

# C/CAG

## CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

Atherton ■ Belmont ■ Brisbane ■ Burlingame ■ Colma ■ Daly City ■ East Palo Alto ■ Foster City ■ Half Moon Bay ■ Hillsborough ■ Menlo Park  
Millbrae ■ Pacifica ■ Portola Valley ■ Redwood City ■ San Bruno ■ San Carlos ■ San Mateo ■ San Mateo County ■ South San Francisco ■ Woodside

### STORMWATER (NPDES) COMMITTEE AGENDA 2:30 PM, Thursday, November 19, 2020

On March 17, 2020, the Governor issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow for local legislative bodies to conduct their meetings telephonically or by other electronic means. Pursuant to the Shelter-in-Place Orders issued by the San Mateo County Health Officer and the Governor, and the CDC's social distancing guidelines, which discourage large public gatherings, C/CAG meetings will be conducted via remote conferencing. Members of the public may observe or participate in the meeting remotely via one of the options below.

Join by Zoom: <https://us02web.zoom.us/j/83859921271?pwd=YXdNWdDhSzU0aDdTYUc3b3VHdUJLZz09>  
Join by Phone: +1 669 900 6833 Meeting ID: 838 5992 1271 Password: 698978

Persons who wish to address the C/CAG 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](mailto:rbogert@smcgov.org). Oral 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. Public comment on items not on the Agenda (presentations limited to three minutes).  | Breault | No materials         |
| 2. Stormwater Issues from Oct C/CAG Board meeting: <ul style="list-style-type: none"><li>• San Francisco Estuary Institute presentation on the Health of the Bay</li><li>• Annual Stormwater Program update</li></ul>   | Fabry   | No materials         |
| 3. ACTION – Review and approve October 15, 2020 Stormwater Committee minutes  | Fabry   | Pages 1-6            |
| 4. INFORMATION – Announcements on stormwater issues <ul style="list-style-type: none"><li>• Funding opportunities</li><li>• Other</li></ul>   | Fabry   | Verbal, no materials |
| 5. ACTION – Review and recommend the C/CAG Board of Directors approve entering into agreements with Craftwater Engineering, Inc. to identify and conceptualize regional stormwater capture opportunities at an amount not to exceed \$89,250, and Geosyntec Consultants, Inc. to develop a business case and framework for countywide collaboration on regional stormwater management in an amount not to exceed \$110,750. | Fabry   | Pages 7-29           |
| 6. ACTION - Review and recommend the C/CAG Board of Directors approve entering into agreements with American Rivers and Corona Environmental Consultants and WaterNow Alliance for pro-bono services to evaluate opportunities for a stormwater credit trading marketplace and summarize stormwater funding and financing opportunities for stormwater capture opportunities.   | Fabry   | Pages 30-38          |
| 7. INFORMATION – Receive presentation on the Draft Sustainable Streets Master Plan.   | Bogert  | Pages 39-40          |
| 8. INFORMATION – Receive update on the Municipal Regional Permit reissuance process.  | Fabry   | Pages 41-42          |
| 9. Regional Board Report  | Mumley  | No Materials         |
| 10. Executive Director's Report   | Wong    | No Materials         |
| 11. Member Reports  | All     | No Materials         |
| 12. Adjourn   |         |                      |

**PUBLIC NOTICING:** All notices of C/CAG regular Board meetings, standing committee meetings, and special meetings will be posted at the San Mateo County Transit District Office, 1250 San Carlos Ave., San Carlos, CA, and on C/CAG's website at: <http://www.ccag.ca.gov>.

**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 meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members, of the Committee. 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 Guilles at (650) 599-1406 to arrange for inspection of public records.

**PUBLIC PARTICIPATION DURING VIDEOCONFERENCE MEETINGS:** Persons with disabilities who require auxiliary aids or services to participate in this meeting should contact Mima Guilles at (650) 599-1406, five working days prior to the meeting date.

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

1. Your written comment should be emailed to [rbogert@smcgov.org](mailto:rbogert@smcgov.org).
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. The length of the emailed comment should be commensurate with the two minutes customarily allowed for verbal comments, which is approximately 250-300 words.
5. If your emailed comment is received at least 2 hours prior to the meeting, it will be provided to the C/CAG Committee members and made publicly available on the C/CAG website along with the agenda. We cannot guarantee that emails received less than 2 hours before the meeting will be able to be posted or provided to Committee members prior to the meeting, but such emails will be included in the administrative record of the meeting.

Oral comments will be accepted during the meeting through Zoom. Please read the following instructions carefully:

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 C/CAG Staff or the Committee Chair/Vice-Chair call for the item on which you wish to speak, click on "raise hand." C/CAG staff will activate and unmute speakers in turn. Speakers will be notified shortly before they are called on to speak.
5. When called, please limit your remarks to the time allotted.

If you have any questions about this agenda, please contact C/CAG staff:

Program Manager: Matthew Fabry ([mfabry@smcgov.org](mailto:mfabry@smcgov.org) or 650-599-1419)  
Administrative Assistant: Mima Guilles (650) 599-1406

## **C/CAG AGENDA REPORT**

Date: November 19, 2020

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Review and approve October 15, 2020 Stormwater Committee meeting minutes.

(For further information or questions contact Matthew Fabry at [mfabry@smcgov.org](mailto:mfabry@smcgov.org))

---

### **RECOMMENDATION**

That the Committee review and approve October 15, 2020 Stormwater Committee meeting minutes, as drafted.

### **DISCUSSION**

N/A.

### **ATTACHMENTS**

1. Draft October 15, 2020 Minutes

**STORMWATER COMMITTEE**  
**Regular Meeting**  
**Thursday, October 15, 2020**

**Draft Meeting Minutes**

The Stormwater Committee met remotely via Zoom, per C/CAG's shelter-in-place policy and consistent with state and county directives to manage COVID-19. Attendance at the meeting is shown on the attached roster. In addition to the Committee members, also in attendance were Matt Fabry (C/CAG Program Manager), Reid Bogert (C/CAG staff), Sandy Wong (C/CAG Executive Director), Susan Wright, Kim Springer and Jon Allan (County of San Mateo), Jennifer Lee (City of Burlingame), Matthew Zucca (City of San Mateo), Raymund Donguines (City of Pacifica), Leticia Alvarez (City of Belmont), Kelly Carrol (CSG), Geoff Brosseau (CASQA), Jay Davis (SFEI), Darren Choy (RRM). Vice Chair Ovadia called the meeting to order at 2:31 p.m.

1. Public comment: None

2. Stormwater Issues from C/CAG Board Meetings: September – Appointment of Lisa Petersen, Public Works Director of the City of Pacifica, to the C/CAG Stormwater Committee and CMP TAC on behalf of the City of Pacifica.

3. ACTION – Approval of the draft minutes from the August 20, 2020, Stormwater Committee meeting. Motion: member Underwood, second: member Donohue. Approved (17:0:1).

4. INFORMATION – The following items were covered in announcements:

- Funding Opportunities – Matt Fabry noted an upcoming solicitation from the Department of Water Resources for a Flood Plain Management and Risk Awareness Grant, with \$25 million in Prop 68 funds for flood risk management projects, including green infrastructure. The solicitation is anticipated for fall of 2021.
- Annual Reports – All jurisdictions submitted Annual Reports on time (East Palo Alto submitted separately).
- Regional Projects updates – Following the joint RFP between the cities of San Bruno and Redwood City, with C/CAG and the Office of Sustainability for regional project designs on two projects and analyzing additional opportunities along with new project concepts for five priority opportunities as well as working with the Flood and Sea Level Rise Resiliency District to develop a business case for regional stormwater collaboration. Fabry also noted that local storm drain master plans would be useful in identifying storm drain capacity issues and deficiencies as part of the project identification and prioritization process, as well as for developing a business case for regional collaboration, and staff will follow-up with an email request for existing storm drain master plans for those that have them available.

5. INFORMATION – The Committee received a presentation on California Stormwater Quality Association (CASQA) 2020 program updates from Geoff Brosseau, Executive Director of CASQA. Through the area-wide membership, all C/CAG member agencies are CASQA members, receive access to the CASQA Industrial/Commercial/Construction Best Management Practice Handbooks, and other member benefits.

Geoff Brosseau provided updates on CASQA's organizational and membership details and then summarized key program updates for 2020. Regarding new priority issues, CASQA has heard priorities from municipal representatives for bacteria and trash as well as addressing zinc in tires, among others. Brosseau summarized the results of the online Annual Conference, with approximately 900 attendees on September 15 and 16. The virtual environment was very successful, and the presentations are available in PDF format on the website for those that were registered. Lastly, Brosseau addressed the cost of compliance for stormwater permits, noting increased fees this year and planned for future years, and that the State Water Resources Control Board is interested in making future permits more cost-effective.

6. INFORMATION – Received presentation on “How Healthy is the Bay?” an Update from the Regional Monitoring Program (RMP) for Water Quality in San Francisco Bay. This presentation was made in advance of the C/CAG Board of Directors meeting to provide information on the Regional Monitoring Program and water quality updates pertaining to the use of local stormwater funds to better understand water quality conditions in the Bay. Dr. Jay Davis, Senior Science Director of the San Francisco Estuary Institute (SFEI), provided the presentation.

Dr. Davis summarized the main program areas of SFEI, including the Clean Water, Resilient Landscapes and Environmental Informatics program areas. The RMP is housed in the Clean Water Program. The RMP is focused on data collection to inform management decisions, with stakeholder participation from four major sectors (Publicly Owned Wastewater Treatment Plants, Stormwater, Dredgers and Industrial Wastewater Dischargers). The overall program budget is \$4 million/year, with funds dedicated primarily to status and trends monitoring (long-term monitoring of the Bay since 1993), special studies (pilot projects/literature reviews) and administration/governance.

