

COMMUNITY DEVELOPMENT DEPARTMENT  
Public Works Division



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September 15, 2013

Bruce Wolfe  
Executive Director  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

**SUBJECT: CITY OF REDWOOD CITY SUBMITTAL – FY 2012 – 2013 MRP ANNUAL REPORT**

Reference: San Mateo Countywide Water Pollution Prevention Program

Dear Mr. Wolfe:

Attached are the City of Redwood City's deliverables, as prescribed in the Municipal Regional Stormwater Permit (MRP). This report is submitted in accordance with provision C.16.a of the MRP.

We 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 assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing the violations.

Sincerely,

A handwritten signature in black ink, appearing to read 'Terence Kyaw', with a long, sweeping underline.

Terence Kyaw  
Assistant Public Works Director

Enclosures:

E-Copy

**ATTACHMENT B**

**Table of Contents**

<b>Section</b>	<b>Page</b>
Section 1 – Permittee Information.....	1-1
Section 2 – Provision C.2 Municipal Operations.....	2-1
Section 3 – Provision C.3 New Development and Redevelopment.....	3-1
Section 4 – Provision C.4 Industrial and Commercial Site Controls.....	4-1
Section 5 – Provision C.5 Illicit Discharge Detection and Elimination.....	5-1
Section 6 – Provision C.6 Construction Site Controls.....	6-1
Section 7 – Provision C.7 Public Information and Outreach.....	7-1
Section 8 – Provision C.8 Water Quality Monitoring.....	8-1
Section 9 – Provision C.9 Pesticides Toxicity Controls.....	9-1
Section 10 – Provision C.10 Trash Load Reduction.....	10-1
Section 11 – Provision C.11 Mercury Controls.....	11-1
Section 12 – Provision C.12 PCBs Controls.....	12-1
Section 13 – Provision C.13 Copper Controls.....	13-1
Section 14 – Provision C.14 PBDE, Legacy Pesticides and Selenium Controls.....	14-1
Section 15 – Provision C.15 Exempted and Conditionally Exempted Discharges.....	15-1

Attachments:

1. Municipal Corporation Yard Inspection Form
2. Narrative discussion of 100% LID Feasibility
3. Potential Facilities List
4. Scheduled Facilities List
5. Redwood City website Storm information and FAQ
6. IPM Pest Service
7. Green Pro Certificate
8. Full Trash Capture Device Map
9. Trash Management Area Map
10. Webpage - Ban on Polystyrene
11. Webpage – Reusable Bag Ordinance
12. Summary of Regional / Countywide Trash Reduction Actions
13. Architectural Copper BMPs

Permittee Name: City of Redwood City, CA

Section 1 – Permittee Information

Background Information					
Permittee Name:	City of Redwood City				
Population:	78,000				
NPDES Permit No.:	CAS612008				
Order Number:	R2-2009-0074R				
Reporting Time Period (month/year):	July 2012 through June 2013				
Name of the Responsible Authority:	Robert B. Bell	Title:	City Manager		
Mailing Address:	PO Box 391				
City:	Redwood City	Zip Code:	94063	County:	San Mateo
Telephone Number:	650.780.7308	Fax Number:			
E-mail Address:	BBell@redwoodcity.org				
Name of the Designated Stormwater Management Program Contact (if different from above):	Terence Kyaw	Title:	Assistant Public Works Director		
Department:	Public Works Services (Community Development Department)				
Mailing Address:	1400 Broadway				
City:	Redwood City	Zip Code:	94063	County:	San Mateo
Telephone Number:	650.780.7466	Fax Number:	650.780.7445		
E-mail Address:	tkyaw@redwoodcity.org				

Permittee Name: City of Redwood City, CA

Section 2 - Provision C.2 Reporting Municipal Operations

**Program Highlights and Evaluation**  
 Highlight/summarize activities for reporting year:

**Summary:**

The Redwood City staff continued to participate in ongoing countywide programs such as:

- Present at Municipal Maintenance Stormwater Workshop on May 23<sup>rd</sup>
- Attend meetings/workshops held by Municipal Maintenance Subcommittee and Trash Work Group.

**C.2.a. ► Street and Road Repair and Maintenance**

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

<b>Y</b>	Control of debris and waste materials during road and parking lot installation, repaving or repair maintenance activities from polluting stormwater
<b>Y</b>	Control of concrete slurry and wastewater, asphalt, pavement cutting, and other street and road maintenance materials and wastewater from discharging to storm drains from work sites.
<b>Y</b>	Sweeping and/or vacuuming and other dry methods to remove debris, concrete, or sediment residues from work sites upon completion of work.

Comments:

Permittee Name: City of Redwood City, CA

**C.2.b. ► Sidewalk/Plaza Maintenance and Pavement Washing**

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

Y	Control of wash water from pavement washing, mobile cleaning, pressure wash operations at parking lots, garages, trash areas, gas station fueling areas, and sidewalk and plaza cleaning activities from polluting stormwater
---	---

Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs
---	--

Comments:

**C.2.c. ► Bridge and Structure Maintenance and Graffiti Removal**

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

Y	Control of discharges from bridge and structural maintenance activities directly over water or into storm drains
---	--

Y	Control of discharges from graffiti removal activities
---	--

Y	Proper disposal for wastes generated from bridge and structure maintenance and graffiti removal activities
---	--

Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs for graffiti removal
---	---

Y	Employee training on proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.
---	---

Y	Contract specifications requiring proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.
---	--

Comments:

Permittee Name: City of Redwood City, CA

**C.2.d. ► Stormwater Pump Stations**

Does your municipality own stormwater pump stations:  Yes  No

If your answer is **No** then skip to **C.2.e.**

Complete the following table for dry weather DO monitoring and inspection data for pump stations<sup>1</sup> (add more rows for additional pump stations). If a pump station is exempt from DO monitoring, explain why it is exempt.

Pump Station Name and Location	First inspection Dry Weather DO Data		Second inspection Dry Weather DO Data	
	Date	mg/L	Date	mg/L
Bair Island, Bair Island Rd. & E. Bayshore Blvd	9/20/12	4.19	6/17/13	5.35
Bradford, 700 Bradford St.	9/20/12	4.39	6/17/13	4.87
Broadway, 1180 Broadway St	9/20/12	5.81	6/17/13	5.51
Douglas PS, 1101 Douglas Ave	9/20/12	4.91	6/17/13	6.03
Fifth Ave PS, 3011 E. Bayshore Rd	9/20/12	5.08	6/17/13	5.77
Jefferson/Middlefield PS, 1044 Middlefield Rd	9/20/12	6.23	6/17/13	5.65
K-Mart PS, End of Maple (Eastside)	9/20/12	7.25	6/17/13	4.11
Maple St PS, Corner of Veterans Blvd & Maple St	9/20/12	5.11	6/17/13	4.25
Oddstad PS, 1286 Oddstad Off Blomquist	9/20/12	7.70	6/17/13	4.91
Pacific Shores PS, 800 Seaport Blvd	9/20/12	5.79	6/17/13	5.13
Penn-1, 690 Redwood Shores Pkwy (behind Fire Station 20)	9/20/12	8.39	6/17/13	6.31
Price Tract PS, 305 Main St	9/20/12	5.01	6/17/13	4.06
Seaport Blvd, 195 Seaport Blvd	9/20/12	6.18	6/17/13	4.81
Seaport Centre, 207 Penobscot Drive	9/20/12	4.27	6/17/13	4.72
Veteran PS, End of Veterans Blvd, near Hwy 101/Whipple Exit	9/20/12	5.25	6/17/13	5.91

Summarize corrective actions as needed for DO monitoring at or below 3 mg/L. Attach inspection records of additional DO monitoring for corrective actions:

Summary: All DO monitoring data were above 3 mg/L; no corrective actions were necessary

Attachments: none

<sup>1</sup> DO monitoring is exempted where all discharge from a pump station remains in a stormwater collection system or infiltrates into a dry creek immediately downstream.

**FY 2012-2013 Annual Report**

**C.2 – Municipal Operations**

**Permittee Name: City of Redwood City, CA**

Complete the following table for wet weather inspection data for pump stations (add more rows for additional pump stations):

<b>Pump Station Name and Location</b>	<b>Date (2x/year required)</b>	<b>Presence of Trash (Cubic Yards)</b>	<b>Presence of Odor (Yes or No)</b>	<b>Presence of Color (Yes or No)</b>	<b>Presence of Turbidity (Yes or No)</b>	<b>Presence of Floating Hydrocarbons (Yes or No)</b>
Bair Island, Bair Island Rd. & E. Bayshore Blvd	1/15/2013	0	NO	NO	NO	NO
Bair Island, Bair Island Rd. & E. Bayshore Blvd	3/28/2013	0	NO	NO	NO	NO
Bradford, 700 Bradford St.	1/15/2013	0.01	YES	NO	YES	YES / LIGHT
Bradford, 700 Bradford St.	3/28/2013	0.01	NO	NO	NO	NO
Broadway, 1180 Broadway St	1/15/2013	0	NO	NO	NO	YES / LIGHT
Broadway, 1180 Broadway St	3/28/2013	0.01	NO	NO	NO	NO
Douglas PS, 1101 Douglas Ave	1/15/2013	0.01	NO	NO	NO	NO
Douglas PS, 1101 Douglas Ave	3/28/2013	0	NO	NO	NO	NO
Fifth Ave PS, 3011 E. Bayshore Rd	1/15/2013	0	NO	NO	NO	YES / LIGHT
Fifth Ave PS, 3011 E. Bayshore Rd	3/28/2013	0.01	NO	NO	NO	YES / LIGHT
Jefferson/Middlefield PS, 1044 Middlefield Rd	1/15/2013	0	YES	NO	YES	NO
Jefferson/Middlefield PS, 1044 Middlefield Rd	3/28/2013	0	NO	NO	NO	NO
K-Mart PS, End of Maple (Eastside)	1/15/2013	0.01	YES	NO	YES	YES / LIGHT
K-Mart PS, End of Maple (Eastside)	3/28/2013	0	YES	YES	NO	NO
Maple St PS, Corner of Veterans Blvd & Maple St	1/15/2013	0	NO	NO	NO	NO
Maple St PS, Corner of Veterans Blvd & Maple St	3/28/2013	0.01	NO	NO	NO	NO
Oddstad PS, 1286 Oddstad Off Blomquist	1/15/2013	0.01	YES	YES	YES	YES / MEDIUM
Oddstad PS, 1286 Oddstad Off Blomquist	3/28/2013	0	NO	YES	YES	YES / LIGHT
Pacific Shores PS, 800 Seaport Blvd	1/15/2013	0	NO	YES	YES	YES / LIGHT
Pacific Shores PS, 800 Seaport Blvd	3/28/2013	0	YES	NO	YES	NO
Penn-1, 690 Redwood Shores Pkwy (behind Fire Station 20)	1/15/2013	0	YES	YES	YES	YES / LIGHT
Penn-1, 690 Redwood Shores Pkwy (behind Fire Station 20)	3/28/2013	0	NO	NO	NO	YES / LIGHT

**FY 2012-2013 Annual Report**

**C.2 – Municipal Operations**

**Permittee Name: City of Redwood City, CA**

<b>Pump Station Name and Location</b>	<b>Date (2x/year required)</b>	<b>Presence of Trash (Cubic Yards)</b>	<b>Presence of Odor (Yes or No)</b>	<b>Presence of Color (Yes or No)</b>	<b>Presence of Turbidity (Yes or No)</b>	<b>Presence of Floating Hydrocarbons (Yes or No)</b>
Price Tract PS, 305 Main St	1/15/2013	0	NO	NO	NO	NO
Price Tract PS, 305 Main St	3/28/2013	0.01	NO	NO	NO	NO
Seaport Blvd, 195 Seaport Blvd	1/15/2013	0	YES	YES	NO	YES / MEDIUM
Seaport Blvd, 195 Seaport Blvd	3/28/2013	0	YES	NO	YES	NO
Seaport Centre, 207 Penobscot Drive	1/15/2013	0.01	NO	NO	YES	YES / LIGHT
Seaport Centre, 207 Penobscot Drive	3/28/2013	0	NO	NO	NO	NO
Veteran PS, End of Veterans Blvd, near Hwy 101/Whipple Exit	1/15/2013	0.01	YES	NO	YES	YES / LIGHT
Veteran PS, End of Veterans Blvd, near Hwy 101/Whipple Exit	3/28/2013	0.01	NO	NO	NO	NO

Permittee Name: City of Redwood City, CA

**C.2.e. ► Rural Public Works Construction and Maintenance**

Does your municipality own/maintain rural<sup>2</sup> roads:  Yes  No

If your answer is **No** then skip to C.2.f.

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

N/A	Control of road-related erosion and sediment transport from road design, construction, maintenance, and repairs in rural areas
N/A	Identification and prioritization of rural road maintenance based on soil erosion potential, slope steepness, and stream habitat resources
N/A	No impact to creek functions including migratory fish passage during construction of roads and culverts
N/A	Inspection of rural roads for structural integrity and prevention of impact on water quality
N/A	Maintenance of rural roads adjacent to streams and riparian habitat to reduce erosion, replace damaging shotgun culverts and excessive erosion
N/A	Re-grading of unpaved rural roads to slope outward where consistent with road engineering safety standards, and installation of water bars as appropriate
N/A	Inclusion of measures to reduce erosion, provide fish passage, and maintain natural stream geomorphology when replacing culverts or design of new culverts or bridge crossings

Comments including listing increased maintenance in priority areas:

<sup>2</sup> Rural means any watershed or portion thereof that is developed with large lot home-sites, such as one acre or larger, or with primarily agricultural, grazing or open space uses.

Permittee Name: City of Redwood City, CA

**C.2.f. ► Corporation Yard BMP Implementation**

Place an **X** in the boxes below that apply to your corporations yard(s):

<input type="checkbox"/>	We do not have a corporation yard
<input type="checkbox"/>	Our corporation yard is a filed NOI facility and regulated by the California State Industrial Stormwater NPDES General Permit
<input checked="" type="checkbox"/>	We have a <b>Stormwater Pollution Prevention Plan (SWPPP)</b> for the Corporation Yard(s)

Place an **X** in the boxes below next to implemented SWPPP BMPs to indicate that these BMPs were implemented in applicable instances. If not applicable, type **NA** in the box. If one or more of the BMPs were not adequately implemented during the reporting fiscal year then indicate so and explain in the comments section below:

<input checked="" type="checkbox"/>	Control of pollutant discharges to storm drains such as wash waters from cleaning vehicles and equipment
<input checked="" type="checkbox"/>	Routine inspection prior to the rainy seasons of corporation yard(s) to ensure non-stormwater discharges have not entered the storm drain system
<input checked="" type="checkbox"/>	Containment of all vehicle and equipment wash areas through plumbing to sanitary or another collection method
<input checked="" type="checkbox"/>	Use of dry cleanup methods when cleaning debris and spills from corporation yard(s) or collection of all wash water and disposing of wash water to sanitary or other location where it does not impact surface or groundwater when wet cleanup methods are used
<input checked="" type="checkbox"/>	Cover and/or berm outdoor storage areas containing waste pollutants

Comments:

If you have a corporation yard(s) that is not an NOI facility , complete the following table for inspection results for your corporation yard(s) or attach a summary including the following information:

Corporation Yard Name	Inspection Date (1x/year required)	Inspection Findings/Results	Follow-up Actions
Municipal Services Center	7/12/2012	Please see inspection summary C.2.f attachment.	

