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

1:15 PM, Thursday, October 15, 2015
San Mateo County Transit District Office[1]
1250 San Carlos Avenue, 2nd Floor Auditorium
San Carlos, California

NOTE REVISED START TIME

STORMWATER (NPDES) COMMITTEE AGENDA

1.	Public comment on items not on the Agenda (presentations limited to three minutes).	Breault	No materials
2.	Issues from September and October C/CAG Board meetings: • September: Receive presentation on 2014-15 Countywide Water Pollution Prevention Program accomplishments and information on draft Municipal Regional Permit (Information) • October: Review the proposal of and approve the framework for the formation of a C/CAG committee to facilitate the discussion on countywide approaches to water related issues (Result to be presented orally at meeting)	Fabry	No materials
3.	ACTION – Review and approve August 20, 2015 Stormwater Committee meeting minutes	Fabry	Pages 1-6
4.	ACTION – Review and provide input on options for C/CAG supporting development of a countywide Stormwater Resource Plan to enable member agencies to seek Proposition 1 stormwater grant funding	Fabry	Pages 7-20
5.	PRESENTATION – Caltrans' Trash Load Reduction Plan	Takhar	Page 21
6.	PRESENTATION – Countywide PCBs and Mercury Source Area Identification Study	Konnan	Pages 22-32
7.	PRESENTATION – Update on Countywide Sea Level Rise Vulnerability Assessment	Papendick	Page 33
8.	UPDATE – Municipal Regional Permit Reissuance	Fabry	No Materials
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 Nancy Blair at 650 599-1406, five working days prior to the meeting date.

C/CAG AGENDA REPORT

Date: October 15, 2015

To: Stormwater Committee

From: Matthew Fabry, Program Coordinator

Subject: Review and approve August 20, 2015 Stormwater Committee meeting minutes

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

RECOMMENDATION

Review and approve August 20, 2015 Stormwater Committee meeting minutes as drafted.

ATTACHMENTS

1. Draft August 20, 2015 Minutes

STORMWATER COMMITTEE
Regular Meeting
Thursday, August 20, 2015
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 Coordinator), John Fuller (Daly City), Patrick Ledesma (San Mateo County), Michelle Daher (East Palo Alto), Kathryn Sheehan (CSG Consultants), and Jon Konnan (EOA, Inc.). Chair Breault called the meeting to order at 2:40 p.m.

1. Public comment: None

2. C/CAG staff Matt Fabry provided an update on issues relevant to the Committee from the July and August C/CAG Board meetings. There were no relevant issues from July. In August, based on the results of a Request for Qualifications (RFQ) process, C/CAG approved a resolution that authorizes the C/CAG Chair to execute three-year agreements with 10 firms to provide on-call consultant services to the Countywide Water Pollution Prevention Program, and further authorized the C/CAG Executive Director to negotiate and issue task orders under said contracts in a cumulative amount not to exceed $2,300,000 for fiscal year 2015-16. Two consultants have provided these services in the past. The RFQ divided the services into seven categories, and the highest rated three consultants were identified for each category, except that five consultants were identified for the Green Infrastructure category. Next steps are for C/CAG staff to develop scopes of work, solicit proposals from the qualified consultants, and issue task orders.

3. ACTION – The draft minutes from the June 18, 2015 Stormwater Committee meeting were approved unanimously. (Motion: Murtuza, Second: Willis).

4. ACTION – C/CAG staff Fabry provided an update on the general categories of compliance activities required under the revised Municipal Regional Permit (MRP) and solicited recommendations from the Committee regarding initial prioritization of the categories with regard to providing C/CAG support during the next five year permit term. Fabry noted that the requirements that will be in the adopted permit are fairly well known at this time. In the past, sufficient funding was available for C/CAG to provide member agencies with all of their desired permit compliance assistance, but that may no longer be the case going forward. Thus, there is need to prioritize types of assistance. C/CAG staff began the process of seeking input on the permit activities for which member agencies desire C/CAG support at the July 21 NPDES Technical Advisory Committee meeting, and the discussion has continued at various subcommittee meetings. In general, member agencies have indicated a desire for C/CAG's support in the following broad categories, in order of MRP provision:

- Provision C.3: New Development and Redevelopment, including Green Infrastructure
- Provision C.7: Public Information and Outreach
- Provision C.8: Water Quality Monitoring
- Provision C.10: Trash Load Reduction

- Provision C.11/C.12: Mercury and PCB Controls

Member agencies also requested C/CAG provide ongoing education and training via regular subcommittee and committee meetings and periodic workshops. There is also a desire for continued support with regard to annual reporting.

C/CAG staff anticipates future support will be limited to annual revenue minus various ongoing administrative and permit support costs. C/CAG staff anticipates approximately $1.7 million annually to be available for consultant support on MRP requirements. Fabry noted C/CAG has some additional reserve funds ($600K) available for technical support in the current fiscal year that could carry over to future years. Fabry also noted that he is planning on hiring a staff to assist with management of the stormwater program; this is already budgeted for under administrative and permit support costs.

Fabry referred to tables in the agenda packet that A) summarize the general level of consultant resources that has been put towards seven general compliance assistance categories in recent fiscal years under the current MRP requirements and projected costs under MRP 2, and B) list the categories in order of priority (highest to lowest) based on C/CAG staff's preliminarily recommendations. It was noted that the projected mercury/PCBs control costs under MRP 2 are not zero but instead are to be determined, and there already appears to be an annual shortfall and thus the need for prioritization, even without including these unknown mercury/PCBs control costs. Fabry reviewed the rationale for the recommended priorities and solicited feedback from the Committee. The Committee emphasized the importance of assistance with Annual Reporting (Category No. 7 or lowest priority in agenda packet table), and requested moving it up to No. 5. The Committee also agreed that certain aspects of Public Outreach are important to perform at the countywide level and should receive higher priority. Fabry noted that activities related to the potential countywide funding initiative are budgeted separately. The Committee discussed various possibilities for reducing costs in the future. Finally, the Committee asked staff to develop a proposal to more fairly divide up costs among member agencies for C/CAG's assistance with mercury and PCBs controls, since contributions of these pollutants to stormwater runoff discharges is presumed to vary widely among the agencies depending on extent of urbanization and especially old industrial land uses. The committee noted this will require solid justification and will be very challenging.

5. ACTION – C/CAG staff Fabry provided an update on the potential countywide stormwater funding initiative and solicited recommendations from the Committee regarding next steps. Fabry noted that staff efforts on the potential initiative have generally been on hold for the past year. To date, staff has undertaken the following efforts in support of a potential initiative:

- Funding Needs Analysis – completed a final draft, left as a draft to allow revision based on revised Municipal Regional Permit requirements, as needed.
- Funding Options Report – completed a final draft detailing the various options for funding stormwater-related work. Has not been adopted as a final work product yet by the C/CAG Board.
- Opinion Research – final report accepted by the C/CAG Board at the August 2014 meeting. Details results of phone and mail surveys.
- Action Plan – staff prepared a detailed outline of an Action Plan that would serve as the public document detailing how revenue from a successful measure would be utilized.
- Member Agency and Community Engagement – staff met with five member agencies (Brisbane,

Belmont, San Carlos, San Mateo County, and City of San Mateo) and several community groups.

Tasks that remain to be done for an initiative include:

- Finalizing the Funding Needs Analysis – need to verify assumptions made in preparing the document are consistent with permit requirements in the revised Municipal Regional Permit (e.g., add Green Infrastructure planning dollars, adjust mercury/PCBs control costs).
- Finalizing the Action Plan – convert outline into full document for Committee and C/CAG Board review and approval.
- Prepare a rate structure and Fee Report – this task has not yet been started, although preliminary estimates of revenue that would be generated from a successful initiative were based on the rate structure established by the Contra Costa County Clean Water Program in its 2012 initiative and would likely be the starting point for discussion on a San Mateo County rate structure.
- Potentially perform additional opinion research to gauge public support if enough time passes between an actual initiative and the previous polling, or to test new messages or focus areas, such as a Green Infrastructure / sustainability initiative vs. a clean water initiative.