Key updates from the RMP from the State of the Estuary Report in 2015, which covers the Bay and Delta and gives a snapshot of Bay health based largely on RMP data focused on three core areas. For the “swimmable” category, the Bay is showing “good” conditions for summer conditions. For the “aquatic life” rating, the conditions are considered “fair” mostly due to mercury impacts on aquatic fowl and reproductive harm. In the category of “fish are safe to eat” the condition is considered “fair” mostly due to polychlorinated biphenyls (PCBs) impacts of bioaccumulation. Several fish consumption advisories are in place based on RMP data and targets for water quality in the Total Maximum Daily Loads for PCBs and state health thresholds for this legacy pollutant. Mercury is an additional driver for consumption advisories. There seems to be no observable trend declining concentrations in fish tissue samples. The RMP reconnaissance monitoring effort in partnership with the MRP permittees supports understanding stormwater impacts to the Bay with respect to PCBs and mercury. Associated management actions by permittees resulting from monitoring results (especially source property identification and referral) may be the best approach to reducing loads to the Bay from the MS4, especially in terms of cost-effective management actions. Davis also summarized recent work and results from a multi-media study of microplastics in Bay water sediment, food chains, and stormwater and municipal wastewater. Of note, the results showed a significant difference in concentrations and loads of microparticles in stormwater compared to wastewater. An abundance of black rubbery microparticles, suggests tire wear is a major source of microplastics to the Bay via stormwater. Further, there is a particular vulcanization compound used in tire manufacturing that has been linked to salmonid toxicity in the Puget Sound area. Matt Fabry mentioned the potential issue of trash management controls being designed for trash 2 mm in diameter and larger, whereas microplastics are much smaller and would not be managed by current trash control designs. Committee members discussed the question of why declines in PCBs and mercury are not being seen based on monitoring and control measure implementation. The main reasoning provided by Davis

and Fabry include the long time frame for “flushing” PCBs and mercury out of Bay sediment, and the fact that control measures are limited mostly to the effect of new and redevelopment projects (shifting old industrial land areas to newer urban land use with stormwater controls), source controls (new programmatic controls in place and coming in the next permit) as well as source property identification and referrals to control known sources of PCBs at industrial sites. Green infrastructure controls are much less effective in terms of dollars spent per pollutant load reduction achieved, and the timeframe for implementing green infrastructure to achieve TMDL goals is currently 2040, which is cost- and technically-prohibitive based on the recently submitted San Mateo Countywide Control Measures Plan for PCBs and Mercury TMDLs.

7. INFORMATION - Received update on the Municipal Regional Permit reissuance process and Regional Water Board response letter regarding Green Infrastructure Plans. Matt Fabry updated the Committee on the revised MRP 3.0 reissuance process, notably with a year-long administrative extension of MRP 2.0 requirements and a new tentative effective date of the next permit on July 1, 2022. Regional Water Board staff has proposed releasing an Administrative Draft by the end of November, a Tentative Order in spring 2021 and an adoption hearing in October 2021. Fabry summarized key topics of discussion at the recent MRP 3.0 Steering Committee meeting on September 29, 2020. Regarding C.3 requirements, Regional Water Board staff is proposing to reduce regulated project thresholds for all projects to be regulated at 5,000 square-feet with the exception of single-family homes at 10,000 square-feet. Water Board staff are also considering including roadway projects as regulated projects, exempting simple grind and overlay projects. Special project exemptions for Category C are also planned to be phased out – Category A and B would be retained. Asset management systems focused on water quality features are being proposed under C.3, as well as a requirement for green infrastructure implementation for “non-regulated” projects on a jurisdictional basis. Water Board staff have indicated a “small, medium and large” municipality framework for GI implementation requirements (proposed 2, 6 and 10 acres of impervious area treated, respectively), with an option to work countywide or regionally to achieve GI implementation goals. Committee members responded to this provision suggesting large home properties should be given consideration of the pervious area that is retained on a new/redevelopment project to avoid creating an undue burden of C.3 requirements on single-family homes. Committee members also asked about the timing of implementation of specific sub provisions as proposed at the Steering Committee meeting, given there is a revised reissuance schedule (i.e., requirements implemented in “year three” of the new permit). There was some discussion on the topic of Water Board expectations on achieving GI targets established in GI Plans given the original intent of “self-implementing” via GI Plan development in-lieu of reduced project thresholds for C.3 projects as stipulated in MRP 2.0. It was noted, Water Board staff have shown some disappointment in the approach to implementation in GI Plans, focused primarily or entirely on stormwater controls related to regulated new and redevelopment projects. Committee members suggested if there is a minimum implementation requirement, it should include C.3 projects. C.8 water quality monitoring requirements were discussed in brief, with the main emphasis on maintaining cost-neutrality on the monitoring provision, with consideration of adding emerging contaminants of concern. The proposed C.10 trash provision currently states a target for 90% trash load reduction by 2022 and a “no adverse impact” condition for all generating areas by 2025. It is unsure at this time whether these proposed timeframes will remain in the next permit, or if they will be pushed back because of the delay in reissuance. Source controls and offsets are being proposed to be phased out by the 100% threshold, and there are other sub provisions being considered for requiring infeasibility plans justifying not attaining “no adverse impact” by the determined compliance date and considerations for how to demonstrate full trash capture equivalency through a combination of curb-inlet screens and enhanced street sweeping, along with the potential for GI to control for trash. The C.11/12 provision for PCBs and mercury controls and

accounting is shifting to a programmatic approach to achieving stipulated load reductions via program implementation (source property investigations, bridge rehabilitation/replacement, electric utilities management, PCBs managed in building demolition, etc.) with performance metrics, in-lieu of a numeric load reduction requirement. This topic is still under discussion with the C.11/12 Workgroup and the Steering Committee. Implementation in terms of mandatory minimums for control measures in high priority areas (i.e., old industrial landuse areas) is also under discussion, given the fact that PCBs tend to be present in much higher concentrations in these locations (which are also not typically the ideal places for installing green infrastructure). Other proposed changes to the permit, still under development, include addressing homeless encampments with associated concerns regarding trash and bacteria contamination in water ways and cost reporting with recent federal requirements to evaluate costs of compliance for MS4 NPDES permits.

Fabry briefly summarized the GI Plan Memo from Water Board staff, circulated on October 1. No actions are required based on the response memo, and most or all identified issues will be addressed via the C.3 Workgroup for MRP 3.0 and in the reissued permit. Water Board staff pointed to certain deficiencies and strengths of GI Plans from municipalities around the MRP area. Generally, Water Board staff expressed they would like to see a stronger commitment to voluntary green infrastructure projects and that most GI Plans focused too heavily on stormwater controls associated with new and redevelopment projects. Other points of interest include Water Board staff interest in seeing broader coordination with schools, as well as partnership on regional stormwater capture projects and coordination with other non-traditional NPDES permittees, such as BART, Caltrans, Caltrain and others on GI implementation. Committee members discussed the option to provide a coordinated response among permittees to address Water Board staff concerns regarding deficiencies. Fabry mentioned the potential for creating a list of activities at the jurisdictional and countywide program level, not necessarily as a response back to the Water Board, but to help with future negotiations on MRP 3.0.

8. INFORMATION – Received update on developing the Draft Countywide Sustainable Streets Master Plan. Due to time restrictions on the meeting, Vice Chair Ovadia recommended receiving a high-level overview of recent deliverables and the schedule for review and comment on the Draft Sustainable Streets Master Plan. The project team is focused on developing 11 project concepts addressing different sustainable streets typologies and are currently receiving input from the respective agencies. There is shift to a virtual open house to finish the last phase of community engagement and to showcase the final deliverables. The team is also developing the beta version of the tracking tool, and C/CAG staff will schedule a series of workshops to engage and train staff on its use and functionality. The plan to review and finalize the plan itself entails releasing an InDesign document for permittee review in the next week or two with anticipation for a second draft released publicly on December 1. Staff plan to then bring the draft plan to the C/CAG Board of Directors at the December 10 meeting with a final adoption proposed for the February 11 meeting with the Committee's recommendation.

9. Regional Board Report: None.

10. Executive Director's Report: None.

11. Member Reports: None.

Vice Chair Ovadia adjourned the meeting at 4:18 p.m.

2020-21 Stormwater Committee Attendance														
Agency	Representative	Position	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Atherton	Robert Ovadia	Public Works Director	X	X		X								
Belmont	Peter Brown	Public Works Director	X	X		O								
Brisbane	Randy Breault	Public Works Director/City Engineer	X			X								
Burlingame	Syed Murtuza	Public Works Director	X	X	C	X								
Colma	Brad Donohue	Director of Public Works and Planning	X	X	A	X								
Daly City	Richard Chiu	Public Works Director	X	X	N	X								
East Palo Alto	Kamal Fallaha	City Engineer			C									
Foster City	Norm Dorais	Public Works Director	X	X	E	X								
Half Moon Bay	Maziar Bozorginia	City Engineer	X	X	L	X								
Hillsborough	Paul Willis	Public Works Director	X	O	E	X								
Menlo Park	Nikki Nagaya	Public Works Director	X		D	X								
Millbrae	Andrew Yang	Senior Engineer	X	X		X								
Pacifica	Lisa Petersen	Public Works Director/City Engineer	O			X								
Portola Valley	Howard Young	Public Works Director		X		X								
Redwood City	Saber Sarwary	Supervising Civil Engineer	X			X								
San Bruno	Jimmy Tan	City Engineer	X	X		X								
San Carlos	Steven Machida	Public Works Director	X	X		X								
San Mateo	Brad Underwood	Public Works Director	X	X		X								
South San Francisco	Eunejune Kim	Public Works Director												
Woodside	Sean Rose	Public Works Director	X			X								
San Mateo County	Jim Porter	Public Works Director	X	O		X								
Regional Water Quality Control Board	Tom Mumley	Assistant Executive Officer												

"X" - Committee Member Attended

"O" - Other Jurisdictional Representative Attended



**C/CAG AGENDA REPORT**

Date: November 19, 2020

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Review and recommend the C/CAG Board of Directors approve entering into agreements with Craftwater Engineering, Inc. to identify and conceptualize regional stormwater capture opportunities at an amount not to exceed \$89,250, and Geosyntec Consultants, Inc. to develop a business case and framework for countywide collaboration on regional stormwater management in an amount not to exceed \$110,750.

(For further information or response to questions, contact Matthew Fabry at [mfabry@smcgov.org](mailto:mfabry@smcgov.org))

---

**RECOMMENDATION**

That the Stormwater Committee review and recommend the C/CAG Board of Directors approve entering into agreements with Craftwater Engineering, Inc. to identify and conceptualize regional stormwater capture opportunities at an amount not to exceed \$89,250, and Geosyntec Consultants, Inc. to develop a business case and framework for countywide collaboration on regional stormwater management in an amount not to exceed \$110,750.

