Assessment. These workshops would listen to lived experiences and obtain community input related to:

- community sensitivity, or features that could make the community susceptible to climate hazards,
- potential climate impacts, or effects of climate risk exposure, considering community sensitivity, and
- the adaptive capacity, or the mechanisms, resources, assets, institutions, or relationships that the community has to avoid, minimize, or cope with the negative effects of climate risks.

Additionally, two workshops would be held at the same venues at the conclusion of the project to circle back with community members and present the results of the San Bruno Creek OneWatershed Climate Resilience Plan and next steps in the process including further opportunities for community involvement. Geosyntec Team staff could support up to two additional workshops through attendance and note-taking.

The Geosyntec Team could provide additional full support for Workshops for additional budget. This is provided as an optional budget item if budget could be moved or reallocated.

#### Assumptions:

1. Refer to Task 1.1 for assumptions relating to Geosyntec Team and Climate Resilient Communities engagement meeting support.

#### Deliverables:

- 1. Assistance with agenda, visually appealing and/or interactive meeting materials, short presentations, and note-taking for the six workshops.
- 2. Attendance and note-taking at two additional workshops.

3. Optional Deliverable: Additional Workshop(s), including assistance with agenda development and material preparation, presenting, active participation, and note-taking for seven CCC meetings.

### Task 5 – Administration and Follow-Up

#### **Task 5.1 Implementation Grant Application Support**

Given the recent encouragement from NOAA to submit a full application, and C/CAG's regionally collaborative OneWatershed Climate Resilience vision, the Geosyntec Team believes San Mateo County is an excellent candidate for the Inflation Reduction Act: NOAA Climate Resilience Regional Challenge funding. Development of the full application will require submittal of federal forms, and the development of the following application components: 1) project summary, 2) project narrative, 3) budget narrative, 4) supplemental materials/appendices, and 5) letters of support and collaboration. For C/CAG's NOAA Climate Resilience Regional Challenge grant application development, we have assembled a grant development team that includes content experts for climate resilience, extensive public engagement and partnership experience, technical writers, and grant specialists with decades of federal/state funding expertise. We can provide leadership and work flexibly with the PMT to develop the grant application.

Geosyntec Team grant specialists and technical leads will kick off the grant application task through a call with the PMT and other partners, focused on developing a framework for the NOAA grant's technical requirements and commitments, grant approach and vision, partnership and collaboration, and document/data requirements and requests. The Geosyntec Team will then review previous related NOAA grant submittals, and summarize C/CAG and partners existing resilience work and successes, planning studies, related programs, financial tools and leveraged resources, incentives, and equity approach. We will look for specific opportunities to create an application that meets NOAA's stated goals and priorities to catalyze equitable adaptation through regional scale collaboration and implementation of adaptation actions that will reduce future damage from weather and climate impacts. We will also review the NOAA debrief of the submitted LOI to ensure that the grant application addresses NOAA's feedback.

The Geosyntec Team will develop a PMT-approved and administratively compliant budget and schedule for eligible grant activities that will maximize benefit to the regional partners. The Geosyntec Team will work with the PMT and partners to develop a community outreach and engagement strategy for the grant-funded work that is inclusive and responsive to the community's need, anticipated benefits, and outcomes. We will establish the equity components and community benefits of the proposed grant funded program and seek support letters for the submittal.

The Geosyntec Team will conduct three additional coordination meetings (after the project kick-off meeting) and e-mail coordination through the course of the grant application process to work through any outstanding data gaps or information needs. Once the draft application is complete, we will provide a copy to the PMT and partners for timely review and completion of the required federal forms. The grant application is required to be submitted through Grants.gov.

#### Assumptions:

- 1. Four one-hour meetings (including kick-off) will be held with the PMT and project parnters.
- 2. PMT and/or project partners will assist with non-technical required forms and provide data and studies relevant to proposed activities.

#### **Deliverables:**

- 1. Grant Task Kick-Off Meeting.
- 2. Brief framework describing requirements, vision, and schedule for completing application for NOAA Regional Resilience Challenge Grant.

3. Draft/Final NOAA Regional Resilience Challenge Grant with required components.

### Task 5.2 Project Management and Administration

The Geosyntec Team will support C/CAG with grant reporting and documentation requirements as required by the OPR Grant Agreement, Appendix B, including quarterly grant reporting, mid-term progress reports tracking the work completed during the first half of the Grant Term and providing information consistent with the OPR Grant Agreement, and the final grant report. The Geosyntec Team provides monthly invoices and progress reports consistent with C/CAG's invoicing format and OPR's format, including documentation of work performed and how the work relates to the deliverables outlined in the work plan, the total budget spent categorized by cost category and tasks corresponding to the grant budget detail worksheet. The Geosyntec Team will also host monthly virtual PMT meetings, and project Kick-Off meeting with the PMT.

