



September 30, 2019

Mr. Michael Montgomery
Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: **City of Belmont**
FY 2018/19 Annual Report

Dear Mr. Montgomery:

This letter and Annual Report with attachments is submitted by the City of Belmont pursuant to Permit Provision C.17.a of the Municipal Regional Stormwater NPDES Permit (MRP), Order R2-2015-0049, NPDES Permit No CAS612008 issued by the San Francisco Bay Regional Water Quality Control Board. The Annual Report provides documentation of compliance activities conducted during FY 2018/19 and related accomplishments.

Please contact me at (650) 595-7469 regarding any questions or concerns.

Very truly yours,

Leticia Alvarez, P.E.
Assistant Public Works Director/City Engineer

**City of Belmont
FY 2018/19 ANNUAL REPORT**

Certification Statement

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my 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 my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Duly Authorized Representative:

Leticia Alvarez, P.E. Date
Assistant Public Works Director/City Engineer

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Section 1 – Permittee Information

Background Information			
Permittee Name:	City of Belmont		
Population:	27,113 (July 1, 2018 US Census Bureau estimate)		
NPDES Permit No.:	CAS612008		
Order Number:	R2-2015-0049		
Reporting Time Period (month/year):	July 2018 through June 2019		
Name of the Responsible Authority:	Afshin Oskoui	Title:	Public Works Director/City Manager
Mailing Address:	One Twin Pines Lane Suite 340385		
City:	Belmont	Zip Code:	94002
		County:	San Mateo
Telephone Number:	650-595-7459	Fax Number:	
E-mail Address:	Aouskoui@belmont.gov		
Name of the Designated Stormwater Management Program Contact (if different from above):	Leticia Alvarez	Title:	Assistant Public Works Director/City Engineer
Department:	Public Works		
Mailing Address:	One Twin Pines Lane Suite 385		
City:	Belmont	94002	County: San Mateo
Telephone Number:	650-595-7469	Fax Number:	
E-mail Address:	lalvarez@belmont.gov		

Section 3 - Provision C.3 Reporting New Development and Redevelopment

C.3.b.iv.(2) ► Regulated Projects Reporting

Fill in attached table **C.3.b.iv.(2)** or attach your own table including the same information.

C.3.b.iv.(2) completed and attached.

C.3.e.iv. ► Alternative or In-Lieu Compliance with Provision C.3.c.

Is your agency choosing to require 100% LID treatment onsite for all Regulated Projects and not allow alternative compliance under Provision C.3.e.?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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Comments (optional):
There is one special project currently under review.

C.3.e.v ► Special Projects Reporting

1. In FY 2018-19, has your agency received, but not yet granted final discretionary approval of, a development permit application for a project that has been identified as a potential Special Project based on criteria listed in MRP Provision C.3.e.ii(2) for any of the three categories of Special Projects (Categories A, B or C)?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
2. In FY 2018-19, has your agency granted final discretionary approval to a Special Project? If yes, include the project in both the C.3.b.iv.(2) Table, and the C.3.e.v. Table.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No

If you answered "Yes" to either question,
 1) Complete Table C.3.e.v.
 2) Attach narrative discussion of 100% LID Feasibility or Infeasibility for each project.

Table C.3.e.v completed and attached. Narrative discussion of 100% LID feasibility or infeasibility also attached. The project received but not yet approved is the Firehouse Square Project at 1300 El Camino Real. The project approved is the Windy Hill Project at 1325 Old County Road.

C.3.h.v.(2) ► Reporting Newly Installed Stormwater Treatment Systems and HM Controls (Optional)

On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting year) stormwater treatment systems and HM controls to the local mosquito and vector control agency and the Water Board. The list shall include the facility locations and a description of the stormwater treatment measures and HM controls installed.

See attached Table C.3.h.v.(2) for list of newly installed Stormwater Treatment Systems/HM Controls. There are a few regulated projects under construction. However, only two of them have completed the installation of their storm water treatment systems in the reporting year.

C.3.h.v.(3)(a) –(c) and (f) ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting

Site Inspections Data	Number/Percentage
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the previous fiscal year (FY 17-18)	9
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the reporting period (FY 18-19)	11
Total number of Regulated Projects (including offsite projects, and Regional Projects) for which O&M verification inspections were conducted during the reporting period (FY 18-19)	5
Percentage of the total number of Regulated Projects (including offsite projects, and Regional Projects) inspected during the reporting period (FY 18-19)	55%

C.3.h.v.(3)(d)-(e) ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting

Provide a discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.

Summary:

Two new storm water treatment systems have been completed during this reporting period. City staff has reviewed the annual inspection report forms and inspected five development sites that have a storm water treatment system. City staff has reviewed the annual report from the developments that have signed O&M Agreements for their storm water treatment system, and also inspected the sites. During inspection, City staff did not find any problems with the storm water treatment systems.

Provide a discussion of the effectiveness of the O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness program).

Summary:

The O&M program appears to be effective so far. The NPDES coordinator maintains a list of addresses that have installed O&M facilities. From the list, the coordinator assigns an inspector to inspect each site. The inspections have not found any problems with maintenance activities. The program has been effective, and no changes are required at this time. In addition, the City has checked all required O&M annual reports from all subject sites.

C.3.i. ► Required Site Design Measures for Small Projects and Detached Single Family Home Projects

On an annual basis, discuss the implementation of the requirements of Provision C.3.i, including ordinance revisions, permit conditions, development of standard specifications and/or guidance materials, and staff training.

Summary:

BASMAA prepared standard specifications in four fact sheets regarding the site design measures listed in Provision C.3.i, as a resource for Permittees. We have modified local ordinances/policies/procedures and forms/checklists to require all applicable projects approved after December 1, 2012 to implement at least one of the site design measures listed in Provision C.3.i.

The City revised the typical Conditions of Approval for all development review projects that include checklist for recommended treatment measures for regulated and non-regulated projects. The City encourages all applicants even for projects less than 2500SF to incorporate some of the recommended treatment measures. All applicant for any size of building permits are required to fill out the C3 (small project) checklist. All checklists are filed in the building or planning permit folders.

C.3.j.i.(5).(b) ► Green Infrastructure Plan

<p><i>(For FY 2018-19 Annual Report only)</i> Did your agency complete a Green Infrastructure Plan?</p>	<input checked="" type="checkbox"/>	<p>Yes, see attached Green Infrastructure Plan</p>	<input type="checkbox"/>	<p>No</p>
<p>If No, provide schedule for completion:</p> <p>The Green infrastructure plan was adopted by the Belmont City Council on Sept 24, 2019.</p>				

C.3.j.i.(5).(c) ► Legal Mechanisms

<p><i>(For FY 2018-19 Annual Report only)</i> Does your agency have legal mechanisms in place to ensure implementation of the Green Infrastructure Plan?</p>	<input checked="" type="checkbox"/>	<p>Yes, see attached documents or links provided below</p>	<input type="checkbox"/>	<p>No</p>
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If Yes, describe the legal mechanisms in place and the documents attached or links provided.

As part of the GI Plan development process, the City of Belmont has reviewed its existing policies, ordinances, and/or other legal mechanisms related to the implementation of stormwater NPDES permit requirements, and found that it has sufficient legal authority to implement the GI Plan. Adoption (and acceptance) of the GI Plan by the City of Belmont has further strengthened this authority. Descriptions of and links to documents demonstrating legal authority are provided below :

Belmont City Code Section 7-17 (d) provides administrative authority to determine disposal of stormwater

https://library.municode.com/ca/belmont/codes/code_of_ordinances?nodemd=CICO_CH7BU_ARTIIIPRDEST_S7-17GRDR

Belmont City Code Section 21-193 requires all discharges to the storm system to comply with MRP

https://library.municode.com/ca/belmont/codes/code_of_ordinances?nodemd=CICO_CH21SESEDI_ARTVISTSESY_S21-193UNDE

If No, provide schedule for completion:

C.3.j.i.(5)(d) ► Green Infrastructure Outreach

On an annual basis, provide a summary of your agency's outreach and education efforts pertaining to Green Infrastructure planning and implementation.

Summary:

Please refer to the SMCWPPP FY 18-19 Annual Report for a summary of outreach efforts implemented at the countywide level. Staff has participated in all Green Infrastructure Committee meetings and will continue to attend all meetings going forward.

Multiple interdepartmental meetings have taken place during the reporting period in conjunction with the development of the Green Infrastructure Plan. Flyers for a GI sustainable San Mateo County are displayed at the City Hall and Public Works counter for visitors. See attached flyer. In addition, A Green Infrastructure webpage has been created on the City of Belmont website: <http://www.belmont.gov/city-hall/public-works/green-infrastructure>

C.3.j.ii.(2) ► Early Implementation of Green Infrastructure Projects

On an annual basis, submit a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures. Include the following information:

- A summary of planning or implementation status for each public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. (see C.3.j.ii.(2) Table B - Planned Green Infrastructure Projects).
- A summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. For any public infrastructure project where implementation of green infrastructure measures is not practicable, submit a brief description of the project and the reasons green infrastructure measures were impracticable to implement (see C.3.j.ii.(2) Table A - Public Projects Reviewed for Green Infrastructure).

Background Information:

Describe how this provision is being implemented by your agency, including the process used by your agency to identify projects with potential for green infrastructure, if applicable.

The City is referring to BASMAA guidance on identifying and reviewing potential green infrastructure projects.

Summary of Planning or Implementation Status of Identified Projects:

See attached Tables C.3.j.ii.(2)-A and C.3.j.ii.(2)-B for the required information,

C.3.j.iii.(2) and (3) ► Participate in Processes to Promote Green Infrastructure

On an annual basis, report on the goals and outcomes during the reporting year of work undertaken to participate in processes to promote green infrastructure.

(For FY 2018-19 Annual Report only) Submit a plan and schedule for new and ongoing efforts to participate in processes to promote green infrastructure.

Please refer to SMCWPPP FY 2018/19 Annual Report for: 1) a summary of efforts conducted to help regional, State, and federal agencies plan, design and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects; and 2) a plan and schedule for new and ongoing efforts to participate in processes to promote green infrastructure.

C.3.j.iv.(2) and (3) ► Tracking and Reporting Progress

On an annual basis, report progress on development and implementation of methods to track and report implementation of green infrastructure measures and provide reasonable assurance that wasteload allocations for TMDLs are being met.

(For FY 2018-19 Annual Report only) Submit the tracking methods used and report implementation of green infrastructure measures including treated area, and connected and disconnected impervious area on both public and private parcels within their jurisdictions.

Please refer to the SMCWPPP FY 2018/19 Annual Report for: 1) a summary of methods being developed to track and report implementation of green infrastructure measures; and 2) a report on green infrastructure measures implemented to date, including acres of impervious area (total and treated), countywide and by Permittee.

C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 1) – Projects Approved During the Fiscal Year Reporting Period

Project Name Project No.	Project Location ¹ , Street Address	Name of Developer	Project Phase No. ²	Project Type & Description ³	Project Watershed ⁴	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ft ²) ⁵	Total Replaced Impervious Surface Area (ft ²) ⁶	Total Pre- Project Impervious Surface Area ⁷ (ft ²)	Total Post- Project Impervious Surface Area ⁸ (ft ²)
Private Projects											
Windy Hill Condo	1325 Old County Road	Windy Hill Property Venture	N/A	Residential Condo	Belmont Creek	1.47	1.47	0	60,469	60,469	60,469
Serendipity School	2820 Ponce Avenue	Serendipity School	I	School	Belmont Creek	2.63	1.27	12226	31588	41300	53526
Public Projects											
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Comments: Guidance: If necessary, provide any additional details or clarifications needed about listed projects in this box. Do not leave any cells blank. Note that a redevelopment project will have new impervious area only if the total post-project impervious surface area exceeds the total pre-project impervious surface area.											

¹Include cross streets

²If a project is being constructed in phases, indicate the phase number and use a separate row entry for each phase. If not, enter "NA".

³Project Type is the type of development (i.e., new and/or redevelopment). Example descriptions of development are: 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse.

⁴State the watershed(s) in which the Regulated Project is located. Downstream watershed(s) may be included, but this is optional.

⁵All impervious surfaces added to any area of the site that was previously existing pervious surface.

⁶All impervious surfaces added to any area of the site that was previously existing impervious surface.

⁷For redevelopment projects, state the pre-project impervious surface area.

⁸For redevelopment projects, state the post-project impervious surface area.

**C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 2) –
 Projects Approved During the Fiscal Year Reporting Period
 (private projects)**

Project Name Project No.	Application Deemed Complete Date ⁹	Application Final Approval Date ¹⁰	Source Control Measures ¹¹	Site Design Measures ¹²	Treatment Systems Approved ¹³	Type of Operation & Maintenance Responsibility Mechanism ¹⁴	Hydraulic Sizing Criteria ¹⁵	Alternative Compliance Measures ^{16/17}	Alternative Certification ¹⁸	HM Controls ^{19/20}
Private Projects										
Windy Hill Condo	4/20/2019	5/28/2019	Mark “no Dumping” on inlet, plumb floor drain to sewer or landscaping, discharge fire test water to landscape or sewer.	Direct roof runoff & runoff from s/w, walkway to vegetated areas.	Flow through planters and Storm filters allowed for special projects	O&M Agreement	2c	No alternative	N/A	N/A. Not in MH control area
Serendipity School	7/6/2017	12/26/2018	Mark “no Dumping” on inlet, plumb floor drain to sewer or landscaping, discharge fire test water to landscape or sewer.	Direct roof runoff & runoff from s/w and walkway to vegetated areas. Minimizes land disturbances, plant trees etc.	Bio-retention	O&M Agreement	2c	No alternative	N/A	N/A. Not in MH control area

⁹For private projects, state project application deemed complete date. If the project did not go through discretionary review, report the building permit issuance date.

¹⁰For private projects, state project application final discretionary approval date. If the project did not go through discretionary review, report the building permit issuance date.

¹¹List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

¹²List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

¹³List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

¹⁴List the legal mechanism(s) (e.g., O&M agreement with private landowner; O&M agreement with homeowners’ association; O&M by public entity, etc...) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

¹⁵See Provision C.3.d.i. “Numeric Sizing Criteria for Stormwater Treatment Systems” for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

¹⁶For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.

¹⁷For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii) for the Regional Project.

¹⁸Note whether a third party was used to certify the project design complies with Provision C.3.d.

¹⁹If HM control is not required, state why not.

²⁰If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

**C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 2) –
 Projects Approved During the Fiscal Year Reporting Period
 (public projects)**

Project Name Project No.	Approval Date ²¹	Date Construction Scheduled to Begin	Source Control Measures ²²	Site Design Measures ²³	Treatment Systems Approved ²⁴	Operation & Maintenance Responsibility Mechanism ²⁵	Hydraulic Sizing Criteria ²⁶	Alternative Compliance Measures ^{27/28}	Alternative Certification ²⁹	HM Controls ^{30/31}
Public Projects										
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Comments:										
No public regulated project constructed during this reporting period.										

²¹For public projects, enter the plans and specifications approval date.

²²List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

²³List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

²⁴List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

²⁵List the legal mechanism(s) (e.g., maintenance plan for O&M by public entity, etc.) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

²⁶See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

²⁷For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.

²⁸For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii) for the Regional Project.

²⁹Note whether a third party was used to certify the project design complies with Provision C.3.d.

³⁰If HM control is not required, state why not.

³¹If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

C.3.h.v.(2). ► Table of Newly Installed³² Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)

Fill in table below or attach your own table including the same information.

Name of Facility	Address of Facility	Party Responsible ³³ For Maintenance	Type of Treatment/HM Control(s)
Merry Moppet School	2200 Carlmont Drive	Merry Moppet School	Bio-retention
400 El Camino Real Condo	400 El Camino Real	400 El Camino Real Homeowner Association	Bio-retention

³² "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.

³³State the responsible operator for installed stormwater treatment systems and HM controls.

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2018 - June 30, 2019												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁴	Status ³⁵	Description ³⁶	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ³⁷	LID Treatment Reduction Credit Available ³⁸	List of LID Stormwater Treatment Systems ³⁹	List of Non-LID Stormwater Treatment Systems ⁴⁰
Windy Hill Condo	Windy Hill Property Venture	1325 Old County Road	9/13/2018	Tentative map approved.	Multi-Family Residential	1.47	120	2.46	Category C Location Parking	Location: 25% Density: 30% Parking: 20% Total: 75%	25% Bio-retention	75% Mechanical Filter that meet GULD certification by TAPE

³⁴Date that a planning application for the Special Project was submitted.

³⁵ Indicate whether final discretionary approval is still pending or has been granted, and provide the date or version of the project plans upon which reporting is based.

³⁶Type of project (commercial, mixed-use, residential), number of floors, number of units, type of parking, and other relevant information.

³⁷ For each applicable Special Project Category, list the specific criteria applied to determine applicability. For each non-applicable Special Project Category, indicate n/a.

³⁸For each applicable Special Project Category, state the maximum total LID Treatment Reduction Credit available. For Category C Special Projects also list the individual Location, Density, and Minimized Surface Parking Credits available.

³⁹: List all LID stormwater treatment systems proposed. For each type, indicate the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area.

⁴⁰List all non-LID stormwater treatment systems proposed. For each type of non-LID treatment system, indicate: (1) the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area, and (2) whether the treatment system either meets minimum design criteria published by a government agency or received certification issued by a government agency, and reference the applicable criteria or certification.

Special Projects Narrative

The project at 1325 Old County Road, Windy Hill, consists of one parcel for a 175 units apartment building, which has been identified as a potential Special Project, based on Special Project criteria provided in Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP). The project is within ½ mile from the Belmont train station.

1. Feasibility/Infeasibility of LID Treatment

The project site was reviewed with regard to the feasibility and infeasibility for LID treatment. The results of this review showed that it was infeasible to treat 100 percent of the C.3.d amount of runoff with LID treatment. The findings of this review are:

a . On-site Drainage Conditions - The project site is generally flat.

b . Self-treating and Self-Retaining Areas and LID Treatment Measures - Landscaped areas have been designed to act as self-treating areas to reduce the stormwater runoff from the site.

c. Constraints to Providing On-site LID - 100% LID is not practical because nearly half of the proposed landscaping would need to be treatment planters and it is not practical to route the piping from the roof drains to all of the separate planter areas with the correct tributary area. The site lacks hydraulic head or routing path to direct collected runoff to the landscaped area or from the landscaped area to an outfall. Building setback requirements per the Belmont Village Specific Plan (BVSP) also minimizes the potential locations for LID measures.

2. Certified Non-LID Treatment Measures Selected

The non-LID treatment used for the project will be the StormFilter by CONTECH Engineered Solutions.

C.3.j.ii.(2) ► Table A - Public Projects Reviewed for Green Infrastructure				
Project Name and Location⁴¹	Project Description	Status⁴²	GI Included?⁴³	Description of GI Measures Considered and/or Proposed or Why GI is Impracticable to Implement⁴⁴
2019 Sewer and Storm Project	Sewer and storm improvements	Design	No	No potential (utility project)
2019 Pavement Project	Street pavement improvement	Construction	No	Maintenance project
Tahoe signal	Signal improvement	Construction	No	No potential (signal project)
North Road pump station	Sewer pump station	Design	No	No potential (utility project)
Sewer easement project	Sewer improvement	Construction	No	No potential (utility project)
Twin Pines Park and Parking Lot (CIP)	Reginal Project	Design	Yes	Identified potential GI Implementation under Reginal Based Prioritization
Barrett Community Center (Portion under CIP)	City Project	Design		Identified potential GI Implementation under Parcel Based Prioritization
Alameda de Las Pulgas Corridor	City Project	Planned	Yes	Identified potential GI Implementation under Street Based Prioritization
Ralston Avenue Segment 3	CIP and City funded project	Planed	Yes	Identified potential GI Implementation under Street Based Prioritization
Ralston Avenue Segment 4	CIP	Planned	Yes	Identified potential GI Implementation under Street Based Prioritization

⁴¹ List each public project that is going through your agency's process for identifying projects with green infrastructure potential.

⁴² Indicate status of project, such as: beginning design, under design (or X% design), projected completion date, completed final design date, etc.

⁴³ Enter "Yes" if project will include GI measures, "No" if GI measures are impracticable to implement, or "TBD" if this has not yet been determined.

⁴⁴ Provide a summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. If review of the project indicates that implementation of green infrastructure measures is not practicable, provide the reasons why green infrastructure measures are impracticable to implement.

C.3.j.ii.(2) ► Table B - Planned and/or Completed Green Infrastructure Projects

Project Name and Location ⁴⁵	Project Description	Planning or Implementation Status	Green Infrastructure Measures Included
Ruth Ave Streetscape and Landscape Project	Rehabilitate Ruth Avenue while incorporating streetscape and landscaping to enhance functionally, aesthetics and treat stormwater	Planning Phase-Seeking funding	Potential for bio-retention, bioswale and vegetated landscaping

⁴⁵ List each planned (and expected to be funded) public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. Note that funding for green infrastructure components may be anticipated but is not guaranteed to be available or sufficient.

Green Infrastructure Plan

City of Belmont



September 24, 2019

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List of Acronyms

Acronym	Definition
Ac	Acre
Ac-ft	Acre-feet
BASMAA	Bay Area Stormwater Management Agencies Association
C/CAG	City/County Association of Governments
CEQA	California Environmental Quality Act
CIP	Capital Improvements Projects
Countywide Program	San Mateo Countywide Water Pollution Prevention Program
DMA	Drainage Management Area
FY	Fiscal Year
GI	Green infrastructure
LID	Low impact development
HM	Hydromodification management
HRU	Hydrologic Response Units
LSPC	Loading Simulation Program C++
MRP	Municipal Regional Stormwater Permit
MTC	Metropolitan Transportation Commission
N/A	Not appropriate
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and maintenance
PCBs	Polychlorinated biphenyls
RWQCB	Regional Water Quality Control Board
RAA	Reasonable Assurance Analysis
sf	Square feet
SMCWPPP	San Mateo Countywide Water Pollution Prevention Program
SRP	Stormwater Resource Plan
SUSTAIN	System for Urban Stormwater Treatment & Analysis Integration
TBD	To be determined
TMDL	Total maximum daily load

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1.0 Introduction

a. Purpose of the Green Infrastructure Plan

The purpose of the Green Infrastructure Plan is to guide the identification, implementation, tracking, and reporting of green infrastructure projects within the City of Belmont, in accordance with the Municipal Regional Stormwater Permit (MRP), Order No. R2-2015-0049, adopted by the San Francisco Bay Regional Water Quality Control Board on November 15, 2015. “Green infrastructure” is stormwater infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. At the scale of a city or county, green infrastructure refers to the patchwork of natural and landscaped areas that provides habitat, flood protection, cleaner air, and cleaner water. At the scale of a neighborhood, street, or site, green infrastructure refers to stormwater management systems that mimic nature by soaking up, storing, and/or improving the quality of water.

Belmont Goals and Vision

Belmont’s goals in preparing this Green Infrastructure Plan include the following:

1. Advance established General Plan goals and policies related to:
 - a. The preservation of water quality by promoting the protection of Belmont’s creeks and other natural water bodies from pollution .
 - b. The City’s participation in the San Mateo Countywide Water Pollution Prevention Program .
 - c. Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.
 - d. The preservation of water resources for long-range community water needs by adopting best management practices for water use and conservation.
 - e. Maintaining and improving the reliability of the City’s storm drainage system, and promote best management practices to protect this system from flooding, enhance water quality, and prevent infrastructure deterioration.
2. Demonstrate the City of Belmont’s intent to gradually shift from the existing traditional “gray” storm drain infrastructure, which channels polluted runoff directly into receiving waters without treatment, to a more resilient and sustainable system of managing stormwater runoff that includes green infrastructure, which slows runoff by dispersing it to vegetated areas, harvests and uses runoff, and promotes infiltration and evapotranspiration.
3. Achieve the long-term reduction of specific pollutant loads to targets set by the San Mateo Countywide Reasonable Assurance Analysis (RAA) and this Green Infrastructure Plan to satisfy the current San Francisco Bay Region Municipal Regional Stormwater Permit (MRP).
 - a. Reductions of pollutant loads will be made through private implementation of green infrastructure as defined by C.3 New and Redevelopment requirements of the MRP.
 - b. Reductions of pollutant loads will be made through implementation of identified and prioritized green infrastructure opportunities in public parcels and within public street rights of way.
 - c. Consider the establishment of additional green infrastructure requirements on private property projects to install and maintain green infrastructure within rights of way as part of their frontage improvement requirements and/or to provide green infrastructure on site beyond that required under C.3 Regulated Project requirements.
 - d. Opportunities for achieving further reductions of pollutant loads will be made through identifying and implementing opportunities for joint public-private green infrastructure and partnerships between the City and other public agencies.

Introduction

4. Achieve coordination across Belmont's plans, policies, codes, standards, ordinances, and other means to maximize the amount and effectiveness of green infrastructure implementation. This includes integration of green infrastructure stormwater goals with other community, economic, equity, multimodal, flooding/sea level rise, climate adaptation, and sustainability goals to enhance community benefits, increase the City's synergies, and improve cost economies and work efficiencies.
 - a. Implement revisions and updates to Belmont documents during and after the Green Infrastructure Plan process and adoptions.
 - b. Provide recommendations and a methodology for updating documents in the future and including green infrastructure in new plans that are developed in the future.
 - c. Establish easy to use regulations and permit applications for private project applicants to determine, design, install, and maintain green infrastructure.
 - d. Update the Belmont Green Infrastructure Plan when needed following updates of the regional MRP and to reflect the evolution of green infrastructure best practices and other changes that affect the implementation and maintenance of green infrastructure in Belmont.
5. Provide design guidance, typical details, and other standards for the routine incorporation and maintenance of green infrastructure elements and treatments into projects and improvements constructed in Belmont, including:
 - a. Private new or (re)development projects;
 - b. Building or site remodeling projects; and,
 - c. Capital improvement projects undertaken by the City, including building, site, stormwater infrastructure, and transportation improvement projects.
6. Provide a basis for establishing routine coordination and collaboration between and within different City departments and divisions involved in the planning, design, construction, monitoring, and maintenance and operation of the City's streets, facilities, and open space to further consider, identify, evaluate, and select opportunities for green infrastructure in projects; and define the responsibilities and required budgetary needs required in the implementation of the Green Infrastructure Plan.
 - a. Establish and program for a green infrastructure working group charged with monitoring progress of Green Infrastructure Plan implementation.
 - b. Establish on-going reporting procedures for green infrastructure planning, design, approval, implementation, and operations and maintenance.
7. Support the collaboration and implementation of potential regional or joint projects with San Mateo County and the cities of San Mateo and Redwood City as well as other jurisdictions and agencies in watersheds shared with Belmont to reduce and remove contaminants from stormwater runoff.
8. Serve as a basis for raising awareness and further educating the general public and building permit applicants about the merits of implementing green infrastructure and opportunities for how to accomplish this in the City of Belmont.
9. Support the process of applying for funding design, construct, operations and maintenance of green infrastructure demonstration and permanent projects in Belmont.
10. Monitor the planning and provision of green infrastructure in the City to determine if MRP treatment goals are being met, and if not, take action to identify and implement other green infrastructure projects including those in partnership with others.
11. Support the development of related countywide programs such as the potential San Mateo County Flooding and Sea Level Rise Resiliency Agency to aid in the planning, implementation, and funding of green infrastructure and other improvements for improving conditions related to water quality, flooding, and impacts associated with climate change.

Regulatory Water Quality Requirements

This Green Infrastructure Plan has been developed to comply with Green Infrastructure Plan requirements in Provision C.3.j of the MRP, which states in part:

The Plan is intended to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations (e.g., for the San Francisco Bay mercury and PCBs TMDLs) will be met, and to set goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters. For this Permit term, the Plan is being required, in part, as an alternative to expanding the definition of Regulated Projects prescribed in Provision C.3.b to include all new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface areas and road projects that just replace existing impervious surface area. It also provides a mechanism to establish and implement alternative or in-lieu compliance options for Regulated Projects and to account for and justify Special Projects in accordance with Provision C.3.e.

Over the long term, the Plan is intended to describe how the Permittees will shift their impervious surfaces and storm drain infrastructure from gray, or traditional storm drain infrastructure where runoff flows directly into the storm drain and then the receiving water, to green—that is, to a more-resilient, sustainable system that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, promotes infiltration and evapotranspiration, and uses bioretention and other green infrastructure practices to clean stormwater runoff.

The Plan shall also identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, for implementation of green infrastructure projects. Further, it shall include means and methods to track the area within each Permittee's jurisdiction that is treated by green infrastructure controls and the amount of directly connected impervious area. As appropriate, it shall incorporate plans required elsewhere within this Permit, and specifically plans required for the monitoring of and to ensure appropriate reductions in trash, PCBs, mercury, and other pollutants.

MRP Provision C.3.j requires Permittees to complete and implement GI Plans that facilitate Permittee efforts to transition from traditional gray to green infrastructure-centric approaches. The MRP sets forth three broad goals for these plans:

1. Ensure each Permittee has established the necessary procedures and practices to require and implement green infrastructure practices in public and private projects as part of its regular course of business.
2. Serve as a reporting guide and implementation tool to provide reasonable assurance that urban runoff TMDL wasteload allocations will be met, including the projected goal of controlling 3 kg/year of PCBs via green infrastructure by 2040.
3. Set targets for GI implementation and identify future actions needed to address the adverse water quality impacts of urbanization and urban runoff on receiving waters.¹

¹ Letter from San Francisco Bay Regional Water Quality Control Board to Municipal Regional Stormwater NPDES Permit Permittees. February 5, 2019.

b. Belmont Context Description and Background

Belmont is located in San Mateo County on the San Francisco Peninsula, halfway between San Francisco and San Jose. Covering 4.7 square miles, Belmont has bay marshlands and sloughs in the eastern area and hilly terrain in the western portions of the City. Belmont is at sea level along the marshlands and rises over 800 feet in elevation in the western areas. The City is bisected by El Camino Real, Alameda de las Pulgas, and the Caltrain commuter rail line and transportation corridor in the north-south direction. Ralston Avenue connects the City and the region in an east-west direction from Highway 92/Interstate 280 to US 101. Belmont is within easy driving distance of the Pacific coast, three major airports, and major employment centers including San Francisco, Silicon Valley, and the East Bay.

Belmont is a quiet residential community in the midst of the culturally and technologically rich Bay Area. The town center, also known as Belmont Village, is centered on Ralston Avenue and El Camino Real. Belmont Village is a designated a Priority Development Area (PDA), and has a variety of commercial, office, public, and residential uses. Additional mixed-commercial uses are found along El Camino Real, north and south of Belmont Village. There are excellent public and private schools in Belmont, as well as the only university in San Mateo County, Notre Dame de Namur. Belmont is also known for its wooded hills, views of the San Francisco Bay, and stretches of open space which make up 12.5%, or about 377 acres, of land in the City.

Of the City's 14 residential neighborhoods, most are located in the Belmont hills with low density, single family homes. These residential areas are nearly half of the land area in the City, at 46%, or 1,388 acres. There are several residential neighborhoods east of El Camino Real as well, with predominantly single-family dwellings. The City also holds several pockets of multi-family housing; the largest is located around Ralston Avenue and Alameda de las Pulgas, and several other multi-family developments are clustered close to El Camino Real.

Streets constitute one of the largest publicly owned spaces in the City; the bulk of Belmont's roadways are already constructed. Proposed roadway improvements are intended to address issues on Belmont's built-out roadway network, including congestion and safety concerns on key corridors. Planned projects include Belmont Village PDA, the El Camino Real corridor, the area east of US 101, the Harbor Industrial Area, Carlmont Village, and Davis Drive. Roadway improvement projects are at various stages of planning within Belmont. The City is committed to creating safer and more comfortable complete streets for all users, as well as opportunities to implement complementary green street infrastructure that can support complete street goals while achieving environmental benefits for stormwater quality and the community.

c. Green Infrastructure Plan Development Process

Belmont has engaged in a comprehensive and coordinated process in the development of the City's Green Infrastructure Plan. As a member agency of the San Mateo Countywide Water Pollution Prevention Program (Countywide Program) and its Green Infrastructure Committee, the City jointly collaborated with the Countywide Program, its consultants, and other member agencies in the development and integration of some of the materials required to fulfill or to support the preparation of GI Plans. Belmont staff has participated on a quarterly basis with the Countywide Program's GI Committee for the past two years to review and discuss GI Plan related elements and approaches, and related documents including the San Mateo Stormwater Resource Plan, Green Infrastructure Reasonable Assurance Analysis, Bay Area Stormwater Management Agencies Association's regional sizing for constrained non-regulated street projects, and the San Mateo Sustainable Streets Master Plan. This ongoing support that helped with coordination and providing template material.

Belmont has worked extensively over the last three years to work with staff, decision makers, and the public to identify opportunities to develop its GI Plan to meet achieve the mandates of the MRP. Belmont's GI Plan was developed in collaboration with multi-disciplinary interdepartmental City staff, City decision makers, and the community in coordination with City consultants. Discussions included no missed opportunities for green

infrastructure planning and implementation. Various inter-departmental City staff have been working to create a regional project, the Twin Pines Park regional project, which also provides several other opportunities to incorporate green infrastructure. In addition, the City is investigating further opportunities to implement green infrastructure.

d. Summary of Green Infrastructure Plan Elements

This GI Plan contains the elements required by the MRP. Table 1-1 below links each section of this Plan to the applicable MRP provision.

Table 1-1: Green Infrastructure Plan Sections and Applicable MRP Provisions for Green Infrastructure Planning and Implementation

Chapter of Green Infrastructure Plan	Applicable MRP Provision
1. Introduction	C.3.j
2. Green Infrastructure Project Identification and Prioritization	C.3.j.i.(2)(a), C.3.j.i.(2)(b), and C.3.j.i.(2)(j)
3. Belmont Green Infrastructure Implementation	C.3.j.i.(2)(a), C.3.j.i.(2)(b), C.3.j.i.(2)(c), and C.3.j.i.(2)(d)
4. Green Infrastructure Project Tracking and Mapping	C.3.j.i.(2)(d)
5. Green Infrastructure Integration with Other Planning Documents and Legal Mechanisms	C.3.j.i.(2)(h), C.3.j.i.(2)(i), and C.3.j.i.(3)
6. Green Infrastructure Guidance	C.3.j.i.(2)(e), C.3.j.i.(2)(f), and portion of C.3.j.i.(2)(g)
7. Green Infrastructure Hydraulic Sizing	C.3.j.i.(2)(g)
8. Evaluation of Funding Opportunities	C.3.j.i.(2)(k)
9. Outreach and Education	C.3.j.i.(4)
10. Appendices A. Belmont-specific Prioritization Factors and Criteria with Weighting Tables B. Refined Belmont Evaluation for Green Infrastructure Opportunities C. <i>Example GI Plan Text Summarizing Results of the Reasonable Assurance Analysis</i> D. <i>Belmont-specific Model Strategies and Implementation Measures Identified by the Countywide Program Green Infrastructure Reasonable Assurance Analysis</i>	

2.0 Green Infrastructure Project Identification and Prioritization

a. *Prioritization Approach*

This chapter describes the prioritization and mapping approach and process for green infrastructure projects as required in Provision C.3.j.i.(2)(a) and provides a summary description of prioritized green infrastructure projects and opportunities by type per Provision C.3.j.i.(2)(b). In addition, prioritized projects for early implementation are summarized; the discussion of early implementation outlines a workplan to complete prioritized projects per Provision C.3.j.i.(2)(j).

The San Mateo Countywide Stormwater Resource Plan (SRP) was used to identify, prioritize, and map areas for planned and potential green infrastructure project opportunities. In addition, a secondary process was developed for and used by Belmont to refine the countywide process to develop City-specific criteria for prioritizing potential public green infrastructure opportunities and other opportunities for private development and private/public partnerships. This allows the City to modify countywide factors and include new factors to address conditions not included in the countywide prioritization or to address City preferences or circumstances that are unique to Belmont. Both processes developed maps and project lists which can be incorporated into the City's long-term planning and capital improvement processes. A map and listing of these prioritized opportunities is included in this section.

The Countywide Program is developing a Reasonable Assurance Analysis (RAA) to first identify and map a "recipe" of projects and wasteload allocation reduction goals for implementation by 2020, by 2030, and by 2040, and secondly, to develop a tracking system for completed projects. Refer to Chapter 3 for further information.

b. *Project Identification and Prioritization*

Countywide Process²

The SRP includes an evaluation of project benefits addressing several key metrics: Water Quality, Water Supply, Flood Management, Environmental, and Community benefits. First, suitable public parcels and public rights of way were identified. Hydrologic Response Units (HRUs), small spatial units containing unique attributes, were used to evaluate watershed processes to prioritize stormwater and dry weather runoff capture projects. The following attributes were assessed: land use, impervious cover, hydrologic soil groups, and slope. Based on these key metrics, watershed characteristics, and watershed processes, several green infrastructure stormwater projects were identified and prioritized to address water quality impairments, reduce flooding, and provide more natural groundwater recharge throughout the County.

A screening and prioritization method was developed, for the SRP, to reasonably assess stormwater capture projects, with an emphasis on projects that offered the greatest opportunity for multiple benefits. Higher prioritization was given to projects that addressed flood-prone streams, those located in PCBs-interest areas, and ones that drain to TMDL waters.

Three types of stormwater management project opportunities were identified throughout the County:

Regional Stormwater Capture Projects – These consist of facilities that capture and treat stormwater from large drainage areas or watersheds. The primary objective of regional projects is often flood attenuation, but many also contain a water quality treatment and/or infiltration component. In some cases, the diverted flows are returned after treatment or are used for irrigation.

² San Mateo Countywide Stormwater Resource Plan, 2017.

Green Streets – These consist of stormwater capture infrastructure in public rights of way. Green streets are intended to capture only runoff from the street and adjacent land that drains to the street.

Low Impact Development (LID) Retrofit – This includes green infrastructure, is a form of on-site urban infrastructure design that uses a suite of technologies intended to imitate pre-urbanization (natural) hydrologic conditions. LID and green infrastructure are meant to capture, remove (through infiltration), and slow runoff to reduce the impacts of the urban landscape.

