

Annual Reporting for FY 2018-2019

**Regional Supplement for
New Development and Redevelopment**

**San Francisco Bay Area
Municipal Regional Stormwater Permit**



September 2019



B A S M A A

Alameda Countywide
Clean Water Program

Contra Costa
Clean Water Program

Fairfield-Suisun
Urban Runoff
Management Program

Marin County
Stormwater Pollution
Prevention Program

Napa Countywide
Stormwater Pollution
Prevention Program

San Mateo Countywide
Water Pollution
Prevention Program

Santa Clara Valley
Urban Runoff Pollution
Prevention Program

Sonoma County
Water Agency

Vallejo Flood &
Wastewater District

To Whom It May Concern:

We certify under penalty of law that this document was prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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**MRP Regional Supplement for New Development and Redevelopment
Annual Reporting for FY 2018-2019**

TABLE OF CONTENTS

INTRODUCTION	2
GREEN INFRASTRUCTURE PLANNING AND IMPLEMENTATION	2
C.3.j.i.(2)(9) Green Infrastructure Facility Sizing Analysis	2
C.3.j.iii Participation in Processes to Promote Green Infrastructure	4
Activities and Accomplishments during FY 18-19	4
Grant – Urban Greening Bay Area	4
Other Participation and Comments	5
Plan and Schedule for New and Ongoing Efforts	6
Continue Ongoing Efforts to Participate in Processes to Promote GI	6
Urban Greening Bay Area	6
New Efforts to Participate in Processes to Promote GI	7
Schedule	7
LIST OF TABLES	
Schedule for New and Ongoing Efforts to Participate in Processes to Promote GI	8

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

INTRODUCTION

This Regional Supplement has been prepared to report on regionally implemented activities complying with portions of the Municipal Regional Stormwater Permit (MRP), issued to 76 municipalities and special districts (Permittees) by the San Francisco Bay Regional Water Quality Control Board (Water Board). The Regional Supplement covers new development and redevelopment activities related to the following MRP provisions:

- C.3.j.i.(2)(g) Green Infrastructure Facility Sizing Analysis, and
- C.3.j.iii. Participate in Processes to Promote Green Infrastructure.

These regionally implemented activities are conducted under the auspices of the Bay Area Stormwater Management Agencies Association (BASMAA), a 501(c)(3) non-profit organization comprised of the municipal stormwater programs in the San Francisco Bay Area. Most of the 2018-19 annual reporting requirements of the specific MRP Provisions covered in this Supplement are completely met by BASMAA Regional Project activities, except where otherwise noted herein or by Permittees in their reports. Scopes, budgets and contracting or in-kind project implementation mechanisms for BASMAA Regional Projects follow BASMAA's Operational Policies and Procedures as approved by the BASMAA Board of Directors. MRP Permittees, through their program representatives on the Board of Directors and its committees, collaboratively authorize and participate in BASMAA Regional Projects or Regional Tasks. Depending on the Regional Project or Task, either all BASMAA members or Phase I programs that are subject to the MRP share regional costs.

GREEN INFRASTRUCTURE PLANNING AND IMPLEMENTATION

C.3.j.i.(2)(g) Green Infrastructure Facility Sizing Analysis

MRP Provision C.3.j.i.(2)(g) states that Green Infrastructure Plans should include requirements that stormwater treatment facilities “be designed to meet the treatment and hydromodification sizing requirements in Provisions C.3.c. and C.3.d.” The Provision further states that for street projects that are not Regulated Projects:

... Permittees may collectively propose a single approach with their Green Infrastructure Plans for how to proceed should project constraints preclude fully meeting the C.3.d. sizing requirements. The single approach can include different options to address specific issues or scenarios. That is, the approach shall identify the specific constraints that would preclude meeting the sizing requirements and the design approach(es) to take in that situation. The approach should also consider whether a broad effort to incorporate Hydromodification controls into green infrastructure, even where not otherwise required, could significantly improve creek health and whether such implementation may be appropriate, plus all other information, as appropriate (e.g., how to account for load reduction for the PCBs or mercury TMDLs).

MRP Provision C.3.d. contains sizing criteria. These include the option to size facilities to

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

treat at least 80% of the total runoff over the life of the project, using local rainfall data.

