# 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*

## 2:30 PM, Thursday, November 21, 2019

**San Mateo County Transit District Office[1]**
**1250 San Carlos Avenue, 2nd Floor Auditorium**
**San Carlos, California**

# STORMWATER (NPDES) COMMITTEE AGENDA

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|---|---|---|---|
| 1. | Public comment on items not on the Agenda (presentations limited to three minutes). | Breault | No materials |
| 2. | Stormwater Issues from C/CAG Board meetings:<br>• October – Appointment of Nikki Nagaya from the City of Menlo Park to the CMP TAC and Stormwater Committee | Fabry | No materials |
| 3. | ACTION – Review and approve September 19, 2019 Stormwater Committee minutes | Fabry | Pages 1-6 |
| 4. | INFORMATION – Announcements on stormwater issues<br>• December 11 Water Board Trash Item<br>• Sustainable Streets Master Plan Update<br>• Funding Opportunities<br>• Flood and Sea Level Rise Resiliency District update<br>• BASMAA Organizational Update<br>• Other | Fabry | Verbal |
| 5. | INFORMATION – Receive presentation on countywide efforts to reduce PCB (polychlorinated biphenyls) loads to San Francisco Bay | Konnan | Page 7 |
| 6. | ACTION – Review and recommend approval by the C/CAG Board of Directors of an approach for utilizing $2.94 million of State grant funding to advance multi-benefit regional stormwater project designs | Fabry | Pages 8-48 |
| 7. | INFORMATION – Receive update on Municipal Regional Permit reissuance process and schedule. | Fabry | Page 49 |
| 8. | Regional Board Report | Mumley | No Materials |
| 9. | Executive Director's Report | Wong | No Materials |
| 10. | Member Reports | All | No Materials |
| 11. | Adjourn | | |

[1] For public transit access use SamTrans Bus lines 390, 391, 292, KX, PX, RX, or take CalTrain to the San Carlos Station and walk two blocks up San Carlos Avenue. Driving directions: From Route 101 take the Holly Street (west) exit. Two blocks past El Camino Real go left on Walnut. The entrance to the parking lot is at the end of the block on the left, immediately before the ramp that goes under the building. Enter the parking lot by driving between the buildings and making a left into the elevated lot. Follow the signs up to the levels for public parking. Persons with disabilities who require auxiliary aids or services in attending and participating in this meeting should contact Mima Guilles at 650 599-1406, five working days prior to the meeting date.

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 Board meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members, of the Board or standing 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.

PUBLIC PARTICIPATION: Public comment is limited to two minutes per speaker. Persons with disabilities who require auxiliary aids or services in attending and participating in this meeting should contact Mima Guilles at (650) 599-1406, five working days prior to the meeting date.

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

*Program Manager: Matthew Fabry (650) 599-1419*
*Administrative Assistant: Mima Guilles (650) 599-1406*

# C/CAG AGENDA REPORT

Date: November 21, 2019

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Review and approve September 19, 2019 Stormwater Committee meeting minutes.

(For further information or questions contact Matthew Fabry at 650 599-1419)

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**RECOMMENDATION**

That the Committee review and approve September 19, 2019 Stormwater Committee meeting minutes, as drafted.

**ATTACHMENTS**

1. Draft September 19, 2019 Minutes

**STORMWATER COMMITTEE**
**Regular Meeting**
**Thursday, September 19, 2019**
**2:30 p.m.**

**Meeting Minutes**

The Stormwater Committee met in the SamTrans Offices, 1250 San Carlos Avenue, San Carlos, CA, 2nd floor auditorium. 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 (County of San Mateo), Ahmad Haya (City of Redwood City), and Raymund Donguines (City of Pacifica). Chair Breault called the meeting to order at 2:31 p.m.

1. Public comment: None

2. Stormwater Issues from C/CAG Board Meetings: None. There was no C/CAG Board meeting in August and there were no stormwater related items at the September Board meeting.

3. ACTION – The draft minutes from the August 15, 2019 Stormwater Committee meeting were unanimously approved as drafted (motion: Porter, second: Chiu).

4. INFORMATION – Matt Fabry provided announcements on stormwater issues:

- Funding Opportunities: Fabry shared current/upcoming funding opportunities focused on green infrastructure implementation, including the Recreational Trails and Greenways Grant Program under the California Natural Resources Agency ($27.7 million), Urban Flood Protection Grant Program under also under the California Natural Resources Agency ($92 million in Prop 68 funds for two cycles – public comment period August 27-October 14), Prop 1 Stormwater Grant funds managed by the State Water Resources Control Board (public comment open through September 20, with $90 million available statewide and requiring a 1:1 non-state match), and the Climate Ready Grant under the California Coastal Conservancy (anticipate release of draft guidelines in October).

- Flood and Sea Level Rise Resiliency District (FSLRRD): The enacting legislation (AB 825) to create the new District has been signed by the Governor, and the District will become established on January 1, 2020. The Board in Waiting has approved shifting to an MOU approach to the start-up phase of the District, with a focus on advancing existing and new regional projects to support the next phase and investment strategy after startup. New MOU projects could include developments on the Burlingame/Millbrae shoreline, San Mateo/Foster City Baywinds area and regional stormwater capture projects. There is interest to find a potential coastal MOU project to ensure countywide equity. The Board in Waiting is working on the recruitment process for hiring a CEO and plans to release the brochure mid-October.

- BASMAA Organization Update: Fabry provided an update on the status of BASMAA as an organization. The BASMAA Board of Directors continue to meet and plan to move forward with dissolving as an incorporated non-profit organization.

- Duly Authorized Representative Approvals: Fabry announced upcoming Duly Authorized Representative approvals needed for submission of the Program Annual Report and BASMAA Supplemental Reports (submission to the Regional Water Board September 30, 2019), SMCWPPP Water Year 2019/20 POC Monitoring Report and Pillar Point Harbor Stressor/Source Identification Project Report (POC Monitoring Report and Pillar Point Stressor/Source Identification Project Report to be submitted October 15, 2019). Fabry informed the Committee that three municipalities did not submit draft jurisdiction annual reports for EOA's review, and also mentioned that the Water Board made a specific request for municipalities to comply with Provision C.17 of the MRP to state explicitly any areas of the MRP for which a municipality is out of compliance, and if stated to provide a timeline and plan of action for attaining compliance with the permit. In response to a question about how GI Plans should be submitted with the annual reports, Fabry stated that C/CAG staff would confirm with the Committee the Water Board's direction to link plans electronically in section C.3 of the annual reports.

- Other: None.

5. ACTION – The Committee unanimously approved recommendation of the proposed approach for utilizing $2.94 million in State grant funds for multi-benefit regional stormwater project designs (motion: Ovadia, second: Porter).

Matt Fabry provided a brief background on the $3 million in State grant funds ($2.94 million after administrative fees) recently awarded to C/CAG for advancing multi-benefit regional stormwater project designs and introduced the action to approve a proposed process for utilizing the funds based on input from the Ad-hoc Workgroup and several stakeholder jurisdictions with interest in advancing identified regional project opportunities. C/CAG staff convened a meeting with representatives from these municipalities and the Ad-hoc Workgroup on September 17 to flesh out a process to determine the use of the funds and to prepare a C/CAG Board of Directors agenda item recommending approval of a resolution accepting the application of funds for specific project design work. Based on the available funds from C/CAG and the County for advancing project designs and the intended use of those funds, existing project concepts and discussion about the potential criteria for high priority projects, potential need for a competitive call, possible additional project opportunities, options for local match, and role of C/CAG, the County and participating agencies in administering the funds (as well as the future role of the FSRRLD in managing regional capture stormwater projects), staff developed the following recommendations:

- With a clear need for countywide collaboration on attaining stormwater pollutant load reduction goals, use this funding as an impetus to develop a workplan to collaborate via a countywide MOU. This will be done via coordination between C/CAG, the County and the FSLRRD staff.
- C/CAG to work with County Office of Sustainability to engage with schools and identify additional potential sites for regional projects on school property (County WQIF funds designated $100K to identifying opportunities with schools).
- C/CAG to work with Ad-hoc on developing a call for interest outlining main criteria for project consideration – based on responses to this call for interest, consider need for a competitive call for projects.

- C/CAG and stakeholder municipalities continue to seek grant funds to supplement costs and maximize potential to advance as many projects a possible through design and environmental review.

The Committee agreed to the approach, and added several comments:

- Need to raise revenue to build projects, not just design them
- Generally, a regional approach works and makes sense, but there's still work to be done to get all the agencies onboard, including confirmation of this approach by the Water Board
- Should focus on leveraging the FSLRRD to address flooding issues and maintenance costs
- C/CAG staff will circulate the Water Board's letter of support for regional project collaboration in San Mateo County
- Recommendation for C/CAG staff to present the approach to the City Managers meeting
- Working with schools will require a lease agreement for construction and operations of the facilities
- Some analysis of the number of project designs that can be done with the available funds may be needed

6. INFORMATION – Receive update on Sustainable Streets Master Plan prioritization process and criteria.

Matt Fabry presented on the prioritization process for the San Mateo Countywide Sustainable Streets Master Plan (SSMP).

C/CAG and the project team have advanced the project opportunity identification and prioritization and plan to send a technical memo out for review in the coming weeks. The primary updates on the prioritization process are as follows:

- Prioritization follows a two-step process of mapping project opportunities (based on local planning information) onto sustainable streets typologies/drivers, followed by ranking projects according to several major categories of scoring criteria (hydrology, stormwater performance, constraints and co-benefits)
- A draft prioritization criteria table is being developed, and includes several subcategories within the larger categories referenced above – the Committee, project Stakeholder Advisory Committee and other relevant committees will have a chance to give feedback via the forthcoming technical memo
- The project team agreed to include an additional project typology that will identify additional opportunities beyond colocation with planned projects. This typology will be screened geographically by proximity to major transit hubs and schools as well as those areas overlapping with segments with a high PCI score for future pavement improvement investments
- The technical memo on the prioritization process will tentatively be circulated in mid- to late-October and finalized in December

Some Committee members suggested reconsidering the name of the project, as "SSMP" has other associations for the cities, including sewer system master plan. C/CAG will work with the project team to identify potential alternatives that better align with the climate adaptation aspect of the project.

7. ACTION – The Committee unanimously approved recommending enhancements to the Sustainable Streets Master Plan scope of work (motion: Oskoui, second: Porter).

Matt Fabry presented an action item to approve recommending a series of proposed scope enhancements for the Sustainable Streets Master Plan for FY 2019-20, based on the remaining $189,264 available under the grant agreement with Caltrans, and with the input from Caltrans that all available funding should be spent. The Committee recommended the following in response to the staff-recommended scope enhancements:

- Rather than forming a new Technical Advisory Committee, use existing C/CAG Committees, such as the Green Infrastructure Committee and identified transportation planning staff to support major project deliverables
- In-lieu of an additional project concept, develop typical details to support the different project typologies or project concepts
- Further developing the prioritization criteria and opportunity ranking outputs, including summary data outputs and analysis by typology and prioritization criterion
- Master Plan enhancements, including InDesign formatting and additional drafts for review
- Upgrades to the Tracking and Mapping Tool, including a workshop to receive input on the preliminary software plan

8. Regional Board Report: None.

9. Executive Director's Report: None.

10. Member Reports: None.

Chair Breault adjourned the meeting at 3:47 p.m.

| 2019-20 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 | | | | | | | | | |
| Belmont | Afshin Oskoui | Public Works Director | | X | X | | | | | | | | | |
| Brisbane | Randy Breault | Public Works Director/City Engineer | | X | X | | | | | | | | | |
| Burlingame | Syed Murtuza | Public Works Director | | O | | | | | | | | | | |
| Colma | Brad Donohue | Director of Public Works and Planning | C | X | X | C | | | | | | | | |
| Daly City | Richard Chiu | Public Works Director | A | X | X | A | | | | | | | | |
| East Palo Alto | Kamal Fallaha | City Engineer | N | | | N | | | | | | | | |
| Foster City | Norm Dorais | Public Works Director | C | X | X | C | | | | | | | | |
| Half Moon Bay | Maziar Bozorginia | City Engineer | E | X | | E | | | | | | | | |
| Hillsborough | Paul Willis | Public Works Director | L | X | X | L | | | | | | | | |
| Menlo Park | Justin Murphy | Public Works Director | E | X | X | E | | | | | | | | |
| Millbrae | Khee Lim | Public Works Director | D | | | D | | | | | | | | |
| Pacifica | Sam Bautista | Public Works Director/City Engineer | | | O | | | | | | | | | |
| Portola Valley | Howard Young | Public Works Director | | X | | | | | | | | | | |
| Redwood City | Saber Sarwary | Supervising Civil Engineer | | | O | | | | | | | | | |
| San Bruno | Jimmy Tan | City Engineer | | X | X | | | | | | | | | |
| San Carlos | Steven Machida | Public Works Director | | X | X | | | | | | | | | |
| San Mateo | Brad Underwood | Public Works Director | | X | X | | | | | | | | | |
| South San Francisco | Eunejune Kim | Public Works Director | | | | | | | | | | | | |
| Woodside | Sean Rose | Public Works Director | | | | | | | | | | | | |
| San Mateo County | Jim Porter | Public Works Director | | X | 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 21, 2019

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Receive presentation on countywide efforts to reduce PCB (polychlorinated biphenyls) loads to San Francisco Bay.