### Deliverables:

- 1. Kick-Off Meeting Agenda, Facilitation, Notes.
- 2. Quarterly Grant Reporting, Invoicing and Progress Reports, Mid-Term Progress Report.
- 3. Up to Twenty-four (24) monthly 1-hour PMT meetings, including e-mailed agendas and brief e-mailed meeting summaries.
- 4. Draft and Final Grant Report.

### Task 6 – Optional NOAA Climate Resilience Regional Challenge Grant Support

The Geosyntec Team understands that the NOAA Climate Resilience Regional Challenge is an extremely competitive grant program and does not presume any outcome from the Grant Application. The Geosyntec Team is aware, however, that if awarded, C/CAG will have a considerable load of grant administration and other tasks that will need to be accomplished in a short turnaround time. We have assembled an impressive team of experts with experience in most of the service areas that are likely to be needed if a NOAA Climate Resilience Regional Challenge Grant is awarded, including but not limited to grant administration and reporting, project management, multi-benefit stormwater capture facility and OneWater infrastructure planning, pre-design studies, permitting, and design, community outreach, applying the OneWatershed Climate Resilience Framework to other regions of the County, Regional Collaborative Program development, and GI Tracking Tool development. The Geosyntec Team is providing this optional NOAA Climate Resilience Regional Challenge Grant Support Task that C/CAG could utilize for Grant tasks you select if your procurement rules allow and if we have sufficiently demonstrated our qualifications to complete those tasks through this proposal.

### Assumptions:

1. A detailed scope of work would be developed if C/CAG elects to contract for this optional task.

#### **Deliverables:**

2. NOAA Climate Resilience Regional Challenge Grant Support

### **Staffing Plan**

Geosyntec Consultants, Inc., and our partners Paradigm Environmental, Hazen and Sawyer, EOA, Inc., Julia Schmitt of Carollo, and Craig Communications (Geosyntec Team) represent a curated group of experts specifically identified to deliver the C/CAG OneWatershed Project.



LEGEND 1 Hazen and Sawyer 2 Paradigm Environmental 3 EOA 4 Craig Communications 5 Carollo Geosyntec staff do not have superscripts Geosyntec Consultants, Inc.

#### Kelly Havens, PE | Project Manager

Ms. Havens is a Professional Engineer (CA) with over 15 years of experience leading multi-benefit integrated water resources, green stormwater infrastructure, and climate resilience projects. She has led dozens of technical advisory committee meetings and stakeholder workshops and has coordinated with CBO partners on stormwater infrastructure implementation projects. She has assisted clients with successful state and federal grant applications and has detailed familiarity with innovative regional stormwater funding approaches. She leads projects focused on climate risk to assets. She was the consultant lead for the C/CAG's Advancing Regional Stormwater Projects White Paper, C/CAG's Regional Collaborative Program development, and C/CAG's successful NOAA Climate Resilience Challenge letter of intent. A proven project manager, Ms. Havens has coordinated large multi-consultant teams on projects with strict schedules and budgets, including those with state and federal grant reporting requirements.

#### Ken Susilo, PE, D.WRE | Project Director

Mr. Susilo has over 30 years of experience (including 10 years in the Bay Area) and manages Geosyntec's California Water Resources group. In this capacity, he is leading the firm's One Water initiative, which

addresses stormwater, water supply, water treatment, recycling and reuse throughout the Western United States. He is serving as the Project Director for the San Diego County Regional Water Equity effort, which directly addresses climate impacts on water reliability evaluating ESG and economic factors. He has conducted multi-element, quantitative risk register analyses for a \$20 million green infrastructure planning and project delivery effort in disadvantaged communities facing local drought and urban heat island impacts. He acted as technical advisor for the LA River Master Plan project.

#### Megan Otto, PE, QSP/QSD | OneWatershed Framework

Megan Otto is a Senior Engineer with over 16 years of experience in green stormwater infrastructure planning, stormwater engineering feasibility studies, water equity analysis, hydrologic and hydraulic modeling, stormwater and urban runoff monitoring and reporting, and watershed planning, including interagency cooperation and community outreach. Notable project work includes the current Regional Drought Assessment and Water Equity Report for the County of San Diego, and the prioritization of multi-benefit green infrastructure opportunities along San Diego County roadways (Green Streets Clean Water Plan) and at Orange County facilities.