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

**C.3.b.v.(2)(a) ► Green Streets Status Report**

(All projects to be completed by December 1, 2014)

On an annual basis (if applicable), report on the status of any pilot green street projects within your jurisdiction. For each completed project, report the capital costs, operation and maintenance costs, legal and procedural arrangements in place to address operation and maintenance and its associated costs, and the sustainable landscape measures incorporated in the project including, if relevant, the score from the Bay-Friendly Landscape Scorecard.

Summary:

At this time, Redwood City has not completed or identified potential Green Streets projects. The C.3 New Development and Redevelopment section of the SMCWPPP FY 12-13 Annual Report includes a description of activities conducted at the countywide or regional level.

**C.3.b.v.(2)(c) ► Summary of Green Street Projects Completed by January 1, 2013**

(For FY 12-13 Annual Report only) Provide a summary of all green street projects completed by January 1, 2013.

Summary:

BASMAA has prepared a regional summary of all green street pilot projects. The Green Street Pilot Project Summary Report is being submitted by BASMAA, on behalf of the MRP permittees, in BASMAA’s MRP FY 12-13 Regional Supplement – New Development and Redevelopment. The Green Streets Pilot Project Summary Report contains all of the required elements listed in Provision C.3.b.v.(2)(c) for all green street projects completed by January 1, 2013, as well as information on projects not yet completed.

**C.3.b.v.(1) ► Regulated Projects Reporting**

Fill in attached table C.3.b.v.(1) or attach your own table including the same information. **Table attached.**

Permittee Name: City of Redwood City

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

<p><i>(For FY 11-12 Annual Report and each Annual Report thereafter)</i>                  Is your agency choosing to require 100% LID treatment onsite for all Regulated Projects and not allow alternative compliance under Provision C.3.e.?</p>	X	Yes		No
<p>Comments:</p> <p>Redwood City does not allow fees or LID treatment at an off-site location for in-lieu compliance under C.3.e.i..</p> <p>Redwood City does permit in-lieu compliance via LID Treatment Reduction Credits under C.3.e.ii for Special Projects, under the legal authority already in place in Redwood City Municipal Code Section 27A. Staff sends written confirmation to Special Project owners confirming their status after review of documents such as geotechnical reports, LID infeasibility/feasibility worksheets, and conceptual plans.</p>				

**C.3.e.vi ► Special Projects Reporting**

<p>1. 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)?</p>	X	Yes		No
<p>2. Has your agency granted final discretionary approval of a project identified as a Special Project in the March 15, 2013 report? If yes, include the project in both the C.3.b.v.(1) Table, and the C.3.e.vi. Table.</p>	X	Yes		No
<p>If you answered "Yes" to either question,</p> <ul style="list-style-type: none"> <li>1) Complete Table C.3.e.vi . below.</li> <li>2) Attach narrative discussion of 100% LID Feasibility or Infeasibility for each project.</li> </ul> <p>See attached table</p>				

Permittee Name: City of Redwood City

**C.3.h.iv. ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting**

(1) Fill in attached table C.3.h.iv.(1) or attach your own table including the same information. **Table attached.**

(2) On an annual basis, 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:

The most common problems are still trash and poor maintenance of vegetation in swales. Mechanical filters often had standing water and were not cleaned regularly. Because Redwood City inspected so many sites this year (well over 50%), staff found that many property owners were unaware of these systems' existence in the first place. Staff took this as an opportunity to educate property owners about these systems, how they operate, and how to perform adequate maintenance regardless of whether or not an inspection is scheduled for that year.

(3) On an annual basis, 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:

Redwood City has overhauled its annual inspection program this year to create a "baseline" year. This means that 100% of installed systems have been inspected since FY2010-11. Changes have been put in place to group sites together to consistently assign inspections each year and comply with C.3.h.

(4) During the reporting year, did your agency:

<ul style="list-style-type: none"> <li>Inspect all newly installed stormwater treatment systems and HM controls within 45 days of installation?</li> </ul>		Yes		No	X	Not applicable. No new facilities were installed.
<ul style="list-style-type: none"> <li>Inspect at least 20 percent of the total number of installed stormwater treatment systems or HM controls?<sup>3</sup></li> </ul>	X	Yes		No		Not applicable. No treatment measures
<ul style="list-style-type: none"> <li>Inspect at least 20 percent of the total number of installed vault-based systems?</li> </ul>	X	Yes		No		Not applicable. No vault systems.

If you answered "No" to any of the questions above, please explain: No new facilities were installed this reporting year

<sup>3</sup> If there is only 1 treatment measure in the jurisdiction, the agency must inspect it every year.

Permittee Name: City of Redwood City

**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 Co-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. We are using the following Program products for C.3.i implementation:

- The SMCWPPP C.3 Regulated Projects Checklist
- C.3.i guidance provided by the SMCWPPP C.3 Stormwater Technical Guidance document Appendix L

One staff member attended the May 22<sup>nd</sup> SMCWPPP New Development Workshop that included presentations on Provision C.3.i requirements and using the C.3 Regulated Projects Checklist for small projects.

All single-family homes, additions over 500 square feet and new construction complete the C.3 Regulated Projects Checklist. This is done regardless of whether or not they create or replace over 2,500 square feet of impervious surface. This procedure helps identify small projects, and educate all applicants about C.3 regardless of whether the project is C.3 regulated or not.

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

Project Name Project No.	Project Location <sup>10</sup> , Street Address	Name of Developer	Project Phase No. <sup>11</sup>	Project Type & Description <sup>12</sup>	Project Watershed <sup>13</sup>	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ft <sup>2</sup> ) <sup>14</sup>	Total Replaced Impervious Surface Area (ft <sup>2</sup> ) <sup>15</sup>	Total Pre- Project Impervious Surface Area <sup>16</sup> (ft <sup>2</sup> )	Total Post- Project Impervious Surface Area <sup>17</sup> (ft <sup>2</sup> )
<b>Private Projects</b>											
One Marina Phase 2, Buildings 6-9 CP12-0063	632, 634 True Wind Way 630, 636 Fan Tail Way Bair Island Rd, East of U.S. 101 Redwood City, CA 94063	RC Peninsula Park, LLC	2	New Development: Residential with 4 buildings, 51 townhome/condominium units total	Redwood Creek	2.8	2.8	18,600	30,300	82,500	48,900
One Marina Phase 3 Buildings 16-21 CP12-0083	640-645 Turnbuckle Drive Bair Island Rd, East of U.S. 101 Redwood City, CA 94063	RC Peninsula Park, LLC	3	New Development: Residential with 6 buildings, 64 townhome/condominium units total	Redwood Creek	3.9	3.9	90,500	12,600	125,400	103,100
145 Monroe CP13-0002	145 Monroe Street Franklin & Monroe Redwood City, 94063	Greystar	N/A	Redevelopment; Residential with a 6-story residential building containing 304 apartments	Redwood Creek	2.3	2.3	61,800	37,600	37,600	99,400
735 Brewster CP13-0159	735 Brewster Avenue Brewster & Samson Redwood City, 94063	Classic Communities	N/A	Redevelopment; Residential with 18 separate 3-story condominium units	Redwood Creek	0.5	0.5	10,500	10,000	13,700	20,500
1050 Broadway CP13-0118	1050 Broadway Broadway & Charter Redwood City, 94063	SunCap Property Group	N/A	Redevelopment; Commercial development: gym	Bayfront Canal	2.9	2.9	0	103,100	127,600	103,100

<sup>10</sup> Include cross streets

<sup>11</sup> If a project is being constructed in phases, indicate the phase number and use a separate row entry for each phase. If not, enter "NA".

<sup>12</sup> Project 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.

<sup>13</sup> State the watershed(s) in which the Regulated Project is located. Downstream watershed(s) may be included, but this is optional.

<sup>14</sup> All impervious surfaces added to any area of the site that was previously existing pervious surface.

<sup>15</sup> All impervious surfaces added to any area of the site that was previously existing impervious surface.

<sup>16</sup> For redevelopment projects, state the pre-project impervious surface area.

<sup>17</sup> For redevelopment projects, state the post-project impervious surface area.

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

Project Name Project No.	Project Location <sup>10</sup> , Street Address	Name of Developer	Project Phase No. <sup>11</sup>	Project Type & Description <sup>12</sup>	Project Watershed <sup>13</sup>	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ft <sup>2</sup> ) <sup>14</sup>	Total Replaced Impervious Surface Area (ft <sup>2</sup> ) <sup>15</sup>	Total Pre- Project Impervious Surface Area <sup>16</sup> (ft <sup>2</sup> )	Total Post- Project Impervious Surface Area <sup>17</sup> (ft <sup>2</sup> )
601 Main CP13-0163	601 Main Street Main & Marshall Redwood City, 94063	Lennar	N/A	Redevelopment; Residential with a 3-7 story residential building containing 196 apartments over ground- floor commercial	Redwood Creek	1.2	1.2	0	46,200	48,100	46,200
Port of Redwood City Wharves 1 & 2 CP12-0155	775 Hinman Road Seaport & Hinman Redwood City, 94063	Port of Redwood City	N/A	Redevelopment; Reconstruction of a parking lot at wharves 1 and 2	Redwood Creek	1.7	1.7	0	20,200	41,000	20,200
<b>Public Projects</b>											
None											
<p>Comments: The Redwood City Port, Wharves 1 &amp; 2 is listed as a private project because it goes through permit review like a private development. Although the Port is given its authority by the Redwood City Charter, and is a public entity, for C.3 purposes it behaves like a private entity when conducting construction on private Port property. Thus, O&amp;M does not need to be guaranteed by an agreement between Redwood City and itself, but the site will be added to Redwood City's database of permanent stormwater treatment systems to comply with C.3.h.</p>											

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

Project Name Project No.	Application Deemed Complete Date <sup>18</sup>	Application Final Approval Date <sup>19</sup>	Source Control Measures <sup>20</sup>	Site Design Measures <sup>21</sup>	Treatment Systems Approved <sup>22</sup>	Type of Operation & Maintenance Responsibility Mechanism <sup>23</sup>	Hydraulic Sizing Criteria <sup>24</sup>	Alternative Compliance Measures <sup>25/26</sup>	Alternative Certification <sup>27</sup>	HM Controls <sup>28/29</sup>
<b>Private Projects</b>										
One Marina Phase 2 Buildings 6-9 CP12-0063	10/3/2012	10/30/2012	Label storm drain inlets, efficient landscape irrigation, pesticide reduction	Direct runoff (roof, sidewalk, driveway) onto vegetated areas, protect sensitive areas, self-treating areas	Bioretention areas meeting biotreatment requirements of C.3.c	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Combination flow and volume, criteria 3	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area
One Marina Phase 3 Buildings 16-21 CP12-0083	10/3/2012	10/30/2012	Label storm drain inlets, efficient landscape irrigation, pesticide reduction	Direct runoff (roof, sidewalk, driveway) onto vegetated areas,	Bioretention areas meeting biotreatment requirements of C.3.c	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Combination flow and volume, criteria 3	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area

<sup>18</sup> For private projects, state project application deemed complete date. If the project did not go through discretionary review, report the building permit issuance date.

<sup>19</sup> For private projects, state project application final discretionary approval date. If the project did not go through discretionary review, report the building permit issuance date.

<sup>20</sup> List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

<sup>21</sup> List 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.

<sup>22</sup> List 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.).

<sup>23</sup> List 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.

<sup>24</sup> See 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).

<sup>25</sup> For 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.

<sup>26</sup> For 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.

<sup>27</sup> Note whether a third party was used to certify the project design complies with Provision C.3.d.

<sup>28</sup> If HM control is not required, state why not.

<sup>29</sup> If 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.v.(1) ► Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period (private projects)**

Project Name Project No.	Application Deemed Complete Date <sup>18</sup>	Application Final Approval Date <sup>19</sup>	Source Control Measures <sup>20</sup>	Site Design Measures <sup>21</sup>	Treatment Systems Approved <sup>22</sup>	Type of Operation & Maintenance Responsibility Mechanism <sup>23</sup>	Hydraulic Sizing Criteria <sup>24</sup>	Alternative Compliance Measures <sup>25/26</sup>	Alternative Certification <sup>27</sup>	HM Controls <sup>28/29</sup>
				protect sensitive areas, self-treating areas						
145 Monroe CP13-0002	10/9/2012	12/19/2012	Label storm drain inlets, efficient landscape irrigation, parking facilities controls, trash area controls	Minimize impervious surfaces	Kristar Flogard Perk Filter	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Combination flow and volume, criteria 3	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area
735 Brewster CP13-0159	4/16/2013	4/16/2013	Label storm drain inlets, garage drains to sewer, trash area controls, efficient irrigation	All runoff directed to non-LID treatment systems	Media filters (100% LID reduction credit for Special Projects)	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Flow based criteria 2.c	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area
1050 Broadway CP13-0118	5/7/2013	5/22/2013	Label storm drain inlets, floor drains to sewer, efficient irrigation, pool/spa connect to sewer, trash area,	Direct runoff (roof, sidewalk, onto vegetated areas, parking areas w/ permeable	Bioretention areas meeting biotreatment requirements of C.3.c	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Flow based criteria 2.c	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area

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

Project Name Project No.	Application Deemed Complete Date <sup>18</sup>	Application Final Approval Date <sup>19</sup>	Source Control Measures <sup>20</sup>	Site Design Measures <sup>21</sup>	Treatment Systems Approved <sup>22</sup>	Type of Operation & Maintenance Responsibility Mechanism <sup>23</sup>	Hydraulic Sizing Criteria <sup>24</sup>	Alternative Compliance Measures <sup>25/26</sup>	Alternative Certification <sup>27</sup>	HM Controls <sup>28/29</sup>
			controls, roof drains to unpaved areas	surfaces, landscape-based detention, self-treating areas						
601 Main CP13-0163	6/4/2013	6/4/2013	Garage drains to sanitary sewer, efficient irrigation systems	All runoff directed to non-LID treatment systems	Media filters (100% LID reduction credit for Special Projects)	Stormwater Treatment Measures Maintenance Agreement, requires the owner to perform routine maintenance	Flow based criteria 2.c	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area
Redwood City Port, Wharves 1 & 2 CP12-0155	6/28/2013	6/28/2013	Label storm drain inlets	Direct runoff to vegetated areas,	Bioretention areas meeting biotreatment requirements of C.3.c	None, city-owned	Flow based, criteria 2.c	None	No, project reviewed in-house	N/A, this project is not subject to HM controls because it is part of the exempt area

Comments:

The Redwood City Port, Wharves 1 & 2 is listed as a private project because it goes through permit review like a private development. Although the Port is given its authority by the Redwood City Charter, and is a public entity, for C.3 purposes it behaves like a private entity when conducting construction on private Port property. Thus, O&M does not need to be guaranteed by an agreement between Redwood City and itself, but the site will be added to Redwood City's database of permanent stormwater treatment systems to comply with C.3.h.