Once all these tasks are completed and if the C/CAG Board approved moving forward with an initiative, it is approximately five months from Board decision to a tabulated election result. Fabry noted other factors that might impact the initiative such as other initiatives and Proposition 218 reform. Fabry noted staff is proposing two options for Committee review/discussion on moving forward with a potential initiative:

- Option 1: continue moving forward to complete tasks detailed above. Initiate a concerted outreach and education effort to inform city councils, community groups, and the public on the need for stormwater funding. With the amount of work still remaining, it is unlikely an initiative could be put before property owners before summer of 2016. Given the significant political focus in 2016 on primary and general elections, it may be prudent to plan for a balloting process no sooner than spring of 2017.
- Option 2: put any further efforts regarding an initiative on hold. Potentially revisit the need for an initiative once member agencies have had time to better quantify and understand the cost implications of the revised Municipal Regional Permit, or possibly when Green Infrastructure plans are completed (likely Year 4 of the new permit term) and can serve as the basis for an initiative (i.e., funding would be used to implement Green Infrastructure plans). The implication of this option is C/CAG and member agencies will be limited to existing revenue sources for much, if not all, of the next five-year permit term.

The Committee discussed an approach that would be a hybrid of Options 1 and 2, which would continue outreach, engagement, and messaging but put other aspects of the initiative on hold. Overall, the timeframe should remain within the MRP 2 permit term so that we are not in the same place when we reach the MRP 3 permit term.

6. Regional Board Report: NONE

7. Executive Director's Report: C/CAG Executive Director Sandy Wong announced that the C/CAG Board has formed an ad hoc committee to address the potential formation of a new countywide water management agency, an effort led by Supervisor Pine. The ad hoc committee developed a response to

the San Mateo County Grand Jury Report released June 4 entitled “Flooding Ahead: Planning for Sea Level Rise.” The response was approved by the C/CAG Board last week and is available in the associated agenda package. The ad hoc committee will meet again in September and will invite Supervisor Pine.

8. Member Reports: NONE

Chair Breault adjourned the meeting at 3:30 p.m.

2015 Stormwater Committee Roster														
Agency	**Representative**	**Position**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
Atherton	Gordon Siebert	Public Works Director								X				
Belmont	Afshin Oskoui	Public Works Director		X		X				X				
Brisbane	Randy Breault	Public Works Director/City Engineer				X		X		X				
Burlingame	Syed Murtuza	Public Works Director		X		X		X		X				
Colma	Brad Donohue	Director of Public Works and Planning		X		X				X				
Daly City	Patrick Sweetland	Director of Water & Wastewater		O		X		X		O				
East Palo Alto	Kamal Fallaha	City Engineer						O		O				
Foster City	Jeff Moneda	Public Works Director				X				X				
Half Moon Bay	Mo Sharma	City Engineer				X		X		X				
Hillsborough	Paul Willis	Public Works Director		X		X		X		X				
Menlo Park	Vacant	Public Works Director												
Millbrae	Charles Taylor	Public Works Director		X				X						
Pacifica	Van Ocampo	Public Works Director/City Engineer												
Portola Valley	Howard Young	Public Works Director		X						X				
Redwood City	Saber Sarwary	Supervising Civil Enginerr		X		X				X				
San Bruno	Jimmy Tan	City Engineer		X				X		X				
San Carlos	Jay Walter	Public Works Director		X				X		X				
San Mateo	Brad Underwood	Public Works Director		X		X		X		X				
South San Francisco	Brian McMinn	Public Works Director		X		X		X		X				
Woodside	Paul Nagengast	Deputy Town Manager/Town Engineer						X						
San Mateo County	Jim Porter	Public Works Director		X		X		X		X				
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: October 15, 2015

To: Stormwater Committee

From: Matthew Fabry, Program Coordinator

Subject: Review and provide input on options for C/CAG supporting development of a countywide Stormwater Resource Plan to enable member agencies to seek Proposition 1 stormwater grant funding

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

RECOMMENDATION

Review and approve proposal for C/CAG to develop a countywide Stormwater Resource Plan to enable member agencies to seek Proposition 1 stormwater funding.

BACKGROUND

Last year, Senate Bill 985 (attached) was signed into law, requiring public agencies seeking voter-approved bond funds for stormwater and dry weather runoff capture projects to develop Stormwater Resource Plans in accordance with the legislation. Stormwater Resource Plans are intended to identify and prioritize, on a watershed basis, stormwater and dry weather runoff capture projects "in a quantitative manner, using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed."

Stormwater Resource Plans, although focused on managing stormwater as a resource and benefitting water supply and drought concerns, are expected to contain similar components as the Green Infrastructure Plans that will be required under the revised Municipal Regional Permit. Both require prioritized processes for identifying projects. Stormwater Resource Plans are much more focused on maximizing numerous benefits, and the Green Infrastructure Plans are focused on water quality and flow reduction benefits. C/CAG staff believes a Stormwater Resource Plan can be developed in a way to directly support subsequent development of Green Infrastructure Plans by individual agencies. Similarly, Green Infrastructure Plans would play a substantial role in a Stormwater Resource Plan, although would not likely suffice as such if it did not include analyses related to using stormwater to augment water supply and other community benefits.

SB 985 requires the State Water Resource Control Board (State Board) to develop guidance on developing Stormwater Resource Plans. The State Board released draft guidance in late August, along with draft guidelines for the upcoming stormwater grant program for $200 million of Proposition 1 funding slated for multi-benefit stormwater projects (links to both provided below). Both guidelines are expected to be approved by the State Board in early December, with a likely solicitation for Round 1 funding under the grant program in early 2016. State Board staff anticipates making approximately $80 million available in Round 1, including up to $20 million for developing Stormwater Resource Plans. Agencies applying for Round 1 funds to develop Stormwater Resource Plans will have to wait until Round 2 for an opportunity to seek

implementation funding. Round 2 is not likely until 2018, at the earliest. Fifty-percent non-state matching funds are required for the stormwater grant program.

Given the upcoming availability of stormwater grant funding, C/CAG staff is evaluating options to support its member agencies in being eligible to compete. C/CAG has identified four scenarios for Stormwater Committee consideration:

Options		Pros	Cons
I.	C/CAG solicits consultant support now to develop a countywide Stormwater Resource Plan to enable member agencies to pursue implementation funds under Round 1 of the stormwater grant program	Member agencies will be covered under a countywide Stormwater Resource Plan and eligible to compete for Round 1 implementation funds. The Stormwater Resource Plan will feed into development of Green Infrastructure Plans as required by the Municipal Regional Permit.	Timing is short to develop a countywide plan before the Round 1 funding solicitation comes out. Will require C/CAG to devote staff time and funding to develop a countywide plan.
II.	C/CAG pursues Round 1 planning funding to develop a countywide Stormwater Resource Plan to enable member agencies to pursue implementation funds under Round 2 of the grant program	Reduces cost by 50% from Option I for C/CAG to develop a countywide Stormwater Resource Plan. Proposing to develop a Stormwater Resource Plan on a countywide basis may be more compelling as a grant application than if by a single or handful of local agencies.	Plan will be developed concurrently with Green Infrastructure Plans, as opposed to one forming a basis for the other. C/CAG will have to devote staff time and resources to develop a grant application and manage a grant, if successful. C/CAG may not get a grant, given it will likely be highly competitive. Requires 50% matching funds. Will have to comply with grant criteria that may be more burdensome than developing a plan independently.
III.	C/CAG partners with other countywide stormwater programs to pursue Round 1 planning funding for a regional effort to develop Stormwater Resource Plans for all or significant portions of the Bay Area	Potentially more competitive grant proposal if it covers much of the Bay Area. Allows pooling of resources at the regional level, which may save some money. Regional planning can also feed into regional efforts on developing Green Infrastructure Plans under the Municipal Regional Permit.	Working at the regional level tends to take longer, requires compromise on final work products, and often can cost more than doing things at a countywide level when all of the regional staff costs are taken into account. Uncertainty about whether a Stormwater Resource Plan can effectively be done at a regional level of that scale. Outreach/community engagement would still have to be done at a local level. C/CAG would have to provide its share of the 50% match.
IV.	C/CAG does not assist member agencies in developing a Stormwater Resource Plan.	C/CAG does not have to devote staff time or funding that could otherwise be spent on Municipal Regional Permit compliance support activities.	Member agencies are on their own to develop Stormwater Resource Plans, are unlikely to be able to compete for grant funds in Round 1, possibly Round 2 as well if they have to work together on a watershed basis and identify necessary funding to develop plans.

