

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

2:30 PM, Thursday, February 15, 2018
San Mateo County Transit District Office¹
1250 San Carlos Avenue, 2nd Floor Auditorium
San Carlos, California

STORMWATER (NPDES) COMMITTEE AGENDA

- | | | |
|---|------------------|--------------|
| 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: <ul style="list-style-type: none">• None | Fabry | No materials |
| 3. ACTION – Review and approve November 16, 2017 Stormwater Committee meeting minutes | Fabry | Pages 1-4 |
| 4. INFORMATION – Announcements on stormwater issues <ul style="list-style-type: none">• Grants Available• BASMAA Alternative Compliance Workgroup• Water Board Trash Related Items• Urban Creeks Monitoring Report and Annual Report Forms Authorization• March 30 Water Summit• Other | Fabry | Verbal |
| 5. INFORMATION – Receive presentation on BASMAA’s “PCBs in Building Demolition” project | Fabry/
Konnan | Page 5 |
| 6. INFORMATION – Receive presentation on Reasonable Assurance Analysis preliminary results. | Fabry/
Carter | Page 6 |
| 7. INFORMATION - Support for C/CAG’s application for funding under the Caltrans Climate Adaptation Planning Grant | Fabry | Pages 7-11 |
| 8. INFORMATION – Draft Funding Options Matrix | Fabry | Pages 12-19 |
| 9. Regional Board Report | Mumley | No Materials |
| 10. Executive Director’s Report | Wong | No Materials |
| 11. Member Reports | All | No Materials |

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.

C/CAG AGENDA REPORT

Date: February 15, 2018
To: Stormwater Committee
From: Matthew Fabry, Program Manager
Subject: Review and approve November 16, 2017 Stormwater Committee meeting minutes

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

RECOMMENDATION

Review and approve November 16, 2017 Stormwater Committee meeting minutes, as drafted.

ATTACHMENTS

1. Draft November 16, 2017 Minutes

STORMWATER COMMITTEE
Regular Meeting
Thursday, November 16, 2017
2:30 p.m.

DRAFT 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 Sandy Wong (C/CAG Executive Director), Matt Fabry (C/CAG Program Manager), Reid Bogert (C/CAG Stormwater Program Specialist), Jon Konnan, Steve Carter (Paradigm Environmental, C/CAG Consultant), Sandy Mathews (Larry Walker & Associates), Grant Ligon (City of San Mateo), Breann Liebermann (San Mateo County Office of Sustainability), Azalea Mitch (Menlo Park), Keegan Black (City of Brisbane), Richard Chiu (Daly City), Ahmad Haya (Redwood City), and Jennifer Lee (Burlingame). Chair Breault called the meeting to order at approximately 2:55 p.m.

1. Public comment: NONE.

2. C/CAG Board meeting updates: NONE. There were no stormwater items for discussion from previous C/CAG Board meetings.

3. ACTION – The draft minutes from the September 21, 2017 Stormwater Committee meeting were unanimously approved as drafted (motion: Underwood, second: Murtuza).

4. INFORMATION – Announcements on stormwater issues:

- Fabry updated the committee on the status of SB 231 (Herzberg), which was signed by Governor Brown in October 2017, and amends the Proposition 218 Omnibus Implementation Act within the California Government Code to clarify procedures for establishing new or increasing existing stormwater fees. Essentially, the term “sewer” was clarified to include stormwater services. There was a [webinar](#) on October 17, 2017 discussing the advised approach for local jurisdictions, which is arguably a conservative approach. The working group in support of the bill’s implementation recommends pursuing stormwater fees where there is a clear nexus to water supply or sewer systems as a defensible means to establishing case law to support broader implementation in the future.
- Fabry updated the committee on the transition of business inspections from the County Health System to the individual jurisdictions for those that have existing contracts with the County.
- Fabry announced the upcoming stakeholder workshop on December 12, 2017 for the regional BASMAA project to develop an assessment protocol and supporting materials for evaluating PCBs in building materials prior to demolition. The focus of the workshop will be on the draft protocol for assessing PCBs in building materials, and there will be a second workshop in spring to solicit comments from regional stakeholders on supplemental materials focused on program implementation.
- Fabry discussed emails from Regional Water Board Staff about the Annual Reporting for C.10 Trash Provision with respect to on-land visual trash assessments (OLVAs). The Water Board was concerned that some cities had claimed more reductions through OLVAs than may have been warranted and that some baseline assumptions may have lacked supporting evidence. EOA will reach out to all relevant agencies with supporting data forms and calculations to respond to Water Board staff.