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

Project Name Project No.	Approval Date <sup>30</sup>	Date Construction Scheduled to Begin	Source Control Measures <sup>31</sup>	Site Design Measures <sup>32</sup>	Treatment Systems Approved <sup>33</sup>	Operation & Maintenance Responsibility Mechanism <sup>34</sup>	Hydraulic Sizing Criteria <sup>35</sup>	Alternative Compliance Measures <sup>36/37</sup>	Alternative Certification <sup>38</sup>	HM Controls <sup>39/40</sup>
<b>Public Projects</b>										
None										
Comments: No regulated public projects were approved during the fiscal year reporting period.										

<sup>30</sup> For public projects, enter the plans and specifications approval date.

<sup>31</sup> List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

<sup>32</sup> List 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.

<sup>33</sup> List 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.).

<sup>34</sup> List 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.

<sup>35</sup> See 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).

<sup>36</sup> For 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.

<sup>37</sup> For 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.

<sup>38</sup> Note whether a third party was used to certify the project design complies with Provision C.3.d.

<sup>39</sup> If HM control is not required, state why not.

<sup>40</sup> If 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.iv. ► Table of Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting**

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

Name of Facility/Site Inspected	Address of Facility/Site Inspected	Newly Installed? (YES/NO) <sup>41</sup>	Party Responsible <sup>42</sup> For Maintenance	Date of Inspection	Type of Inspection <sup>43</sup>	Type of Treatment/HM Control(s) Inspected <sup>44</sup>	Inspection Findings or Results <sup>45</sup>	Enforcement Action Taken <sup>46</sup>	Comments/Follow-up
RWC Site #3 Mr. Chau's	910 Woodside	No	Property owner	4/18/2013	Routine	Hydrodynamic separator	Fail Maintenance needed	Written warning	Follow-up scheduled for 5/2/2013
RWC Site #3 Mr. Chau's	910 Woodside	No	Property owner	5/2/2013	Follow-up #1	Hydrodynamic separator	PASS Proper O&M	Not Applicable	None
RWC Site #5 San Carlos Stairs	1204 Shasta	No	Property owner	4/29/2013	Routine	Hydrodynamic separator	Fail Visible trash, maintenance needed	Verbal warning	Follow-up verbally scheduled for 5/15/2013
RWC Site #5 San Carlos Stairs	1204 Shasta	No	Property owner	5/15/2013	Follow-up #1	Hydrodynamic separator	PASS Proper O&M	Not Applicable	None
RWC Site #7 Shinyo-En USA	3910 Bret Harte	No	Property owner	4/23/2013	Routine	Vegetated swales	PASS Proper O&M	Not Applicable	None
RWC Site #8 Villa Montgomery	1250-1540 El Camino Real	No	Property owner	4/25/2013	Routine	Hydrodynamic separator	Fail Standing water in the unit, maintenance needed	Written warning	Follow-up scheduled for 5/9/2013
RWC Site #8 Villa Montgomery	1250-1540 El Camino Real	No	Property owner	5/9/2013	Follow-up #1	Hydrodynamic separator	Fail Standing water in the unit has not been cleared, maintenance needed	Written warning	Follow-up scheduled for 5/28/2013, called back early for 5/13/2013
RWC Site #8 Villa Montgomery	1250-1540 El Camino Real	No	Property owner	5/13/2013	Follow-up #2	Hydrodynamic separator	PASS Proper O&M	Not Applicable	None
RWC Site #9 Canyon Market	3201 Oak Knoll	No	Property owner	4/17/2013	Routine	Hydrodynamic separator	Fail Trash visible, maintenance needed	Written warning	Follow-up scheduled for 6/13/2013

<sup>41</sup> Indicate "YES" if the facility was installed within the reporting period, or "NO" if installed during a previous fiscal year.

<sup>42</sup> State the responsible operator for installed stormwater treatment systems and HM controls.

<sup>43</sup> State the type of inspection (e.g., 45-day, routine or scheduled, follow-up, etc.).

<sup>44</sup> State the type(s) of treatment systems inspected (e.g., bioretention facility, flow-through planter, infiltration basin, etc...) and the type(s) of HM controls inspected, and indicate whether the treatment system is an onsite, joint, or offsite system.

<sup>45</sup> State the inspection findings or results (e.g., proper installation, improper installation, proper O&M, immediate maintenance needed, etc.).

<sup>46</sup> State the enforcement action(s) taken, if any.

**C.3.h.iv. ► Table of Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting**

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

Name of Facility/Site Inspected	Address of Facility/Site Inspected	Newly Installed? (YES/NO) <sup>41</sup>	Party Responsible <sup>42</sup> For Maintenance	Date of Inspection	Type of Inspection <sup>43</sup>	Type of Treatment/HM Control(s) Inspected <sup>44</sup>	Inspection Findings or Results <sup>45</sup>	Enforcement Action Taken <sup>46</sup>	Comments/Follow-up
RWC Site #9 Canyon Market	3201 Oak Knoll	No	Property owner	6/13/2013	Follow-up #1	Hydrodynamic separator	Fail Trash in the unit has not been cleared, maintenance needed	Verbal warning	Owner was informed on the site, follow-up to take place in FY2013-14
RWC Site #10 Toyon Subdivision	Toyon Way	No	Property owners	4/30/2013	Routine	Concrete swales and detention pipes	Fail Could not access the site	Written warning	Follow-up scheduled for 5/21/2013
RWC Site #10 Toyon Subdivision	Toyon Way	No	Property owners	5/21/2013	Follow-up #1	Concrete swales and detention pipes	Pass Proper O&M	Not Applicable	None
RWC Site #11 Oakwood Subdivision	71 Oakwood	No	Property owners	4/18/2013	Routine	Infiltration basin	Pass Proper O&M	Not Applicable	None
RWC Site #12 Clarity Homes Subdivision	75 Oakwood	No	Property owners	4/23/2013	Routine	Infiltration basin	Pass Proper O&M	Not Applicable	None
RWC Site #14 Stanford Medical	420-450 Broadway	No	Property owner	5/2/2013	Routine	Vegetated swales, media filters, bioretention areas, detention pipes	Pass Proper O&M	Not Applicable	None
RWC Site #16 Westpoint Marina	1529 Seaport	No	Property owner	5/7/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None
RWC Site #17 Seaport Self Storage	1703 E Bayshore	No	Property owner	5/9/2013	Routine	Flow-through planter	Fail Vegetation is gone, maintenance needed	Written warning	Follow-up scheduled for 5/29/2013
RWC Site #17 Seaport Self Storage	1703 E Bayshore	No	Property owner	5/29/2013	Follow-up #1	Flow-through planter	Fail Vegetation has not been replanted, maintenance needed	Verbal warning	Owner was informed by phone, follow-up to take place in FY2013-14
RWC Site #18 Gordon Manor	1616 Gordon	No	Property owner	4/29/2013	Routine	Vegetated swale	Pass Proper O&M	Not Applicable	None

**C.3.h.iv. ► Table of Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting**

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

Name of Facility/Site Inspected	Address of Facility/Site Inspected	Newly Installed? (YES/NO) <sup>41</sup>	Party Responsible <sup>42</sup> For Maintenance	Date of Inspection	Type of Inspection <sup>43</sup>	Type of Treatment/HM Control(s) Inspected <sup>44</sup>	Inspection Findings or Results <sup>45</sup>	Enforcement Action Taken <sup>46</sup>	Comments/Follow-up
RWC Site #19 Chevron	990 Veterans	No	Property owner	4/30/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None
RWC Site #20 Redwood Shores Library	399 Marine	No	Redwood City	4/16/2013	Routine	Bioretention areas, hydrodynamic separator	Fail Unable to access vault	Verbal warning	Follow-up verbally scheduled for 6/5/2013
RWC Site #20 Redwood Shores Library	399 Marine	No	Redwood City	6/5/2013	Follow-up #1	Bioretention areas, hydrodynamic separator	Pass Proper O&M	Not Applicable	None
RWC Site #21 Theatre Garage	2107 Broadway	No	Redwood City	4/16/2013	Routine	Carbon filtration system	Pass Proper O&M	Not Applicable	None
RWC Site #22 Lincoln Townhomes	122-136 Lincoln	No	Property owners	4/24/2013	Routine	Media filter	Fail Standing water in the unit, maintenance needed	Written warning	Follow-up scheduled for 5/9/2013
RWC Site #22 Lincoln Townhomes	122-136 Lincoln	No	Property owners	5/9/2013	Follow-up #1	Media filter	Fail Standing water in the unit has not been cleared, maintenance needed	Verbal warning	Owner was informed by phone, follow-up to take place in FY2013-14
RWC Site #23 Costco	2300 Middlefield	No	Property owner	4/30/2013	Routine	Vegetated swales, media filters	Pass Proper O&M	Not Applicable	None
RWC Site #25 Cañada College	4200 Farm Hill	No	Property owner	5/1/2013	Routine	Bioretention areas, media filters	Fail Bioretention areas not retaining water as designed, maintenance needed	Written warning	Follow-up scheduled for 6/13/2013
RWC Site #25 Cañada College	4200 Farm Hill	No	Property owner	6/13/2013	Follow-up #1	Bioretention areas, media filters	Fail Corrections not done, maintenance needed	Verbal warning	Owner was informed by phone, follow-up to take place in FY2013-14
RWC Site #26 Sequoia Hospital	170 Alameda de las Pulgas	No	Property owner	5/23/2013	Routine	Media filters	Pass Proper O&M	Not Applicable	None
RWC Site #27 Trailer Villa	3401 E Bayshore	No	Property owner	5/1/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None

**C.3.h.iv. ► Table of Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting**

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

Name of Facility/Site Inspected	Address of Facility/Site Inspected	Newly Installed? (YES/NO) <sup>41</sup>	Party Responsible <sup>42</sup> For Maintenance	Date of Inspection	Type of Inspection <sup>43</sup>	Type of Treatment/HM Control(s) Inspected <sup>44</sup>	Inspection Findings or Results <sup>45</sup>	Enforcement Action Taken <sup>46</sup>	Comments/Follow-up
RWC Site #28 RWS Elementary	225 Shearwater	No	Property owner	4/25/2013	Routine	Vegetated swales	Pass Proper O&M	Not Applicable	None
RWC Site #29 In-N-Out	949 Veterans	No	Property owner	4/30/2013	Routine	Bioretention areas and media filter	Pass Proper O&M	Not Applicable	None
RWC Site #31 885 Woodside	885 Woodside	No	Property owner/HOA	5/2/2013	Routine	Media filter	Fail Unable to access	Verbal warning	On-site representative was informed to provide access, follow-up scheduled for 6/10/2013
RWC Site #31 885 Woodside	885 Woodside	No	Property owner/HOA	6/10/2013	Follow-up #1	Media filter	Pass Proper O&M	Not Applicable	None
RWC Site #32 The Preserve	The Preserve Townhomes, Redwood Shores	No	Property owner/HOA	5/16/2013	Routine	Vegetated swales	Pass Proper O&M	Not Applicable	None
RWC Site #33 Pacific Athletic Club	200 Redwood Shores Parkway	No	Property owner	5/1/2013	Routine	Bioretention areas	Fail Overflows were set flush at the swale flow line, need to be raised to operate correctly	Written warning	Follow-up scheduled for 5/22/2013
RWC Site #33 Pacific Athletic Club	200 Redwood Shores Parkway	No	Property owner	5/22/2013	Follow-up #1	Bioretention areas	Fail Overflows not raised yet, needs correction	Written warning	Follow-up scheduled for 6/18/2013
RWC Site #33 Pacific Athletic Club	200 Redwood Shores Parkway	No	Property owner	6/18/2013	Follow-up #2	Bioretention areas	Pass Proper O&M, corrections made as requested	Not Applicable	None
RWC Site #34 One Marina	One Marina, Bair Island Road	No	Property owner/HOA	5/2/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None
RWC Site #35 Grand Martco Gas Station	602 El Camino Real	No	Property owner	5/2/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None
RWC Site #38 Airgas	1826 Industrial Way	No	Property owner	5/7/2013	Routine	Bioretention areas	Pass Proper O&M	Not Applicable	None

### C.3.e.vi.Special Projects Reporting Table

Reporting Period – January 1 – June 30, 2013\*

\*Note: This list of projects is inclusive of all potential or confirmed Special Projects in Redwood City that have either submitted planning applications or received final discretionary approval (planning entitlements) prior to June 30, 2013. It was felt more beneficial for tracking purposes to report in this manner. Some are in construction, and some are under review. No Special Projects have been fully constructed as of June 30, 2013.

Project Name & No.	Permittee	Address	Application Submittal Date <sup>47</sup>	Status <sup>48</sup>	Description <sup>49</sup>	Site Total Acreage	Density DU/Acre	Density FAR	Special Project Category <sup>50</sup>	LID Treatment Reduction Credit Available <sup>51</sup>	List of LID Stormwater Treatment Systems <sup>52</sup>	List of Non-LID Stormwater Treatment Systems <sup>53</sup>
<b>640 Veterans CP12-0145</b>	Redwood City	640 Veterans Boulevard;  Veterans & Convention;  Redwood City, 94063	4/18/2011	<b>Under construction;</b>  Final discretionary approval issued on 1/17/2012	Residential with two 6-story residential buildings containing 264 apartments over subterranean parking garages	3.62 Acres	73 DU/AC	N/A	<b>Category C:</b> Transit-Oriented Development; Non-auto related use  Location: At least 50% of project is within 0.5 miles of a transit hub  Density: 73 DU/AC  Parking: <10% of impervious area is dedicated to parking	<b>Category C:</b> <b>55%</b>  Location: 25%  Density: 20%  Parking: 10%	68% comprised of:  59% bioswales,  9% self-treating areas  Both meeting biotreatment requirement of Section C.3.c	32% media filter by Contech; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program  32% < 55% credit available
<b>201 Marshall CP12-0032</b>	Redwood City	201 Marshall Street;  Marshall & Arguello;  Redwood City, 94063	7/29/2011	<b>Under construction;</b>  Final discretionary approval issued on 1/27/2012	Residential with an 8-story residential building containing 116 apartments over a subterranean parking garage	0.71 Acres	163 DU/AC	N/A	<b>Category B:</b> Creates and/or replaces between 0.5 and 2 acres of impervious surface; No surface parking; >85% lot coverage by permanent structures; Pedestrian-oriented	<b>Category B:</b> <b>100%</b>	0%	100% media filter by Kristar; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program

<sup>47</sup> Date that a planning application for the Special Project was submitted.