Separate prioritization scoring processes were developed for each of the three project types. A project's priority score was determined by summing all of the points assigned from the evaluated physical characteristics, proximity to areas of interest, potential for co-locating projects, and other various multiple benefits. While the three project types share many of the same criteria factors, each contains a set of factors that are specific to that particular project type. All public parcels and streets throughout the county were prioritized and the results were analyzed at the countywide scale and city-scale. The scoring was used to rank the projects by cost benefit, watershed, jurisdiction, and project type.

Belmont-specific Process

Due to Belmont's unique existing conditions, City goals and policies, and other factors, it was important to customize the countywide project identification and prioritization process to develop a Belmont-specific prioritization process. This allows the City to modify countywide prioritization factors and scoring and include new prioritization factors to address conditions not included in the countywide process and to focus upon City preferences and circumstances that are specific to Belmont.

Prioritization factors, scoring, and weighting used in the Countywide process were assessed and then modified, retained, or eliminated as appropriate to reflect Belmont-specific priority criteria. New Belmont-specific criteria was determined and included, and some factors were used as screening criteria before the projects were prioritized. Belmont-specific screening and prioritization criteria factors were also used to assess the three different types of projects – regional (water capture) projects, green streets, and parcel-based.

The following table, Table 2-1, illustrates the various screening and prioritization criteria factors that were used to identify, prioritize, and map green infrastructure opportunities within Belmont.

Green Infrastructure Project Identification and Prioritization

Table 2-1: Screening and Prioritization Criteria Factors of the San Mateo SRP and Belmont-specific Prioritization Process

Prioritization Criteria and Screening Factors	Regional Stormwater Capture	Green Streets	Public/Private Parcel-based GI Projects
San Mateo SRP Prioritization Factors Retained or Modified			
Parcel land use (modified for Belmont-specific criteria)	X		X
Impervious area (%)	X	X	X
Parcel size (acres)	X		
Street Type (modified for Belmont-specific criteria)		X	
Hydrologic soil groups	X	X	X
Slope (%)	X	X	X
Proximity to flood-prone channels (miles)	X	X	X
Contains PCBs risk areas	X	X	X
Currently planned by City or co-planned with other City projects	X	X	X
Drains to TMDL water	X	X	X
Safe Routes to School program		X	
Above groundwater basin	X	X	X
Augments water supply	X	X	X
Water quality source control	X	X	X
Creates or enhances habitat	X		
Community enhancement (removed/modified for Belmont-specific criteria)	X	X	X

Belmont-specific Prioritization criteria			
Complete streets projects (adjacency)	X	X	X
Streets with existing storm drains and inlets	X	X	X
Streets identified for future storm drains and other drainage improvements	X	X	X
Areas with localized flooding	X	X	X
Project located within ¼ mile of identified RHNA site or other affordable housing site	X	X	X
Project identified in approved master plan, community plan, policy, etc.	X	X	X
Project is within a Planned Development Area (PDA)	X	X	X
Project is part of a street improvement at a high-injury or high-frequency collision intersection or street segment		X	
Within drainage area of Twin Pines Park Regional Project	X	X	X
Parcel Ownership	X		X
Parcel ownership and land use	X		X
Slope (%)	X	X	X

The project prioritization process was a two-step process. Screening factors were used to screen out conditions that are detrimental to green infrastructure. In this case, that included certain land uses, ownership, and slope. After the prioritization criteria factors were identified, they were assigned a score between 0 and 5 with the highest number representing the most important or significant aspect. Some criteria were then weighted to emphasize specific issues identified as having a higher level of importance for the City. A few of the countywide factor scores and weighting factors were adjusted to reflect Belmont-specific conditions and priorities. Refer to Appendix A for a table illustrating the screening and prioritization criteria factors with assigned scores and weighting factors.

A project's overall priority score is the sum of the individual weighted prioritization scores. Because each project type's prioritization method contains a different mix of screening and prioritization factors, and scoring and weighting varies between project types, the scores cannot be directly compared between different project types.

Following the SRP method of categorizing the level of project priority, the recalculation of green infrastructure project opportunities using Belmont-specific criteria and scoring of selected green infrastructure opportunities were prioritized as High, above the 90th percentile; Medium, above the 60th percentile; and Low, below the 60th percentile.

c. Identification of Prioritized Green Infrastructure Project Opportunities

Existing and Planned Projects and Potential Opportunities

Existing, planned, and potential green infrastructure projects were identified by a range of methods. Existing projects were identified by using the City's list of completed projects. Planned projects are C.3 regulated and other green infrastructure projects in the planning and design phase that the City is tracking or are currently under construction. These include projects related to new future development or remodeling of school facilities, green streets, and the Twin Pines water capture project currently undergoing planning. These projects are expected to be completed during the 2015 to 2020, 2020 to 2030, or 2030 to 2040 time periods.

The City's Pavement Management Program was reviewed to determine if projects would be able to accommodate green infrastructure. It was found that this program is primarily focused on street pavement maintenance, with perhaps only the "heavy rehabilitation" or "reconstruction" classifications having the ability to consider including green infrastructure and other improvements into the project. The Capital Improvement Projects (CIP) list was reviewed to determine if existing planned and/or funded projects are opportunities for green infrastructure. The review found that some CIP projects related to new planning or the rehabilitation of streets and recreation facilities may provide the opportunity to integrate green infrastructure. These opportunities include various park upgrade improvements and park master planning for the Belmont Sports Complex, McDougal field and play ground, Twin Pines Park, Hallmark Park, Belameda Park, and Barrett Community Center master plan, and street improvement projects such as the Four Corners Traffic Study project. Longer term future projects not on the CIP list, such as bicycle and other complete street improvements, the Twin Pines Park regional project, and safe routes to schools projects, were considered and included in the analysis for identifying potential green infrastructure opportunities. Other considerations included identifying streets and intersections that could easily accommodate green infrastructure or complete streets improvements – these were typically those with leftover spaces created by intersecting street alignments and on wider streets; and while not mapped, private development parcels that offer the potential for private or shared public/private or private provision of green infrastructure. In addition, potential green infrastructure projects are expected to happen opportunistically as prospects and funding avail themselves.

Green Infrastructure Project Identification and Prioritization

Potential future green infrastructure opportunities have been identified by known projects in the planning and design phase, those C.3 regulated projects anticipated to occur between 2020 and 2040; City parcels that offer the potential for green infrastructure; other public and private parcels that offer the potential for shared or expanded projects; streets that could accommodate green infrastructure; intersections that are wide or have unprogrammed area and could accommodate green infrastructure; and future projects or locations that are identified City capital improvement projects or in a recognized policy or plan such as complete street improvements, safe routes to schools projects, flood control, and being within a Priority Development Area (PDA).

A customized list of “higher priority” potential green infrastructure opportunities was developed based upon factors specific to Belmont. First, the SRP’s prioritized regional projects, green streets, and parcel green infrastructure project opportunities were reviewed and assessed. Secondly, Google Earth and Google StreetView were used to perform a more detailed evaluation of streets, intersections, and public and private institutional parcels that could include potential green infrastructure opportunities. This information was brought into the GIS data sets for analysis, which was then reviewed, and in some cases, adjusted to better reflect certain conditions, such as impervious area on a street or parcel. The goal of this assessment was to identify public and private locations that could accommodate green infrastructure that could be implemented with relative ease in the near term, that could be more quickly or easily implemented if funding was obtained, and that have the potential for public/private partnerships. Additional detail can be found in Appendix B. While Belmont owned parcels and other publicly and privately-owned parcels were evaluated, Belmont only has control over City owned parcels to direct the timing of implementation.

Regional Water Capture Projects

Belmont has identified a regional project at Twin Pines Park to provide multiple benefits to the City. The project has the potential to provide multiple benefits to the City, could contribute to limiting downstream flooding, and improving water quality. The GI RAA includes this project as part of the countywide regional project system. The GI RAA discusses how regional projects are more cost-effective than other public green infrastructure investment, such as green streets. Belmont intends to prioritize the use of regional projects to help meet their pollutant load reduction requirements. Due to the nature of these types of projects, a longer lead time for planning and a higher level of funding for planning, construction, and operations and maintenance is needed over other project types.

Green Streets

The City will be pursuing opportunities for green streets and green intersections to help manage and treat stormwater runoff and provide complete and sustainable streets, traffic calming, urban greening, neighborhood enhancement, and other community-wide benefits. Due to the hillside nature of much of the City, many streets do not provide acceptable slope gradients for green infrastructure. This, along with poor infiltrating soils and challenges in obtaining funding for street redesign, construction and maintenance, limits opportunities for green streets. However, there are pockets throughout the City in which streets and intersections can be retrofitted to include green infrastructure. Streets such Ralston and Old County Road will be retrofitted for complete street or infrastructure provision and offer the potential to integrate green infrastructure as part of the project.

Public and Private Parcels

Public parcels, both City and other public agencies such as school districts, and private institutional uses such as schools were identified and assessed for potential individual or shared green infrastructure opportunities. Many of these parcels offer the ability to integrate green infrastructure facilities in a variety of locations and of differing measure types, such as in parking lots, around buildings, within landscape areas, and along street frontages. Belmont owned sites, such as City Hall and various park and recreation areas including O’Donnel, Barret, and Ciprani, can be considered a higher priority as they are under the control of the City for the

implementation of green infrastructure and other improvements. Many private and non-City owned public parcels were evaluated as they typically offer larger areas to integrate green infrastructure facilities within the site due to the existence of open space, parking lots, and ball fields, as well as offer opportunities for project partnerships. In addition, new and redevelopment commercial and residential projects will be evaluated under the City's "no missed opportunities" policy to require certain projects to add green infrastructure and/or to meet C.3 Regulated Project requirements. Refer to Chapter 5 for further information.

The following tables and maps show the outcome of the Belmont-specific prioritization process and evaluation of green infrastructure opportunities of higher priority projects (those parcels and streets/intersections identified above as opportunities for green infrastructure on City and other public agency and private potential projects) and ranks the prioritized potential opportunity projects. This list provides City staff the preferred "short list" of prioritized projects to plan for and implement as funding, opportunities, and the need arises. As the opportunities identified in this process are implemented, new green infrastructure opportunities will be added to the list. The green infrastructure and LID that will be implemented on private parcels or along their frontages as part of "no missed opportunities" are not included in these tables and maps as the timing and location of the projects cannot be anticipated.

Lists and maps of completed, planned, and potential projects will be updated, as needed, to provide information relative to changed status, the identification of funding options, new opportunities, or if a regional approach scenario is implemented countywide.

Figure 2-1 and Table 2-2 show the constructed and planned green infrastructure projects in Belmont. A map and list illustrating the resulting Belmont-specific prioritized potential green infrastructure projects is found in Figure 2-2 and Tables 2-3 and 2-4. In addition, other public parcel and street project opportunities identified in the SRP are represented in Figure 2-2.

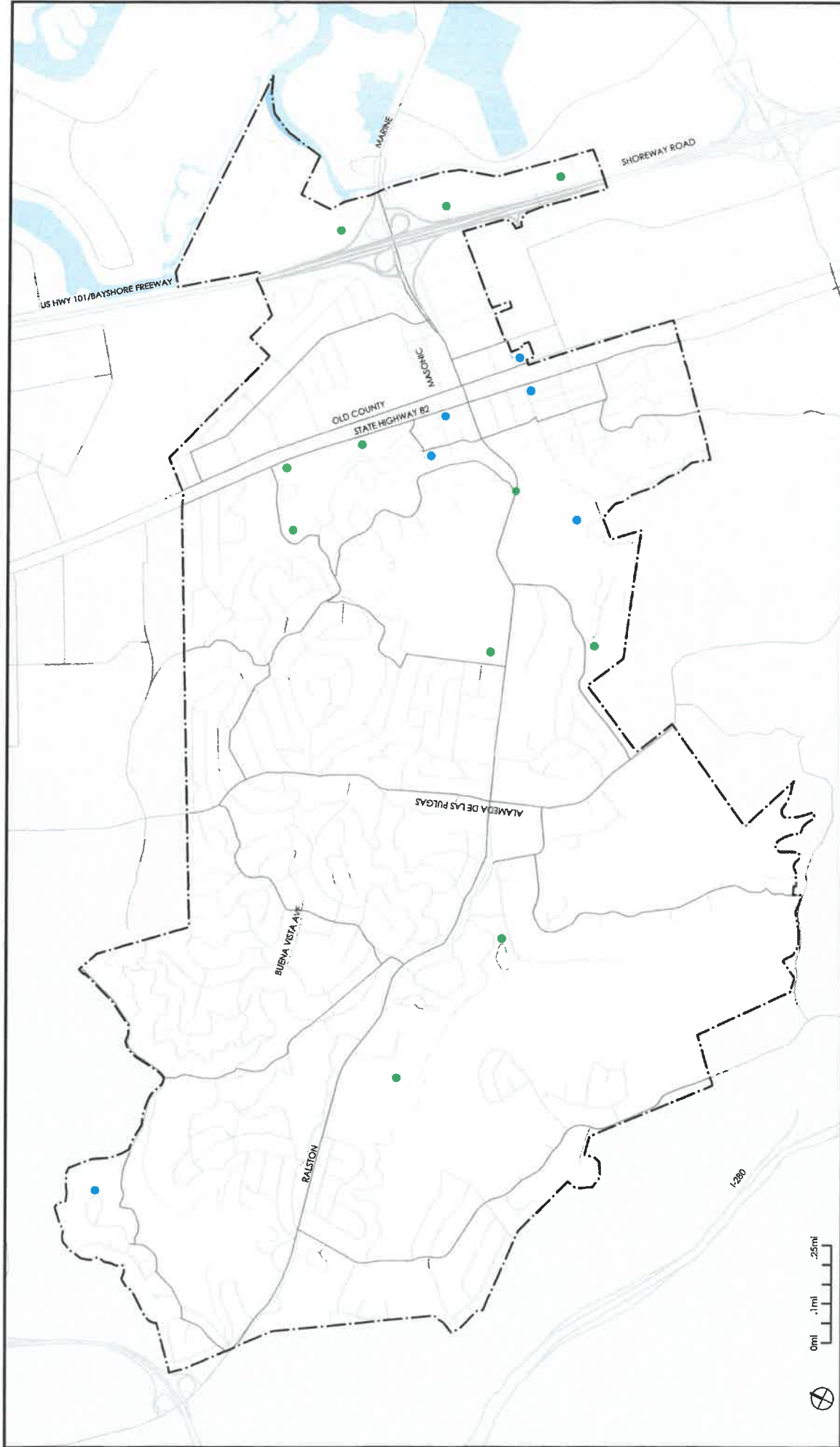
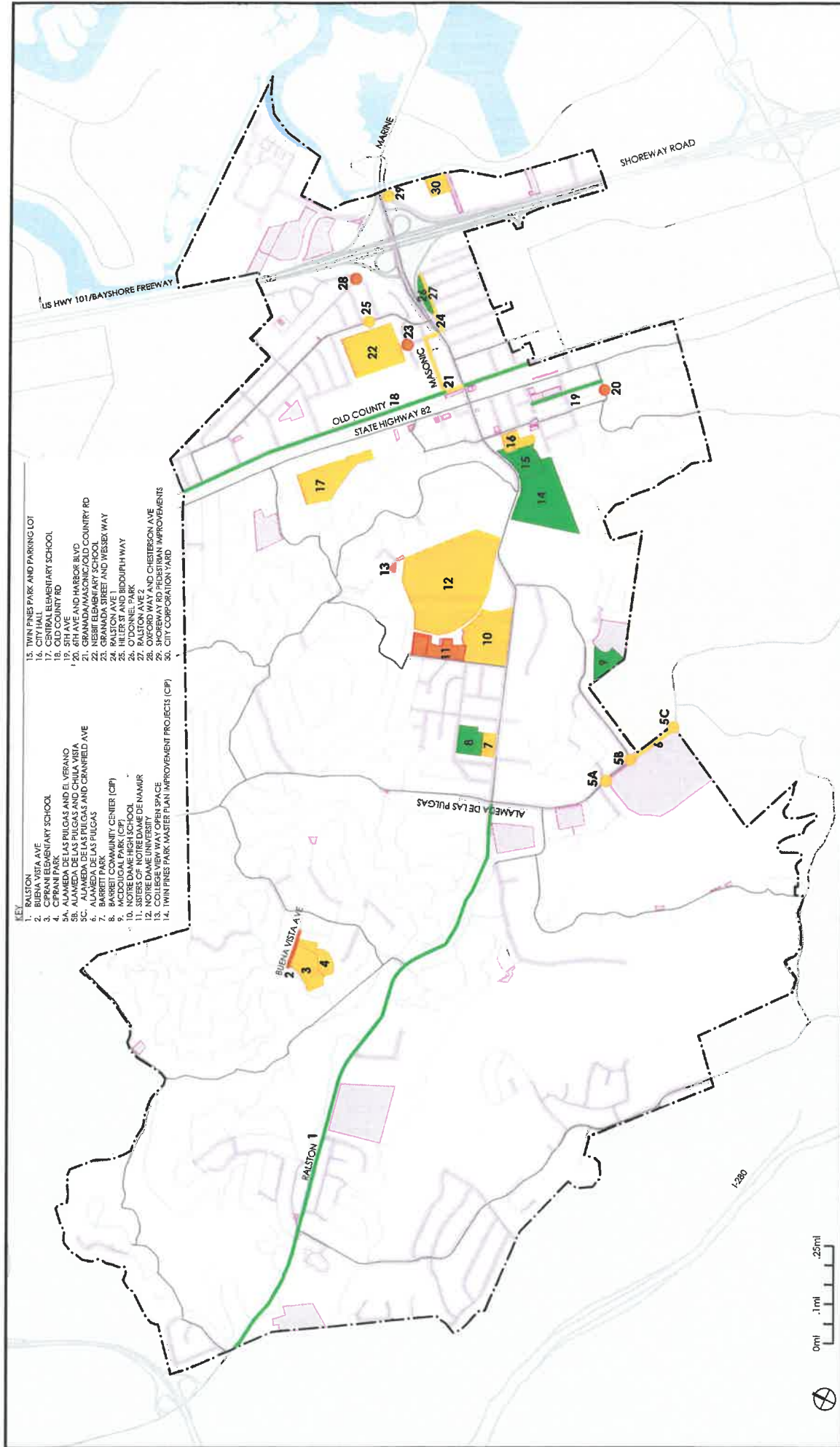


Figure 2-1: Completed and Planned Green Infrastructure Projects

Table 2-2. Completed and Planned Green Infrastructure Projects

Project Name	GIS Data Base Index No./City Project ID	APN/Location	Ownership	Size (ac)	Description
Completed Projects (Public Other Agency and Private)					
Commercial Project	Belmont 2	044-162-150, -160 400-490 El Camino Real	Private	1.84	Parcel
Homewood Suites	Unknown	1201 Shoreway Road	Private	Unknown	Parcel
Charles Armstrong School	Belmont-BEL-3	045-122-190/ 1405 Solana Drive	Private	0.39	Parcel
Crystal Springs Uplands School (CSUS)	Belmont-BEL-5	043-340-170/10 Davis Drive	Private	6.64	Parcel
Notre Dame de Namur University	Belmont-BEL-6	044-360-120/1500 Ralston Ave	Private	2.21	Parcel
Belmino	Belmont-11	044-201-190, -230, 044-222-060/576-600 El Camino Real	Private	0.9	Parcel
SummerHill Cambridge Apartment Complex	Belmont-4	045-031-010/2440 Carlmont Drive	Private	4.63	Right of way
Autobahn Motors	Belmont-15	040-360-530/700 Island Parkway	Private	1.35	Parcel
Springhill Suites Hotel	Unknown	1401 Shoreline Road	Private	Unknown	Parcel
Nikon	Belmont-1011- 1	040-371-170/1399 Shoreway Road	Private	5.38	Parcel
Davey Glen Park Detention Project	Unknown	Across 500 Davey Glen Road	Public – City	Unknown	Parcel
South Road Traffic Signal	Belmont 16	South Road & Ralston Improvements	Public – Other	Unknown	Intersection
Planned Projects (Public, Public Other Agency, and Private)					
Windy Hill	Belmont 8	046-031-070, -080, - 020/ 1325 Old County Rd	Private	2.09	Parcel
Firehouse Square	Belmont 9	045-244-010, -160, - 150/ 1300 El Camino Real	Private	1.25	Parcel
Talbryn Subdivision	Belmont 10	045-201-190/ 1320 Talbryn Drive	Private	1.47	Parcel
Unnamed Project	Belmont 12	045-152-350/ 800 Laurel Ave	Private	1.58	Parcel
Affordable Housing Project	Belmont 13	045-163-070/ 900 El Camino Real	Private	0.43	Parcel
Bishop Road Subdivision	Belmont 14	043-021-010, -380/ 2009, 2011, 2013 Bishop Road	Private	8.0	Parcel



- KEY**
- 1. RALSTON
 - 2. BUENA VISTA AVE
 - 3. CIPRANI ELEMENTARY SCHOOL
 - 4. CIPRANI PARK
 - 5. ALAMEDA DE LAS PULGAS AND EL VERAÑO
 - 5B. ALAMEDA DE LAS PULGAS AND CHILIA VISTA
 - 5C. ALAMEDA DE LAS PULGAS AND GRANFIELD AVE
 - 6. ALAMEDA DE LAS PULGAS
 - 7. BARRETT PARK
 - 8. MCDONALD PARK (CIP)
 - 9. MCDONALD PARK (CIP)
 - 10. NOTRE DAME HIGH SCHOOL
 - 11. SISTERS OF NOTRE DAME DE NAMUR
 - 12. NOTRE DAME UNIVERSITY
 - 13. NOTRE DAME UNIVERSITY PARK
 - 14. TWIN PINES PARK MASTER PLAN IMPROVEMENT PROJECTS (CIP)
 - 15. TWIN PINES PARK AND PARKING LOT
 - 16. CITY HALL
 - 17. CENTRAL ELEMENTARY SCHOOL
 - 18. OLD COUNTY RD
 - 19. 4TH AVE AND HARBOE BLVD
 - 20. GRANADA/MASONIC/OLD COUNTRY RD
 - 21. NESBIT ELEMENTARY SCHOOL
 - 22. GRANADA STREET AND WESSEX WAY
 - 23. GRANADA STREET AND WESSEX WAY
 - 24. HILTON AND BIRDAIR WAY
 - 25. O'DONNELL PARK
 - 26. RALSTON AVE 2
 - 27. OXFORD WAY AND CHESTERSON AVE
 - 28. OXFORD WAY AND CHESTERSON AVE
 - 29. OXFORD WAY AND CHESTERSON IMPROVEMENTS
 - 30. CITY CORPORATION YARD

Belmont Green Infrastructure Plan

San Mateo Stormwater Resource Plan Prioritization Opportunities

Other Potential Opportunities

Belmont-Specific Prioritization Opportunities

HIGH PRIORITY MEDIUM PRIORITY LOW PRIORITY

Figure 2-2: Belmont Prioritized Potential Green Infrastructure Opportunities
Regional Projects, Streets, and Parcels
August 2019

Table 2-3. Belmont-specific Identified Potential Green Infrastructure Opportunities

Location	Potential	Type
Potential Belmont-specific Prioritization Projects (Public, Public Other Agency, and Private)		
Twin Pines Park and parking lot (CIP)	High	Regional Project/ Parcel- City
Barrett Community Center (portion under CIP)	High	Parcel- City
McDougal Park (CIP)	High	Parcel- City
O'Donnel Park	High	Parcel- City
Old County Road	High	Street
5th Avenue, between O'Neil and Harbor	High	Street
Ralston, between Rte 92 and Alameda de las Pulgas	High	Street
City Hall	Medium	Parcel- City
Barrett Park	Medium	Parcel- City
City corporation yard	Medium	Parcel- City
Ciprani Park	Medium	Parcel- City
Granada/Masonic/ Old County Road	Medium	Street
Ralston Ave (1), between Granada and Hiller	Medium	Street
Alameda de las Pulgas, between Cranfield and Chula Vista Dr (Four Corners Traffic Study Project)	Medium	Street
Ralston Ave (2), between Hiller and Kedith	Medium	Street
Shoreway Road Pedestrian Improvements	Medium	Street
Hiller St and Biddulph Way	Medium	Intersection
Alameda de las Pulgas and Chula Vista (Four Corners Traffic Study Project)	Medium	Intersection
Alameda de las Pulgas and El Verano (Four Corners Traffic Study Project)	Medium	Intersection
Alameda de las Pulgas and Cranfield (Four Corners Traffic Study Project)	Medium	Intersection
Central Elementary School	Medium	Parcel- Other Public
Ciprani Elementary School	Medium	Parcel- Other Public
Nesbit Elementary School	Medium	Parcel- Other Public
Notre Dame High School	Medium	Parcel- Private
Notre Dame de Namur University	Medium	Parcel- Private
College View Way Open Space	Low	Parcel- City
Buena Vista Ave, between Monserat and Palmer	Low	Street
Granada St and Wessex Way	Low	Intersection
6th Ave and Harbor Blvd	Low	Intersection
Oxford Way and Chesterson Ave	Low	Intersection
Sisters of Notre Dame de Namur	Low	Parcel- Private

d. Workplan to Complete Alternative Compliance and Early Implementation

Prioritized projects identified as part of a Provision C.3.e Alternative Compliance program or part of Provision C.3.j Early Implementation are required to prepare a Workplan to ensure completion of those prioritized projects. Those projects that fall under these Provisions are summarized below. A Workplan has been developed to identify the approach, scheduled timeframes, and other key information for implementing these projects.

Belmont has identified the following projects as part of a Provision C.3.e Alternative Compliance program (a special project) or a part of Provision C.3.j.ii Early Implementation. These are public and private green infrastructure projects that are already planned for implementation during the permit term and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures.

1. Firehouse Square Apartments

Location: 1300 El Camino Real

Description: Residential condominium project of 66 units, total site area of 0.75 acres, 88 gross density du/ac, special project category: C location parking.

The project consists of two parcels; one for apartments and one for townhouses, and which has been identified as a Special Project, based on Special Project criteria provided in Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP).

The project site was reviewed for the feasibility of onsite LID treatment; the review indicated that it was infeasible to treat all of the C.3.d amount of runoff with LID treatment due to a range of constraints and the provision off-site LID treatment was found to be infeasible. To address these constraints, the project has proposed to drain to vault-based media filters.

The plan utilizes treatment of portions of 5th Avenue to offset untreated impervious surface on Civic Lane, and will include full trash capture measures conforming to Section C.10 of the MRP, on-site LID site design measures, self-treating areas designed to store and infiltrate the rainfall that lands on it and the impervious surface that drains it, and planting or preserving interceptor trees.

Status: The City has recently approved sale and lease agreements for the properties and various development entitlements and permits. The project is expected to move into construction in the near future.

As per Condition of Approvals, the project is subject to:

1. A maintenance agreement is required to be executed between the City and the Developer prior to recordation of final map. The Developer is to maintain:
 - Stormwater treatment areas inside and along the frontage of the properties (including sidewalk area).
 - Sidewalks, driveways, curb and gutter, street furniture, decorative street lights, landscaping, street trees along the frontage of property up to the edge of pavement.
 - Park area shared by the two lots.
2. Provide full trash capture measures conforming to Section C.10 of the MRP to treat the site.
3. Applicant shall adequately demonstrate that the stormwater management plan for the apartments and townhouses can meet the requirements of C.3 individually. This is to confirm that in the case of phased construction, the two portions of the project can still meet C.3 requirements without the other.

Workplan: Staff will continue to review and track the project during the course of project approvals and construction until the project is complete to ensure that stormwater and other requirements are met.

2. Twin Pines Park Water Capture Project

Location: Twin Pines Park (in park and parking lots)

Description: Twin Pines Park has been identified as a potential location for a regional stormwater capture project. Belmont Creek is the primary receiving water for the City and runs through the park, and is identified as a flood-prone channel impacting downstream properties. Several locations were explored at this site to divert runoff to a proposed subsurface infiltration gallery. The creek is not channelized at this segment and flows naturally. Although diversion from the creek would allow for the largest potential capture area, diversion from a natural channel is not feasible at this location. A nearby storm drain was identified as the most feasible opportunity for stormwater capture. The storm line has an outfall directly to the creek, so a regional project would still mitigate downstream flooding. The project concept consists of an offline subsurface infiltration chamber. The park provides the opportunity to treat runoff from a 30-acre area that is primarily residential and drains directly Belmont Creek. The project would capture flows and associate pollutant loadings from a small portion of the upper Belmont Creek.

Status: The Twin Pines Park Master Plan has been approved by Council. The plan recommendations include two potential sites where detention basins could be incorporated as proposed by the Belmont Creek Watershed Management Plan. The City continues to work with the San Mateo County Flood Resilience Program Manager to seek grant funding for design and construction funding.

3. Future Development Projects

Location: Citywide

Description: The MRP discusses “no missed opportunities” under the Early Implementation of Green Infrastructure Projects section, and which outlines the need of jurisdictions to consider and integrate green infrastructure into all projects, as feasible. City staff already evaluates capital improvement projects (CIPs) for opportunities to implement green infrastructure.

For private projects currently under review or to be submitted in the future, staff will integrate the MRP’s “no missed opportunities” into the City’s standard project review process and as the authority to require green infrastructure improvements. City staff has and will work with developers to evaluate and implement appropriate green infrastructure improvements as feasible, including along street frontages and on-site.

Status: City will continue to consider, evaluate, and require green infrastructure improvements in public and private projects as feasible.

3.0 Belmont Green Infrastructure Implementation Goals³

This chapter provides an overview of the purpose of the San Mateo Countywide Program GI Reasonable Assurance Analysis and a summary of RAA results for Belmont to serve as stormwater improvement goals that set the stage for an adaptive management approach.

a. Overview

The MRP requires the development of GI Plans (Provision C.3) and Polychlorinated Biphenyls (PCBs) and Mercury Control Measure Implementation Plans (Provisions C.11 and C.12) that provide the necessary pollutant load reductions to meet Total Maximum Daily Load (TMDL) wasteload allocations, or the maximum load, or amount, of pollutants each discharger of waste is allowed to release into a particular waterway⁴, over specified compliance periods. A key component of these plans is a GI RAA⁵ that quantitatively demonstrates that proposed control measures will result in sufficient load reductions to meet wasteload allocations for municipal stormwater discharges to the San Francisco Bay.

The City/County Association of Governments (C/CAG) of San Mateo County, via its Countywide Program, led a county-wide effort to develop a GI RAA to determine load reductions to meet wasteload allocations among San Mateo County permittees, and set goals for the amount of green infrastructure each permittee needs to achieve for their portion of the countywide load reductions the MRP assigns to green infrastructure. The City's GI Plan must therefore reasonably be expected to achieve the stormwater improvement goals outlined in the countywide GI RAA.

b. Preliminary Identification of Opportunities for Green Infrastructure Projects

To support the GI RAA and GI Plans, C/CAG has undertaken a number of planning efforts to identify opportunities for green infrastructure implementation. The following is a summary of those efforts.

Green Infrastructure for New Development and Redevelopment

The MRP includes Provision C.3 for the integration of green infrastructure within new development and redevelopment. LID and green infrastructure are implemented throughout the City as new development and redevelopment occurs. The reduced volumes of urban runoff and associated pollutant loads can be considered as part of the load reductions attributed to implementation of green infrastructure. C/CAG worked with San Mateo County permittees to compile information on green infrastructure and LID practices that have been implemented within new development and redevelopment since 2003, the baseline year for calculation of wasteload allocations.

³ This section is based upon template materials provided from the *Reasonable Assurance Analysis and Green Infrastructure Implementation Goals and Curves - Belmont*. Paradigm, 2019. Refer to Appendix C and Appendix D for more detailed information.

⁴ Glossary, Federal Remediation Technology Roundtable. <https://definedterm.com/a/document/10661>.

⁵ The San Mateo GI RAA is comprised of two documents:

1. *Phase I Baseline Modeling Report* – Provides documentation of the development, calibration, and validation of the baseline hydrology and water quality model, and the determination of PCBs and mercury load reductions to be addressed through green infrastructure implementation.
2. *Phase II Green Infrastructure Modeling Report* – Provides documentation of the application of models to determine the most cost-effective green infrastructure implementation for each municipality, setting stormwater improvement goals for the GI Plan.

In support of the GI RAA to model pollutant load reductions, an estimate of the land area and location of new and redevelopment within San Mateo County required to achieve new development and redevelopment (C.3 regulated) green infrastructure stormwater management improvements by 2040 was developed. The overall estimate was then translated into estimates for 2015 to 2020, 2020 to 2030, and 2030 to 2040.

These estimates were made by first estimating the land area that can be expected to develop between 2015 and 2040. A range of information was used to make these estimates including the available land area and the demographic files for new households and jobs that were developed and used for the San Mateo Countywide Transportation Plan. The Countywide Program's consultants used a four-step process to estimate future new and redevelopment. The first step identified available land and the land's capacity for new mixed use, residential, and non-residential development, based on assessors' data, member agency policies, and other factors. The second step converted countywide population and employment growth projections into demand for single-family and multi-family homes, and square feet of various non-residential uses. Step three allocated the projected demand to the available land supply. Step four adjusted available land area and expected intensity of development to get a "fit" between supply and demand where the initial allocation process did not indicate enough land for projected development. This information was documented for each jurisdiction, including Belmont, and jurisdictions were given the opportunity to comment on the initial estimates and a revised set of estimates.

These assessments found that Belmont is projected to experience 41 acres of new and redevelopment growth in the land uses that typically generate green infrastructure per the requirements of the MRP, such as single-family subdivisions, multi-family, mixed use, and commercial development between 2015 and 2040.

Some land uses, such as schools, are not accounted for in the countywide land development projections as they do not align with either residential or a quantifiable employment use. Many school sites are present in Belmont, and these uses present other opportunities to provide green infrastructure that can count towards Belmont's load reduction requirements.

Countywide Stormwater Resource Plan (SRP)

The SRP is a comprehensive plan that identifies and prioritizes thousands of green infrastructure project opportunities throughout San Mateo County and within each municipal jurisdiction. Prioritized project opportunities include:

- Large regional projects within publicly owned parcels (e.g., parks) that infiltrate or treat stormwater runoff generated from surrounding areas (e.g., diversion from neighborhood storm drain system; diversions from creeks draining large urban areas);
- Retrofit of publicly owned parcels with green infrastructure that provide demonstration of onsite green infrastructure and LID designs; and,
- Retrofit of public street rights of way with green infrastructure, referred to as green streets.

The SRP includes a multi-benefit scoring and prioritization process that ranks green infrastructure project opportunities based on multiple factors beyond pollutant load reduction (e.g., proximity to flood prone channels, potential groundwater basin recharge).

The above efforts and resulting technical products provide preliminary identification of opportunities for green infrastructure projects. These green infrastructure project opportunities, along with the estimate of new and redevelopment green infrastructure discussed above, serve as the foundation for the GI RAA and Belmont's GI Plan as strategies are developed for implementation plans to meet the PCBs and mercury load reduction goals per the TMDL.

Belmont Green Infrastructure Implementation Goals

Description of the San Mateo Countywide GI RAA Model

Through the GI RAA, C/CAG performed a comprehensive, countywide modeling effort to provide:

- Simulation of baseline loads of PCBs and mercury for each of the County's watersheds and municipal jurisdictions discharging to San Francisco Bay;
- Estimation of necessary load reduction goals to meet requirements of the MRP and TMDL wasteload allocations; and,
- Determination of the amount of green infrastructure needed to address load reduction goals based on project opportunities.

The GI RAA also provides analysis of alternative implementation scenarios through cost-benefit optimization that can inform cost-effective green infrastructure implementation within each municipal jurisdiction, including Belmont. These results set goals for GI Plans developed by each Permittee.

The primary goal of the GI RAA is to quantitatively demonstrate that GI Plans and Control Measure Implementation Plans will result in load reductions of PCBs and mercury sufficient to attain TMDL wasteload allocations and the component stormwater improvement goals to be achieved with green infrastructure. Based on the baseline hydrology and water quality model, the GI RAA determined that a 17.6% reduction in PCBs loads is needed, countywide, to meet the green infrastructure implementation goals established by the MRP. Zero reduction in mercury loads was determined to be needed from MRP areas because baseline loads were predicted to be below the TMDL wasteload allocations for San Mateo County.

The analytical framework selected to support the San Mateo Countywide GI RAA is based on a linked system of models. These models provide a characterization of existing conditions and determination of necessary pollutant load reductions to meet requirements of TMDLs and the MRP as well as provide analysis of the amount of green infrastructure needed to provide the portion of the load reduction assigned to green infrastructure by the MRP. Implemented together, the models have the capacity to support efforts to identify cost-effective green infrastructure implementation scenarios that align with municipal goals.

c. Model Considerations to Inform GI Plans

An important consideration for the GI RAA was the ability to track costs and benefits of different categories of green infrastructure projects within the model. This tracking supports the selection of the most cost-effective implementation strategy to attain pollutant reduction goals, see Figure 3-1. The GI RAA builds upon the previous planning efforts and represents the following generalized green infrastructure project categories in the model:

1. **Existing Projects:** Stormwater treatment and green infrastructure projects that have been implemented since FY-2004/05. This primarily consists of all of the regulated projects that were mandated to treat runoff via Provision C.3 of the MRP, but also includes any public green street or other demonstration projects that were not subject to Provision C.3 requirements.

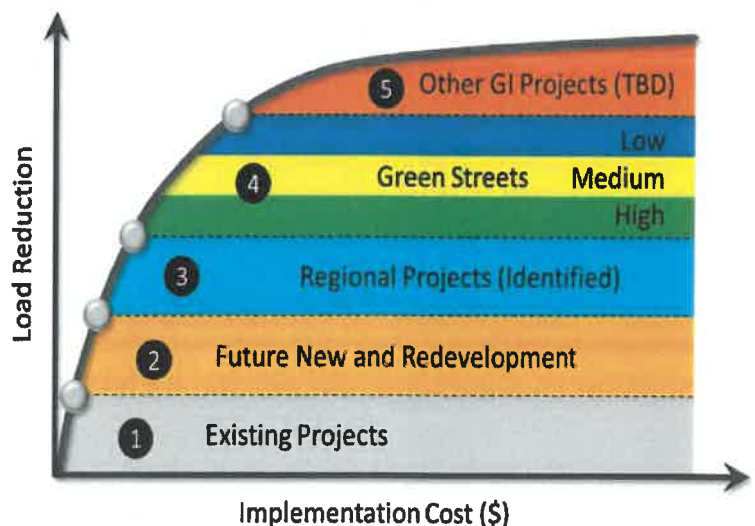


Figure 3-1. Example Implementation Recipe Showing General Sequencing of Green Infrastructure Projects.