- Fabry discussed request from Water Board staff to review Green Infrastructure Workplans/Frameworks, though this was not an Annual Report requirement. Some cities were requested to send documentation of approval of the workplan in addition to the workplan itself. All 76 agencies under the MRP were requested to submit workplans.

5. ACTION – The proposed project funding list under the Safe Routes to School and Green Streets Infrastructure Pilot Program was approved unanimously (motion: Underwood, second: Fuller).

6. INFORMATION – Steve Carter (Paradigm) presented the Reasonable Assurance Analysis memo dated November 9, 2017, which outlined six key decision points for selecting and modeling green infrastructure control measures through the Reasonable Assurance Analysis. The memo defines the primary assumptions behind modeling load reductions from various green infrastructure control measures, the assumptions built into the project opportunity screening and prioritization process from the Stormwater Resource Plan and the extent to which the different control measures will be modeled and presented (especially regional projects). C/CAG staff will follow-up with an email to the Stormwater Committee members, soliciting feedback on the RAA model assumptions memo, as well as an updated memo from CD+A on the projections of new and redevelopment throughout the County through 2040. After receiving feedback on the RAA assumptions from the committee, Paradigm will provide initial results of the RAA modeling with wasteload allocation goals via green infrastructure for each jurisdiction at the subwatershed level, as well as countywide in February 2018.

7. Regional Water Board Report: NONE.

8. Executive Director's Report – Fabry gave the Executive Director's report in place of Sandy Wong who was not in attendance. Fabry announced the development of a countywide "Water Summit" showcasing water-related projects throughout the County and building the case for continued and more focused integration and coordination across departments and agencies. The summit is scheduled for March 30, 2018, and Supervisor Pine is taking the lead on directing the development of the summit with support of staff and C/CAG's Countywide Water Coordination Committee.

11. Member Reports: NONE.

Chair Breault adjourned the meeting at 3:50 p.m.

2017-18 Stormwater Committee Attendance			July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Agency	Representative	Position												
Atherton	Marty Hanneman	City Engineer												
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		X							
Colma	Brad Donohue	Director of Public Works and Planning		C	X	C	X	C	C					
Daly City	John Fuller	Public Works Director		A	O	A	X	A	A					
East Palo Alto	Kamal Fallaha	City Engineer		N		N		N	N					
Foster City	Jeff Moneda	Public Works Director		C	X	C		C	C					
Half Moon Bay	Denice Hutten	Associate Engineer		E	X	E		E	E					
Hillsborough	Paul Willis	Public Works Director		L	X	L		L	L					
Menlo Park	Justin Murphy	Public Works Director		E	O	E	X	E	E					
Millbrae	Vacant		0	D	X	D	X	D	D					
Pacifica	Van Ocampo	Public Works Director/City Engineer			O		X							
Portola Valley	Howard Young	Public Works Director												
Redwood City	Saber Sarwary	Supervising Civil Engineer			X		O							
San Bruno	Jimmy Tan	City Engineer					X							
San Carlos	Jay Walter	Public Works Director			X		X							
San Mateo	Brad Underwood	Public Works Director			X		X							
South San Francisco	Eunejune Kim	Public Works Director					X							
Woodside	Sean Rose	Public Works Director					X							
San Mateo County	Jim Porter	Public Works Director			X		O							
Regional Water Quality Control Board	Tom Mumley	Assistant Executive Officer			O									

"X" - Committee Member Attended

"O" - Other Jurisdictional Representative Attended

C/CAG AGENDA REPORT

Date: February 15, 2018
To: Stormwater Committee
From: Matthew Fabry, Program Manager
Subject: Receive presentation on BASMAA's "PCBs in Building Demolition" project.

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

RECOMMENDATION

Receive presentation on BASMAA's "PCBs in Building Demolition" project.