<sup>48</sup> 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.

<sup>49</sup> Type of project (commercial, mixed-use, residential), number of floors, number of units, type of parking, and other relevant information.

<sup>50</sup> For each applicable Special Project Category, list the specific criteria applied to determine applicability. For each non-applicable Special Project Category, indicate n/a.

<sup>51</sup> For 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.

<sup>52</sup> 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.

<sup>53</sup> List 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.

<b>145 Monroe CP13-0002</b>	Redwood City	145 Monroe Street;  Monroe & Franklin;  Redwood City, 94063	6/22/2012	<b>Under construction;</b>  Final discretionary approval issued on 12/19/2012	Residential with a 6-story residential building containing 304 apartments over a subterranean parking garage	2.26 Acres	134 DU/AC	N/A	<b>Category C:</b> Transit-Oriented Development; Non-auto related use  Location: At least 50% of project is within 0.25 miles of a transit hub  Density: 134 DU/AC  Parking: no surface parking	<b>Category C:</b> <b>55%</b>  Location: 50%  Density: 30%  Parking: 20%	0%	100% media filter by Kristar; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program
<b>490 Winslow CP12-0126</b>	Redwood City	490 Winslow Street;  Fuller & Winslow;  Redwood City, 94063	6/26/2012	<b>Under review;</b>  The project is inactive, pending significant redesign	Residential with a 3-4 story residential building containing apartments over a subterranean parking garage. Number of units TBD	0.4 Acres approx..	TBD	N/A	<b>TBD</b> Not enough information at this time  Creates and/or replaces less than 0.5 acres of impervious surface; no surface parking; lot coverage TBD	<b>TBD</b> Not enough information at this time	TBD Not enough information at this time	TBD Not enough information at this time
<b>525 Middlefield CP13-0011</b>	Redwood City	525 Middlefield Road;  Middlefield & Bradford;  Redwood City, 94063	11/6/2012	<b>Under review;</b>  Final discretionary approval issued on 9/4/2013	Residential with three 10-story residential buildings containing 471 condominiums over ground- floor commercial and a subterranean parking garage	2.4 Acres approx..	196 DU/AC approx..	TBD	<b>TBD</b> Not enough information at this time	<b>TBD</b> Not enough information at this time	TBD Not enough information at this time	TBD Not enough information at this time

<b>Redwood Towers</b>	Redwood City	950 Middlefield;  Middlefield & Jefferson;  Redwood City, 94063	12/12/2012	<b>Under review;</b>  Final discretionary approval not issued yet	Commercial with two 5- and 8-story commercial buildings containing 302,000 square feet over a subterranean parking garage	2.3 Acres approx..	N/A	3:1 approx.	<b>Category C:</b> Transit-Oriented Development; Non-auto related use  Location: At least 50% of project is within 0.25 miles of a transit hub  Density: FAR of 3:1 approx.  Parking: no surface parking	<b>Category C:</b> <b>80%</b>  Location: 50%  Density: 10%  Parking: 20%	20% comprised of  100% bioswales	100% media filter by Kristar; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program
<b>735 Brewster</b>	Redwood City	735 Brewster Avenue;  Brewster & Samson;  Redwood City, 94063	12/19/2012	<b>Under building permit review;</b>  Final discretionary approval issued on 4/16/2013	Residential with 18 separate 3-story condominium units on podium level over a subterranean parking garage	0.47 Acres	38 DU/AC	N/A	<b>Category A:</b> Creates and/or replaces less than 0.5 acres of impervious surface; no surface parking; >85% lot coverage by permanent structures; pedestrian-oriented	<b>Category A:</b> <b>100%</b> (To be confirmed)	0%	100% media filter by Contech; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program
<b>601 Main</b>	Redwood City	601 Main Street;  Main & Marshall;  Redwood City, 94063	2/26/2013	<b>Under building permit review;</b>  Final discretionary approval issued on 6/4/2013	Residential with a 3-7 story residential building containing 196 apartments over ground-floor commercial and a subterranean parking garage	1.16 Acres	167 DU/AC	4.56	<b>Category B:</b> Creates and/or replaces between 0.5 and 2 acres of impervious surface; no surface parking; >85% lot coverage by permanent structures; pedestrian-oriented; FAR > 2:1	<b>Category B:</b> <b>100%</b>	0%	100% media filter by Contech; meets specifications of the Western Washington Technical Assessment Protocol – Ecology (TAPE) program

Permittee Name: City of Redwood City, CA

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

<b>Program Highlights</b>
Provide background information, highlights, trends, etc.
<ul style="list-style-type: none"> <li>• The City of Redwood City has an agreement with San Mateo Environmental Health (CEH) to conduct stormwater inspections of businesses and facilities. The priorities and frequency of the inspection and enforcement are based on the City’s Inspection Plan and Enforcement Response Plan as required by the MRP Provision C.4.b and C.4.c. In addition, the City has begun to supplement the CEH list with businesses that have the potential for an illicit discharge that are not inspected by CEH.</li> <li>• Participation in the Commercial, Industrial and Illicit Discharge Subcommittee.</li> <li>• City staff attended Certified Stormwater Inspector workshop and Illicit Discharge Inspection Workshop.</li> </ul>

<b>C.4.b.i. ► Business Inspection Plan</b>	Do you have a Business Inspection Plan?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If No, explain:					

<b>C.4.b.iii.(1) ► Potential Facilities List</b>
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.
See Attachment List: Potential Facilities List

<b>C.4.b.iii.(2) ► Facilities Scheduled for Inspection</b>
List below or attach your list of facilities scheduled for inspection during the current fiscal year.
See Attachment List: Facilities Scheduled for Inspection (FY 13-14)

Permittee Name: City of Redwood City, CA

**C.4.c.iii.(1) ► Facility Inspections**

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

<input checked="" type="checkbox"/>	Permittee reports multiple discrete violations on a site as one violation.
<input type="checkbox"/>	Permittee reports the total number of discrete violations on each site.

	Number	Percent
Number of businesses inspected	234	
Total number of inspections conducted	240	
Number of violations (excluding verbal warnings)	2	
Sites inspected in violation	2	1%
Violations resolved within 10 working days or otherwise deemed resolved in a longer but still timely manner	0	0%
<p>Comments:</p> <p>SM County Environmental Health (CEH): Food and HazMat program inspectors conduct routine Stormwater inspections at inventoried sites based on High, Medium, and Low priorities. If a violation or discharge is observed, a description of the violation is noted on the Inspection Report form, including comments and/or requirements that the facility must complete to clear the violation. If the violation is not cleared at the time of the inspection, a copy of the Inspection Report form is given to a stormwater technician for follow up. For the purposes of this section of the Annual Report, Verbal Warnings are not counted as violations.</p> <p>The two sites in violation were not inspected again until after the 10 day period. However, both were in compliance when the follow-up inspection was conducted. Staffing transitions contributed to a lapse in tracking outstanding violations. Continued follow up with stormwater technicians will be conducted during the next Reporting Period to ensure that follow up inspections occur within the recommended period.</p>		

**C.4.c.iii.(2) ► Frequency and Types/Categories of Violations Observed**

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

Type/Category of Violations Observed	Number of Violations
Actual discharge (e.g. active non-stormwater discharge or clear evidence of a recent discharge)	2
Potential discharge and other	0
Comments:	

Permittee Name: City of Redwood City, CA

Violations are counted as one per site, regardless on the actual number of discrete violations observed/recorded.	
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**C.4.c.iii.(2) ▶ 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) <sup>48</sup>	Number of Enforcement Actions Taken	% of Enforcement Actions Taken <sup>49</sup>
Level 1	Verbal Warning	4	66.7%
Level 2	Warning Notice or Administrative Action	2	33.3%
Level 3	Administrative Action with Penalty &/or Cost Recovery	0	0%
Level 4	Legal Action/Referral	0	0%
<b>Total</b>		6	100%

**C.4.c.iii.(3) ▶ Types of Violations Noted by Business Category**

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

Business Category <sup>50</sup>	Number of Actual Discharge Violations	Number of Potential/Other Discharge Violations
Haz Mat	2	0
Food	0	0

**C.4.c.iii.(4) ▶ 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:

No facilities have been identified as requiring Industrial General Permit coverage that have not filed for coverage.

<sup>48</sup> Agencies to list specific enforcement actions as defined in their ERPs.

<sup>49</sup> Percentage calculated as number of each type of enforcement action divided by the total number of enforcement actions.

<sup>50</sup> List your Program's standard business categories.

Permittee Name: City of Redwood City, CA

**C.4.d.iii ► Staff Training Summary**

Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance	Percent of Inspectors in Attendance
Certified Stormwater Inspector Training	March 18-19, 2013	Information and training provided by National Stormwater Center to become certified Stormwater inspectors	4	100%
Illicit Discharge Inspection Workshop	April 24, 2013	Regulatory refresher, mobile cleaning of parking garages, table top exercise for illicit discharge scenarios	3	75%

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

**Program Highlights**

Provide background information, highlights, trends, etc.

- The City continues its ongoing screening program as required by the MRP. Screening sites were defined based on the potential of illicit discharge, illegal dumping and the potential of flooding.
- Maintenance staff inspected and/or cleaned 600 storm drain inlets, catch basins, siphons and outfalls during the 20112-13 FY.
- City staff participated in the Illicit Discharge Inspector Training held by SMCWPPP CII Committee on April 24, 2013.

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

List below or attach your complaint and spill response phone number and spill contact list.

Contact	Description	Phone Number
Public Works	Wastewater Management Services	650.780.7464
Code Enforcement	Building Inspectors, Community Development Department	650.780.7350

**C.5.d.iii ► Evaluation of Mobile Business Program**

Describe implementation of minimum standards and BMPs for mobile businesses and your enforcement strategy. This may include participation in the BASMAA Mobile Surface Cleaners regional program or local activities.

Description:  
 City requires mobile surface cleaners to obtain BASMAA training and certification in order to perform city services.

Any complaints or observations of illicit discharges by mobile businesses will result in a verbal warning and/or citation. The City requires the offender to cover all cleanup costs associated with the discharge. City follows guidance and BMPs set by the County program. Refer to the C.5 Illicit Discharge Detection and Elimination section of the SMCWPPP FY 12-13 Annual Report for a description of efforts by the Commercial, Industrial and Illicit Discharge (CII) Subcommittee and the BASMAA Municipal Operations Committee to address mobile businesses.

Permittee Name: City of Redwood City, CA

**C.5.e.iii ► Evaluation of Collection System Screening Program**

Provide a summary or attach a summary of your collection screening program, a summary of problems found during collection system screening and any changes to the screening program this FY.

Description:

The City of Redwood City inspected and cleaned an estimated 600 storm drain inlets, catch basins, siphons and outfalls. In addition, the City's storm water pump stations and concrete lined storm creeks and culverts were also cleaned. All debris from the previous was removed from the collection system and discarded appropriately. A total of 262.50 cubic yards of trash and debris was removed from the storm water collection system. No illicit discharges were identified or spotted during maintenance and inspection.

**C.5.f.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	Percentage
Discharges reported (C.5.f.iii.(1))	6	
Discharges reaching storm drains and/or receiving waters (C.5.f.iii.(2))	1	17%
Discharges resolved in a timely manner (C.5.f.iii.(3))	6	100%

Comments:

Complaints about illicit discharges are report to both Public Works Services (now part of Community Development Department) and the City's Code Enforcement division, which has the legal authority (by ordinance) to cite illicit dischargers. The role of Public Works Services is to account for the type of discharges, initiate cleanup of the storm drain system, and document the cost of cleanup, which is then included in the citation to the dischargers.  
SSO discharges were not included in the illicit discharge and complaints tracking program. SSO discharges were reported online via the Region 2 Water Quality Control Board Website.

**C.5.f.iii.(4) ► Summary of major types of discharges and complaints**

Provide a narrative or attach a table and/or graph.

The types of illicit discharges were:

1. Construction materials
2. Food wastes
3. Vehicle fluids
4. Sediment/Silt

Section 6 – Provision C.6 Construction Site Controls

<b>C.6.e.iii.1.a, b, c ▶ Site/Inspection Totals</b>		
Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii.1.a)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.1.b)	Total number of storm water runoff quality inspections conducted (include only High Priority Site and sites disturbing 1 acre or more) (C.6.e.iii.1.c)
0	9	58
Comments: Of the 9 sites over one acre, six lasted the entire wet season from October through April. The remaining three sites were either stabilized early-on in the wet season (in one case), or began in November or later. This results in an inspection total less than $9 \times 7 = 63$ inspections, which would be the case if all 9 sites were under construction for the duration of the wet season		

<b>C.6.e.iii.1.d ▶ Construction Activities Storm Water Violations</b>		
BMP Category	Number of Violations <sup>51</sup>	% of Total Violations <sup>52</sup>
Erosion Control	0	0%
Sediment Control	2	40%
Run-on and Run-off Control	2	40%
Active Treatment Systems	0	0%
Good Site Management	1	20%
Non Stormwater Management	0	0%
<b>Total<sup>53</sup></b>		<b>100%</b>

**Comments:** 5 BMP violations are noted here (including verbal warnings) but 3 enforcement actions are shown in C.6.e.iii.1.e. This is because one enforcement action was taken on an inspection that had three violations on the site.

<sup>51</sup> Count one violation in a category for each site and inspection regardless of how many violations/problems occurred in the BMP category. For example, if during one inspection at a site, there are 2 erosion control violations, only 1 violation would be counted for this table.

<sup>52</sup> Percentage calculated as number of violations in each category divided by total number of violations in all six categories.

<sup>53</sup> The total number of violations may count more than one violation per inspection, since some inspections may result in violations in more than one category. For example, during one inspection of a site, there may have been both an erosion control violation and a sediment control violation. For this reason, the total number of violations in this table may not match the total number of enforcement actions reported in Table C6.e.iii.1.e.

**C.6.e.iii.1.e ► Construction Related Storm Water Enforcement Actions**

	Enforcement Action (as listed in ERP) <sup>54</sup>	Number Enforcement Actions Issued	% Enforcement Actions Issued <sup>55</sup>
Level 1 <sup>56</sup>	Verbal Warning	3	100%
Level 2	Written Warning	0	0
Level 3	Notice to Comply	0	0
Level 4	Legal Action	0	0
<b>Total</b>		<b>3</b>	<b>100%</b>

**C.6.e.iii.1.f, g ► Illicit Discharges**

	Number
Number of illicit discharges, actual and those inferred through evidence at high priority sites and sites that disturb 1 acre or more of land (C.6.e.iii.1.f)	0
Number of sites with discharges, actual and those inferred through evidence at high priority sites and sites that disturb 1 acre or more of land (C.6.e.iii.1.g)	0

<sup>54</sup> Agencies should list the specific enforcement actions as defined in their ERPs.

<sup>55</sup> Percentage calculated as number of each type of enforcement action divided by the total number of enforcement actions.

<sup>56</sup> For example, Enforcement Level 1 may be Verbal Warning.