Provision C.3.c.i. states that LID treatment measures are harvesting and use, infiltration, evapotranspiration, and biotreatment (bioretention). Bioretention systems shall be designed to have a surface area no smaller than what is required to accommodate a 5 inches/hour stormwater runoff surface loading rate.

In FY 16-17, the BASMAA Development Committee initiated a project to address provision C.3.j.i.(2)(g). This project used continuous simulation modeling to evaluate relationships of facility size to facility performance to develop an approach for implementing green infrastructure projects when there are constraints on facility size.

The project included the following technical tasks:

- Adapt existing continuous simulation models that simulate bioretention performance.
- Compile and update long-term hourly rainfall records at six Bay Area locations.
- Run continuous simulations and evaluate outputs to address questions.
- Present the outputs in the form of charts and equations.
- Document the work in a brief technical memo.

The project was initiated in March 2017 and by the end of FY 16-17, the BASMAA Development Committee had received and discussed the initial results and analysis of the model simulations across the six selected rain gauges and a range of bioretention sizing factors and considered and agreed upon some additional analyses to run.

In FY 17-18, the additional analyses were conducted and reviewed, and the project was completed in December 2017. In January 2018, the BASMAA Board of Directors approved the report *Green Infrastructure Facility Sizing for Non-Regulated Street Projects* as a BASMAA final product subject to the following conditions: the report is watermarked "Do Not Use, Cite, or Quote" and the report's distribution is limited to only BASMAA member Programs until companion implementation guidance is completed so the report is not used inappropriately.

The BASMAA Development Committee formed the Green Infrastructure Facility Sizing Work Group in December 2017 to develop regional guidance on how to use the modeling results to size GI measures under specific design scenarios and constraints. The Work Group continued its work through the end of FY 17-18.

In FY 18-19, the Work Group completed development of the draft guidance in October 2018 and worked with Regional Water Board staff over the next 6 months to review and provide comments. In May 2019, the BASMAA Board of Directors approved the *Guidance for Sizing Green Infrastructure Facilities in Street Projects* as a final product. Shortly thereafter, both the report (*Green Infrastructure Facility Sizing for Non-Regulated Street Projects*) and the guidance were posted to the BASMAA website.

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

C.3.j.iii. Participation in Processes to Promote Green Infrastructure

This provision requires:

(1) The Permittees shall, individually or collectively, track processes, assemble and submit information, and provide informational materials and presentations as needed to assist relevant regional, State, and federal agencies to plan, design, and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects. Issues to be addressed include coordinating the timing of funding from different sources, changes to standard designs and design criteria, ranking and prioritizing projects for funding, and implementation of cooperative in-lieu programs.

The BASMAA activities described in this section provide compliance for MRP Permittees with this provision. This section describes: 1) activities and accomplishments during FY 18-19; and 2) a plan and schedule for new and ongoing efforts to participate in processes to promote green infrastructure (GI).

Activities and Accomplishments during FY 18-19

Grant – Urban Greening Bay Area

Urban Greening Bay Area is a large-scale, grant-funded effort to re-envision Bay Area urban landscapes to develop stormwater-friendly dense, green urban infrastructure that addresses challenges associated with climate change, infiltrates or captures stormwater and pollutants near their sources, and in turn, promotes improved water quality in San Francisco Bay. *Urban Greening Bay Area* is funded by an EPA Water Quality Improvement Fund grant awarded to the Association of Bay Area Governments (ABAG), a joint powers agency acting on behalf of the San Francisco Estuary Partnership (SFEP), a program of ABAG. The term of the *Urban Greening Bay Area* grant project was July 1, 2015 to June 30, 2018, but the term was extended to December 31, 2019 and additional funding provided to support follow-up implementation.

BASMAA is one of the subrecipients of the grant and took the lead on two of the grant project tasks – a Regional Green Infrastructure Roundtable process and a Design Charrette, both of which were implemented between May 2016 and May 2018.