FISCAL IMPACT

N/A

SOURCE OF FUNDS

N/A

BACKGROUND

The Municipal Regional Permit (MRP) requires permittees to implement an effective protocol for managing materials with elevated PCB concentrations in applicable building structures at the time such structures undergo demolition to prevent PCBs from entering storm drain systems. The MRP further stipulates permittees will receive 2/3 of the mandated PCB load reduction during the current permit term upon successfully implementing such a protocol by July 1, 2019. The Bay Area Stormwater Management Agencies Association (BASMAA) has been working at the regional level to develop guidance and tools to assist each permittee adopt and implement its protocol for managing PCBs during demolition. The BASMAA regional project is also developing training materials and conducting outreach to relevant stakeholders. BASMAA's project manager for the consultant team working on the project, Jon Konnan with EOA, will present the project to the committee, including current status, planned deliverables, timing, and local agency responsibilities for integrating the BASMAA product outputs into a locally implemented building demolition program.

ATTACHMENTS

None

C/CAG AGENDA REPORT

Date: February 15, 2018
To: Stormwater Committee
From: Matthew Fabry, Program Manager
Subject: Receive presentation on Reasonable Assurance Analysis preliminary results.

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

RECOMMENDATION

Receive presentation on Reasonable Assurance Analysis preliminary results.

FISCAL IMPACT

N/A

SOURCE OF FUNDS

N/A

BACKGROUND

The Municipal Regional Permit (MRP) requires Reasonable Assurance Analyses (RAA) to demonstrate mercury and PCB (polychlorinated biphenyls) load reductions will be achieved via green infrastructure and the other control measures. Paradigm Environmental has been developing the RAA for C/CAG's member agencies and Steve Carter will summarize the preliminary results for each agency regarding the capacity of green infrastructure required to achieve mandated load reductions for mercury and PCBs.

ATTACHMENTS

None

C/CAG AGENDA REPORT

Date: February 15, 2018

To: Stormwater Committee

From: Matthew Fabry, Program Manager

Subject: Support for C/CAG's application for funding under the Caltrans Climate Adaptation Planning Grant.

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

RECOMMENDATION

Receive information on providing support for C/CAG's application for funding under the Caltrans Adaptation Planning Grant.

FISCAL IMPACT

None to apply. \$7 million is available, with a maximum per grant of \$1 million. C/CAG will be required to provide 11.47% matching funds which would be covered via staff costs and existing consultant efforts related to green infrastructure planning and reasonable assurance analysis efforts.

SOURCE OF FUNDS

N/A

BACKGROUND

C/CAG is planning to apply for funding under the second round of the Caltrans Climate Adaptation Planning Grant. This grant program, which will allocate \$7 million for the Fiscal Year 2018/19 grant cycle, would provide additional funding for high resolution planning to support long-term implementation of Green Infrastructure Plans, as required by the Municipal Regional Permit (MRP) to achieve reductions in mercury and PCBs to San Francisco Bay. The proposal is to develop a Countywide Sustainable Streets Master Plan that prioritizes street segments for implementing complete/green streets features. This will help member agencies figure out which streets should be considered for incorporating green infrastructure to support the capacity of green infrastructure required for long-term pollutant load reductions as determined through the Reasonable Assurance Analysis process.

Applications for this funding cycle are due, Feb 23, 2018. Staff is still drafting the application materials, but Attachment 1 includes a summary of the proposed project. Staff is requesting partnership letters from each member agency (Attachment 2) for inclusion in the grant application that indicate willingness to share electronic data and work with C/CAG on

developing the master plan. Staff is requesting partnership letters be submitted on agency letterhead by close of business on February 21, 2018.

ATTACHMENTS

Attachment 1. Grant proposal summary

Attachment 2. Draft partnership letter

SCOPE OF WORK:

Calm Before the Storm: San Mateo Countywide Sustainable Streets Master Plan

INTRODUCTION:

The City/County Association of Governments of San Mateo County (C/CAG), working with its 21 member agencies and Caltrans, will develop the “San Mateo Countywide Sustainable Streets Master Plan” (Master Plan) to prioritize locations for integrating green stormwater infrastructure into roadways to capture, treat, and infiltrate stormwater runoff to better adapt the transportation network to precipitation-based climate change impacts while simultaneously helping local agencies achieve state mandates for treating runoff. Sustainable Streets combine Complete Streets that accommodate all modes and users safely and Green Streets that incorporate green stormwater infrastructure to manage stormwater. As climate change impacts local infrastructure, it will be increasingly important to focus on disadvantaged communities. The proposed project will take a multi-benefit approach to prioritizing Sustainable Streets opportunities that includes evaluation of community-specific needs for safer, more sustainable streets. Commencing in October 2018, the two-year effort builds upon existing regional and countywide green infrastructure planning efforts and Caltrans planning grants. Project deliverables include a master plan, GIS data layers, model policies, project concepts, public outreach, and web-based implementation tracking tools. The project is intended to develop methodologies for mapping and prioritizing roadways for Sustainable Streets implementation that can be replicated throughout the state.