Permittee Name: City of Redwood City

**C.6.e.iii.1.h, i ► Violation Correction Times**

	Number	Percent
Violations (excluding verbal warnings) fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii.1.h)	0	N/A <sup>57</sup>
Violations (excluding verbal warnings) not fully corrected within 30 days after violations are discovered (C.6.e.iii.1.i)	0	N/A <sup>58</sup>
Total number of violations (excluding verbal warnings) for the reporting year <sup>59</sup>	0	
Comments:		

**C.6.e.iii.(2) ► 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:  
 We will continue to monitor our Inspection efforts and how the data is input into the system and make the necessary improvements to help streamline the process. Sediment and erosion control continue to be common violations. This is likely due to improper installation of silt fences and fiber rolls, two fairly common BMPs. Most often these improper installations are quickly and easily corrected, so no changes to procedures would be recommended at this time.

**C.6.e.iii.(2) ► 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:  
 Inspectors may handle possible violations in the field first, before documenting a verbal warning. For example, directing the site representative to fix a small issue with fiber rolls or a silt fence by the end of the day instead of documenting the verbal warning and scheduling a documented follow-up. Because the number of documented verbal warnings is low in comparison to the total number of inspections, no changes to procedure are recommended at this time.

<sup>57</sup> Calculated as number of violations fully corrected in a timely period after the violations are discovered divided by the total number of violations for the reporting year.

<sup>58</sup> Calculated as number of violations not fully corrected within 30 days after the violations are discovered divided by the total number of violations for the reporting year.

<sup>59</sup> The total number of violations reported in the table of Violation Correction Times equals the number of initial enforcement actions. I.e., This assumes one violation is issued for several problems during an inspection at a site. The total number of violations in the table of Violation Correction Times may not equal the total number of enforcement actions because one violation issued at a site may have a second enforcement action for the same violation at the next inspection if it is not corrected.

Permittee Name: City of Redwood City

**C.6.f ► Staff Training Summary**

Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance	Percent of Inspectors in Attendance
In-house: Site Inspection During the Wet Season	9/28/2012	Minimum inspection requirements during the wet season, high priority sites, inspection of newly installed permanent treatment measures	4	36%
CALBIG: Construction Site Stormwater Compliance	10/10/2012	Countywide program, examples of notices of violation, construction site compliance, high priority sites, architectural copper requirements, small projects overview, proper BMP installation	6	55%
SMCWPPP: Stormwater Training for Construction Site Inspectors	4/11/2013	MRP requirements for construction site inspections, differences between the MRP and the CGP, Caltrans experience with construction BMPs, construction site inspection checklists, O&M verification programs, common issues with newly installed permanent treatment measures	5	45%

Permittee Name: City of Redwood City, CA

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

**C.7.a ► Storm Drain Inlet Marking (existing storm drains)**

(For FY 12-13 Annual Report only) Report prior years' estimated annual percentages of municipality maintained storm drain inlet markings inspected and maintained as legible with a no dumping message or equivalent. At least 80% of municipality-maintained storm drain inlet markings shall be inspected and maintained at least once per 5-year permit term.

Summary:  
**Estimated annual percentage of stenciled municipality storm drain inlets that were inspected and maintained as legible:**  
 2009-10: 100%  
 2010-11: 100%  
 2011-12: 100%  
 2012-13: 75%

**C.7.a ► Storm Drain Inlet Marking (newly-constructed, privately-maintained streets)**

(For FY 12-13 Annual Report only) Report prior years' annual number of projects accepted after inlet markings were verified. For newly-approved, privately-maintained streets, permittees shall require inlet marking by the project developer upon construction and maintenance of markings through the development maintenance entity. Markings shall be verified prior to acceptance of the project.

Summary:  
 Annual number of newly-constructed, privately-maintained streets for which inlets were marked:  
 2009-10: 0 projects  
 2010-11: 1 projects  
 2011-12: 0 projects  
 2012-13: 0 projects

Prior to recommending acceptance by city council, staff completes a formal "final walkthrough" to ensure that inlet markings and all other improvements are constructed according to approved plans and specifications. For additional assurance staff is considering how to incorporate inlet markings as a condition of approval for future projects that construct new, privately-maintained streets.

Permittee Name: City of Redwood City, CA

**C.7.b.ii.1 ► Advertising Campaign**

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

Summary:

- The following separate report developed by BASMAA summarizes the activities of the Regional Youth Litter Campaign:
- BASMAA Be the Street Youth Litter Campaign Report

**C.7.b.iii.1 ► Pre-Campaign Survey**

*(For the Annual Report following the pre-campaign survey)* Summarize survey information such as sample size, type of survey (telephone survey, interviews etc.). Attach a survey report that includes the following information. If survey was done regionally, refer to a regional submittal that contains the following information:

- The following separate report developed by BASMAA summarizes any pre-campaign survey conducted in FY 12-13:
- BASMAA Be the Street Youth Litter Campaign Report

Place an **X** in the appropriate box below:

<input type="checkbox"/>	Survey report attached
<input checked="" type="checkbox"/>	Reference to regional submittal:

**C.7.c ► Media Relations**

Summarize the media relations effort. Include the following details for each media pitch in the space below, AND/OR refer to a regional report that includes these details:

- Topic and content of pitch
- Medium (TV, radio, print, online)
- Date of publication/broadcast

Summary:

The City primarily uses city website as well as email blasts and E-newsletters to inform citizens about upcoming events.

Permittee Name: City of Redwood City, CA

The following separate report developed by BASMAA summarizes media relations efforts conducted regionally during FY 12-13:

- BASMAA Media Relations Final Report FY 12-13

This report and any other media relations efforts conducted countywide is included within the Public Information and Outreach section of the SMCWPPP FY 12-13 Annual Report.

**C.7.d ► Stormwater Point of Contact**

Provide details of website or phone number used as the point of contact. Report on how the point of contact is publicized and maintained. If any change occurs in this contact, report in a subsequent Annual Report.

The SMCWPPP initial points of contact have not changed, however, social media points of contact have been established in addition to the original website and phone number. A summary of efforts conducted by SMCWPPP to publicize stormwater points of contact (e.g. program website, hotline, outreach materials, and social media, etc.) is included within the Public Information and Outreach section of the SMCWPPP FY 12-13 Annual Report.

**C.7.e ► Public Outreach 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.

Event Details	Description (messages, audience)	Evaluation of Effectiveness
Countywide Event:		
Coordination of California Coastal Cleanup Day in San Mateo County, September 15, 2012 (City’s annual fall cleanup)	Volunteers participated in the state-wide coastal cleanup effort. City’s Pride & Beautification Committee sponsored the Coastal Cleanup event. Outreach media utilized by the City include: <ul style="list-style-type: none"> <li>• City website provides update to community events.</li> <li>• Flyers/posters (City Hall, Community Centers, City libraries and Corp yard)</li> <li>• E-newsletters to residents and e-mail blast to City employees.</li> </ul>	See details in FY 2012-13 Countywide Program Annual Report

Permittee Name: City of Redwood City, CA

San Mateo County Fair, June 8-16, 2013	See details in FY 2012-13 Countywide Program Annual Report	See details in FY 2012-13 Countywide Program Annual Report
City Events:		
City's Annual Spring Cleanup celebrating Earth Day, Date: April 20, 2013 Locations: Bayfront Canal, Hoover Park, Downtown, Little River Park, Marshall St. and Chestnut St., Redwood Creek, Union Cemetery, Woodside Road	Collected litter and cleaned illegal dumping sites around nearby neighborhoods	<ul style="list-style-type: none"> <li>• 9 sites</li> </ul>
City hosts Free HHW Collection Event Date: May 11, 2013 Location: Public Works Corporation Yard	<p>Sponsored and conducted by the San Mateo County Environmental Health Pollution Prevention to provide local residents an opportunity to properly dispose of HHW.</p> <p>Media used to inform public include:</p> <ul style="list-style-type: none"> <li>• City website provides update to community events.</li> <li>• E-newsletters to residents and e-mail blast to City employees.</li> </ul>	

**C.7.f. ► 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:  
A summary of efforts conducted by SMCWPPP to work with Watershed Stewardship Groups on a countywide level is included within the Public Information and Outreach section of the SMCWPPP FY 12-13 Annual Report.

Permittee Name: City of Redwood City, CA

C.7.g. ► Citizen Involvement Events		
List the types of events conducted (e.g., creek clean up, storm drain inlet marking, native gardening etc.). Use the following table for reporting and evaluating citizen involvement events.		
Event Details	Description	Evaluation of effectiveness
Countywide Event:		
Coordination of California Coastal Cleanup Day in San Mateo County, September 15, 2012 (City's annual fall cleanup)	Volunteers participated in the state-wide coastal cleanup effort. City's Pride & Beautification Committee sponsored the Coastal Cleanup event. Outreach media utilized by the City include: <ul style="list-style-type: none"> <li>• City website provides update to community events.</li> <li>• Flyers/posters (City Hall, Community Centers, City libraries and Corp yard)</li> <li>• E-newsletters to residents and e-mail blast to City employees.</li> </ul>	See details in FY 2012-13 Countywide Program Annual Report
San Mateo County Fair June 8-16, 2013	Conducted on a countywide level by SMCWPPP and are described in detail in the Public Information and Outreach section of the SMCWPPP FY 12-13 Annual Report.	
City Events:		
City's Annual Spring Cleanup celebrating Earth Day Date: April 20, 2013 Locations: Bayfront Canal, Hoover Park, Downtown, Little River Park, Marshall St. and Chestnut St., Redwood Creek, Union Cemetery, Woodside Road	Collected litter and cleaned illegal dumping sites around nearby neighborhoods	<ul style="list-style-type: none"> <li>• 9 sites</li> </ul>
City hosts Free HHW Collection Event Date: May 11, 2013 Location: Public Works Corporation Yard	Sponsored and conducted by the San Mateo County Environmental Health Pollution Prevention to provide local residents an opportunity to properly dispose of HHW. Media used to inform public include:	

Permittee Name: City of Redwood City, CA

	<ul style="list-style-type: none"> <li>• City website provides update to community events.</li> <li>• E-newsletters to residents and e-mail blast to City employees.</li> </ul>	
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**C.7.h. ► 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.

Program Details	Focus & Short Description	Number of Students/Teachers reached	Evaluation of Effectiveness
EarthCapades by EarthCapades Environmental Vaudeville Grades: K-5	Teach children about water and water conservation through comedy, stories, juggling, and theatre.	Approximately 4,250 students	Educational assembly used California State Science Standards content and effectiveness is measured by number of participating children.
Redwood City Annual Poster Contest Grades: K-5	“Mountain Caps to Redwood City Taps” was the title of this year’s program and the theme was water supply and reliability. Program provides a fun, artistic outlet for students to demonstrate their learnings and understanding about the subject.	Approximately 1,300 students / 34 teachers	The Annual Poster contest includes water source and watershed education and information to the students in an exciting and interactive way. Effectiveness is determined by the number of students participating in contest.
<b>Indoor Kit Giveaway</b> Water-wise School Education Kits Program, kits are distributed to 5 <sup>th</sup> grade students that enable them to install water saving devices and perform a water audit in their home. Included with the kit is a curriculum for the teacher. The water conservation curriculum that can be easily implemented by teachers, easily understood and taken back into the home by the students, and	The kits are typically taken home by the students, who may share the learning experience with their family members. The energy and water efficient devices contained in the kits are installed in the home and the family is able to calculate the water savings resulting from each device. Essentially the kit allows the student to perform in-home water audit. The kit includes:  <input type="checkbox"/> Energy and Water Saving High-	Approximately 250 students	After the student performs the audit and installs the water and energy savings devices, affidavits signed by the parents are returned to the school, collected by the teacher, and forwarded to Water Wise for program documentation of implementation and resulting savings.

Permittee Name: City of Redwood City, CA

<p>includes methods to quantify the water savings as a result of taking the actions in the curriculum.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Efficiency Showerhead</li> <li><input type="checkbox"/> Kitchen Aerator</li> <li><input type="checkbox"/> Flip Control Bathroom Aerator</li> <li><input type="checkbox"/> Energy Cost Calculator</li> <li><input type="checkbox"/> Mini-Tape Measure</li> <li><input type="checkbox"/> Flow Rate Test Bag</li> <li><input type="checkbox"/> Multi-Function Drop / Rain Gauge</li> <li><input type="checkbox"/> Water Temperature Check Card</li> <li><input type="checkbox"/> Toilet Leak Detector Tablets</li> </ul>		
<p><b>Outdoor Kit Giveaway</b> (Under the same program as above)</p>	<p>The kit includes:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Seven function garden hose spray nozzle</li> <li><input type="checkbox"/> Garden hose water timer</li> <li><input type="checkbox"/> Rain gauge</li> <li><input type="checkbox"/> Soil moisture meter</li> <li><input type="checkbox"/> Outdoor watering schedule magnet</li> <li><input type="checkbox"/> Replacement garden hose end</li> <li><input type="checkbox"/> Landscape education insert</li> </ul>	<p>Approximately 275 students</p>	

**C.7.i. ► Outreach to Municipal Officials**

(For FY 12-13 Annual Report only) Summarize outreach conducted to increase the overall awareness of stormwater and/or watershed messages among municipal officials.

Summary:

Outreach among municipal officials was done primarily through the City website. Information regarding storm drain system, illicit discharges, ways to protect the creeks, San Mateo Countywide Water Pollution Prevention Program, and much more can all be found on the site. Finally, the website has a substantial FAQ related section.

In addition, several memos and staff reports were used to make recommendations and demonstrate the need for such things as a Vector combination sewer and storm drain cleaning truck.

Finally, topics such as the Bayfront Canal Storm Drainage system, reusable bag ordinance and Styrofoam ban all were discussed at various city council meetings.

Section 8 - Provision C.8 Water Quality Monitoring

**C.8 ► Water Quality Monitoring**

State below if information is reported in a separate regional report. Municipalities can also describe below any Water Quality Monitoring activities in which they participate directly, e.g. participation in RMP workgroups, fieldwork within their jurisdictions, etc.

Summary

During FY 12-13, we contributed through SMCWPPP to the BASMAA Regional Monitoring Coalition (RMC). In addition, we contributed financially to the Regional Monitoring Program for Water Quality in the San Francisco Estuary (RMP) and were represented at RMP committees and work groups. Monitoring efforts and results are documented in a separate report submitted March 15 of each year, as required in Provision C.8. For additional information on monitoring activities conducted by SMCWPPP, BASMAA RMC and the RMP, see the C.8 Water Quality Monitoring section of the SMCWPPP FY 12-13 Annual Report.

Permittee Name: City of Redwood City, CA

Section 9 – Provision C.9 Pesticides Toxicity Controls

**C.9.b ► Implement IPM Policy or Ordinance**

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, carbaryl, and fipronil. A separate report can be attached as evidence of your implementation.