2. **Future New and Redevelopment:** All the regulated projects that will be subject to Provision C.3 requirements to treat runoff via green infrastructure and LID and is based on projections of future new and redevelopment, see earlier discussion for more detail.
3. **Regional Projects (identified):** C/CAG worked with agencies to identify five projects within public parks, Caltrans property, and other entities willing to partner with permittees, including the Twin Pines project that is being pursued by the City of Belmont, to provide regional capture and infiltration/treatment of stormwater, and included conceptual designs to support further planning and designs. Note – the model can be updated to include future identified projects to support adaptive management.
4. **Green Streets:** The Stormwater Resource Plan (SRP) identified and prioritized opportunities throughout San Mateo County for retrofitting existing streets with green infrastructure in public rights-of-way. Green streets were ranked as high, medium, and low priority (within each subwatershed) based on a multiple-benefit prioritization process developed for the SRP. These opportunities were carried forward into the GI RAA analysis.
5. **Other GI Projects (to be determined):** Other types of green infrastructure projects on publicly owned parcels, representing a combination of either additional parcel-based GI or other Regional Projects which have not been identified to date. This may also include additional green infrastructure projects developed in relation to private development that is not required by C.3 requirements to implement green infrastructure, but that may be required to implement green infrastructure through local regulation.

The GI RAA considers the potential combinations of green infrastructure project opportunities that exist within each municipal jurisdiction, and selects a suite or “recipe” of projects that can most cost-effectively address pollutant load reductions. The amount and combination of those green infrastructure projects can be determined through analysis of estimated load reductions and implementation costs. Cost-benefit optimization of green infrastructure project opportunities was included to build upon the preliminary C/CAG SRP planning efforts above, and to inform and set meaningful goals for GI Plans. The model provides an estimate of the resulting pollutant load reduction and implementation costs.

d. Belmont Green Infrastructure Implementation Goals

The GI RAA considered multiple alternative scenarios that can inform implementation and the adaptive management process. Four modeling scenarios were configured for this analysis and are summarized in Table 3-1:

Load Reduction Objective	Percent of Total GI Cost to Achieve Reduction Objective		Total Savings (Jurisdictional vs. Countywide)
	Jurisdictional	Countywide	
Cohesive Sediment 17.6% Reduction	Scenario 1	Scenario 2	→ Savings
Total PCBs 17.6% Reduction	Scenario 3	Scenario 4	→ Savings
Total Savings (Sediment vs. PCBs)	↓ Savings	↓ Savings	↘ Overall Savings

Table 3-2. Model scenarios objectives and cost-benefit evaluation.

Belmont Green Infrastructure Implementation Goals

The following factors are considered for each model scenario:

Load Reduction Objective - With a cohesive sediment load reduction objective, Scenarios 1 and 2 represent the most conservative approaches. These assume that given the uncertainties about PCBs source areas, targeting an overall 17.6% load reduction of cohesive sediment in general (silts and clays) achieves the PCBs load reduction objective for GI. Scenarios 3 and 4 assume that PCBs sources are spatially distributed based on analysis of land use types. The cost-benefit optimization process targets those areas as having the highest likelihood of PCBs sources. Scenarios 3 and 4 highlight the potential cost savings (relative to Scenarios 1 and 2) that could be realized if PCBs sources are identified and targeted for green infrastructure implementation.

Jurisdictional versus Countywide - There are many possible ways to achieve a 17.6% load reduction for all of San Mateo County. The "Jurisdictional" approach, Scenario 1, stipulates that each jurisdiction is responsible to individually achieve at least a 17.6% load reduction based on the population-based wasteload reduction for each jurisdiction. Conversely, the "Countywide" approach, Scenario 2, achieves the 17.6% load reduction countywide by allowing the model to allocate the countywide wasteload reduction via green infrastructure across jurisdictional boundaries.

The Scenario 2 approach requires each municipality to agree to reduce overall PCBs within the county with the goal of creating a more cost-effective and efficient scenario by focusing on implementing green infrastructure in municipalities with higher yields of PCBs and soil conditions that are more amenable for infiltration. In general, the countywide approach can provide significant cost savings over the jurisdictional approach, based on the GI RAA modeling. Some agencies will have more green infrastructure opportunities, higher presence of PCBs, or better infiltrating soils and be able to do more, and some agencies will have fewer or more costly green infrastructure opportunities. A countywide approach also provides the opportunity to fund regional project opportunities, the costs of which could be shared by multiple jurisdictions. It may also provide a vehicle for credit trading between agencies. Refer to the *Green Infrastructure Funding Nexus Evaluation*⁶ for more information about the concept of credit trading.

Following are different conceptual scenarios developed for Belmont to illustrate a range of possibilities in terms of jurisdictional (Scenario 1) or countywide (Scenario 2) approaches and projects for Belmont to achieve their pollutant reduction goal. The results of the GI RAA scenarios can inform the City's adaptive management process for green infrastructure implementation and help garner support for collaborative efforts for green infrastructure implementation or further research of PCBs source areas that could be more cost-effective implementation strategies over time.

Scenario 1: Belmont, Jurisdictional

Two sub-scenarios were developed as alternative implementation "recipes" of green infrastructure projects that could achieve the 17.6% reduction of modeled PCBs for the City. The first sub-scenario, 1.a, assumes the Twin Pines Park regional project is implemented. The second sub-scenario, 1.b, illustrates a mix of green infrastructure implementation if the Twin Pines Park regional project is not built.

⁶ SCI Consulting Group and Larry Walker Associates, January 2019.

Scenario 1a: Belmont, Jurisdictional with Regional Project

Table 3-2 includes the combination of green infrastructure projects that the Countywide GI RAA model identifies as the most cost-effective implementation scenario for the City if the Twin Pines Park regional project is implemented. The model indicates that the implementation of existing projects, future C.3 regulated new development and redevelopment projects, the Twin Pines Park regional project, green streets projects, and green infrastructure projects yet to be identified will exceed the minimum 17.6% pollutant reduction goal for Belmont.

In addition, the modeling does not account for green infrastructure projects at public schools located within Belmont or any future City policy of requiring new and redevelopment projects to implement green infrastructure to C.3 standards that are not currently required to do so. The inclusion of these additional green infrastructure projects into Belmont’s green infrastructure constructed projects accounting will further increase the amount of green infrastructure within Belmont and further exceed their pollutant load reduction goals. The City will continue to identify, calculate, and track these different projects as part of their adaptive management process to determine what projects are needed to achieve their reduction goals.

Implementation Metrics		Implementation Milestones
		<i>Final 2040</i>
		<i>Jurisdictional</i>
Index	% Load Reduction	19.1%
	Volume Managed (acre-ft/yr)	145.2
	Treated Impervious (acres)	107.9
Capacities (acre-ft)	Existing Projects	0.7
	Future New & Redevelopment	2.1
	Regional Projects (Identified)	0.5
	Green Streets (High)	3.0
	Green Streets (Medium)	1.0
	Green Streets (Low)	0.5
	Other GI Projects (TBD)	0.3
	Total	8.0

Table 3-2. Scenario 1a: Green infrastructure implementation strategy for Belmont with regional projects

Belmont Green Infrastructure Implementation Goals

Scenario 1b: Belmont, Jurisdictional without Regional Project

If the Twin Pines Park regional project is not implemented, the Countywide GI RAA model indicates that, in addition to existing projects and future C.3 Regulated Projects associated with new development and redevelopment projects, the most cost-effective implementation strategy plan for the City is suggested to implement predominately green street projects with some other green infrastructure projects that have yet to be identified to meet the City's treatment goals. The chart developed by the Countywide Program shows that this scenario exceeds the minimum 17.6% pollutant reduction goal for Belmont. Refer to Appendix D for greater detail.

However, as mentioned previously, the modeling does not account for green infrastructure projects at public schools located within Belmont, non-regulated projects such as at City parks, or any future City policy of requiring new and redevelopment projects to implement green infrastructure to C.3 standards that are not currently required to do so. Accounting for these additional green infrastructure projects will reduce the amount of green infrastructure required to be implemented in green street and other to be determined projects to meet Belmont's pollutant load reduction goals.

The City will continue to identify, calculate, and track these different projects and other "no missed opportunities" as part of their adaptive management process to determine what projects are needed to achieve their reduction goals.

Scenario 2: Belmont, Countywide Approach

Table 3-3 illustrates a combination of green infrastructure projects that Belmont can implement to attain the target reduction if San Mateo County permittees joined into a Countywide scenario approach (Scenario 2) for green infrastructure treatment. This scenario accounts for the implementation of the five regional projects currently included with the GI RAA across San Mateo County. Table 3-5 also provides implementation milestones for Scenario 1.a as comparison for this scenario. The combination of existing green infrastructure projects, future C.3 regulated new and redevelopment projects, the Twin Pines Park project, the other four regional projects, and other more cost-effective projects in locations outside of Belmont, indicates that no additional green streets or other green infrastructure projects within Belmont would be needed within Belmont in order to achieve the Countywide pollutant reduction target.

Implementing the countywide scenario would require significant discussion among San Mateo County Permittees in order to gain consensus and provide cost-sharing agreements that could result in Belmont providing the reduced green infrastructure capacity indicated in this scenario.

Implementation Milestones for Impervious Area Treated

Table 3-3 represents Belmont’s implementation strategies and goals for projected impervious areas treated, percent pollutant load reduction, and the volume of stormwater runoff managed as modeled for the countywide GI RAA. The City will continue to identify, calculate, and track these, and other, projects as part of their adaptive management process to determine what projects to implement in order to achieve their reduction goals. As noted earlier, the model indicates that the implementation of the following projects will exceed the minimum 17.6% pollutant reduction goal for Belmont.

Implementation Metrics		Implementation Milestones					
		Incremental		Cumulative		Final 2040	
		2020-2030	2030-2040	2020	2030	Jurisdictional	Countywide
Index	% Load Reduction	3.5%	12.8%	2.8%	6.3%	19.1%	4.1%
	Volume Managed (acre-ft/yr)	26.3	95.6	23.4	49.7	145.2	33.0
	Treated Impervious (acres)	10.1	84.6	13.1	23.3	107.9	26.6
Capacities (acre-ft)	Existing Projects	0.0	0.0	0.7	0.7	0.7	0.7
	Future New & Redevelopment	1.0	0.3	0.8	1.8	2.1	2.1
	Regional Projects (Identified)	--	--	--	--	0.5	0.5
	Green Streets (High)	--	1.4	--	1.6	3.0	--
	Green Streets (Medium)	--	1.0	--	0.1	1.0	--
	Green Streets (Low)	--	0.4	--	0.0	0.5	--
	Other GI Projects (TBD)	--	0.2	--	0.1	0.3	--
	Total	1.0	3.3	1.5	4.3	8.0	3.2

Table 3-3. Green infrastructure implementation milestones for Belmont, with comparison of Scenario 1.a, Belmont with Twin Pines Park regional project Scenario 2, Countywide.

e. Adaptive Management and Managed Metrics

It is likely that the actual implementation of green infrastructure projects will not follow the City prioritization and GI RAA output exactly; however, the Implementation Milestones tables, or “recipes” provide “management metrics” to guide the adaptive management process. Dimensions, capacity, and location of green infrastructure projects will vary based on on-the-ground feasibility and site-specific constraints.

The management metrics used for managing and tracking the implementation of green infrastructure includes the performance metrics for “% Load Reduction PCBs (Annual),” “Annual Volume Managed (acre-ft),” and “Impervious Area Treated (acres).” “Impervious Area Treated (acres)” is a metric suggested by the MRP for implementation tracking. The “% Load Reduction PCBs (Annual)” and “Annual Volume Managed (acre-ft)” are additional metrics based on annualized results represented in the GI RAA modeling system that are directly comparable to TMDL wasteload allocations. The “% Load Reduction PCBs (Annual)” provides a relative comparison of the load reduction to be achieved within each subwatershed. The “Annual Volume Managed (acre-ft)” shows the acre-feet of water captured and infiltrated and/or treated within each subwatershed. As a result of adaptive management, the implementation plan strategy may change over time and alternative green infrastructure projects can be substituted without having to re-run the GI RAA model, as long as the “Management Metrics for GI,” representing the goals for the GI Plan, remain on track. While the various implementation strategies illustrate different ways that Belmont can implement green infrastructure, all scenarios meet the pollutant reduction goals of the MRP.

As part of the adaptive management process, Belmont will continue to look for opportunities to fund and implement green infrastructure projects to meet the final load reduction goals for 2040. The process will include the tracking of management metrics and continued re-evaluation of green infrastructure project opportunities considered for the GI RAA, including those identified and discussed in Chapter 2. For instance, the GI RAA assumed projected amounts of green infrastructure and LID associated with new and redevelopment projects, and which are subject to change based on factors that are outside the control of the City, such as levels of development and changing requirements of the MRP as it is updated. If less development occurs over time, more green streets or regional projects on public land may be needed to provide equivalent volume management. For the GI RAA and GI Plan, a preliminary schedule was developed to chart a potential course for green infrastructure implementation and considered the various project opportunities.

Given the relatively small scale of most green infrastructure projects, outside of the regional projects (e.g., LID on an individual parcel or green infrastructure in a single street block converted to green street), numerous individual green infrastructure projects will be needed to address the pollutant reduction goals. All the green infrastructure projects will require site investigations to assess feasibility and costs. As a result, the GI RAA provides a preliminary investigation of the amount of green infrastructure needed to achieve the countywide pollutant load reduction target. The GI RAA sets the GI Plan goals in terms of the amount of green infrastructure implementation over time to address pollutant load reductions. As GI Plans are implemented and more comprehensive municipal engineering analyses (e.g., masterplans, capital improvement plans) are performed, the adaptive management process will be key to ensuring that goals are met. In summary, the GI RAA informs green infrastructure implementation goals, but the pathway to meeting those goals is subject to adaptive management and can potentially change based on new information or engineering analyses performed over time.

The following provides a priority list of actions for the City to undertake for implementing the GI Plan:

1. Implement “short list” priority green infrastructure projects identified in Chapter 2, and continue to look for other opportunities to implement green infrastructure in public and private projects.
2. Continue to monitor and pursue funding opportunities for green streets, other public, and joint public and private green infrastructure implementation.
3. Track green infrastructure projects management metrics and implement adaptive management strategies to ensure the City’s pollutant reduction goals are met.
4. Continue to evaluate and participate in on-going jurisdictional discussions about a countywide approach.
5. Continue discussions and potential implementation of new City policies and standards to increase the amount of green infrastructure developed through private new and redevelopment.
6. Assess and make modifications to the GI Plan and other City documents and procedures to reflect lessons learned.

4.0 Green Infrastructure Project Tracking and Mapping

This section describes the process for tracking and mapping completed public and private green infrastructure projects and making the information available to the public, as required by MRP Provision C.3.j.i.(2)(d). This process was developed by C/CAG to comply with Provision C.3.j.iv.(1) that states “Permittees shall, individually or collectively, develop and implement regionally-consistent methods to track and report implementation of green infrastructure measures including treated area and connected and disconnected impervious area on both public and private parcels within their jurisdictions.”

a. *Countywide Program Tracking and Mapping Tool*

This section describes the process for tracking and mapping completed public and private green infrastructure projects and making the information available to the public, as required by MRP Provision C.3.j.i.(2)(d). This process was developed by C/CAG to comply with Provision C.3.j.iv.(1) that states “Permittees shall, individually or collectively, develop and implement regionally-consistent methods to track and report implementation of green infrastructure measures including treated area and connected and disconnected impervious area on both public and private parcels within their jurisdictions” and a “process for tracking and mapping completed projects, public and private, and making the information publicly available”.

C/CAG, as part of its San Mateo Countywide Sustainable Streets Master Plan (SSMP), is developing a web-based Implementation Mapping and Tracking Tool (GI Tracking Tool) as part of its Sustainable Street and Green Infrastructure Project. The GI Tracking Tool will support C/CAG member agencies in the tracking of green infrastructure as required by the MRP and sustainable streets implementation and provide a “dashboard” to demonstrate to the public and stakeholders the benefits of green infrastructure in terms of adaptation to climate change impacts and water quality improvement. The GI Tracking Tool will track and map green infrastructure projects implemented by the C/CAG member agencies, quantify key metrics related to their performance, and compare those metrics to goals established by the GI Plan. The GI Tracking Tool will be delivered in two phases, with Phase 1 being completed in 2019 and Phase 2 being completed mid-2020.

In addition, the dynamic mapping and visualization of the GI Tracking Tool can potentially support a variety of efforts by C/CAG member agencies, including public outreach, discussions with public officials, and engagement of potential funding partners and other interested stakeholders to continue to build support for green infrastructure implementation. The GI Tracking Tool is being designed in a modular, flexible framework such that other programs could be integrated over time (e.g., sustainable streets, flood resiliency).

The GI Tracking Tool will be composed of the following elements. Over time, the GI Tracking Tool could be expanded to include additional functions to address other issues and programs (e.g., climate change, urban space improvements, etc.). Key elements of the GI Tracking Tool include:

- 2D and 3D mapping of green infrastructure project locations and related base maps (watershed boundaries, waterbodies, city boundaries, storm drains, etc.).
- Tracking of project-specific data (project type, construction date, underlying soils, etc.) or other project-specific benefits for stormwater management (e.g., trash capture) provided by each C/CAG member agency.
- Visualization of citywide and countywide metrics including number of projects planned and constructed, length of right-of-way being managed by green infrastructure, and performance metrics such as impervious area treated, stormwater runoff volumes captured and/or treated (collectively referred to as stormwater volumes “managed”), climate change mitigation and progress toward long-term goals.
- Messaging that provides clear linkage to the SSMP.

The GI Tracking Tool will track project types and locations and quantify performance metrics on a project- and city/Countywide-basis. This includes:

- The locations of projects shown on a dynamic map along with key base layers (watershed boundaries, waterbodies, city boundaries, storm drains, etc.)
- The user can click on any project and view more information regarding that project including its type (green infrastructure and LID on a parcel, green street, regional facility, etc.) and other fields that are desired to be tracked by the C/CAG member agencies.
- The user may also query the GI Tracking Tool to find projects based on keywords (as opposed to clicking through the map)

The GI Tracking Tool will also allow for quantification of performance metrics and tracking of progress toward key implementation goals, including:

- Estimate total area and impervious area treated with green infrastructure: for each project, the user will provide information on capture area or the system will use 'default' values.
- Stormwater volumes managed during the annual average year: allow estimate of stormwater runoff volumes managed with green infrastructure using methods consistent with the RAA/GI Plans. The stormwater volume metrics will also be useful to the SRP (which encourages tracking of stormwater volume capture) and for engaging those users interested in broader water resources programs such as water supply.
- Progress toward implementation goals: will provide a user-editable database of compliance/implementation goals from the SSMP and GI Plans (and/or other programs), and visualize the progress toward those goals.
- Climate change mitigation: based on climate change modeling conducted under the SSMP, metrics will link green infrastructure to climate change adaptation and mitigation.

The GI Tracking Tool will allow additional metrics to be added over time. For example, in future phases the tool could track metrics related to flood control such as peak flow reduction. The GI Tracking Tool could also quantify triple bottom line benefits that would highlight the multiple additional benefits provided to promote investment in projects, such as carbon sequestration, public health benefits, heat island reduction, and water supply augmentation.

The GI Tracking Tool will also permit for reporting outputs, including in Word, Excel, or PDF, tables that summarize the project inventory and performance metrics for use in reports. Each C/CAG member agency is responsible for uploading their own data for projects in their jurisdiction. The Excel template includes required fields such as location, project type, and sizing information, along with optional fields desired to be tracked by the C/CAG member agencies.

b. City Project Tracking Process

Tracking Tools and Procedures

Belmont uses a variety of tools to track the planning and implementation of pervious area, stormwater detention, green infrastructure, and C.3 regulated projects. This tracking can also help the City determine needs for funding, or which projects to propose for funding as opportunities arise. These tools include:

Project plan review – New and remodel/redevelopment projects are required to address a range of City required regulations as well as submit for a variety of permits, etc. for review and approval by a range of City multidisciplinary staff. In addition, the Park and Recreation department reviews bicycle and pedestrian projects and other related rights of way projects. This review can consider the ability to integrate green infrastructure or green streets projects.

Green Infrastructure Project Tracking and Mapping

Capital projects – The City identifies near-term capital improvement projects under their Capital Improvement Program. City staff participation in, and review and coordination of these projects will allow the consideration and integration of green infrastructure into them. As these and longer-term capital improvement projects are identified, planned, designed, and constructed, City staff monitor and track the progress of the projects and their contribution to reducing pollutant loads

Project approvals – Once project submittals contain all of the necessary information and requirements and are found to be in compliance with regulations, conditions of approval and other requirements may be placed on the project along with the project approvals.

Construction observations, inspections and enforcement actions – Belmont performs construction observations and inspections to ensure green infrastructure, low impact development, and other project elements are installed and maintained as required and requires corrective actions when a project is found defective.

Coordination with quasi-public, other public agencies, and private development – Numerous potential new and redevelopment projects are in the planning stages, or have the potential in the future. The City will continue to monitor and coordinate with these projects.

Coordination with the Twin Pines Park Regional Project – The City will continue to work and coordinate in the planning, design, construction, and funding of this project.

Prioritized green infrastructure project opportunities maps and lists – Belmont will continue to monitor and search for green infrastructure opportunities within the City, including the ability to partner with other public and private projects to provide or expand green infrastructure.

Internal accounting – City staff maintains an internal accounting of site design measures, green infrastructure provision including Regulated Projects, and provides such information within their stormwater Annual Report.

Operations and maintenance – For public projects, including those with green infrastructure, the parks department is responsible for the operations and maintenance of civic facilities, parks, and public parking lots, and the public works department is responsible for maintaining the majority of the rights of way. The Parks and Recreation Department does not currently have green infrastructure maintenance guidelines in place. Staff intends to implement a maintenance checklist for green infrastructure projects in parks and City facilities by December 2019. Most of the private development projects will have operations and maintenance performed by the owner/developer.

The City will upload completed green infrastructure project information into the Countywide Program's Tracking Tool to keep the San Mateo County's completed green infrastructure project accounting up to date, as well as to monitor the provision of regional projects and green infrastructure projects and their resulting acre-feet volume water managed and impervious area reduced to assess and understand if the City and the county is on track to meet its 2020, 2030, and 2040 load reduction goals. This tracking will assist the City in understanding if a shortfall of green infrastructure provision may be forthcoming, which may occur if C.3 regulated projects do not happen at the estimated rate of development. This will allow the City time to take action to select, plan and design, obtain funding, and install public or joint partnership green infrastructure projects within the schedule goals to achieve the City's load reduction requirements by 2040. Finally, tracking of maintenance observations and records can help inform the City of procedures, scheduling, and funding that may need to be refined to address any problematic issues.

As discussed in greater detail in Chapter 3, monitoring and adaptive management techniques Belmont can undertake is to include into their routine practices the tracking of planned and potential green infrastructure opportunity projects through all phases of implementation and their timeline; assess the progress towards the achieving their goals; determine the potential need for additional new City or other public and private green infrastructure provision projects including the amount, potential locations, and funding needs, etc. if projected new and redevelopment projects are delayed; incorporate the priority project maps and lists produced as part

of this GI Plan into the City's long-term planning and capital improvement project planning; make modifications to the plan to take advantage of lessons learned; and following if a countywide approach scenario to providing green infrastructure is implemented over individual jurisdiction provision of green infrastructure.

c. Public Access to Information

As required by the MRP, the process for tracking and mapping completed public and private projects includes making the information publicly available. The public will have access to this and other information related to the City's GI Plan through:

- The Green Infrastructure Plan will be posted on the City's website, at <https://www.belmont.gov/departments/public-works/infrastructure/green-infrastructure>.
- The City's Storm Drain System web page, found at www.belmont.gov/departments/public-works/infrastructure/storm-drain-system and www.belmont.gov/departments/public-works/environmental/water-pollution-prevention.
- The Countywide Program has developed a Stormwater Resource Plan (SRP) on behalf of the City and other C/CAG member agencies to inform the development of this GI Plan. The SRP is available on the Flows to Bay website, found here: www.ccag.ca.gov/srp. This website includes a viewable version of countywide analysis and green infrastructure project identification and prioritization of regional projects, green streets, and parcels, as well as the main report and appendices.
- The Countywide Program is finalizing phase the Reasonable Assurance Analysis document. Upon its completion, it will be available on the Flows to Bay website.
- C/CAG is having a Sustainable Streets Master Plan developed that will assess and more clearly define green and complete street opportunities in the county. A web-friendly interface will also be developed as part of C/CAG's Sustainable Streets Master Plan to allow countywide permittees to upload information about completed green infrastructure projects and permit the public access to this information. The GI Tracking Tool presented in the previous section is expected to serve as a user-friendly, intuitive, and dynamic mechanism for the public to interact with the GI planning process. The public will have the opportunity to use a web-mapping interface to see where GI projects have been implemented, where near term GI implementation in planned, and where planned projects have been identified.

5.0 Green Infrastructure Integration with Other Planning Documents and Legal Mechanisms

a. Approach

As required under C.3.j.i.2.h of the MRP's requisites for Green Infrastructure Plans, the City of Belmont evaluated their existing planning, engineering, and other plans, policies, ordinances, resolutions, and similar documents to determine which should be further reviewed and updated or modified to incorporate green infrastructure requirements, reference the City's Green Infrastructure Plan, and other changes to support the implementation of green infrastructure in Belmont. A range of documents were assessed including those related to land use, urban foresting, transportation, infrastructure, health and safety, open space, flooding and drainage, development regulations, and standard details and specifications. Provision C.3.j.i.2.h of the MRP also expects that these modifications will be completed as a part of completing the Green Infrastructure Plan, and by not later than the end of the permit term, December 31, 2020.

b. Modifications to Existing Documents

The following table, Table 5-1, lists City documents that were collected and evaluated, identifies the documents determined to need modification in regard to the implementation of green infrastructure, and the expected timing for revision and adoption of the planning document modifications. Documents determined to be technical in nature or not relevant to green infrastructure policy and implementation have been designated as Not Appropriate (N/A) for modification.

In addition, a new planning document, the Twin Pines Park Master Plan, was being prepared during the review of the City's existing planning documents. Review of this master plan found no references to green infrastructure or to stormwater management and treatment. This determination led to references being added into the final master plan for the City to seek opportunities to implement green infrastructure into future conceptual and final designs of the park prior to its adoption.

Selected City documents have been reviewed and text additions or edits provided so that the documents can be updated or modified to incorporate or expand upon references to and add definitions, policies, opportunities, requirements, descriptions, and other discussions related to the Belmont's Green Infrastructure Plan, as well as water quality, green infrastructure, low impact development, community character, and other related benefits and issues connected to the mandates of the GI Plan. Documents noted in Table 5-1 to be modified and updated or adopted have been reviewed by staff from various City departments and their comments considered and integrated.

Table 5-1. Identification, Evaluation, and Modification of City Planning Documents

Document	Incorporates GI Requirements	Expected Update Schedule
Basic Development Standards – Single Family Residential	N/A	N/A
Belmont Village Specific Plan	Yes, limited	Amendment and adoption by December 31, 2020
Climate Action Plan	No	Amendment and adoption by December 31, 2020
Comprehensive Pedestrian Bicycle Plan, 2016	No	Amendment and adoption by December 31, 2020
Downtown Specific Plan	N/A	Document became Belmont Village Specific Plan. See Belmont Village Specific Plan.
Four Corners Traffic Study Report, 2016	No	Later, at next scheduled update or as project moves forward in implementation and future phases. (date TBD) Green infrastructure opportunities, measures, and strategies will be considered and integrated as feasible.
General Plan 2035	No	Later, at next regularly scheduled update. (date TBD)
Municipal City Code	No	Amendment and adoption by December 31, 2020
Parks, Recreation, and Open Space Master Plan	No	Later, at next scheduled update. (date TBD) Green infrastructure opportunities, measures, and strategies will be considered and integrated into this Plan when it is updated. Green infrastructure can be integrated into streets, development sites, parking lots, parks, open space, and other locations to aid in stormwater management and water quality treatment.
Preferred Tree Species	No	Amendment and adoption by December 31, 2020
Ralston Ave CIP Report, 2017	No	Later, at next scheduled update or as project moves forward in implementation and future phases. (date TBD) Green infrastructure opportunities, measures, and strategies will be considered and integrated as feasible.
Ralston Ave Corridor Study and Improvement Plan	No	Later, as projects move forward in implementation and future phases. Initial considerations have been developed for the integration of green infrastructure opportunities, measures, and strategies into streets and other locations. (date TBD)

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Residential Design Criteria	N/A	N/A
Residential Design Guidelines	N/A	N/A
Sanitary Sewer Rehabilitation Plan	N/A	N/A
San Juan Hills Area Plan	No	Later, at next scheduled update. (date TBD) Green infrastructure opportunities, measures, and strategies will be considered and integrated when it is updated. Green infrastructure can be integrated into streets, development sites, parking lots, parks, open space, and other locations to aid in stormwater management and water quality treatment.
Standard Details	No	Amendment and adoption by December 31, 2020
Storm Drain Master Plan Final Study	No	Later, at next regularly scheduled update. (date TBD) Initial considerations have been developed for the integration of green infrastructure opportunities, measures, and strategies into streets and other locations. The Storm Drain Master Plan can be updated to reflect the use of green infrastructure measures and strategies as part of the storm drain system in accordance with the City's GI Plan, including locations identified as opportunities for green street and other green infrastructure measures.
Subdivision Ordinance	No	Amendment and adoption by December 31, 2020
Tree Permit Review	N/A	N/A
Twin Pines Park Master Plan	Yes	Adopted by City Council on February 26, 2019. More detailed green infrastructure opportunities and design to be integrated with future improvement plans.
Water Efficient Landscape Ordinance	No	City tiers off Ordinance from their water provider, Mid-Peninsula Water District.
Western Hills Area Plan	No	Later, at next scheduled update (date TBD). Green infrastructure opportunities, measures, and strategies will be considered and integrated into this Plan as feasible when it is updated, including locations identified as opportunities. Green infrastructure can be integrated into streets, development sites, parking lots, parks, open space, and other locations to aid in stormwater management and water quality treatment.
(Citywide) Vision Statement	N/A	N/A

c. New Policies, Regulations, and Other Implementation Mechanisms

As an outcome of the review of existing policy documents, development standards, etc.; and the identification of GI opportunities throughout the City, it was determined that several new regulations should be prepared for adopted, these are addressed below. In addition, it was determined that the City should pursue an additional method for achieving its stormwater treatment goals which is not currently credited through the MRP; this is discussed below as well.

Private development provision of “No missed opportunities” green infrastructure

The City has been investigating opportunities and options to require private property owners to implement green infrastructure facilities as per MRP Provision C.3j.ii. This will help the City meet the load reduction goals outlined in this GI Plan. The City will continue to evaluate these options and will develop and adopt policy and regulations to require the selected implementation strategies following adoption of this GI Plan. If approved, these policies would require certain development projects that are not required by the current MRP to provide green infrastructure designed to meet the treatment levels defined for C.3 new and redevelopment projects.

The City may periodically reconsider these and other opportunities for private property green infrastructure provision to address potential issues as the GI Plan is implemented. Following are some of the opportunities being considered:

- Require the installation and maintenance of green infrastructure and other street improvements in rights of way adjacent to private development projects. Such improvements could treat stormwater runoff from both public streets and private development.
- Require C.3 regulated projects to improve and provide green infrastructure along their project frontages. Such improvements could treat stormwater runoff from both public streets and private development.
- Require projects types not currently governed by the MRP to provide GI meeting C.3 requirements. This can include non-residential projects, multi-family projects, and certain single family residential homes and projects.
- Reduce the size threshold required for providing green stormwater treatment. Require projects that are too small to be governed by the MRP to provide GI meeting C.3 requirements.
- For projects that fall under a Special Projects classification, require the project to improve and provide green infrastructure along their project frontages. Such improvements could treat stormwater runoff from both public streets and private development.
- Require all new and redeveloped sites to install on-site LID, including green infrastructure measures.
- The City can provide incentives for projects to install green infrastructure measures beyond the minimum requirements. This can include expedited permitting, reduced permit fees, etc.

Other potential policies, regulations, and other implementation mechanisms

Belmont is exploring techniques and strategies to increase green infrastructure implementation and aid in the reduction of TMDL loads, especially given challenges the City has experienced in implementing green infrastructure due to steeper terrain and having limited funding for design, construction, and maintenance for green infrastructure.

The City can also consider other opportunities to address meeting the identified load reduction goals, including:

- Evaluate the benefits, pros and cons, and potentially advocate for a countywide approach to achieving countywide TMDL reductions rather than the current approach of each individual jurisdiction

Green Infrastructure Integration with Other Planning Documents and Legal Mechanisms

providing and maintaining green infrastructure within their own jurisdiction to achieve their proportion of the countywide TDML reduction.

- Continue to look for opportunities to partner with other public and private institutional facilities to add or expand green infrastructure facilities as well as treat shared public and private runoff.

If these and/or other new issues and strategies are determined to be implemented, existing planning documents and legal mechanisms may be updated or completely new documents and mechanisms may need to be prepared or obtained, including plans, MOUs and other agreements, funding, and operations and maintenance provision.

d. Work Plan for Inclusion of Green Infrastructure in Future Updates or New Documents

A few of the City's planning, engineering, and other documents have been identified to be updated and/or approved after adoption of the Green Infrastructure Plan. This timing is due to the documents being updated as part of the City's normal cycle of plan updates or are currently under development.

Per section C.3.j.i.2.i of the MRP's requirements for Green Infrastructure Plans, a Workplan for updating and modifying these existing documents and preparing new documents must be developed. Belmont's Workplan to include references to the City's Green Infrastructure Plan and other policy, requirements, and guidance to identify and implement green infrastructure is included below. As mandated by the MRP, the Workplan is to identify how the City will ensure that green infrastructure and low impact development measures are appropriately considered, coordinated, and included in future plans.

City staff, officials, stakeholders, and the selected consultants responsible for developing new or updating existing documents will coordinate and actively monitor, consider and incorporate goals, policies, guidance, requirements, and other discussions related to green infrastructure, low impact development, stormwater management, and improving water quality as mandated by the MRP and required by the Green Infrastructure Plan as appropriate to the document. New policies, regulations, and other planning documents and legal mechanisms will be developed to implement green infrastructure, including the potential strategies noted above. One such new document already identified will be a green infrastructure maintenance checklist for projects in City parks and facilities that is intended to be implemented by December 2019. Belmont will work with partner agencies in the drafting and adoption of documents related to joint projects or a countywide approach. In addition, secondary community benefits such as enhancing City character and improving roadway safety, building upon earlier green infrastructure policy and plans, evaluating prior projects and programs, consistency between plans and documents, and so forth will be considered for inclusion. Interdepartmental City staff have and will continue to work together to identify, discuss, and implement green infrastructure requirements on projects and planning documents.

Green infrastructure opportunities, prioritization, and strategies will be considered and integrated into these plans when they're updated or developed, where feasible and in accordance with the City's adopted Green Infrastructure Plan and future amendments, including locations identified as opportunities for green street and other green infrastructure measures and facilities.

6.0 Green Infrastructure Guidance

a. Green Infrastructure Design Guide – guidelines, typical details, and standards

SMCWPPP, with input and feedback from its member agencies, including Belmont, has developed a countywide Green Infrastructure Design Guide (Design Guide) and its appendices to provide comprehensive guidance on the planning, design, construction, and operations and maintenance of green infrastructure for buildings, parking lots, sites, and streets. The Design Guide addresses the requirements of the MRP, fulfilling Section C.3.j.i.(2)(e) requiring design and construction guidelines for streets and projects and C.3.j.i.(2)(f) for developing typical design details and specifications for different street and project types. The Design Guide also addresses the part of C.3.j.i.(2)(g) related to a regional approach for alternative hydraulic sizing for non-regulated constrained street projects.

The Design Guide includes a range of information related to green infrastructure, such as provision of policies and definitions; identification of different types of treatment and site design measures; summation of various benefits including a range of community benefits provided beyond stormwater management; presentation of before and after images of integrating green infrastructure into projects; introduction of complete streets concepts and design; discussion regarding BASMAA's regional approach for alternative sizing for non-regulated constrained green street projects; design and implementation considerations; operations and maintenance; and provision of typical construction details and specifications. The Design Guide explains how these concepts, considerations, and guidance can be used to effectively integrate green infrastructure into communities in new and redevelopment projects whether they are C.3 regulated or not.

General guidelines for overall streetscape and project design, construction, and maintenance have been developed so that projects have a unified, complete design and implement the range of functions associated with the projects. The MRP emphasizes the need for guidance related to green streets functions. The Design Guide includes implementation guidance specifically for stormwater management and treatment within streets. The guidance supports safe and effective multimodal travel with a focus on the comfort of people walking and cycling; shared use as public space and an attractive and functional public realm; use of appropriate measures for different street and land use contexts and types; and the achievement of urban forestry goals and benefits. The Design Guide defines practices to give considerations to no missed opportunities and the efficient and effective coordination, review, and implementation of green infrastructure in public and private projects.

The Appendices of the Design Guide include typical design details and specifications for the design and construction of green infrastructure applicable to a variety of applications whether street or site-based projects.

Belmont will incorporate and use the Design Guide and future amended versions to provide support and guidance in implementing green infrastructure within the City. As more green infrastructure projects are implemented in Belmont, portions of the Design Guide may be modified, supplemented, and/or superseded by Belmont -specific updates or modifications based upon lessons learned and other factors experienced in or determined by the City. The Design Guide can be found at the Countywide Program's website, at <https://www.flowstobav.org/gidesignguide>.

b. SMCWPPP C.3 Regulated Projects Guide

The C.3 Regulated Projects Guide, previously named the C.3 Technical Guide, has been updated. It is available to provide guidance related to more technical aspects of green infrastructure for regulated and other projects.