RESPONSIBLE PARTIES:

The project will be implemented by the C/CAG and one or more consultants that will be selected via proper procurement procedures.

OVERALL PROJECT OBJECTIVES:

- Use existing C/CAG and County models to quantify the precipitation-based climate change impacts to stormwater runoff from roadways throughout the county
- Improve the resolution of drainage mapping throughout San Mateo County to include identifying roadway drainage patterns
- Prioritize roadways throughout the county for implementing Sustainable Streets consistent with regulatory, agency, community, and grant priorities
- Implement community outreach efforts to engage the public and interested stakeholders in developing the master plan
- Develop project concepts for sustainable street projects throughout the county
- Develop a countywide master plan that prioritizes sustainable streets implementation throughout the county through 2040, including a model Sustainable Streets policy, and that directly supports local agency plans, including Green Infrastructure Plans
- Develop a web-based implementation tracking tool to allow C/CAG member agencies, the public, and interested stakeholders to see progress toward adapting the roadway system for climate change and meeting water quality improvement goals

PROJECT JUSTIFICATION

Roadways constitute a significant portion of urbanized impervious surfaces, and therefore are significant contributors to both the quantity and quality of stormwater runoff. Changes to precipitation patterns under climate change scenarios will likely exacerbate both of these factors. At the same time, State mandates in a regional municipal stormwater permit require municipalities to develop Green Infrastructure Plans, showing how they will gradually transition

from grey, or traditional storm drain infrastructure, to green, or more sustainable systems that capture, treat, and infiltrate stormwater runoff over the coming decades. In addition, the transition to green infrastructure has to occur quickly enough and in sufficient quantities to achieve specific reductions in pollutants threatening public health in San Francisco Bay. These two parallel drivers, climate change and water quality improvement, require enhanced planning efforts if municipalities are going to successfully adapt to these new paradigms. The proposed project will help address both issues, identifying and prioritizing opportunities within public roadways for integration of green infrastructure systems to manage stormwater runoff more sustainably - minimizing pollutants while slowing and reducing runoff, thereby protecting receiving waters and guarding against flooding. Roadways will both contribute to climate change impacts and be affected by them - widespread, distributed interventions will be necessary to adapt the transportation system and minimize the likelihood of adverse impacts.

C/CAG is already assisting its member agencies with green infrastructure planning, developing model documents and performing robust countywide hydrology and pollutant transport modeling. The end results will include jurisdictional and countywide targets for the overall capacity of green infrastructure needed to achieve mandated water quality improvement, but won't tell municipalities which specific streets are the best opportunities for implementing green infrastructure solutions, and the targets won't take into consideration climate change scenarios. C/CAG will end up with compliance plans that tell its member agencies and State water quality regulators what needs to be done at the 30,000-foot level, but not implementation plans that get down to the ground level and help municipalities find the real projects that need to be built. Therefore, C/CAG is seeking grant funds to develop a "San Mateo Countywide Sustainable Streets Master Plan" that will identify and prioritize opportunities to integrate green infrastructure with bicycle and pedestrian improvements (Green Streets + Complete Streets = Sustainable Streets) to achieve water quality mandates and help adapt the transportation system to climate change impacts. By integrating green infrastructure with bike/ped improvements, municipalities can both adapt to and mitigate against climate change.