Staff recommends Option I. Although the timeline is short for developing such a plan prior to the State Board soliciting implementation grant proposals, staff believes a plan meeting the requirements of SB 985 could be developed quickly enough to enable C/CAG's member agencies to pursue implementation funds under Round 1 of the stormwater grant program.

However, if member agencies are not likely to pursue implementation funds (or partner with C/CAG to pursue funding), then it may not be worthwhile for C/CAG to commit resources to developing a countywide plan. Given the forthcoming Municipal Regional Permit's requirement to achieve numeric reductions in mercury and PCBs via green infrastructure during the term of the permit, staff recommends member agencies seek opportunities to implement projects in the short term to help ensure San Mateo permittees meet their obligations under the load reduction mandate. Development of a countywide Stormwater Resource Plan will include identification of priority projects and could include a degree of conceptual design to support grant applications.

Staff recommends allocating up to $150,000 from its on-call consulting contract budget to develop a countywide Stormwater Resource Plan. Staff will likely model a request for cost proposals on a similar solicitation recently issued by the Ventura County Watershed Protection District (attached). Staff also anticipates directing funding for countywide outreach and education to supplement the Stormwater Resource Planning effort to address the need for community engagement in developing the plan.

If the Stormwater Committee concurs with staff in pursing Option I, staff will move quickly to develop a request for cost proposals under its existing on-call contracts for stormwater support services, with a goal of having a task order issued to commence development of a countywide plan by early December.

ATTACHMENTS

1. Senate Bill 985
2. Draft Stormwater Resource Plan Guidelines (http://www.swrcb.ca.gov/water_issues/programs/grants_loans/swgp/docs/070915_1990590_sw_resources_plan_guidelines%20.pdf)
3. Draft Stormwater Grant Program Guidelines (http://www.swrcb.ca.gov/water_issues/programs/grants_loans/swgp/docs/prop1_swgp_guidelines_public_review_draft.pdf)
4. Ventura County Request for Qualifications for Stormwater Resource Plan Development

Senate Bill No. 985

CHAPTER 555

An act to amend Sections 10561, 10562, 10563, and 10573 of, and to add Sections 10561.5 and 10565 to, the Water Code, relating to stormwater.

[Approved by Governor September 25, 2014. Filed with Secretary of State September 25, 2014.]

LEGISLATIVE COUNSEL'S DIGEST

SB 985, Pavley. Stormwater resource planning.

Existing law, the Stormwater Resource Planning Act, authorizes a city, county, or special district, to develop a stormwater resource plan that meets certain standards.

This bill would authorize one or more public agencies to develop a stormwater resource plan. The bill would expand the standards to include dry weather runoff. This bill would require a stormwater resource plan to be submitted to any applicable regional water management group, to identify and prioritize stormwater and dry weather runoff capture projects for implementation in a prescribed quantitative manner, and to prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects. This bill would eliminate the requirement that a stormwater resource plan be consistent with any applicable integrated regional water management plan. This bill would require an entity developing a stormwater resource plan to identify in the plan opportunities to use existing publicly owned lands and easements to capture, clean, store, and use stormwater and dry weather runoff either onsite or offsite. This bill would require the State Water Resources Control Board, by July 1, 2016, to establish guidance for purposes of these provisions. This bill would require the development of a stormwater resource plan and compliance with these provisions to receive grants for stormwater and dry weather runoff capture projects from a bond act approved by the voters after January 1, 2014, except as provided. This bill would define dry weather runoff and stormwater for the purposes of the act and conform the definition of stormwater in the Rainwater Capture Act of 2012.

The people of the State of California do enact as follows:

SECTION 1. Section 10561 of the Water Code is amended to read:

10561. The Legislature hereby finds and declares all of the following:

(a) In many parts of the state stormwater and dry weather runoff are underutilized sources of surface water and groundwater supplies. Instead of being viewed as a resource, they are often seen as a problem that must

be moved to the ocean as quickly as possible or as a source of contamination, contributing to a loss of usable water supplies and the pollution and impairment of rivers, lakes, streams, and coastal waters.

(b) Improved management of stormwater and dry weather runoff, including capture, treatment, and reuse by using the natural functions of soils and plants, can improve water quality, reduce localized flooding, and increase water supplies for beneficial uses and the environment.

(c) Most of California's current stormwater drainage systems are designed to capture and convey water away from people and property rather than capturing that water for beneficial uses.

(d) Historical patterns of precipitation are predicted to change and an increasing amount of California's water is predicted to fall not as snow in the mountains, but as rain in other areas of the state. This will likely have a profound and transforming effect on California's hydrologic cycle and much of that water will no longer be captured by California's reservoirs, many of which are located to capture snow melt.

(e) When properly designed and managed, the capture and use of stormwater and dry weather runoff can contribute significantly to local water supplies through onsite storage and use, or letting it infiltrate into the ground to recharge groundwater, either onsite or at regional facilities, thereby increasing available supplies of drinking water.

(f) New developments and redevelopments should be designed to be consistent with low-impact development principles to improve the retention, use, and infiltration of stormwater and dry weather runoff onsite or at regional facilities.

(g) Stormwater and dry weather runoff can be managed to achieve environmental and societal benefits such as wetland creation and restoration, riverside habitats, instream flows, and an increase in park and recreation lands, and urban green space.

(h) Stormwater and dry weather runoff management through multiobjective projects can achieve additional benefits, including augmenting recreation opportunities for communities, increased tree canopy, reduced urban heat island effect, and improved air quality.

(i) Proper planning and implementation is vital to ensure that the water supply and other benefits potentially available through better management of stormwater and dry weather runoff do not come at the expense of diminished water quality.

(j) The capture and use of stormwater and dry weather runoff is not only one of the most cost-effective sources of new water supplies, it is a supply that can often be provided using significantly less energy than other sources of new water supplies.

SEC. 2. Section 10561.5 is added to the Water Code, to read:

10561.5. Solely for the purposes of this part, and unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Dry weather runoff" means surface waterflow and waterflow in storm drains, flood control channels, or other means of runoff conveyance

produced by nonstormwater resulting from irrigation, residential, commercial, and industrial activities.

(b) "Stormwater" means temporary surface water runoff and drainage generated by immediately preceding storms. This definition shall be interpreted consistent with the definition of "stormwater" in Section 122.26 of Title 40 of the Code of Federal Regulations.

SEC. 3. Section 10562 of the Water Code is amended to read:

10562. (a) One or more public agencies may develop a stormwater resource plan pursuant to this part.

(b) A stormwater resource plan shall:

(1) Be developed on a watershed basis.

(2) Identify and prioritize stormwater and dry weather runoff capture projects for implementation in a quantitative manner, using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.

(3) Provide for multiple benefit project design to maximize water supply, water quality, and environmental and other community benefits.

(4) Provide for community participation in plan development and implementation.

(5) Be consistent with, and assist in, compliance with total maximum daily load (TMDL) implementation plans and applicable national pollutant discharge elimination system (NPDES) permits.

(6) Be consistent with all applicable waste discharge permits.

(7) Upon development, be submitted to any applicable integrated regional water management group. Upon receipt, the integrated regional water management group shall incorporate the stormwater resource plan into its integrated regional water management plan.

(8) Prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects.

(c) The proposed or adopted plan shall meet the standards outlined in this section. The plan need not be referred to as a "stormwater resource plan." Existing planning documents may be utilized as a functionally equivalent plan, including, but not limited to, watershed management plans, integrated resource plans, urban water management plans, or similar plans. If a planning document does not meet the standards of this section, a collection of local and regional plans may constitute a functional equivalent, if the plans collectively meet all of the requirements of this part.

(d) An entity developing a stormwater resource plan shall identify in the plan all of the following:

(1) Opportunities to augment local water supply through groundwater recharge or storage for beneficial use of stormwater and dry weather runoff.

(2) Opportunities for source control for both pollution and stormwater and dry weather runoff volume, onsite and local infiltration, and use of stormwater and dry weather runoff.

(3) Projects to reestablish natural water drainage treatment and infiltration systems, or mimic natural system functions to the maximum extent feasible.

(4) Opportunities to develop, restore, or enhance habitat and open space through stormwater and dry weather runoff management, including wetlands, riverside habitats, parkways, and parks.