**FISCAL IMPACT**

The Craftwater Engineering scope is for a total of \$189,250, with \$89,250 funded by C/CAG and the other \$100,000 funded separately by the County of San Mateo. The Geosyntec Consultants scope is for a total of \$110,750, funded by C/CAG. The \$200,000 total for C/CAG's share of the two projects will be fully reimbursed through a State grant to C/CAG administered through the California Natural Resources Agency. C/CAG is not required to provide any matching funds.

**BACKGROUND**

Thanks to the support of Assembly Member Mullin and his staff, the State budget included a \$3 million allocation for C/CAG to advance multi-benefit regional stormwater capture opportunities in San Mateo County. This allocation was provided in connection with C/CAG's Countywide Stormwater Resource Plan and associated regional project concepts as well as countywide efforts to create the new Flood and Sea Level Rise Resiliency District (FSLRRD), which was established through Mullin's Assembly Bill 825. The budget allocation (\$2.94 million after deducting State grant administration costs) is administered by the California Natural Resources Agency (CNRA).

Upon recommendation by the C/CAG Stormwater Committee, the C/CAG Board approved Resolution 19-57 at its December 12, 2019 meeting, authorizing execution of the CNRA grant agreement based on the following recommended funding allocations:

- \$100,000 to identify additional regional stormwater capture project opportunities and develop more project concepts. This is intended to leverage the County Office of Sustainability's Environmental Protection Agency grant funds (\$100,000) to do the same.
- \$100,000 to work with the FSLRRD to create a "business case" for countywide collaboration on regional stormwater management to address resiliency issues and stormwater requirements under the Municipal Regional Permit.
- Developing a request for Letters of Interest for multi-benefit regional stormwater projects to be considered for receiving design funds from the remaining \$2.74 million.

In a subsequent process on the third bullet, above, the bulk of the grant funds (\$2.74 million) are being distributed equally through separate grant agreements between CNRA and the cities of Belmont, Redwood City, and San Bruno for design and environmental review of regional projects at Twin Pines Park, Red Morton Park, and the I-280/I-380 interchange, respectively.

In May 2020, C/CAG and OOS staff issued a joint Request for Proposals for the first two bullets above, identifying and prioritizing additional regional project opportunities and developing five new project concepts and working with the FSLRRD to develop a business case for countywide collaboration on regional stormwater management for water quality and climate resilience priorities. A selection panel including representatives from C/CAG, FSLRRD, and OOS scored the five submitted proposals and interviewed three teams.

The selection panel recommended leveraging strengths from two firms to conduct the overall scope of work, with Craftwater Engineering, Inc. selected to identify opportunities and develop concepts while Geosyntec Consultants, Inc. would develop the business case and collaborative framework. C/CAG, OOS, and FSLRRD staff have collaboratively negotiated the attached scopes of work and budgets with these consultants (Attachments 1 and 2). For the Craftwater Engineering scope, C/CAG will fund Tasks 1, 2, and 4 for \$89,250 and OOS will fund Task 3 for \$100,000. In order to keep C/CAG and OOS grant funds separate, OOS will be executing a separate contract with Craftwater Engineering, Inc. for the project concepts (Task 3) portion of the scope.

Staff recommends the Stormwater Committee review the proposed scopes and recommend the C/CAG Board of Directors approve entering into agreements with each entity. Specifically, consultant services agreements with Craftwater Engineering, Inc. in an amount not to exceed \$89,250 and Geosyntec Consultants, Inc. in an amount not to exceed \$110,750.

## **ATTACHMENTS**

1. Craftwater Engineering, Inc. Scope of Work
2. Geosyntec Consultants, Inc. Scope of Work

## ATTACHMENT 1

### Craftwater Engineering Scope of Work

# SCOPE OF WORK

TO: Matt Fabry, San Mateo Countywide Water Pollution Prevention Program  
Kim Springer, County of San Mateo Office of Sustainability

CC: Makena Wong, San Mateo County Flood and Sea Level Rise Resilience District  
Reid Bogert, San Mateo Countywide Water Pollution Prevention Program  
John Allan, County of San Mateo Office of Sustainability

FROM: Craftwater Engineering, Inc.

PROJECT: San Mateo County Advancing Regional Stormwater Capture Projects – Category 2  
(RFP 1418)

---

Craftwater Engineering will conduct the following scope of work.

## TASK 1 – PROJECT MANAGEMENT, MONITORING, AND ADMINISTRATION

---

The Craftwater team will meet virtually with representatives from the C/CAG member agencies and project team monthly to discuss project progress, data needs, and to solicit real-time input and feedback on interim work products. Ten (10) meetings are assumed, including a kickoff meeting, but exclusive of additional meetings programmed into following tasks. This task also includes as-needed coordination with the Geosyntec consulting team who will be completing complementary tasks related to this project. The project schedule for Craftwater’s scope of work will be updated monthly and included with progress reports at the time of invoicing.

### Deliverables:

- Monthly progress reports, invoices, and updated schedule

## TASK 2 – IDENTIFY AND PRIORITIZE PROJECT OPPORTUNITY SITES

---

### Subtask 2.1 – Project Identification

To identify and analyze projects at an appropriate scale for capital planning, Craftwater will first use LiDAR data and aerial photograph bands obtained from C/CAG to generate planimetric data useful for project opportunity assessment. Aboveground and on-ground surface features will be generated, and a representation of the right-of-way (based on parcel boundaries) and pervious open areas on parcels will be delineated. The accuracy of the extracted data is subject to the resolution of LiDAR and imagery data. As such, the datasets generated with LiDAR may not necessarily align perfectly with existing shapefiles or land cover due to lens warp, recent redevelopment not captured in the data, or other geospatial projection issues.

Once the surface features are characterized, potential project opportunities will be identified using a combination of automated geomatic processes and systematic visual review by our engineers; the following steps will be implemented:

**Step 1: Create menu of project types and potential innovative solutions.** Our team will first work with C/CAG and the County to develop a list of available data and preferred project types and configurations for each jurisdiction. To inform initial menu recommendations, Craftwater will attend the first Technical Advisory Committee (TAC meeting and review the *Drivers and Objectives Memo* (both led by the Geosyntec consulting team). Craftwater will also evaluate potential innovative solutions not yet considered in regional planning documents. This will involve careful evaluation of previous successes and local preferences to select practices well-suited to the physical and regulatory conditions of the County. Innovative solutions not currently characterized in C/CAG plans—such as controlled diversion to the sanitary sewer for reclamation— will be explored to ensure that the most cost-effective alternatives are ultimately selected. Innovative solutions will be presented to the project team for discussion during monthly meetings. This subtask will produce an inventory of available data (summarized in an email table) and a matrix of potential project types that will be incorporated into the analysis memo.

**Step 2: Characterize suitability zones and identify potential project sites where menu can be applied.**

Initial screening for new project will begin by establishing typologies—or areas with common characteristics—where certain project types can be prescribed. Opportunities will be considered primarily on publicly owned parcels, including schools, although rights-of-way and private parcels will also be scanned to identify potential opportunities for collaborative projects.

**Step 3: Delineate drainage areas to potential projects and cross reference with planned projects.**

Once all potential projects are identified, then the drainage areas to each project, and inter-project routing, will be delineated using a series of automated algorithms and manually reviewed for accuracy. Note that the accuracy of the drainage area delineation is contingent up on the accuracy of the data provided. Drainage areas for projects currently planned in the Stormwater Resources Plan, green infrastructure plan, and sustainable streets master plans will be merged with the newly delineated drainage areas to prevent overlap and “double-counting” of drainage areas where projects might be located in series.

**Step 4: Perform “Bookend” Modeling Analysis.**

After potential projects are identified and characterized, their maximum progress towards meeting water quality and resiliency goals will be computed using methods consistent with recent planning efforts. Note that this initial modeling analysis will provide the “bookends” for what range of performance can be expected, and will be subsequently dialed in during Task 4 after projects are prioritized. It is assumed that the metrics for success to be modeled by Craftwater will be defined by the County, C/CAG, and the Geosyntec consulting team as a result of their complementary tasks to develop a *Draft Approach Memo* in collaboration with the TAC. It is also assumed that the existing reasonable assurance models will be provided by the County and C/CAG to serve as the foundation for short- and long-term simulation modeling exercises.

All identified project locations will be provided to the County and C/CAG for review in a format compatible with C/CAG's existing GIS web viewers and business case analysis (data to be incorporated by others). This task includes coordination to ensure proper schema for incorporation. The C/CAG project team will provide feedback on the identified project types and potential locations, and direct if any projects should be modified, removed, or added.

Although the data generation process is trained to screen sites on the basis of major conflicts and feasibility, it is still necessary to manually review the resulting project list for quality assurance.

The preceding steps will produce a countywide list of potential stormwater capture opportunities, their associated maximum footprints, and drainage areas. This process will also generate the routing network between projects so that the pollutant loading to each project can be accurately represented, and thus the potential benefits of spatial optimization can be explored. The initial results will be presented to the TAC to inform complementary business case analysis tasks conducted by the Geosyntec consulting team.

## **Subtask 2.2 – Project Prioritization**

Craftwater will closely collaborate with the C/CAG project team to establish a prioritization system to evaluate and rank the identified opportunities based on the quantitative metrics and stakeholder values defined by C/CAG, the County, and the Geosyntec consulting team. It is anticipated that the primary value system—to be framed through meetings with C/CAG member agencies—will be related to parameters relevant to project cost-effectiveness (i.e., dollars per pound of pollutant captured and/or dollars per unit volume detailed/retained for flood control), programmatic synergies with other improvements, potential for public acceptance, and funding opportunities. Where possible, the approach will be customized to prioritize sustainable projects that provide multiple benefits, like local water supply resiliency, to maximize opportunities for grants and external funding.

The goals of the prioritization process are to streamline strategic stormwater planning through structured analysis of high-resolution data to develop—and assess the benefits of—specific project-by-project priorities. The list of potential projects will also be cross-referenced with other capital programs and programmatic data to identify shovel-ready opportunities for synergy with ongoing programs/initiatives.