#### Al Preston, PhD, PE | OneWatershed Framework

Dr. Al Preston is a Principal Engineer with 18 years of experience in hydrology and hydraulics modeling. He specializes in developing and applying analytical techniques and numerical models to complex water resource problems including assessments of climate change effects on stormwater infrastructure, reservoir supplies and water quality, and watershed-scale impacts.

#### Lisa Welsh, PhD | OneWatershed Climate Resilience Plan

Lisa Welsh, PhD, has over 10 years of experience in environmental consulting. She applies her technical background in geoscience to water resources, water quality monitoring, and stormwater management projects. She is experienced in coordinating water quality monitoring programs, green stormwater infrastructure planning projects, and municipal stormwater compliance. Lisa Manages the development of the Climate Resilience Resources Guide for the GI Leadership Exchange, and led a CBO roundtable discussing climate resilience. Lisa has an additional seven years of experience in climate change and remote sensing research and has led or contributed to more than 10 peer-reviewed publications

#### Stephanie Zinn, CPMSM | OneWatershed Climate Resilience Plan

Stephanie Zinn has 14 years of experience in stormwater regulatory compliance and assessing multi-benefit water supply solutions with a lens of equity and community needs. She has experience evaluating regional water recycling systems, groundwater aquifers, reservoir operations, stormwater management and localized on-site reuse systems. She has advised several municipal clients in Southern California to view stormwater as a resource for existing and new infrastructure to increase local water supply reliability.

#### Mike Rudd, PE | OneWatershed Climate Resilience Plan – Concept Design

Mr. Rudd is a Professional Engineer with 30 years of management and consulting experience on PS&E projects throughout the western United States. He has extensive experience managing complex environmental and civil programs involving feasibility studies, permitting, engineering design, construction, and closeout. Mr. Rudd has led conceptual through final design and/or managed construction oversight for over 25 years, including GSI, stream restoration, and water resource design projects. He led the development of the Sutter Avenue Urban Greening project.

#### Amy Dzialowski | Federal Grant Application

Ms. Dzialowski has more than 21 years of environmental planning, program funding, public-private partnership development, and stakeholder engagement experience. A nationally recognized expert in environmental and government grant programs, Amy has worked with dozens of grant funded programs

across the United States focused on environmental solutions, carbon strategies, climate resilience, community revitalization, and brownfields redevelopment. She has successfully secured more than \$70 million in grant funds for clients and brings an understanding of best practices, program approach, and partnership development.

#### Rinta Perkins, CPSWQ, QSD/QSP | Federal Grant Application

Ms.Perkins has over 20 years of leadership and technical expertise in environmental compliance, permitting processes, operations management, strategic planning, workforce development, safety, and risk management. In previous City positions, Rinta successfully secured a combined \$2.9 million in funding from various grant sources to support watershed restoration and public improvement projects. She co-managed the Greening Parking Facilities for a Sustainable Community project, with the City of Palo Alto, funded by the USEPA. Rinta is the acting program manager for the Contra Costa Clean Water Program and co-chair of the Bay Area Municipal Stormwater Collaborative.

#### Tom Amstadt, PE, CFM | Federal Grant Application

Tom Amstadt has 20 years of experience in watershed management plans, stormwater retrofits, stormwater master planning efforts, and floodplain analysis. He managed the Orlo Vista Flood Mitigation Alternatives Analysis, Grant Applications, and Engineering Design Project for Orange County The grant applications secured ~\$16 Million in Hazard Mitigation Grant Program funding from FEMA and another \$2.5 Million from Florida Department of Economic Opportunity (DEO) and United States Department of Housing and Urban Development (HUD) and involved several workshops with local low income residents.

#### Alyssa Yu, PE | Technical Support

Alyssa brings valuable experience in environmental engineering, including design and construction, field oversight, and project management. Her project experience focuses largely on planning, design, and implementation of green stormwater infrastructure (GSI) projects that are aimed to benefit disadvantaged communities, promote equity, and improve climate resilience. Alyssa is helping develop the Climate Resilience Resources Guide (CRRG).

#### Horacio Urias, PE | Technical Support

Mr. Urias has eight years of experience in civil design, green infrastructure design, creek restoration design, roadway design, drainage design, utility design/coordination, stormwater LID design, construction management, RFI/Submittal documentation, SWPPP Construction Monitoring, QA/QC management, and vendor coordination.