(5) Opportunities to use existing publicly owned lands and easements, including, but not limited to, parks, public open space, community gardens, farm and agricultural preserves, schoolsites, and government office buildings and complexes, to capture, clean, store, and use stormwater and dry weather runoff either onsite or offsite.

(6) Design criteria and best management practices to prevent stormwater and dry weather runoff pollution and increase effective stormwater and dry weather runoff management for new and upgraded infrastructure and residential, commercial, industrial, and public development. These design criteria and best management practices shall accomplish all of the following:

(A) Reduce effective impermeability within a watershed by creating permeable surfaces and directing stormwater and dry weather runoff to permeable surfaces, retention basins, cisterns, and other storage for beneficial use.

(B) Increase water storage for beneficial use through a variety of onsite storage techniques.

(C) Increase groundwater supplies through infiltration, where appropriate and feasible.

(D) Support low-impact development for new and upgraded infrastructure and development using low-impact techniques.

(7) Activities that generate or contribute to the pollution of stormwater or dry weather runoff, or that impair the effective beneficial use of stormwater or dry weather runoff.

(8) Projects and programs to ensure the effective implementation of the stormwater resource plan pursuant to this part and achieve multiple benefits. These projects and programs shall include the development of appropriate decision support tools and the data necessary to use the decision support tools.

(9) Ordinances or other mechanisms necessary to ensure the effective implementation of the stormwater resource plan pursuant to this part.

(e) A stormwater resource plan shall use measurable factors to identify, quantify, and prioritize potential stormwater and dry weather runoff capture projects.

SEC. 4. Section 10563 of the Water Code is amended to read:

10563. (a) This part does not interfere with or prevent the exercise of authority by a public agency to carry out its programs, projects, or responsibilities.

(b) This part does not affect requirements imposed under any other law.

(c) (1) The development of a stormwater resource plan and compliance with this part in accordance with Section 10565 shall be required to receive grants for stormwater and dry weather runoff capture projects from a bond act approved by the voters after January 1, 2014.

(2) This subdivision does not apply to either of the following:

(A) Funds provided for the purpose of developing a stormwater resource plan.

(B) A grant for a disadvantaged community, as defined in Section 79505.5, with a population of 20,000 or less, and that is not a copermittee for a municipal separate stormwater system national pollutant discharge elimination system (NPDES) permit issued to a municipality with a population greater than 20,000.

SEC. 5. Section 10565 is added to the Water Code, to read:

10565. By July 1, 2016, the board shall establish guidance for this part that shall include, but is not limited to, the following:

(a) Identifying types of local agencies and nongovernmental organizations that need to be consulted in developing a stormwater resource plan.

(b) Defining appropriate quantitative methods for identifying and prioritizing opportunities for stormwater and dry weather runoff capture projects.

(c) Defining the appropriate geographic scale of watersheds for stormwater resource planning.

(d) Other guidance the board deems appropriate to achieve the objectives of this part.

SEC. 6. Section 10573 of the Water Code is amended to read:

10573. Solely for the purposes of this part, and unless the context otherwise requires, the following definitions govern the construction of this part:

(a) “Developed or developing lands” means lands that have one or more of the characteristics described in subparagraphs (A) to (C), inclusive, of paragraph (4) of subdivision (b) of Section 56375.3 of the Government Code.

(b) “Rain barrel system” is a type of rainwater capture system that does not use electricity or a water pump and is not connected to or reliant on a potable water system.

(c) “Rainwater” means precipitation on any public or private parcel that has not entered an offsite storm drain system or channel, a flood control channel, or any other stream channel, and has not previously been put to beneficial use.

(d) “Rainwater capture system” means a facility designed to capture, retain, and store rainwater flowing off a building rooftop for subsequent onsite use.

(e) “Stormwater” has the same meaning as defined in Section 10561.5.

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Ventura County
Watershed Protection District

PUBLIC WORKS AGENCY
JEFF PRATT
Agency Director

Tully Clifford, Director
Watershed Protection District

Gerhardt Hubner
Water Resources

Gerard Kapuscik
Strategic Resiliency Group

Karl Novak
Operations & Maintenance

Bruce Rindahl
Watershed Resources & Technology

Peter Sheydayi
Design & Construction

Sergio Vargas
Watershed Planning & Permits

August 24, 2015

To All Interested Parties:

SUBJECT: REQUEST FOR QUALIFICATIONS TO DEVELOP COUNTYWIDE STORMWATER RESOURCE PLAN (SRP)

The Ventura County Watershed Protection District (District) on behalf of the Ventura Countywide Stormwater Quality Management Program (Program) is seeking a qualified consultant to develop a Countywide Stormwater Resource Plan following state guidelines for the watersheds in Ventura County: the Ventura River, Calleguas Creek, and the Ventura County portions of the Santa Clara, and Malibu Creek watersheds. Firms are now invited to provide a Statement of Qualifications (SOQ) to be considered for this project.

Our Program includes the Ventura County Watershed Protection District, the County of Ventura and the incorporated cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks. These organizations operate municipal storm drain systems and discharge stormwater and urban runoff pursuant to the Ventura Countywide 2010 NPDES Stormwater Permit.

BACKGROUND

On August 28, 2014, the California State Legislature passed SB 985, amending the Stormwater Resource Planning Act. The Act requires Stormwater Resource Plans (SRP) in order to receive grants for stormwater and non-stormwater runoff capture projects from bond acts approved by the voters after January 1, 2014. SRPs are to list and prioritize in a quantitative manner projects designed to capture stormwater for potential future use and provide multiple benefits to maximize water supply, water quality, and environmental and other community benefits. Therefore these projects will also have the benefit of reducing the pollution stormwater carries to receiving water bodies, which in turn can assist agencies with compliance with applicable MS4 permits and total maximum daily loads (TMDL).

Stormwater Resource Plans must be consistent with TMDLs and NPDES permits, and provide opportunity for community participation and input. While a collection of local and regional plans may be deemed functionally equivalent, it is the Program's intention to build upon any existing plans in the development of a Countywide SRP.

SB 985 requires the State Water Resources Control Board to promulgate regulations for compliance with the Act by July 1, 2016, though is anticipated draft guidelines will be brought to the State Water Board for consideration of adoption at the December 1, 2015 board meeting. These guidelines are required to include information on:

(a) Identifying types of local agencies and nongovernmental organizations that need to be consulted in developing a SRP.
(b) Defining appropriate quantitative methods for identifying and prioritizing opportunities for storm water and dry weather runoff capture projects.
(c) Defining the appropriate geographic scale of watersheds for storm water resource planning.
(d) Other guidance the board deems appropriate to achieve the objectives of this part.

The Program will soon complete the development of a unified countywide GIS storm drain atlas including the identification of publicly owned parcels and potential infiltration constraints such as proximity to storm drain and potential geotechnical issues. This effort will be integral for prioritizing runoff capture projects and quantifying the potential volume that can be captured. The final SRP will not only meet the State's requirements but ultimately be the foundation for the development of future products such as a Reasonable Assurance Analysis required to show compliance with water quality objectives through Watershed Management Plan implementation.

SCOPE OF WORK

Task 1. Identify existing plans and mapping efforts that will assist with the development of a SRP, and identify gaps and shortfalls needed to complete the SRP.

Compile TMDL implementation plans, watershed management plans, agency capital improvement project plans, GIS mapping efforts, development guidance manuals and other publically available sources of information that will aide in the development of the SRP. Review these documents for their ability to satisfy any requirements of a SRP. Document the components of the SRP that can be satisfied for each watershed and detail the remaining efforts needed to complete a SRP.

Deliverables: Compilation of supporting documents by watershed with a detailed description of the SRP components they can satisfy and those that remain to be addressed.

Task 2. Develop criteria to prioritize publicly owned parcels identified by Program's GIS mapping effort. Prioritize parcels for each watershed based on potential runoff capture and infiltration constraints for each watershed.

The Program has identified publicly owned parcels and potential infiltration constraints. A criteria needs to be developed to prioritize publicly owned parcels for potential stormwater capture projects based on proximity to storm drain system, catchment size, geotechnical and other issues. Apply criteria to parcels identified in GIS by Program to create a prioritized list of parcels.