(For further information or questions contact Matthew Fabry at 650/599-1419)

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## RECOMMENDATION

Receive presentation on countywide efforts to reduce PCB (polychlorinated biphenyls) loads to San Francisco Bay, including:

- quantification of load reductions achieved to-date compared to Municipal Regional Permit (MRP) requirements and challenges for the remainder of the MRP permit term;
- results of the latest source property investigation work; and
- next steps, including development of a new long-term control measures plan.

## BACKGROUND

The MRP requires specific reductions in PCBs (polychlorinated biphenyls) loading in stormwater runoff by the end of the permit term (2020) and at an interim point that was more than a year ago (June 30, 2018). The MRP further specifies a portion of the 2020 PCBs load reductions be achieved via green infrastructure. There is also a requirement for a specific mercury load reduction via green infrastructure by 2020. Permittees developed an Interim Accounting Methodology for use during this permit term while they develop more robust load reduction accounting and tracking methodologies as part of the required Reasonable Assurance Analyses. EOA has been working with C/CAG member agencies to account for all green infrastructure implemented in San Mateo County to-date and the associated load reductions using the Interim Accounting Methodology. In addition, EOA has been working to identify other potential load reduction opportunities, including identification of potential source properties that could be referred for cleanup to the Regional Water Board. EOA staff will summarize PCBs load reductions achieved to-date compared to MRP requirements and challenges with meeting additional PCBs load reductions required by 2020. EOA staff will also present the results of latest source property investigation work, and discuss next steps, including development of a new long-term PCBs and mercury control measures plan.

## ATTACHMENTS

None

# C/CAG AGENDA REPORT

Date: November 21, 2019

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Review and recommend approval by the C/CAG Board of Directors of an approach for utilizing $2.94 million of State grant funding to advance multi-benefit regional stormwater project designs.

(For further information or questions contact Matthew Fabry at 650 599-1419)

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**RECOMMENDATION**

That the Committee review and recommend approval by the C/CAG Board of an approach for utilizing $2.94 million in State grant funds to advance multi-benefit regional stormwater project designs.

**BACKGROUND**

At its September 19 meeting, the Stormwater Committee agreed to an approach for allocating the $2.94 million in State grant funds awarded to C/CAG and administered by the California Natural Resources Agency (CNRA) to advance regional multi-benefit stormwater capture project designs. The recommended approach included allocating:

- Matching the County Office of Sustainability's Environmental Protection Agency grant funds ($100,000) to identify additional regional capture project opportunities, including opportunities at school sites through engagement with school districts and the County Office of Education
- Providing $100,000 to work with the Flood and Sea Level Rise Resiliency District (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.

C/CAG staff worked with the Committee's Ad-hoc Municipal Regional Permit Implementation Work Group to develop a request for Letters of Interest to determine the number of potential regional projects interested in receiving design support, which was issued on September 30 (Attachment 2).

C/CAG received six letters in response to its solicitation (Attachment 3), summarized as follows:

- Letter from San Mateo County Department of Public Works for a 21-acre foot regional retention project in the City of Belmont at Twin Pines Park
- Letter from Redwood City Community Development Department for a 21-acre foot regional retention project at Red Morton Park

- Letter from San Bruno Public Works Department for a 31-acre foot regional retention project in the at the I-280/I-380 interchange
- Letter from the City of Burlingame for a green street project on Chapin Avenue
- Letter from the City of Millbrae for a green street project on San Anselmo Avenue
- Letter from the San Mateo County Office of Sustainability supporting the San Bruno and Redwood City regional projects and recommending C/CAG consider matching its $100,000 for finding additional regional project opportunities.

C/CAG staff met with the Ad-hoc Work Group on November 4 and reviewed the submitted letters. The Ad-hoc Work Group recommended the two green street projects proposed by Burlingame and Millbrae be removed from consideration given the focus of the C/CAG funds and the request for Letters of Interest for regional stormwater facilities. Given the similar nature and scale of the three submitted regional projects, the Ad-hoc Work Group recommended the $2.74 million pot of C/CAG funds be split evenly between the three projects with the expectation that project sponsors commit to getting the projects over the California Environmental Quality Act (CEQA) hurdle, at a minimum, which may require committing local funds. Funds would be provided to project sponsors via funding agreements with C/CAG, with local agencies being responsible for procuring and managing their own technical consultant contracts.

C/CAG staff followed up with relevant city/county staff to confirm commitment to funding project designs through CEQA analysis and will continue working with the three sponsors to develop appropriate scopes, deliverables, and timelines for eventual inclusion in draft funding agreements. The Ad-hoc Work Group also recommended the project sponsors be required to adopt council resolutions to accept the funds and commit to developing project designs and environmental documents as part of entering into an agreement with C/CAG.

C/CAG is required to enter into a grant agreement with the CNRA that requires a project information package with a summary of how the grant funds will be utilized. The overall recommended approach to utilizing the CNRA grant funds is summarized in Attachment 1. Staff recommends the Committee recommend that the C/CAG Board of Directors approve the approach for utilizing the $2.94 million in grant funds as part of adopting a resolution to accept the grant funds at its December 2019 Board meeting.

**ATTACHMENTS**

1. Recommended approach for utilizing $2.84 million in grant funding
2. C/CAG Request for Letters of Interest – Regional Stormwater Capture Projects
3. Submitted Letters of Interest

**PROJECT SUMMARY – Multi-Benefit Stormwater Capture Projects: City/County Association of Governments of San Mateo County**

The grant funds for the Multi-Benefit Stormwater Capture Projects: City/County Association of Governments of San Mateo County Project will advance regional stormwater management in San Mateo County through collaboration with ongoing resiliency efforts in the County and by developing designs for multi-benefit regional stormwater capture projects. The grant will help municipalities in San Mateo County more cost-effectively address water quality regulations while simultaneously helping to adapt the drainage system to future precipitation-based climate change impacts.

1. **Additional Regional Project Identification** – Matching U.S. Environmental Protection Agency grant funds awarded to the San Mateo County Office of Sustainability (OOS), $100,000 is planned to identify additional regional stormwater capture opportunities throughout the county at public open spaces such as public parks, sports fields, and parking lots, and to implement an engagement process with school districts and the County Office of Education (COE) to pursue partnerships for project opportunities identified on school sites. C/CAG and OOS, with consultant support, will use existing stormwater modeling and project opportunity analyses to identify high-value locations throughout the county that satisfy various criteria for regional projects and develop concepts that can be used to further advance project opportunities. C/CAG and OOS will engage COE and school districts to discuss opportunities, constraints, and potential partnerships for regional capture projects at schools. Project deliverables include a technical report detailing prioritized regional stormwater capture project opportunity locations, GIS data layers for identified opportunities, up to five project concepts, and a report detailing results of the school engagement process.

2. **Developing Regional Collaboration** – Regional stormwater management, while a cost-effective means to building resiliency and improving water quality, requires agencies to collaborate, share costs, and take leadership and supporting roles in building and maintaining projects. To help establish a collective, countywide approach to regional stormwater management, $100,000 is planned to develop the "business case" for agency collaboration. C/CAG, in coordination with the Flood and Sea Level Rise Resiliency District (FSLRRD) and consultant support, will develop a technical memorandum that will use the potential project opportunities from Project #1, above, and existing climate change and stormwater modeling efforts in San Mateo County to quantify the benefits and costs of regional stormwater management compared with individual jurisdictional approaches, identify potential collaborative approaches, and recommend a preferred approach, including model documents, such as a Memorandum of Understanding, that could be used by agencies and stakeholders to work collaboratively on regional stormwater management.

3. **Advance Regional Project Designs –** Funds will be provided via sub-agreements to project sponsors to advance designs on three regional stormwater capture projects. The goal is to maximize project designs, with the minimum expectation of developing preliminary designs (e.g., 30%) and CEQA documentation. If feasible within available funds, including any additional local match, project designs may be developed to higher levels. Anticipated deliverables for each project include Project Design Concept Reports (including utility, topographic, geotechnical, hydrology, hydraulic analyses, 10% and 30% design level plans and cost estimates) and CEQA documentation.

    a. **Advance Project Design for Twin Pines Park, Belmont** – $913,333 will be provided for the Twin Pines Park Regional Project in the City of Belmont. Originally identified in the San Mateo Countywide Stormwater Resources Plan and further detailed in the

Belmont Creek Watershed Management Plan, this project would capture runoff from a 1,750-acre watershed upstream of Twin Pines Park, including contributing drainage area from Belmont, San Carlos, and Unincorporated County. The project concept calls for 21-acre-feet of storage capacity beneath the parking lot at Twin Pines Park and would be coordinated with surface and creek improvements identified in the Twin Pines Park Master Plan.

b. **Advance Project Design for Red Morton Park, Redwood City –** $913,333 (leveraging $200,000 in additional EPA grant funds provided separately via the County Office of Sustainability) for Phase I of the Red Morton Park Regional Project in the City of Redwood City. This project would capture runoff from approximately 1,650 acres upstream of the park with contributing drainage area in Redwood City, Unincorporated County and the Town of Woodside. The project would divert flow from underground storm drain culverts to an underground retention facility planned to be coordinated with the synthetic turf replacement schedule for the park, with a planned storage capacity of 31.2 acre-feet. The project concept includes treatment and reuse of captured stormwater for irrigating the park, trash removal facilities, and reduced downstream flooding potential for a disadvantaged community.

c. **Advance Project Design for San Bruno I-280/I-380** – $913,333 (leveraging $200,000 in additional EPA grant funds provided separately via the County Office of Sustainability) for the San Bruno I-280/380 Regional Project. This project would capture runoff from approximately 942 acres upstream of a vacant Caltrans parcel in the interchange of I-280 and I-380, including drainage from San Bruno, Pacifica, Caltrans and Unincorporated County. The proposed project would divert runoff from a storm drain that eventually discharges to the San Bruno Channel. The project concept includes approximately 21 acre-feet of underground storage capacity with trash capture facilities and groundwater recharge benefits to the Westside Groundwater Basin.

# 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*

September 30, 2019

TO: C/CAG Stormwater Committee Members

FROM: Sandy Wong, Executive Director

**RE: Call for Letters of Interest – Regional Stormwater Capture Projects**

**DUE DATE: OCTOBER 25, 2019**

Per your September 19, 2019 Committee recommendation, C/CAG is soliciting Letters of Interest for regional stormwater capture projects in association with the $3 million State budget allocation to C/CAG for advancing planning and design of multi-benefit regional stormwater facilities. The purpose of this solicitation is to determine 1) the extent of regional stormwater project opportunities within the county and 2) the potential benefits and levels of readiness of those projects. This will help inform next steps regarding how C/CAG allocates planning and design support from the budget allocation (to be administered to C/CAG via a grant agreement with the California Natural Resources Agency), which may include a competitive process building on information provided in Letters of Interest. If a subsequent competitive process is needed, attached to this memo is a list of anticipated detailed information that will likely be requested to further determine funding priorities – agencies are encouraged to begin compiling this information now. **Any agency that wants a project to be included in funding considerations must submit a Letter of Interest. Please submit Letters of Interest electronically to Matt Fabry (mfabry@smcgov.org) by 5 PM on Friday, October 18.**

In order to evaluate regional project opportunities, C/CAG requests the following information be addressed in your Letter of Interest:

1. Project Summary: briefly summarize the proposed regional project
2. Project Location: provide details on the proposed project location
3. Project Drainage Area: provide details on the size of the upstream drainage area and the jurisdictions within the upstream drainage area to the proposed project (including Caltrans, if applicable)
4. Project Size: provide information on the anticipated size of the project, including footprint and storage volume.
5. Level of Readiness: provide information regarding to what extent the project is ready to proceed into design phase, including details on any project concepts, community engagement, council or subcommittee support, available funding to support project design, etc.