7.0 Green Infrastructure Hydraulic Sizing

MRP Provision C.3 requires Phase I stormwater Permittees like the City of Belmont to use the municipal planning process to address pollutant discharges in stormwater runoff by requiring the implementation of control measures that infiltrate, biotreat, or capture and use stormwater during new development and redevelopment. The MRP outlines numeric and hydromodification management criteria for Regulated Projects⁷ and allows for the use of an alternative sizing methodology for constrained non-regulated green streets projects with green infrastructure typically implemented in rights of way.

a. *Regulated Projects*

Numeric Sizing Criteria

MRP Provision C.3.d outlines volume and flow-based numeric sizing criteria for stormwater treatment measures implemented on Regulated Projects. Two options are presented for the volume hydraulic design criteria in Provision C.3.d.i.(1), specifically capturing the volume for the 85th percentile, 24-hour storm or capturing 80% or more of annual runoff generated at the site. Flow hydraulic design criteria presented in Provision C.3.d.i.(2) include treating 10% of the 50-year peak flow rate, the runoff produced by a storm two times the depth of the 85th percentile, 24-hour storm, or runoff resulting from a rain event equal to an intensity of 0.2 inches per hour. An extensive catalog of technical guidance documentation and resources supporting the sizing of C.3 projects is available on the Countywide Program's Flows to Bay website⁸ including worksheets for both volume and flow-based sizing of green infrastructure in a manner consistent with the requirements outlined in MRP section C.3.d.

Hydromodification Management Sizing Criteria

Regulated Projects that create and/or replace one or more acre of impervious surface are also considered Hydromodification Management Projects and are required to meet the Hydromodification Management (HM) Standard of Provision C.3.g.ii unless projects meet one or more of the criteria for exclusion presented in C.3.g.i. These criteria include conditions where post project impervious is less than or equal to pre-project impervious, the project is located in a catchment that drains to a hardened or engineered channel, or the project is located in a subwatershed that is highly developed with 65% or more imperviousness. The Hydromodification Applicability Map of San Mateo County was developed on behalf of Permittees during the previous permit term, presented in Attachment C of the MRP and as Figure 7.1 here, and indicates that portions of Belmont drain to a hardened channel along Belmont Creek, are located in highly impervious areas, or are in low gradient areas. These areas are therefore exempt from the HM requirements outlined in C.3.g. The portion of Belmont shown in green is subject to hydromodification management requirements outlined in the MRP Provision C.3.g. The Countywide Program has developed a Hydromodification Management Measure resource, presented as Section 7 of the C.3. Regulated Projects Guide, to support efforts to demonstrate that post-project runoff volumes and duration do not exceed pre-project conditions.

⁷ Regulated Projects are typically associated with new development or redevelopment on parcels or portions of parcels to meet the definition outlined in the MRP (e.g.; creating or replacing greater than or equal to 5,000 square feet of impervious area). A comprehensive definition of Regulated Projects can be found in Provision C.3.b of the MRP.

⁸ C.3 Regulated Projects Guide documentation can be found on the Countywide Program's Flows to Bay website at <https://www.flowstobay.org/newdevelopment#c3TechGuidance>.

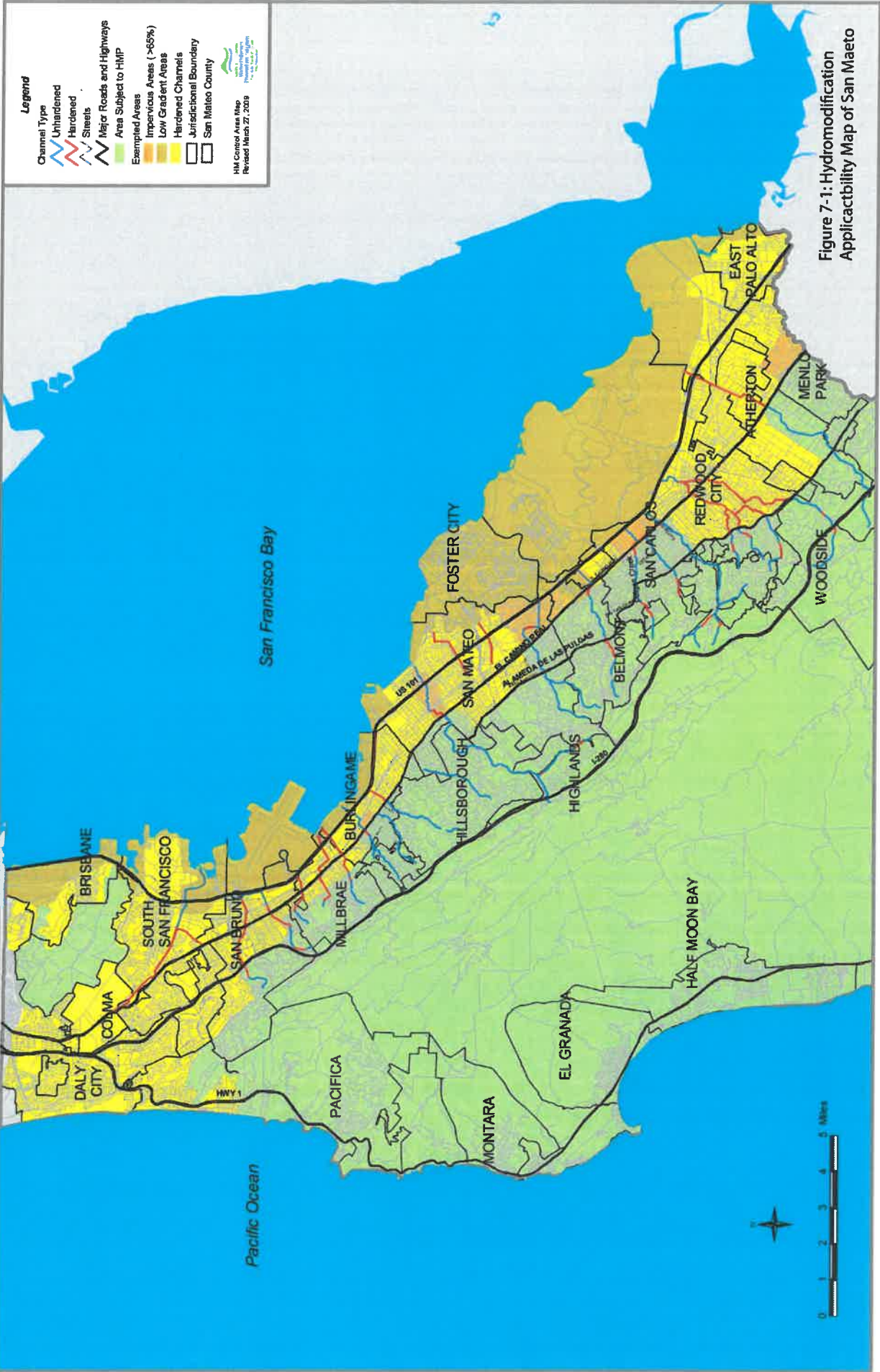


Figure 7-1: Hydromodification Applicability Map of San Mateo

b. Non-Regulated Constrained Green Streets Projects

The MRP recognizes that green street green infrastructure implemented in the public right of way may be constrained by available space, the presence of utilities, or other factors and allows non-regulated green streets project with clearly defined and documented constraints to use an alternative sizing methodology. The Bay Area Stormwater Management Agencies Association (BASMAA) has developed a regional green streets alternative sizing guidance⁹ (green streets sizing guidance) based on an extensive hydrologic and hydraulic modeling analyses. This green streets sizing guidance presents sizing curves outlining the minimum bioretention surface area required to treat 80% of average annual runoff to meet the second volumetric hydraulic design criteria presented in MRP Provision C.3.d.i.(1). The guidance also outlines approaches to green infrastructure design for projects where C.3.d sizing requirements cannot be reasonably achieved and presents an equation to calculate the minimum bioretention sizing factor, the ratio of the surface area or footprint of the bioretention facility and the impervious area treated by green infrastructure, to meet requirements outlined in C.3.d based on the mean annual precipitation (MAP) of the project site. The sizing factor equation presented is:

$$\text{Sizing Factor} = 0.00060 \times \text{MAP} + 0.0086$$

A review of annual rainfall records for the closest available long-term rainfall gauge, NOAA gauge number 046646 in Palo Alto, indicates that Belmont receives a MAP of 15.41¹⁰ inches per year translating into an alternate green infrastructure sizing factor of 0.019. Non-regulated green streets projects implemented within the Belmont can therefore be designed to ensure that 1.9% of a green streets drainage area is bioretention and achieve the alternative sizing requirements consistent with MRP Provision C.3.d.i.(1). Additional information regarding the alternative sizing methodology can be found in the *Guidance for Sizing Green Infrastructure Facilities in Street Projects* (which includes the companion analysis document *Green Infrastructure Facility Sizing for Non-Regulated Streets Projects*) presented in Appendix 7 of the Green Infrastructure Design Guide.

⁹ BASMAA, 2018. "Guidance for Sizing Green Infrastructure Facilities in Street Projects."

¹⁰ Climate summaries for northern California available online at https://w2.weather.gov/climate/local_data.php?wfo=STO

c. Hydraulic Sizing Resources

An overview of relevant guidance documents and resources for Regulated Projects and green streets projects for areas exempt from hydromodification management requirements and areas subject to those requirements is presented in Table 7-1.

Table 7-1. Location of hydraulic sizing and other applicable guidance for different project types.

Project Type	Guidance Source Location	
	Provision C.3.i or HM Guidance, if Applicable	Hydraulic Sizing Guidance
Regulated Project that is not a Hydromodification Management Project	Not applicable	SMCWPPP C.3 Regulated Projects Guide, Section 5.1, Hydraulic Sizing Criteria
Regulated Project that is a Hydromodification Management Project	SMCWPPP C.3 Regulated Projects Guide, Section 7, Hydromodification Management Measures	SMCWPPP C.3 Regulated Projects Guide, Section 7, Hydromodification Management Measures
Non-Regulated Green Infrastructure Project (public or private project) not subject to Provision C.3.i	Not applicable	BASMAA Guidance for Sizing Green Infrastructure Facilities in Streets Projects with companion analysis: Green Infrastructure Facility Sizing for Non-Regulated Streets Projects (can also be found in: Green Infrastructure Design Guide, Section 4.12 Sizing of Green Infrastructure Facilities and Appendix 7 Guidance for Sizing Green Infrastructure in Streets)
Non-Regulated Green Infrastructure Project (public or private project) subject to Provision C.3.i	SMCWPPP C.3 Regulated Projects Guide, Appendix L – Site Design Requirements for Small Projects	

8.0 Evaluation of Funding Opportunities

a. *Overview of Current and Potential Funding Opportunities*

The Countywide Program commissioned the Green Infrastructure Funding Nexus Evaluation¹¹ to aid member agencies in an efficient, comprehensive, and cohesive countywide identification, evaluation, and selection of potential funding sources for the implementation of public green infrastructure that would be most useful to each member agency. MRP provision C.3.j.i(2)(k) requires a GI Plan to include “an evaluation of prioritized project funding opportunities, including, but not limited to: Alternative Compliance funds; grant monies, including transportation project grants from federal, State, and local agencies; existing Permittee resources; new tax or other levies; and other sources of funds.”

The Green Infrastructure Funding Nexus Evaluation report looked into common existing funding mechanisms (fees, taxes, developer fees, etc.) as well as recently pioneered funding strategies such as alternative compliance funds and enhanced infrastructure finance districts. Many municipalities are finding that obtaining funding for green infrastructure can be challenging and that no single source of revenue is adequate to fund its stormwater and GI needs. Hence, most agencies will need to develop a strategy to obtain funding from several sources – a portfolio approach – to successfully achieve the needed funding. The current and ongoing process the City is undertaking of reviewing the funding sources that are, or could be, available and will culminate in a tool box of the GI funding opportunities that are most beneficial and feasible for Belmont.

Belmont has reviewed the Green Infrastructure Funding Nexus Evaluation report and evaluated its findings for potential GI funding sources and strategies to supplement the funding sources currently being used or intended to be used by Belmont. This evaluation has identified a variety of sources and strategies that can be used or explored more thoroughly following the approval of the GI Plan as Belmont moves forward with planning, design, construction, and operations and maintenance of green infrastructure. The identification of potential funding sources is a requirement of Provision C.3.j.i.(2) of the MRP. Belmont intends to periodically review their evaluation and identification, exploration, and use of funding sources to inform their approach to streamlining, selecting, and obtaining funds for the implementation and O&M of GI.

Current funding is insufficient for the capital and maintenance needs of existing stormwater infrastructure. Obtaining additional funds to implement and maintain new GI facilities within the existing system will be difficult. Belmont will need additional funds to implement all phases of green infrastructure, including staff, planning, design, construction, and operations and maintenance. It is expected that multiple sources of funding will need to be obtained to achieve the City’s goals in providing and maintaining GI. As possible, Belmont intends to partner with other agencies and private property owners to lessen the City’s direct financial burden. This can include the planning, design, and construction of projects as well as operations and maintenance for shared projects with partners, projects that provide co-benefit to other entities, and private or public projects by others.

In addition, Belmont will review other projects to determine if GI implementation and funding can be integrated into other transportation, utility, and other improvement projects that already have funding or have access to other funding streams. These and other potential GI funding sources will be monitored by the City and the Potential Funding Opportunities table will be assessed and updated periodically.

¹¹ SCI Consulting Group and LWA. January 2019. “Green Infrastructure Funding Nexus Evaluation”. Excerpts from this report are used in this GI Plan section. This report can be found as Appendix 6 in the Green Infrastructure Design Guide, another document included by reference as part of this Green Infrastructure Plan.

Potential San Mateo Flood and Sea Level Rise Resiliency Agency

While not included in the following matrix, another source for potential funding may be from San Mateo County and the City/County Association of Governments (C/CAG). The County and C/CAG are currently developing a proposal for a new agency, the San Mateo Flood and Sea Level Rise Resiliency Agency, to plan, build and maintain projects of regional significance which could complement, or possibly supplement, local GI needs as well as address sea level rise and flooding challenges. Funding could be provided through a countywide property tax or similar mechanism. In addition, the City will review other projects to determine if GI implementation and funding can be integrated into other transportation, utility, and other improvement projects that already have funding or have access to other funding streams. These and other potential GI funding sources will be monitored by the City and the Potential Funding Opportunities table will be assessed and updated periodically.

Past and Current Infrastructure Funding Efforts

To fund public projects that incorporated green infrastructure in the past, such as the Davey Glen Park, Belmont has used Planned Park fees, funding from San Mateo County, and various grants. The City of Belmont continues to search and submit for grants to support a variety of public improvement projects which can include the opportunity for green infrastructure, such as recently submitted Proposition 84 Stormwater Grant Program and Coastal Conservancy Proposition 1 grant for the Ruth Avenue Green Street Project and is investigating other grant funding such as the Prop 68 State of California Parks & Water Bond for other street, park, and flood control projects including the Belmont Creek Watershed Management Plan improvements. Projects identified in and funded under the City's Capital Improvement Program (CIP) may also provide the ability to add green infrastructure into public parks, streets, and other projects during the planning and design phases, which provides an opportunity to fund green infrastructure projects in tandem with these other improvement initiatives.

b. Potential Funding Opportunities Evaluation

The range of green infrastructure techniques and applications allows for the consideration of a variety of funding approaches. Based on the funding types, sources, description, and pros and cons identified in the Green Infrastructure Funding Nexus Evaluation, the City of Belmont has evaluated funding opportunities for implementing identified and future stormwater and green infrastructure projects. The matrix below provides a summary of the evaluation of GI potential funding opportunities, options, and strategies as well as concise information about the nexus to GI, what is funded, funding requirements, and potential for use by Belmont.

Funding opportunities were evaluated on a variety of factors including:

- existing funding and organizational structures within Belmont
- whether ballot approval, approval by voters, is needed to implement the funding option
- past voting outcomes for balloted measures in Belmont
- likelihood for grant approval
- ability to support shared projects/partnerships projects

Based on the evaluation of funding opportunities, Belmont has identified the funding source opportunities and approaches that will be considered for use or to be explored in greater detail for potential use. These, and other funding source opportunities determined to not be appropriate for Belmont, are listed in the table below. In addition, their nexus to GI, GI funding capabilities, funding requirements, and potential and rational as a GI funding opportunity for Belmont are summarized.

Green Infrastructure Funding Opportunities

The “GI Nexus” column explains how the type of funding is connected to green infrastructure and can be leveraged to fund GI projects. Proving nexus to interrelated infrastructure funding sources is necessary to link development impacts and compliance needs. This column conceptualizes the importance of GI regarding the funding categories.

“GI Funding Capabilities” identifies where the funds can be applied to, being: planning, staff (time), capital costs, and operations and maintenance. It is important to reiterate that some funding sources may be able to cover some, but not all, of these categories and it is likely that more than one avenue for funding will be necessary.

The “Requirements” column indicates the significant compliance requirements or actionable steps that are necessary to obtain the funding source. These requirements touch on information on regulatory compliance, voting approval rate, applications, necessary reporting, existing or planned conditions, and approach.

Finally, the Potential GI Funding Opportunity column indicates the viability of the opportunities as a possible funding source as evaluated and determined by Belmont: Yes, Possible, Explore, or No and a concise rationale to support the finding. Where a funding opportunity is marked “Yes” or “Possible”, that indicates where the City has either experienced success in obtaining GI funding or is interested in pursuing as a funding opportunity for GI projects. The “Explore” label is given to funding opportunities that may provide possible avenues for funding GI projects, but viability is reliant on additional factors or further investigation is needed. Funding opportunities marked “No” are considered highly unlikely for Belmont to pursue as a funding source for GI projects.

Table 8-1: Tool Box of Potential Funding Opportunities

Funding Category/ Opportunities	GI Nexus	GI Funding Capabilities	Requirements	Potential GI Funding Opportunity
Traditional Methods –Balloted Approaches				
Parcel Tax	Can fund all or any parts of a GI program as stipulated in the ballot questions and authorizing ordinance	Staff, Planning, Capital, O&M	Typically require a 2/3 voter approval	Possible. This could be a viable funding source for the City but would need to include more than just green infrastructure for the proposed improvements.
Special Tax	Business License Tax; Vehicle License Fees; Sales Tax; Utility Users Tax; Transient Occupancy Tax	Staff, Planning, Capital, O&M	Typically require a 2/3 voter approval	No. 2/3 vote to approve will be difficult – the City went through a general tax which barely passed.
Property Related Fee	Establishes Storm Drainage as a separate utility service and can fund all or any parts of a GI program	Staff, Planning, Capital, O&M	Prop 218 compliance; rigorous rate study; must define services and service area; property owner approval for non-water, sewer and garbage	Possible. This could be a viable funding source if it were part of a larger stormwater drainage fee.
General Obligations Bond	Can fund capital GI projects through debt taken on by municipality	Planning, Capital	Voter approval at 2/3 level; will need financial advising consultant	No. City will not borrow funds for these types of improvements. Also, 2/3 vote to approve will be difficult and unlikely to pass.

Green Infrastructure Funding Opportunities

Traditional Methods – Non-balloted Approaches					
					No.
Senate Bill 231	Allows for adoption of property related fees without having to go to ballot	Staff, Planning, Capital, O&M	Cost of service analysis; rate study; Prop 218 protest hearing		
Regulatory Fee (plan, check, and inspection)	Fees and charges for performing administrative activities related to GI	Staff	Cannot exceed the actual cost of performing activities such as permit issuance, inspection, onsite mitigation, etc.		Yes. Regulatory fees already captured in the encroachment permit fee and on NPDES fee on development.
Realignment of Services	Leverage funding from other City departments for stormwater activities or reassign the stormwater activity to another department	Staff, Planning, Capital, O&M	Prop 218 compliance for realignment to water, sewer, or garbage must demonstrate applicability		Explore. Would need to investigate opportunity for City.
Developer Impact Fee	Could incorporate fees for mitigating stormwater impacts to help fund GI. Would not relieve developer of NPDES requirements	Planning, Capital	Must comply with AB 1600 and include a rigorous nexus study		Possible. Would need to investigate.
Integration with Transportation or Utility Project	Make the connections between roadways and drainage systems that are green and complete, where allowed by conditions of the funding source.	Planning, Capital	Examples may include: permeable pavements; roadside rain gardens; cisterns		Possible. Limited opportunities in the City.

Grant	One-time infusion of funds for qualifying projects from State or other granting authority	Planning, Capital	Application, reporting, coordination, and grant deliverables	Yes. Can apply as opportunities arise. Potential grant programs can include those related to stormwater, flooding and climate resiliency, green streets, safe routes to school, and other school focused opportunities with an educational component.
Loan	Debt instruments can help accelerate project delivery while paying off debt over time	Planning, Capital	Must have dedicated revenue stream to pay off debt; must have adequate credit rating to secure reasonable interest rates; some bonds require voter approval	Explore. This is unlikely opportunity for funding, unless a source of funds to repay the debt is identified and/or is part of a larger program encompassing other benefits.
Special Financing Districts				
Benefit Assessment	Can fund the construction and maintenance of GI projects	Planning, Capital, O&M	Prop 218 compliance; rigorous engineer's report; must deduct general benefit from special benefit; property owner approval is required through a ballot proceeding (weighted voting); works best with new development due to voting requirement	No.
Community Facilities District	Can fund the construction and maintenance of GI projects	Planning, Capital, O&M	Requires vote by majority of landowners or 2/3 majority of registered voters	No.
Business Improvement District	Business and property owners' tax themselves to build and maintain GI improvements	Planning, Capital, O&M	Formed by a municipality through a notice and protest hearing process	No.

Green Infrastructure Funding Opportunities

Enhanced Infrastructure Financing District	Captures property tax increment for building and maintaining infrastructure like GI	Planning, Capital	With no debt: Establish a public finance authority; adopt financing plan; resolutions from participating agencies. With debt: All of the above; get approval from at least 55% of voters in district.	Explore.
Alternative Compliance				
Alternative Compliance	Allows developers who cannot meet GI requirements on-site to build (or pay for) off-site construction of GI elements	Staff, Planning, Capital, O&M	Municipality would need to have alternative projects ready— could be done case by case	No. City does not have these types of projects.
In-lieu Fee Challenge	Allows developers who cannot meet GI requirements on-site to build or pay for off-site construction of GI elements	Staff, Planning, Capital, O&M	Municipality would need to estimate the costs of mitigation – could be done case-by-case	Possible.
Credit Trading Program	Creates GI Credit program for developers and others to trade GI responsibilities to others who have better capability to meet GI goals	Planning, Capital, O&M	A municipality (or regional entity) must create credit trading program including: Definition of GI credits, relative value of credits, timing of responsibilities, eligibility	Potential. Potential if others have projects or if City can credit public right of way for treatment on private property
Partnerships				
Multi-Agency Partnership	Encourages partnerships with non-stormwater agencies to explore GI co-benefits in their work.	Staff, Planning, Capital	Examples may include: spreading basins for groundwater agencies; GI project sites on school grounds; GI on housing authority sites. Can generate credits for Credit Trading Program.	Possible. May participate in regional projects, credit transfers, and projects with other agencies.

Transportation	Encourages partnerships with transportation agencies to explore GI co-benefits in their work and take advantage of Complete or Green Streets programs	Staff, Planning, Capital, O&M?	Examples may include: Permeable pavements; rain gardens	Possible. May participate in regional projects and projects with other agencies. Opportunities are limited.
Caltrans Mitigation Collaboration	Caltrans looks for opportunities for off-site mitigation of stormwater impacts of their highways	Planning, Capital	Local municipalities may enter in a cooperative agreement with Caltrans to build GI as a way for them to mitigate stormwater impacts of their highways	Yes. Opportunities may be limited.
Public-Private Partnership (P3)	Private enterprises can provide overall solutions to GI programs through better access to resources and capital	Planning, Capital, O&M	P3 is primarily a delivery system for projects where debt provides near-term funding and project acceleration	No.
Volunteers	Volunteer groups can be a resource for GI operations and maintenance (O&M) as well as program planning	Planning, Capital, O&M	To be effective, volunteers need organization and oversight; can be used to supplement paid contractors or City staff, or perform entire projects	Possible.
Property Owners doing new/ redevelopment	Existing and new and redevelopment residential structures and pavement create and increases impervious area	Staff, Planning, Capital, O&M	City can require single family residential projects that exceed a City-defined threshold to incorporate C.3 stormwater improvements or improve frontages to a minimum stormwater treatment/ infiltration standard	Yes.

Outreach and Education

9.0 Outreach and Education

Belmont has provided outreach and education to staff, decision makers, and the community regarding green infrastructure in general and specifically for the development of the City's Green Infrastructure Workplan and Green Infrastructure Plan.

a. *Coordination with SMCWPPP and Inter-Agency Efforts*

Belmont is a participating member of the San Mateo Countywide Water Pollution Prevention Program (Countywide Program), a program that is a partnership of the City/County Association of Governments (C/CAG), the County of San Mateo, and each incorporated jurisdiction in the county, that share a common National Pollutant Discharge Elimination System (NPDES) permit. The Countywide Program convened a Green Infrastructure Committee (GI Committee) to collaborate and comment upon the development of materials to support the preparation of GI Plans. Belmont's GI Plan was developed in collaboration with internal City staff, coordination with consultants, and the Countywide Programs' guidance.

The Countywide Program has developed materials for use by member agencies. This includes the Flows to Bay website, a public education and outreach program, flyers about green streets and green infrastructure, and development of presentations to educate elected officials and other stakeholders.

The City has also been collaborating with adjacent cities and the county as well as other stakeholders such as Caltrans in addressing flooding and other issues. These projects have offered the ability for the opportunity to educate area residents, businesses, decision makers, and others to understand underlying concerns and options to address them including the use of green infrastructure.

b. *Belmont Efforts*

Belmont has worked extensively to educate staff, decision makers, and the community regarding green infrastructure and the preparation of its GI Plan. Staff has held internal ongoing multi-disciplinary meetings to discuss the need, goals, and vision for both Belmont's GI WorkPlan and GI Plan.

The Green Infrastructure Workplan was presented to City Council and adopted in May 2017. The Green Infrastructure Plan was presented to the Planning Commission on July 16, 2019, the Parks and Recreation Commission on July 24, 2019, and the City Council for adoption on September 24, 2019. Also, the Twin Pines Park Master Plan development process and public hearings included discussions about green infrastructure. These meetings provided the public a chance to review and provide input as part of the outreach and education.

As discussed previously, Belmont staff has participated on a quarterly basis with the SMCWPPP GI Committee for the past two years to review and discuss GI Plan related elements and approaches. This ongoing support that helped with coordination and providing template material. In addition, staff has participated training sessions related to green infrastructure including C.3 workshops held by the Countywide Program.

The City's website has a webpage focused specifically on green infrastructure at <https://www.belmont.gov/departments/public-works/infrastructure/green-infrastructure>. This robust webpage educates the community and others by defining and illustrating green infrastructure, explains how and where the City is incorporating green infrastructure, describes the City's goals and process in the development of their GI Plan, and directs readers to the Countywide Program's www.flowstobay.org website for additional information. In addition, the City has established many local programs, including an "Adopt-a-Storm Drain" program to educate the community and have resident's be proactive in their neighborhoods to help limit clogging and localized flooding and report illegal dumping and drainage into the City's storm drain system that would impact water quality.

The City also has used Countywide Program provided green infrastructure flyers, posters, and other materials to educate community residents and employees.

Appendices

A. Belmont-specific Prioritization Factors and Criteria with Weighting Tables

Green Streets Screening and Prioritization

Criteria	Source	Points					Weight Factor	Maximum Pts	
		0	1	2	3	4			5
Screening Criteria Factors									
Slope (%)	San Mateo SWRP (modified)	No							
Prioritization Factors									
Imperviousness (%)	San Mateo SWRP	X < 40	40 ≤ X < 50	50 ≤ X < 60	60 ≤ X < 70	70 ≤ X < 80	80 ≤ X < 100		5
Hydrologic Soil Group	San Mateo SWRP	-	D	Unknown	C	B	A		5
Slope (%)	San Mateo SWRP (modified)	-	4 < X ≤ 5	3 < X ≤ 4	2 < X ≤ 3	1 < X ≤ 2	0 < X ≤ 1		5
Proximity to Flood-prone Channels (miles)	San Mateo SWRP	Not in sub-basin	3 < X	-	1 < X ≤ 3	-	X ≤ 1		10
Areas with localized flooding	Belmont-specific	No					Yes		10
Contains PCBs Risk Areas	San Mateo SWRP	None	-	-	Moderate	-	High		10
Street Type	San Mateo SWRP (modified)	-	Highway on ramps/off ramps	-	Local/Alley	Arterial	Collector		5
Complete Streets Projects	Belmont-specific	No					Yes		10
Streets Identified for future or with existing storm drains, swales, other drainage improvements	Belmont-specific	No					Yes		10
Currently planned by City or co-located with other City project	San Mateo SWRP (modified)	No			Strong Potential		Yes		10
Project is within a Planned Development Area (PDA) (BVSP)	San Mateo SWRP (modified)	No			-		Yes		10
"Safe Routes to School" program	San Mateo SWRP	No					Yes		10
Project is part of a street improvement at a high-injury or high-frequency collision intersection or street segment	San Mateo SWRP	No					Yes		10
Project identified in approved master plan, community plan, policy, etc.	Belmont-specific	No					Yes		5
Within the drainage area of Twin Pines Park Regional Project	Belmont-specific	Yes = -10					Yes		0/-10
Drains to TMDL water	San Mateo SWRP	No					Yes		1
Above groundwater basin	San Mateo SWRP	No		Yes					2
Augments water supply	San Mateo SWRP	No							1
Water quality source control	San Mateo SWRP	No							1
Reestablishes natural hydrology	San Mateo SWRP	No							1
Creates or enhances habitat	San Mateo SWRP	No							1
Project is within 1/4 mile of identified RHNA site or other affordable housing site	Belmont-specific	No					Yes		1

Parcel Based Green Infrastructure Screening and Prioritization

Criteria	Source	Points					Weight Factor	Maximum Pts	
		0	1	2	3	4			5
Screening Criteria Factors									
Slope (%)	San Mateo SWRP	Properties with a predominant slope greater than 10% have not been included as opportunities						--	
Parcel Ownership and Land Use	San Mateo SWRP (modified)	Other Uses - No	Public (other agency), Private Institutional, Park/Open Space - Yes					--	
Prioritization Factors									
Parcel Ownership and Land Use	San Mateo SWRP (modified)		Private Institutional		Public (other agency)		Public (City)	1	
Impervious Area (%)	San Mateo SWRP	X < 40	40 ≤ X < 50	50 ≤ X < 60	60 ≤ X < 70	70 ≤ X < 80	80 ≤ X < 100	1	
Hydrologic Soil Group	San Mateo SWRP	--	D	Unknown	C	B	A	1	
Slope (%)	San Mateo SWRP	5 < X ≤ 10	4 < X ≤ 5	3 < X ≤ 4	2 < X ≤ 3	1 < X ≤ 2	0 < X ≤ 1	1	
Proximity to Flood-prone Channels (miles)	San Mateo SWRP	Not in sub-basin	3 < X	--	1 < X ≤ 3	--	X ≤ 1	2	
Areas with localized flooding	Belmont-specific	No						Yes	2
Contains PCBs Risk Areas	San Mateo SWRP	None	--	--	Moderate	--	High	2	
Complete Streets Projects	Belmont-specific	No						Yes	1
Streets identified for future or with existing storm drains, swales, other drainage improvements	Belmont-specific	No						Yes	2
Currently planned by City or co-located with other City project	San Mateo SWRP (modified)	No						Yes	2
Project is within a Planned Development Area (PDA) (BVSP)	San Mateo SWRP (modified)	No						Yes	2
Project identified in approved master plan, community plan, policy, etc.	Belmont-specific	No						Yes	1
Within the drainage area of Twin Pines Park Regional Project	Belmont-specific	Yes = -10						--	1
Drains to TMDL water	San Mateo SWRP	No						Yes	1
Above groundwater basin	San Mateo SWRP	No	Yes					1	2
Augments water supply	San Mateo SWRP	No	Yes					1	1
Water quality source control	San Mateo SWRP	No	Yes					1	1
Reestablishes natural hydrology	San Mateo SWRP	No	Yes					1	1
Creates or enhances habitat	San Mateo SWRP	No	Yes					1	1
Project is within 1/4 mile of identified RHNA sites or other affordable housing site	Belmont-specific	No	Yes					1	1

Regional Capture Screening and Prioritization

Criteria	Points						Weight Factor	Maximum Pts	
	Source	0	1	2	3	4			5
Screening Criteria Factors									
Slope (%)	San Mateo SWRP	Properties with a predominant slope greater than 10% have not been included as opportunities						--	--
Prioritization Factors									
Parcel Ownership and Land Use	San Mateo SWRP (modified)	Other Uses - No	Private Institutional	Public (other agency)	Public (City)				
Parcel Ownership and Land Use	San Mateo SWRP (modified)								
Impervious Area (%)	San Mateo SWRP	X < 40	40 ≤ X < 50	50 ≤ X < 60	60 ≤ X < 70	70 ≤ X < 80	80 ≤ X < 100	1	
Parcel Size (acres)	San Mateo SWRP	0.25 ≤ X < 0.5	0.5 ≤ X < 1	1 ≤ X < 2	2 ≤ X < 3	3 ≤ X < 4	4 ≤ X	1	
Hydrologic Soil Group	San Mateo SWRP	--	D	Unknown	C	B	A	1	
Slope (%)	San Mateo SWRP	5 < X ≤ 10	4 < X ≤ 5	3 < X ≤ 4	2 < X ≤ 3	1 < X ≤ 2	0 < X ≤ 1	1	
Proximity to Flood-prone Channels (miles)	San Mateo SWRP	Not in sub-basin	3 < X	--	1 < X ≤ 3	--	X ≤ 1	2	
Areas with localized flooding	Belmont-specific	No					Yes	2	
Contains PCBs Risk Areas	San Mateo SWRP	None	--	--	Moderate	--	High	2	
Complete Streets Projects	Belmont-specific	No					Yes	1	
Streets identified for future or with existing storm drains, swales, other drainage improvements	Belmont-specific	No					Yes	2	
Currently planned by City or co-located with other City project	San Mateo SWRP (modified)	No					Yes	2	
Project is within a Planned Development Area (PDA) [BVSP]	San Mateo SWRP (modified)	No					Yes	2	
Project identified in approved master plan, community plan, policy, etc.	Belmont-specific	No					Yes	1	
Within the drainage area of Twin Pines Park Regional Project	Belmont-specific	Yes = -10						1	
Drains to TMDL water	San Mateo SWRP	No					Yes	1	
Above groundwater basin	San Mateo SWRP	No		Yes				1	
Augments water supply	San Mateo SWRP	No	Yes					1	
Water quality source control	San Mateo SWRP	No	Yes					1	
Reestablishes natural hydrology	San Mateo SWRP	No	Yes					1	
Creates or enhances habitat	San Mateo SWRP	No	Yes					1	
Project is within 1/4 mile of identified RHNA site or other affordable housing site	Belmont-specific	No	Yes					1	

B. Refined Belmont Evaluation for Green Infrastructure Opportunities

GI Opportunities-Belmont	Opportunity Type	Location	GI Potential/Description
			High potential.
GI Opportunities-Belmont	Street Opportunities	Ralston Ave Frontage Road- from Hiller St to Kedith St	Potential for corner curb extensions at cross streets and along red zones on the O'Donnell Park frontage. Curb extensions can include GI. This GI opportunity could be linked with rain gardens within O'Donnell Park. Moderate potential for joint project with Caltrans.
GI Opportunities-Belmont	Street Opportunities	Ralston Ave and Hiller St Intersection	Potential for rain garden at northeast corner of intersection that could take runoff from Hiller Street and/or Ralston Avenue. Would be at least partially within Caltrans right of way. Would require coordination with Caltrans. Moderate potential.
GI Opportunities-Belmont	Street Opportunities	Ralston Ave island and frontage split	Potential for rain garden at southwest end of Island that could take runoff from "mainline" Ralston Avenue and/or "frontage" leg of Ralston Avenue. High potential.
			Conceptual pedestrian and bicycle (and street improvements) Identified for improvements per the Ralston Ave Corridor Study and Improvement Plan and CIP Report.
GI Opportunities-Belmont	Street Opportunities	Granada/Masonic/Old County Rd- Loop with Ralston Ave	Potential for corner curb extensions at Granada/Masonic and Masonic/Old County Rd. Curb extensions can include GI. High potential.
GI Opportunities-Belmont	Street Opportunities	Pedestrian crossing of Shoreway Rd.	Improve pedestrian crossing that currently has a flashing beacon with bulbout of east side of street with bioretention, possibly provide rain gardens within landscaped area on west side of street that could take run off from Shoreway Road, Marine Parkway, and Island Parkway. May require coordination with Caltrans and Redwood City. High potential.
GI Opportunities-Belmont	Street Opportunities	Pedestrian crossing of Hiller St. at Biddulph Way	Improve Nesbit Elementary School pedestrian crossing with curb extensions at least on the northeast side of the street and possible at corners with Biddulph Way. Size extensions to allow for bioretention planters. Moderate potential.
GI Opportunities-Belmont	Street Opportunities	Intersection of Oxford Way and Chesterson Ave	Geometry of the intersection could be tightened up with curb extensions allowing space for rain gardens. Moderate potential.
			Improve Nesbit Middle School pedestrian crossings at this intersection. There are existing small cobble paved floating islands that serve as semi-curb extensions; appears that there are drainage and street cleaning issues with the current design based on Streetview images. Intersection could be redesigned with true curb extensions and small bioretention areas. Moderate potential.
GI Opportunities-Belmont	Street Opportunities	Old County Rd. various red curb areas	Along the full length of Old County Road there are red curbed areas, some are quite long, which could become curb extensions with bioretention. These would provide combined traffic calming, parking control, and stormwater benefits. High potential.
GI Opportunities-Belmont	Street Opportunities	Ruth Avenue	From North Road to El Camino Real the current condition of the street is informal in terms of parking and pedestrian circulation with areas outside the travel lanes being paved, or unpaved, in various ways with discontinuous or no sidewalks. Reconstruction of the street to improve pedestrian circulation and define parking areas could integrate pervious paving and biotreatment areas. High potential.
GI Opportunities-Belmont	Street Opportunities	5th Ave and O'Neill Ave	Diagonal parking on 5th Avenue provides opportunity for larger sized rain gardens in curb extensions. Sidewalk on north side of O'Neill Avenue could also be improved and curb extension could provide space for bioretention. This improvement could be coordinated with three other intersections on 5th Avenue and possible mid-block improvements with bioretention. High potential.
GI Opportunities-Belmont	Street Opportunities	5th Ave and Broadway	Diagonal parking on northern leg of 5th Avenue provides opportunity for larger sized rain gardens in curb extensions. Improvement would provide traffic calming and improve pedestrian and ADA access. This improvement could be coordinated with three other intersections on 5th Avenue and possible mid-block improvements with bioretention. High potential.
GI Opportunities-Belmont	Street Opportunities	5th Ave and Harbor Boulevard	Curb extensions could help with providing handicap access ramps that are missing at this intersection and provide biotreatment areas. This improvement could be coordinated with three other intersections on 5th Avenue and possible mid-block improvements with bioretention. Good potential.
GI Opportunities-Belmont	Street Opportunities	6th Ave and Harbor Boulevard	Similar to Harbor Boulevard and 5th Avenue, this is a large intersection that has corners without handicap ramps. Curb extensions with bioretention would achieve pedestrian and ADA needs and provide for stormwater management.