Deliverables: Documentation of prioritization methodology, assumptions and prioritized parcel list for each watershed.

Task 3. Develop and implement method to quantify runoff capture capability of potential sites identified in Task 2 as authorized through the SRP Guidelines.

The Program expects the Program's GIS Countywide Unified Storm Drain Atlas to be used to develop a GIS-based runoff model to quantify runoff volume potentially captured by priority sites from Task 2. This could be done using GIS based runoff model such as EPA's Storm Water Management Model (EPA SWMM) or equivalent as allowed under the guidelines.

Deliverables: EPA SWMM (or equivalent public domain, "open source" GIS-based runoff model) input and output files with results quantifying volume of runoff potentially captured via infiltration.

Task 4. Develop concept projects for priority parcels with sufficient detail to estimate potential volume of runoff available for capture.

For each priority site draft concept-level runoff capture designs that incorporates the current functions of the site (e.g. playfield, parking lot). Designs need to acknowledge site-specific constraints, drawdown requirements for captured runoff, and be based on current runoff capture best management practices including disperse BMPs such as green streets and LID.

Deliverables: Concept-level runoff capture designs for prioritized parcels including documentation of assumptions and rough costs to build and maintain.

Task 5. Develop criteria evaluating the multiple benefits each concept project provides in a quantitative manner and prioritize projects for each watershed from Task 4.

Prioritize stormwater and dry weather runoff capture projects for implementation in a quantitative manner, using a metric-based and integrated evaluation and analysis of

multiple benefits to maximize water supply, water quality, flood management, environmental and other community benefits within the watershed.

Deliverables: Project prioritization criteria and integration methodology. Prioritized list of concept projects by criteria scores.

Task 6. Assist with community participation in the SRP development.

Present work efforts and concepts in public forums. Solicit input from stakeholders including watershed committees, public agencies (e.g. parks and utility districts), non-governmental organizations and the general public. Document suggestions and provide responses on how they were addressed.

Deliverables: Attend meetings. Provide PowerPoint presentation on SRP goals, needs and development, and identified runoff capture options for each watershed. Summary of comments provided by the community and responses to how they are integrated into the SRP.

Task 7. Prepare draft Stormwater Resources Plan

Prepare draft SRP incorporating the work effort associated with Tasks 1-4. A draft will be provided to the District for review and comments.

Deliverables: Draft Stormwater Resources Plan

Task 8. Prepare final Stormwater Resources Plan

Prepare final SRP based on comments received on the draft report. Assist in presenting and the incorporation of the SRP into Ventura County's Integrated Water Resources Management Plan.

Deliverables: Final Stormwater Resources Plan and workshop.

It is expected this project will be completed by June 30, 2016.

INSTRUCTIONS FOR PROPOSAL

Please indicate your interest in responding to this request by registering with Arne Anselm at Arne.Anselm@Ventura.org. Questions regarding this RFQ are welcome and should be directed to Mr. Anselm via the email address above. Responses to questions received will be provided via email to all firms who expressed interest.

Please email your submittal no later than 4:00 pm, September 14, 2015 to Arne.Anselm@Ventura.org. Hard copies may be sent to 800 S. Victoria Ave, Ventura CA, 93009.

Applicants deemed qualified by a selection committee will be notified by September 18, 2015. The project background, scope, SOQ contents and selection criteria are discussed below. It is anticipated the contract will be awarded within several weeks of Consultant selection.

The District reserves the right to reject any and all proposals, to waive any informality, and to make selections in the best interests of the Program. The Program also reserves the right to use any ideas and/or concepts submitted in response to this RFQ. Each firm submitting a response waives the right to object to the use of any such information contained in said bid by the District.

The maximum funds available for this project are $150,000. A final contract amount will be negotiated with the most qualified Consultant.

INFORMATION TO BE PROVIDED IN THE STATEMENT OF QUALIFICATIONS

Responses are limited to eight pages. Supplemental material may be included as an attachment to the response, although they may not be given the same level of review by the Selection Committee. The following section details the information requested as part of the SOQ.

1. Firm Background
2. Project Understanding
3. Key Staff Bios – Please do not use resumes
    a. Briefly summarize the experience and location of project manager and key personnel that will be directly involved with the project.
    b. Briefly describe their roles in developing the project.
    c. Do not include staff that will not be working on the project.
4. Relevant Project Experience
    a. Briefly summarize your firm's experience and qualification for this project.
    b. Provide at least 2 prior project examples and include:
        i. A description of the project
        i. Duration of project
        ii. Cost of project managed by Consultant
        iii. References
5. Proof of Insurance (not counted in the page count).
6. Project approach for each task with estimate of hours and timeline (not counted in the page count).

SELECTION CRITERIA

Scoring for the selection will be as follows:

1. Previous experience with GIS mapping efforts for municipalities - 10%
2. Experience developing and operating stormwater runoff models – 30%
3. Experience designing urban runoff capture projects – 35%
4. Experience with watershed management plans, TMDL implementation plans, and other plans relevant to quantifying runoff capture – 20%
5. Leading stakeholder meetings and handling public comments – 5%

SELECTION PROCESS

Based upon the qualifications submitted, the selection committee may select a shortlist of qualified Consultants to interview. The committee will recommend the most qualified applicant to enter into negotiations with the District.

If an acceptable agreement is not reached with the selected consultant, the District will recommend that negotiations be terminated and that negotiations with the second ranked Consultant will commence. The District has final authority to terminate negotiations and move to the next ranked consultant. After negotiating a proposed agreement that is fair and reasonable, the District will enter into an agreement. The contract shall begin upon approval and execution of the contract, and the Consultant shall commence work after notification to proceed. The Consultant is advised that any recommendation for contract award is not binding until the Agreement is fully executed and approved.

Thank you for your interest,

Arne Anselm
Stormwater Resources Manager

C/CAG AGENDA REPORT

Date: October 15, 2015

To: Stormwater Committee

From: Matthew Fabry, Program Coordinator

Subject: Presentation on Caltrans' Trash Load Reduction Plan

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

RECOMMENDATION

Receive a presentation on Caltrans' Trash Load Reduction Plan.

BACKGROUND

Caltrans is subject to a statewide municipal stormwater permit administered by the State Water Resources Control Board. Within that permit are requirements for Caltrans to reduce trash loading from its storm drainage system statewide. As a result, Caltrans recently submitted to the San Francisco Bay Regional Water Quality Control Board its *Caltrans Trash Load Reduction Work Plan for the San Francisco Bay Region*. Included in this Work Plan are the results of Caltrans' on-land visual assessments for trash generating areas (including locations within San Mateo County), trash load reduction control methodologies, and opportunities for cooperative agreements to address trash with local agencies. District 4 Stormwater Coordinator Hardeep Takhar will provide a presentation on Caltrans' Work Plan.

ATTACHMENTS

1. Caltrans' Trash Load Reduction Work Plan for the San Francisco Bay Region (available at https://www.dropbox.com/s/g2kk1xjoko103rk/Trash_Load_Reduction_Workplan_2015-09-01%20with%20Cover%20Letter%20Signed.pdf?dl=0)

C/CAG AGENDA REPORT

Date: October 15, 2015

To: Stormwater Committee

From: Matthew Fabry, Program Coordinator

Subject: Presentation on Countywide PCBs and Mercury Source Area Identification Study

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

RECOMMENDATION

Receive a presentation on Countywide PCBs and Mercury Source Area Identification Study.

BACKGROUND

C/CAG, through the Countywide Water Pollution Prevention Program, implemented a targeted PCBs and mercury source area identification study in accordance with requirements in the Municipal Regional Permit. The purpose of the study was to further understand distribution of mercury and PCBs within prioritized land use areas where elevated concentrations were likely to be found. One hundred sediment samples were collected from municipal storm drain systems in nine cities that make up over 90% of the old industrial land use areas that drain to San Francisco Bay. Of the 100 samples, only five exhibited concentrations in excess of the benchmark established by the Bay Area Stormwater Management Agencies Association as a threshold for potential further investigation. EOA staff will provide a presentation on the findings of the study. Excerpts from the study are attached, and the full report available online via the link below.