The **San Mateo County Stormwater Resource Plan and associated GIS web viewer** (available at http://ccag.ca.gov/srp/) may be helpful for preparing a Letter of Interest (web viewer includes layers for prioritized regional project opportunities, creek watersheds, storm drain lines/outfalls, storm drain catchments, etc.). Should you have any questions on this request, please contact Matthew Fabry (mfabry@smcgov.org or 650-599-1419) or Reid Bogert (rbogert@smcgov.org or 650-599-1433) of my staff.

Thank you.

Sandy Wong, Executive Director
City/County Association of Governments of San Mateo County

Anticipated additional detailed information that will likely be needed to determine C/CAG funding priorities (**this information is not required as part of the Letter of Interest, but can be included if readily available and may help expedite any subsequent steps**):

1. Project Overview: briefly summarize the proposed regional project, including details on the location of the facility, primary and secondary benefits of the project (e.g., water quality improvement, downstream flood mitigation, groundwater recharge, potable water offset, climate change resilience, etc.) and the agencies/entities receiving those benefits, and what agency(ies) would serve as the project lead for design, construction, and long-term operations and maintenance.

2. Watershed: Indicate the facility's watershed and the downstream discharge location to the Bay or Ocean.

3. Drainage Area: Quantify the upstream drainage area, including total area (acres) and area by municipal jurisdiction, including Caltrans.

4. Land Ownership/Site Permission: Indicate who owns the land where the facility is proposed to be sited, including the location of any diversion, treatment, or pumping facilities. If land is owned by an entity other than a C/CAG member agency, indicate whether the property owner has provided permission or been engaged in discussions about siting the regional project at that location.

5. Diversion/Treatment Details: Provide any details on the proposed project's means of diverting runoff to the facility (e.g., divert runoff from a creek/open channel or a storm drain pipe/underground culvert) and information on the proposed diversion location, length, and type of diversion facility (gravity or pumped), and any expected pretreatment or post-treatment facilities for trash removal or filtration and disinfection for irrigation purposes.

6. Facility Capacity/Size: Provide details on the proposed size of the facility in terms of storage capacity (acre-feet). Provide details on areal size (acres) of the facility and anticipated depth (feet). Provide details on anticipated annual volume captured by the facility.

7. Depth to Groundwater: Provide details on anticipated seasonal high groundwater elevation at the location of the proposed facility.

8. Site Constraints: Provide details on any known or anticipated site constraints, such as underground utilities, poor soil infiltration capacity, etc.

9. Cost Estimates: Provide any concept cost estimates for design, environmental, construction, and long-term operations and maintenance.

10. Matching Funds: Provide details on whether any other funds (local match or otherwise) could be provided to support developing project designs.

11. Disadvantaged Community Benefits: Indicate whether the project provides direct benefits to any disadvantaged or vulnerable communities. Provide details on what metrics or statewide mapping systems are used to delineate those communities and what benefits the project is expected to provide.

12. Community Engagement: Indicate whether and to what extent there has been community or external stakeholder engagement or expressed community support for the proposed project.

13. Elected Official Support: Indicate whether the city/town council or Board of Supervisors has been engaged on the project and taken any formal action to support the proposed project.

**COUNTY OF SAN MATEO**
DEPARTMENT OF PUBLIC WORKS

James C. Porter
Director

County Government Center
555 County Center, 5th Floor
Redwood City, CA 94063
650-363-4100 T
650-361-8220 F
www.smcgov.org

October 18, 2019

Sandy Wong
Executive Director
Water Pollution Prevention Program
555 County Center, 5th Floor
Redwood City, CA 94063

Dear Ms. Wong,

This letter is to request that the Twin Pines Park Stormwater Capture Project, located in the downtown area of City of Belmont, be considered for financial support under the $3 million state grant that C/CAG recently secured. As we understood from the September 19, 2019 Stormwater Committee meeting, projects will need to demonstrate the benefits and level of readiness for implementation. Our Belmont Creek Watershed Collaborative, that includes the County of San Mateo and the Cities of Belmont and San Carlos, led by the Flood Resilience Program, is prepared to provide all the information as outlined in the C/CAG Call for Letters of Interest dated September 30, 2019. This project is included in the recently completed Belmont Creek Watershed Management Plan, funded by the Belmont Creek Watershed Memorandum of Understanding (MOU).

## Project location and Description:

The Twin Pines Park Stormwater Capture Project located in the parking lot of Twin Pines Park, will filter Stormwater draining from approximately 1,750 Acres of land. The 43,000-square-foot underground detention basin will require 37,481 cubic yards of excavation, along with parking lot surface improvements that will be coordinated with the Twin Pines Park Master Plan. Although this facility is technically within the Belmont City Boundaries, this project has been identified as a multi-jurisdictional and multi-beneficial project as it relates to water quality, sediment management, and flood protection. This Stormwater capture project is one of many that have been identified in the recently completed Belmont Creek Watershed Management Plan (Baker International, 2019). This project is located upstream of a cross-jurisdictional area between Old El Camino Real and US Route 101 (two major transportation corridors under Caltrans Jurisdiction) that has a history of flooding during intense storm events. In addition, the land aboveground of the proposed facility can incorporate other low impact development improvements (e.g. green infrastructure).

## Project readiness

This is a project that was identified in the San Mateo County Stormwater Resource Plan as a viable regional Stormwater project and the C/CAG model for integration of green infrastructure. This project was further analyzed through a collaborative process with staff from the Cities of Belmont and San Carlos, and the county of San Mateo as part of the Belmont Creek Watershed Management Plan. The Project has been presented to the City of Belmont's City Council and Parks Commission, as well as the City of San Carlos City Council. In addition, the project was introduced to the public at a public engagement meeting where it was well received.

COUNTY OF SAN MATEO
DEPARTMENT OF PUBLIC WORKS

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The Collaborative has discussed a future agreement that will define next steps and a funding strategy to begin to prioritize and implement projects identified in the Belmont Creek Watershed Management Plan. In preliminary discussions with the Collaborative, the Belmont Creek Stormwater Capture Project has been identified as a key multi-benefit project to begin to address flood resiliency in this region. The cross-jurisdictional support for the project and all the baseline information produced by the C/CAG modelling effort, as well as the hydrologic and hydraulic information produced by the Flood Resilience Program, provides the foundation needed to move this project to the 30% design level.

We believe that this project has all the elements that illustrate an integrated watershed management approach and that it could serve as another application example to others in the region, like the Orange Memorial Park Stormwater Capture project in South San Francisco will do.

The Belmont Creek Collaborative looks forward to working with you on this project. In the meantime, please contact me at 650-599-1488 or via email at epowell@smcgov.org if you need more information or if I can be of assistance.

Sincerely,

Erika E. Powell, P.E.
Flood Resilience Program

Cc. Jim Porter, P.E., Director of the County of San Mateo, Department of Public Works
Ann Stillman, P.E., Deputy Director of the County of San Mateo, Department of Public Works
Afshin Oskoui, P.E., City Manager of the City of Belmont
Steven Machida, P.E., Public Works Director of the City of San Carlos
Larry Patterson, P.E. Interim CEO, FSLRRD

## Twin Pines Park Detention Basin (excerpt from the Belmont Creek Watershed Management Plan – 2019)

The Twin Pines Park detention basin consists of approximately 21.52 Ac-ft of storage accomplished by 142-inch by 91-inch arch pipe, and installing a 60-inch inlet pipe, a 24-inch outlet pipe, and an emergency overflow structure. The 43,000-square-foot underground detention basin requires 37,481 cubic yards of excavation, along with parking lot-specific surface improvements. This project should be coordinated with the City of Belmont's Twin Pines Park Master Plan (2019), to ensure the goals of this project and the Twin Pines Park Master Plan are met. The ~1,600-linear-foot reach of Belmont Creek in Twin Pines Park is heavily eroded, causing sediment to discharge into the creek and existing trees to fall. Creek restoration such as riprap and vegetation is included in this project. A sediment basin about halfway through Twin Pines Park with a low flow channel is also included in the design to create a centralized O&M area for sediment removal, thus reducing the dredging and clogging effects downstream near the HIA. All work within Belmont Creek should consider improving public access to the creek. Structural improvements (buildings, statues, etc.) and heavy-duty machinery (irrigation pumps, recycled water treatment) are not included in the cost estimate. Additional improvements should be negotiated between the stakeholders and the City and/or County. The current land use could incorporate aboveground detention/treatment, and other low-impact development (LID) improvements (e.g., green infrastructure). The existing parking lot would need specific improvements and appurtenances such as light poles, trees, wheel stops, and signing and striping. This project is in a moderate trash-generating area in the lower portion of the Belmont Creek watershed and could include a trash capture device.

This detention basin would facilitate sediment and debris removal before the material enters the storm drain system. Repaving or improving Ralston Avenue and 6th Avenue is not included in this project. Construction is estimated to take three to four months. Construction dates should be coordinated with all City departments as Twin Pines Park hosts many activities throughout the year. The parking lot and portions of the park would be inaccessible to the public until construction is completed and the turf is established. However, the public could still access the park through construction phasing, staging, and controlled access routes.

**The total cost of this preliminary alternative, including a 30 percent contingency, is $17.6 million.**

## Detention Basin Summary

Table 1 presents the footprint, total storage in Ac-ft, and costs per Ac-ft of storage for each storage area. Footprints and storage values were estimated using aerial images of available areas (e.g., sports fields, open areas, parking lots), aerial elevations, and storm drain data provided by the County. Table 1 shows Twin Pines Park is the most cost-efficient storage area when using the metric of cost per storage volume.

*Table 1 Storage Area Costs per Acre-Foot*

| Preliminary Alternative | Detention Basin Name | Inflow (cfs) | Discharge (cfs) | Flow Reduction (cfs) | Cost ($ million) | Cost/cfs Reduced ($ million) |
|---|---|---|---|---|---|---|
| 2A | Hidden Canyon Park | 69 | 32 | 37 | $3.9 | $0.11 |
| 2B | Notre Dame de Namur Softball Field | 118 | 48 | 70 | $10.3 | $0.15 |
| 2C | Notre Dame de Namur Soccer Field | 104 | 36 | 68 | $8.1 | $0.12 |
| 2D | Carlmont High School Softball Field | 27 | 11 | 16 | $13.0 | $0.81 |
| 2E | Twin Pines Park | 808 | 782 | 26 | $17.6 | $0.68 |

**COMMUNITY DEVELOPMENT DEPARTMENT**

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October 18, 2019

C/CAG of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063
Attn: Sandy Wong, Executive Director

**RE: Letter of Interest – Regional Stormwater Capture Projects**

Dear Ms. Wong:

The City of Redwood City appreciates the opportunity to submit this letter of interest in response to the Call for Letters of Interest - Regional Stormwater Capture Projects (Call). The City is submitting its Regional Stormwater Capture Project at Red Morton Community Park (Project) which is a multi-beneficial project that very much fits the criteria outlined in the Call and has the potential to provide a significant impact to support stormwater quality in the region.

Red Morton Community Park sits in the heart of Redwood City and is a total of 32 acres. It has several community buildings, three artificial turf playing fields, and many more amenities providing services for Redwood City and neighboring communities. The park also has the benefit of being in a location where several branches of Arroyo Ojo come together, which is tributary to Redwood Creek. The Project will be designed to divert the runoff from the creek and infiltrate it by means of concrete infiltration galleries below one or more of the synthetic turf fields. The project would also make use of a pretreatment device for water quality and trash capture and may also utilize a pump station depending on the cost benefit analysis of gravity diversion compared to operations and maintenance cost.

Currently the Project is contemplated in two separate phases. The first phase would install the pretreatment device and possible pump station along with a 2.6 acre infiltration gallery beneath McGarvey Field, one of the artificial turf fields. This phase would capture approximately 31.2 acre-feet of runoff, or 72% of the 85th percentile, 24-hour runoff volume. The second phase would be a 1.8 acre infiltration gallery beneath Griffin/Bechet Field, and would capture the remaining 12 acre-feet of the 85th percentile, 24-hour runoff volume. The total capture area is 1,650 acres, of which 28% of that area is Unincorporated

County jurisdiction, 3% is Woodside jurisdiction, and the remaining area being Redwood City jurisdiction.