Trends in Quantities and Types of Pesticides Used <sup>60</sup>					
Pesticide Category and Specific Pesticide Used	Amount <sup>61</sup>				
	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
<b>Organophosphates</b>	None Used	None Used	None Used	None Used	
Product or Pesticide Type A					
Product or Pesticide Type B					
<b>Pyrethroids</b>	0.48 oz.	None Used	None Used	None Used	
<b>Deltamethrin</b>	0.48 oz.				
Product or Pesticide Type Y					
<b>Carbaryl</b>	None Used	None Used	None Used	None Used	
<b>Fipronil</b>	None Used	None Used	None Used	None Used	

<sup>60</sup> Includes all municipal structural and landscape pesticide usage by employees and contractors.

<sup>61</sup> Weight or volume of the product or preferably its active ingredient, using same units for the product each year. 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: allethrin (D-allethrin), bioallethrin, bifenthrin, beta-cyfluthrin, cyfluthrin, cypermethrin, cyphenothrin, deltamethrin, esfenvalerate, etofenprox, gamma-cyhalothrin, imiprothrin, lambda-cyhalothrin, metofluthrin, permethrin, phenothrin, prallethrin, resmethrin, sumithrin (D-phenothrin), tau fluvalinate, tefluthrin, tetramethrin, tralomethrin, and zeta-cypermethrin (S-cypermethrin).

Permittee Name: City of Redwood City, CA

<b>C.9.c ▶ Train Municipal Employees</b>	
Enter the number of employees that applied or used pesticides (including herbicides) within the scope of their duties this reporting year.	21
<p>Enter the number of these employees who received training on your IPM policy and IPM standard operating procedures within the last 3 years.</p> <p>All employees who apply pesticides receive annual IPM/ Pesticide Safety Training –UC Curriculum, taught in-house by City Landscape Maintenance Manager.</p> <p>In addition to the above annual class attended by ALL staff members, the following people also attended the SMCWPPP Parks Maintenance IPM workshops.</p> <p><u>List of attendees at the 11-09-11 Structural IPM Training Workshop</u> – 2 staff members Daniel Burton, Valerie Matonis</p> <p><u>List of attendees at the 02-28-12 Landscape IPM Training Workshop</u> -14 staff members Brian Aizawa, Omar Bravo, Jose Farias, Glenn Fukudome, Luis Garcia, Dominique Herbert, Martin Hernandez, Mike Hollis, Valerie Matonis, Cynthia Mitchell, Leonardo Moreno, Jesus Ochoa, Sharom Penisini, Daniel Venezia,</p> <p><u>List of attendees at the 02-27-13 Landscape IPM Training Workshop</u>- 7 staff members Brian Aizawa, Francisco Espinoza, Glenn Fukudome, Dominique Herbert, Mike Hollis, Valerie Matonis, Leonardo Moreno</p>	21
Enter the percentage of municipal employees who apply pesticides who have received training in the IPM policy and IPM standard operating procedures within the last three years.	100%

Permittee Name: City of Redwood City, CA

**C.9.d ▶ Require Contractors to Implement IPM**

Did your municipality contract with any pesticide service provider in the reporting year?		<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If yes, attach one of the following:					
<input type="checkbox"/>	Contract specifications that require adherence to your IPM policy and standard operating procedures, OR				
<input checked="" type="checkbox"/>	Copy(ies) of the contractors' IPM certification(s) or equivalent, OR				
<input type="checkbox"/>	Equivalent documentation.				
<ul style="list-style-type: none"> <li>The City of Redwood City verifies IPM contractor performance by hiring professionals that certify they are properly trained and use IPM.</li> <li>On 6-26-12 the Redwood City Landscape and Facilities Maintenance Managers met with 2 managers/supervisors and the appointed applicator/Technician from the Terminix Company in order to reiterate our standards and to renew and update the guidelines we provided to them for use during the 12-13 reporting period.</li> <li>Green Pro Certification attached is different from Quality Pro Green (Regional Board staff review cited Quality Pro Green certification). The Green Pro Certification ensures technicians are trained and 'only make traditional pesticide applications after discussing the options with you and getting your consent.</li> </ul>					
<p>2 documents attached:                  A copy of Terminix's "Green Pro Certification" and a contract letter to Terminix describing our IPM expectation, are both attached.</p>					

**C.9.e ▶ Track and Participate in Relevant Regulatory Processes**

Summarize participation efforts, information submitted, and how regulatory actions were affected <b>OR</b> reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected.	
Summary:	
<p>During FY 12-13, we participated in regulatory processes related to pesticides through contributions to SMCWPPP, BASMAA and CASQA. For additional information, see the Regional Pollutants of Concern Report submitted by BASMAA on behalf of all MRP Permittees and included as an appendix to the SMCWPPP Annual Report.</p>	

Permittee Name: City of Redwood City, CA

C.9.f ▶ Interface with County Agricultural Commissioners				
Did your municipal staff observe any improper pesticide usage or evidence of improper usage (e.g., pesticides in storm drain systems, along street curbs, or in receiving waters) during this fiscal year?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
City staff member did not observe any evidence of improper pesticide usage during this reporting period				

Permittee Name: City of Redwood City, CA

**C.9.g. ► Evaluate Implementation of Source Control Actions Relating to pesticides**

(For FY 12-13 Annual Report only) Submit a report that evaluates; 1) the effectiveness of control measures implemented, and 2) attainment of pesticide concentration and toxicity targets for water and sediment from monitoring data (Provision C.8.). If needed, the report should include the following:

- Improvements to existing control measures and/or additional control measures required.
- A plan to implement improved and/or new control measures.

Summary:

- The Effectiveness Evaluation Report is included in Section C.9 Pesticides Toxicity Control of the SMCWPPP FY 12-13 Annual Report
- An IPM Policy was adopted by the Redwood City Council –Originally in 2003 and a revised policy later a revised Policy was adopted in September of 2011
- City Landscape staff members are all trained in IPM on an annual basis.
- The Community Development Department, Facilities Maintenance Division adheres to a strict IPM Policy when contracting for structural pest control services. The Parks and Recreation Department does not contract out any landscape pest control.

**C.9.h.ii ► 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:

The following reports developed by SMCWPPP and BASMAA summarize point of purchase outreach efforts on a countywide and regional level:

- SMCWPPP FY 12-13 Annual Report, Public Information and Outreach section
- BASMAA FY 12-13 “Our Water Our World” report

**C.9.h.iv ► Pest Control Contracting Outreach**

(For FY 12-13 Annual Report only) Document effectiveness of outreach to residents who use or contract for structural or landscape pest control **OR** reference a regional that summarizes these actions.

Summary:

Permittee Name: City of Redwood City, CA

Efforts to conduct outreach at the countywide level related to pest control contracting are summarized in the SMCWPPP FY 12-13 Annual Report, C.9 Pesticides Toxicity Control section.

**C.9.h.vi ► 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); **OR** reference a report of a regional effort for outreach to pest control operators and landscapers in which your agency participates.

Summary:  
  
Efforts to conduct outreach at the countywide level to pest control operators to reduce pesticide use are summarized in the SMCWPPP FY 12-13 Annual Report, C.9 Pesticides Toxicity Control section

**Response to Water Board Staff Comments on Section 9, Provision C.9, of FY 11-12 Annual Report**

Use this area to respond to any Water Board staff comments on Section 9 of your FY 11-12 Annual Report, and refer to any required submittals that are attached.  
  
Not applicable.

Permittee Name: City of Redwood City, CA

Section 10 - Provision C.10 Trash Load Reduction

C.10.a.iii ► Minimum Full Trash Capture (Summary of Actions)	
<p>Provide the following:</p> <ol style="list-style-type: none"> <li>1) Descriptions of actions/tasks initiated, conducted or completed in implementing Minimum Full Trash Capture Devices (due July 1, 2014), including numbers of devices, device types and total land area treated to-date by full capture devices;</li> <li>2) Descriptions of planned actions/tasks and time schedules for completion;</li> <li>3) A map that includes locations of all full capture devices installed (private and public) to-date and associated treatment areas, trash generation rates/areas, creek/shoreline trash hot spots, and trash management areas defined to-date.</li> <li>4) A summary of maintenance activities implemented for each device or groups of devices, including descriptions of typical maintenance frequencies and issues associated with maintaining these devices.</li> </ol>	
<p><b>Descriptions of Actions/Tasks (Conducted or Planned):</b></p> <p>To date, 148 connector pipe screen full trash capture devices were installed. No additional devices are planned for installation through July 1, 2014. The total area treated by these devices is 196.73 acres. See attached map for more details regarding the location of each full trash capture device and the total area treated.</p> <p>Also attached is a map showing delineation of trash management areas.</p> <p><b>Descriptions of Maintenance Activities:</b></p> <p>Maintenance activities are conducted prior to the rainy season each year and includes the use of a vactor to suck debris and a power washer to clean the screens. At this time, there have been no performance issues or problems with any of the devices. Each time a device is cleaned, a record is generated with summary information.</p>	

Permittee Name: City of Redwood City, CA

C.10.a.iii ► Minimum Full Trash Capture (List of Devices)					
Provide a list of trash full capture devices installed to-date or planned for installation by July 1, 2014 and the land area treated by each device or group of devices.					
Applicable Trash Management Area (Preliminary Map ID)	Device Type	Planned or Installed	Maintenance Frequency	Total Number Installed	Total Area Treated (acres)
1	Connector pipe screen	Installed	At least once per year, with additional maintenance / inspections as needed	10	22.75
3	Connector pipe screen	Installed		16	12.61
5	Connector pipe screen	Installed		43	49.87
6	Connector pipe screen	Installed		76	105.82
7	Connector pipe screen	Installed		3	5.68
<b>Totals</b>				<b>148</b>	<b>196.73</b>

**C.10.b.iii ► Trash Hot Spot Assessment**

Provide the volume of material removed from each Trash Hot Spot cleanup, and the dominant types of trash (e.g., glass, plastics, paper) removed and their sources to the extent possible. Additionally, include a map that identifies the location(s) of trash hot spots.

Trash Hot Spot	Cleanup Date	FY 2012-13 Volume of Trash Removed (cubic yards)	FY 2011-12 Volume of Trash Removed* (cubic yards)	FY 2010-11 Volume of Trash Removed (cubic yards)	Dominant Type(s) of Trash	Trash Sources (where possible)
RCY01	4/20/2013	0.5	7.3	1.5	Cigarette butts, Plastic Bags, Paper and cardboard, Bottles (plastic or glass), Sports balls	Trash accumulation, Litter
RCY02	4/20/2013	2.4		4.0	Convenience/Fast Food items, Bottles (plastic or glass), Paper and cardboard, Cigarette butts, Plastic Bags	Trash accumulation, Litter

Permittee Name: City of Redwood City, CA

RCY03	4/20/2013	0.8		8.0	Styrofoam, Plastic Bags, Other plastic products, Bottles (plastic or glass), Paper and cardboard	Trash accumulation, Litter
Totals		3.7	7.3	13.5		

\* In FY 11-12, the amount of trash removed from each hot spot was not logged. Rather, the bulk amount was recorded by the City's garbage collector (Recology). In future years, the coordinator assigned to each hot spot will record the type and estimate the volume of trash removed.

**C.10.c ► Long-Term Trash Load Reduction Plan**

Provide descriptions of the progress made to-date on the development of Long-term Trash Load Reduction Plans due to the Water Board by February 1, 2014.	
Long-Term Plan Task	Summary of Progress
1. Identifying and mapping trash generating areas	<p>Identification and mapping of trash generating areas has been completed.</p> <p>Initial generation rates were developed using models and were then ground-truthed and revised by city staff. The attached map shows areas with delineations from "Low" to "Very High" amounts of trash generated each year. See attached map for trash generation rates within each area.</p>
2. Identifying trash sources (as necessary or feasible) to assist in selecting trash management actions	<p>Trash source identification was completed in conjunction with the ground-truthing efforts of the trash generation rates in Task #1. Land-use type (commercial, industrial, residential, schools, parks, and expressway) was the largest factor taken into consideration.</p>
3. Prioritizing trash generating areas and associated types of trash problems	<p>Trash generation rates, trash sources, and geography all contributed to the delineation and prioritization of trash management areas. However, trash generation rates within an area had the single largest impact when doing the prioritization. Areas designated by lower numbers have a higher priority.</p>

Permittee Name: City of Redwood City, CA

<p>4. Identifying and selecting trash management actions for specific management areas</p>	<p>Additional trash management actions for specific management areas have not yet been finalized. Trash management actions will be identified via long-term plan development.</p>
<p>5. Defining the type of assessment(s) that will be used to demonstrate progress towards goals</p>	<p>The City of Redwood City is currently exploring a number of assessment methods that will assist the City in demonstrating progress towards solving municipal stormwater-related trash problems within our jurisdictional area. Through our participation in SMCWPPP, we are currently developing a countywide pilot trash assessment strategy and work plan. The pilot strategy will address the need to demonstrate progress in the near-term, while recognizing the fact that method development and testing is needed to achieve confidence in conclusions about trash reduction. The pilot strategy may include the testing of a number of trash assessment methods, including</p> <ul style="list-style-type: none"> <li>• Visual assessments of trash conditions on-land;</li> <li>• Trash full capture device operation/maintenance verification;</li> <li>• Condition assessments in receiving waters; and,</li> <li>• Documenting and assessing control measure implementation.</li> </ul> <p>The pilot strategy will be included as a supplement to our Long-Term Trash Load Reduction Plan, which will be submitted to the Water Board by February 1, 2014. The City may also choose to supplement the pilot strategy with City specific assessment strategies. The pilot strategy will be implemented in coordination with the three-year <i>Tracking California's Trash</i> grant-funded project, which was awarded to BASMAA by the State Board. A number of trash monitoring and assessment methods will be tested through the project and assist the City in developing a robust set of indicators for demonstrating progress toward trash reduction goals.</p>

Permittee Name: City of Redwood City, CA

**C.10.d Summary of Trash Reduction Actions**

For each trash reduction action (i.e., control measures and best management practices) implemented by your municipality during the reporting period include a full description of the action. Describe actions initiated prior to and continued after the MRP effective date (December 2009), actions initiated after the MRP effective date, and actions planned for future implementation. If a planned action, also include the planned date of implementation. Add rows for actions not listed below as needed. Also identify the dominant source of trash and dominant types of trash removed for each action. To the extent possible, identify the applicable management areas identified on the map created under reporting section C.10.a.iii.