GI Opportunities-Belmont	Opportunity Type	Location	GI Potential/Description
			High potential. Parking surface could be designed as pervious paving, or adjacent landscape within the front "yard" of the school could be designed as a rain garden to manage and treat street runoff. See also Cipriani Park and Cipriani Elementary School GI Opportunities.
GI Opportunities-Belmont	Street Opportunities	Buena Vista Ave Diagonal Parking	Down slope of the asphalt play area and adjacent parking, potentially into Cipriani Park, could include rain gardens to treat and manage runoff. High potential.
GI Opportunities-Belmont	Street Opportunities	Alameda de las Pulgas Diagonal Parking	Parking surface could be designed as pervious paving with intermittent biotreatment areas for pretreatment of street runoff. Low to high potential, depending upon location. The preferred alternative of the Four Corners Traffic Study for Alameda de las Pulgas has new mini-roundabouts at the cross streets of San Carlos Ave/Cranfield Ave, Chula Vista Dr, and El Verano Way, as well as corner bulbouts at the latter two intersections that could include rain gardens or stormwater curb extensions. Potential for new GI is reliant on extent of grading and ability to direct street runoff into the facilities, especially the mini-roundabouts, which potentially could require the roadway to be regraded to drain to it, or have the ability for stormdrain lines to daylight into them.
GI Opportunities-Belmont	Street Opportunities	Alameda de las Pulgas - Four Corners Traffic Study Area	San Carlos Ave/Cranfield Ave/Alameda de las Pulgas Improvements will require coordination with City of San Carlos
GI Opportunities-Belmont	Park Opportunities	O'Donnell Park	High potential. Potential for rain gardens within the park to treat runoff from paved surfaces within the park, from Ralston Ave frontage road, and from Ralston Ave as it connects to the Hwy. 101 interchange. Moderate potential.
GI Opportunities-Belmont	Park Opportunities	College View Way Open Space	Open space could have a rain garden added to bring in street flow prior to it entering into existing surface drain on the east corner of the open space. Moderate potential.
GI Opportunities-Belmont	Park Opportunities	Barrett Park	See Barrett Community Center Poor potential.
GI Opportunities-Belmont	Park Opportunities	McDougal Park	Portions of park that are not in active use as ball fields are mainly sloping too steeply for installation of GI measures. Moderate potential.
GI Opportunities-Belmont	Park Opportunities	Cipriani Park/Field	Portions of the park bordering the elementary school could be designed to include rain gardens to treat run off from the parking lots and asphalt play area. See also Cipriani Park GI Opportunity Moderate potential.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	City Corporation Yard	Some areas of surface parking, and possibly other asphalt areas, could be permeable paving with intermittent biotreatment areas. Moderate potential for joint projects.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Nesbit Elementary School	Depending on drainage patterns there are possible rain garden and other bioretention possibilities in and adjacent to the parking and vehicle circulation areas that could treat runoff from the paved areas, particularly in the areas that are "lightly" landscaped between the parking areas and the back of adjacent residential parcels. Moderate potential for a joint project.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Notre Dame de Namur University	If the University were to undertake an improvement that is a C.3 regulated project, the City should explore the potential for enhancing the GI to provide additional stormwater benefit for subwatershed that includes the University. Moderate potential for a joint project.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Sisters of Notre Dame de Namur	If this property, between the University and the High School including the elementary school site and other development, were to undertake an improvement that is a C.3 regulated project, the City should explore the potential for enhancing the project to provide additional stormwater management in the property's subwatershed. Moderate potential for a joint project.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Notre Dame High School	If the High School were to undertake an improvement that is a C.3 regulated project, the City should explore the potential for enhancing the project to further treat and manage the subwatershed that includes the University.

GI Opportunities-Belmont	Opportunity Type	Location	GI Potential/Description
			<p>Moderate potential.</p> <p>There is a stormdrain inlet along Ralston Avenue towards the east end of the playfields and flow could be directed into a rain garden in the corner of the playfields.</p> <p>Entry off of Ralston Avenue could be designed to include rain garden(s).</p> <p>Parking lots could be upgraded to include permeable paving and in many cases there is adjacent landscaped area that could be designed to provide pretreatment.</p> <p>Garage/shed fronting Belburn Drive and other nearby structures could have roof runoff stored for irrigation of community garden.</p>
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Barrett Community Center	Other on-site GI opportunities.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Immaculate Heart of Mary Catholic School	Poor potential for joint projects.
			Relationship to Merry Moppet Lane does not lend itself to joint projects.
			Poor potential for joint projects.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Charles Armstrong School	This property is called out as a potential GI project site in the SWRP. Relationship of school site to Solana Drive does not provide good opportunity for a joint project.
			Moderate to High potential for joint projects.
			Could include rain garden in "front yard" landscaped area to treat runoff from diagonal parking on Buena Vista Avenue.
			Run-off from asphalt play area and adjacent parking lot could be treated in adjacent on-site rain gardens or within Cipriani Park.
			Other on-site GI opportunities.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Cipriani Elementary School	Also see Cipriani Park and Buena Vista Avenue GI Opportunities
			Poor potential for joint projects.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Ralston Middle School	This property is called out as a potential GI project site in the SWRP. Relationship of school site to Ralston Avenue does not provide good opportunity for a joint project.
			Poor potential for joint projects.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Fox Elementary School	This property is called out as a potential GI project site in the SWRP. Relationship of school site to Ralston Avenue does not provide good opportunity for a joint project.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	City Properties on 5th between O'Neill Ave and Broadway	Unclear opportunity, what does city intend to do with these properties?
			High potential.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	City Hall Entry and Parking Lot	Expand upon existing rain garden at entry to City Hall and add other rain gardens within parking lot, especially at the southernmost area.
			High potential.
			This regional infrastructure opportunity was defined by the city and C/CAG and included in the San Mateo Countywide Stormwater Resource Plan.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Twin Pines Park Parking Lot	It is defined as a subsurface infiltration chamber under the parking lot west of Twin Pines Manor. As mentioned in the project description in the SWRP, this could include other GI treatments in and adjacent to the parking lot, including permeable pavement or bioretention.
			High potential for joint project.
			Vacant areas and larger landscape areas within parking lot can be used for rain gardens for both adjacent street and parking lot runoff. Catch basin in parking lot just to the north.
			Potential to place underground infiltration systems or pervious pavement in parking lots.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	CalTrain Parking Lot (1 of 3 pins)	Will require coordination with Caltrain.
			High potential for joint project.
			Entry Areas, vacant areas and larger landscape areas within station area/parking lot on both sides of Ralston Ave and at Old County Road/Ralston can be used for rain gardens for both adjacent street and parking lot runoff. .
			Potential to place underground infiltration systems or pervious pavement in parking lots.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	CalTrain Parking Lot (2 of 3 pins)	Will require coordination with Caltrain. Will need to confirm who owns parcel at SW corner of Old County Road/Ralston.
			High potential for joint project.
			Vacant areas and larger landscape areas within parking lot can be used for rain gardens for both adjacent street and parking lot runoff. Vacant areas continue to the north.
			Potential to place underground infiltration systems or pervious pavement in parking lots.
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	CalTrain Parking Lot/Right of Way (3 of 3 pins)	Need to confirm Caltrain owns vacant parcels to north of parking lot. Will require coordination with Caltrain.

GI Opportunities-Belmont	Opportunity Type	Location	GI Potential/Description
			<p>Poor potential for joint projects.</p> <p>City school not on Stormwater Resource Plan. While there are large grass areas and parking, the school is surrounded by steep terrain and no easy way to put rain gardens along Middle Rd or school entry road. Other uses back up to school grounds.</p>
GI Opportunities-Belmont	Public and Quasi-Public Property Opportunities	Central Elementary School	Potential to manage runoff from school site with pervious pavement and rain gardens.

C. Example GI Plan Text Summarizing Results of the Reasonable Assurance Analysis

To: Matt Fabry, San Mateo Countywide Water Pollution Prevention Program
From: Stephen Carter, Paradigm Environmental
Date: 5/3/2019
Re: Example Green Infrastructure Plan text summarizing results of the Reasonable Assurance Analysis

Paradigm is currently leading C/CAG's efforts to perform a Reasonable Assurance Analysis that demonstrates the amount of green infrastructure needed to meet the portions of the PCB and mercury load reductions required by the Municipal Regional Stormwater Permit to address Total Maximum Daily Load wasteload allocations over specified compliance periods. Results of the Reasonable Assurance Analysis can be used to set goals for green infrastructure implementation, which can be incorporated within Green Infrastructure Plans currently being prepared by the C/CAG member agencies. The following is example text that each C/CAG member agency can use as a template to tailor discussions incorporated within each agency's Green Infrastructure Plan. The purpose of this example text is to provide a consistent narrative for discussion of the Reasonable Assurance Analysis and outcomes for the Permittees of San Mateo County. This portion of the Reasonable Assurance Analysis only addresses the Green Infrastructure requirements of the Municipal Regional Permit, not the other source control measures that will be evaluated in the Total Maximum Daily Load implementation plans submitted in September 2020. Each agency may tailor this text, incorporating their respective Reasonable Assurance Analysis results specific to each jurisdiction. The text also refers to the following two separate documents that can either be included within appendices of each Green Infrastructure Plan, or referenced as separate documents:

- San Mateo County-Wide Reasonable Assurance Analysis Addressing PCBs and Mercury: Phase I Baseline Modeling Report (June 2018)
- San Mateo County-Wide Reasonable Assurance Analysis Addressing PCBs and Mercury: Phase II Green Infrastructure Modeling Report (under development)

1 REASONABLE ASSURANCE ANALYSIS AND GREEN INFRASTRUCTURE IMPLEMENTATION GOALS

The Municipal Regional Stormwater Permit (MRP) (Order No. R2-2015-0049) requires the development of Green Infrastructure (GI) Plans (Provision C.3) and Polychlorinated Biphenyls (PCBs) and Mercury Control Measure Implementation Plans (Provisions C.11 and C.12) that provide the necessary pollutant load reductions to meet Total Maximum Daily Load (TMDL) wasteload allocations (WLAs) over specified compliance periods. A key component of these plans is a Reasonable Assurance Analysis (RAA) that quantitatively demonstrates that proposed control measures will result in sufficient load reductions of PCBs and mercury to meet WLAs for municipal stormwater discharges to the Bay. The City/County Association of Governments (C/CAG) of San Mateo County, via its San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), led a county-wide effort to develop an RAA to estimate the baseline PCB and mercury loads to the Bay, determine load reductions to meet WLAs among San Mateo County Permittees, and set goals for the amount of GI needed to meet the portion of PCB and mercury load reduction the MRP assigns to GI (SFBRWQCB 2015). Appendix X and Y include documentation of the county-wide RAA, including:

- Phase I Baseline Modeling Report – Provides documentation of the development, calibration, and validation of the baseline hydrology and water quality model, and the determination of PCB and mercury load reductions to be addressed through GI implementation (SMCWPPP 2018).
- Phase II Green Infrastructure Modeling Report – Provides documentation of the application of models to determine the most cost-effective GI implementation for each municipality, setting stormwater improvement goals for the GI Plan (SMCWPPP 2019).

The following sections provide an overview of the purpose of the RAA, and a summary of RAA results for Menlo Park to serve as stormwater improvement goals that set the stage for an adaptive management approach.

1.1 Purpose of the Reasonable Assurance Analysis

In 2017, the U.S. Environmental Protection Agency (EPA) Region 9 released *Developing Reasonable Assurance: A Guide to Performing Model-Based Analysis to Support Municipal Stormwater Program Planning* (EPA RAA Guide) (USEPA 2017), which provides guidance on the technical needs of the RAA and considerations for model selection. Building upon the EPA RAA Guide, the Bay Area Stormwater Management Agencies Association (BASMAA) prepared the *Bay Area Reasonable Assurance Analysis Guidance Document* (Bay Area RAA Guidance) (BASMAA 2017), which provides specific guidance on modeling to support RAAs performed in the Bay Area to meet MRP requirements, address TMDLs for PCBs and mercury, and support GI planning. The EPA RAA Guide and Bay Area RAA Guidance both outline essential steps for performing an RAA, as depicted in Figure 1-1.

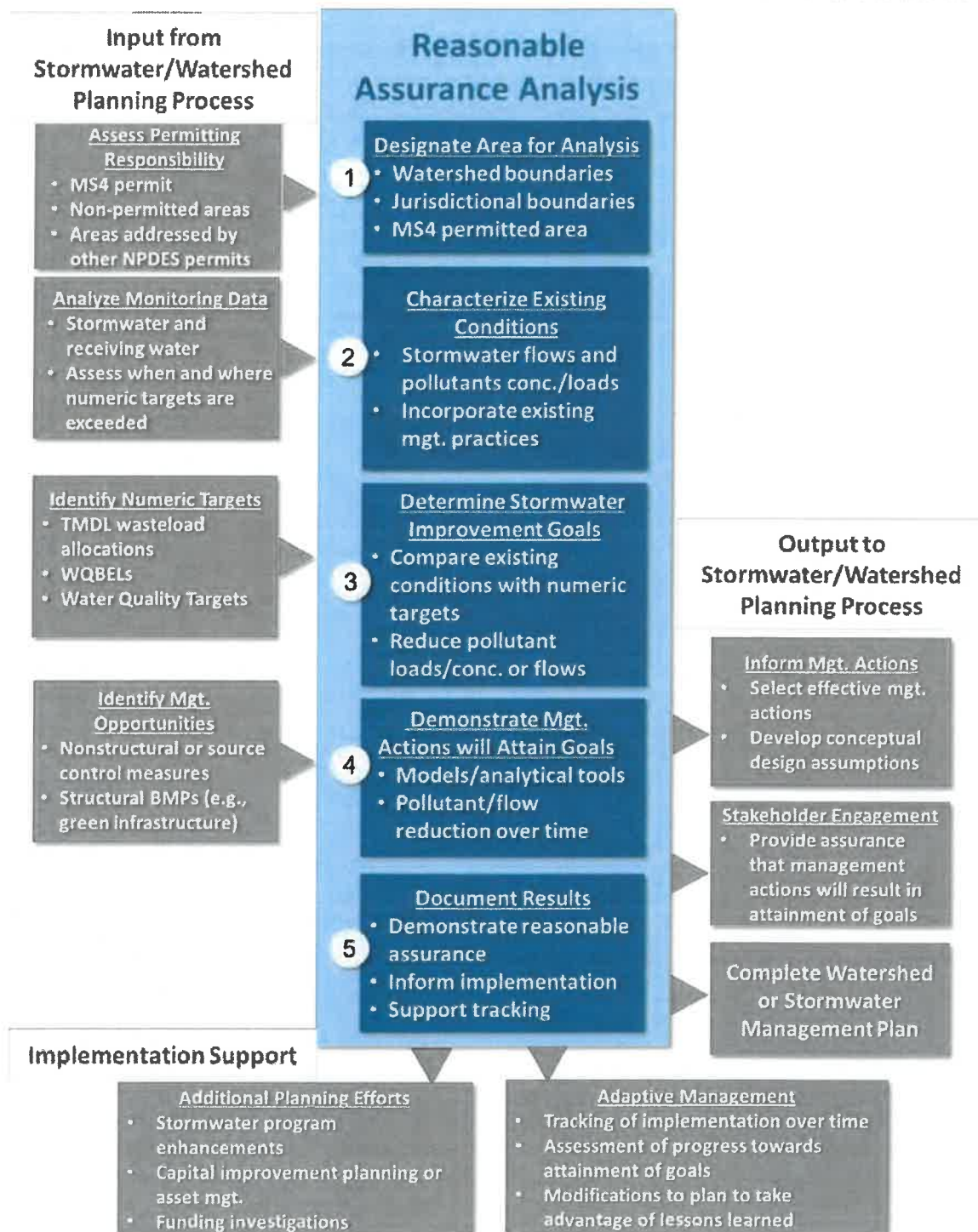


Figure 1-1. RAA Process Flow Chart (USEPA 2017).



Depending on the audience, the purpose of the RAA can vary in terms of what constitutes reasonable assurance, and it is important to consider not just the targets for pollutant load reductions, but also the effectiveness of information management and engineering and economic feasibility. The EPA RAA Guide provides an example of three differing perspectives for defining reasonable assurance (USEPA 2017):

- **Regulator Perspective** - Reasonable assurance is a demonstration that the implementation of a GI Plan will result in sufficient pollutant reductions over time to address TMDL WLAs or other targets specified in the MRP.
- **Stakeholder Perspective** - Reasonable assurance is a demonstration that specific management practices are identified with sufficient detail, and implemented on a schedule to ensure that necessary improvements in water quality will occur.
- **Permittee Perspective** - Reasonable assurance is based on a detailed analysis of the TMDL WLAs and associated MRP targets themselves, and a determination of the feasibility of those requirements. The RAA may also assist in evaluating the financial resources needed to meet pollutant reductions based on schedules identified in the MRP.

Appendix X and Y provide full documentation of the technical approaches and results of the SMCWPPP RAA, which are consistent with the recommendations of the EPA RAA Guide and Bay Area RAA Guidance.

1.2 Preliminary Identification of Opportunities for GI Projects

To support the RAA and GI Plans, C/CAG has initiated a number of planning efforts that identify opportunities for GI implementation. The following is a summary of those efforts:

- **LID for New Development and Redevelopment** – The MRP includes a Provision (C.3) for the integration of LID within new development and redevelopment. As LID techniques are implemented as new development and redevelopment occurs throughout the City, the benefits of such practices in terms of reducing urban runoff flows and associated pollutant loads can be considered as part of the pollutant load reductions attributed to implementation of GI. C/CAG worked with San Mateo County Permittees to compile information on LID practices that have been implemented within new development and redevelopment since water year 2003 (baseline year for the TMDL). C/CAG also performed an analysis to project the number of acres of future new development and redevelopment to be addressed through Provision C.3 by 2040. The RAA considers existing LID practices and projections of LID in future new development and redevelopment areas to estimate anticipated PCBs and mercury load reductions from 2003 to 2040.

- Countywide Stormwater Resource Plan (SRP)** – The SRP is a comprehensive plan that identifies and prioritizes thousands of GI project opportunities throughout San Mateo County and within each municipal jurisdiction. Prioritized project opportunities include: (1) large regional projects within publicly owned parcels (e.g., public parks) that infiltrate or treat stormwater runoff generated from surrounding areas (e.g., diversion from neighborhood storm drain system; diversions from creeks draining large urban areas); (2) retrofit of publicly owned parcels with GI that provide demonstration of onsite LID designs; and (3) retrofit of public street rights-of-way with GI, or “green streets.” The SRP included a multi-benefit scoring and prioritization process that ranks GI project opportunities based on multiple factors beyond pollutant load reduction (e.g., proximity to flood prone channels, potential groundwater basin recharge). Figure 1-2 provides an example of green street opportunities identified, scored, and prioritized by the SRP throughout San Mateo County (SMCWPPP 2017).

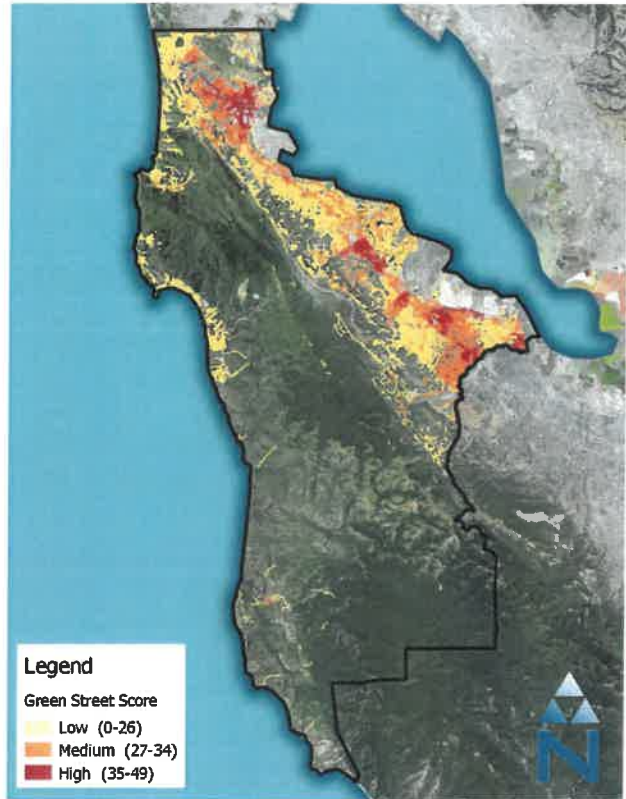


Figure 1-2. SRP Prioritized Green Street Opportunities.

The above efforts and resulting technical products provide preliminary identification of opportunities for GI projects. Those GI project opportunities serve as the foundation for the RAA and GI Plans as strategies are developed for implementation plans to meet the PCBs and mercury load reduction goals per the TMDL.

1.3 Description of the RAA Model

C/CAG performed a comprehensive, countywide modeling effort to provide: (1) simulation of baseline loads of PCBs and mercury for each of the County’s watersheds and municipal jurisdictions discharging to San Francisco Bay; (2) estimation of necessary load reduction goals to meet requirements of the MRP and TMDL WLAs; and (3) determination of the amount of GI needed to address load reduction goals based on project opportunities identified Section 1.2. The RAA also provides analysis of alternative implementation scenarios through cost-benefit optimization that can inform cost-effective GI implementation within each municipal jurisdiction. These results set goals for GI Plans developed by each Permittee.

The analytical framework selected to support the San Mateo Countywide RAA is based on a linked system of models (Figure 1-3). Component models of the linked system include:

- Loading Simulation Program C++ (LSPC)** – The hydrologic and water quality model selected for the baseline model of San Mateo County watersheds was the Loading Simulation Program in C++ (LSPC) (Shen et al., 2004), a watershed modeling system that includes

Hydrologic Simulation Program – FORTRAN (HSPF) (Bicknell et al. 1997) algorithms for simulating watershed hydrology, erosion, water quality, and instream fate and transport processes. The model can simulate upland loading of sediment, mercury, and PCBs and instream delivery and transport. LSPC is built upon a relational database platform, making it ideal for collating diverse datasets to produce robust representations of natural systems. LSPC integrates GIS outputs, comprehensive data storage and management capabilities, the original HSPF algorithms, and a data analysis/post-processing system into a convenient PC-based Windows environment. The algorithms of LSPC are identical to a subset of those in the HSPF model with selected additions, such as algorithms to address land use change over time. LSPC is an open-source public-domain watershed model available from EPA.

- **System for Urban Stormwater Treatment & Analysis Integration (SUSTAIN)** – Developed by EPA’s Office of Research and Development, SUSTAIN was primarily designed as a decision-support system for selection and placement of GI projects at strategic locations in urban watersheds. It includes a process-based continuous project simulation module for representing flow and pollutant transport routing through various types of GI projects. A distinguishing feature of SUSTAIN is a robust cost-benefit optimization model that incorporates dynamic, user-specified project unit-cost functions to quantify the costs associated with project construction, operation, and maintenance. The cost-benefit optimization model runs iteratively to generate a cost-effectiveness curve that is sometimes comprised of millions of GI project scenarios representing different combinations of projects throughout a watershed. Those results are used to make cost-effective management recommendations by evaluating the trade-offs between different scenarios. The “benefit” component can be represented in several ways: (1) reduction in flow volume (2) reduction in load of a specific pollutant or (3) other conditions including numeric water quality targets, frequency of exceedances of numeric water quality targets, or minimizing the difference between developed and pre-developed flow-duration curves (USEPA 2009, Riverson et al. 2014).

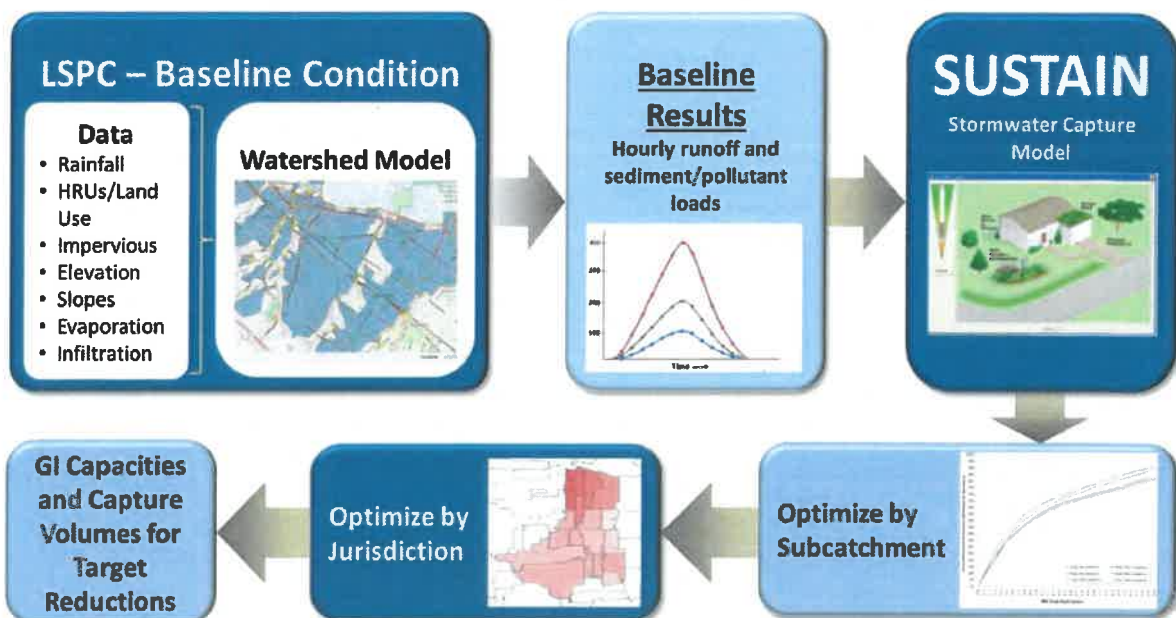


Figure 1-3. Modeling System Supporting the RAA.



For this analysis, model cost functions were developed from literature, including an inventory of projects in the Los Angeles region. Because of uncertainty regarding the true costs to C/CAG member agencies, results were normalized for relative comparison—the relative costs between project types is well represented for the optimization of project types in the RAA. In other words, although it is not recommended to use the RAA costs to project county-wide or city-wide implementation costs, they are sufficiently resolved for comparing alternative implementation scenarios and selecting the most cost-effective strategies and combination of GI, LID, and regional stormwater capture projects to meet pollutant reduction targets.

The LSPC model provides a characterization of existing conditions and determination of necessary pollutant load reductions to meet requirements of TMDLs and the MRP. SUSTAIN provides analysis of the amount of GI needed to provide the portion of the load reduction assigned to GI by the MRP. Appendix X and Y provide more detailed discussion of the models and their application to the San Mateo County watersheds.

1.4 Model Considerations to Inform GI Plans

An important consideration for the RAA was the ability to track costs and benefits of different categories of GI projects within the model. This tracking was performed for GI project categories within each model subwatershed and municipal jurisdiction, and supports the selection of the most cost-effective implementation strategy to attain pollutant reduction goals. The RAA builds upon the previous planning efforts and represents the following generalized GI project categories in the model:

1. **Existing Projects:** Stormwater treatment and GI projects that have been implemented since FY-2004/05. This primarily consists of all of the regulated projects that were mandated to treat runoff via Provision C.3 of the MRP, but also includes any public green street or other demonstration projects that were not subject to Provision C.3 requirements. For regulated projects in the early years of C.3 implementation, stormwater treatment may have been achieved through non-GI means, such as underground vault systems or media filters.
2. **Future New and Redevelopment:** All the regulated projects that will be subject to Provision C.3 requirements to treat runoff via LID and is based on spatial projections of future new and redevelopment tied to regional models for population and employment growth.
3. **Regional Projects (identified):** C/CAG worked with agencies to identify five projects within public parks or Caltrans property to provide regional capture and infiltration/treatment of stormwater, and included conceptual designs to support further planning and designs. Note – the model can be updated to include future identified projects to support adaptive management.
4. **Green Streets:** The SRP identified and prioritized opportunities throughout San Mateo County for retrofitting existing streets with GI in public rights-of-way. Green streets were ranked as high, medium, and low priority (within each subwatershed) based on a multiple-benefit prioritization process developed for the SRP.
5. **Other GI Projects (to be determined):** Other types of GI projects on publicly owned parcels, representing a combination of either additional parcel-based GI or other Regional Projects. The SRP screened and prioritized public parcels for opportunities for onsite LID and Regional Projects. These opportunities need further investigation to determine the best potential projects.

The RAA considers the numerous GI project opportunities that exist within each municipal jurisdiction, and selects a suite or “recipe” of projects that can most cost-effectively address pollutant load reductions. The amount and combination of those GI projects can be determined through analysis of estimated load reductions and implementation costs. Figure 1-4 presents an example GI recipe showing the distribution of selected GI project categories versus incremental reductions in pollutant loading and increasing cost.

Cost-benefit optimization of GI project opportunities was included to build upon the preliminary C/CAG SRP planning efforts above, and to properly inform and set meaningful goals for GI Plans. For each optimized combination of GI projects, SUSTAIN provides an estimate of the resulting pollutant load reduction and implementation costs, allowing for the comparison of GI implementation scenarios and the selection of the most cost-effective implementation plan to address pollutant reduction goals, whether at the scale of an individual jurisdiction or across municipal boundaries.

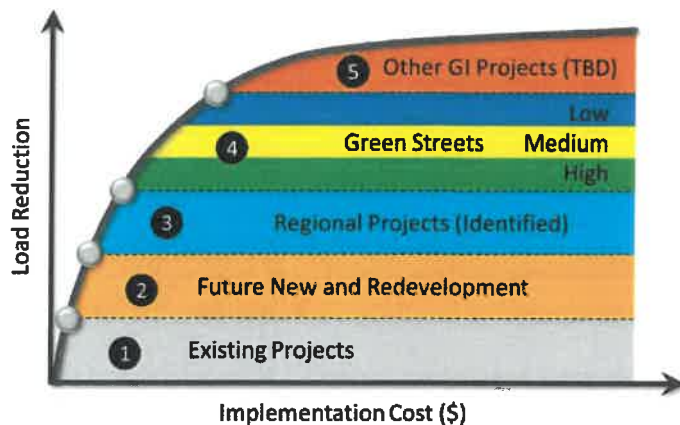


Figure 1-4. Example Implementation Recipe Showing General Sequencing of GI Projects.

1.5 Goals for Green Infrastructure Implementation

As discussed in Section 1.1, depending on the perspective of the regulators, stakeholders, or Permittees, the purpose and expectations of the RAA can vary in terms of how reasonable assurance is demonstrated. As a result, the output from the RAA must consider multiple perspectives and strike the right balance between detail and specificity while still leaving ample opportunity to allow for future adaptive management. The following are key considerations for the RAA output:

- Demonstrate PCBs and Mercury Load Reductions** – The primary goal of the RAA is to quantitatively demonstrate that GI Plans and Control Measure Implementation Plans will result in load reductions of PCBs and mercury sufficient to attain their respective TMDL WLAs and the component stormwater improvement goals to be achieved with GI. Based on the baseline hydrology and water quality model ([Appendix X](#)), the RAA determined that a 17.6% reduction in PCB loads is needed to meet the GI implementation goals established by the MRP. Zero reduction in mercury loads was determined to be needed from MRP areas because baseline loads were predicted to be below the TMDL WLA for San Mateo County. As a result, a 17.6% reduction in PCB loads is established as the primary pollutant reduction goal for the GI Plan. However, there is some uncertainty in terms of how PCB source areas are represented in the model, which will require more monitoring and analysis in the future to gain an improved understanding of PCB source areas and the ability to target these areas with GI. Since PCBs are generally understood to be transported with cohesive sediment (e.g., silt and clay), cohesive sediment load can serve as a surrogate on which to base a load reduction target. The RAA considers a 17.6% reduction of cohesive sediment load as a more conservative surrogate until a better understanding is reached in terms of specific PCB source

areas within the County. If additional PCB source areas are confirmed, these areas could be targeted for source control measures or additional GI implementation, likely resulting in greater effectiveness for GI to reduce PCB loads in those areas, and thus redistributing or reducing the overall amount of GI needed to meet the load reduction target based on sediment loading estimates.

- **Develop Metrics to Support Implementation Tracking** – The MRP (Provision C.3.j) also requires tracking methods to provide reasonable assurance that TMDL WLAs are being met. Provision C.3.j states that the GI Plan “shall include means and methods to track the area within each Permittee’s jurisdiction that is treated by green infrastructure controls and the amount of directly connected impervious area.” Through C/CAG’s current effort preparing a Sustainable Streets Master Plan for San Mateo County, a tracking tool will be developed that will enable calculation of metrics consistent with the results of the RAA and additional metrics relevant to sustainable street implementation. The tracking tool is planned for completion in 2020.
- **Support Adaptive Management** – Given the relatively small scale of most GI projects (e.g., LID on an individual parcel or a single street block converted to green street), numerous individual GI projects will be needed to address the pollutant reduction goals. All the GI projects will require site investigations to assess feasibility and costs. As a result, the RAA provides a preliminary investigation of the amount of GI needed spatially (e.g., by subwatershed and municipal jurisdiction) to achieve the countywide pollutant load reduction target. The RAA sets the GI Plan “goals” in terms of the amount of GI implementation over time to address pollutant load reductions. As GI Plans are implemented and more comprehensive municipal engineering analyses (e.g., masterplans, capital improvement plans) are performed, the adaptive management process will be key to ensuring that goals are met. In summary, the RAA informs GI implementation goals, but the pathway to meeting those goals is subject to adaptive management and can potentially change based on new information or engineering analyses performed over time.

The RAA output, or goals for GI implementation, attempt to identify the appropriate balance in terms of detail and specificity needed to address the above considerations. The RAA also considered multiple alternative scenarios that can inform implementation and the adaptive management process. These scenarios tested the underlining assumptions for GI implementation, and demonstrate the need for further research, collaboration among multiple Permittees, and incorporation of lessons learned in order to gain efficiencies and maximize the cost-effectiveness of GI to reduce pollutant loads over time. Four modeling scenarios were configured for this analysis (as summarized in Table 1-1):

Table 1-1. Model scenarios objectives and cost-benefit evaluation.

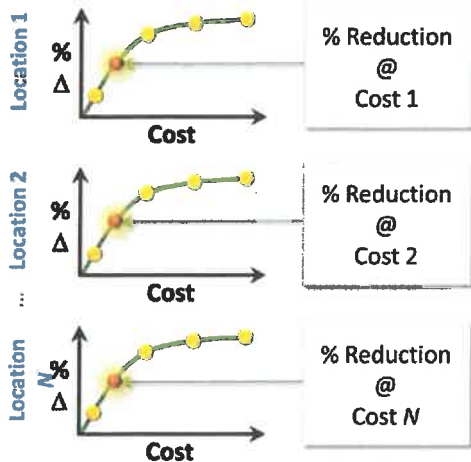
Load Reduction Objective	Percent of Total GI Cost to Achieve Reduction Objective		Total Savings (Jurisdictional vs. Countywide)
	Jurisdictional	Countywide	
Cohesive Sediment 17.6% Reduction	Scenario 1	Scenario 2	→ Savings
Total PCBs 17.6% Reduction	Scenario 3	Scenario 4	→ Savings
Total Savings (Sediment vs. PCBs)	↓ Savings	↓ Savings	↘ Overall Savings

The following factors are considered for each model scenario:

- Load Reduction Objective** - With a cohesive sediment load reduction objective, Scenarios 1 and 2 represent the most conservative approaches. Those scenarios assume that given the uncertainties about PCB source areas, targeting an overall 17.6% load reduction of cohesive sediment in general (silts and clays) achieves the PCB load reduction objective for GI. Scenarios 3 and 4 assume that PCB sources are spatially distributed based on analysis of land use types. The cost-benefit optimization process targets those areas as having the highest likelihood of PCB sources. Scenarios 3 and 4 highlight the potential cost savings (relative to Scenarios 1 and 2) that could be realized if PCB sources are identified and targeted for GI implementation.
- Jurisdictional verses Countywide** - There are many possible ways to achieve a 17.6% load reduction for all of San Mateo County. The “Jurisdictional” approach stipulates that each jurisdiction must individually achieve at least a 17.6% load reduction based on the population-based wasteload reduction for each jurisdiction. Conversely, the “Countywide” approach achieves the 17.6% load reduction countywide by allowing the model to allocate the countywide wasteload reduction via GI across jurisdictional boundaries. The countywide approach can provide significant cost savings over the jurisdictional approach, especially where pollutant sources are spatially concentrated. Figure 1 conceptually illustrates the jurisdictional versus countywide optimization approaches. Where there is cooperation among jurisdictions, results from these two scenarios can provide a useful analytical framework for cost-sharing and implementation of the most cost-effective management scenarios.