In addition to the stormwater capture benefits the project also has the added benefit of possible greywater use within the sizable Red Morton Community Park. The project is also upstream of a disadvantaged community that could benefit from increasing the creek's capacity which could act as a flood control.

The City Council has expressed interest in pursuing the Project through its adoption of the Green Infrastructure (GI) Plan, which includes the Project. The attached support letter was also submitted to the State of California on behalf of C/CAG when they were pursuing the available funding from the State. In addition, there was substantial public outreach that was done in May of 2019 prior to adoption of the GI Plan where the project concept was presented to several Chamber of Commerce groups, the Downtown Business Group, the Redwood City Improvement Association, the Transportation Advisory Committee, and the Parks and Recreation Committee.

Currently Redwood City is seeking C/CAGs support to move forward with the planning and design for the project in understanding that developing a project to that level often opens it up for larger grant funding opportunities. The City does have some funding that it could provide as a match to cover staff time and the CEQA analysis.

In addition Redwood City has the support of the County of San Mateo Office of Sustainability, which has been a partner in pursuing grant funding to help further the Project. Through the U.S. Environmental Protection Agency's Water Quality Improvement Fund, they have obtained $200,000 for conceptual planning of the Red Morton Park Regional Stormwater Project. The County of San Mateo would like to ensure that the WQIF award is maximized and therefore is interested in using their funds as a match for C/CAG's available funding.

Sincerely,

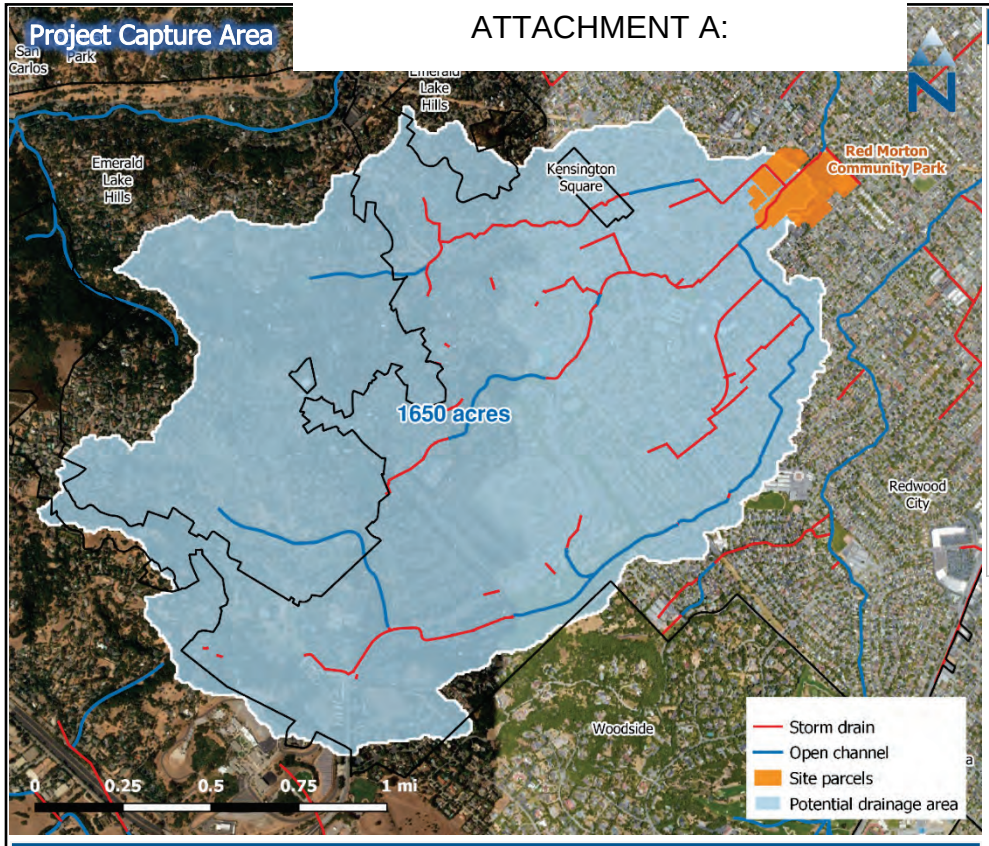
James O'Connell, PE
Senior Civil Engineer, Redwood City

**Attachments:**

Attachment A: Regional Stormwater Capture Project at Red Morton Community Park
Attachment B: Support Letter – Multi-Benefit Stormwater Capture Budget Request

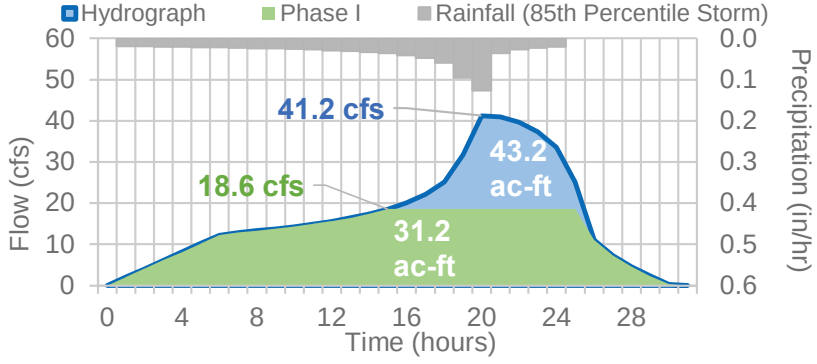
cc: Saber Sarwary, PE, City Engineer, Redwood City
John Allan, Sustainability Coordinator, San Mateo County Office of Sustainability
File

ATTACHMENT A:




## Project Overview

This concept describes a regional stormwater capture project for Redwood City. The project, which would serve as the cornerstone for the City's MRP compliance and water resiliency efforts, is envisioned as a subsurface infiltration gallery located at Red Morton Park (see map to left). This project has the potential to supplement groundwater supplies, alleviate flooding, offset water use at the park, and improve downstream water quality in the Arroyo Ojo and downstream Redwood Creek. The project has potential to treat runoff from a total of 1,650 acres, approximately 70% of which is in Redwood City. The remaining 30% of the potential drainage area is from Woodside and the unincorporated communities, Emerald Lake Hills and Kensington Square. This may present an opportunity to explore co-funding options with Woodside and the County. The project is envisioned as a single subsurface gallery with potential for additional phases to be considered in the future. A multi-phase approach will allow for flexibility in procuring funding and coordinating with scheduled park improvements (e.g. resurfacing of turf fields). The first phase of the project has potential to capture and treat approximately 31.2 ac-ft, 72% of the 85th percentile, 24-hour runoff volume (43.2 ac-ft). The project can potentially reduce PCBs load by 16.7%. This benefit may offset the amount of green streets that would otherwise need to be implemented to meet permit and TMDL requirements, reducing Redwood City's green street requirement by 92.6%. Project details and costs are outlined in further detail in the subsequent pages.




## Site Information

| | |
|---|---|
| **Project Lead** | Redwood City |
| **Location** | Red Morton Community Park – McGarvey Field |
| **Land Owner** | Redwood City |
| **Receiving Water** | Arroyo Ojo (tributary to Redwood Creek) |

| Jurisdiction | Redwood City | San Mateo County | Woodside |
|---|---|---|---|
| **Capture Area (acres)** | 1,142 | 467 | 41 |
| **Percent of Capture Area** | 69.2% | 28.3% | 2.5% |

## Wet Weather Drainage Characteristics

| | | |
|---|---|---|
| **Sizing Criteria** | | 85th percentile, 24-hour storm |
| **Total Capture Area** | | 1,650 acres |
| **Imperviousness** | | 34% |
| **Design Conditions for 85th %-ile storm** | ***Rainfall Depth:*** | 0.85 inches |
| | ***Total Runoff Volume:*** | 43.2 ac-ft |
| | ***Peak Flow Rate:*** | 41 cfs |

# Regional Stormwater Capture Project at Red Morton Community Park

## Project Overview and Drainage Area Map

(Sheet 1 of 3)

SAN MATEO COUNTYWIDE Water Pollution Prevention Program

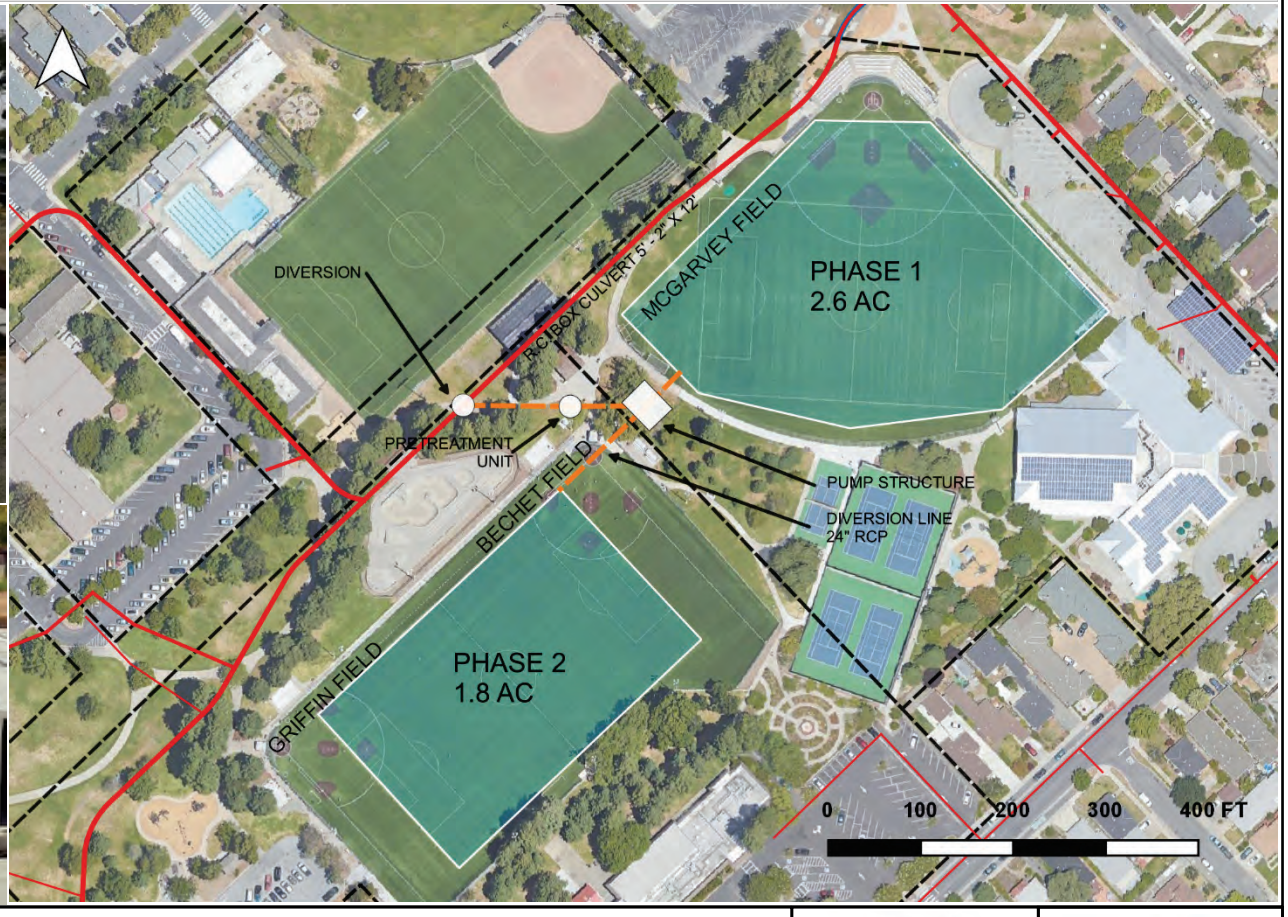
PARADIGM ENVIRONMENTAL

## Site Plan Description

The project consists of a subsurface concrete gallery that will be located beneath McGarvey Field at Red Morton Community Park. The structure has potential to capture 31.2 acre-feet of runoff from Arroyo Ojo, a tributary of Redwood Creek that flows to the Bay. Storage capacity is capped at 31.2 acre-feet due to available area at McGarvey Field and a reasonable structure depth of 12 feet. The section of Arroyo Ojo just west of the park is an open channel that is routed underneath the park through a large reinforced concrete drain before daylighting to an open channel east of the park. The project will divert from the 5-ft 2-in by 12-ft drain using a rubber dam system and intake basin. Runoff will be routed through a pretreatment system, such as a hydrodynamic separator, to remove solids and sediment, then pumped to the gallery. The total storage (31.2 ac-ft) will account for approximately 72% of the 85$^{th}$ percentile, 24-hour runoff volume (43.2 ac-ft). Captured runoff will be treated through infiltration. Stormwater reuse elements (irrigation, greywater, etc.) may be incorporated if infiltration rates are deemed too low at the site.