The Regional Roundtable was a two-year process, with work groups as needed, to identify and develop a list of recommendations for integrating GI and stormwater management funding and investments with future climate change and transportation investments within the region. The Roundtable included convening meetings with local, regional, and state stakeholders, agencies, elected officials, and staff to produce draft and final task reports that identified and recommended possible legislative fixes, agency agreements, consolidated funding mechanisms, and other means and actions as appropriate. The Roundtable used innovative participatory processes that included key experts, regulators, decision-makers, and other stakeholders to share information, solicit and discuss ideas and solutions, and to identify next steps (i.e., develop a

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

“roadmap”). The Final Roadmap of Funding Solutions for Sustainable Streets¹ was completed in April 2018. Following completion of the Roadmap, BASMAA and SFEP formed a Roadmap Committee to guide future implementation of the Roadmap.

The Design Charrette task involved coordinating with the cities of San Mateo and Sunnyvale to conduct a Bay Area design charrette to develop cost-effective and innovative “typical” designs for integrating GI with bicycle and pedestrian improvements at roadway intersections. The overall goal of developing standardized, transferable designs was to make progress in addressing the high cost of design, implementation, operations, and maintenance that inhibits the widespread use of GI and LID features.

Work products of the Urban Greening Bay Area grant are posted at: <http://www.sfestuary.org/urban-greening-bay-area/#planning>. The Planning section includes documents related to the Regional Roundtable and the Implementation section includes documents related to the Design Charrette.

During FY 18-19, BASMAA's participation in activities to implement the Roadmap of Funding Solutions for Sustainable Streets included:

- Conducted initial coordination with the Metropolitan Transportation Commission (MTC) and Caltrans to clarify GI eligibility in federal transportation grants (Roadmap Specific Action 1-1);
- Developed a scope of work for convening the Roadmap Committee that will oversee implementation of the Roadmap (Roadmap Specific Action 3-5);
- Coordinated with representatives of the U.S. Environmental Protection Agency (USEPA), San Francisco Bay Regional Water Quality Control Board (Regional Water Board), San Francisco Estuary Partnership (SFEP), MTC, Save the Bay, and SPUR, to begin preparation of a Roadmap fact sheet (Roadmap Specific Action 3-7); and
- Held a Roadmap Implementation Strategy Session conference call led by Save The Bay on May 7, 2019.

Other Participation and Comments

In addition to the *Urban Greening Bay Area* grant efforts described above, Countywide Program representatives participated in the following forums related to GI promotion:

- Matthew Fabry (C/CAG, representing SMCWPPP and BASMAA) attended initial meetings with RWQCB, BAFPA, SFEP, and MTC to discuss ways to integrate stormwater issues into MTC efforts, including Plan Bay Area. Three meetings have happened to date since March 2019.

¹ https://www.sfestuary.org/wp-content/uploads/2018/05/Roadmap_Funding_Solutions_Sustainable_Streets_FINAL_reduced.pdf

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

- Matthew Fabry (C/CAG, representing SMCWPPP) and Jill Bicknell and Peter Schultze-Allen (EOA, representing SCVURPPP) participated in workshops held by Save The Bay on Bay Smart Communities and the development of a subsequent report on the topic.
- Matthew Fabry (C/CAG, representing SMCWPPP) participated in the ReNUWIt "Stormwater for Water Supply" workshop on July 25-26, 2019, and presented information on efforts to manage stormwater via GI, including larger regional facilities that can help recharge groundwater. This workshop was part of a larger effort by ReNUWIt to create a "Bay Area One Water Network."
- Matthew Fabry (C/CAG, representing SMCWPPP) and Jill Bicknell (EOA, representing SCVURPPP) participated in several meetings of the organization Transportation Choices for Sustainable Communities, a research and policy institute whose mission is to "advance understanding and support for sustainable transportation as an essential component of livable communities and cities". The organization is interested in sponsoring a workshop in Spring 2020 that includes a focus on green streets.

Plan and Schedule for New and Ongoing Efforts

The plan and schedule provided below show how BASMAA will support its member agencies to collectively and regionally implement the requirements of MRP Provision C.3.j.iii during FY 19-20 and through the remainder of the current permit term. The requirements of Provision C.3.j.iii may change in the reissued MRP and may affect the planning and scheduling of participation in the promotion of GI during the next permit term.

Continue Ongoing Efforts to Participate in Processes to Promote GI

During FY 19-20 and through the end of the permit term for the current MRP (December 31, 2020 or later if extended), BASMAA will continue ongoing efforts to participate in processes to promote GI as described below.