### Paradigm

#### Stephen Carter, PE | OneWatershed Climate Resilience Plan

Mr. Carter has more than 24 years of experience supporting federal, state, and municipal clients in the areas of sustainability, strategic planning, regulatory support, development of modeling and data-driven decision-support systems, and engineering services. Steve has a long history supporting C/CAG and San Mateo County agencies with strategic stormwater and climate change resiliency planning efforts, including supporting the RAA, the San Mateo Countywide SRP and SSMP, the GI Tracking Tool, and collaborative efforts of OneShoreline and County of San Mateo to perform hydrologic, hydraulic, and climate change modeling to support flood management planning for Colma Creek and Atherton Channel/Bayfront Canal.

#### Dustin Bambic | One Watershed Framework

Mr. Bambic is a co-founder of Paradigm with 20 years of experience in strategic planning of water resources, hydrologic analysis, infrastructure planning to demonstrate compliance with MS4 Permit requirements, and project planning and conceptual design. Supporting the San Mateo Countywide SSMP,

Dustin served as the technical lead for development of the GI Tracking Tool. Recently, Dustin has supported C/CAG with updates to the GI Tracking Tool to incorporate recent Countywide GI projects, adding new functionalities to track "greened acres" consistent with MRP 3.0, and incorporating processes for tracking and reporting progress and benefits of GI implementation within each San Mateo County watershed.

**Chris Carandang, PE, ENV SP** | Shared Risk Water Infrastructure Asset and Community Vulnerability Data Mr. Carandang is experienced in the development and implementation of infrastructure master plans, watershed management plans, and GI plans in San Mateo County and throughout California. He supporting the San Mateo Countywide SRP, SSMP, and numerous GI plans for cities (including San Bruno) and unincorporated San Mateo County. Chris has led the development of project conceptual design for the City of South San Francisco's Orange Memorial Park. Chris has continued supporting C/CAG and its member agencies with the development of additional GI project concepts (including City of San Bruno's Regional Stormwater Capture Project at I-280 and I-380) and ongoing updates to the GI Tracking Tool.

### **Hazen and Sawyer**

Luke Wang, PE | One Watershed Framework

Mr. Wang has 15 years of experience and specializes in water supply planning, operations, and demand forecasting. He is Hazen's Water Resource Management Leader for the West Region. He updated Zone 7 Water Agency's Water Supply Evaluation and led the development of Alameda County Water District's new integrated resource planning model. Luke is the project manager and lead systems modeler for BAWSCA's Regional Water Supply Reliability Model project.

Diane Roher, PE | Shared Risk Water Infrastructure Asset and Community Vulnerability Data

Ms. Roher specializes in hydrologic and groundwater modeling, and data analytics especially in regard to the analysis and design of water and wastewater treatment facilities. Her project experience and skillset include water supply modeling, infrastructure design, compliance monitoring, sample collection, and field work.

#### Lisa Hulette, PMP | Federal Grant Application

Ms. Hulette brings more than 20 years of funding leadership to Hazen. She has successfully obligated approximately \$350 million in competitive public grant and private dollars to address regional water security and conservation issues..

#### EOA

#### Jill Bicknell, PE | Technical Advisor

Ms. Bicknell is a water resources engineer and project manager who has worked in the field of stormwater management and permit compliance for nearly 30 years, specializing in assistance to NPDES-permitted municipalities with LID techniques, GSI planning, stormwater treatment, and hydromodification management. She is leading Bay Area regional efforts on GSI implementation, cost reporting, and asset management. Jill has collaborated with Geosyntec on Bay Area projects for two decades.

**Tom Hall, PhD** | Shared Risk Water Infrastructure Asset and Community Vulnerability Data Dr. Hall has over 40 years of experience in the environmental engineering field, specializing in water quality, recycled water, and NPDES permitting issues. He has managed multiple Publicly Owned Treatment Works (POTW) NPDES permit reissuance and compliance projects for San Francisco Bay area clients. He has helped POTWs document efforts to meet RWB climate resilience planning requirements.

### Carollo

#### Julia Schmitt, PE | Technical Advisor

Julia Schmitt is an environmental engineer with more than 14 years of experience managing complex water projects in California. She has managed and performed technical tasks on projects and programs involving needs assessments and alternatives analyses, conceptual engineering, policy development, risk and resilience, and planning studies for a range of water infrastructure projects, including green stormwater infrastructure, OneWater, drinking water, water reuse, and climate adaptation. Julia led the development of the OneWatershed Climate Resilience APGP grant application for C/CAG.

### **Craig Communications**

#### Tracy Craig | Outreach Lead

Tracy Craig is a leading public affairs strategist with over 30 years' experience building community consensus, fostering public dialogue, and establishing goal-oriented public coalitions. She has managed and facilitated over 1,000 public meetings; run long-term stakeholder advisory boards; and negotiated with numerous groups and organizations to find common ground and move projects ahead. She designed and implemented over 300 community relations programs for technically complex, multi-stakeholder infrastructure, construction, and transportation projects. Craig Communications has worked with Geosyntec on projects involving outreach to disadvantaged communities.