Jurisdictional

Each **location** is responsible for **individually** achieving the target load reduction



Total Cost
(Proportional)

$$\sum_{k=0}^n Cost_k \gg Total Cost_{Targeted}$$

Countywide

Optimization approach reduces total implementation cost by targeting specific source areas **across** locational boundaries

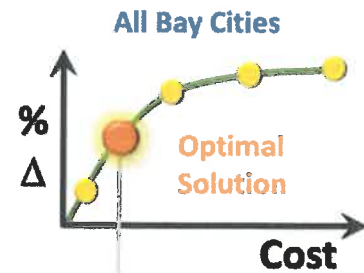


Figure 1-5. Jurisdictional vs. countywide approaches for cost-benefit optimization

Results of each of the four RAA scenarios are documented in **Appendix Y**. These results can inform the adaptive management process for GI implementation, and help garner support for collaborative efforts for GI implementation or further research of PCB source areas that can seek more cost-effective implementation strategies over time. Figure 1-6, Table 2, and Figure 1-7 provide a summary of Scenario 1 RAA results for the **City of Menlo Park**. Scenario 1 represents the most conservative scenario for GI implementation. The following steps outline how the process for formulating the scenario in the RAA model and using the results to set goals for GI implementation.

First: Based on GI project categories defined in Section 1.4, SUSTAIN was used to simulate effectiveness/load reductions and estimate planning-level costs for various combinations of GI projects within **the City's** jurisdiction (along the x-axis of Figure 1-6, from low pollutant reduction/effectiveness to high reduction/effectiveness). "Existing Projects" were locked in the model and included those GI projects included in the FY 2016-17 MRP Annual Report to the Water Board. "Future New & Redevelopment" is an estimation of the LID that will likely be implemented in the future in redevelopment areas (based on Provision C.3). "Green Streets" were based on prioritized and ranked (High, Medium, and Low) street retrofit opportunities reported in the SRP. For **Menlo Park**, the "Regional Project (Identified)" refers to the regional project located within **Cartan Field** that is **currently under consideration by the Town of Atherton**. "Other GI Projects" refer to additional GI projects needed, but specific locations for project opportunities within certain subwatersheds are yet to be determined.

Second: As depicted in Figure 1-6, a 17.6% reduction of modeled PCB for the City was identified as the target reduction to be attained through the implementation of GI (for Scenario 1, cohesive sediment reduction is used as a surrogate to represent load reduction of PCBs).

Third: SUSTAIN is used to provide cost-optimization and selection of the most cost-effective combination of GI projects to attain the target reduction. In Figure 1-6, this solution can be viewed as the vertical slice that intersects the point on the x-axis at 17.6% reduction. The combination of GI structural capacities in that slice at the 17.6% load reduction represents the proposed GI implementation plan for Menlo Park produced by the model. Table 2 provides details on that implementation plan for the five subwatersheds within the City’s jurisdiction (represented by each row in table). Optimization results recommend that varying amounts of GI capacity in different subwatersheds (different rows) are needed to achieve the most cost-effective solution, but the overall PCBs load reduction addresses 17.6% (bottom row of table). The relative amount of GI capacities (normalized by area) for each subwatershed are shown in the map in Figure 1-7.

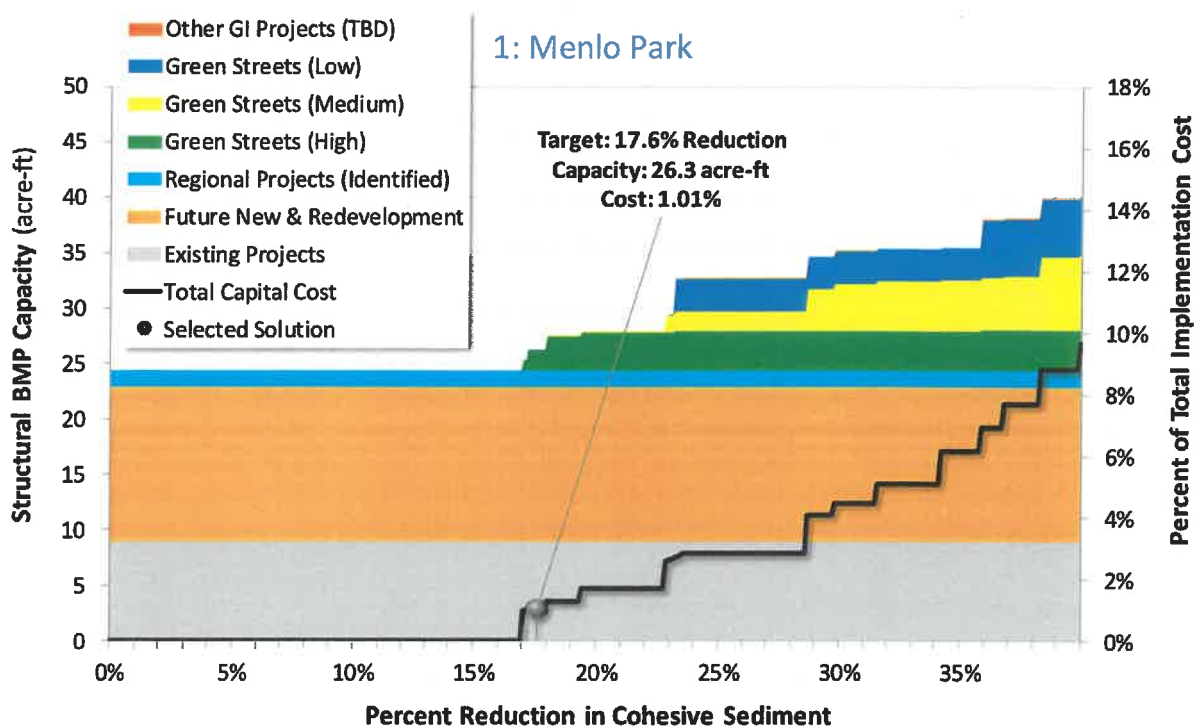


Figure 1-6. Scenario 1: Optimization summary for Menlo Park (sediment target, with regional identified project).



Table 2. Scenario 1: GI implementation strategy for **Menlo Park** (sediment target, with regional identified project)

Subwatershed ID	Management Metrics for GI			Green Infrastructure Capacity to Achieve 17.6% Reduction Target (Capacity expressed in units of acre-feet)							
	% Load Reduction PCBs (Annual)	Annual Volume Managed (acre-ft)	Impervious Area Treated (acres)	Existing/Planned			Green Streets			Other GI Projects (TBD)	Total BMP Capacity (acre-ft)
				Existing Projects	Future New & Redevelopment	Regional Projects (Identified)	High	Medium	Low		
220111	23%	1.26	26.11	1.12	1.12	0.03	2.19	0.08	-	-	4.5
220311	13%	1.10	0.27	-	-	-	-	0.03	0.05	-	0.1
221211	15%	0.50	4.22	0.86	0.10	0.02	-	-	-	-	1.0
230111	19%	69.81	94.39	4.81	7.32	-	-	-	-	-	12.1
230211	17%	37.95	80.00	2.10	5.41	1.50	0.91	-	-	-	9.9
Total	17.9%	110.6	205.0	8.9	13.9	1.6	3.1	0.1	0.0	-	27.6

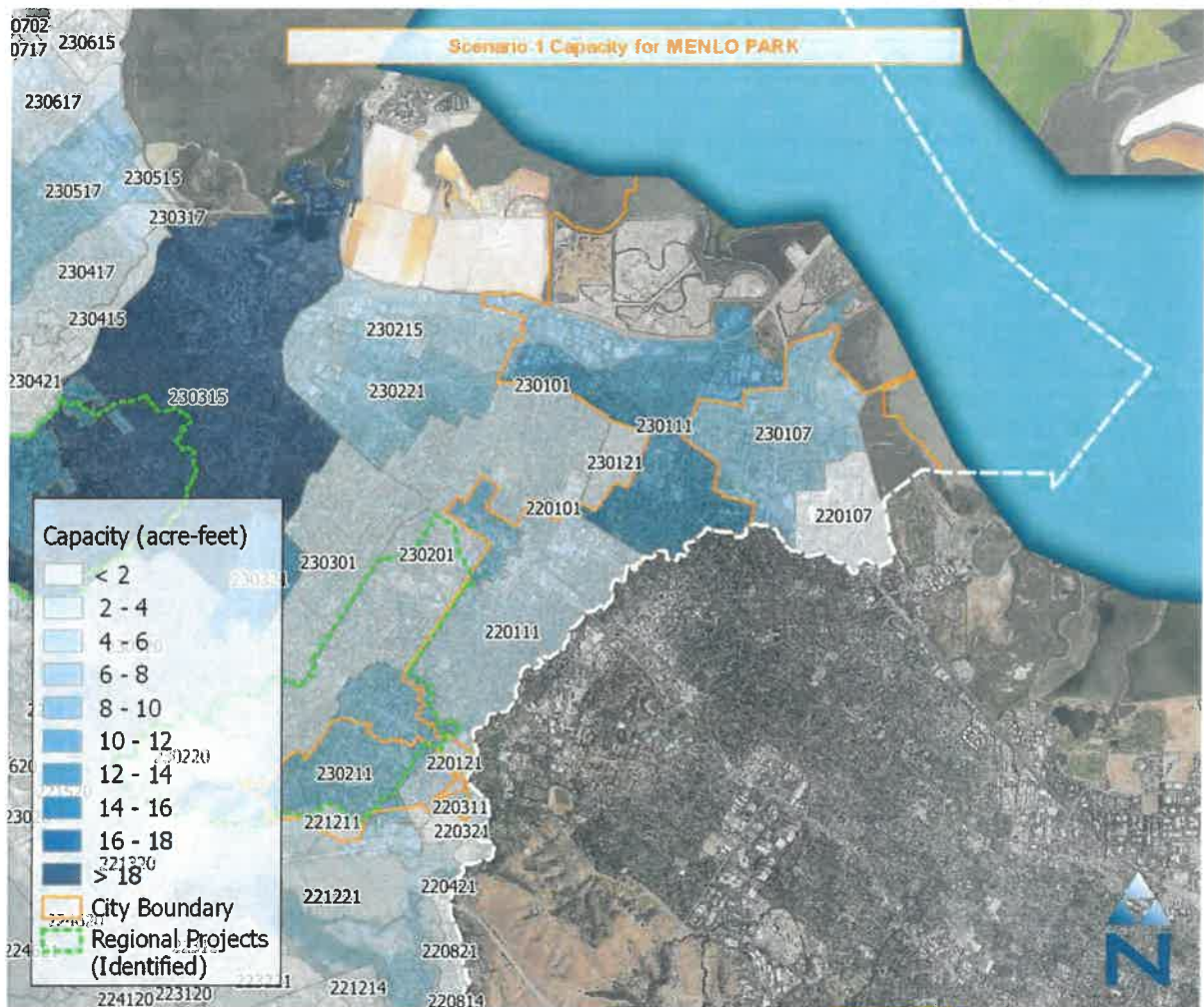


Figure 1-7. Scenario 1: Map of GI capacities within each subwatershed of Menlo Park (sediment target, with regional identified project).

As can be seen in the above results, the cost-optimization favored implementation of different combinations of GI projects within each subwatershed. These combinations were based on: (1) number and type of GI project opportunities identified within each subwatershed, and (2) cost-effectiveness given various characteristics associated with GI control measure efficiency (typically governed by infiltration rates), higher sediment (or PCBs) generation in upstream areas, etc. During implementation, it is almost certain that the actual implementation of GI will not follow the RAA output exactly; however, the recipe provides “management metrics” by subwatershed (described below) to guide the adaptive management process. Dimensions and location of GI projects will vary based on on-the-ground feasibility and site-specific constraints. GI performance varies based on factors like the physical properties of the facility and upstream drainage area managed. For these reasons, it is not recommended that *GI capacity* serve as the focus for stormwater improvement goals for the GI Plan.

The RAA recommends management metrics for the GI Plan that are based on metrics that can be easily measured and tracked throughout implementation. At the left side of the table in Table 2 are

columns under the header “Management Metrics for GI,” which include performance metrics for “% Load Reduction PCBs (Annual),” “Annual Volume Managed (acre-ft),” and “Impervious Area Treated (acres).” The “% Load Reduction PCBs (Annual)” and “Annual Volume Managed (acre-ft)” metrics are based on annualized results represented in the RAA modeling system that are directly comparable to TMDL WLAs. The “% Load Reduction PCBs (Annual)” provides a relative comparison of the load reduction to be achieved within each subwatershed. The “Annual Volume Managed (acre-ft)” shows the acre-feet of water captured and infiltrated and/or treated within each subwatershed, resulting in a total annual volume of 110.6 acre-feet of stormwater managed in Menlo Park for an average year. This 110.6 acre-feet of stormwater managed could serve as the primary metric to be tracked for GI implementation. In other words, stormwater volume managed is being used as a unifying metric to evaluate GI effectiveness. “Impervious Area Treated (acres)” is an additional metric suggested by the MRP for implementation tracking. As a result of adaptive management, the implementation plan may change over time and alternative GI projects can be substituted without having to re-run the RAA model, as long as the “Management Metrics for GI,” representing the goals for the GI Plan, remain on track.

1.6 Implementation Schedule

Throughout the adaptive management process, the City will continue to verify feasible opportunities for GI projects to meet the final load reduction goals for 2040. The process will include the tracking of management metrics and continued re-evaluation of GI project opportunities considered for the RAA. For instance, the RAA assumed projected amounts of LID associated with new and redevelopment, which are subject to change based on factors that are outside the control of the City. If less development occurs over time, more green streets or regional projects on public land may be needed to provide equivalent volume management. For the RAA and GI Plan, a preliminary schedule was developed in order to chart a potential course for GI implementation, which considered the various project opportunities.

The MRP requires reporting of goals for implementation of GI for interim milestones 2020 and 2030, in addition to the final milestone of 2040. In order to estimate the amount of GI to be implemented at these milestones, various assumptions were made in terms of the pace of implementation for various GI project types. Separate analyses determined the projected amount of LID associated with new development and redevelopment by 2020, 2030, and 2040. In addition, the Cartan Field regional project, in the Town of Atherton, is assumed to be built and operational by 2030. Finally, 33 percent of green streets required by 2040 are assumed to be implemented by 2030. The resulting schedule presented in Figure 1-4 demonstrates anticipated interim and final milestones for GI implementation in terms of structural capacity (corresponding to the capacities presented at the right side of Table 2). These interim and final GI capacities are subject to adaptive management, however the 2040 Management Metrics for GI (left side of Table 2) sets the ultimate goal for GI planning efforts and tracking.

Table 2 also provides a comparison of the amount of GI capacity estimate to be needed in Menlo Park to address 2040 goals for Scenario 1 (jurisdictional) and Scenario 2 (countywide) (see Table 1-1). Results demonstrate that if the 17.8% sediment load reduction target is met countywide, the RAA favors the implementation of additional GI projects within the Menlo Park, above the amount needed if Menlo Park only addressed the 17.8 sediment reduction within the City jurisdiction. The countywide scenario would require significant additional discussion among San Mateo County Permittees in order to provide cost-share agreements that would result in more GI implementation within Menlo Park, likely resulting in less GI implemented in other city or unincorporated County jurisdictions. However,

comparison of these scenarios further demonstrates the need for an adaptive management framework to further investigate the most cost-effective approach to countywide GI implementation.

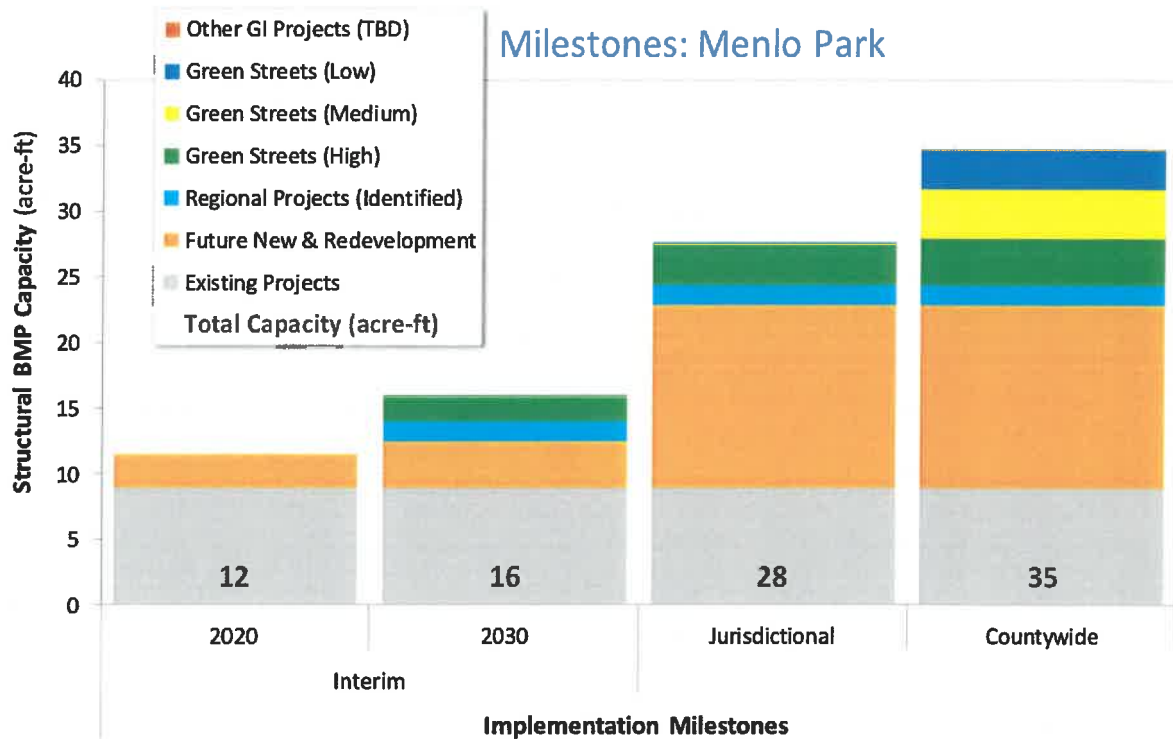


Figure 1-8. Summary GI capacity for interim and final implementation milestones.

2 REFERENCES

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*D. Belmont-specific Model Strategies and Implementation Measures Identified by the
Countywide Program Green Infrastructure Reasonable Assurance Analysis*

BELMONT

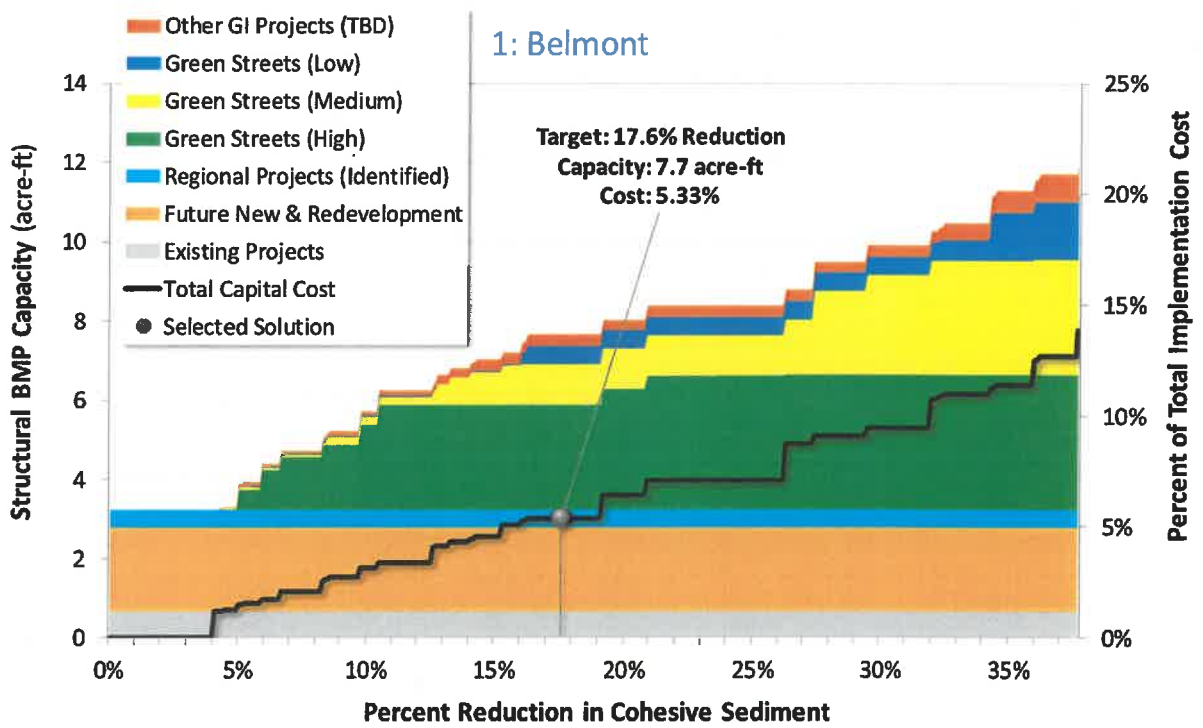


Figure 1. Optimization summary for Belmont, sediment target (by jurisdiction).

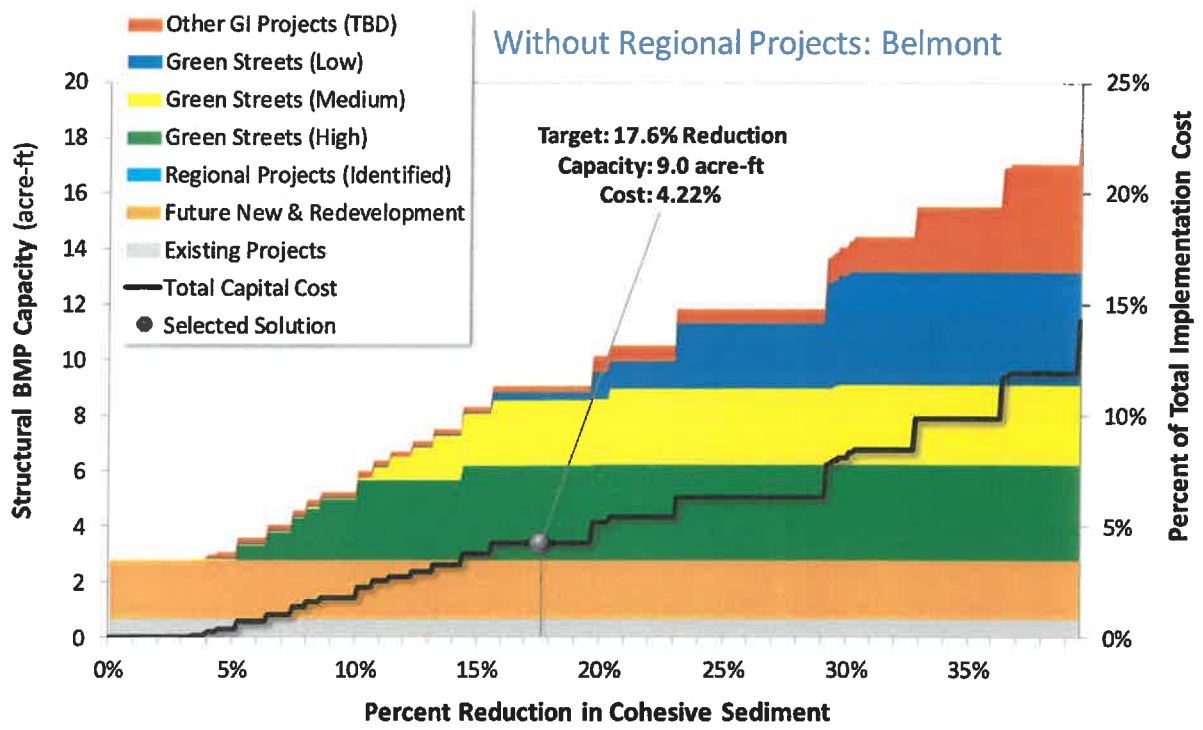


Figure 2 Optimization summary for Belmont, sediment target (by jurisdiction) without regional projects.

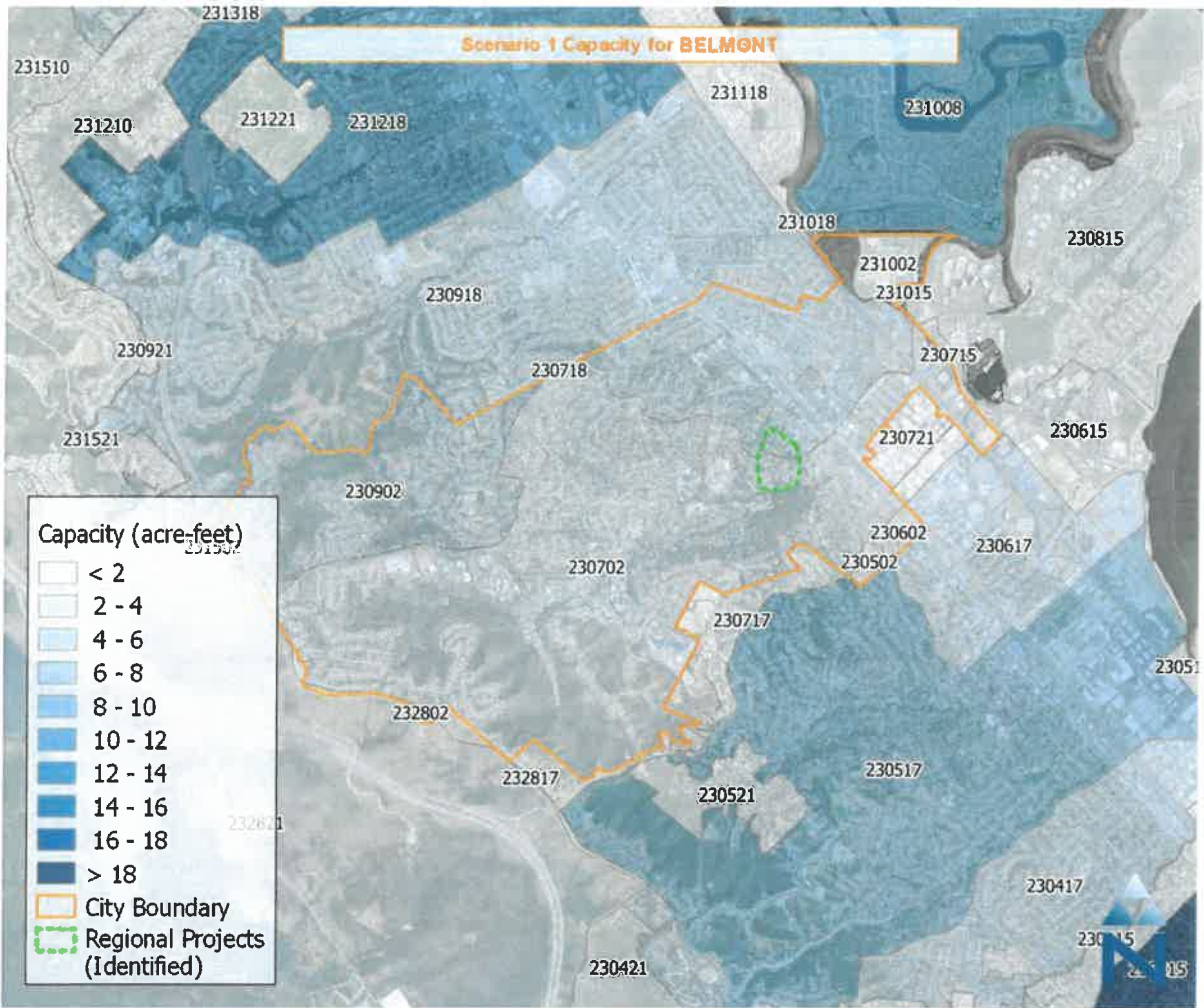


Figure 3. Scenario 1: Belmont, sediment target (by jurisdiction).

Table 1. Scenario 1, Belmont: Sediment Target (By Jurisdiction, With Regional Projects)

Subwatershed ID	Management Metrics for GI			Green Infrastructure Capacity to Achieve 17.6% Reduction Target (Capacity expressed in units of acre-feet)							
	% Load Reduction PCBs (Annual)	Annual Volume Managed (acre-ft)	Impervious Area Treated (acres)	Existing/Planned			Green Streets			Other GI Projects (TBD)	Total BMP Capacity (acre-ft)
				Existing Projects	Future New & Redevelopment	Regional Projects (Identified)	High	Medium	Low		
230502	42%	1.42	1.13	-	0.01	-	-	0.03	-	0.05	0.1
230602	59%	5.73	6.29	0.19	0.07	-	0.00	0.03	0.03	0.19	0.5
230702	12%	67.76	25.57	0.33	0.61	0.32	1.02	-	-	-	2.3
230902	33%	64.73	68.50	0.13	1.23	0.13	2.01	0.78	0.25	-	4.5
231002	33%	4.73	6.13	-	0.20	-	-	0.19	0.18	-	0.6
231502	69%	0.04	0.01	-	-	-	-	-	-	0.00	0.0
232802	30%	0.82	0.24	-	-	-	-	-	-	0.05	0.0
Total	19.1%	145.2	107.9	0.7	2.1	0.5	3.0	1.0	0.5	0.3	8.0

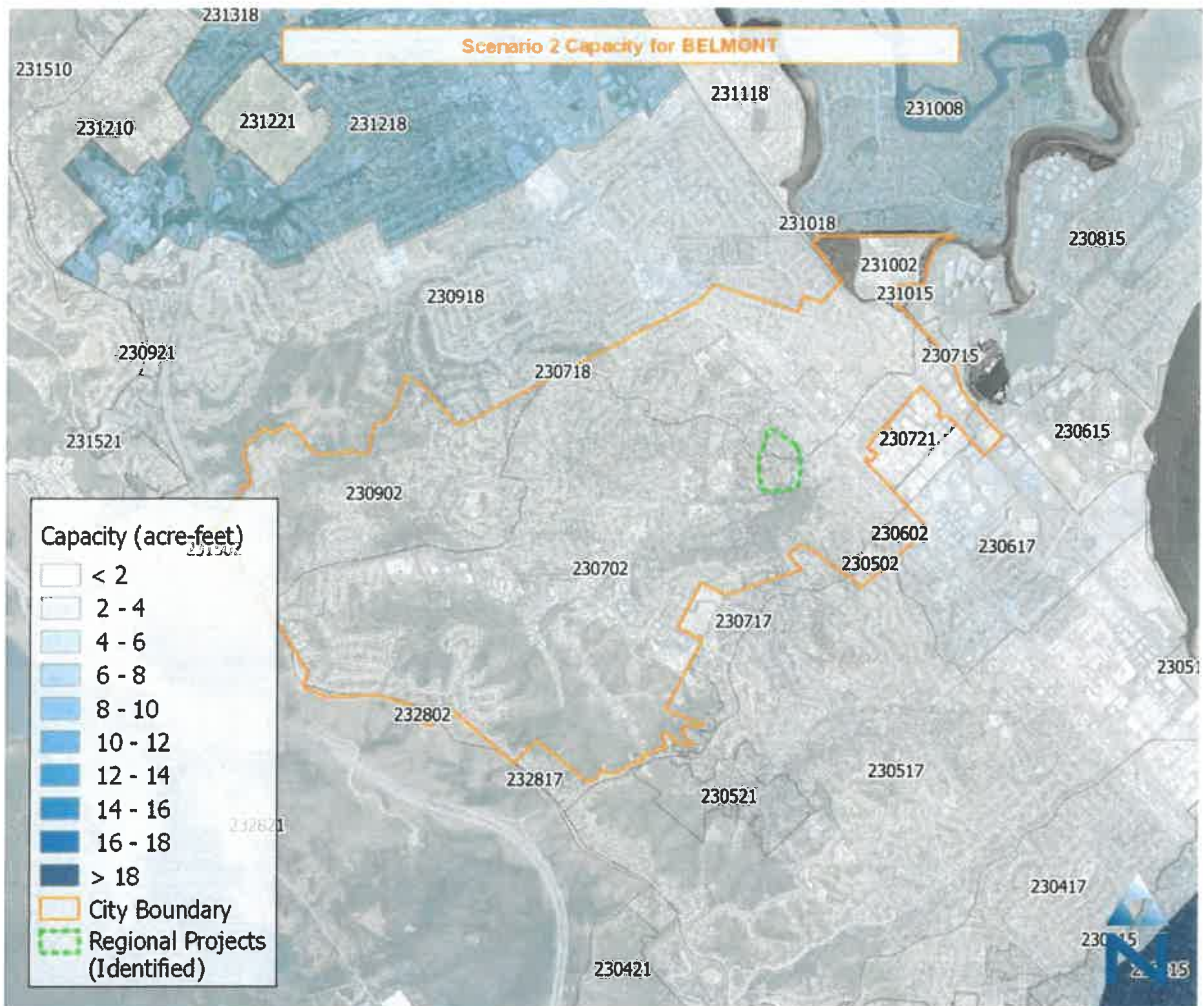


Figure 4. Scenario 2: Belmont, sediment target (countywide).

Table 2. Scenario 2, Belmont: Sediment Target (Countywide, With Regional Projects)

Subwatershed ID	Management Metrics for GI			Green Infrastructure Capacity to Achieve 17.6% Reduction Target (Capacity expressed in units of acre-feet)							
	% Load Reduction PCBs (Annual)	Annual Volume Managed (acre-ft)	Impervious Area Treated (acres)	Existing/Planned			Green Streets			Other GI Projects (TBD)	Total BMP Capacity (acre-ft)
				Existing Projects	Future New & Redevelopment	Regional Projects (Identified)	High	Medium	Low		
230502	2%	0.09	0.13	-	0.01	-	-	-	-	-	0.0
230602	15%	2.13	2.73	0.19	0.07	-	-	-	-	-	0.3
230702	4%	20.85	6.52	0.33	0.61	0.32	-	-	-	-	1.3
230902	4%	8.41	13.65	0.13	1.23	0.13	-	-	-	-	1.5
231002	10%	1.47	3.54	-	0.20	-	-	-	-	-	0.2
231502	0%	0.00	-	-	-	-	-	-	-	-	0.0
232802	0%	0.00	-	-	-	-	-	-	-	-	0.0
Total	4.1%	33.0	26.6	0.7	2.1	0.5	-	-	-	-	3.2

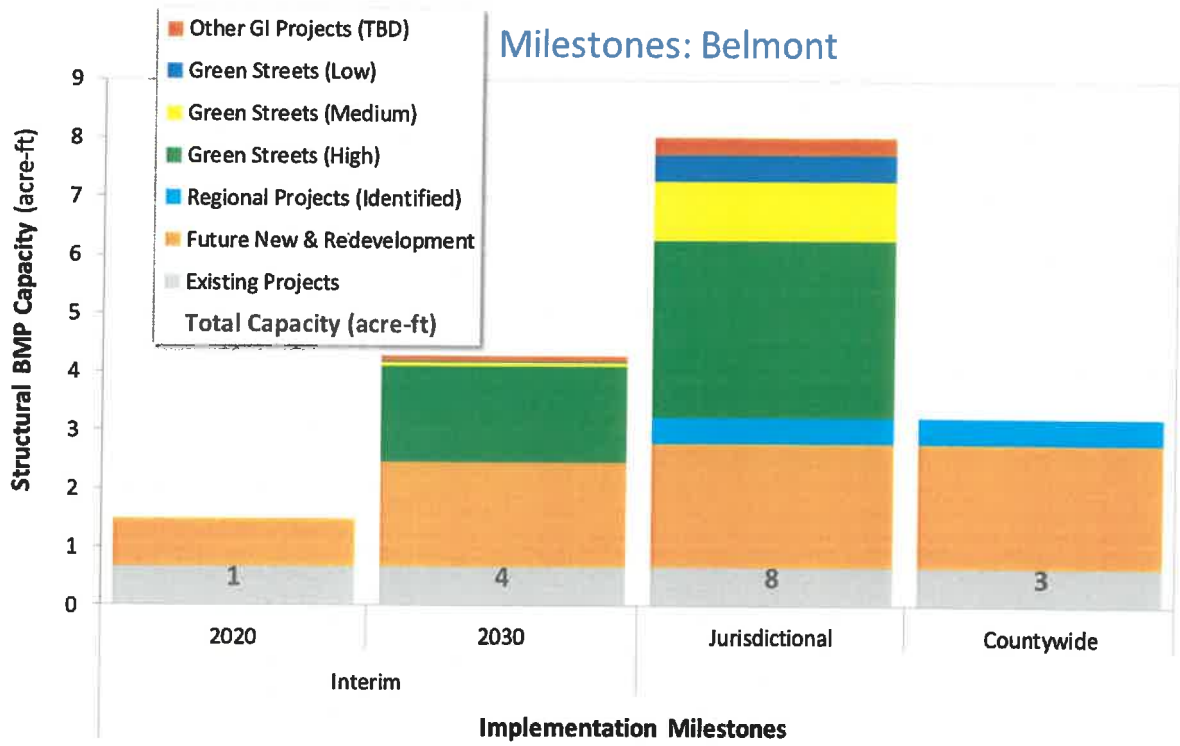


Figure 5. Summary GI capacity for interim and final implementation milestones.

Table 3. Implementation Milestones: Belmont

Implementation Metrics	Implementation Milestones: Belmont					
	Incremental			Cumulative		
	2020-2030	2030-2040	2030-2040	2020	2030	Final 2040
Index						Countywide
% Load Reduction	3.5%	12.8%	12.8%	2.8%	6.3%	4.1%
Volume Managed (acre-ft/yr)	26.3	95.6	95.6	23.4	49.7	33.0
Treated Impervious (acres)	10.1	84.6	84.6	13.1	23.3	26.6
Existing Projects	0.0	0.0	0.0	0.7	0.7	0.7
Future New & Redevelopment	1.0	0.3	0.3	0.8	1.8	2.1
Regional Projects (Identified)	--	--	--	--	--	0.5
Green Streets (High)	--	1.4	1.4	--	1.6	3.0
Green Streets (Medium)	--	1.0	1.0	--	0.1	1.0
Green Streets (Low)	--	0.4	0.4	--	0.0	0.5
Other GI Projects (TBD)	--	0.2	0.2	--	0.1	0.3
Total	1.0	3.3	3.3	1.5	4.3	3.2

Permittee Name: City of Belmont

Section 4 – Provision C.4 Industrial and Commercial Site Controls

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Summary:

The following activities were conducted for this reporting year by the City:

- Updated the existing Stormwater Industrial/Commercial Business Inspection Plan facilities list.
- Updated the existing ERP to reflect changes to the stormwater business inspections. [See below.](#)
- Conducted inspections.
- Two staff members have participated in the Countywide Program's CII Subcommittee.
- Participated in quarterly meetings.