Action	Description	Trash Management Area(s) (Preliminary Map ID)	Dominant Sources	Dominant Types
<b>Trash Management Area Specific Actions</b>				
Full-Capture Treatment Devices	See description in section C.10.a.iii	1,3,5,6, 7	Pedestrian litter	All
Street Sweeping	<p>The City continued its pilot street cleaning program with parking enforcement signs for two short stretches of Marshall St. and Douglas St. Parking enforcement equivalent occurs mostly in the downtown area, on major arterial roads and near El Camino Real, Woodside Road and surrounding US 101. Parking enforcement equivalent also occurs within commercial and industrial areas of the city and on arterial roads in Redwood Shores.</p> <p>Additional street cleanings are being considered for those streets that continue to have trash issues. Work-furlough program workers are also being considered to help curb trash in high generation areas.</p>	1, 2, 3	Pedestrian litter	food packaging, bags, cigarette butts
Creek, Channel, Shoreline Cleanups	<p>FY 12-13 Coastal Cleanup The City continued its tradition of a Spring and Fall Cleanup. Approximately nine sites are targeted for each event and several hundred volunteers and residents from the community pitch in to reduce the amount of trash that could possibly reach the bay.</p> <p>Additionally, the Redwood Shores Community Association, in conjunction with the City, held their annual levee cleanup event. This year's event helped beautify seven miles of levee surrounding Redwood Shores.</p>	3,4,5,6,7	Pedestrian litter, illegal dumping	all

Permittee Name: City of Redwood City, CA

**C.10.d Summary of Trash Reduction Actions**

For each trash reduction action (i.e., control measures and best management practices) implemented by your municipality during the reporting period include a full description of the action. Describe actions initiated prior to and continued after the MRP effective date (December 2009), actions initiated after the MRP effective date, and actions planned for future implementation. If a planned action, also include the planned date of implementation. Add rows for actions not listed below as needed. Also identify the dominant source of trash and dominant types of trash removed for each action. To the extent possible, identify the applicable management areas identified on the map created under reporting section C.10.a.iii.

Action	Description	Trash Management Area(s) (Preliminary Map ID)	Dominant Sources	Dominant Types
Area/Jurisdictional-wide Actions				
Single-Use Carryout Bag Policies	<p>Redwood City’s City Council adopted reusable bag ordinance on March 25, 2013, which prohibits single-use plastic bags from being distributed. Although the enforcement and implementation of the ordinance will not go into effect until October 1, 2013, affected businesses are allowed to implement the plastic bag ban and begin charging for paper bags prior to the October 1 start-date.</p> <p>Enforcement of the bag ordinance will be conducted by San Mateo County and will be complaint-based.</p> <p>Prior to adoption of the ordinance, two public informational meetings were held to help residents and businesses understand the scope and impact. The two meetings were held at the City downtown library and were held on:</p> <ul style="list-style-type: none"> <li>• Wednesday, February 13, 2013. 2pm</li> <li>• Tuesday, February 19, 2013. 7pm</li> </ul> <p>See attachment for City webpage dedicated to reusable bag ordinance information.</p>	Jurisdiction-wide	Pedestrian litter	Single-use carry out plastic bags

Permittee Name: City of Redwood City, CA

**C.10.d ► Summary of Trash Reduction Actions**

For each trash reduction action (i.e., control measures and best management practices) implemented by your municipality during the reporting period include a full description of the action. Describe actions initiated prior to and continued after the MRP effective date (December 2009), actions initiated after the MRP effective date, and actions planned for future implementation. If a planned action, also include the planned date of implementation. Add rows for actions not listed below as needed. Also identify the dominant source of trash and dominant types of trash removed for each action. To the extent possible, identify the applicable management areas identified on the map created under reporting section C.10.a.iii.

Action	Description	Trash Management Area(s) (Preliminary Map ID)	Dominant Sources	Dominant Types
Polystyrene Foam Food Service Ware Policies	<p>On May 7, 2012, Redwood City adopted an ordinance which prohibits Styrofoam and the ban went into effect on January 1, 2013. In conjunction with the City, San Mateo County reached out to businesses affected prior to January 1 to inform them of the ban. The County’s Environmental Health Division administers and enforces the ordinance and can issue fines against offenders.</p> <p>See attachment for information provided to the public, via the City website, related to the ban.</p>	Jurisdiction-wide	Pedestrian litter	Polystyrene Foam
Public Education and Outreach Programs	See attachment: <u>C.10.d – Summary of Trash Reduction Actions Regional and Countywide Public Education and Outreach Programs</u>	Jurisdiction-wide	Pedestrian litter, illegal dumping	All

Permittee Name: City of Redwood City, CA

Section 11 - Provision C.11 Mercury Controls

**C.11.a.i ► Mercury Recycling Efforts**

List below or attach lists of efforts to promote, facilitate, and/or participate in collection and recycling of mercury containing devices and equipment at the consumer level (e.g., thermometers, thermostats, switches, bulbs).

Promotion of May 11 HHW Drop-off Event through city website. Event was organized by San Mateo County’s Environmental Health Division.

Also refer to the Countywide Program’s Annual Report for information regarding the promotion of collection and recycling of mercury containing devices by the County Household Hazardous Waste Program.

**C.11.a.ii ► Mercury Collection**

Provide an estimate of the mass of mercury collected through these efforts, or provide a reference to a report containing this estimate.

**Guidance:**  
Please refer to the SMCWPPP FY 12-13 Annual Report for an estimate of the mass of mercury collected through collection and recycling efforts in the SMCWPPP area.

Mercury Containing Device/Equipment	Total Amount of Devices Collected	Estimated Mass of Mercury Collected
Fluorescent Lamps <sup>62</sup> (linear feet)	N/A	N/A
CFLs <sup>63</sup> (each)	N/A	N/A
Thermostats <sup>64</sup> (each)	N/A	N/A
Thermostats (lbs)	N/A	N/A
Thermometers (each)	N/A	N/A
Switches (lbs)	N/A	N/A
<b>Total Mass of Mercury Collected During FY 2012-2013:</b>		N/A

<sup>62</sup> Only linear fluorescent lamps should be included

<sup>63</sup> Only compact fluorescent lamps should be included

<sup>64</sup> Thermostats can be reported by quantity or by pounds. Whichever unit is used, please avoid double-counting.

- C.11.b ▶ Monitor Methylmercury**
- C.11.c ▶ Pilot Projects to Investigate and Abate Mercury Sources in Drainages**
- C.11.d ▶ Pilot Projects to Evaluate and Enhance Municipal Sediment Removal and Management Practices**
- C.11.e ▶ Conduct Pilot Projects to Evaluate On-Site Stormwater Treatment via Retrofit**
- C.11.f ▶ Diversion of Dry Weather and First Flush Flows to POTWs**
- C.11.g ▶ Monitor Stormwater Mercury Pollutant Loads and Loads Reduced**
- C.11.h ▶ Fate and Transport Study of Mercury In Urban Runoff**
- C.11.i ▶ Development of a Risk Reduction Program Implemented Throughout the Region**
- C.11.j ▶ Develop Allocation Sharing Scheme with Caltrans**

State below if information is reported in a separate regional report. Municipalities that participate directly in regional activities to can provide descriptions below.

Summary

A summary of SMCWPPP and regional accomplishments for these sub-provisions are included within the C.11 Mercury Controls section of the SMCWPPP FY 12-13 Annual Report and/or the BASMAA Regional POC Report.

Permittee Name: City of Redwood City, CA

Section 12 - Provision C.12 PCBs Controls

**C.12.a.ii,iii ▶ Ongoing Training**

(For FY 10-11 Annual Report and Each Annual Report Thereafter) List below or attach description of ongoing training development and inspections for PCB identification, including documentation and referral to appropriate regulatory agencies (e.g. county health departments, Department of Toxic Substances Control, California Department of Public Health, and the Water Board) as necessary.

Description:

City and county staff attended Illicit Discharge Inspector Training held by SMCWPPP CII Committee on April 24, 2013. Current inspection worksheet requires inspector to determine if any POC (including PCBs) is detected.

**C.12.b ▶ Conduct Pilot Projects to Evaluate Managing PCB-Containing Materials and Wastes during Building Demolition and Renovation Activities**

**C.12.c ▶ Pilot Projects to Investigate and Abate On-land Locations with Elevated PCB Concentrations**

**C.12.d ▶ Conduct Pilot Projects to Evaluate and Enhance Municipal Sediment Removal and Management Practices**

**C.12.e ▶ Conduct Pilot Projects to Evaluate On-Site Stormwater Treatment via Retrofit**

**C.12.f ▶ Diversion of Dry Weather and First Flush Flows to POTWs**

**C.12.g ▶ Monitor Stormwater PCB Pollutant Loads and Loads Reduced**

**C.12.h ▶ Fate and Transport Study of PCBs In Urban Runoff**

**C.12.i ▶ Development of a Risk Reduction Program Implemented Throughout the Region**

State below if information is reported in a separate regional report. Municipalities that participate directly in regional activities to can provide descriptions below.

Summary

A summary of SMCWPPP and regional accomplishments for these sub-provisions are included within the C.12 PCB Controls section of the SMCWPPP FY 12-13 Annual Report and/or the BASMAA Regional POC Report.

Section 13 - Provision C.13 Copper Controls

**C.13.a.iii.(2) ▶ Training, Permitting and Enforcement Activities**

*(FY 11-12 Annual Report and each Annual Report thereafter)* Provide summaries of activities implemented to manage waste generated from cleaning and treating of copper architectural features, including copper roofs, during construction and post-construction including. :

- Development of BMPs on how to manage the water during and post construction
- Requiring the use of appropriate BMPs when issuing building permits
- Educating installers and operators on appropriate BMPs
- Enforcement actions taken again noncompliance

Development of BMPs. The Countywide Program collaborated with BASMAA to develop BMPs to manage waste generated from cleaning and treating of copper architectural features, including copper roofs, during construction and post construction.

An information flyer on the BMPs for architectural copper was collaboratively developed by the Countywide program and the Santa Clara Valley Urban Runoff Pollution Prevention Program. City and county staff was trained on the BMPs during a construction site inspection training seminar on April 11, 2013. When applicable, city staff provides information on architectural copper BMPs when issuing permits.

Any necessary enforcement action is implemented through the City’s enforcement response plan.

**C.13.a.iii.(3) ▶ Evaluation of Effectiveness**

*(FY 12-13 Annual Report)* Evaluate the effectiveness of measures the agency has undertaken to prevent discharge of wastewater to storm drains during the installation, cleaning, treating, and washing of the surface of copper architectural features. The discussion of the effectiveness of these measures should include BMP implementation and may propose additional measures to address this source of pollutants.

When applicable, city staff provides information on architectural copper BMPs when issuing permits.

Permittee Name: City of Redwood City, CA

**C.13.c ▶ Vehicle Brake Pads**

Reported in a separate regional report.  
 A summary of SMCWPPP’s participation with the Brake Pad Partnership (BPP) is included within the C.13 Copper Controls section of the SMCWPPP FY 12-13 Annual Report and/or the BASMAA Regional POC Report.

**C.13.c.iii ▶ Water Quality Issues Associated with Automobile Brake Pads**

*(FY 12-13 Annual Report Only)* – Assess status of copper water quality issues associated with automobile brake pads and recommend brake-pad related actions for inclusion in subsequent permits if needed.  
 An assessment of copper water quality issues associated with automobile brake pads and recommend brake-pad related actions for inclusion in subsequent permits is included within the C.13 Copper Controls section of the SMCWPPP FY 12-13 Annual Report and/or the BASMAA Regional POC Report.

**C.13.d.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  
 On behalf of the city, CEH identified and conducted inspections of 5 POC facilities during the reporting period. No violations or verbal warnings were given and proper BMPs were being utilized.

**C.13.e ▶ Studies to Reduce Copper Pollutant Impact Uncertainties**

Report on progress of studies being conducted countywide or regionally to reduce copper pollutant impact uncertainties. State below if information is reported in a separate regional report.  
 Summary  
 A summary of the SMCWPPP and/or regional efforts to develop regional studies to reduce copper pollutant impact uncertainties is included within the C.13 Copper Controls section of the SMCWPPP FY 12-13 Annual Report and/or BASMAA Regional POC Report.

Permittee Name: City of Redwood City, CA

Section 14 - Provision C.14 PBDE, Legacy Pesticides and Selenium Controls

**C.14.a ► Control Programs for PBDEs, Legacy Pesticides and Selenium Controls**

Report on progress of studies being conducted countywide or regionally to characterize the distribution and pathways of PBDEs, legacy pesticides, and selenium. State below if information is reported in a separate regional report.

**Summary**

A summary of SMCWPPP and regional efforts related to the Control Program for PBDEs, Legacy Pesticides and Selenium is included within the C.14 PBDE, Legacy Pesticides and Selenium section of the SMCWPPP FY 12-13 Annual Report and/or BASMAA Regional POC Report.

**C.14.a.v. ► Control Programs for PBDEs, Legacy Pesticides and Selenium Controls – Load Computation**

*(For FY 12-13 Annual Report only)* Submit a report with information required to compute loading estimates of PBDEs, legacy pesticides and selenium from urban runoff to the Bay.

**Summary**

Information required to compute loading estimates of PBDEs, legacy pesticides and selenium from urban runoff to the Bay is included within the C.14 PBDE, Legacy Pesticides and Selenium section of the SMCWPPP FY 12-13 Annual Report and/or BASMAA Regional POC Report.

**C.14.a.vi. ► Control Programs for PBDEs, Legacy Pesticides and Selenium Controls – Control Measures**

*(For FY 12-13 Annual Report only)* Submit a report identifying control measures and/or management practices to reduce impacts from discharges of PBDEs, legacy pesticides or selenium in urban runoff.

**Summary**

A report identifying control measures and/or management practices to reduce impacts from discharges of PBDEs, legacy pesticides or selenium in urban runoff is included within the C.14 PBDE, Legacy Pesticides and Selenium section of the SMCWPPP FY 12-13 Annual Report and/or BASMAA Regional POC Report.

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

**C.15.b.iii.(1), C.15.b.iii.(2) ► Planned and Unplanned Discharges of Potable Water**

Is your agency a water purveyor?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If <b>No</b> , skip to C.15.b.vi.(2):				
If <b>Yes</b> , Complete the attached reporting tables or attach your own table with the same information. Provide any clarifying comments below.				
Comments: City staff attended the SMCWPPP Water Utility Training Workshop on November 13, 2012.  See attachments.				