A second phase may be considered to capture the remaining 12 ac-ft of the design volume uncaptured by the McGarvey Field structure (Phase I). Phase II would likely be located on Griffin and Bechet Fields just west of the Phase I structure to minimize disruption of utilities on the northern half of the park. The Phase II facility can be constructed at a later date but may still be able to utilize some of the diversion infrastructure from Phase I. For example, it may be possible for the diversion components to be built in parallel to make use of the same pump housing and intake structure. These design aspects should be explored in greater detail during a feasibility analysis.

**Disclaimer:** Utilities were evaluated through GIS analysis using best available data. A utilities survey should be performed prior to construction to confirm the location of all utilities on site.




# Regional Stormwater Capture Project at Red Morton Community Park

## Site Plan and Description

(Sheet 2 of 3)

SAN MATEO COUNTYWIDE Water Pollution Prevention Program

PARADIGM ENVIRONMENTAL

| Budget-level Cost Estimates | | | Phase I (McGarvey Field) | | Phase II (Griffin-Bechet Fields) | |
|---|---|---|---|---|---|---|
| DESCRIPTION | UNIT COST | UNIT | QUANTITY | SUBTOTAL | QUANTITY | SUBTOTAL |
| Excavation/Removal | $50 | CY | 63,000 | $3,150,000 | 29,000 | $1,450,000 |
| Rubber Dam System | - | LS | 1 | $80,000 | - | - |
| Diversion Structure | - | LS | 1 | $150,000 | 1 | $150,000 |
| Pretreatment | $6,000 | CFS | 20 | $120,000 | 23 | $138,000 |
| Diversion Pump Structure | $56,000 | CFS | 20 | $1,120,000 | 23 | $1,288,000 |
| Diversion Pipe (24" RCP) | $200 | LF | 100 | $20,000 | 100 | $20,000 |
| Subsurface Gallery | $300 | CY | 50,000 | $15,000,000 | 20,000 | $6,000,000 |
| Restoration | $5 | SF | 113,000 | $565,000 | 78,000 | $390,000 |
| CONSTRUCTION SUBTOTAL | | | | $20,475,000 | | $9,436,000 |
| Mobilization (10% construction) | | | | $2,048,000 | | $944,000 |
| Contingency (15% construction) | | | | $3,071,000 | | $1,415,000 |
| Design (10% total) | | | | $2,559,000 | | $1,180,000 |
| **TOTAL COST** | | | | **$28,153,000** | | **$12,975,000** |

## Additional Considerations

**This project concept is planning-level and subject to review and revision during project design.** A variety of confounding factors, including geotechnical and environmental considerations, will need to be further investigated to inform project design. Factors to be considered include but are not limited to the following:

- **Drainage delineation**: the drainage was delineated using best available data in GIS analysis. Field examinations of the upstream storm drain network should be performed to confirm drainage area.
- **Utilities**: a utilities survey at the park should be performed to minimize the disruption of utilities during construction.
- **Groundwater levels**: the distance between the bottom of the infiltrating structure and the seasonal high groundwater level should be at least 10 feet apart to allow for adequate infiltration.
- **Pumping Requirements:** pumping is generally assumed for large-scale regional projects. However, gravity-flow diversion alternatives may be possible, reducing O&M costs associated with pumping. Gravity diversions would require the structure to be placed below the storm drain invert, increasing the required excavation depth. As-builts for the storm drain will need to be obtained from the City to determine this depth. For a 2.6-acre footprint, capital cost may increase $300,000 per foot of additional excavation. In comparison, the O&M associated with a pump diversion may be around $50,000 annually ($1.4 million projected over 20 years with 2.5% inflation). A break-even analysis should be performed to determine if a gravity-flow alternative is more cost-effective. All cost estimates are preliminary and will need to be reevaluated during a feasibility analysis when project details are developed further.
- **Infiltration rates**: the NRCS Soil Survey did not contain an infiltration rate estimate for the Red Morton Community Park area. Infiltration tests should be performed during a feasibility study to ensure the structure is sized appropriately. It is recommended that infiltrating structures drain within 72 hours. The infiltration rate may determine design components, such as structure depth and capacity. Additional uses of captured runoff, such as irrigation or greywater, may contribute to 72-hr drawdown requirement.
- **Environmental factors**: with the exception of an active environmental investigation from renovations/redevelopment at nearby John Gill Elementary School, the California Envirostor database shows no active cleanup sites near the project site. Additional investigation should be performed at the project site to assess the possibility of existing contamination interfering with stormwater infiltration.

## Phase I – McGarvey Field design values

| Item Description | Value | Units |
|---|---|---|
| Footprint | 2.6 | acres |
| Design Height | 12 | ft |
| Depth of Excavation | 15 | ft |
| Pumping Requirements | 18.6 | cfs |
| Infiltration Rate | Needs further investigation | |
| Drawdown Time | Needs further investigation | |
| Infiltration Rate Needed for 72-hr Drawdown Time* | 2 | in/hr |
| **Phase I Capacity** | **31.2** | **ac-ft** |
| **% Design Storm Managed** | **72** | **%** |

## Phase II – Griffin-Bechet Fields design values

| Item Description | Value | Units |
|---|---|---|
| Footprint | 1.8 | acres |
| Design Height | 6.67 | ft |
| Depth of Excavation | 10 | ft |
| Pumping Requirements | 22.6 | cfs |
| Infiltration Rate | Needs further investigation | |
| Drawdown Time | Needs further investigation | |
| Infiltration Rate Needed for 72-hr Drawdown Time* | 1.10 | in/hr |
| **Phase II Capacity** | **12** | **ac-ft** |
| **% Design Storm Managed** | **28** | **%** |

*Maximum 72-hr drawdown time is recommended in the SMCWPPP C.3 Stormwater Technical Guidance. Using a larger footprint and a smaller design height, while keeping storage capacity constant, will lower the infiltration requirement for 72-hr drawdown.

1017 MIDDLEFIELD ROAD
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April 25, 2019

The Honorable Phil Ting
Chair, Assembly Budget Committee
State Capitol, Room 6026

The Honorable Holly Mitchell
Chair, Senate Budget Committee
State Capitol, Room 5080

The Honorable Richard Bloom
Chair, Budget Subcommittee No. 3
State Capitol, Room 2003

The Honorable Bob Wieckowski
Chair, Budget Subcommittee No. 2
State Capitol, Room 4085

**Re: Multi-Benefit Stormwater Capture Budget Request**

Dear Chairs Ting, Mitchell, Bloom and Wieckowski:

On behalf of the City of Redwood City, I am writing to support the budget request submitted by Assembly Member Mullin in the amount of $8 million for the City/County Association of Governments of San Mateo County (C/CAG) to advance designs of multi-benefit stormwater capture projects in San Mateo County.

Municipalities in San Mateo County are undergoing efforts to transition their storm drainage systems from traditional “gray” infrastructure to more sustainable “green” infrastructure systems that capture, clean, and infiltrate stormwater to improve water quality in local creeks, San Francisco Bay, and the Pacific Ocean. In addition, San Mateo County is one of the most threatened areas in the state from climate change and sea level rise. Regional scale stormwater capture/retention systems play an essential role in helping to address these issues, cost-effectively capturing and cleaning significant volumes of runoff, providing downstream flood control benefits, infiltrating water into underlying groundwater basins, providing alternative supplies for landscape irrigation, building resiliency for water supply and flood management, and minimizing operation and maintenance burdens through centralized facilities.

The proposed funding will support planning and design for regional stormwater retention projects, including existing project concepts in San Bruno and Redwood City. This funding will also directly support the proposed San Mateo County Flood and Sea Level Rise Resiliency Agency that is being created to address stormwater, flooding, sea level rise, and coastal erosion issues. The City of Redwood City has endorsed the new agency and the essential role it will play in protecting San Mateo County in the coming decades.

On behalf of the City of Redwood City, we strongly support Assembly Member Mullin's request for funding for these essential projects.

Sincerely,

Ian Bain, Mayor
City of Redwood City

C: Redwood City Council
Melissa Stevenson-Diaz, City Manager

October 16, 2019

Sandy Wong, Executive Director
City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063

Subject: Letter of Interest
Regional Stormwater Capture Projects

Dear Ms. Wong,

On September 30, C/CAG issued a Letters of Interest solicitation for regional stormwater capture projects in association with the $3 million State budget allocation to C/CAG for advancing planning and the design of multi-benefit regional stormwater facilities. With this letter, the City respectfully requests C/CAG to consider funding the City of San Bruno's Regional Stormwater Capture Project at I-280 and I-380.

Below is our response to the requested information.

1. *Project Summary*

   This concept describes a regional stormwater capture project for the City of San Bruno. The project consists of a subsurface concrete gallery that will be located beneath vacant space in the Caltrans right-of-way. The project has the potential to supplement groundwater supplies, alleviate downstream flooding, and improve water quality in San Bruno Creek. This collaborative project involving multiple agencies including San Bruno, Pacifica, the County of San Mateo, Caltrans, and C/CAG, will be one of the first of its kind in San Mateo County and will serve as a pilot project and a model for future regional, multi-benefit stormwater capture and treatment projects. The project can reduce the PCBs load in the drainage area by 69%. This benefit may offset the amount of green streets that would otherwise need to be implemented to meet permit and TMDL requirements.

2. *Project Location*

   The project is designed to be a subsurface infiltration gallery located at an open space in the Caltrans right-of-way between the I-280/I-380 interchange. The proposed project would intercept stormwater runoff from a storm drain that serves portions of the Rollingwood, Crestmoor, Portola Highlands, and the Pacific Heights neighborhoods of San Bruno. This storm drain eventually discharges to San Bruno Channel, which flows to the Bay. This storm drain pipeline is located near the vicinity of I-280 and crosses the frontage road along the northbound side of the freeway. The diversion structure will be constructed in the section of the drain that runs beneath the frontage road to minimize disruption to highway traffic while providing accessibility.

3. *Project Drainage Area*

   The project will treat runoff from a total of 942 acres. Approximately 700 acres is in San Bruno (40 acres in Caltrans right-of-way), 220 acres is in unincorporated county, and 22 acres is in Pacifica.

4. *Project Size*

   The subsurface concrete gallery is designed to capture 21 ac-ft. and will be 8.4-ft deep with a 2.5-acre footprint.

5. *Level of Readiness*

   Securing adequate funding for design of this project is fundamental to implementation. Ultimately, the environmental benefits will be fully achieved when the construction is completed. A number of efforts are in the works with regard to funding for implementation of the proposed project. The City and County are pursuing grant funds for construction of the regional project. The San Mateo County Office of Sustainability has secured a grant through EPA's Water Quality Improvement Fund in the amount of $200K towards preliminary designs on the I-280 and I-380 project. The newly formed Countywide Flood and Sea Level Rise Resiliency Agency is expected to play a role in coordinating regional projects and will need to create a sustainable revenue stream to leverage State and Federal funds for these types of projects.

   The first phase is to develop a preliminary design for this project, which is the next immediate step in working towards the long-term goal of constructing the project. This work will require the City to hire a design firm through a competitive procurement process to complete the design using preliminary C/CAG concepts as a starting point. This work will involve geotechnical investigation, utility surveys, hydrology, hydraulics, and water quality analysis and completing design documents which include the plan view layout, representative sections and details. Designs will be reviewed by the City, County, CalTrans and other stakeholder entities as needed. The deliverable will be used to pursue additional future funds for construction.