The City has contracted with the Silicon Valley Clean Water Treatment Plant to perform commercial and industrial stormwater inspections.

[Refer to the CPlease see C.4. Industrial and Commercial Site Controls section of SMCWPPP's FY 2018/19 Annual Report for a description of activities of the Program.](#)

Commented [KK1]: The ERP was not discussed below. The ERP was included in the documents provided EOA for review. You do not need to attach the ERP. It is satisfactory to just state the ERP was updated.

C.4.b.iii ► Potential Facilities List (i.e., List of All Facilities Requiring Stormwater Inspections)

List below or attach your list of industrial and commercial facilities in your Inspection Plan to inspect that could reasonably be considered to cause or contribute to pollution of stormwater runoff.

The City has compiled a list of current City business licenses and will include them in the overall business inspection plan. Facilities that have the potential to contribute to pollution stormwater runoff (auto shops, machine shops, building materials, restaurants, etc.) will be placed on a 1-year to 5-year inspection based on facility type. The City also conducts drive-by's and responds to reports from the public.

Attached- City of Belmont BIP (Business Inspection Plan)

Permittee Name: City of Belmont

C.4.d.iii.(2)(a) & (c) ▶ Facility Inspections

Fill out the following table or attach a summary of the following information. Indicate your reporting methodology below.

<input checked="" type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action.
<input type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.

	Number
Total number of inspections conducted (C.4.d.iii.(2)(a))	85
Violations, enforcement actions, or discrete number of potential and actual discharges resolved within 10 working days or otherwise deemed resolved in a longer but still timely manner (C.4.d.iii.(2)(c))	3

Comments:
All enforcement actions were resolved within 10 working days or otherwise deemed resolved in a longer but still timely matter.

C.4.d.iii.(2)(b) ▶ Frequency and Type of Enforcement Conducted

Fill out the following table or attach a summary of the following information.

	Enforcement Action (as listed in ERP) ¹	Number of Enforcement Actions Taken
Level 1	Verbal Warning/Warning Notice	3
Level 2	Notice of Violation	0
Level 3	Administrative Citation	0
Level 4	Legal Action	0
Total		3

¹Agencies to list specific enforcement actions as defined in their ERPs.

Permittee Name: City of Belmont

C.4.d.iii.(2)(d) ► Frequency of Potential and Actual Non-stormwater Discharges by Business Category

Fill out the following table or attach a summary of the following information.

Business Category ²	Number of Actual Discharges	Number of Potential Discharges
Commercial/Services	1	1
Restaurant	1	0
All Other Categories	0	0

C.4.d.iii.(2)(e) ► Non-Filers

List below or attach a list of the facilities required to have coverage under the Industrial General Permit but have not filed for coverage:

There were no industries identified as non-filers during scheduled inspections during fiscal year 2018-2019.

C.4.e.iii ► Staff Training Summary

Training Name	Training Dates	Topics Covered	No. of Industrial/ Commercial Site Inspectors in Attendance	Percent of Industrial/ Commercial Site Inspectors in Attendance	No. of IDDE Inspectors in Attendance	Percent of IDDE Inspectors in Attendance
SMCWPP Commercial and Industrial/Illicit Discharge (CIL Subcommittee) Inspector Training	5/15/19	Regulatory Background, Inspection Procedures, Appropriate BMPs, Pollutants of Concern	5	100	0	0

²List your Program's standard business categories.

FY 2018-2019 Annual Report

C.4 – Industrial and Commercial Site Controls

Permittee Name: City of Belmont

Comments: 5 inspectors from Silicon Valley Clean Water attended this online training. No City staff attended the training.						

Commented [KK2]: I provided the training in person at SVCW.

Facilities List

Facility ID	Record ID	Name
		PLANET GRANITE
FA0023181	PR0040342	AUTO WAY REPAIR CENTER
FA0054736	PR0075485	ENTERPRISE RENT-A-CAR
FA0024214	PR0040344	AUTOBAHN MOTORS
FA0024593	PR0047885	DEKOVEN PUMP STATION
FA0024595	PR0047883	HALLMARK PUMP STATION
FA0025470	PR0047888	HERSOM PUMP STATION
FA0028671	PR0047957	HANIBAL PUMP STATION
FA0040165	PR0056175	MPWD WEST BELMONT PUMP STATION
FA0031278	PR0051645	FIVE STAR AUTO SERVICE CENTER
FA0005710	PR0040288	Wheel Works #122157
FA0014845	PR0040308	NOTRE DAME HIGH SCHOOL
FA0058976	PR0081666	COUNTY AUTO MUFFLER & BRAKES
FA0058009	PR0080477	AW COLLISION AUTOBAHN
FA0000312	PR0041547	Lunardi's #5
FA0059971	PR0082398	FALAFELLE
FA0058562	PR0081130	RANGOON RUBY BURMESE CUISINE
FA0054656	PR0075361	AMERICAN DEBRIS BOX SERVICE INC
FA0060353	PR0082849	Volkswagen Group of America
FA0000322	PR0041552	McDonalds
FA0000350	PR0041562	CHINA VILLAGE RESTAURANT
FA0000613	PR0041569	WENDYS RESTAURANT #2104
FA0022716	PR0040337	BAY PACIFIC AUTO BODY
FA0036911	PR0053757	GREENSTREETS CLEANERS
FA0050309	PR0069107	DOCS BAGELS
FA0028639	PR0047896	JAMECO ELECTRONICS
FA0024592	PR0046676	ADMINISTRATION & MAINT YARD
FA0024846	PR0040352	BARTLETTS AUTO BODY
FA0001714	PR0041574	BLUE SKY CAFE
FA0051915	PR0073264	FIVE GUYS
FA0050307	PR0069104	SUSHI KUU
FA0030738	PR0051558	WOOD SERVICENTER
FA0010726	PR0040294	BAR-ONE MANUFACTURING
FA0011007	PR0040297	CUSTOM METAL MFG CO
FA0052164	PR0072770	CLASSIC 101 BURGERS A SHAKE
FA0002412	PR0049773	WHISPERS CAFE & CREPERIE
FA0054682	PR0075462	BELMONT SMOKE SHOP AND NOVELTIES
FA0060379	PR0082882	CLEAN MACHINE CAR WASH
FA0010773	PR0040296	BELMONT TIRES, WHEELS & SERVICE
FA0053764	PR0074279	BELMONT SHELL
FA0000362	PR0041567	Safeway 0668

FA0052719	PR0073029	K & K AUTO SERVICE
FA0010755	PR0040295	U-Haul Moving & Storage of Belmont
FA0054991	PR0075828	CAFE BLISS
FA0052718	PR0073026	DAVIS ASSOCIATES
FA0037610	PR0054363	RAISER ORGANIZATION
FA0037706	PR0054693	HARBOR BELMONT ASSOCIATES
FA0050778	PR0070500	MAJESTIC PRODUCTION OF PENINSULA LLC
FA0001050	PR0040283	NOTRE DAME DE NAMUR UNIVERSITY
FA0000309	PR0041544	VILLAGE HOST PIZZA
FA0000324	PR0041553	MCGRAWS BAR AND GRILL
FA0055774	PR0076862	CARLMONT HIGH SCHOOL
FA0060078	PR0082532	EPICUREAN AT NOTRE DAME HIGH SCHOOL
FA0047373	PR0064639	SUBWAY 4776
FA0058299	PR0080827	GIN MON CHINESE RESTAURANT
FA0058733	PR0081343	SHORE WAY CAFE
FA0014282	PR0041597	CAFE MOSSANT
FA0005676	PR0040287	BELMONT 76 SVC CTR
FA0028255	PR0047449	DOLLAR TREE STORE #2782
FA0049840	PR0077198	PANDA EXPRESS #2049
FA0049790	PR0068190	BAY CAL CLEANERS
FA0037611	PR0054366	SUNRISE SENIOR LIVING
FA0054049	PR0074676	ACCESSORIES PLUS
FA0028893	PR0048709	U S AUTO REPAIR CENTER
FA0002591	PR0043756	WALGREENS #0063
FA0038429	PR0054932	MEGASOLUTIONS
FA0000321	PR0041551	IHOP RESTAURANT
FA0053212	PR0074565	FARE PDQ
FA0061187	PR0083873	FAMILY AUTO CLINIC
FA0014175	PR0040306	HELD PAINTING
FA0039864	PR0057673	PRECISION POWDER COATING
FA0057054	PR0079111	BELMONT PEACOCK CORAINDER INC
FA0039003	PR0055246	FERNANDO THE NEAT
FA0037685	PR0054580	TRAVIS 76 #254519
FA0057236	PR0079422	JK AUTOMOTIVE LLC
FA0058341	PR0080863	SUMAC
FA0011554	PR0040303	BELMONT PUMP STATION
FA0011042	PR0041593	SUSHI MONSTER
FA0032032	PR0051825	LASKY TRADE PRINTING
FA0011063	PR0040300	CITY OF BELMONT, CORPORATION YARD
FA0017105	PR0040331	EUROPEAN & ASIAN AUTO SERVICE
FA0061347	PR0084056	AT&T Mobility - HARBOR BLVD AND O'NEILL AVE. (USID118858)
FA0017051	PR0040315	CHEVRON STATION# 92712/1557
FA0058978	PR0081674	DOMINOS 7928
FA0012353	PR0041595	DIVINO
FA0050097	PR0068568	THAI TAMARIND RESTAURANT
FA0025126	PR0041614	TOTOS PIZZERIA AND RESTAURANT
FA0061119	PR0083725	DETOX KITCHEN AND JUICE BAR

FA0060601	PR0083128	IBERIA RESTAURANT
FA0058563	PR0081132	AVANTI PIZZA FRESH PASTA
FA0022699	PR0041605	Safeway 1138
FA0057295	PR0079496	THE GREEDY ANT
FA0000357	PR0041565	VIVACE RISTORANTE
FA0058486	PR0081048	OLD COUNTY DELI
FA0054460	PR0075112	YAMA SUSHI
FA0061267	PR0083975	CURTIS AUTO REPAIR
FA0004748	PR0041585	BON APPETIT @ NDNU
FA0039904	PR0055909	BELMONT REDWOOD SHORES SCHL DIST
FA0058296	PR0080823	JENNY CRAIG #3003
FA0015190	PR0052142	LESLEY TERRACE
FA0056111	PR0079760	NAZARETH VISTA
FA0002222	PR0041576	BASKIN ROBBINS ICE CREAM
FA0000345	PR0041559	MARVIN GARDENS
FA0014478	PR0041598	STARBUCKS #538
FA0057872	PR0080294	RING CENTRAL CAFE
FA0031384	PR0053752	SHALIZAAR
FA0061889	PR0084652	RALSTON VILLAGE CLEANERS
FA0058008	PR0080471	AUTOBAHN MOTORS - SERVICE ANNEX
FA0025275	PR0040356	PETES AUTO BODY SHOP INC
FA0014807	PR0040307	SILVER STAR AUTO BODY
FA0050266	PR0069018	BELMONT KWIK SERV
FA0022403	PR0040335	PG&E: BELMONT SUBSTATION
FA0057036	PR0079077	MENCHIES BELMONT VILLAGE
FA0025451	PR0041617	STARBUCKS COFFEE
FA0025000	PR0041612	PEETS COFFEE & TEA
FA0062012	PR0084786	RYOSHIN SUSHI
FA0049980	PR0080271	LAKEPHARMA INC
FA0057616	PR0079945	CARLMONT GARDENS NURSING CENTER
FA0053471	PR0073899	SUSHI LOVER
FA0062096	PR0084914	PILGRIM KITCHEN BAKERY
FA0053463	PR0075437	PASTRY CHIK
FA0061038	PR0083669	WATERDOG TAVERN
FA0003146	PR0041581	MOUNTAIN MIKES PIZZA
FA0061670	PR0084371	EDIBLE ARRANGEMENTS
FA0062066	PR0084885	YA UA YOGURT AND BOBA TEA
FA0061151	PR0083826	CHUCKS DONUTS
FA0025320	PR0042441	COYOTE MEXICAN CAFE
FA0051836	PR0072024	DREAM DINNERS
FA0004866	PR0041586	GODFATHER BURGER LOUNGE
FA0000328	PR0041554	IRON GATE
FA0000315	PR0041548	THE VANS RESTAURANT
FA0000331	PR0041556	THE LARIAT
FA0025687	PR0042321	ORACLE ISLAND PARK CAFE
FA0026002	PR0041623	BELMONT CERTIFIED FARMERS MARKET
FA0058357	PR0080880	SHERWIN-WILLIAMS #8692

FA0005832	PR0040290	52 ENTERPRISES, INC.
FA0017080	PR0040325	KIRBERG MOTORS INC
FA0028862	PR0048532	AUTO CARE OF REDWOOD SHORES
FA0017117	PR0040333	SPITERIS AUTO SERVICE
FA0011434	PR0040302	CALIFORNIA SHINGLE & SHAKE COM
FA0023134	PR0040340	HOLIDAY CLEANERS OF AMERICA
FA0027331	PR0043253	EXTREME AUTO BODY & PAINT
FA0029102	PR0051798	POWERSVISION
FA0002639	PR0040285	SUMMIT AUTO BODY & PAINTING
FA0017058	PR0040317	CARLMONT VILLAGE CLEANERS
FA0025177	PR0040355	CITY OF BELMONT, ISLAND PARK PUMP STATION
FA0025306	PR0040357	CITY OF BELMONT SAN JUAN PUMP STATION
FA0040390	PR0056420	CITY OF BELMONT HASKINS PUMP STA
FA0033316	PR0052228	CLARK PEST CONTROL
FA0017094	PR0040329	COLOGNE AUTO BODY
FA0009581	PR0040292	NIKON PRECISION INC
FA0016142	PR0040313	M & G AUTOMOTIVE REPAIR
FA0015390	PR0040310	FINELINE CARPENTRY INC
FA0028901	PR0048733	GREEN CLEANERS INC
FA0017107	PR0039156	BELMONT MOTOR WORKS
FA0062149	PR0084981	KITCHEN 519 LLC
FA0060634	PR0083412	HYATT HOUSE
FA0060595	PR0083120	LORENZOS SANDWICH SHOP
FA0013742	PR0040305	SAFETY EQUIPMENT CORP
FA0017073	PR0040321	GUNTERS AUTO & TRUCK REPAIR
FA0028263	PR0046771	AUTO MASTER BODY SHOP
FA0028905	PR0048750	ADVANCED EDM CONCEPTS
FA0029420	PR0050050	MARSILI'S BODY SHOP
FA0052846	PR0073172	CITY OF BELMONT HASTINGS PUMP STATION
FA0052844	PR0073168	CITY OF BELMONT
FA0029496	PR0050256	CITY OF BELMONT

Street Number	Street Name	City
100	EL CAMINO REAL	BELMONT
701	HARBOR	BELMONT
605	HARBOR	BELMONT
700	ISLAND	BELMONT
2522	DEKOVEN	BELMONT
2843	HALLMARK	BELMONT
1906	LYON	BELMONT
1500	RALSTON	BELMONT
	RALSTON AVE X: DAVIS	BELMONT
1444	EL CAMINO REAL	BELMONT
120	EL CAMINO REAL	BELMONT
1540	RALSTON	BELMONT
748	OLD COUNTY	BELMONT
1309	ELMER	BELMONT
1085	ALAMEDA DE LAS PULGAS	BELMONT
1035	RALSTON	BELMONT
1000	SIXTH	BELMONT
1420	OLD COUNTY RD (REAR)	BELMONT
500	Clipper	BELMONT
522	EL CAMINO REAL	BELMONT
600	RALSTON	BELMONT
698	RALSTON	BELMONT
1305	ELMER	BELMONT
1050	ELMER	BELMONT
1027	ALAMEDA DE LAS PULGAS	BELMONT
1355	SHOREWAY	BELMONT
3	DAIRY	BELMONT
1438	OLD COUNTY	BELMONT
1625	EL CAMINO REAL	BELMONT
1000	EL CAMINO REAL	BELMONT
1001	ALAMEDA DE LAS PULGAS	BELMONT
844	OLD COUNTY	BELMONT
1201	OLD COUNTY	BELMONT
616	WALTERMIRE	BELMONT
575	RALSTON	BELMONT
390	EL CAMINO REAL	BELMONT
390	EL CAMINO REAL	BELMONT
604	HARBOR	BELMONT
564	EL CAMINO REAL	BELMONT
2000	RALSTON	BELMONT
2100	Ralston	BELMONT

1296	OLD COUNTY	BELMONT
554	EL CAMINO REAL	BELMONT
2039	RALSTON	BELMONT
1	DAVIS	BELMONT
20	DAVIS	BELMONT
450	HARBOR	BELMONT
407	OLD COUNTY	BELMONT
1500	RALSTON	BELMONT
1017	ALAMEDA DE LAS PULGAS	BELMONT
864	EL CAMINO REAL	BELMONT
1400	ALAMEDA DE LAS PULGAS	BELMONT
1540	RALSTON	BELMONT
1602	EL CAMINO REAL	BELMONT
1079	ALAMEDA DE LAS PULGAS	BELMONT
1301	SHOREWAY	BELMONT
1400	EL CAMINO REAL	BELMONT
995	RALSTON	BELMONT
516	EL CAMINO REAL	BELMONT
1050	EL CAMINO REAL	BELMONT
540	MASONIC	BELMONT
1010	ALAMEDA DE LAS PULGAS	BELMONT
1421	OLD COUNTY	BELMONT
461	HARBOR	BELMONT
900	RALSTON	BELMONT
1404	OLD COUNTY	BELMONT
510	EL CAMINO REAL	BELMONT
1480	EL CAMINO REAL	BELMONT
1421	OLD COUNTY	BELMONT
517	MARINE VIEW	BELMONT
248	HARBOR	BELMONT
520	MASONIC	BELMONT
1301	OLD COUNTY	BELMONT
699	RALSTON	BELMONT
319	OLD COUNTY	BELMONT
1397	EL CAMINO REAL	BELMONT
1385	SHOREWAY	BELMONT
955	RALSTON	BELMONT
240	HARBOR	BELMONT
110	SEM	BELMONT
150	OLD COUNTY	BELMONT
333	Oneill	BELMONT
2045	RALSTON	BELMONT
1501	EL CAMINO REAL	BELMONT
968	RALSTON	BELMONT
1316	EL CAMINO REAL	BELMONT
1200	EL CAMINO REAL	BELMONT
1200	EL CAMINO REAL	BELMONT

740	EL CAMINO REAL	BELMONT
2040	RALSTON	BELMONT
1100	EL CAMINO REAL	BELMONT
932	RALSTON	BELMONT
1920	RALSTON	BELMONT
1331	OLD COUNTY	BELMONT
889	RALSTON	BELMONT
1421	OLD COUNTY	BELMONT
1500	RALSTON	BELMONT
801	GRANADA	BELMONT
1538	EL CAMINO REAL	BELMONT
2400	CARLMONT	BELMONT
1041	HILL	BELMONT
1023	ALAMEDA DE LAS PULGAS	BELMONT
1160	OLD COUNTY	BELMONT
1071	ALAMEDA DE LAS PULGAS	BELMONT
20	DAVIS	BELMONT
300	EL CAMINO REAL	BELMONT
980	RALSTON	BELMONT
510	HARBOR	BELMONT
302	OLD COUNTY	BELMONT
252	OLD COUNTY	BELMONT
701	HARBOR	BELMONT
1335	Shoreway	BELMONT
1200	EL CAMINO REAL	BELMONT
1050	EL CAMINO REAL	BELMONT
1200	EL CAMINO REAL	BELMONT
1602	EL CAMINO REAL	BELMONT
530	HARBOR	BELMONT
2140	CARLMONT	BELMONT
550	MASONIC	BELMONT
311	EL CAMINO REAL	BELMONT
1301	OLD COUNTY	BELMONT
1015	ALAMEDA DE LAS PULGAS	BELMONT
390	EL CAMINO REAL	BELMONT
390	EL CAMINO REAL	BELMONT
1090	ALAMEDA DE LAS PULGAS	BELMONT
641	RALSTON	BELMONT
1003	ALAMEDA DE LAS PULGAS	BELMONT
390	EL CAMINO REAL	BELMONT
1500	EL CAMINO REAL	BELMONT
1360	EL CAMINO REAL	BELMONT
815	BELMONT	BELMONT
1428	EL CAMINO REAL	BELMONT
401	ISLAND	BELMONT
	EL CAMINO REAL	BELMONT
1900	Ralston	BELMONT

470	RALSTON	BELMONT
1020	OLD COUNTY	BELMONT
230	OLD COUNTY	BELMONT
292	OLD COUNTY	BELMONT
1350	OLD COUNTY	BELMONT
880	RALSTON	BELMONT
1300	OLD COUNTY	BELMONT
298	HARBOR	BELMONT
317	OLD COUNTY	BELMONT
1011	ALAMEDA DE LAS PULGAS	BELMONT
	ISLAND PARK	BELMONT
3118	LAUREL CREEK	BELMONT
	LAUREL CREEK RD/HASKINS D	BELMONT
485	ONEILL	BELMONT
1250	OLD COUNTY	BELMONT
1399	SHOREWAY	BELMONT
794	OLD COUNTY	BELMONT
1297	OLD COUNTY	BELMONT
678	RALSTON	BELMONT
645	HARBOR	BELMONT
519	MARINE VIEW	BELMONT
400	CONCOURSE	BELMONT
911	VILLA	BELMONT
1141	OLD COUNTY	BELMONT
800	OLD COUNTY	BELMONT
505	ONEILL	BELMONT
425	HARBOR	BELMONT
1150	OLD COUNTY	BELMONT
	HASTINGS	BELMONT
	NORTH	BELMONT
1	TWIN PINES	BELMONT

Section 5 – Provision C.5 Illicit Discharge Detection and Elimination

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Provide background information, highlights, trends, etc.

Summary:

The City has performed the following activities:

The City participated in the Countywide Program's Commercial and Industrial Illicit Discharge Committee including roundtable discussions on the stormwater regulatory review, tips for inspecting for trash, and mobile auto wash best management practices.

The City's Department of Public Works responds to complaints regarding illicit discharges or threats of discharge to the storm sewer system.

In order to make it easier to file a complaint, the City accepts illicit stormwater discharge complaints via the email pworks@belmont.gov, the 311 Public Stuff online reporting program, or by phone. Complaints received are entered into the Hansen database and responded to by inspectors and Public Works Operations staff to ensure that consequences of the illicit discharge are mitigated immediately.

The City continues to analyze its ordinances to ensure efficient and effective language to achieve stormwater pollution control compliance and enforcement.

Staff continues to monitor and photo document all four of our Illicit Discharge Inspection Sites annually.

The City continues to inspect all "Flows to Bay" decals placed by all storm drains in the right of way throughout the city.

[Refer to the C.5 Illicit Discharge Detection and Elimination section of the SWCWPPP FY18-19 Annual Report for description of activities at the countywide or regional level.](#)

C.5.c.iii ► Complaint and Spill Response Phone Number

Summary of any changes made during FY 18-19.

There are no changes.

Permittee Name: City of Belmont

C.5.d.iii.(1), (2), (3) ► Spill and Discharge Complaint Tracking

Spill and Discharge Complaint Tracking (fill out the following table or include an attachment of the following information)	
	Number
Discharges reported (C.5.d.iii.(1))	7
Discharges reaching storm drains and/or receiving waters (C.5.d.iii.(2))	7
Discharges resolved in a timely manner (C.5.d.iii.(3))	7
<p>Comments:</p> <p>All illicit discharge complaints are logged into the City complaint system (previously Hansen Asset Management database, now Lucity) and are investigated. After logging in the complaint, a Service Request is issued and City's Illicit Discharge Inspector and Public Works Operations Crew are dispatched to the site of illicit discharge. If a spill/discharge is substantiated, the complaint and response actions are then recorded and the complaint is classified accordingly. If a report is not substantiated, it remains in the general complaint log with the note that an investigation took place and the spill/discharge was unsubstantiated. Unsubstantiated spill/discharge complaints are not included in the information above. Only verified discharges are reported.</p>	

C.5.e.iii.(2) ► Control of Mobile Sources

<p>(a) Provide changes to your agency's minimum standards and BMPs for each of the various types of mobile businesses since the 2017 Annual Report (C.5.e.iii.(2)(a))</p> <p>The City of Belmont follows the minimum standards and BMPs described in the "Best Management Practices for Mobile Businesses" fact sheet recently updated by the SMCWPPP CII Subcommittee in April 2019 for the following mobile business categories: automobile washers/detailers, power washers, carpet cleaners, steam cleaners, pet care services. The format of the fact sheet was update but there have been no changes to the BMPs since the 2017 Annual Report.</p>
<p>(b) Provide changes to your agency's enforcement strategy for mobile businesses (C.5.e.iii.(2)(b))</p> <p>Since FY 2013/14 SMCWPPP's enforcement strategy has been to track mobile business enforcement actions from SMCWPPP permittees in a table available on the SMCWPPP CII members only webpage. The tracking table is periodically updated.</p> <p>Any stormwater discharges from mobile businesses conducting work in the City of Belmont are typically addressed through a complaint investigation or during routine field work following the protocols described under section C.5.d.3.</p>
<p>(c) Provide minimum standards and BMPs developed for additional types of mobile businesses addressed since 2017 Annual Report (C.5.e.iii.(2)(c))</p> <p>SMCWPPP has not developed minimum standards and BMPs for additional types of mobile businesses other than those described in (a) above.</p>

Permittee Name: City of Belmont

(d) Provide a list and summary of the specific outreach events and education conducted to each type of mobile business operating within your jurisdiction during the Permit term (C.5.e.iii.(2)(d):
City of Belmont distributes stormwater pollution prevention material and BMPs at all public events whether they are on the City or County level. Examples of such events are: County Fair, National Night Out, California Coastal Cleanup Day, Save the Music Festival, Earth Day, etc.
(e) Discuss inspections conducted at mobile businesses and/or job sites (C.5.e.iii.(2)(e)
The City conducts drive-by inspections of mobile businesses since there are no specific sites these businesses operate at routinely.
(f) List below or attach the list of mobile businesses operating within your agency's jurisdiction (C.5.e.iii.(2)(f))
In FY 2016/17 SMCWPPP compiled an inventory of mobile businesses located in Santa Mateo County. The inventory was developed by reviewing lists provided by individual agencies, yellow page searches and online business searches. The inventory includes automotive washing, steam cleaning, power washing, pet care services and carpet cleaning mobile businesses. The inventory is periodically updated with mobile businesses stormwater inspectors observe during routine field activities, including responding to illicit discharges. The inventory is made available to all San Mateo County Permittees on the SMCWPPP CII members only webpage. The inventory is included in SMCWPPP's FY 2018/19 Annual Report and currently has approximately 175 mobile businesses.
(g) Discuss enforcement actions taken against mobile businesses during the Permit term (C.5.e.iii.(2)(g))
Enforcement actions are typically taken in response to a complaint or illicit discharge through our IDDE Program. Enforcement actions are tracked in the municipality's spill and discharge complaint tracking system required by MRP C.5.d.ii. This FY there were zero enforcement actions taken for mobile businesses.

C.5.f.iii ► MS4 Map Availability

Discuss how you make your MS4 map available to the public and how you publicize the availability of the MS4 map.
MS4 maps are available to the public on the Oakland Museum Creek Mapping Project website (http://explore.museumca.org/creeks/crkmap.html). These maps include municipal storm drains that measure 24 inches or greater in diameter. The SMCWPPP website, flowstobay.org , also has a link to the Oakland museum maps. The MS4 maps are available upon request from the public and businesses.

Permittee Name: City of Belmont

Section 6 – Provision C.6 Construction Site Controls

C.6.e.iii.(3)(a), (b), (c), (d) ▶ Site/Inspection Totals			
Number of active Hillside Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii.3.a)	Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii. 3.c)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.3.b)	Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites and sites disturbing 1 acre or more) (C.6.e.iii. 3.d)
16	1	17	160
<p>Comments:</p> <p style="padding-left: 40px;">In addition to these sites, staff conducts wet weather inspections for winter erosion control for construction sites less than 1 acre from October to April.</p>			
<p>Provide the number of inspections that are conducted at sites not within the above categories as part of your agency's inspection program and a general description of those sites, if available or applicable.</p> <p style="text-align: center;">34 – Number of inspections of construction sites that are not hillside, high priority, or disturbing 1 < or 1 > acre of soil.</p>			

Permittee Name: City of Belmont

C.6.e.iii.(3)(e) ► Construction Related Storm Water Enforcement Actions

	Enforcement Action (as listed in ERP) ¹	Number Enforcement Actions Issued
Level 1 ²	Verbal Warning	67
Level 2	Notice of Violation	30
Level 3	Stop Work Order	9
Level 4	Administrative Citation	0
Total		106

C.6.e.iii.(3)(f), ► Illicit Discharges

	Number
Number of illicit discharges, actual and those inferred through evidence at hillside sites, high priority sites and sites that disturb 1 acre or more of land (C.6.e.iii. 3.f)	6

C.6.e.iii.(3)(g) ► Corrective Actions

Indicate your reporting methodology below.

- Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action.
- Permittee reports the total number of discrete potential and actual discharges on each site.

	Number
Enforcement actions or discrete potential and actual discharges fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii. .3.g)	30
Comments: Generally, sites that were not resolved within 10 days were given escalated enforcement.	

¹Agencies should list the specific enforcement actions as defined in their ERPs.

²For example, Enforcement Level 1 may be Verbal Warning.

Permittee Name: City of Belmont

C.6.e.iii.(4) ► Evaluation of Inspection Data

Describe your evaluation of the tracking data and data summaries and provide information on the evaluation results (e.g., data trends, typical BMP performance issues, comparisons to previous years, etc.).

Description:
 The majority of the issues encountered were with housekeeping BMPs that could be resolved in a short period of time. In late March of 2019, we were down to 1 inspector and had contracted a temporary inspector. This explains the large gaps in inspection dates. We also experienced a couple of first-time contractor/developers who were not 100% knowledgeable of stormwater requirements.

C.6.e.iii.(4) ► Evaluation of Inspection Program Effectiveness

Describe what appear to be your program's strengths and weaknesses, and identify needed improvements, including education and outreach.

Description:
 Strengths include our inspection tracking tool. Weakness is being down an inspector which has enabled us to improve our inspection consistency.

C.6.f.iii ► Staff Training Summary

Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance
American Stormwater Institute	4/10/19 & 4/11/19	Construction site stormwater inspection residential and business.	1

Section 7 – Provision C.7. Public Information and Outreach

C.7.b.i.1 ► Outreach Campaign

Summarize outreach campaign. Include details such as messages, creative developed, and outreach media used. The detailed outreach campaign report may be included as an attachment. If outreach campaign is being done by participation in a countywide or regional program, refer to the separate countywide or regional Annual Report.

Summary:

See Section 7 and Section 9 of the SMCWPPP FY 2018/19 Annual Report for a description of outreach campaign activities conducted at the countywide level.

C.7.c. Stormwater Pollution Prevention Education

No Change

C.7.d ► Public Outreach and Citizen Involvement Events

Describe general approach to event selection. Provide a list of outreach materials and giveaways distributed.
Use the following table for reporting and evaluating public outreach events

See Section 7 of the SMCWPPP FY 2018/19 Annual Report for a description of public outreach and citizen involvement events activities conducted at the countywide level.

Event Details	Description (messages, audience)	Evaluation of Effectiveness
Provide event name, date, and location. Indicate if event is local, countywide or regional. Indicate if event is public outreach or citizen involvement.	Identify type of event (e.g., school fair, creek clean-up, storm drain stenciling, farmers market etc.), type of audience (school children, gardeners, homeowners etc.) and outreach messages (e.g., Enviroscope presentation, pesticides, stormwater awareness)	Provide general staff feedback on the event (e.g., success at reaching a broad spectrum of the community, well attended, good opportunity to talk to gardeners etc.). Provide other details such as: <ul style="list-style-type: none"> • Success at reaching a broad spectrum of the community • Number of participants compared to previous years. • Post-event effectiveness assessment/evaluation results • Quantity/volume of materials cleaned up, and comparisons to previous efforts
National Night Out August 7, 2018 6:00 PM - 8:30 PM Carlmont Shopping Center (Local Event) – Public Outreach	Event Type: Community Event Audience: All ages Outreach Message: Stormwater Pollution Prevention	Summary: Public Works set up a booth at the Carlmont Shopping Center. Staff handed out pollution prevention information and had the public spin the prize wheel to answer questions about water pollution prevention. We also had up a large Fatberg display, showing the importance of not flushing wipes. Staff from Operations and Engineering were on site to answer questions. Operations brought out the jetting truck as well as a crack sealer vehicle. The number of people who attended was estimated 300-350.

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		<p>Environmental handouts included: Children's activity guides regarding water pollution prevention, brochures on non-flushing wet wipes and "You are the solution to water pollution" brochures.</p> <p>Advertising: Facebook, Twitter, Nextdoor.com, City website, City Manager's weekly update, and Ralston Ave street banner.</p>
<p>California Coastal Cleanup Day September 15, 2018 9:00 AM - 12:00 PM One Twin Pines Lane, Belmont City Hall (Local Event) – Public Outreach</p>	<p>Event Type: Public Citizen Involvement Event Audience: All ages Outreach Message: Stormwater Pollution Prevention</p>	<p>Summary: 114 volunteers collected 360 lbs of trash and recyclables from our local watershed. Local groups that volunteered included: Girl Scout Troop 62481, V.I.S.I.O.N. and San Carlos Key Club. The most unusual items found were: half a car engine block, car bumper, bed sheets, and a bike chain.</p> <p>Advertising: Local Channel 27, Facebook, Nextdoor.com, City website, Belmont Parks & Rec Activity guide, Ralston Ave Parks & Rec sign board, Ralston Ave street banner, and PD electronic sign board.</p>
<p>Save the Music Festival October 14, 2018 9:00 AM – 11:30 AM Twin Pines Park @ One Twin Pines Lane, Belmont (Local Event) – Public Outreach</p>	<p>Event Type: Community Event/Music Festival Audience: All ages Outreach Message: Stormwater Pollution Prevention</p>	<p>Summary: Public Works participated in SchoolForce's Save the Music Festival. Approximately 115 festival goers stopped by our booth to receive information on water pollution prevention.</p> <p>Environmental handouts included: pocket and car ashtrays, "You are the solution to water pollution" pamphlets, Flows to Bay fish erasers, and children's water pollution prevention activity guides.</p> <p>Advertising: Facebook, Nextdoor.com, City website, Ralston Ave street banner, and Belmont Parks & Rec Fall Activity Guide.</p>
<p>Earth Day 2019 April 4, 2019 9:00 AM – 12:00 PM</p>	<p>Event Type: Community Outreach Event Audience: All ages</p>	<p>Summary: This year's Earth Day event was held in Twin Pines Park with twenty vendors participating. The park housed a variety of booths for kids and adults to learn about</p>

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<p>The Meadow-Twin Pines Park @ One Twin Pines Lane, Belmont (Local Event) – Public Outreach</p>	<p>Outreach Message: Stormwater Pollution Prevention and other environmental messaging</p>	<p>sustainability and the importance of a healthy environment. Over 200 San Mateo County residents dropped off their e-waste, gently used books for recycling, and confidential documents for shredding. Recology also provided free compost for gardening. Our booth included the prize wheel with questions on water pollution prevention as well as a large Fatberg display.</p> <p>Environmental handouts included: Household Hazardous Waste: Too Toxic to Trash, Clean up After Your Pet, Dog Waste pamphlet, Med-Project Medication Education and Disposal, FOG Clogs – No Oils, Fats, and Grease down the drain, and non-flushable wipes.</p> <p>Advertising: Facebook, Nextdoor.com, City website, Belmont Parks & Rec Activity Guide, press release was sent out via City Manager's office, Ralston Ave street banner.</p> <p>Event posters were hung at all City parks and City of Belmont Library, Carlmont Shopping Center, and Mr. Pickles.</p>
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Permittee Name: ~~_____~~ **City of Belmont**

C.7.e. ► Watershed Stewardship Collaborative Efforts

Summarize watershed stewardship collaborative efforts and/or refer to a regional report that provides details. Describe the level of effort and support given (e.g., funding only, active participation etc.). State efforts undertaken and the results of these efforts. If this activity is done regionally refer to a regional report.

Evaluate effectiveness by describing the following:

- Efforts undertaken
- Major accomplishments

Summary:

See Section 7 of the SMCWPPP FY 2018/19 Annual Report for a description of watershed stewardship collaborative efforts conducted at the countywide level.

C.7.f. ► School-Age Children Outreach

Summarize school-age children outreach programs implemented. A detailed report may be included as an attachment. Use the following table for reporting school-age children outreach efforts.

See Section 7 of the SMCWPPP FY 2018/19 Annual Report for a description of school-age children outreach efforts conducted at the countywide level.

Program Details	Focus & Short Description	Number of Students/Teachers reached	Evaluation of Effectiveness
Provide the following information: Name Grade or level (elementary/ middle/ high)	Brief description, messages, methods of outreach used	Provide number or participants	Provide agency staff feedback. Report any other evaluation methods used (quiz, teacher feedback etc.). Attach evaluation summary if applicable.