### **Project Management and Quality Control**

The Geosyntec Team main coordinator and point of contact for the Project will be Kelly Havens, PE. Kelly will apply her 15 years of experience conducting project and task management to effectively manage the project schedule and budget. Skilled in management of teams of staff and subconsultants, Kelly will utilize frequent e-mail and verbal communication with the Geosyntec Team to produce on-time and withinbudget deliverables that are consistent with Geosyntec's Corporate Quality Management Plan (QMP). Kelly will develop a Project Administration Plan that will identify and summarize task leads and key personnel, coordination meetings, client communication frequency, and a finalized budget with a detailed project schedule. Kelly will use internal milestones in the Plan to produce deliverables with adequate time for internal quality control and peer review process prior to submittal. Example projects for which Kelly has conducted similar scale coordination and management include the C/CAG Advancing Regional-Scale Stormwater Management project, Monterey Peninsula SWRP, Regional Compliance for a Sustainable Bay (i.e., RAC System) project, Contra Costa Clean Water Program Clean Watersheds for All project, City of Oakland GSI Plan and Guide and Storm Drain Master Plan, among others (see resume). Deliverable progress will be tracked using the detailed project schedule. Budget will be tracked using our project management software. Kelly has led several grant-funded projects and is familiar with the complexity, timing constraints, and funding requirements of such projects.

Geosyntec Project Director and Vice President, Ken Susilo, PE, D.WRE will have overall supervisory responsibility for the project including achieving the project scope, schedule, and budget along with providing oversight for project-specific implementation of, and compliance with, the Quality Management Plan. Ken has extensive experience acting as Project Director for projects of similar scale and magnitude for multi-jurisdictional watershed planning and OneWater projects with CBO partners.

As prescribed in Geosyntec's Corporate QMP, all projects are executed with multiple levels of quality assurance/quality control including pre-project planning tools, peer review, and senior review. Subcontractors will be required to follow similar quality control practices, and all subcontractor produced 60 of 66

deliverables will be reviewed by Geosyntec.

Geosyntec uses our project management software BST<sup>™</sup> to track and control costs and enable timely submittal of project deliverables. The percentage of advancement of each work task, expenses against that work task, and time spent to perform the work will be prepared and reviewed by the PM monthly (or more frequently, if necessary) to determine whether the project is progressing in compliance with the preapproved budget and schedule. Geosyntec will also prepare brief monthly reports on budget expended, remaining budget, work completed, remaining work to be completed, and any work not done (with explanation), submitted with invoices.

### **Managing Potential Obstacles**

Potential obstacles that could arise with this project and the proposed approach to managing these obstacles are listed below:

- 1. Communication This project involves many parties and partners with different viewpoints and prioritized needs. Frequent communication is critically important so that project partners, Climate Resilient Communities, and the Geosyntec Team can collaborate to deliver grant-required products. This will be addressed through conducting organized monthly PMT meetings with a template agenda including summary of project progress, and following these meetings with timely, clear, succinct notes on decisions and action items. Similarly, notes and action items will be developed and delivered following TAC, EPC, and CCC meetings attended by the Consultant Team. The Geosyntec Team will also help Climate Resilient Communities develop a Community Engagement Plan and meeting design framework(s) that will support effective climate resilience planning and implementation informed and led by a variety of diverse stakeholders.
- 2. Data Availability and Focus The project deliverables will ideally incorporate climate risk related data for identified climate impacts and a comprehensive database of OneWatershed infrastructure assets. Data gathering and processing can be time consuming and data gaps can remain even after substantial effort. The Geosyntec Team includes team members with a high level of familiarity with San Mateo County storm drain systems, water supply systems, and wastewater assets. This will allow for efficient compilation of substantial known data and a focus on key data gaps.
- 3. Piloting new Methods Concerns about appropriate weighting of factors may arise when developing new methods for water infrastructure planning. The Geosyntec Team will use established guidance and our extensive experience completing stakeholder-informed watershed and water infrastructure plans to develop an approach that is quantitative, transparent, and incorporates the knowledge of project partners and lived experience of community members.
- 4. Transparent Delivery of Results The methods and outcomes of the OneWatershed Framework should be readily available to the community and project partners. The OneWatershed Project will use the existing web-based GI Tracking Tool to develop a publicly-available OneWatershed Dashboard to house data, descriptions of approaches, and output from the project that will be accessible to the public.