The total benefits/performance of the prioritized projects will next be computed. This method—which will build upon the bookend compliance analysis performed during Task 2.1—helps to “right-size” the specific projects based on real engineering constraints and in-depth scientific understanding of pollutant removal processes. At the conclusion of the analysis, the C/CAG agencies will understand key hydrologic and water quality benefits of the prioritized candidate projects based on the metrics defined by C/CAG, the County, and the Geosyntec consulting team. It is assumed that the modeling analysis will not include hydraulic modeling of local storm drain systems, but will focus on the strategic storage and management of stormwater in the newly identified facilities. Prioritized projects will be described in an analysis report and provided in GIS format for incorporation into web maps and other analyses by others. For budgetary purposes, it is assumed that 50-100 new project opportunities will be identified and prioritized to recommend at least 10 top candidates for site assessments and conceptual design in the following tasks.

### **Deliverables:**

- **Data availability review summary email**
- **Attendance at TAC meeting #1**
- **Presentation of initial opportunities and modeling results at TAC meeting #2**
- **Draft and final regional stormwater capture opportunities analysis memo**
- **GIS data with identified and prioritized candidate projects**

## TASK 3 – PROJECT CONCEPTS

---

### Subtask 3.1 – Assessment of 10 Sites

To initiate the concept designs, a desktop evaluation will first be performed to evaluate the condition of ten sites recommended by the County and C/CAG, and identify specific features to be field-confirmed. Field reconnaissance (not to exceed three days total) will be performed for each of the top 10 candidate sites to confirm available data and gather additional site information and photographs. It is assumed that C/CAG and its members will provide all as-built drawings, existing utility alignments, updated GIS layers, soils reports, and access to each site. Utilizing USA Dig Alert's website, a comprehensive utility matrix will be developed, which Craftwater will use to request utility atlas information not held by local agencies. The atlas information will be used to inform the potential project feasibility and concept design layout.

### Subtask 3.2 – Conceptual Design of 5 Sites

The following task will result in multi-benefit concepts for up to five of the projects prioritized in Task 2 and field-assessed in Subtask 3.1; it is assumed that the C/CAG project team will recommend which projects will be advanced to conceptual design based on the results of preceding tasks.

The following steps will be performed to develop the project concepts.

#### Step 1: Site Characterization and Layout

The data collected during the site assessment task will be synthesized to develop a conceptual site layout that will be iteratively revised as our team completes the following steps.

#### Step 2: Water Quality, Hydrology, and Hydraulic Analysis

The Craftwater team will next use the initial drainage area data generated during Task 2 to confirm the maximum potential drainage area that could be captured by the selected project site locations. The preliminary hydrology and water quality analysis performed under Task 2 will also be refined during this task to perform long-term (at least 10 years), continuous simulations to predict average annual runoff volume and pollutant load capture for each site. The long-term simulations will be performed using C/CAG's existing LSPC RAA model. Design storm simulations will also be performed using LSPC to estimate the candidate projects' capacity to mitigate the impacts of changing rainfall patterns (i.e., storm depth and intensity) driven by climate change; the design storms will be modeled using the rainfall timeseries previously developed by C/CAG, which represent 2-, 5-, 10-, 25-, 50-, and 100-year, 6-hour-duration storms based on historical conditions and also under future climate scenarios. It is assumed that both the historical and future (Median RCP 8.5) design storm timeseries will be provided for each rain gauge in the LSPC model.

Hydraulic analyses will primarily focus on the physics of designing a resilient, cost-effective, and minimally disruptive system, particularly for projects where diversion structures are proposed in major storm drains or channels. In addition, the pump station and/or conveyance pipeline will be analyzed for conveying stormwater and urban runoff flows to the project site.

#### Step 3: Project Sizing and Optimization

To reliably forecast the water quality and flood mitigation benefits of regional stormwater capture projects, four major factors must be understood:

- The amount of water the system receives (inflow),
- The volumetric capacity (storage),
- The method of treating and draining the storage (outflow), and
- The project's location in the overall watershed network of projects (context).

Each of these variables—inflow, storage, outflow, and context—are interrelated and the adjustment of one will directly change how the others impact performance. Balancing these elements during design is critical to accurately evaluate how the pollutant load is reduced and how the costs can be minimized.

To address these complexities during project conceptualization and design, Craftwater will simulate multiple configurations to conduct a stormwater project optimization analysis that will address the following alternatives to build optimal conceptual designs:

#### ***Project Size Options***

- The most cost-effective project size for each tributary drainage area will be computed
- The project size that will achieve applicable stormwater quality and water supply goals will also be computed

#### ***Diversion flow rate options***

- Multiple diversion flow rates will be simulated to develop cost effectiveness curves
- The optimal diversion rate will be determined based on the point of declining water quality benefit

#### ***Outflow/treatment, uses, and flow rate options***

- On-site irrigation potential
- Exfiltration options (infiltration, discharge to sanitary sewers for reclamation, or filtration units)

#### ***Watershed context and siting options***

- Analysis of how project locations impact other upstream/downstream projects

The optimization approach will develop recommendations for the project footprints and cross-sections, and type and size of pre- treatment systems and diversion structures for the design configurations. It will also inform overall project siting recommendations and quantify potential multi-benefits that could be realized through water conservation/supply augmentation options.

### **Step 4: Preliminary Conceptual Level Cost Estimate for Construction and Operations/ Maintenance.**

Craftwater will prepare a preliminary construction cost estimate for each proposed alternative. The cost estimates will be based on the preliminary concept developed and will represent a 10% level cost estimate. The cost estimate is considered preliminary and it is used for budget authorization or budget control purposes only. This cost estimate will only include major components of the project such as pipeline installation, pumps, and other components that cover major costs of the project, including potential permits and associated fees. The preliminary conceptual level cost estimates cover only the items of work shown in the conceptual drawings.

An annual operation and maintenance cost estimate will also be developed for each of the project sites based on the proposed configuration and the level of detail developed. The operation and maintenance costs will be



determined for the duration of the project lifecycle (typically 50 years for regional projects) and will include replacement components over the course of the single lifecycle.

#### **Step 5: Concept Design**

To develop the detailed project concepts, Craftwater will work closely with the C/CAG project team to establish a concise concept design reporting template (including fact sheets, memo, and/or report formats). The Craftwater team recommends that detailed technical results are documented in a technical memorandum for each site, accompanied by a more concise fact sheet to aid with outreach and communication. The concept template will provide engineering details useful to advance high-priority projects to the next level of design, including project location, type, scope, sizing recommendations, typical sections, contributing drainage area, aerial map, runoff and pollutant capture performance, and budget-level estimates of capital and long-term maintenance costs.

While engineering feasibility is critical to project success, public acceptance is of equal importance. To gauge local acceptance and support, Craftwater will leverage the results of the *Drivers and Objectives Memo* (developed by the Geosyntec consulting team) and feedback from the TAC and C/CAG member agencies to ensure that recommended project types and sites fit with local needs.

A draft concept will be initially developed for one project for review by the C/CAG agencies; upon approval of the template, concepts will be developed for the remaining four sites. If the group elects to expand the number of concept reports beyond five, then Craftwater can generate additional reports a la carte as an optional task.

As a component of the conceptual design, Craftwater will also assess potential CEQA and permitting challenges and associated time requirements and analyze each project site with respect to land use, existing uses, and coordination with existing park operations, easement requirements from relevant agencies, and joint use agreements. Craftwater will identify and document potential regulatory requirements and permits.

#### **Deliverables:**

- **Draft and final site assessment analysis report (including 10 sites)**
- **Five (5) draft and final detailed project concepts**

## **TASK 5 – PROJECT STUDY REPORT**

---

A brief Regional Project Study Memo will be developed to document the methods for developing the project database, field assessment results, project concept assumptions, and summary statistics for the county-wide candidate project database. The summary statistics and analysis will provide the foundation for discussing the value of regional stormwater capture facilities in the context of climate change resiliency and in comparison to opportunity and need for smaller-scale, distributed stormwater management systems. The memo will be included as an attachment to the business case White Paper being developed by the Geosyntec consulting team.

This task includes coordination with Geosyntec to stay apprised of the strategic direction of the approach memo, white paper, and the agreed-to drivers and objectives that will impact concept designs in Task 3.

Craftwater will perform a final round of updates to the candidate project database to incorporate results of the Task 3 project concepts so that it can be used for the complementary business case analysis.

**Deliverables:**

- **Draft and final Regional Projects Study Memo**
- **Updated candidate project GIS database**

## ESTIMATED FEE AND SCHEDULE

The proposed fee estimate was updated from Craftwater's original proposal considering the following modifications requested by the County and C/CAG:

- Provide sufficient budget for deliverable review, coordination, and information exchange with Geosyntec team conducting complementary tasks, including participation at two TAC meetings (note that public outreach consulting was removed from the fee; public support guidance will be synthesized from the Drives and Objectives development process led by Geosyntec)
- Omit effort associated with web map development; coordinate with web mapping consultant to agree on schema/template for GIS data delivery
- Ensure conceptual design activities are clearly parsed into distinct tasks (the previous Tasks 3 and 4 were combined into a single Task 3) with a maximum budget ceiling of \$100k
- Include budget for final summary report of methods and findings (Task 4)

FEE PROPOSAL FOR:		San Mateo County Advancing Regional Stormwater Capture Projects - CATEGORY 2										craftwater engineering, inc.	
Contract Type: T&M		Identify, prioritize, and develop project concepts for additional regional stormwater capture project opportunities throughout San Mateo County										Submitted to: San Mateo County (Attn: Kim Springer)	
Task Description		CRAFTWATER ENGINEERING INC										TOTAL COST	
		Principal (Chad Helme, PE)	Project Manager (Brad Wardynski, PE)	Principal Engineer (Oliver Galang, PE, ENV SP)	Senior Engineer (Merrill Taylor, PE)	Associate Engineer (Thom Epps, PhD)	Junior Engineer (Gurjit Kohli)	CAD Technician (Ruben Martinez)	Total Labor Hours	Total Labor Effort	Total Subconsultants	TOTAL EFFORT	
Billing Rates		270.00	210.00	250.00	205.00	170.00	135.00	120.00					
SUBTOTAL Task 1. Project Coordination, Monitoring, and Administration		24	34	2	-	-	12	-	72	15,740	-	15,740	
SUBTOTAL Task 2. Identify & Prioritize Project Opportunity Sites		10	44	10	40	126	86	-	316	55,670	-	55,670	
SUBTOTAL Task 3. Project Concepts		6	42	48	74	50	364	40	624	100,000	-	100,000	
SUBTOTAL Task 4. Regional Project Study Memo		8	32	-	8	24	24	-	96	17,840	-	17,840	
GRAND TOTAL		48	152	60	122	200	486	40	1,108	189,250	-	189,250	

The following initial schedule was coordinated with the Geosyntec team to ensure that the critical paths of both projects are synchronized.