C/CAG will utilize high resolution LiDAR data to enhance existing drainage basin delineation down to the individual catch basin level throughout the county. This will then be used to delineate specific street segments that contribute runoff within each drainage area to help quantify the amount of green infrastructure interventions needed to address pollutant and volume concerns. At the same time, C/CAG will overlay numerous data sources to prioritize roadway segments for implementing sustainable street features, such as disadvantaged/vulnerable communities, Safe Routes to School priorities, bicycle and pedestrian master plan projects in each jurisdictional area, existing pollutant and flooding concerns, pavement maintenance and roadway reconstruction priorities, urban heat islands, priority development areas, locations with bicycle and pedestrian safety concerns, and more. Working with the high-resolution elevation data and overlays of priority areas, C/CAG will end up with much more detailed maps of roadway segments that make the most sense for implementing Sustainable Streets. This will be paired with C/CAG's modeling efforts to quantify the amount of green infrastructure needed to achieve water quality goals and climate change impacts to develop a detailed and phased master plan for implementation, including project concepts, model policies, and design details to support getting projects built.

Without grant funding, C/CAG's efforts will remain focused on achieving regional stormwater permit mandates and green infrastructure plans will not take into consideration climate change impacts and opportunities for future implementation to address multiple priorities. In addition, planning will remain at a high level, rather than at the street level where municipalities really need help in identifying what projects should be built, and when.

Date

Mr. Matthew Fabry, Program Manager
San Mateo Countywide Water Pollution Prevention Program
c/o City/County Association of Governments
555 County Center, 5th Floor
Redwood City, CA 94063

Subject: Support for C/CAG's Application for Funding through the Caltrans Climate Adaption Planning Grant Program.

Dear Mr. Fabry:

I am writing on behalf of CITY in support of and partnership with the City/County Association of Governments (C/CAG) and the San Mateo Countywide Water Pollution Prevention Program's application for funding under the Caltrans Climate Adaptation Planning Grant Program.

C/CAG's proposed development of a "San Mateo Countywide Sustainable Streets Master Plan" is a much-needed path toward climate resiliency for San Mateo County. Funding under this program would also provide critical support for CITY to meet its countywide portion of pollutant load reductions for PCBs (polychlorinated biphenyls) and mercury draining to San Francisco Bay via widespread construction of green infrastructure over the coming decades. CITY will support this grant through input on project deliverables and providing access to local geospatial data and additional information to support the development of new spatial layers, high-resolution drainage information, model sustainable streets policies, a "Countywide Sustainable Streets Master Plan," project concepts, and web-based tracking tools.

Aligning with C/CAG's ongoing green infrastructure planning work, this is an important opportunity to achieve multiple-benefits through innovative planning and implementation, and we look forward to partnering with C/CAG and Caltrans to build a more resilient San Mateo County through this grant opportunity.

If you have any questions regarding this correspondence or our support of the proposed grant, please CONTACT.

Sincerely,

C/CAG AGENDA REPORT

Date: February 15, 2018
To: Stormwater Committee
From: Matthew Fabry, Program Manager
Subject: Receive information on the Draft Green Infrastructure Funding Matrix for evaluating prioritized funding options for Green Infrastructure Plans.

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

RECOMMENDATION

Receive information on the Draft Green Infrastructure Funding Matrix for evaluating prioritized funding options for Green Infrastructure Plans.

FISCAL IMPACT

N/A

SOURCE OF FUNDS

N/A

BACKGROUND

As part of the Green Infrastructure Plan requirement of the Municipal Regional Permit (MRP), permittees must provide an evaluation of prioritized project funding options, including, alternative compliance funds, grant monies, existing local financing, new taxes or other levies, and other sources of funding. C/CAG's consultant to the countywide program, SCI, created the attached Draft Green Infrastructure Funding Matrix for committee review and discussion. C/CAG is seeking comments on whether any of the proposed funding options should be removed from consideration (or added), and whether there are certain options that deserve greater attention and focus in the near-term than others. Staff would like feedback by the close of business on Friday, March 2, 2018. C/CAG staff will summarize the funding matrix to facilitate discussion.