ATTACHMENTS

1. PCBs and Mercury Source Area Identification Study (Excerpts) (full study available at https://www.dropbox.com/s/6m29zqpbvyfmepu/DRAFT%20SMCWPPP%20WY2015%20POC%20Monitor%20Report%209_29_15.pdf?dl=0)

EXECUTIVE SUMMARY

In Water Year 2015 the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) conducted a targeted reconnaissance sediment sampling program on behalf of its Permittees in compliance with Provision C.8.e.i (Pollutants of Concern Loads Monitoring) of the Municipal Regional Stormwater National Pollutant Discharge Elimination system Program (NPDES) Permit (MRP; Order R2-2009-0074). Over one hundred bedded sediment samples were collected for polychlorinated biphenyls (PCBs) and mercury analysis (these pollutants are often found bound to sediments in the environment) to screen for areas in the urban environment with elevated pollutant concentrations. The general goal was to continue identifying potential source areas for further study. These areas are potential opportunity areas for implementing controls to reduce stormwater discharges of PCBs and mercury.

Samples were distributed among the nine municipalities that collectively encompass 93% of the old industrial land use in San Mateo County that drains to San Francisco Bay. Sample stations were sited in locations considered most likely to contain PCBs based on nearby current and historical land use (e.g., PCB-related activities, presence of heavy or electrical equipment, recycling operations) and housekeeping (e.g., pavement in poor condition, evidence of sediment track out) conditions. Areas with already confirmed PCBs contamination were specifically excluded from the program. Bedded sediment samples from the urban storm drainage system (e.g., beneath manholes, storm drain inlets) and public right-of-way surfaces (e.g., street gutters) were collected using methods detailed in the Sampling and Analysis Plan (SAP) for PCBs and Mercury Opportunity Area Analysis and Implementation Planning (SMCWPPP 2015).

Total PCBs (i.e., sum of 40 PCB congeners) concentrations ranged from less than 0.01 mg/kg to 1.46mg/kg with an average of 0.11 mg/kg and a median of 0.04 mg/kg. A total of five samples exceeded the 0.5 mg/kg threshold that was selected by the Bay Area Stormwater Management Agencies Association (BASMAA) Monitoring and Pollutants of Concern Committee as an approximate benchmark for identifying areas that should be considered for future investigation (e.g., additional sampling, records review). Total mercury concentrations ranged from 0.03 mg/kg to 3.59 mg/kg with an average of 0.22 mg/kg and a median of 0.10 mg/kg. There is currently no comparable BASMAA benchmark for mercury; however, two samples exceeded 1.0 mg/kg. The primary objective of this project was not to identify specific source properties, but to identify areas where further investigation is warranted. SMCWPPP anticipates further investigation of the five areas with elevated PCB concentrations during the next term of the MRP.

The sampling design specifically targeted sample stations within the old industrial landscape that are influenced by parcels that were classified and prioritized as having relatively higher potential to be sources of PCBs. However, a strong correlation between the land use analysis and sampling results was lacking, and only five percent of the samples had total PCBs concentrations exceeding the 0.5 mg/kg threshold. This suggests that continuing to identify additional source areas and properties in San Mateo County may be challenging. The remainder of the PCB load appears to be coming from sources that are less elevated and more diffuse and will likely be more challenging to control. Thus data collected to-date suggests that the diffuse nature of PCB contamination within the urban landscape may require a rethinking of the approach and timeline needed to meet TMDL load reduction goals.

SMCWPPP plans to continue working with other Bay Area countywide stormwater programs (through the BASMAA MPC Committee) to evaluate the results of the ongoing efforts in the Bay Area to identify PCBs and mercury source areas and plan next steps in San Mateo County. Follow-up monitoring will be

conducted in coordination with compliance with Provision C.8.f (Pollutants of Concern Monitoring) of the reissued MRP. Monitoring under Provision C.8.f is intended to address a number of management questions related to priority pollutants such as mercury and PCBs, including helping to identify pollutant source areas. The overall objectives of follow-up efforts to address PCBs and mercury under Provisions C.11, C.12 and C.8.f of the reissued MRP will include continuing to identify which pollutant source areas in San Mateo County provide the greatest opportunities for implementing controls to reduce discharges of these pollutants.

1.0 INTRODUCTION

Pollutants of Concern (POC) loads monitoring is required by Provision C.8.e.i of the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (Order R2-2009-0074, NPDES Permit No. CAS612008), referred to as MRP 1.0. In Water Year 2015, the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP or Program) and its Regional Monitoring Coalition (RMC) partners implemented a revised alternative approach to POC loads monitoring. This alternative monitoring approach was approved by members of the Regional Monitoring Program (RMP) Small Tributaries Loading Strategy (STLS) Team, including San Francisco Bay Area Regional Water Quality Control Board (Regional Water Board) staff, as the best approach to addressing near-term high priority information needs regarding polychlorinated biphenyls (PCBs) and mercury sources, trends, and loadings.

This report describes the results from the targeted reconnaissance sediment sampling conducted in San Mateo County by SMCWPP on behalf of its Permittees in compliance with Provision C.8.e.i of MRP 1.0. The sampling design and methodologies are presented in detail in the Sampling and Analysis Plan (SAP) for PCBs and Mercury Opportunity Area Analysis and Implementation Planning (SMCWPPP 2015). The overall project is attempting to characterize polychlorinated biphenyls (PCBs) and mercury concentrations throughout San Mateo County with the goal of identifying areas of high interest for further study and possible implementation of pollutant controls, such as referral of source properties to regulatory agencies for remediation. Therefore, a reconnaissance approach was implemented to maximize the area characterized by the sampling program within existing budget and schedule constraints. Approximately 100 sediment samples were collected and analyzed in Water Year 2015 through this sampling program. PCBs and mercury are often found bound to sediments in the environment.

Methods used to select sample stations and collect and analyze the samples are summarized in Section 2.0 of this report. Section 3.0 describes the sampling results. Recommendations for next steps in the PCBs and Mercury Opportunity Area Analysis are included in Section 4.0. Cited references are listed in Section 5.0.

1.1. Background

Fish tissue monitoring in San Francisco Bay has revealed bioaccumulation of PCBs, mercury, and other pollutants. The levels found are thought to pose a health risk to people consuming fish caught in the Bay. As a result of these findings, California has issued an interim advisory on the consumption of fish from the Bay. The advisory led to the Bay being designated as an impaired water body on the Clean Water Act (CWA) "Section 303(d) list" due to PCBs, mercury, and other pollutants. In response, the Regional Water Board has developed Total Maximum Daily Load (TMDL) water quality restoration programs targeting PCBs and mercury in the Bay. The general goals of the TMDLs are to identify sources of PCBs and mercury to the Bay and implement actions to control the sources and restore water quality.

The PCBs and mercury TMDLs indicate that a 90% reduction in PCBs and 50% reduction in mercury in discharges from urban stormwater runoff to the Bay are needed to achieve water quality standards and restore beneficial uses. Provisions C.11 and C.12 of MRP 1.0 required Permittees to implement pilot-scale control measures during the permit term to reduce PCBs and mercury discharges from Municipal Separate Storm Sewer Systems (MS4s). These pilot studies were intended to enhance our collective knowledge about the costs and benefits of different Best Management Practices (BMPs) to control PCBs and mercury. The reissued NPDES permit (i.e., MRP 2.0) was released as a Tentative Order on May 11,

2015 and is anticipated to be adopted in late 2015 following a series of public workshop hearings and a written comment period. The MRP 2.0 Tentative Order requires municipal agencies to move from pilot-scale work to focused implementation and defined load reduction goals (e.g., 3 kg/year region wide for PCBs). The strategies and BMPs that will be applied to meet the load reduction goals are anticipated to include:

- Source property identification and referral for investigation and abatement;
- Green infrastructure/treatment controls; and
- Management of PCBs in building materials during demolition.

In preparation for reissuance of the MRP, SMCWPPP and Permittee staff participated in dialogue with Regional Water Board staff through the MRP 2.0 Steering Committee and its workgroups. One outcome was a preliminary framework for focused implementation requirements addressing PCBs and mercury during the MRP 2.0 timeframe. The framework assumes that all areas in the urban landscape that drain to the Bay fall within one of three PCBs/mercury source area types that will eventually be categorized as load reduction opportunity area types.