6. Schedule of Work					2023	2024									2025										2026
Task	Subtask	Work Products	Start	End	Dec	Jan Feb	Mar	Apr	May	Jun J	ul Aug	Sep	Oct Nov	Dec	Jan	Feb N	lar A	Apr M	Vlay Jun	ı Jul	Aug	Sep	Oct No	v Dec	: Jan
	1	1 Draft Work Plan	Dec-23	B Feb-24	1																				
	1	1 Draft/Final Community Engagement Plan	Dec-23	B Feb-24	1																				
	1	2 EPC Meeting 1: Kick Off meeting and Summary Notes (Hybrid)	Mar-24	4 Mar-24	1																				
	1	2 Compiled EPC Comments on Work Plan	Feb-24	1 Mar-24	1																				
	1	3 TAC Contact List and Brief Charter	Dec-23	Feb-24	1																				
	1	3 TAC Meeting 1: Kick Off and Work Plan; Summary (Virtual)	Mar-24	4 Mar-24	1																				
	1	3 Compiled TAC Comments on Work Plan	Feb-24	4 Mar-24	1																				
	1	4 Climate Change Community Team Support	Dec-23	B Feb-24	1																				
	2	1 Data List summarizing Data Collection and Gap Analysis	Dec-23	B Mar-24	1																				
	2	2 OneWatershed Climate Resilience Geodatabase in ESRI ArcGIS	Mar-24	4 Apr-24	1																				
	2	2 Online GIS map viewer	Mar-24	4 Apr-24	1																				
	2	3 TAC/EPC Data Inventory and Risk Analysis Presentation	Mar-24	4 May-24	1																				
	2	3 TAC Workshop 2 (Virtual): Data Inventory and Approach to Risk Analysis	May-24	4 May-24	1																				
	2	3 EPC Workshop 2 (Virtual or Hybrid): Data Inventory and Approach to Risk Analysis	May-24	4 May-24	1																				
	2	3 Draft/Final OneWatershed Framework Approach Memo	Mar-24	1 Jun-24	1					_															
	2	3 Compiled Comments on OneWatershed Framework Approach Memo	May-24	1 Jun-24	1																				
	3	1 OneWatershed Framework Report Section Describing Shared-Risk Approach	May-24	1 Jul-24	1																				
	3	2 Draft OneWatershed Framework Report	May-24	1 Oct-24	1																				
	3	2 OneWatershed Framework Presentation	Oct-24	1 Oct-24	1																				
	3	2 TAC Workshop 3 (Virtual): OneWatershed Framework, OneWatershed Dashboard, and Countywide Shared-Risk Results	Oct-24	1 Nov-24	1																				
	3	2 EPC Workshop 3 (Hybrid): OneWatershed Framework, OneWatershed Dashboard, and Countywide Shared-Risk Results	Oct-24	1 Nov-24	1																				
	3	2 Compiled Comments on OneWatershed Framework Report	Nov-24	1 Dec-24	1																				
	3	2 Final OneWatershed Framework Report	Dec-24	4 Jan-25	5																				
	3	3 OneWatershed Dashboard Memo	Mar-24	4 May-24	1				_																
	3	3 Partially functioning OneWatershed Dashboard (present to PMT)	May-24	4 Aug-24	1				_																
	3	3 Geospatial Results	May-24	4 Oct-24	1				_																
	3	3 Draft OneWatershed Dashboard	May-24	4 Oct-24	1					- <b>1</b> - 1															
	3	3 Final OneWatershed Dashboard	Oct-24	4 Jan-25	5																				
	4	1 San Bruno Creek Community Vulnerability Assessment completed by CRC	Sep-24	4 Jan-00	)										_										
	4	1 Brainstorming Session and Notes with CRC	Jan-25	5 Jan-25	5										_										
	4	1 Memo describing incorporation of San Bruno Creek Community Vulnerability Assessment into OneWatershed Framework Application	Jan-25	5 Feb-2	5																				
	4	2 San Bruno Creek OneWatershed Framework Application Results Displayed in OneWatershed Dashboard	Feb-25	5 Mar-25	5											_									
	4	3 Draft/Final top 10 project, program, or policy descriptions, GIS Story Map, Display in OneWatershed Dashboard	Mar-25	5 Aug-25	5																				
	4	4 Draft/Final San Bruno Creek OneWatershed Climate Resilience Plan	Jan-25	5 Dec-25	5										_										
	4	5 Draft/Final Concept Design	Aug-25	5 Dec-25	5																				
	4	6 Support CCC Meetings	Feb-24	1 Dec-25	5				1		1														
	4	7 Three Community Workshops supporting Community Vulnerability Assessment	Oct-24	4 Jan-25	5																				
	4	7 Three Community Workshops summarizing San Bruno Creek OneWatershed Climate Resilience Plan	Nov-25	5 Jan-26	5																				
	5	1 NOAA Climate Resilience Regional Challenge Grant Application Support	Dec-23	3 Feb-24	<u>+</u>																				
	5	2 Project Kick-Off Meeting	Dec-23	B Dec-23	3																				
	5	2 APGP Grant Progress Reports (8)	Dec-23	3 Jan-26	5																				
	5	2 PMT monthly meeting agendas and summaries	Jan-24	Jan-26	5	_	_												1	1					
	5	2 APGP Final Grant Report	Nov-25	5 Jan-26	5																				