Urban Greening Bay Area. BASMAA will continue to participate in the Urban Greening Bay Area Project's ongoing activities with regard to the initial implementation of prioritized specific actions in the 2018 Roadmap of Funding Solutions for Sustainable Streets (Roadmap). The Roadmap identifies specific actions to improve the funding of projects that include both complete streets improvements and GI, and is intended to assist relevant regional, State, and federal agencies to plan, design, and fund incorporation of GI measures into local infrastructure projects, including transportation projects. Various specific actions included in the Roadmap address coordinating the timing of funding from different sources, GI designs and design criteria, potential modifications of processes to evaluate projects for funding, and coordination regarding the potential development of cooperative in-lieu programs. The following ongoing activities are anticipated to continue during the period of July 2019 through December 2020:

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

- O-1. Complete the ongoing coordination with the Metropolitan Transportation Commission (MTC) and Caltrans to clarify GI eligibility in federal transportation grants (Roadmap Specific Action 1-1).
- O-2. Complete the preparation of a Roadmap fact sheet (Roadmap Specific Action 3-7). The fact sheet is anticipated to advise municipalities on how GI may be included in One Bay Area Grants (OBAG)-funded projects.
- O-3. Complete the redesign of the Roadmap webpage (Roadmap Specific Action 3-2). This may include preparing new content, such as a case study of a Sustainable Streets project with multiple funding sources.
- O-4. Implement an action plan that BASMAA is developing to hold an initial meeting of the Roadmap Committee, a regional body that will oversee implementation of the Roadmap (Roadmap Specific Action 3-5).
- O-5. Continue to participate in ongoing meetings with RWQCB, BAFPA, SFEP, and MTC to discuss ways to integrate stormwater issues into MTC efforts, including Plan Bay Area.

New Efforts to Participate in Processes to Promote GI

Between July 2019 and December 31, 2020, BASMAA may initiate the following new activities to further implement the Roadmap and participate in other ways to promote GI:

- N-1. Hold a strategy session with representatives of other Roadmap stakeholders – such as the USEPA, Regional Water Board, SFEP, MTC, Save The Bay, and SPUR – to prioritize additional activities to implement the Roadmap.
- N-2. Initiate one additional specific action included in the Roadmap, identified as a priority during the strategy session described above. For example, this may consist of the preparation of guidance on how local agencies can “package” Sustainable Street projects for specific grants (Roadmap Specific Action 2-4).
- N-3. Participate (via Matthew Fabry, SMCWPPP) in EPA’s Environmental Finance Advisory Board to respond to a request from Congress for a report looking at funding sources for stormwater and the adequacy of those sources to support the needs of stormwater management programs. Other California-based participants include Jerry Bradshaw (SCI Consulting Group), Drew Kleis (City of San Diego), and Bethany Bezak (Tetra Tech).
- N-4. Work with Transportation Choices for Sustainable Communities and other sponsors to plan a Bay Area workshop on sustainable transportation and green streets in Spring 2020.

Schedule

A schedule for implementing the proposed tasks for new and ongoing efforts to promote GI is presented below.

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2018-2019

Schedule for New and Ongoing Efforts to Participate in Processes to Promote GI

Planned Activities (Ongoing and New)	Q3 2019			Q4 2019			Q1 2020			Q2 2020			Q3 2020			Q4 2020		
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
O-1. Complete federal transportation grant coordination																		
O-2. Complete Roadmap Fact Sheet																		
O-3. Redesign Roadmap Webpage																		
O-4. Plan/hold initial meeting of Roadmap Committee																		
O-5. Continue meetings with MTC and other agencies to integrate stormwater issues into transportation planning																		
N-1. Roadmap Strategy Session																		
N-2. One New Roadmap Specific Action																		
N-3. Participate in EPA Environmental Finance Advisory Board																		
N-4. Participate in Sustainable Transportation/GI Workshop																		

- ◆ Submit final document to relevant regional, State, and federal agencies
- ◆ Meeting with relevant regional, State, and federal agencies, and other applicable stakeholders
- Activity conducted by BASMAA and/or countywide or local programs