Task No.	Task Name	Deliverable/Milestone	Delivered To/ Coordinated With	Due Week of
1	Craftwater PM	Kick-Off Meeting	Kick-off Meeting Participants	11/30/2020
1	Craftwater PM	Monthly Meetings, Progress, Invoicing, Schedule	C/CAG, County PMs	Monthly
2	ID and Prioritize Opportunities	Data Availability Review Summary	Geosyntec	1/4/2021
2	ID and Prioritize Opportunities	Participation at TAC Meeting 1	PMs, TAC, Geosyntec	1/21/2021
1	Craftwater PM	Participation at C/CAG Member Agency Meeting	PMs, Member Agencies, Geosyntec	1/21/2021

<b>Task No.</b>	<b>Task Name</b>	<b>Deliverable/Milestone</b>	<b>Delivered To/ Coordinated With</b>	<b>Due Week of</b>
2	<i>ID and Prioritize Opportunities</i>	Review Drivers and Objectives Memo, Attend and Present at C/CAG Meeting, Develop Approach for "Menu"	Geosyntec	2/18/2021
2	<i>ID and Prioritize Opportunities</i>	Menu of Project Types	C/CAG, County PMs, Geosyntec	3/29/2021
2	<i>ID and Prioritize Opportunities</i>	Complete GIS Analyses (i.e., Project identification and prioritization), Develop Modeling Approaches	Geosyntec	4/26/2021
4	<i>Regional Project Study Report</i>	Discussions with Geosyntec on Approach Memo	Geosyntec	5/10/2021
2	<i>ID and Prioritize Opportunities</i>	Draft Regional Opportunities Analysis Report and GIS Data	C/CAG, County PMs, Geosyntec	5/24/2021
2	<i>ID and Prioritize Opportunities</i>	Conduct Modeling, Collaborate on Modeling Inputs/Outputs	Geosyntec	7/30/2021
2	<i>ID and Prioritize Opportunities</i>	Final Regional Opportunities Analysis Report and GIS Data	C/CAG, County PMs, Geosyntec	7/30/2021
3.1	<i>Project Concepts</i>	Draft Site Assessment Report	C/CAG, County PMs	8/30/2021
2	<i>ID and Prioritize Opportunities</i>	Present on Modeling Analyses at TAC meeting as needed	PMs, TAC, Geosyntec	9/16/2021
2	<i>ID and Prioritize Opportunities</i>	Present on Modeling Analyses at C/CAG meeting as needed	PMs, Member Agencies, Geosyntec	9/16/2021
3.1	<i>Project Concepts</i>	Final Site Assessment Report	C/CAG, County PMs	10/1/2021
3.2	<i>Project Concepts</i>	5 Draft Project Concepts	C/CAG, County PMs	9/13/2021
3.2	<i>Project Concepts</i>	5 Final Project Concepts	C/CAG, County PMs	10/1/2021
3.2	<i>Project Concepts</i>	Updated GIS Data	C/CAG, County PMs, Geosyntec	10/1/2021
4	<i>Regional Project Study Memo</i>	Documentation of Cat 2 geospatial and modeling methodology as Appendix	Geosyntec	1/4/2022

## ATTACHMENT 2

### Geosyntec Consultants Scope of Work

# San Mateo County Category 2 Task 5 Scope

## **TASK 1 PROJECT MANAGEMENT AND MEETINGS**

As part of Task 1, Geosyntec Consultants, Inc. (Geosyntec) will conduct project management, coordination, and meetings. A kick-off meeting will be scheduled to initiate the project; discuss project scope and objectives; determine preferred client meeting frequency, format, and content; and present a detailed project schedule.

Geosyntec will develop monthly progress reports using the County and C/CAG's preferred format or will create a format for approval by the County and C/CAG. It is expected that the progress reports will summarize work completed for the month; progress with respect to deliverable completion, budget, and schedule; project challenges and proposed resolution; the overall project schedule, and quality assurance/quality control (QA/QC) activities.

Geosyntec will maintain a detailed project schedule which will include key project activities by participating entity, including scheduled material review and other milestones. The schedule will be updated monthly and provided as an attachment to the monthly project progress reports.

Geosyntec will conduct monthly invoicing using the invoicing format requested by the County and C/CAG. The monthly invoice will be provided with the monthly progress report.

Geosyntec will coordinate with the client's consultant leading Category 2 Tasks 2-4 (Craftwater Engineering (Craftwater)).

Geosyntec will develop email agendas for and facilitate twelve (12) project management meetings with C/CAG and the County project managers, up to 1-hour each, as part of Task 1 and will provide e-mail summaries following the meetings. These meetings will be used to discuss progress and outcomes for all other project tasks.

Geosyntec will also facilitate up to four 2-hour meetings with the C/CAG member agencies under Task 1, including providing agendas and draft and final meeting notes.

### **Assumptions**

1. The County/C/CAG will provide a progress report format or desired outline and invoicing format.
2. Internal coordination and project meetings are included in the budget estimate.
3. All project meetings will be conducted by web/phone.

### **Deliverables**

1. Two-hour kick off meeting facilitation, agenda, and e-mail meeting summary (one final summary).
2. Assumes twelve (12) project meetings with County and C/CAG project managers, up to 1-hour long each: facilitation, brief e-mail agendas and summaries (one final summary each).
3. Four 2-hour meetings with C/CAG member agencies: facilitation, agendas, and two drafts each of meeting summaries (draft/final).
4. Monthly progress reports, including updated detailed project schedule, summary of QA/QC activities, and invoices (one progress report each month).
5. Up to 8 hours of coordination calls with Craftwater.

## TASK 2 TECHNICAL ADVISORY COMMITTEE MEETINGS

### Task 2.A TAC Meetings

The Task 2 base scope entails coordination of the Project Technical Advisory Committee (TAC) and facilitation of TAC meetings. Geosyntec will assist as requested with identifying TAC members. Geosyntec will schedule meetings, prepare meeting agendas, coordinate expert presentations, facilitate meetings, and prepare post-meeting summaries. TAC meeting topics are anticipated to include:

- *Meeting #1, Key Drivers for Countywide Collaboration* – this 2-hour meeting will include discussion of the critical drivers in the region that may benefit from countywide collaboration (i.e., MRP/TMDL requirements, climate resiliency/flood mitigation, environmental/restoration, water supply, and other multi-benefits). The meeting will also discuss key project outcomes (in terms of project implementation/ application) that could address these drivers.
- *Meeting #2, Linking Project Outcomes to Collaboration (“Business Case”) and Framework Options* – this 3-hour meeting will build on TAC meeting 1, including a discussion of how to link key project outcomes (i.e., the “business case”) to the need for collaboration and options for the Regional Collaboration Program framework. The meeting will be intended to result in 1-2 key collaboration framework option(s) for development through the project.
- *Meeting #3, Proposed Regional Collaboration Program Framework and Components Discussion* – this 2-hour meeting will present the proposed Regional Collaboration Program framework and include discussion on key components (i.e., eligible entities, eligible project types, exchange considerations, etc.).

In addition to meeting facilitation, Geosyntec will coordinate with the TAC on deliverable review requests, compile comments received, and communicate on proposed responses to comments. Geosyntec’s subconsultant Kieser & Associates will attend all TAC meetings.

#### **Assumptions:**

1. A total not to exceed three (3) meetings or seven (7) hours of TAC meetings will be held over the course of the project. Meetings will be in-person when possible and will be held via client-approved virtual platform when not possible.
2. Two (2) Geosyntec staff will attend each meeting. One staff from subcontractor Kieser & Associates will attend each meeting.
3. TAC participant comments on meeting notes will be tracked and minor revisions will be made in response to comments.

## TASK 3 BUSINESS CASE MEMORANDA

### Task 3.A Defining Drivers and Objectives

Task 3 will begin following the kick-off meeting, with initial research and compilation to define drivers and objectives. This will include compiling existing objectives relating to flood control and resiliency for C/CAG member agencies, the County, and the Flood and Sea Level Rise Resiliency District, as well as compiling objectives relating to implementation of green stormwater infrastructure (GSI) and other stormwater capture facilities from individual City GSI Plans, the Countywide Sustainable Streets Master Plan, and the TMDL Control Measure Plan and Reasonable Assurance

Analysis Report. These findings will be compiled in an Existing Objectives Matrix and shared with C/CAG and County project managers.

Findings from the Existing Objectives Matrix will be used to design and inform the first TAC meeting and a meeting with C/CAG member agencies, as part of Tasks 2 and 1, respectively. In parallel with Geosyntec's Matrix task, it is assumed that Craftwater will conduct a review of available data that will be made available to Geosyntec to prepare for TAC Meeting #1 and C/CAG member agency Meeting #1.

These meetings will be used to:

1. Identify key drivers for regional and sub-regional multi-benefit stormwater capture projects to be implemented under a collaborative regional program (e.g., MRP, TMDL, resiliency, and other multi-benefits);
2. Identify preliminary quantitative or qualitative objectives associated with key drivers (i.e., load reductions achieved, number of projects implemented, etc.);
3. Prioritize the preliminary objectives with the intent that this ranking of objectives be used to identify and reprioritize potential/additional regional stormwater capture projects.

In parallel with the development of the Existing Objectives Matrix and meetings, Geosyntec will conduct research to identify treatment plant operators and collection system operators, cities, and/or other entities within the County that have current or future plans to add or expand recycled water use within their service areas. Geosyntec will conduct outreach to the identified parties with recycled water expansion plans to identify key information regarding recycled water capacity, including the potential for treatment plants to accept wet or dry weather stormwater diversion flows, the projected quantity of stormwater that could be captured, and discussions of considerations and/or limitations relating to stormwater line and/or regional facility tie-in to sanitary collection lines that convey flow to the recycled water treatment plants.