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<p>Public Works Week Open House May 22, 2019 Twin Pines Park @ One Twin Pines Lane, Belmont 1st and 2nd graders from Nesbit Elementary School</p>	<p>Children's water pollution prevention, recycling, composting, and water conservation</p>	<p>Over 300 children, parents, and teachers</p>	<p>Summary: As part of Public Works, our environmental sector participated in the City's annual Public Works Week Open House to educate school students on the importance of water pollution prevention. Other agencies participated as well including Recology, and Mid-Peninsula Water District. The public enjoyed the display and information we provided on Farbergs and their impact on the environment. The water pollution prevention trivia prize wheel was a big hit with the kids as well. Testing their knowledge on water pollution prevention.</p> <p>Environmental handouts included: non-flushable wipes, dog waste management, FOG Clog, No Fats, Oils, or Grease down the drain. "You are the solution to water pollution" pamphlet, Flows to Bay erasers, recycled pencils.</p> <p>Advertising: Facebook, Nextdoor.com, City website, City Manager's office Press Release, PD electronic sign board, Ralston Ave street banner, event posters at Belmont Library, all Belmont Parks, Café Bliss, Ace Hardware, Carlmont Shopping Center, and Lunardi's Grocery Store.</p>
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Section 9 – Provision C.9 Pesticides Toxicity Controls

C.9.a. ► Implement IPM Policy or Ordinance							
Is your municipality implementing its IPM Policy/Ordinance and Standard Operating Procedures?				<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If no, explain:							
<p>Report implementation of IPM BMPs by showing trends in quantities and types of pesticides used, and suggest reasons for increases in use of pesticides that threaten water quality, specifically organophosphates, pyrethroids, carbamates fipronil, indoxacarb, diuron, and diamides. A separate report can be attached as evidence of your implementation.</p> <p>Guidance: List only quantities of organophosphates, pyrethroids, carbamates, fipronil, indoxacarb, diuron, and diamides that are used in a manner that could potentially impact water quality. Starting FY 2016/17, Permittees are required to report the total quantity of the active ingredient used, not the total quantity of product used.</p>							
Trends in Quantities and Types of Pesticide Active Ingredients Used¹							
Pesticide Category and Specific Pesticide Active Ingredient Used	Amount ²						
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	
Organophosphates	0	0	0	0			
Active Ingredient Chlorpyrifos	0	0	0	0			
Active Ingredient Diazinon	0	0	0	0			
Active Ingredient Malathion	0	0	0	0			
Pyrethroids (see footnote #57-2 for list of active ingredients)	0	0	0	0			
Active Ingredient Type X	0	0	0	0			
Active Ingredient Type Y	0	0	0	0			
Carbamates	0	0	0	0			
Active Ingredient Carbaryl	0	0	0	0			
Active Ingredient Aldicarb	0	0	0	0			
Fipronil	0	0	0	0			

¹Includes all municipal structural and landscape pesticide usage by employees and contractors.

²Weight or volume of the active ingredient, using same units for the product each year. Please specify units used. The active ingredients in any pesticide are listed on the label. The list of active ingredients that need to be reported in the pyrethroids class includes: metofluthrin, bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambdacyhalothrin, and permethrin.

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Pesticide Category and Specific Pesticide Active Ingredient Used	Amount					
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Indoxacarb	Reporting not required in FY 15-16	0	0	0		
Diuron	Reporting not required in FY 15-16	0	0	0		
Diamides	Reporting not required in FY 15-16	0	0	0		
Active Ingredient Chlorantraniliprole		00	0	0		
Active Ingredient Cyantraniliprole			0	0		

Reasons for increases in use of pesticides that threaten water quality: N/A.

IPM Tactics and Strategies Used:

1. [Use of mechanical traps for rodent \(gopher\) control](#)
2. [Chose to no longer use glyphosate. Currently exploring alternative non toxic organic products.](#)
3. [Use of Fire Safe crews to manually manage vegetation in instead of using herbicides](#)

Guidance: Provide a brief description (e.g., one or two sentences) of two IPM tactics or strategies implemented in the reporting year. Do not state that your municipality is implementing its IPM policy, instead state how, with 2 examples. Some examples are provided below:

- **Use of non-chemical strategies such as monitoring, mowing weeds, mulching.**
- **Removal of plants that require frequent pesticide applications.**
- **Replacing invasive plants with natives.**
- **Preventive actions such as sealing holes and gaps in structures, improving sanitation.**
- **Use of baits and traps instead of broadcast pesticides.**

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C.9 – Pesticides Toxicity Controls

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C.9.b ▶ Train Municipal Employees

Enter the number of employees that applied or used pesticides (including herbicides) within the scope of their duties this reporting year.	<u>5</u>
Enter the number of these employees who received training on your IPM policy and IPM standard operating procedures within this reporting year.	<u>5</u>
Enter the percentage of municipal employees who apply pesticides who have received training in the IPM policy and IPM standard operating procedures within this reporting year.	<u>100</u>
Type of Training: <u>CAPCA, PAPA cotinueding education units</u> Guidance: State the type of training received (e.g., Landscape IPM Continuing Education Workshop on April 16, 2019, PAPA Seminar, ReScape training, local tailgate training).	

C.9.c ▶ Require Contractors to Implement IPM

Did your municipality contract with any pesticide service provider in the reporting year, for either landscaping or structural pest control?	<input checked="" type="checkbox"/>	Yes		No
If yes, did your municipality evaluate the contractor's list of pesticides and amounts of active ingredients used?	<input checked="" type="checkbox"/>	Yes		No,
If your municipality contracted with any pesticide service provider, briefly describe how contractor compliance with IPM Policy/Ordinance and SOPs was monitored: <u>The contractor implements Ggopher control by mechanical traps only. The contractor does not use any No-baits or pesticides are used.</u> Guidance: Describe procedures that your agency follows to ensure contractor compliance, and any actions taken or needed to correct contractor performance. Some examples include: reviewing pest monitoring reports (to know if pest population needs controlling), reviewing actions taken before chemical pesticides are applied (such as traps, baits, physical barriers, mulching, etc.).				
If your agency did not evaluate the contractor's list of pesticides and amounts of active ingredients used, provide an explanation. <u>N/A</u>				

C.9.d ▶ Interface with County Agricultural Commissioners

Did your municipality communicate with the County Agricultural Commissioner to: (a) get input and assistance on urban pest management practices and use of pesticides or (b) inform them of water quality issues related to pesticides,	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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<p>If yes, summarize the communication. If no, explain.</p> <p>See Section 9 of the SMCWPPP FY 2018/19 Annual Report for a summary of the Countywide Program's coordination with the San Mateo County Agricultural Commissioner.</p>				
<p>Did your municipality report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide Regulation (DPR) surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire.</p>	<input type="checkbox"/>	<p>Yes</p>	<input checked="" type="checkbox"/>	<p>No</p>
<p>If yes, provide a summary of improper pesticide usage reported to the County Agricultural Commissioner and follow-up actions taken to correct any violations. A separate report can be attached as your summary.</p>				

C.9.e.ii (1) ► Public Outreach: Point of Purchase

Provide a summary of public outreach at point of purchase, and any measurable awareness and behavior changes resulting from outreach (here or in a separate report); **OR** reference a report of a regional effort for public outreach in which your agency participates.

Summary:
See Section 9 of the SMCWPPP FY 2018/19 Annual Report for a description of point of purchase public outreach efforts conducted at the countywide level and regionally

C.9.e.ii (2) ► Public Outreach: Pest Control Contracting Outreach

Provide a summary of outreach to residents who use or contract for structural pest control and landscape professionals); **AND/OR** reference a report of a regional effort for outreach to residents who hire pest control and landscape professionals in which your agency participates.

Summary:
See Section 9 of the SMCWPPP FY 2018/19 Annual Report for a summary of outreach to residents who hire pest control and landscape professionals

C.9.e.ii.(3) ► Public Outreach: Pest Control Operators

Provide a summary of public outreach to pest control operators and landscapers and reduced pesticide use (here or in a separate report); **AND/OR** reference a report of a regional effort for outreach to pest control operators and landscapers in which your agency participates.

Summary:
See Section 9 of the SMCWPPP FY 2018/19 Annual Report for a summary of the Countywide Program's outreach to pest control operators and landscapers to reduce pesticide use.

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C.9.f ▶ Track and Participate in Relevant Regulatory Processes

Summarize participation efforts, information submitted, and how regulatory actions were affected; **AND/OR** reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected.

Summary:

During FY 2018/19, we participated in regulatory processes related to pesticides through contributions to the Countywide Program, BASMAA and CASQA. For additional information, see the regional report submitted by BASMAA on behalf of all MRP Permittees.

C.9.g. ▶ Evaluate Implementation of Pesticide Source Control Actions

(For FY 18-19 Annual Report only) Submit an evaluation that assesses; 1) the effectiveness of IPM efforts required in Provisions C.9.a-e and g, 2) a discussion of any improvements made in the past five years; 3) any changes in water quality regarding pesticide toxicity in urban creeks; and 4) a brief description of one or more pesticide-related area(s) the Permittee will focus on enhancing during the subsequent permit term.

Summary:

Guidance: Provide the following text: “See the appendices to SMCWPPP’s FY 2018/19 Annual Report for a report that includes the following:

- **An evaluation of the effectiveness of source control measures for pesticides and toxicity that have been implemented;**
- An evaluation of water quality in relation to pesticides and toxicity in urban creeks;
- Improvements made to Belmont’s IPM Program during this permit term; and
- Pesticide-related area(s) that Belmont will focus on enhancing during the next permit term.

Section 10 - Provision C.10 Trash Load Reduction

C.10.a.i ► Trash Load Reduction Summary

For population-based Permittees, provide the overall trash reduction percentage achieved to-date within the jurisdictional area of your municipality that generates problematic trash levels (i.e., Very High, High or Moderate trash generation). Base the reduction percentage on the information presented in C.10.b i-iv and C.10.e.i-ii. Provide a discussion of the calculation used to produce the reduction percentage

Trash Load Reductions

Percent Trash Reduction in All Trash Management Areas (TMAs) due to Trash Full Capture Systems (as reported C.10.b.i)	55.3%
Percent Trash Reduction in all TMAs due to Control Measures Other than Trash Full Capture Systems (as reported in C.10.b.ii) ¹	41.0%
Percent Trash Reduction due to Jurisdictional-wide Source Control Actions (as reported in C.10.b.iv)	0.0%
SubTotal for Above Actions	96.3%
Trash Offsets (Optional)	
Offset Associated with Additional Creek and Shoreline Cleanups (as reported in C.10.e.i)	0.0%
Offset Associated with Direct Trash Discharges (as reported in C.10.e.ii)	0.0%
Total (Jurisdictional-wide) % Trash Load Reduction through FY 2018-19	96.3%

Discussion of Trash Load Reduction Calculation and Attainment of the 80% Mandatory Deadline:

The City attained and reported 95.0% trash load reduction (including trash offsets) in its FY 17-18 Annual Report. During FY 18-19, the City continued to implement a robust trash control measure program. This helped the City maintain and increase its trash load reduction above the mandatory 80% trash load reduction requirement included in the MRP. The total (jurisdiction-wide) percent trash load reduction in FY 18-19 is 96.3% (including trash offsets). The most recent version of the City’s Baseline Trash Generation Map can be downloaded at URL here:

<http://www.flowstobay.org/content/municipal-trash-generation-maps>

¹ See Appendix 10-1 for changes between 2009 and FY 18-19 in trash generation by TMA as a result of Full Capture Systems and Other Measures.

C.10.a.iii ► Mandatory Trash Full Capture Systems		
Provide the following:		
1) Total number and types of full capture systems (publicly and privately-owned) installed prior to FY 18-19, during FY 18-19, and to-date, including inlet-based and large flow-through or end-of-pipe systems, and qualifying low impact development (LID) required by permit provision C.3.		
2) Total land area (acres) treated by full capture systems for population-based Permittees and total number of systems for non-population based Permittees compared to the total required by the permit.		
Type of System	# of Systems	Areas Treated (Acres)
Installed in FY 18-19		
None	-	-
Installed Prior to FY 18-19		
Connector Pipe Screens (Public)	60	571.8
Basket (Public)	9	3.4
Total for all Systems Installed To-date	69	575.2
Treatment Acreage Required by Permit (Population-based Permittees)		17
Total # of Systems Required by Permit (Non-population-based Permittees)		N/A

C.10.b.i ► Trash Reduction - Full Capture Systems

Provide the following:

- 1) Jurisdiction-wide trash reduction in FY 18-19 attributable to trash full capture systems implemented in each TMA;
- 2) The total number of full capture systems installed to-date in your jurisdiction;
- 3) The percentage of systems in FY 18-19 that exhibited significant plugged/blinded screens or were >50% full when inspected or maintained;
- 4) A narrative summary of any maintenance issues and the corrective actions taken to avoid future full capture system performance issues; and
- 5) A certification that each full capture system is operated and maintained to meet the full capture system requirements in the permit.

TMA	Jurisdiction-wide Reduction (%)	Total # of Full Capture Systems	% of Systems Exhibiting Plugged/Blinded Screens or >50% full in FY 18-19	Summary of Maintenance Issues and Corrective Actions
1	25.5%	69	0%	No issues to report. The City continued with regular inspections and cleanings, as necessary of all full capture systems on a quarterly basis. In addition, all full capture systems are inspected and cleaned, as necessary prior to the wet season; and during and after rain events.
2	19.1%			
3	3.0%			
4	1.3%			
5	0.0%			
Total	55.3%			

Certification Statement:

The City of Belmont certifies that a full capture system maintenance and operation program is currently being implemented to maintain all applicable systems in a manner that meets the full capture system requirements included in the Permit.

*The Total jurisdiction-wide reduction reported for full capture systems includes 6.4% reduction for treatment of 27.5 acres of non-jurisdictional public K-12, college and university school land areas.

C.10.b.ii ► Trash Reduction – Other Trash Management Actions (PART A)	
Provide a summary of trash control actions other than full capture systems or jurisdictional source controls that were implemented within each TMA, including the types of actions, levels and areal extent of implementation, and whether actions are new, including initiation date.	
TMA	Summary of Trash Control Actions Other than Full Capture Systems
1 (Retail/Commercial Areas)	<p>A) Enhanced Street Sweeping- Starting in 2012, the City increased its street sweeping efforts to include sweeping most retail areas three times per week. Rethink Waste also conducts sweeping along Shoreway Road;</p> <p>B) Uncovered Loads- Since FY12/13, the City has continued to conduct public outreach for covered loads. A sign advising motorists “Uncovered Loads Are Subject to Fines” was installed on Shoreway Road, which is heavily used by garbage trucks and other vehicles traveling to the Shoreway Environmental Center, Recycling Center and Transfer Station;</p> <p>C) Improved Trash Bin/Container Management- The City continues to support the garbage service agreement implemented in January 2011 that required covered bins for all residential and commercial users. Additionally, the City continues to monitor, and empty when necessary, a covered top trash receptacle that replaced an open top trash receptacle on Shoreway Trail in 2010. This trail runs alongside commercial properties and the O’Neill Slough.</p> <p>D) On-Land Cleanups- Starting in FY2011-2012, the City began performing on-land trash cleanups in this TMA. These Permittee led cleanups have continued each year since, and the number of these on-land cleanups have increased in this TMA.</p> <p>E) Public Education- To bring awareness to cigarette butt litter a roadway banner for cigarette butt litter prevention was displayed multiple times over Ralston Avenue.</p> <p>F) Other Types of Actions- Since installed in FY 2015/16, the City continues to inspect, and clean when necessary, 2 cigarette butt receptacles at the Carlmont Shopping Center and the 5th Avenue Public Parking Lot as well as 2 outreach signs at the Bus stop on Ralston in front of Walgreens and at the Carlmont Shopping Center in this TMA; which were all obtained through a grant from Keep America Beautiful for the Cigarette Butt Litter Prevention Program.</p>
2 (El Camino Real Corridor)	<p>A) Enhanced Street Sweeping- The City of Belmont swept the El Camino Real corridor twice a week pre 2013. Beginning in 2013, the City’s enhanced street sweeping frequency increased to three times per week on this El Camino Real corridor.</p> <p>B) Improved Trash Bin/Container Management- Since installed in April 2016, the City continues to have the two covered</p>

	<p>trash and recycling receptacles on Ralston Avenue between El Camino Real and Old County Road serviced twice a week by contract. Previously these pedestrian pathway areas had no public trash and recycling receptacles. These areas are adjacent to the Belmont Caltrain Station and are frequently traveled by pedestrians and Caltrain riders.</p> <p>C) Public Education- Since installed in FY 2015/16, the City continues to maintain outreach signage in this TMA at the bus stop on El Camino by the Lariat Tavern, the bus stops on El Camino by Starbucks at Ralston, and by the stairs to the Caltrain station at El Camino and Ralston to bring awareness to cigarette butt litter.</p> <p>D) Other Types of Actions- Since installed in FY 2015/16, the City continues to monitor, and empty when necessary, 1 cigarette butt receptacle at the bottom of the stairs leading up to the Caltrain Station at El Camino and Ralston as well as 3 outreach signs at the bus stop on El Camino by the Lariat Tavern, the bus stop on El Camino by Starbucks and by the stairs to the Caltrain station at El Camino and Ralston; which were obtained through a grant from Keep America Beautiful for the Cigarette Butt Litter Prevention Program.</p>
<p>3 (Public Facilities/Parks)</p>	<p>A) Enhanced Street Sweeping- Beginning in 2012, the City increased its sweeping frequency to three times per week for the City Hall parking lot, Twin Pines Park parking lot, Sports Complex parking lot, Barrett Community Center parking lot and Belmont Library parking lot.</p> <p>B) On-land Cleanup- Since 2011, the City has conducted on-land trash cleanups in this TMA. These have been both Permittee and volunteer lead cleanups.</p> <p>C) Improved Trash Bin/Container Management- Since 2013, the City continues to monitor, and empty when necessary, covered trash and recycling receptacles, which replaced uncovered receptacles, at two Twin Pines Park picnic areas; Since 2014/15, the City has continued to monitor, and empty when necessary, covered trash and recycling receptacles, which replaced uncovered receptacles, at the Barrett Community Center, Library, Belameda Park, O'Donnell Park and Alexander Park sites.</p> <p>D) Public Education- Since installed in FY 2015/16, the City continues to maintain three outreach signs in this TMA. There are two locations along O'Neill Slough Trail, and a sign at Barrett Park.</p> <p>E) Other Types of Actions- Since installed in FY 2015/16, the City continues to monitor, and empty when necessary, 3 cigarette butt receptacles (Vista Point, Belmont Sports Complex, and O'Neill Slough trail); which were all obtained through a grant from Keep America Beautiful for the Cigarette Butt Litter Prevention Program</p>
<p>4 (Schools)</p>	<p>A) Enhanced Street Sweeping- The City's enhanced street sweeping efforts that began in 2012 have resulted in additional sweeping occurring around four school sites. The street in front of two schools are swept twice per week, and the street in</p>

	<p>front of two other schools are swept three times per week.</p> <p>B) On-land Cleanup- Since 2011, the City has conducted on-land trash cleanups in this TMA. These have been both Permittee and volunteer lead cleanups.</p> <p>C) Storm Drain Inlet Cleaning- Since FY 2013/2014, the City has conducted enhanced storm drain inlet maintenance around schools. These enhanced efforts include inspecting and cleaning 48 storm drain inlets an additional two times per year.</p> <p>D) Improved Trash Bin/Container Management- The City continues to support the garbage service agreement implemented in January 2011 that required covered bins for all residential and commercial users.</p>
<p>5 (Other- Colleges/Universities, Open Space, Major Infrastructure, Forest Land, Rangeland)</p>	<p>A) Enhanced Street Sweeping- Beginning in 2012, the City's enhanced street sweeping for leaf control includes sweeping two neighborhoods (Chula Vista and portions of Sterling Downs) two times per week from October through mid-December.</p> <p>B) On-land Cleanup- Since 2013, The City has conducted on-land trash cleanups in this TMA. These have been Permittee lead.</p> <p>C) Improved Trash Bin/Container Management- The City continues to support the garbage service agreement implemented in January 2011 that required covered bins for all residential and commercial users.</p> <p>D) Partial Capture Devices- Since installed in February 2017, the City has continued to inspect, and clean when necessary, 27 United Storm Water Wing-Gate automatic retractable curb inlet screen covers on both Clipper Drive and Concourse Drive.</p>

Summary of Trash Control Measures Other than Full Capture Devices: (Do not delete this section)

- **Street Sweeping:** Include a description of any enhancements or new actions implemented after the MRP 1.0 effective date (i.e., December 2009). Identify portions of the TMA where enhanced street sweeping (i.e., increased sweeping frequency) and parking enforcement above 2009 levels was implemented.
- **On-land Cleanup:** Include a description of on-land cleanup activities that began after the MRP 1.0 effective date (i.e., December 2009) and continued into FY 18-19, including any enhancements or new actions implemented in FY 18-19. Describe if these actions are Permittee or volunteer-led.

- **Partial Capture Devices:** Provide a description of devices installed after the MRP 1.0 effective date (i.e., December 2009). Describe the level of maintenance conducted per device types.
- **Storm Drain Inlet Cleaning:** Describe storm drain inlet maintenance activities implemented after the MRP 1.0 effective date (i.e., December 2009) and continued in FY 18-19, including any enhancements or new maintenance activities implemented in FY 18-19. For new/enhanced actions, include the number of inlets where enhanced maintenance occurred, and the increased frequency of maintenance.
- **Uncovered Loads:** Describe activities designed to reduce trash from uncovered loads that began after the MRP 1.0 effective date (i.e., December 2009) and continued in FY 18-19, including any enhancements or new actions implemented in FY 18-19. Describe the types of actions implemented including new or redirected enforcement efforts to increase the focus towards new or enhanced actions.
- **Anti-littering and illegal dumping enforcement activities:** Describe anti-littering and illegal dumping enforcement activities began after to the MRP 1.0 effective date (i.e., December 2009) and continued in FY 18-19, and any enhancements or new actions implemented in FY 18-19. Include any new or redirected enforcement efforts to increase the focus towards new or enhanced actions. Describe the number of citations or other correction actions accomplished this year and compare with previous years. Indicate how anti-littering and illegal dumping enforcement records are kept, and how they may be retrieved for audit.
- **Improved Trash Bin/Container Management:** Describe activities designed to improve trash bin/container management that began after the MRP 1.0 effective date (i.e., December 2009) and continued in FY 18-19, and any enhancements or new actions implemented in FY 18-19. Include any new or redirected efforts to increase the focus towards these new or enhanced actions.
- **Other Types of Actions:** Describe activities designed after the MRP effective date (i.e., December 2009) and continued in FY 18-19, and any enhancements or new (post December 2009 effective date) actions implemented in FY 18-19.

C.10.b.ii ► Trash Reduction – Other Trash Management Actions (PART B)

Provide the following:

- 1) A summary of the on-land visual assessments in each TMA (or control measure area), including the street miles or acres available for assessment (i.e., those associated with VH, H, or M trash generation areas not treated by full capture systems), the street miles or acres assessed, the % of available street miles or acres assessed, and the average number of assessments conducted per site within the TMA; and
- 2) Percent jurisdictional-wide trash reduction in FY 18-19 attributable to trash management actions other than full capture systems implemented in each TMA; OR
- 3) Indicate that no on-land visual assessments were performed.

If no on-land visual assessments were performed, check here and state why:

X

Explanation: No OVTAs were conducted in TMA #5 in FY 18-19 because the entire TMA is low trash generating.

TMA ID <i>or (as applicable)</i> Control Measure Area	Total Street Miles ² Available for Assessment	Summary of On-land Visual Assessments ³			Jurisdictional-wide Reduction (%)
		Street Miles Assessed	% of Available Street Miles Assessed	Avg. # of Assessments Conducted at Each Site ^{4,5}	
1	0.56	0.26	46.9%	6.0	15.5%
2	0.86	0.37	42.7%	6.5	16.2%
3	0.32	0.19	59.1%	6.0	2.6%
4	0.45	0.15	32.9%	7.0	6.7%
5	0.00	NA	NA	NA	NA
Total		0.97	-	-	41.0%

² Street miles are defined as the street lengths and do not include curbs associated with medians.

³ Assessments conducted between July 2017 and July 2019 are assumed to be representative of trash levels in FY 18-19 and were therefore used to calculate the jurisdictional-wide reductions reported in this section.

⁴ Each assessment site is roughly 1,000 feet in length.

⁵ Based on analyses conducted as part of the BASMAA Tracking California's Trash project (BASMAA 2017) funded by the State Water Resources Control Board, the optimal number of assessment events to detect an improvement from baseline trash levels at a site is between 4 and 6 per site.

C.10.b.iv ▶ Trash Reduction – Source Controls

Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.

Source Control Action	Summary Description & Dominant Trash Sources and Types Targeted	Evaluation/Enforcement Method(s)	Summary of Evaluation/Enforcement Results To-date	% Reduction
<p>Single-Use Plastic Bag Ordinance</p>	<p>The City adopted the Countywide Single-Use Carryout Bag Policy which went into effect on April 22, 2013. The ordinance is located on the Environmental page of the City's website. https://www.belmont.gov/home</p> <p>Dominant sources: Pedestrian litter and vehicles. Dominant type: Single-use carryout plastic bag.</p>	<p>On behalf of all SMCWPPP Permittees, the County of San Mateo conducted assessments evaluating the effectiveness of the single use plastic bag ban in municipalities within San Mateo County. Assessments conducted by the County included audits of businesses & surveys of customer bag usage at many businesses in the County. Additionally, the number of complaints by customers was also tracked by the County. The results of assessments conducted by these cities are assumed to be representative of all SMCWPPP Permittees, given the consistency between the implementation, scope, and enforcement of the ordinances among municipalities. The City of Belmont developed its % trash reduced estimate using the following assumptions: 1) Single use plastic bags comprise 8% of the trash discharged from stormwater conveyances, based on the Regional Trash Generation Study conducted by BASMAA;</p>	<p>Results of assessments conducted by the County of San Mateo on behalf of all municipalities in San Mateo County indicate that the City of Belmont's ordinance is effective in reducing the number of single-use plastic bags in stormwater discharges. This preliminary conclusion is based on the very small number of complaints received from customers about businesses in San Mateo County that are continuing to use single use plastic bags after ordinances were adopted. Assuming single use bags are 8% of the trash observed in stormwater discharges, the City of Belmont concludes that there has been a 7% (i.e., 8% x 86% effectiveness in reducing bags) reduction in trash in stormwater discharges as a result of the City of Belmont's ordinance.</p>	<p>7% City is not claiming this credit</p>

C.10.b.iv ► Trash Reduction – Source Controls				
<p>Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.</p>				
		<p>2) 95% of single use plastic bags distributed in the City of Belmont are affected by the ordinance implementation, based on the County of San Mateo's Environmental Impact Report; and 3) Of the bags affected by the ordinance, there are now 90% less bags being distributed, based on customer complaints received by the County's Department of Environmental Health Services. This is conservative estimate given that in FY 13-14 Environmental Services only received complaints about 4, of the over 1900 businesses in the County that are affected by the single-use plastic bag ordinances.</p>		
<p>Expanded Polystyrene Food Service Ware Ordinance</p>	<p>The City adopted the Countywide Prohibition on The Use of Polystyrene Based Disposable Food Service Ware by Food Vendors. This ordinance went into effect October 01, 2012. Link to ordinance below: http://38.106.5.146/cityhall/publicworks/environmental/polystyrene</p> <p>Dominant sources: Pedestrian litter Dominant type: Polystyrene</p>	<p>Although the City of Belmont has adopted and implemented an ordinance prohibiting the distribution of EPS food ware by food vendors, evaluations of the effectiveness of the ordinance have not yet been conducted. For the purpose of estimating trash reductions in stormwater discharges associated with the ordinance, the results of assessments conducted by the cities of Los Altos and Palo Alto were used to represent the</p>	<p>Results of assessments that are representative of the City of Belmont but were conducted by the cities of Los Altos and Palo Alto, indicate that the City of Belmont's ordinance is effective in reducing EPS food ware in stormwater discharges. This conclusion is based on the following assessment result – an average of 95% of businesses affected by the ordinance are no longer distributing EPS food ware post ordinance. Based on</p>	<p>5% City is not claiming this credit</p>

C.10.b.iv ▶ Trash Reduction – Source Controls

Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.

		<p>reduction of trash associated with the City of Belmont's ordinance. Assessments conducted by these cities were conducted prior to and following the effective date of their ordinances and include audits of businesses and/or assessments of EPS food ware observed on streets, storm drains and local creeks. The results of assessments conducted by these cities are assumed to be representative of the effectiveness of the City of Belmont's ordinance because the implementation (including enforcement) of the City of Belmont's ordinance is similar to the City of Los Altos' and Palo Alto's. The City of Belmont developed its % trash reduced estimate using the following assumptions: 1.) EPS food ware comprises 6% of the trash discharged from stormwater conveyances, based on the Regional Trash Generation Study conducted by BASMAA; 2) 80% of EPS food ware distributed by food vendors or sold via stores in the City of Belmont is affected by the implementation of the ordinance; and 3) There is now 95% less EPS food ware being distributed, sold and/or observed in the</p>	<p>these results, the estimated average reduction of EPS food ware in stormwater discharges is 90%. Assuming EPS food ware is 6% of the trash observed in stormwater discharges, the City of Belmont concludes that there has been a 5% (i.e., 6% x 90%) reduction in trash in stormwater discharges as a result of the ordinance.</p>	
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C.10.b.iv ▶ Trash Reduction – Source Controls

Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.

		environment, based on assessments conducted by the City of Palo Alto and City of Los Altos		
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C.10.b.v ▶ Trash Reduction – Receiving Water Monitoring

Report on the progress of developing and testing your agency's trash receiving water monitoring program.

In FY 18-19, the City continued implementing the BASMAA Regional Receiving Water Trash Monitoring Program Plan that was approved by the Water Board's Executive Officer. Implementation included preparing for and conducting qualitative assessments and quantitative monitoring in receiving water locations within the City of Belmont. Implementation occurred through both the City's own efforts and participation in the San Mateo County Water Pollution Prevention Program (SMCWPPP). Consistent with MRP requirements, a preliminary report describing data results and findings to-date was submitted to the Water Board via BASMAA on July 1, 2019 on behalf of all Permittees. The final report for the development and testing of the Bay Area trash receiving water monitoring program will be submitted by BASMAA by July 1, 2020, consistent with the MRP requirements, following peer review.

In addition to implementing the BASMAA Monitoring Plan, the City coordinated (via SMCWPPP) on the Statewide Trash Monitoring Methods Project, which is funded by the California Ocean Protection Council and State Water Board and administered via the Southern California Coastal Water Research Project (SCCWRP) and San Francisco Bay Estuary Institute (SFEI).

Additional information on accomplishments in FY 18-19 can be found in the Receiving Water Trash Monitoring Program Progress Report included in the SMCWPPP FY 18-19 Annual Report.

C.10.c ▶ Trash Hot Spot Cleanups

Provide the FY 18-19 cleanup date and volume of trash removed during each MRP-required Trash Hot Spot cleanup during each fiscal year listed. Indicate whether the site was a new site in FY 18-19.

Trash Hot Spot	New Site in FY 18-19 (Y/N)	FY 18-19 Cleanup Date(s)	Volume of Trash Removed (cubic yards)				
			FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
BEL01	N	7/25/18	0.1	0.04	0.04	0.2	0.07
BEL02	N	7/30/18	0.1	0.01	0.01	0.3	0.1

C.10.d ▶ Long-Term Trash Load Reduction Plan

Provide descriptions of significant revisions made to your Long-term Trash Load Reduction Plan submitted to the Water Board in February 2014. Describe significant changes made to primary or secondary trash management areas (TMA), baseline trash generation maps, control measures, or time schedules identified in your plan. Indicate whether your baseline trash generation map was revised and if so, what information was collected to support the revision. If your baseline trash generation map was revised, attach it to your Annual Report.

Description of Significant Revision	Associated TMA
In FY 15/16, consistent with all MRP Permittees, all public K-12 schools, college and university parcels were made non-jurisdictional on the City's baseline trash generation maps. Under California Government Code Sections 4450 through 4461, the construction, modification, or alteration of facilities and/or structures on these parcels are under the jurisdiction of the California Division of State Architect and not the City. The public right-of-way (e.g., streets and sidewalks) surrounding these parcels remain as a jurisdictional on the City's baseline trash generation maps. The City's revised baseline trash generation map was included as Appendix 10-2 in the FY 15/16 Annual Report.	All applicable

C.10.e. ► Trash Reduction Offsets (Optional)

Provide a summary description of each offset program implemented, the volume of trash removed, and the offset claimed in FY 18-19. Also, for additional creek and shoreline cleanups, describe the number and frequency of cleanups conducted, and the locations and cleanup dates. For direct discharge control programs approved by the Water Board Executive Officer, also describe the results of the assessments conducted in receiving waters to demonstrate the effectiveness of the control program. Include an Appendix that provides the calculations and data used to determine the trash reduction offset.

Offset Program	Summary Description of Actions and Assessment Results	Volume of Trash (CY) Removed/Controlled in FY 18-19	Offset (% Jurisdiction-wide Reduction)
Additional Creek and Shoreline Cleanups (Max 10% Offset)	N/A	N/A	N/A
Direct Trash Discharge Controls (Max 15% Offset)	N/A	N/A	N/A

Appendix 10-1. Baseline trash generation and areas addressed by full capture systems and other control measures in Fiscal Year 18-19.⁶

TMA	2009 Baseline Trash Generation (Acres)					Trash Generation (Acres) in FY 18-19 After Accounting for Full Capture Systems					Jurisdiction-wide Reduction via Full Capture Systems (%)	Trash Generation (Acres) in FY 18-19 After Accounting for Full Capture Systems and Other Control Measures					Jurisdiction-wide Reduction via Other Control Measures (%)	Jurisdiction-wide Reduction via Full Capture AND Other Control Measures (%)
	L	M	H	VH	Total	L	M	H	VH	Total		L	M	H	VH	Total		
1	1	82	25	0	108	69	28	11	0	108	25.5%	102	6	0	0	108	15.5%	40.9%
2	8	10	38	0	56	32	6	18	0	56	19.1%	46	9	0	0	56	16.2%	35.2%
3	0	53	0	0	53	13	40	0	0	53	3.0%	24	28	0	0	53	2.6%	5.7%
4	0	34	0	0	34	6	28	0	0	34	1.3%	34	0	0	0	34	6.7%	8.0%
5	2,489	0	0	0	2,489	2,489	0	0	0	2,489	N/A	2,489	0	0	0	2,489	N/A	N/A
Totals	2,498	179	63	0	2,740	2,608	103	29	0	2,740	55.3%*	2695	43	0	0	2,740	41.0%	96.3%

Note: "NA" indicates that the TMA has no moderate, high or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional) and therefore no additional trash control measures are needed.

*The Total jurisdiction-wide reduction reported for full capture systems includes 6.4% reduction for treatment of 27.5 acres of non-jurisdictional public K-12, college and university school land areas.

⁶ Due to rounding, total acres and percentages presented in this table may be slightly different than the sum of the acres/percentages in the corresponding rows/columns (e.g., differ by 1 acre or 0.1%).

Section 13 - Provision C.13 Copper Controls

C.13.a.iii.(3) ► Manage Waste Generated from Cleaning and Treating of Copper Architectural Features

Provide summaries of permitting and enforcement activities to manage waste generated from cleaning and treating of copper architectural features, including copper roofs, during construction and post-construction.

Summary:

The City has a standard condition that requires how the wastewater should be treated for any architectural copper features. During construction, municipal construction stormwater inspectors are responsible for identifying copper architectural features and if appropriate BMPs are implemented. Any issues noted are documented and enforcement actions recorded in the Provision C.6 inspection records. Post-construction municipal illicit discharge inspectors are responsible for responding to, investigating and identifying illegal discharge of wash water from washing copper architectural features. Any enforcement actions or reported discharges are recorded in the Provision C.5 inspection records. The SMCWPPP “Requirements for Architectural Copper” Fact Sheet is made available to the public, construction inspectors and illicit discharge inspectors on the SMCWPPP website www.flowstobay.org/files/newdevelopment/flyersfactsheets/ArchitecturalcopperBMPs.pdf. Inspectors are made aware of the concerns with copper architectural features at SMCWPPP Training Workshops and internal municipal trainings.

C.13.b.iii.(3) ► Manage Discharges from Pools, Spas, and Fountains that Contain Copper-Based Chemicals

Provide summaries of any enforcement activities related to copper-containing discharges from pools, spas, and fountains.

Summary:

All pools, spas, and fountains are required to be discharged into the sewer system. Handouts are provided to permit applicants on for the “Maintenance Tips for Pools, Spas, and Fountains” Fact Sheet to educate the public.

Additionally, Staff responds to discharges from pools through the illicit discharge detection and elimination program and also requires all regulated projects to discharge pools, spas, and fountain water to the sanitary sewer.

The City responds to calls from residents and staff along with drive-by when pools and spas are being drained into the city storm system. Apart from stopping the flow, we educate the owner and fill out an illicit discharge form.

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C.13.c.iii ► Industrial Sources Copper Reduction Results

Based upon inspection activities conducted under Provision C.4, highlight copper reduction results achieved among the facilities identified as potential users or sources of copper, facilities inspected, and BMPs addressed.

Summary:

Facilities are inspected that could be potential users or sources of copper including automotive and machine shop facilities in the City. No violations related to copper were noted at any of these facility inspections.

Section 15 -Provision C.15 Exempted and Conditionally Exempted Discharges

C.15.b.vi.(2) ► Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering

Provide implementation summaries of the required BMPs to promote measures that minimize runoff and pollutant loading from excess irrigation. Generally the categories are:

- Promote conservation programs
- Promote outreach for less toxic pest control and landscape management
- Promote use of drought tolerant and native vegetation
- Promote outreach messages to encourage appropriate watering/irrigation practices
- Implement Illicit Discharge Enforcement Response Plan for ongoing, large volume landscape irrigation runoff.

Summary:

Conservation programs are not conducted through the City, however, Belmont's water purveyor-Mid Peninsula Water District participates in the City's Earth Day Event and promote water conservation programs.

The City provides informational material on Our Water, Our World (OWOW) less toxic pest control and landscape management at the City's outreach booths during events. The rainwater harvesting and rain barrel rebate program is also promoted at the City's events.

Related countywide efforts may be described in the following sections of the SMCWPPP FY 2018/19 Annual Report: C.3 New Development and Redevelopment, C.7. Public Information and Outreach, C.9. Pesticide Toxicity Control, and C.15 Exempted and Conditionally Exempted Discharges