*Additional Considerations*

1. *Project Overview*
   This concept describes a regional stormwater capture project for the City of San Bruno. The project is designed to be a subsurface infiltration gallery in an undeveloped area within the Caltrans right-of-way between the I-280 and I-380 interchange. This collaborative effort involving multiple agencies including San Bruno, Pacifica, the County of San Mateo, Caltrans, and the C/CAG, will be one of the first of its kind in San Mateo County and will serve as a pilot project and a model for future regional, multi-benefit stormwater capture and treatment projects. Runoff will be diverted from a storm drain to a pretreatment system to remove trash and sediment, then routed to the gallery. The project will treat runoff from 942 acres from San Bruno (40 acres in Caltrans right-of-way), Pacifica, and unincorporated County. San Bruno will be the lead agency in delivering the project scope. San Bruno's Public Works Department will be responsible for operating and maintaining the proposed facility and will obtain the necessary encroachment permit from Caltrans, County of San Mateo, Regional Water Quality Control Board and Bay Area Air Quality Management District for the construction of the facility.

   The proposed project will help meet growing state and federal clean water mandates that require stormwater in flood control channels to be captured and reused or cleaned to safe levels prior to discharge in the ocean. Reducing runoff volume into the storm system would reduce releasing pollutants into San Francisco Bay. Increasing the amount of stormwater infiltration will reduce the load on public storm infrastructure and decrease the flooding occurrence and volume of overflows. The detention of stormwater can reduce the amount of flow into the stormwater system by storing the peak runoff in the subsurface concrete gallery and then infiltrating into the soil underneath at a slower rate. In lieu of conveying the stormwater directly into San Bruno Channel and the San Francisco Bay with the pollutants and trash, the proposed project would enhance water quality by treating the stormwater, remove and capture trash, reduce flooding impacts and recharge the groundwater.

2. *Watershed*
   The proposed project is located in Watershed 18050004 which discharges to San Bruno Channel, which flows to the Bay.

3. *Drainage Area*
   The project will treat storm flow from a total of 942 acres. Approximately 700 acres is in San Bruno (40 acres in Caltrans right-of-way), 220 acres is in unincorporated county, and 22 acres is in Pacifica.

4. *Land Ownership/Site Permission*
   The proposed project is located within the Caltrans right-of-way between the I-280/I-380 interchange. Caltrans had indicated support of the project. In addition, the City will enter into a Maintenance Agreement with Caltrans to ensure the operation and maintenance of the proposed facility.

5. *Diversion/Treatment Details*
   The proposed project would divert flows from the storm drain conveyance system that services portions of the Rollingwood, Crestmoor, Portola Highlands, and Pacific Heights neighborhoods of San Bruno. The storm drain eventually discharges to San Bruno Channel, which flows to the Bay. The storm drain pipeline is located near the vicinity of I-280 and crosses the frontage road along the northbound side of the freeway. The diversion structure will be constructed near the location of the drain that runs beneath the frontage road to minimize disruption to highway traffic while provide accessibility. A 650-ft length of diversion pipe will be required to route the flow to the facility. The diverted flow will be routed through a pretreatment system, such as a hydrodynamic separator to remove solids and sediment, then routed to the facility. Due to the length of the required diversion line, a pump structure will likely be necessary to convey the flow the facility. However, a gravity-flow diversion alternative may be feasible and will be evaluated during the design process.

   Soil testing will need to confirm infiltration rates greater than 1.4 inches per hour in order to drain the facility within 72-hours, in compliance with design standards. A shallower structure with greater footprint may be needed if a lower infiltration rate is found.

6. *Facility Capacity/Size*
   The subsurface concrete gallery is designed to capture 21 ac-ft. and will be 8.4-ft deep with a 2.5-acre footprint. The estimated annual capture volume is 226 ac-ft.

7. *Depth to Groundwater*
   The depth of the groundwater from the surface within the project vicinity is unknown as there are no available records at the City. During the preliminary design phase, the geotechnical consultant will perform borings at several locations within the site to determine the soil properties and groundwater depth.

8. *Site Constraints*
   Access to the site is limited as some components of the proposed facility is located within an area inaccessible using local roads. The diversion structure, pretreatment unit and pump structure are proposed to be installed adjacent to the I-280 on ramp which will require access for maintenance. The subsurface concrete gallery is proposed to be located at the westerly end between I-280 and I-380 interchange which has limited access. Constructability issues will be considered during the preliminary design phase in order to site the project components.

9. *Cost Estimates*
   The estimated total cost for this project is $19,615,000. See below table for budget-level cost estimates:

| **Budget-level Cost Estimates** | | | | |
|---|---|---|---|---|
| **Description** | **Unit Cost** | **Unit** | **Quantity** | **Subtotal** |

| | | | | |
|---|---|---|---|---|
| Excavation/Removal | $50 | CY | 40,000 | $2,000,000 |
| Diversion Structure | - | LS | 1 | $150,000 |
| Pretreatment | $6,000 | CFS | 20 | $120,000 |
| Diversion Pump Structure | $56,000 | CFS | 20 | $1,120,000 |
| Diversion Pipe (24'' RCP) | $200 | LF | 650 | $130,000 |
| Subsurface Gallery | $500 | CY | 34,000 | $10,200,000 |
| Restoration | $5 | SF | 109,000 | $545,000 |
| Construction Subtotal | | | | $14,265,000 |
| Mobilization (10% construction) | | | | $1,427,000 |
| Contingency (15% construction) | | | | $2,140,000 |
| Design (10% total) | | | | $1,783,000 |
| **Total Cost** | | | | **$19,615,000** |

*10. Matching Funds*

The project will be receiving $200K though EPA's San Francisco Bay Water Quality Improvement Fund (SFBWQIF) towards preliminary design. In addition, the City will work to secure required non-state matching funds for the project.

The City has some funding sources but is reviewing revenue enhancements measures for its Stormwater Management Program to increase funding and leveraging new development activities to show commitment in the City's Green Infrastructure Plan and the regional project. The City is considering for future enactment some funding options, including balloted approaches, development impact fees, and grants. The City will identify funding sources for the projects once preliminary work and studies are completed.

*11. Disadvantaged Community Benefits*

The proposed regional Stormwater Capture Project at I-280 and I-380 is located within one mile upstream of a disadvantaged community. Census Tract 6081604200 scored in the top 25% from Office of Environmental Health Hazard Assessment's CalEnvironScreen with high amounts of pollution and vulnerable populations. Due to the community's close proximity to San Francisco International Airport, potential groundwater threats, solid waste, and traffic pollution has scored above the 90$^{th}$ percentile. Along with being identified as a SB 535 Disadvantaged Community, the community has been identified as an AB 1550 Low-Income Community.

The City has periods of localized flooding that has raised concerns from the impacted residents, the most significant being along Seventh Avenue, Walnut Street and Angus Avenue area within the disadvantaged community. Two of the six watersheds, located to the east of Caltrain right-of-way, are in the low laying areas vulnerable to flooding. Due to its low surface elevation, both watersheds, require pumping via the Angus and Walnut Pump Station, for stormwater discharge into San Bruno Channel. Significant backwater occurs in the lower reaches of the watershed of the proposed project, in part due to backwater in the San Bruno Channel which is tidally influenced. This backwater, when combined with peak storm discharge causes significant flooding in the neighborhood. Stormwater retention in this watershed is recommended in San Bruno's Storm Drain Master Plan to alleviate downstream flooding.

With the project located upstream of the disadvantaged community, project benefits in the downstream community include a significant reduction in flooding. Additional benefits include removal of trash, debris, and coarser sediments which would achieve water quality improvements. The project is located upstream of areas in San Bruno that are identified as in the 0.2% annual chance and the 1% annual chance flood hazard zones in FEMA's National Flood Hazard Layer.

12. *Community Engagement*
    The City coordinated with the County to perform outreach to all cities and other stakeholders to get support for the project. Support letters included the County of San Mateo and the 20 cities and towns within its boundaries, Acterra, Bay Area Water Supply & Conservation Agency (BAWSCA), San Francisco Baykeeper, California Coastkeeper Alliance, Committee for Green Foothills and Save the Bay.

    In addition, the City will continue to engage with potential regional project collaboration partners to identify funding and new project opportunities. Example potential partners include C/CAG and member agencies, Caltrans, the County of San Mateo Office of Sustainability, the Flood Resilience Program, and the new Flood and Sea Level Rise Resiliency Agency.

13. *Elected Official Support*
    C/CAG presented the project to the Board of Supervisors, which has indicated support for the proposed project. City staff has included this regional project in the City's adopted budget and conveyed to the City Council about the importance of completing the project during the budget study session.

In summary, the City of San Bruno respectfully requests C/CAG to consider advancing the planning and design of the Regional Stormwater Capture Project at I-280 and I-380. If you have any questions, please don't hesitate to contact, Jimmy Tan, Public Works Director, at (650) 616-7065.

Sincerely,

Jimmy Tan, P.E.
Public Works Director

567 El Camino Real, San Bruno, CA 94066-4299
Voice: (650) 616-7065 • Fax: (650) 794-1443
http://www.sanbruno.ca.gov

October 16, 2019

Sandy Wong, Executive Director
City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063

**RE: Letter of Interest – Regional Stormwater Capture Project**

Dear Sandy,

The City of Burlingame is expressing its interest for funding from the regional stormwater capture projects in association with the $3 million State budget allocation to C/CAG for advancing planning and design of multi-benefit regional stormwater facilities. We would like the following project to be considered for funding from this opportunity.

1. Project Summary: The proposed project consists of green street improvements along Chapin Avenue between El Camino Real and Primrose Road. The total street length is 925 feet. The site is a commercial main street with high parking demand. Curb extensions may be used as the primary treatment type.
2. Project Location: Chapin Avenue (between El Camino Real and Primrose Road), Burlingame, CA 94010
3. Project Drainage Area: 5.53 acres
4. Project Size: 8,200 square feet (estimated)
5. Level of Readiness: The City is currently working on a feasibility study to determine the amount of stormwater and traffic safety improvements to be made at this location. The feasibility study includes conducing stakeholder outreach to solicit feedback, meeting with city council and commission members, and developing project concepts. The feasibility study is expected to conclude by June 2020.

If you have any questions, please do not hesitate to contact Jennifer Lee (jlee@burlingame.org or 650-558-7381) of my staff. Thank you.

Sincerely,

Syed Murtuza, P.E.
Public Works Director
City of Burlingame

# City of Millbrae

621 Magnolia Avenue, Millbrae, CA 94030




Mr. Matt Fabry
Manager – San Mateo Countywide
Water Pollution Prevention Program
555 County Center, 5th Floor
Redwood City, CA 94063

Subject: Letter of Interest, California Natural Resources Agency - San Anselmo Street Green Infrastructure/ SRTS Project

Matt:

The City of Millbrae is submitting this Letter of Interest for Regional Stormwater Project State of California Natural Resources Agency (CNRA) grant funding for the San Anselmo Avenue Green Infrastructure/ Safe Routes to School Project.

**Project Summary**

The Project is currently listed on the San Mateo County Stormwater Resource Plan under the Green Street Improvements category (refer to Exhibit A attached). Curb extensions recommended as the primary treatment type, are to be installed east of San Anselmo Avenue along Lomita Park Elementary School frontage, and also at intersections of San Anselmo Avenue with San Juan Avenue and Landing Lane crosswalks. The curb extensions (bulb-outs) can perform double-duty as Green Infrastructure measures and Safe Routes to School Traffic Calming measures.

**Project Location**

The Project is located on San Anselmo Avenue in the northeast corner of the City of Millbrae, bordering with the City of San Bruno. The Projects extends from Saint Helena Avenue at the north and Landing Lane at the south. The project also incorporates a portion of San Juan Avenue between San Anselmo Avenue and El Camino Real, which drains easterly toward the San Anselmo Avenue/ San Juan Avenue intersection.

The Lomita Park Elementary School is located on the east side of the street, extending along the project limits from Saint Helena Avenue to Landing Lane. Pedestrian crosswalks are located at the intersections of St. Helena Avenue, San Juan Avenue, and Landing Lane.

In response to citizen concerns regarding pedestrian safety/ circulation to and from the school, the City recently repainted the intersections to include "ladder" crosswalks as interim improvements. The City is developing a more complete Safe Routes to Schools project to add curb extensions at intersections. The curb extensions will provide traffic calming, decrease the crossing distance at intersections, and provide better visibility between vehicles and pedestrians.