Drivers, objectives, and objective prioritization will be summarized in a draft memo prepared by the Geosyntec Team that will be delivered to the County and C/CAG project management team for review. A revised draft will be delivered to the C/CAG member agencies and the TAC for review. It is assumed that the Revised Draft Drivers and Objectives Memo will be presented at C/CAG member agency Meeting #2, during which Craftwater will also present the development of their "menu of project types", which will be informed by the Drivers and Objectives Memo.

Comments received will be used to develop a final version of the memo that will be used by Craftwater to prioritize project opportunities identified through their geospatial analysis.

### **Assumptions**

1. The Existing Objectives Matrix deliverable will focus on objectives directly relating to stormwater capture; ancillary benefits clearly identified as part of these objectives may be included but will not be researched independently (e.g., the summary will not describe stand-alone community-based programs).
2. Sources summarized for the Existing Objectives Matrix are readily available via data request or on public-facing websites.
3. One draft of the Existing Objectives Matrix will be developed.
4. Three drafts of the Drivers and Objectives Memo will be produced.
5. Objectives are identified as preliminary as the objectives could evolve following the outcomes of the Tasks 2-4 analysis and/or further consideration of the Regional Collaboration Program through this project.



## **Deliverables**

1. Existing Objectives Matrix.
2. Draft, Revised Draft, Final Drivers and Objectives Memo

## **Task 3.B      Business Case Memorandum**

The Geosyntec Team will develop a Business Case Memorandum as part of Task 3.B. The Business Case Memorandum will provide a technical demonstration of how regional and sub-regional projects implemented through a Regional Collaboration Program could be implemented to meet the preliminary objectives identified in the Drivers and Objectives Memo. The Business Case Memorandum will explore the potential for these regionally collaborative projects to more efficiently meet the objectives than implementation of non-regionally collaborative projects. If initial analyses demonstrate that the preliminary objectives are not feasible, the objectives will be revised, and the demonstration will describe the revised objectives and the business case associated with the revised objectives.

It is expected that analyses results from Tasks 2-4 will inform the demonstration of how regional projects could meet the objectives established in Task 3.A. As part of Task 3.B, Geosyntec will work collaboratively with Craftwater. At the initiation of Task 3.B, the Geosyntec Team will develop an Approach Memo that will describe how the results from Tasks 2-4 will inform the business case and the inputs and or analyses that Geosyntec will produce as part of the approach. It is assumed that GIS Analyses conducted by Craftwater will be completed and provided to Geosyntec prior to the development of the Approach Memo.

It is expected that Geosyntec's responsibilities for analyses, as outlined in the Approach Memo, may entail:

1. Discussions on the approach to analyses;
2. Research on key areas within the County to focus on for specific analyses, potentially including review of C/CAG member agency storm drain master plan deficiency maps;
3. Development of future climate time series input files;
4. Review of Craftwater analyses output, requests for analyses output format, or additional analysis of output;
5. Project cost estimating or cost-based comparison of implementation scenarios (design/construction focus);
6. Other stormwater facility engineering feasibility data review or analyses, such as review of geotechnical data and implications for regional facilities; and/or
7. Other research or coordination with C/CAG member agencies.

The draft Approach Memo will be reviewed by C/CAG and the County project managers and revised as needed. Geosyntec will then carry out the approach described in the Approach Memo to collaborate with Craftwater and synthesize results from Category 2, Tasks 2-4 modeling to inform the business case. The results of this analysis will be described in the Business Case Memorandum, which will aim to demonstrate how regional and sub-regional projects implemented through a Regional Collaboration Program could be implemented to meet preliminary or revised program objectives and may provide efficiencies in meeting these objectives. The Business Case Memorandum will provide planning-level cost-benefit analyses through comparison of different implementation scenarios (e.g., scenario without regional collaboration versus with regional collaboration), using existing cost analyses conducted by the County and additional implementation

(i.e., design and construction) specific cost estimating corresponding with the prioritized regional projects.

The Business Case Memorandum will also briefly summarize potential Regional Collaboration Program framework options that could be developed, with input from Geosyntec subconsultant Kieser & Associates. The Regional Collaboration Program framework options will focus on the specific conditions and objectives of San Mateo County, and will draw from research and findings from the Literature Review and System Development occurring as part of the USEPA WQIF Grant-funded Regional Compliance for a Sustainable Bay project, as well as additional framework options, considerations, and findings that are provided by American Rivers and the WaterNow Alliance. The draft Business Case Memorandum will be provided to the C/CAG and County project management team for review and revisions will be made in response to requested edits. The revised draft Business Case Memorandum will be delivered to the TAC in advance of TAC meeting #2 and will be discussed during TAC Meeting #2 and C/CAG Member Agency Meeting #3. Craftwater may also present at these meetings.

Additional revisions suggested during TAC Meeting #2 or subsequently received from the TAC will be documented and incorporated into the Regional Collaboration Program Framework White Paper developed as part of Task 4.

**Assumptions:**

1. Geosyntec will not conduct modeling as part of this task but may conduct GIS analyses or similar analyses to support development of modeling inputs for Craftwater through use of existing tools.
2. Data needed to conduct analysis (e.g., Storm Drain Master Plans) are readily available on public-facing websites or through data request.
3. Craftwater will provide requested approaches, GIS outputs, and modeling outputs needed to inform Geosyntec's approach and analyses.

**Deliverables**

1. Approach Memorandum
2. Draft and Revised Draft Business Case Memorandum

## **TASK 4 REGIONAL PROJECT COLLABORATION FRAMEWORK WHITE PAPER**

### **Task 4.A Regional Collaboration Program Framework White Paper**

Based on input from TAC Meeting #2, the proposed Regional Collaboration Program Framework (i.e., selected from the options presented in the Business Case Memorandum) will be described in a White Paper.

First, using the outcomes from the Business Case Memorandum and TAC Meeting #2, the proposed draft Regional Collaboration Program Framework<sup>1</sup> will be presented in a draft Framework Flow Chart. The draft Framework Flow Chart will be reviewed by C/CAG and the County and suggested

<sup>1</sup> The Regional Collaboration Program would be set up to allow for "exchanges", payment of an in-lieu fee, and/or development of a Fund, funded through other revenue sources, to generate managed runoff volumes, treated acres, and/or pollutant load reduction through implementation of regional projects.

edits will be made. The revised draft Framework Flow Chart will be presented at TAC Meeting #3 and a C/CAG member agency meeting for input; these meetings will also be used to discuss and/or confirm key decisions relating to Regional Collaboration Program Framework components (e.g., eligible entities, geographic limits, metrics, “tracks”, exchange rules and/or ratios, etc.). Input and decisions received during these meetings will be included in the Regional Project Collaboration Framework White Paper (White Paper).

The White Paper will compile the Business Case Memoranda plus revisions received through Task 3 with the proposed Framework and key components of the Regional Collaboration Program. The White Paper will finally identify next steps to further develop and implement the Regional Project Collaboration Program. These next steps could include but not be limited to fee studies, administrative needs, a proposed approach to pilot the Program, and/or additional technical studies. Next steps needed for Program development beyond this scope will depend on the ultimate Framework selected and the level to which the Program diverts from the developed Regional Compliance for a Sustainable Bay Regional Alternative Compliance System.

The Geosyntec Team will develop a Draft White Paper, which will be reviewed by the County and C/CAG project managers. A Revised Draft White Paper will be distributed to the TAC and other reviewers designated by the project managers. Depending on the extent of comments received, a responses to comments matrix may be developed, which will identify responses incorporated into the White Paper as well as comments which may need to be addressed in later stages of Program development and implementation. The Final White Paper will address comments through revisions and/or additions to the next steps indicated in the document.

#### **Assumptions**

1. Framework legal review will be conducted by C/CAG and/or County attorneys or hired legal consultants. The legal basis for the selected Framework will be established by these parties.
2. The level of detail that can be described for the San Mateo County Framework in the White Paper will depend on the selected Framework approach. An approach that is similar to Regional Compliance for a Sustainable Bay Regional Alternative Compliance System may allow for additional exploration of System components through this scope (i.e., building on other work done), whereas a divergent System may be described in less detail. It is the intent of this scope that the System identified through the processes described above as the most appropriate for the conditions and the objectives of San Mateo County is the approach described in the White Paper.
3. Detailed quantitative analysis and fee-setting will not be conducted through the task.

#### **Deliverables**

1. Draft and Revised proposed Framework Flow Chart.
2. Draft, Revised Draft, and Final White Paper.

## **TASK 5 OUTREACH TOOLS AND MATERIALS**

### **Task 5.A Base Scope**

For Task 5, Geosyntec will develop outreach tools and materials that C/CAG and the County can use in presentations to stakeholders and, as applicable, the public. These will include a 10-15 slide PowerPoint presentation as well as a 1-page Fact Sheet that describe the outcomes of the Business Case Memoranda and the proposed Regional Collaboration Framework.

**Deliverables:**

1. 10-15 slide PowerPoint presentation.
2. 1-page fact sheet.

# Budget

The total budget for this work is provided as detailed in the table below. Budget for both Geosyntec and technical advisor Kieser & Associates is summarized.