# 7. Cost Proposal

The Geosyntec Team's cost proposal includes a formatted cost summary, a detailed cost summary, and discussion as required in the RFP, below.

### **Cost Control and Budgeting Methodology**

Cost control requires rigorous planning, tracking, and communication. The budget was developed based on Geosyntec Team Members' experience completing similar tasks for dozens of comparable projects and includes reasonable estimates of time required to develop innovative technical deliverables. During the project, project manager Kelly Havens, P.E., will provide detailed expectations of cost expended per subtask and deliverable to staff and subconsultants to complete work assignments. This allows staff to adjust their effort spent to match the budget, while meeting the deliverable requirements.

This project is ambitious, innovative, and exciting, and the Geosyntec Team understands that there may be desire by the PMT or other partners to expand on certain work products or ideas. Part of the Geosyntec Team project manager's job is to set expectations with project partners on what can be accomplished. We will be open-minded to innovative approaches, display of data, and communication of ideas in work products, but we will be clear with PMT and project partners about which suggestions can be completed within the available budget and which cannot.

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Effective community meetings and workshops with technical information transfer require considerable planning, design, logistical considerations, and staff presence to properly execute. Our budget is reflective of the required labor effort to complete these meetings, and costs have been developed based on decades of experience with successful, well-attended stakeholder outreach meetings designed by our outreach consultant, Craig Communications, and technical Team Members experience preparing materials and presentations for outreach meetings for dozens of projects. We understand that more community meetings may be desired and can support these additional meetings through attendance and note taking, or through additional budget diverted from elsewhere. We have included a \$200 cap per meeting for "logistical activities" associated with the in-person meetings included in our proposal and welcome the opportunity to further discuss and negotiate these costs.

Please note that all consultants have included fully loaded rates, inclusive of all applicable surcharges such as taxes, insurance, and fringe benefits as well as any allowable indirect costs, overhead and profit allowance, and ordinary materials and supplies. Geosyntec overhead subcontractor markup costs are also included.

Our current budget reflects the following breakdown of budget:

# By Grant Cost Description:

Grant Cost Description	Total
Consultant Engagement	\$94,275
Data Analysis and Framework	\$122,045
Project Administration	\$65,643
Project Deliverables	\$142,285
Project Total	\$424,248

# By Fiscal Year:

Fiscal Year	Total
23/24	\$109,892
24/25	\$210,836
25/26	\$103 <i>,</i> 520
Grand Total	\$424,248