PCBs/mercury source area types have the following characteristics:

1. **High Source Areas** – Areas mainly within old industrial land uses with known PCBs/mercury sources (e.g., where PCBs/mercury were used, transported or recycled). High source areas have relatively high concentrations of PCBs/mercury in street dirt and sediment removed from the MS4 (e.g., ≥ 0.5 mg/kg PCBs), or in stormwater runoff.
2. **Moderate Source Areas** – Land uses in the moderate source area category include old urban land uses and old industrial areas that do not fall into the high source area category and have not been redeveloped into other land use types. Moderate source areas have moderate concentrations of PCBs/mercury in street dirt and sediment removed from the MS4 (e.g., 0.2-0.5 mg/kg PCBs), or in stormwater runoff.
3. **Low/No Source Areas** – Land uses in the low/no source category include newly urbanized areas, redeveloped areas, open spaces, and parks where it is unlikely that PCBs/mercury were used, transported or recycled. PCBs/mercury concentrations in street dirt and sediment removed from the MS4, or in stormwater runoff from these areas are less than about 0.2 mg/kg PCBs.

PCBs/mercury load reduction opportunity areas consider the likelihood that load reductions could eventually be achieved. Opportunity area types have the following characteristics:

1. **High Opportunity Areas** – These areas (located primarily within old industrial land uses) have relatively high or moderate PCBs/mercury yields and provide relatively high opportunity for cost effective controls such as referrals to the Regional Water Board or other agencies for subsequent remediation.
2. **Moderate Opportunity Areas** - These are areas (located primarily within old urban and old industrial land uses) that have relatively moderate PCBs/mercury yields and provide relatively moderate opportunity for cost effective controls. These include areas where additional PCBs/mercury load reductions could be achieved as the urban landscape is potentially redeveloped and/or retrofitted with Green Infrastructure, providing the opportunity for integration of PCBs/mercury load reductions with other drivers and funding sources such as transportation projects.

3. **Low Opportunity Areas** - These areas have relatively low PCB/mercury yields and provide low or no opportunity for cost-effective controls.

The data presented in this this report will be used to better delineate *High* and *Moderate* source areas where opportunity analyses could be conducted to assess the feasibility of implementing control measures in the future.

3.0 SAMPLING RESULTS

In January and February, 2015, 101 sediment samples were collected from high interest source areas throughout San Mateo County. The results of the sampling and related quality assurance and quality control (QA/QC) are presented in this section.

Countywide PCB sample analysis results are first presented followed by Permittee-specific results including a detailed examination of samples yielding a total PCB concentration of over 0.5 mg/kg. Mercury sampling results are briefly presented in this section, but are not the focus of this report. An evaluation of QA/QC results from field duplicates, laboratory blanks, matrix spikes, and alternative lab methods are included at the end of this section.

3.1. PCB Sampling Results

A total of 101 sediment samples were collected in San Mateo County during this Water Year 2015 investigation, all within the nine jurisdictions listed in Table 2. The samples consisted of sediments that were collected from the storm drainage system (e.g., beneath manholes, storm drain inlets, pump stations) or from locations where they could potentially reach the storm drainage system (e.g., sediment in street gutters, driveways and other surface sediments). Fifty-five (55) of the samples were composites of more than one location. The sum of the RMP 40 PCB congeners (i.e., total PCBs) concentrations ranged from 0.003 mg/kg to a maximum of 1.46 mg/kg. Two samples had total PCBs concentrations higher than 1.0 mg/kg, three samples had concentrations between 0.5 and 1.0 mg/kg, nine samples ranged from 0.2 to 0.5 mg/kg, and the remaining 87 samples had concentrations below 0.2 mg/kg. All of the nine sampled jurisdictions except for Burlingame and San Carlos had at least one sample over 0.2 mg/kg, and each of the five samples over 0.5 mg/kg fell within a different jurisdiction. Appendix A contains detailed documentation for each sample including location coordinates, sample location type (i.e., inlet, street dirt, manhole, pump station), and total PCBs and mercury concentrations measured.

3.1.1. Bay Area Sampling Comparison

Over the past 15 years over 950 sediment samples from the Bay Area have been analyzed for total PCBs. When compared to prior PCB sampling conducted in the Bay Area, a smaller percent of samples from this project had elevated PCB concentrations (i.e., above 0.5 mg/kg). Two samples from this study (2.0%) had concentrations over 1.0 mg/kg compared with 10.2% for the full Bay Area dataset, and three samples (3.0%) had concentrations between 0.5 and 1.0 mg/kg compared with 6.4% for the full Bay Area dataset. The percentage of samples with concentrations between 0.2 and 0.5 mg/kg from this study was similar to the full Bay Area dataset at roughly 9%. The higher rate of elevated samples in prior sampling may partly be attributed to past sampling efforts including further characterization of areas of known PCBs pollution. Such areas include the Pulgas Creek pump station catchment in San Carlos, the Ettie Street pump station catchment in Oakland, the Leo Avenue catchment in San Jose, and the Lauritzen and Parr Channel catchments in Richmond. A disproportionate number of samples with PCB concentrations over 1.0 mg/kg are located in Oakland, with 43% of the total.

The results of the samples in this project relative to the full Bay Area dataset is illustrated in Table 3 and Figure 1. The median total PCBs concentration for both datasets is 0.04 mg/kg, indicating that while there is a higher proportion of samples over 0.5 mg/kg in the full Bay Area dataset, there is also a higher proportion of samples that fall below 0.01 mg/kg. Seventy-four of the samples from this project (73%) have concentrations between 0.01 and 0.1 mg/kg. This group of samples is relatively uniformly distributed on a logarithmic scale which is characteristic of skewed environmental contaminant data

with elevated samples among relatively widespread low level background concentrations (i.e., of PCBs in the study area).

Table 3. PCB Results by City and Concentration Category

Permittee	Total PCBs (mg/kg)					Number of Samples				
	Max	Mean	Percentile			> 1 (mg/kg)	0.5 - 1.0 (mg/kg)	0.2 - 0.5 (mg/kg)	< 0.2 (mg/kg)	Total
			50th	75th	90th					
Brisbane	1.22	0.03	0.04			1			4	5
Burlingame	0.15	0.17	0.05						11	11
East Palo Alto	0.34	0.06	0.05					2	5	7
Menlo Park	0.57	0.17	0.03				1*	2	6	9
Redwood City	0.57	0.09	0.04				1	1	15	17
San Carlos	0.1	0.06	0.04						5	5
San Mateo	0.23	0.06	0.05					1	9	10
South San Francisco	1.46	0.15	0.04			1		3	21	25
Unincorporated San Mateo County	0.93	0.11	0.04				1		11	12
Total	1.46	0.11	0.04	0.09	0.29	2	3	9	87	101
Full Bay Area dataset	193	0.77	0.04	0.19	0.93	101	65	98	804	1068

*The sediment in this sample appeared to at least partially originate from within Redwood City.