<b>Task</b>	<b>Geosyntec<sup>1</sup></b>	<b>Kieser &amp; Associates</b>	<b>Total Budget</b>
1 – Project Management and Meetings	\$20,000		\$20,000
2 – TAC Meetings	\$7,000	\$2,000	\$9,000
3 – Business Case Memoranda	\$51,750	\$4,000	\$55,750
4 – Regional Collaboration White Paper	\$15,000	\$5,000	\$20,000
5 – Outreach Materials	\$6,000		\$6,000
<b>Total</b>	<b>\$99,750</b>	<b>\$11,000</b>	<b>\$110,750</b>

<sup>1</sup> Includes 3% communications fee on labor and 10% subcontractor markup

## DETAILED BUDGET

Task	Geosyntec											Kieser & Associates	Geosyntec Sub Mark Up (10%)	Total	Rounded Total
	Sr. Principal	Principal/ Senior Consultant	Senior Professional	Professional	Staff Professional	Admin	Clerical	Graphics	Total Hours	Total Labor	Total Geosyntec (including 3% comm fee)				
	262	240	220	174	132	72	57	116							
1A - Project Management and Coordination; Meetings		12	52	24		14			102	\$19,432	\$20,089			\$20,089	\$20,000
2A - TAC Meetings		8	21						29	\$6,540	\$6,736	\$2,000	\$200	\$8,936	\$9,000
3A - Drivers and Objectives		18	28	24	40		8		118	\$20,392	\$21,004			\$21,004	\$21,000
3B - Business Case Memo	3	8	44	44	68		8		175	\$29,474	\$30,358	\$4,000	\$400	\$34,758	\$34,750
4A - Regional Project Collaboration Framework White Paper	2	8	40	14			8		72	\$14,136	\$14,560	\$5,000	\$500	\$20,060	\$20,000
5A - Outreach Materials		2	12	10				8	32	\$5,788	\$5,962			\$5,962	\$6,000
TOTAL	5	56	197	116	108	14	24	8	528	\$95,834	\$98,709	\$11,000	\$1,100	\$110,809	\$110,750

# Schedule

A summary of overall schedule is provided below. Please refer to “Cat2\_Schedule\_DRAFT\_102720\_combined.xlsx” for detailed proposed project schedule.

Task	Task Start	Task End
1 – Project Management and Meetings	December 2020	January 2022
2 – TAC Meetings	January 2021	October 2021
3 – Business Case Memoranda	December 2020	August 2021
4 – Regional Collaboration White Paper	August 2021	January 2022
5 – Outreach Materials	January 2022	January 2022

## GEOSYNTEC CONSULTANTS 2020 RATE SCHEDULE

Staff Professional	\$132
Senior Staff Professional	\$153
Professional	\$174
Project Professional	\$196
Senior Professional	\$220
Principal	\$240
Senior Principal	\$262

Technician I	\$ 70
Technician II	\$ 75
Senior Technician I	\$ 81
Senior Technician II	\$ 88
Site Manager I	\$100
Site Manager II	\$104
Construction Manager I	\$117
Construction Manager II	\$126

Designer	\$140
Senior Drafter/Senior CADD Operator	\$ 128
Drafter/CADD Operator/Artist	\$ 116
Project Administrator	\$ 72
Clerical	\$ 57

Direct Expenses	Cost plus 10%
Subcontract Services	Cost plus 10%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	\$ 15
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	\$ .09

Rates are provided on a confidential basis and are client and project specific.  
Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Produce Price  
Index for Engineering Services.

Rates for field equipment, health and safety equipment, and graphical supplies presented upon  
request.

Construction management fee presented upon request.

**C/CAG AGENDA REPORT**

Date: November 19, 2020

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Review and recommend the C/CAG Board of Directors approve entering into agreements with American Rivers and Corona Environmental Consultants and WaterNow Alliance for pro-bono services to evaluate opportunities for a stormwater credit trading marketplace and summarize stormwater funding and financing opportunities for stormwater capture opportunities.

(For further information or response to questions, contact Matthew Fabry at [mfabry@smcgov.org](mailto:mfabry@smcgov.org))

---

**RECOMMENDATION**

That the Stormwater Committee review and recommend the C/CAG Board of Directors approve entering into agreements with American Rivers and Corona Environmental Consultants and WaterNow Alliance for pro-bono services to evaluate opportunities for a stormwater credit trading marketplace and summarize stormwater funding and financing opportunities for stormwater capture opportunities.

**FISCAL IMPACT**

The American Rivers/Corona and WaterNow Alliance support services are being provided on a pro bono basis. C/CAG is not required to provide any matching funds.

**BACKGROUND**

C/CAG staff was invited to participate in a Green Infrastructure Funding Academy jointly sponsored by American Rivers, Corona Environmental Consultants, and WaterNow Alliance focused on educating municipal/district staffs from across the country on options for accelerating green infrastructure implementation through credit trading marketplaces and innovative funding and financing approaches. As part of that Academy, C/CAG was offered additional pro-bono support from American Rivers and Corona Environmental Consultants to evaluate the feasibility of creating a stormwater credit trading marketplace in San Mateo County and WaterNow Alliance to analyze relevant funding and financing mechanisms. C/CAG staff recognized an opportunity to integrate these pro-bono efforts with C/CAG's separate grant-funded efforts by Craftwater Engineering (Craftwater) and Geosyntec Consultants (Geosyntec) to identify and conceptualize regional stormwater capture opportunities and develop a business case and framework for countywide collaboration on stormwater management. Staff worked with all partners to develop scopes that are complementary and add value, with the pro-bono outputs planned for integration within Geosyntec's planned business case and collaborative framework white paper. The American Rivers/Corona Environmental Consultants and WaterNow Alliance scopes are included as Attachments 1 and 2.



C/CAG staff believes the products these scopes will provide, in conjunction with the grant-funded Craftwater and Geosyntec products, will significantly advance discussions within the county on innovative approaches to manage stormwater more cost effectively to address mandates under the Municipal Regional Permit and to build resilience in the face of a changing climate.

Staff recommends the Stormwater Committee review the proposed scopes and recommend the C/CAG Board of Directors approve entering into agreements with each entity. Specifically, a Memorandum of Understanding with WaterNow Alliance and a letter agreement with American Rivers and Corona Environmental Consultants for their respective pro-bono services.

#### **ATTACHMENTS**

1. American Rivers/Corona Environmental Consultants Scope of Work
2. WaterNow Alliance Scope of Work

## ATTACHMENT 1

### American Rivers/Corona Environmental Consultants Scope of Work

## **American Rivers/ Corona Environmental Consultants**

### *Concept for GIFA Phase II with San Mateo County Countywide Stormwater Program*

#### Background

As part of a collaborative “Green Infrastructure Funding Academy” project, American Rivers and Corona Environmental Consulting are prepared to offer to an Academy participant a limited amount of individualized research and analysis to support the development of a stormwater credit trading program and/or other incentives. In general terms, this assistance is intended to help the participant assess the feasibility of credit trading or other market-based incentives as a component of its local municipal stormwater program and to explore policy and program design options for a potential trading program.

#### Contextual Understanding

C/CAG is in the process of undertaking an evaluation of approaches to advance regional stormwater management projects. This evaluation is primarily to be undertaken by Geosyntec beginning in late autumn 2020. Craftwater Engineering will provide additional, related support.

It is our understanding that Geosyntec’s assessment will focus on potential regional projects, funded by public agencies and installed on public property, while Craftwater Engineering (and/or Geosyntec) will be conducting analyses to identify opportunities for regional projects (and potentially, more distributed infrastructure solutions) located on both public and private property. We understand that Geosyntec’s efforts to describe a regional compliance framework for the County will include discussion of potential credit trading approaches that may include private property actors but is more focused at the municipal level.

#### Stormwater Credit Trading Concept

American Rivers and Corona Environmental Consulting propose to provide C/CAG with further analysis of the potential for stormwater credit trading or other market-based incentive programs within C/CAG’s Countywide Stormwater Program jurisdiction. For purposes of this work, “stormwater credit trading” refers to a program that allows private property developments to achieve compliance with the local codes/ordinances that enact terms of section C.3 of the Municipal Regional Permit (MRP). Credit trading envisions that some private property developments may be eligible to take advantage of the alternative compliance approach described in MRP section C.3.e(1) and that one alternative compliance option envisioned by the MRP could be a market-based platform for the exchange of “stormwater credits” between developments seeking alternative compliance and voluntary green infrastructure projects that provide equivalent stormwater retention/volume management. The same stormwater credit trading approach could also be available to public (e.g. municipal government) projects, either as consumers of credits (e.g., through a regional incentive program) as a pathway to regulatory compliance or as a supplier of voluntary, credit generating stormwater management capacity. The analysis contemplated by American Rivers and Corona Environmental Consulting will consider public agency participation in

San Mateo County credit trading program, as well as a role for more effective market-based incentive programs (as applicable).

We are aware of ongoing discussions and analysis about the feasibility and desirability of a related form of credit trading within MRP-regulated communities that envisions trading between municipal permittees as a means of achieving compliance with the PCB, mercury and other water-quality related MRP provisions (e.g., Sections C.11-C.14). Without further clarification about how private development/land use activities fit into San Mateo County's efforts to meet these MRP requirements, American Rivers and Corona Environmental Consulting are uncertain about how compliance with these provisions can be achieved via the stormwater credit trading program we propose to analyze. It may be possible to incorporate PCB and mercury reduction 'credits' into a stormwater credit trading program, however, further discussion and analysis of this topic is required.

#### Alignment with Geosyntec/Craftwater Scope of Services

American Rivers and Corona Environmental Consulting are prepared to work closely with C/CAG and Geosyntec/Craftwater to ensure that the County receives consistent and coordinated information about regional and alternative options for compliance with MRP requirements. We envision that the deliverables American Rivers and Corona Environmental Consulting will provide will be capable of integration within the "Business Case Memorandum" or "Regional Compliance Framework" referred to in the proposed Geosyntec scope of work. Further, based on discussions with Craftwater, it appears that their analysis will provide important inputs into American Rivers and Corona's assessment of the potential supply and demand for a stormwater credit trading market.

Through future conversations with Geosyntec, we will work closely with them to ensure efforts are coordinated and not duplicative. Proposed Scope (160 hours pro bono services)

American Rivers and Corona Environmental Consulting will undertake an assessment of a potential credit trading market/incentive program for stormwater management on private property within San Mateo County. Geographically, this assessment will focus on the eastern portions of the County which drain toward San Francisco Bay. The assessment will:

- Undertake an economic analysis to determine whether the current (or potentially heightened) regulatory structure creates conditions that would drive private property developers to seek alternative off-site compliance.
- Identify whether a credit trading market for private property developers would be feasible given the results of the economic analysis.
- Analyze incentive options for County or C/CAG member agencies that would encourage private development participation in a trading market (supply or demand) or lead to private property installation of green infrastructure (including an economic assessment comparing to publicly funded & installed green infrastructure);

- Assess the potential for a credit trading program to include transactions involving County and/or C/CAG member agencies to assist in meeting regulatory or resilience goals;
- Coordinate with Geosyntec to include a discussion of potential trading program and other incentives as part of the Regional Collaboration Framework

### Deliverables

American Rivers/Corona will provide a technical memo detailing the methodologies and results of the assessments described above. Our understanding is that this memo (or a final composite memo) will be structured to be an addendum to the Business Case Memorandum being prepared by Geosyntec. We also anticipate that elements of these memos may be included in or referenced by Geosyntec in that Memorandum.