**Project Drainage Area**

The project is located at the lower end of the Lomita Canal Watershed. The proposed project area consists of approximately 3.5 acres, including the aforementioned streets and the private property on either side of the streets. Portions of the upstream area are located with the City of San Bruno (The Stormwater Resource Plan Project Description shows a treated upstream area of 3.68 acres, including portions of El Camino Real; based on further review it appears that El Camino Real does not drain toward San Juan Street, and this area has been removed from the treatment area).

**Project Size**

The Stormwater Resource Plan Project Description shows a series of curb extensions, 4' in width with a total length of 1,740 lineal feet, or 6,940 sf of treatment area. This provides 0.27 acre -feet of storage and treatment. However, upon further review and study of the project site, the proposed concept results in significant loss of existing parking spaces in the high-density residential neighborhood.

To minimize parking loss, city staff is proposing re-design of the treatment measures to allow ponding, thus reduce the required square footage of treatment area to 3% of the treated upstream area, or approximately 4,600 square feet (the treatment measures would be in compliance with Low-Impact Development (LID) measures required under Section C.3 of the Municipal Regional Permit for Stormwater). The reduced treatment area will be consolidated at the curb extensions located along Lomita Park Elementary School frontage, east of San Anselmo Avenue, and also at the San Anselmo Avenue/ Landing Lane and San Anselmo Avenue/ San Juan Avenue intersections, using existing red curb zones to reduce parking loss. (Please refer to the Exhibit B for reference). It is anticipated that this approach, combined with alternate treatment measures such as pervious pavement or tree well filtration, should be adequate to provide similar treatment measures while reduce parking loss to an acceptable level.

**Level of Readiness**

The City project can be built within existing public right-of-way; no right-of-way acquisition is anticipated. Permitting from resource agencies for work in wetlands or water courses is not necessary. Portions of the work (on the west side of San Anselmo Avenue north of San Juan Avenue) are located in the City of San Bruno and will require coordination with San Bruno

Public Works staff. It is anticipated that the City of San Bruno will cooperate or support the project. Attached in Exhibit D has a support letter from the City of San Bruno for our TDA Article 3 Grant application, which consists similar design scope.

CEQA review has not been started, but it is anticipated that the project would qualify for either a Categorical Exemption or Negative Declaration.

The City can commence design immediately upon approval the grant. A timeline of six-eight months is estimated for design, bidding, and construction. It is noted that construction would need to be completed during the summer months to avoid conflicts with school traffic.

**Project Budget/ Alternate Funding Sources**

The Stormwater Resource Plan Project Description shows a full-loaded cost of $498,000 for the project. The City has reviewed similar GI/SRTS projects, and determined an average cost of $130 per square foot of treatment area. Presuming a treatment area of 4,600 square feet, the cost of the project would be $598,000, above the cost in the Stormwater Resource Control. The City will request grant funds in the amount of $598,000. The City will consider a partial grant and provide a local match as part of the supplication.

In the recently adopted Storm Drain Master Plan, the hydraulic model identified Landing Lane Bowl area with significant flooding issues (refer to maps in Exhibit C). Although Green Street improvement primarily focuses on stormwater treatment, but added retention volume can slow down runoff and provide regional relieve during flooding situation. Landing Lane Bowl was listed as one of the Capital Improvement Projects on the Storm Drain Master Plan to remove trash capture devices to maximize conveyance. City staff will analyze the significance of this Green Street Improvement project in relation to the originally proposed solutions. If deemed feasible, City Storm Drain funds can be utilized as local match.

**Community Support**

As indicated earlier, the community has requested improvements to pedestrian circulation in the area to reduce conflicts with vehicles. It is anticipated that the community will support this project as long as parking spaces are not severely impacted.

The City has recently applied for a Transportation Development Act (TDA) Article 3 grant thru C/CAG to cover the Safe Routes to Schools portion of the project, which if received would offset the amount of State CNRA funds needed. During our TDA Article 3 grant application process, we have received council and subcommittee support of the project. These support letters are attached for reference. Letters for the Green Street Improvements will be requested and provided during the next phase of the grant application process.

The City of Millbrae appreciates this opportunity to submit this letter of interest for grant funding. Please contact Andrew Yang, Senior Civil Engineer, at 650-259-2393 if you would like to discuss further the above material. We look forward to hearing from you.

Sincerely,

Khee Lim,

Director of Public Works

# EXHIBIT A

## STORMWATER RESOURCE PLAN

## GREEN STREET PROJECT REFERENCE

## Site Information

| | |
|---|---|
| Jurisdiction | City of Millbrae |
| Street Name | San Anselmo Ave |
| Bounding Streets | Santa Helena Ave / Landing Ln |
| Street Typology | High-Density Residential |
| Co-Located Project | Safe Routes to School – Lomita Park Elementary |
| Capture Area (acres) | 3.68 |
| Impervious Area (%) | 65 |
| 85th Percentile Rainfall (in) | 0.90 |
| Generated Runoff (ac-ft) | 0.3 |

## Site Description:

The proposed project consists of green street improvements along San Anselmo Avenue between Santa Helena Avenue and Landing Lane and San Juan Avenue between San Anselmo and El Camino Real. The total street length is 1,150 feet. The site is considered high-density residential with limited space for parking. Curb extensions are recommended as the primary treatment type and must be placed to minimize loss of parking. Bulb-outs at the San Anselmo-San Juan pedestrian crossings will be implemented for stormwater capture and will integrate with the Safe Routes to School Program at the Lomita Park Elementary School.

The proposed improvements would capture a total of 0.27 acre-feet while providing flood risk mitigation, community enhancement, increased property values, safer pedestrian routes, and other multiple benefits.

**DISCLAIMER**: All elements of this conceptual design are planning-level. Locations of opportunities for placement of green infrastructure shown in the map are preliminary and subject to further site assessment and design. Percent imperviousness is based on best professional judgement. All design assumptions/parameters and cost estimates must be re-evaluated during the detailed design process.


## Design Summary

| Green Infrastructure Type | Design Width (ft) | Design Length (ft) | Capture Volume (ac-ft) |
|---|---|---|---|
| Bioretention (Curb Extension) | 4 | 1,740 | 0.30 |

## Cost Estimate

| DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL |
|---|---|---|---|---|
| Excavation/Hauling | 1,290 | CY | $50.00 | $65,000 |
| Bioretention | 6,960 | SF | $25.00 | $174,000 |
| Curbs and Gutters | 1,740 | LF | $17.25 | $30,000 |
| | | | CONSTRUCTION SUBTOTAL | $269,000 |
| Planning (20%), Mobilization (10%), Design (30%), Contingency (25%) | | | | $229,000 |
| | | | **TOTAL COST** | **$498,000** |


Curb Extension on a Residential Street

# Concept for a Green Street Retrofit for Stormwater Capture

**Site:** San Anselmo Avenue (City of Millbrae)

# EXHIBIT B

## PROPOSED LOCATIONS FOR CURB EXTENSIONS

# AT SAN ANSELMO AVE AND SAN JUAN AVE


EXISTING CONDITION


PROPOSED GREEN STREET

# AT SAN ANSELMO AVE AND LANDING LANE

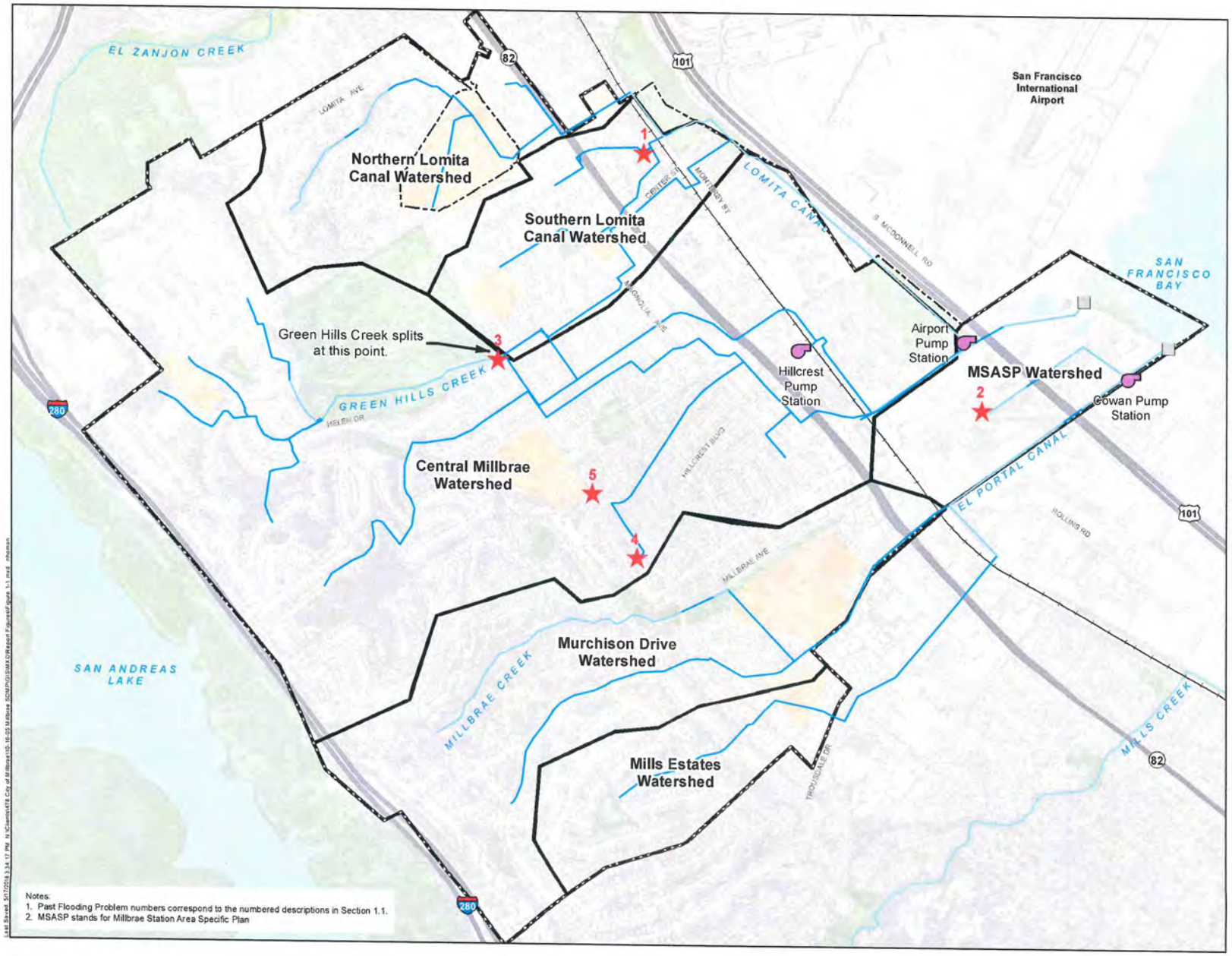

EXISTING CONDITION


PROPOSED GREEN STREET

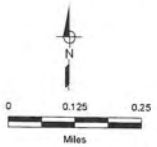
# EXHIBIT C

## MILLBRAE STORM DRAIN MASTER PLAN

## FLOODING AREA REFERENCE








Symbology

- Past Flooding Problem
- Tide Gate
- Stormwater Pump Station
- Modeled Trunk Storm Drain
- Creek, Canal, or Ditch
- Watershed Boundary
- Parks and Golf Courses
- Schools
- Millbrae City Limits