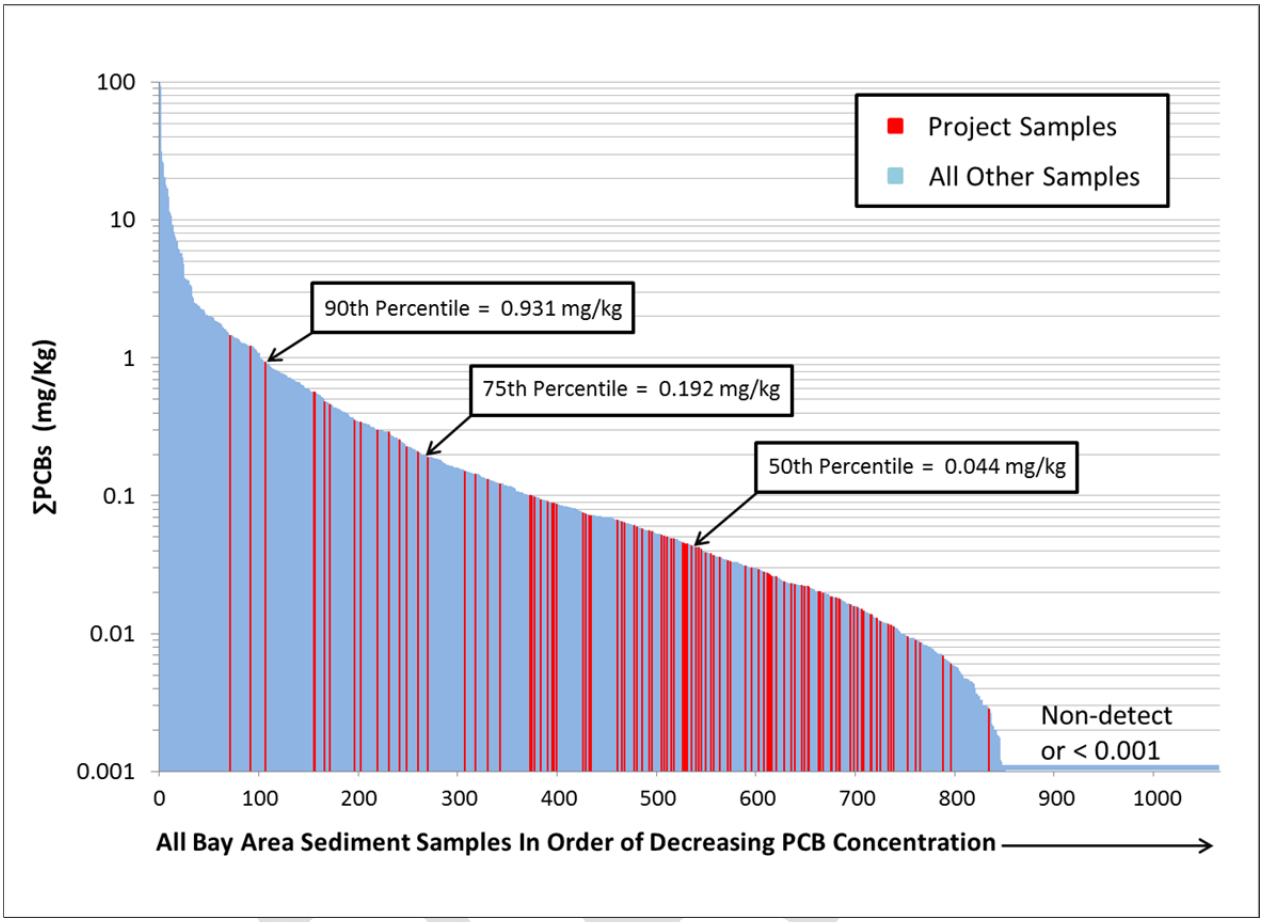

Figure 1. PCB results of the 101 samples from this project compared to the full Bay Area dataset.

3.1.2. Sample Catchment Area Mapping

The contributing area for each individual sample station was approximately delineated using GIS. These catchment areas represent the potential source area for sediment at the sample stations and range from 0.5 to 181 acres with a median size of 11 acres. For the majority of samples, the catchment area was delineated using GIS storm drain data in conjunction with field notes. If the sample was collected from a driveway, the catchment area of that station was assumed to be all or a portion of the parcel from which the sediment could have been tracked.

Of the 5,237 acres of old industrial parcels in San Mateo County that drain to the Bay, approximately 1,560 acres were characterized through sediment sampling as part of this project. The five samples from this study with total PCB concentrations greater than 0.5 mg/kg mostly drain areas characterized as *High - Low*, *Moderate*, and *Redeveloped - High* interest. Table 4 contains the sampling results cross-referenced to the parcel interest category.

There did not appear to be a trend toward parcels of higher interest contributing runoff to sediment sample stations with higher concentrations of PCBs. Possible explanations for this somewhat unexpected finding include:

- There are many uncertainties and areas of subjectivity in the process to screen for higher interest areas before sampling, including the limited amount and quality of historical land use

data available, and challenges related to aerial photograph and field reconnaissance results interpretation.

- One characteristic that may result in export of PCBs from a parcel, but was not screened for, was the potential contribution associated with sealants, caulks and other materials that may contain PCBs found in certain types of buildings primarily constructed in the 1950s through the 1970s.

- Parcels that potentially contribute a large quantity of sediment to the storm drainage system were targeted because of their potential to contribute a relatively large mass of pollutants that bind to sediments such as PCBs and mercury. However, the classification and priority ranking processes may have placed too much weight on unpaved parcels. For example, many parcels are of a higher interest category simply because of the presence of unpaved areas or vehicle tracking, regardless of other factors that would contribute to a higher PCB concentration on the parcel.

- For some catchments, the majority of a sample catchment area may exhibit background levels of PCB concentration, with a relatively small area within the catchment having elevated concentrations. Therefore, PCB concentrations may be diluted at the sample station, especially for sample locations draining larger catchments. Thus it may be necessary to characterize smaller catchments with each sample, which would increase the ratio of the number of samples collected to the area characterized, resulting in a higher cost per unit area characterized. However, it should be noted that a relatively clear signal has been found from some relatively large catchments in the past, including the Pulgas Creek pump station watershed, which has an area of approximately 250 acres.

Table 4. Acres of PCB concentration category by parcel interest category

Parcel Interest Category	Approximate Area Draining to Sample Location (acres)					Not Sampled	Total Area
	> 1.0 mg/kg	0.5 - 1.0 mg/kg	0.2 - 0.5 mg/kg	< 0.2 mg/kg	Total		
High - High	0.0	1.0	65.8	160.2	227.0	913.6	1,140.6
High - Moderate	2.5	4.8	22.4	131.0	160.8	766.4	927.2
High - Low	12.6	5.5	39.9	251.8	309.8	395.4	705.2
Moderate	36.1	15.1	43.2	397.4	491.8	798.6	1,290.4
Redeveloped - High	0.0	22.4	1.3	40.6	64.3	235.0	299.4
Redeveloped - Moderate	0.0	1.0	7.5	42.3	50.8	102.2	153.0
Redeveloped - Low	8.0	4.0	5.1	238.4	255.4	465.7	721.1
Total	59.2	53.7	185.2	1,261.8	1,559.9	3,676.9	5,236.8

3.3. Mercury Sampling Results

Total mercury concentrations were analyzed for each of the 101 samples. Five samples had concentrations over 0.5 mg/kg of which two had concentrations over 1.0 mg/kg (Table 5). At this time there is no BASMAA threshold for further investigation comparable to the PCBs threshold discussed previously. However, the samples with mercury concentrations exceeding 1.0 mg/kg are discussed in the Section 3.3.1 below.

Median, 75th and 90th percentile mercury concentrations from this study were all lower compared to the full Bay Area dataset. For example, the median concentration for this study was 0.10 mg/kg compared to 0.16 mg/kg for the full Bay Area dataset. The analytical results from this project are compared to the full Bay Area dataset in Table 5 and Figure 18.

Table 5. Mercury results by Permittee and concentrations category

Permittee	Mercury (mg/kg)					Number of Samples				
	Max	Mean	Percentile			> 1 (mg/kg)	0.5 - 1.0 (mg/kg)	0.2 - 0.5 (mg/kg)	< 0.2 (mg/kg)	Total
			50th	75th	90th					
Brisbane	0.17	0.08	0.06						5	5
Burlingame	0.83	0.25	0.17				1	4	6	11
East Palo Alto	0.45	0.18	0.22					4	3	7
Menlo Park	0.21	0.13	0.10					1	8	9
Redwood City	0.96	0.17	0.09				1	3	13	17
San Carlos	0.17	0.08	0.08						5	5
San Mateo	0.63	0.15	0.10				1	1	8	10
South San Francisco	3.59	0.40	0.14			2*		4	19	25
Unincorporated San Mateo County	0.39	0.12	0.10					1	11	12
Total	3.59	0.22	0.10	0.18	0.33	2	3	18	78	101
Full Bay Area dataset	15.0	0.42	0.16	0.31	0.78	68	74	228	530	900

*The sediment in one sample appeared to at least partially originate from within San Bruno.

C/CAG AGENDA REPORT

Date: October 15, 2015

To: Stormwater Committee

From: Matthew Fabry, Program Coordinator

Subject: Presentation on Countywide Sea Level Rise Vulnerability Assessment

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

RECOMMENDATION

Receive a presentation on the Countywide Sea Level Rise Vulnerability Assessment.

BACKGROUND

San Mateo County received a State Coastal Conservancy Grant to do a comprehensive countywide sea level rise vulnerability assessment. Climate Resiliency Specialist Hilary Papendick from the County Office of Sustainability will provide an update on the current status of the study and opportunities for local agency participation.

ATTACHMENTS

None