### Timeline

To best align this work with the tasks being undertaken by Geosyntec, Craftwater and C/CAG, and to make best use of the resources currently available to American Rivers/Corona, we anticipate that the majority of this work will take place between June and September 2021 (between the completion of Draft Regional Opportunities Analysis Report and GIS Data (Geosyntec Task 2C) and the completion of the Business Case Memorandum (Geosyntec Task 3G). This schedule is adaptable, however all work must be complete by October 15, 2021.

## ATTACHMENT 2

### WaterNow Alliance Scope of Work

**GSI Finance Academy Phase 2  
San Mateo County Countywide Stormwater Program  
WaterNow Initial Scope Outline – Revised**

**Background**

WaterNow Alliance's Tap into Resilience (TiR) initiative empowers water leaders across the country by providing them with the information, tools, and resources they need to scale investment in innovative localized water strategies to build community resilience and keep water affordable for all. As part of TiR, WaterNow offers hands-on technical support to cities and utilities interested in activating and scaling-up innovative water strategies in their communities to address water security challenges.

**Contextual Understanding**

Our understanding is that C/CAG has retained Geosyntec to conduct an evaluation of approaches to advance regional and distributed stormwater management projects, which is slated to begin in late autumn 2020. Geosyntec's assessment will focus both on potential regional projects and on potential distributed green infrastructure located on private property and implemented by private sector developers that can provide water quality and resiliency benefits. For example, C/CAG currently has a rain barrel rebate program implemented in partnership with the Bay Area Water Supply Conservation Agency (BAWSCA) that may provide a basis for expanding deployment of distributed green infrastructure as part of a portfolio of projects on public and private property. We understand that Geosyntec's efforts to describe a regional compliance framework for the County will be outlined in a Business Case Memorandum and a Regional Collaboration Program Framework White Paper.

To supplement the analyses to be conducted by Geosyntec, below WaterNow outlines tasks WaterNow proposes to undertake to inform and advance San Mateo County's increased investments in regional green infrastructure as well as distributed green infrastructure on private property. These tasks are focused on the County's evaluating, and, as appropriate, pursuing, options and mechanisms to debt-finance regional and distributed green infrastructure investments.

**WaterNow Role** (160 pro bono hours)

1. Develop a list with corresponding summary descriptions of relevant financing options, e.g., municipal bonds, SRF, WIFIA, EIBs, that may be available to fund regional and countywide distributed green infrastructure projects, including whether a stormwater fee/rate would be needed and, if so, how the fee/rate ordinance could be designed to allow debt financing of distributed green infrastructure.
2. Conduct an initial legal and financial accounting analysis to provide a basis for San Mateo County's, C/CAG's, and/or the Flood and Sea Level Rise Resiliency District's ability to access each of the financing options.
3. Identify regional partners, such as the 20 incorporated cities in San Mateo County, BAWSCA, and San Mateo County Flood and Sea Level Rise Resiliency District, among others, to participate in financing options.
4. Conduct 1-2 in depth workshops with C/CAG and other relevant stakeholder's legal, financial, and accounting staff and/or consultants to dig into identified financing options.
5. Develop materials for inclusion of identified financing option(s) in a public-facing document, e.g., Geosyntec's Business Case Memorandum and Regional Collaboration Program Framework White Paper, a capital improvement plan, bond packet, or other relevant planning documents to put the County and its regional partner agencies and cities onto the path to scaling investments in distributed green infrastructure.

**C/CAG Role**

1. Execute a Memorandum of Understanding with WaterNow outlining tasks and parties' roles.
2. Provide needed information to foster WaterNow's completion of the above-listed analyses.
3. Help coordinate workshops, including identifying key stakeholders and participants, developing workshop agendas and materials in partnership with WaterNow, and participating in workshops.
4. Include C/CAG's, the County's and/or its regional partner agencies and cities efforts to scale investments in distributed green infrastructure by debt financing those investments in a public facing document, e.g., by including distributed green infrastructure in Geosyntec's Business Case Memorandum and Regional Collaboration Program Framework White Paper, a capital improvement plan, bond packet, or other relevant planning documents.

**Deliverables**

1. Technical memos detailing the assessments described in tasks 1-3 above to be incorporated as appendices to Geosyntec's Business Case Memorandum and Regional Collaboration Program Framework White Paper.
2. Facilitate 1-2 in depth workshops for relevant stakeholders to explore the identified financing options and help secure board, management and staff approval for a financing path forward.
3. Provide needed materials for inclusion of identified financing options in public-facing documents to be incorporated as appendices to Geosyntec's Business Case Memorandum and Regional Collaboration Program Framework White Paper.

**Timeline**

WaterNow's work on this project may begin as soon as November 15, 2020, with a full timeline to be determined per an MOU between the parties based on the available 160 pro bono hours. WaterNow will identify a timeline that aligns with the tasks to be undertaken by Geosyntec, Craftwater, C/CAG, and American Rivers as part of the development of the regional collaboration program framework. However, WaterNow anticipates completing its tasks outlined above no later than October 2021.



## C/CAG AGENDA REPORT

Date: November 19, 2020

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Receive presentation on the Draft Sustainable Streets Master Plan.

(For further information or questions contact Matthew Fabry at [mfabry@smcgov.org](mailto:mfabry@smcgov.org))

---

### RECOMMENDATION

That the Stormwater Committee receive a presentation on the draft Sustainable Streets Master Plan.

### BACKGROUND/DISCUSSION

In May 2018, C/CAG was awarded a \$986,300 Climate Adaptation Planning grant by Caltrans to develop a Countywide Sustainable Streets Master Plan (Master Plan) that prioritizes street segments throughout the county for integrating green stormwater infrastructure with planned transportation investments as an approach for adapting the transportation network to a changing climate. Sustainable Streets are broadly defined as integrating Complete Streets with Green Streets, combining improvements focused on supporting active transportation and transit with green infrastructure that captures, cleans, and retains stormwater runoff.

The project started in November 2018 and is nearing completion, with C/CAG staff planning to release a public review draft on December 1, 2020. The project included the following primary tasks:

- Community Engagement
- Climate Adaptation Risk Analysis on Local Transportation Network
- High-Resolution Data Analysis and Fine-Scale Drainage Delineation
- Prioritization of Sustainable Streets Opportunities and Development of Master Plan
- Project Concepts
- Web-based Sustainable Streets Project Implementation Mapping and Tracking Tool

The Master Plan evaluates precipitation-based climate change impacts on runoff from the roadway network and prioritize opportunities for integrating green stormwater infrastructure with planned transportation investments to help adapt the roadway network to protect downstream infrastructure and waterways. The Master Plan prioritizes specific roadway segments for integration of green infrastructure in five-, 10-, and 20-year time horizons and will include 11 project concepts. The work products will directly support C/CAG member agencies' Green Infrastructure Planning efforts required under the Municipal Regional Permit.

The project is now in its last phase and an internal draft Master Plan was recently circulated for review and comment by C/CAG member agency staff and members of the project Stakeholder Advisory Committee (SAC). C/CAG staff will provide an overview of updates on final project deliverables, including the development of 11 project concepts, creating a virtual “open house” for the last phase of public engagement, and the web-based tracking and mapping tool. Staff will also summarize any substantial comments from the member agencies and SAC on the internal draft, as well as the schedule for review and comment on the public draft Master Plan and the proposed approach for adopting the plan as a C/CAG countywide planning document.

#### **ATTACHMENTS**

None

## C/CAG AGENDA REPORT

Date: November 19, 2020

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Receive update on the Municipal Regional Permit reissuance process.

(For further information or questions contact Matthew Fabry at [mfabry@smcgov.org](mailto:mfabry@smcgov.org))

---

### RECOMMENDATION

That the Stormwater Committee receive an update on the Municipal Regional Permit reissuance process and revised timeline.

### BACKGROUND/DISCUSSION

The five-year term of the Municipal Regional Stormwater Permit Order No. R2-2015-0049 (MRP 2.0) issued by the San Francisco Bay Regional Water Quality Control Board ends on December 31, 2020. Like the previous negotiation process for MRP 2.0, countywide stormwater program representatives, Regional Water Board staff, permittee representatives, and technical consultants to the programs have convened an MRP 3.0 Steering Committee and various work groups to facilitate the negotiation process on key provisions of the MRP.

Work groups are focused on the following permit provisions/topics: Trash, Provision C.3/Green Infrastructure (GI), Provision C.8 Water Quality Monitoring, Provisions C.11/12 mercury/PCBs/Reasonable Assurance Analyses, Provisions C.4/C.5 Commercial/Industrial Source Control, homelessness and urban firefighting flows, and tracking and reporting.

At the last MRP 3.0 Steering Committee meeting held on September 29, Water Board staff provided an updated tentative schedule for the reissuance of the next permit. This new schedule proposes an additional 10 months between the end of the current permit and the Water Board adoption of the new permit in October 2021, with a permit effective date of July 2022. This new timeline provides a welcome time extension, during which the MRP 2.0 provisions will remain in effect, to plan for and procure new consultant support to the countywide stormwater program in preparation for the new permit.

The various work groups continue to have discussion on key permit provisions, including C.3 provisions on new and redevelopment, C.8 water quality monitoring, C.10 trash provisions, developing targets for PCBs and mercury load reductions under C.11/C.12, addressing homelessness and proposed cost reporting. The work groups will continue to resolve questions and concerns about proposed modifications that would impact local resources and management strategies before the planned release of the administrative draft of the permit in November or December.

Staff will review the tentative schedule for reissuance of the permit and summarize updates on remaining key areas of negotiation based on the discussion at the September 29 MRP 3.0 Steering Committee and subsequent work group meetings. The next MRP 3.0 Steering Committee is scheduled for December 8, 2020.

**ATTACHMENTS**

None