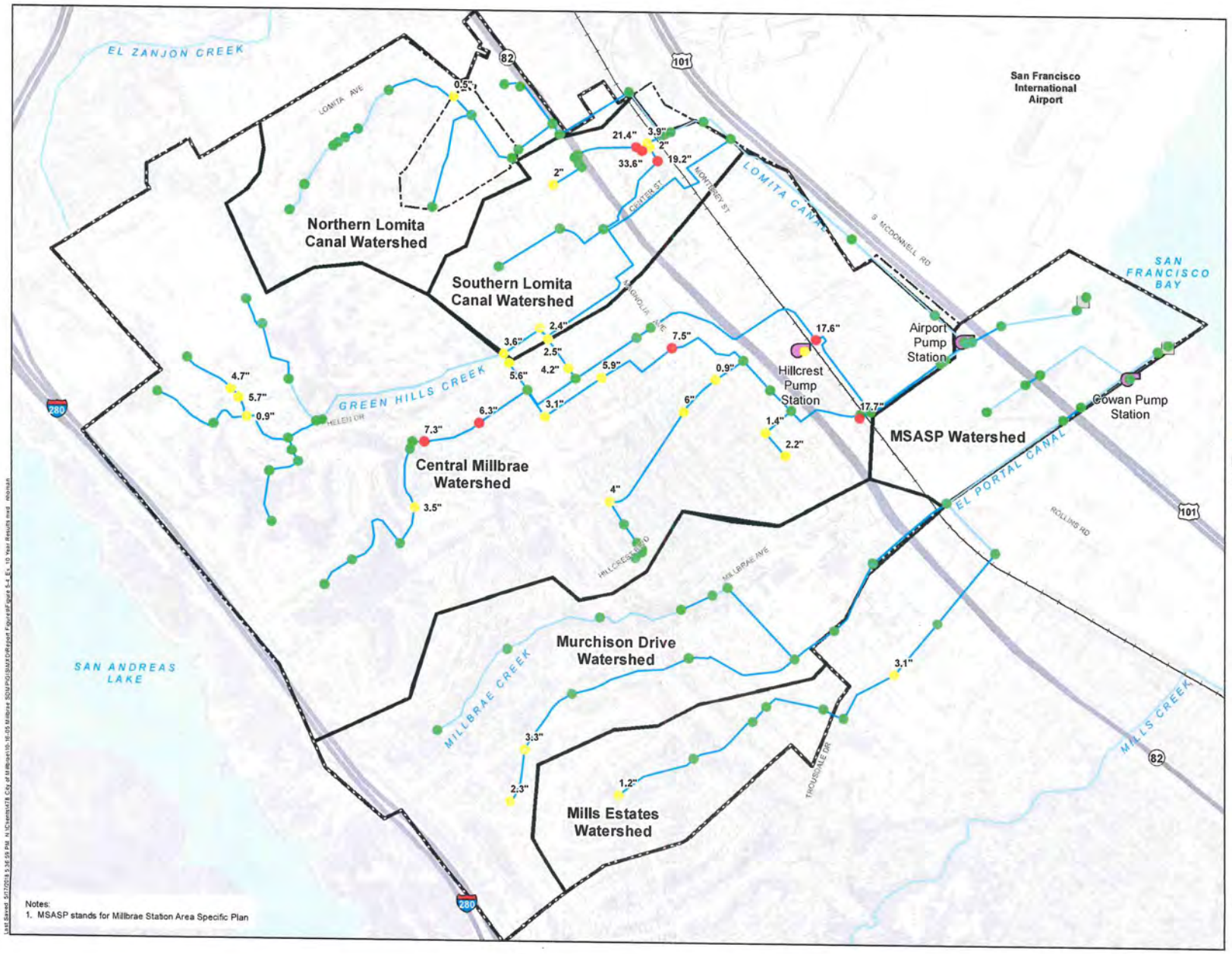
MILLBRAE

WEST YOST ASSOCIATES

**Figure 1-1**

**Millbrae Watersheds, Major Storm Drain Infrastructure, and Past Flooding Problems**

City of Millbrae
Storm Drain Master Plan




MILLBRAE

WEST YOST ASSOCIATES

**Figure 5-4**

**10-Year, 24-Hour Storm Event Performance Criteria Violations**

City of Millbrae
Storm Drain Master Plan

# EXHIBIT D

## TDA ARTICLE 3 GRANT APPLICATION SUPPORT LETTERS
## FOR REFERENCE ONLY

Millbrae School District
555 Richmond Drive, Millbrae, CA 94030
650-697-5693 • 650-697-6865 (fax) • http://www.millbraeschooldistrict.org



July 18, 2019

San Mateo County City/County Association of Governments
Attn: John Hoang
555 County Center, 5th Floor
Redwood City, CA 94063

RE: Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement

Dear Mr. Hoang:

The Millbrae School District is pleased to support the City of Millbrae's TDA Article 3 Program application for the Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement.

The proposed project will introduce shared bike lane and enhanced pedestrian facilities between the intersection of San Anselmo and Santa Helena to the intersection of San Anselmo and Landing Lane. The proposed bike lane will connect to the terminus of the proposed San Bruno bikeway and pedestrian improvements project on San Antonio Avenue.

The project will create a Class 3 bike facilities in the Landing Lane neighborhood. Additionally, vegetated bio-swale will also be introduced in the project to treat stormwater runoff prior to discharging into the City's storm drain collection system.

The proposed project will provide a connection from the San Bruno – Millbrae city limits along San Anselmo Avenue. The connection will bridge a missing gap from San Bruno city limit to the existing Class 1 trail to the west of Monterey Street, and eventually to the existing San Francisco Bay Trail along Old Bayshore Highway east of US101. The project continues the City of Millbrae and school district's goal of collaborating to keep Lomita Park School and local community's schoolchildren safe and to encourage increased school commuting by walking and biking.

I urge you to favorably consider the City of Millbrae's grant application request to provide much needed pedestrian and bicycle improvements promoting active healthy lifestyle in the Landing Lane neighborhood. On behalf of the Millbrae School District staff and community members, we gratefully support this project. Thank you.

Sincerely,

Richard Champion CBO
Chief Business Official

MILLBRAE **Bicycle & Pedestrian Advisory Committee**

July 25, 2019

San Mateo County City/County Association of Governments
Attn: John Hoang
555 County Center, 5th Floor
Redwood City, CA 94063

RE: Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement

Dear Mr. Hoang:

The Millbrae Bike and Pedestrian Advisory Subcommittee is pleased to support the City of Millbrae's TDA Article 3 Program application for the Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement.

The proposed project will introduce shared bike lane and enhanced pedestrian facilities between the intersection of San Anselmo and Santa Helena to the intersection of San Anselmo and Landing Lane. The proposed bike lane will connect to the terminus of the proposed San Bruno bikeway and pedestrian improvements project on San Antonio Avenue.

The project will create a Class 3 bike facilities in the Landing Lane neighborhood. Additionally, vegetated bio-swale will also be introduced in the project to treat storm water runoff prior to discharging into the City's storm drain collection system.

The proposed project will provide a connection from the San Bruno – Millbrae city limits along San Anselmo Avenue. The connection will bridge a missing gap from San Bruno city limit to the existing Class 1 trail to the west of Monterey Street, and eventually to the existing San Francisco Bay Trail along Old Bayshore Highway east of US101.

I urge you to favorably consider the City of Millbrae's grant application request to provide much needed pedestrian and bicycle improvements promoting active healthy lifestyle such as walking and biking in the Landing Lane neighborhood. The project will also create a safe route to Lomita Park School.

Sincerely,

John Keefer
Chair, Park & Recreation Commission
BPAC Subcommittee

July 24, 2019

San Mateo County City/County Association of Governments
Attn: John Hoang
555 County Center, 5th Floor
Redwood City, CA 94063

RE: Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement

Dear Mr. Hoang:

The City of San Bruno is pleased to support the City of Millbrae's TDA Article 3 Program application for the Millbrae-San Bruno San Anselmo Pedestrian and Bicycle Safety/Green Street Enhancement.

The proposed project will introduce shared bike lane and enhanced pedestrian facilities between the intersection of San Anselmo and Santa Helena to the intersection of San Anselmo and Landing Lane. The proposed bike lane will connect to the terminus of the proposed San Bruno bikeway and pedestrian improvements project on San Antonio Avenue.

The project will create a Class 3 bike facilities in the Landing Lane neighborhood. Additionally, vegetated bio-swale will also be introduced in the project to treat storm water runoff prior to discharging into the City's storm drain collection system.

The proposed project will provide a connection from the San Bruno – Millbrae city limits along San Anselmo Avenue. The connection will bridge a missing gap from San Bruno city limit to the existing Class 1 trail to the west of Monterey Street, and eventually to the existing San Francisco Bay Trail along Old Bayshore Highway east of US101.

I urge you to favorably consider the City of Millbrae's grant application request to provide much needed pedestrian and bicycle improvements promoting active healthy lifestyle such as walking and biking in the Landing Lane neighborhood. The project will also create a safe route to Lomita Park School.

Sincerely,

P.P. David Wong

Jimmy Tan, P.E.
Public Works Director

**COUNTY OF SAN MATEO**
COUNTY MANAGER'S OFFICE
OFFICE OF SUSTAINABILITY

Jim Eggemeyer
Director

County Government Center
455 County Center, 4th Floor
Redwood City, CA 94063
www.green.smcgov.org

October 18, 2019

Ms. Sandy Wong
City/County Association of Governments of San Mateo County (C/CAG)
555 County Center, 5th Floor
Redwood City, CA, 94063

Dear Ms. Wong,

The County of San Mateo Office of Sustainability (OOS) appreciates the opportunity to submit this letter of support in response to the Call for Letters of Interest - Regional Stormwater Projects. This letter is submitted to indicate support for two proposed regional stormwater capture projects (regional projects) in San Mateo County located at Red Morton Park in Redwood City and the Interstate 280 and 380 Interchange in San Bruno.

These regional, multi benefit projects fit the criteria outlined in the Call for Letters of Interest and also align with the County of San Mateo's Green Infrastructure Plan, which prioritizes regional projects as the most cost-effective method of meeting the County's Regional Water Board pollutant load reduction goals.

Letters of Interest submitted by the City of Redwood City and the City of San Bruno each indicate that matching funds of $200,000 are available from OOS through the U.S. EPA San Francisco Bay Water Quality Improvement Fund (EPA WQIF). This letter of support confirms our intent to coordinate with C/CAG, the City of Redwood City, and the City of San Bruno on procurement of design services for the proposed regional projects and to leverage WQIF funding totaling $400,000 as match to any funds awarded to these proposed projects.

In addition, EPA WQIF funding of $100,000 has been allocated by OOS to further identify regional project opportunities in San Mateo County. While the Call for Letters of Interest is focused on design of regional projects, the identification of additional projects will be instrumental to establishing a county-wide approach to shifting the paradigm of how stormwater is managed on the San Francisco Peninsula. The County Office of Sustainability proposes that C/CAG consider allocating funds in the amount of $100,000 to match EPA WQIF funding for identification of additional regional project opportunities. This will ensure that a pool of additional regional projects is established, in preparation for future funding opportunities.

In summary, the County of San Mateo Office of Sustainability fully supports regional project proposals from the cities of Redwood City and San Bruno as they will greatly help the County of San Mateo achieve stormwater pollutant load reduction goals and improve water quality in the San Francisco Bay. The County also requests matching funds in the amount of $100,000 to establish a list of future regional project opportunities.

Sincerely,

Jim Eggemeyer
Director, Office of Sustainability

OFFICE OF SUSTAINABILITY
COUNTY OF SAN MATEO

# C/CAG AGENDA REPORT

Date: November 21, 2019

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Receive update on Municipal Regional Permit reissuance process and schedule.

(For further information or questions contact Matthew Fabry at 650 599-1419)

---

**RECOMMENDATION**

That the Committee receive an update on Municipal Regional Permit reissuance process and schedule.

**BACKGROUND**

The five-year term of the Municipal Regional Stormwater Permit Order No. R2-2015-0049 (MRP 2.0) issued by the 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 four workgroups to facilitate the negotiation process on key provisions of the MRP. The workgroups are focused on Trash, Provision C.3/Green Infrastructure (GI), Provision C.8 Monitoring, and Provisions C.11/12 mercury/PCBs/Reasonable Assurance Analyses. The Steering Committee has met five times since October 2018 and discussed "other provisions" outside of those addressed by the four workgroups, including Provisions C.4/C.5/C.6/C.7 at its last meeting on November 5, 2019. The Steering Committee also provided a revised tentative schedule for permit adoption, outlined below.

| | |
|---|---|
| Draft Tentative Order | Summer/fall 2020 |
| Final Tentative Order | Late 2020 |
| Tentative Order Adoption | March/April 2021 |
| Permit Effective Date | July 1, 2021 |

The next MRP 3.0 Steering Committee meeting is scheduled for December 3 and will focus on Provision C.8 and topics related to reporting, including electronic reporting and implementation cost reporting. The Steering Committee will also create an updated meeting schedule for 2020 at the December 3 meeting. Workgroups will be meeting as needed throughout the period leading up an adopted permit, and most will continue meeting on a monthly basis.

Due to the number of pages, summaries of Steering Committee and workgroup meetings are provided electronically at the following link: https://www.dropbox.com/sh/af7ridvreq1zas3/AAC1hpgjZiZBpXO3v7MtpyTya?dl=0.

**ATTACHMENTS**

None