ATTACHMENTS

Attachment 1. Draft Green Infrastructure Funding Matrix

Green Infrastructure Funding Matrix
San Mateo Countywide Water Pollution Prevention Program
2018

Summary

Traditional Mechanisms

- Property-Related Fees
- Re-Alignment
- Regulatory Fees
- Developer Impact Fees
- General Obligation Bonds
- Other Taxes
- Grants
- Bonds & Loans

Special Financing Districts

- Benefit Assessments
- Business Improvement Districts
- Enhanced Infrastructure Financing Districts (EIFD)

Alternative Compliance

- Credit Trading Programs
- Developer Mitigation Program

Partnerships

- Multi-Agency
- Transportation
- Caltrans Mitigation
- Public-Private ("P3")
- Volunteers

Green Infrastructure Funding Matrix
 San Mateo Countywide Water Pollution Prevention Program
 2018

Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
Traditional Mechanisms								
Parcel Taxes	Can fund all or any parts of a GI program as stipulated in the ballot question and authorizing ordinance	Usually a 2/3 majority of voters (general taxes require only 50% majority, but can only go to General Fund)	<ul style="list-style-type: none"> * Flexible and legally stout; * Debt can be issued in most cases; * Most voters are familiar with Parcel Taxes 	<ul style="list-style-type: none"> * Requires voter approval at the 2/3 level; * Must compete with other ballot measures 	X	X	X	X
Property-Related Fees	Establishes Storm Drainage as a separate utility service and can fund all or any parts of a GI program	Prop 218 compliance; <ul style="list-style-type: none"> * Rigorous rate study; * Must define services and service area; * Property owners approval for non-Water, -Sewer, and - Garbage 	<ul style="list-style-type: none"> * Flexible and legally stout; * Debt can be issued in most cases 	<ul style="list-style-type: none"> * Ballot measure required if for a Storm Drain service - usually voted on by property owners (Not registered voters); * Ballot measure requires significant public outreach; * Public not familiar with balloted property-related fees 	X	X	X	X
Re-Alignment	GI that promotes groundwater recharge, diversion to wastewater treatment, or trash capture can be incorporated into existing property-related fee structures without need for ballot measure	Prop 218 compliance for realignment to Water, Sewer or Garbage - must demonstrate applicability	<ul style="list-style-type: none"> * Existing non-balloted fee mechanisms can help pay for GI services; * Enhances integration of GI into other municipal activities; * Causes other utilities to recognize the value of GI programs 	<ul style="list-style-type: none"> * Limited to activities attributable to other funded revenue centers; * Prop 218 hawks could challenge; * Outside revenue center will need to raise rates to fund GI activity - politically unpopular; * Has not been widely used; * May be unpopular with Water, Sewer and Garbage managers; * Water or sewer may be handled by separate agencies, making realignment impossible 	X	X	X	X
Regulatory Fees	Fees and charges for performing administrative activities related to GI	Cannot exceed the actual cost of performing activities such as permit issuance, inspections, on-site mitigation, etc.	<ul style="list-style-type: none"> * No voter approval is needed; * Usually included in Master Fee Schedule; * Most municipalities already have these in place 	Does not pay for capital improvements or O&M	X			
Developer Impact Fees	Could incorporate fees for mitigating stormwater impacts to help fund GI - Would not relieve developer of NPDES requirements	Must comply with AB 1600 and include a rigorous nexus study	Could partially fund GI	<ul style="list-style-type: none"> * Requires a nexus study, often times by a consultant; * Nexus study must demonstrate connection between development and GI need; * Administration of funds requires resources; * AB 1600 requires 5-year window for programming funds; 		X	X	

Green Infrastructure Funding Matrix
 San Mateo Countywide Water Pollution Prevention Program
 2018

Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
General Obligation Bonds	Can fund Capital GI Projects through debt taken on by municipality	* Voter approval at 2/3 level; * Will need Financial Advising Consultant	* Can fund capital projects or programs with debt paid back over time through property taxes; * Typically easier to pass than a parcel tax; * Taxes based on property value, so annual obligation of individual prop owner is vague	Can only be used for capital costs - Cannot be used for O&M or staff costs		X	X	
Other Taxes	* Business License Tax; * Vehicle License Fees; * Sales Tax; * Transit Occupancy Tax	Typically require a 2/3 voter approval	* Most are flexible in how they can be used; * 50% threshold can be used if a general tax;	* 2/3 voter approval is difficult to attain; * Ballot measure can be expensive; * If a general tax, then must compete with other General Fund needs; * Must compete with other ballot questions	X	X	X	X
Grants	One-time infusion of funds for qualifying projects from State or other granting authority	* Project concept must conform to grant requirements; * Most grants are competitive with limit funding available	* Grants are outside sources of funding that do not need to be repaid; * Readiness is a plus, so can benefit a project or program that is well developed and possibly designed; * Some State Revolving Fund loans can be converted to grants through forgiveness clauses	* Projects must be tailored to grant requirements, possibly causing scope and schedule creep; * Most grants require matching funds from other sources; * Most grants require commitment to post-project O&M, but do not fund those activities; * Little control over timing - can be difficult to coordinate with other funding sources; * Competitive nature lowers chances of obtaining grant; * Applying for grants can be time-consuming and require outside help from a grant writer; * Grant administration requires significant resources	X	X	X	???
Bonds & Loans	Debt instruments can help accelerate project deliver while paying off debt over time	* Must have dedicated revenue stream to pay off debt; * Must have adequate credit rating to secure reasonable interest rates; * Some Bonds require voter approval	* Can leverage a modest revenue stream by borrowing money up front for rapid project delivery while paying off debt over longer periods of time; * Accelerates project delivery and makes coordination with other funding or projects easier	* Must have dedicated revenue stream to service debt; * Some debt mechanisms require voter approval (GO Bonds, Revenue Bonds, EIFD Bonds)	???	X	X	

Green Infrastructure Funding Matrix
 San Mateo Countywide Water Pollution Prevention Program
 2018

Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
Special Financing Districts								
Benefit Assessments	Can fund the construction and maintenance of GI projects	Prop 218 compliance; * Rigorous Engineer's Report; * Must deduct general benefit from special benefit; * Property owners approval is required through a ballot proceeding (weighted voting); * Works best with new development due to voting requirement	* Flexible and legally stout; * Can fund both construction and maintenance; * Can use bonded indebtedness	* General Benefit must be separated and paid for by other sources; * Votes are weighted by assessment amount, favoring large land owners		X	X	X
Business Improvement Districts	Business and property owners tax themselves to build and maintain GI improvements	Formed by a municipality through a notice and protest hearing process.	* Flexible and legally stout; * Can fund both construction and maintenance; * Local improvements can generate local support and involvement * GI improvements can also be amenities; * Can enhance sense of ownership and pride in the neighborhood when results are visible	* Cannot use debt financing; * Opposing businesses can disrupt the progress; * Can burden businesses & property owners so they are unwilling to support other funding measures		X	X	X
Enhanced Infrastructure Financing Districts (EIFD)	Captures property tax increment similar to redevelopment (RDA) for building and maintaining infrastructure like GI	<u>With No Debt:</u> * Establish a Public Finance Authority; * Adopt a Financing Plan; * Resolution(s) from participating agencies <u>With Debt:</u> * All of the above; * Get approval from at least 55% of voters in District	* Can fund many types of projects; * Does not require a vote (unless debt is part of the plan, then a 55% majority is required); * Can include multiple municipalities and special districts, so area can be tailored to needs (e.g. watersheds, high legacy pollutant areas, countywide); * Does not require a blight finding; * Can overlap with former RDA areas; * Works well with master planned community with a single land owner; * Planning costs can be paid for from proceeds (with limitations); * EIFD can go for up to 45 years	* Education districts are not permitted to participate, so revenues would be much less than RDA; * If overlapping a former RDA area, then cannot proceed until RDA is issued a finding of completion from the State; * GI is only a small piece of what an EIFD can do - it may take a back seat to other, larger community concerns; * Some agencies (i.e. special districts) may not agree to their portion of tax increment to be diverted thereby reducing revenue potential	???	X	X	X

Green Infrastructure Funding Matrix
 San Mateo Countywide Water Pollution Prevention Program
 2018

Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
Alternative Compliance								
Credit Trading Programs	Creates GI Credit program for developers and others to trade GI responsibilities to others who have better capability to meet GI goals	A municipality (or regional entity) must create credit trading program including: * Definition of GI Credits; * Relative Value of Credits; * Timing of responsibilities; * Eligibility	* Allows developers who cannot meet NPDES or GI requirements to buy credits created by other entities; * Encourages developers or other entities who have greater GI capacity to over-build GI in order to sell credits in future; * Present value of future O&M costs can be incorporated into credit value; * Allows for flexibility to guide GI to areas with greater pollutant loading need; * May save developers money	* Very few Programs (to use as an example) have been implemented - particularly in California; * Credits may need to stay within same watershed; * Overbuilding GI in some areas may not help other areas; * Overbuilding GI can lead to overlapping GI zones; * Unclear if developers are willing to overbuild on speculation of future sale of credits; * Unclear how value of credits would be established; * Unclear if municipality would be credit broker, or if developers can deal directly with each other; * May be difficult to apply credits to public rights of way; * Costing future O&M is difficult		X	X	X
Developer Mitigation Program	Allows developers who cannot meet GI requirements to pay into fund that would finance off-site or regional projects	Municipality would need to estimate the costs of mitigation - could be done case-by-case	* Enables higher density development in certain areas (such as TOD and PDA); * Enables GI in public spaces that private developers would not normally participate in; * Funds can be pooled to finance larger or regional projects that can be more effective; * Municipality can be flexible in enforcement to allow hybrid compliance; * Municipality may consider informal fee process, negotiating each individual developer through COA; * Funds can be leveraged for grants or loans; * Would not be governed by AB 1600	* Case-by-case approach can be difficult; * Developers will try to evade costs	X	X	X	X

Green Infrastructure Funding Matrix
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 2018

Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
Partnerships								
Multi-Agency	Encourages partnerships with non-Stormwater agencies to explore GI co-benefits in their work	Examples may include: * Spreading basins for groundwater agencies; * GI project sites on school grounds; * GI on housing authority sites	* Can generate credits for Credit Trading Program; * Expands GI potential and awareness; * Flexible; * Can leverage limited GI funding to greater benefit	* Not cookie-cutter; requires customization; * May be difficult to find partners	X	X	X	???
Transportation	Encourages partnerships with transportation agencies to explore GI co-benefits in their work and take advantage of Complete Streets or Green Streets programs	Examples may include: * Permeable pavements; * Roadside rain gardens; * Cisterns	* Most municipalities are also transportation agencies, so internal project coordination more likely; * Can generate credits for Credit Trading Program; * Expands GI potential and awareness; * Can leverage limited GI funding to greater benefit; * Recent increase in Gas Tax may make more room for GI elements	* Not cookie-cutter; requires customization; * May be difficult to find partners; * Road condition woes prevail, making it difficult to shift funding to GI and other amenity-type elements; * Transportation grants may preclude using funds for GI	X	X	X	???
Caltrans Mitigation	Caltrans looks for opportunities for off-site mitigation of stormwater impacts of their highways	Local municipalities may enter in a cooperative agreement with Caltrans to build GI as a way for them to mitigate stormwater impacts of their highways	* Caltrans may furnish funding for local or regional projects that help them meet their obligations; * Locals can propose solutions that benefit both Caltrans and the local agencies	* Caltrans cooperative agreements can be cumbersome and bureaucratic; * Projects that work for Caltrans may be difficult to develop		X	X	???
Public-Private ("P3")	Private enterprises can provide overall solutions to GI programs through better access to resources and capital	P3 is primarily a deliver system for projects where debt provides near-term funding and project acceleration	* Bypasses some of the bureaucracy; * Can make existing funding sources work more efficiently; * Draws on private sector expertise and financing; * Debt may be tax-exempt; * Debt accelerates project delivery; * Can include design, build, finance, operate; * Debt is private - may not affect public agency's debt capacity	* Does not provide additional funding; * Dedicated revenue stream is needed - cash flow is an important element		X	X	X

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Funding Category	GI Nexus	Requirements	Pros	Cons	Staff	Planning	Capital	O&M
Volunteers	Volunteer groups can be a resource for GI operations and maintenance (O&M) as well as program planning	<ul style="list-style-type: none"> * To be effective, volunteers need organization and oversight; * Can be used to supplement paid contractors, or perform entire projects 	<ul style="list-style-type: none"> * "Free" labor; * Some volunteers provide needed expertise; * Increases awareness of GI program; * Some non-profit organizations have ready-made volunteer groups that are trained and organized; * Can build public support for dedicated revenue mechanism such as a fee; * Education program for community 	<ul style="list-style-type: none"> * Requires significant staff resources to recruit, organize, train and plan & supervise the work; * Can be unreliable - hard to build schedule and cost forecasts around volunteer work force; * Can create conflict with prevailing wage requirements; * Difficult to incorporate into project construction work 		X	???	X