Subtack			ne	Consultant		Other	Total
Number	Work Products / Deliverables	Start	End	Labor	Overhead	Direct	Project Costs
Task 1				00515		00515	00515
1.1	Draft/Final Project Work Plan and Compiled Comments	Dec-23	Feb-24	\$3.431	\$89		\$3.520
1.1	Draft/Final Community Engagement Plan	Dec-23	Feb-24	\$5.502	\$397		\$5.899
1.2	EPC Meeting 1: Kick Off meeting and Summary Notes (Hybrid)	Mar-24	Mar-24	\$3,266	\$114		\$3,380
1.3	TAC Contact List and Brief Charter	Dec-23	Feb-24	\$2,486	\$95		\$2,581
1.3	TAC Meeting 1: Kick Off and Work Plan; Summary (Virtual)	Mar-24	Mar-24	\$3,271	\$89		\$3,360
1.4	Climate Change Community Team Support	Dec-23	Feb-24	\$1,456	\$95		\$1,551
		Task 1	Subtotal				\$20,290
Task 2							
2.1	Data List summarizing Data Collection and Gap Analysis	Dec-23	Mar-24	\$20,696	\$1,569		\$22,265
	OneWatershed Climate Resilience Geodatabase in ESRI	Mar-24	Apr-24	\$8.970	\$666		\$9.636
2.2	ArcGIS			ψ0,570	\$000		\$5,000
2.2	Online GIS map viewer	Mar-24	Apr-24	\$3,740	\$278		\$4,018
2.3	TAC Workshop 2 (Virtual): Data Inventory and Risk Analysis	May-24	May-24	\$5,147	\$184		\$5,331
2.3	EPC Workshop 2 (Virtual or Hybrid): Data Inventory and Risk	May-24	May-24	\$5,137	\$264		\$5,401
2.3	Draft/Final Framework Approach Memo and Comments	Mar-24	Jun-24	\$5,531	\$221		\$5,752
		Task 2	Subtotal				\$52,402
Task 3				r .			
3.1	OneWatershed Framework Report - Shared-Risk Approach	May-24	Jul-24	\$10,236	\$342		\$10,578
3.2	Draft/Final OneWatershed Framework Report and Comments	May-24	Oct-24	\$17,342	\$325		\$17,667
3.2	OneWatershed Framework Presentation	Oct-24	Oct-24	\$3,620	\$0		\$3,620
	TAC Workshop 3 (Virtual): OneWatershed Framework,	$Oct_2/4$	Nov-24	\$6.937	\$207		\$7.234
3.2	OneWatershed Dashboard, and Shared-Risk Results	001-24	1100-24	ψ0,957	ψ231		ψ1,234
	EPC Workshop 3 (Hybrid): OneWatershed Framework,	Oct-24	Nov-24	\$6 723	\$330		\$7.053
3.2	OneWatershed Dashboard, and Shared-Risk Results	000 24	1107 24	ψ0,720	<b>\$550</b>		Ψ1,000
3.3	OneWatershed Dashboard Memo	Mar-24	May-24	\$12,055	\$809		\$12,864
3.3	Partially functioning OneWatershed Dashboard (to PMT)	May-24	Aug-24	\$38,716	\$3,076		\$41,792
3.3	Draft OneWatershed Dashboard and Shared Risk Results	May-24	Oct-24	\$31,765	\$2,382		\$34,147
3.3	Final OneWatershed Dashboard	Oct-24	Jan-25	\$23,540	\$1,831		\$25,371
3.3	Brief Slidedoc User Guide	Oct-24	Jan-25	\$3,556	\$241		\$3,797
		Task 3	Subtotal				\$164,122

Subtack			me	Consultant		Other	Total
Number	Work Products / Deliverables	Start	End	Labor Costs	Overhead	Direct Costs	Project Costs
Task 4							
4.1	Brainstorming Session and Notes with CRC	Jan-25	Jan-25	\$2,670	\$79		\$2,749
4.1	Memo describing incorporation of San Bruno Creek Community Vulnerability Assessment into OneWatershed Application	Jan-25	Feb-25	\$5,765	\$253		\$6,018
4.2	San Bruno Creek OneWatershed Framework Application Results Displayed in OneWatershed Dashboard	Feb-25	Mar-25	\$14,150	\$924		\$15,074
4.3	Draft/Final top 10 project, program, or policy descriptions, GIS Story Map, Display in OneWatershed Dashboard	Mar-25	Aug-25	\$5,195	\$0		\$5,195
4.4	Draft/Final San Bruno Creek OneWatershed Climate Resilience Plan	Jan-25	Dec-25	\$15,980	\$128		\$16,108
4.5	Draft/Final Concept Design	Aug-25	Dec-25	\$18,260	\$0		\$18,260
4.6	CCC Meetings - Support 5 CCC Meetings, Attend up to 15 Additional, Notes	Feb-24	Dec-25	\$33,200	\$1,312	\$1,000	\$35,512
4.7	Community Workshops - Support, Presentation/Attendance, and Notes	Mar-25	Mar-25	\$21,128	\$945	\$800	\$22,873
		Task 4	Subtotal				\$121,789
Task 5							
5.1	NOAA Climate Resilience Regional Challenge Grant Application	Dec-23	Feb-24	\$33,510	\$1,110		\$34,620
5.2	Project Kick-Off Meeting	Dec-23	Dec-23	\$2,490	\$88		\$2,578
5.2	APGP Grant Progress Reports (8)	Dec-23	Jan-26	\$6,720	\$0		\$6,720
5.2	PMT meeting agendas and summaries	Jan-24	Jan-26	\$18,335	\$315		\$18,365
5.2	APGP Final Grant Report	Nov-25	Jan-26	\$3,360	\$0		\$3,360
		Task 5	Subtotal				\$65,643
		\$403,601	\$18,847	\$1,800	\$424,248		