**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: <ul style="list-style-type: none"> <li>• Promote conservation programs</li> <li>• Promote outreach for less toxic pest control and landscape management</li> <li>• Promote use of drought tolerant and native vegetation</li> <li>• Promote outreach messages to encourage appropriate watering/irrigation practices</li> <li>• Implement Illicit Discharge Enforcement Response Plan for ongoing, large volume landscape irrigation runoff.</li> </ul>
Summary: The city has an active water conservation program. Utility customers receive a quarterly water conservation newsletter with their billings offering tips, guidance and information on city conservation efforts. The city's website includes a dedicated conservation webpage at <a href="http://www.redwoodcity.org/publicworks/water/water_conservation.htm">http://www.redwoodcity.org/publicworks/water/water_conservation.htm</a> <ul style="list-style-type: none"> <li>• Provide a water budget for all residential and commercial irrigation customers that is based on specific site factors: landscape size; type; and weather.</li> <li>• Enforce water budgets through a tiered rate structure with charges that become increasingly punitive the further water use is outside of the budget.</li> <li>• Conduct irrigation audits and provide recommendations for improving efficiency at residential and commercial properties.</li> <li>• Conducted residential and commercial workshops for irrigation best management practices and native plant materials.</li> <li>• Employ the use of Automated Metering Infrastructure to identify irrigation system leaks and notify customers via email.</li> </ul>

C.15.b.iii.(1) ► Planned Discharges of the Potable Water System									Monitoring			Best Management Practices Used									
	Date	Location	Receiving Water Body	Description of Work or Event	Time Started	Time Ended	GPM	Total Gallons	Chlorine	pH	Turbidity	Silt Bags	Damming	Filter Bags	Sodium Dechlor.	Ascorbic Acid Dechlor.	Discharge to Sewer / Tank	Sweep Gutter	Vacuum / Vactor	Baker Tank	Other
1	9/11/2012	717 Bayview	creek	water flushing	6:10 PM	6:20 PM	10	200	0.02	9	18		x	x	x			x			
2	9/28/2012	Hyde & edgewood	creek	water flushing	5:00 AM	5:30 AM	75	2,250	0.00	9	0		x	x	x			x			
3	10/19/2012	423 upland	creek	flushing	12:05 PM	12:11 PM	200	1,100	0.05	9	>8		x	x	x			x			
4	10/18/2012	640 Marlin crt.	lagoon	flushing	8:15 AM	8:30 AM	150	3,000	0.05	9	>8		x	x	x			x			x
5	10/18/2012	566 Marlin crt.	lagoon	flushing	8:45 AM	9:00 AM	150	3,000	0.05	9	>8		x	x	x			x			
6	10/19/2012	602 Toledo	lagoon	flushing	11:07 AM	11:10 AM	105	6,200	0.05	9	>8		x	x	x			x			
7	10/19/2012	643 toledo	lagoon	flushing	10:45 AM	10:49 AM	105	6,200	0.05	9	>8		x	x	x			x			
8	10/19/2012	3733 Laurel way	creek	flushing	12:30 PM	12:32 PM	200	1,200	0.05	9	>8		x	x	x			x			
9	1/9/2013	mohican & eastlake	creek	flushing	11:15 AM	11:25 AM	780	7,800	0.08	9	>8		x	x	x			x			
10	1/18/2013	Marina point	lagoon	flushing	12:05 PM	12:25 PM	100	1,500	0.10	9	48		x	x	x			x			
11	2/6/2013	711 lacewig	lagoon	flushing	8:08 AM	8:18 AM	350	3,500	0.00	9	0		x	x	x			x			
12	2/8/2013	2650 El Camino	creek	flushing	6:09 PM	6:19 PM	675	6,750	0.00	9	2		x	x	x			x			
13	2/14/2013	127 Wayne ct. East	creek	flushing	11:20 AM	11:30 AM	480	4,800	0.00	9	>8		x	x	x			x			
14	2/14/2013	1110 18th av	creek	flushing	10:30 AM	10:40 AM	500	5,000	0.00	9	>8		x	x	x			x			
15	2/14/2013	36 St.Marys pl.	creek	flushing	1:10 PM	1:20 PM	150	1,500	0.00	9	>8		x	x	x			x			
16	2/14/2013	5 odessa	creek	flushing	1:40 PM	2:00 PM	150	3,000	0.00	9	>8		x	x	x			x			
17	2/14/2013	22 wayne crt. West	creek	flushing	12:40 PM	12:50 PM	480	4,800	0.00	9	>8		x	x	x			x			
18	5/3/2013	5 friendly crt.	creek	flushing	9:20 AM	9:30 AM	10	100	0.00	9	3		x	x	x			x			
19	5/3/2013	4 delmare crt.	creek	flushing	9:45 AM	10:05 AM	10	200	0.05	9	29		x	x	x			x			
20	5/6/2013	701 9th av.	bayfront canal	flushing	10:00 AM	10:10 AM	30	300	0.05	9	28		x	x	x			x			
21	5/6/2013	94 renato crt.	creek	flushing	2:00 PM	2:10 PM	600	6,000	0.00	9	3		x	x	x			x			
22	5/16/2013	15 yarnall pl	bayfront canal	flushing	10:45 AM	11:00 AM	20	300	0.00	9	>8		x	x	x			x			
23	5/24/2013	cordillares & springdale	creeks	fire flows	10:30 AM	10:34 AM	740	2,960	0.02	9	32		x	x	x			x			
24	5/24/2013	3699 Brandy rock	creeks	fire flows	11:02 AM	11:09 AM	750	5,250	0.00	9	38		x	x	x			x			
25	5/24/2013	1045 Edenbower	creeks	fire flows	11:30 AM	11:35 AM	750	3,750	0.01	8	15		x	x	x			x			
26	6/6/2013	792 8th av.	creeks	flushing	9:40 AM	9:50 AM	30	300	0.00	9	29		x	x	x			x			
27	6/7/2013	1726 Hampton	creeks	fire flows	2:00 PM	2:04 PM	750	3,000	0.02	8	>8		x	x	x			x			
28	6/7/2013	1705 E.Bayshore	canal,bayfront	fire flows	1:25 PM	1:29 PM	750	3,000	0.04	8	12		x	x	x			x			

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

C.15.b.iii.(2) ► Unplanned Discharges of the Potable Water System										Monitoring			Best Management Practices Used								
Date	Location	Receiving Water Body	Description of Work or Event	Time Discovered	Time of 1st Response	Time Ended	GPM	Total Gallons	Chlorine	pH	Turbidity	Silt Bags	Damming	Filter Bags	Sodium Dechlor.	Ascorbic Acid Dechlor.	Discharge to Sewer / Tank	Sweep Gutter	Vacuum / Vactor	Baker Tank	Other
1	9/6/2012	3705 farmhill	creek	mainbreak	4:00 AM	4:27 AM	5:00 AM	142,000	2.1	9	<8		x	x	x						
2	9/8/2012	1584 Gordan	creek	mainbreak	3:30	4:15	4:55	50	2,000	2.1	9	<8		x	x	x					
3	9/21/2012	1226 Hudson	creek	mainbreak	1:50	2:00 PM	7:00 PM	10	3,000	0.0	9	0		x	x	x				x	
4	9/25/2012	1051 8th av.	creek	mainbreak	2:00 AM	210 am	1030 am		48,000	0.0	9	-		x	x	x					
5	9/28/2012	Allerton & hopkins	creeks	mainbreak	1:00 PM	130 pm	930 pm	5	8,100	0.0	9	-		x	x	x				x	
6	10/2/2012	775 Seaport	bayfront canal	mainbreak	1045 am	11:00 AM	12:00 PM	500	45,000	0.0	9	-		x	x	x				x	
7	10/4/2012	50 redwood	creeks	mainbreak	845 am	900 am	1230 pm	10	2,100	0.0	9	-30		x	x	x				x	
8	11/4/2012	997 Haven	bayfront canal	mainbreak	640 am	730 am	100 pm	25	10,000	0.0	9	48		x	x	x				x	
9	11/16/2012	vera and crompton	creek	mainbreak	400 am	6:00 AM	1030 am	45	13,500	0.0	9	30		x	x	x				x	
10	11/17/2012	1584 gordan	creek	mainbreak	430 pm	5:00 PM	830 pm	55	12,000	0.0	9	40		x	x	x				x	
11	11/20/2012	brewster & warren	creek	mainbreak	130 am	230 am	11:00 AM	10	49,500	0.0	9	50		x	x	x				x	
12	11/20/2012	allerton & standish	creek	mainbreak	6:00 AM	625 am	12:00 PM	50	16,500	0.0	9	50		x	x	x				x	
13	11/22/2012	659 upton	creek	mainbreak	230 am	3:00 AM	830 am	20	6,150	0.0	9	30		x	x	x				x	
14	11/22/2012	3752 florence	creek	mainbreak	10:00 AM	1025 am	230 pm	15	1,350	0.0	9	50		x	x	x				x	
15	12/2/2012	3797 Red oak way	creek	mainbreak	3:00 PM	3:00 PM	6:00 PM	15	2,700	0.0	9	50		x	x	x				x	
16	12/2/2013	563 scott	creek	mainbreak	850 am	9:00 AM	12:00 PM	25	4,500	0.0	9	50		x	x	x				x	
17	12/18/2013	162 oakfield	creeks	mainbreak	7am	730 am	1030 am	20	4,200	0.0	9	50		x	x	x				x	
18	1/4/2013	fernside & hastings	creeks	mainbreak	445 pm	545 pm	7:00 PM	50	6,000	0.0	9	40		x	x	x				x	
19	1/14/2013	Arden & hudson	creeks	maincreek	3:00 AM	315	345 am	100	2,500	0.0	9	50		x	x	x				x	
20	2/1/2013	2620 El Camino	creeks	maincreek	145 pm	145 pm	2:00 PM	300	4,500	0.0	9	0		x	x	x				x	
21	5/5/2013	wilson & ECR	creeks	mainbreak	1230 pm	100 pm	130 pm	5	300	0.0	9	0		x	x	x				x	
22	5/6/2013	wison & ECR	creeks	mainbreak	130 pm	130 pm	230 pm	10	600	0.0	9	0		x	x	x				x	
23	5/8/2013	ebner & redwood	creeks	mainbreak	1210 pm	1220 pm	330 pm	5	950	0.0	9	0		x	x	x				x	x
24	5/21/2013	2507 Mc Garvey	creeks	mainbreak	5:00 PM	430 am	1130 pm	5	1,500	0.0	9	0		x	x	x				x	
25	5/23/2013	1917 Alameda de las pul	creeks	mainbreak	8:00 AM	8:00 AM	100 am	100	12,000	0.0	9	0		x	x	x				x	
26	6/10/2013	3708 brandyrock	creeks	mainbreak	1150am	12:00 PM	1205 pm	200	1,000	0.0	9	0		x	x	x				x	
27	6/19/2013	3 winslow	creeks	mainbreak	2:00 PM	220 pm	5:00 PM	80	9,600	0.0	9	0		x	x	x				x	
28	6/23/2013	1911 goodwin	creeks	mainbreak	7:00 AM	730 am	10:00 AM	50	9,000	0.0	9	0		x	x	x				x	

FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



**Attachment**

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Provision C.2.f Corporation Yard BMP Implementation

## Municipal Corporation Yard Inspection Form

Municipality: City of Redwood City

Location of Corporation Yard Inspected: 1400 Broadway Street, Redwood City, CA

Date and Time of Inspection: 07/12/2012

Name of Person and Position Conducting Inspection: Ken Weber, Fleet Supervisor  
Richard DelBen, Specialist /  
Management Section

### Storm Water

**A. General Good Housekeeping BMPs Being Implemented** (Check all that were observed/determined):

- Clean and orderly corporation yard maintained
- Materials with potential to discharge to stormwater covered prior to rains
  - Not able to determine during inspection
- Containers are not overfilled and lids are kept closed when not in use
- Storm drain inlet labels are maintained
- A sufficient number of covered litter receptacles are used and maintained
- Materials and wastes are stored as far away from storm drain inlets as practicable
- Vehicles and equipment are maintained to minimize drips and leakage
- Spill containment kits/clean up materials available at locations where there are potential for spills
- Dry clean up methods are used for any spills or leaks
- Corporation yard maintenance staff has been trained to use BMPs listed in the Corporation Yard's Site Specific Stormwater Pollution Prevention Plan
- Describe any improvements needed: Catch basin screens should be clean up monthly during wet season

**B. Vehicle and Equipment Washing** (Check all that were observed/determined):

- Vehicle and/or equipment washing occurs at the corporation yard, if not skip to next section**
  - Washing activities are located under a roof or in a building equipped with a municipal sewer connection
  - Vehicle washing area is adequately sized for vehicles being washed and to minimize drag-out from washed vehicles so there is no flow to storm drain inlets
  - All vehicle washing systems are maintained and cleaned out on a regular schedule
  - Outdoor equipment washing occurs and the following BMPs are used:
    - Wash area is paved and surrounded by berms or graded to prevent washwater from flowing off and stormwater from adjoining areas from flowing onto the wash area
    - Wash area is sloped to collect washwater
    - Washwaters drain to a dead-end sump or an oil-water separator connected to sanitary sewer

**FY 2012-2013 Annual Report**

**Permittee Name: City of Redwood City**

Describe any improvements needed: \_\_\_\_\_

**C. Vehicle and Equipment Maintenance and Repair** (Check all that were observed/determined):

**Vehicle and/or equipment maintenance occurs at corporation yard, if not skip to next section**

- Vehicle and/or equipment maintenance are conducted indoors whenever feasible
- Drain and drip pans or open containers of fluids are not left lying around
- Vehicle and/or equipment maintenance and repair area is swept at least weekly
- Drip pans are used under leaky vehicles and equipment, and absorbent pads and materials are used as appropriate
- All fluids from wrecked vehicles are drained immediately using an adequately sized drain or drip pan
  - Not able to determine during inspection
- Used absorbent material from cleaning small spills is promptly and properly removed
- Vehicle and equipment maintenance are not performed outdoors during rain events unless required by emergency conditions
  - Not able to determine during inspection
- If temporary work must be conducted outdoors, a tarp, ground cloth, or drip pan is placed under the vehicle or equipment to capture spills and drips
  - Not able to determine during inspection
- Describe any improvements needed: \_\_\_\_\_

**D. Fuel Dispensing** (Check all that were observed/determined):

**Fuel dispensing occurs at the corporation yard, if not skip to the next section**

- Fuel dispensing area is covered by a roof or canopy so that rainwater cannot contact the fueling area
- Fueling area is paved with Portland cement (or an equivalent smooth, impervious surface) with a 2 to 4% slope to prevent ponding, and it is separated by a grade break from the rest of the site
- Signs are posted to remind employees not to top off fuel tank
- Current spill response plan is available for fuel dispensing
- Fueling area is inspected daily during use and any deficiencies found are corrected
- Describe any improvements needed: \_\_\_\_\_

**E. Municipal Vehicle, Heavy Equipment, and Employee Parking** (Check all that were observed/determined):

- Parking lots are swept at least weekly to prevent accumulation of trash and litter
- When surface cleaning is conducted, BASMAA's "Pollution from Surface Cleaning" BMPs are used
  - Not able to determine during inspection

**FY 2012-2013 Annual Report**

**Permittee Name: City of Redwood City**

- Paving and other equipment that has the potential to drip have drip pans or absorbent materials placed under the equipment to contain any leaks or spills
- Heavy equipment is inspected for leaks during each work day and repairs are made as soon as possible
- Drip pans or absorbent material are used under leaking vehicles and equipment until repairs are made
- Parking lots are inspected at least weekly to assure BMPs are used
- Describe any improvements needed: \_\_\_\_\_

**F. Waste and Recycling Storage (Check all that were observed/determined):**

- Dumpster and waste recycling areas are inspected, swept, and picked up daily during work days
- Rubbish and recyclables that have been collected from streets and storm drains are stored under a roof or cover, if possible
- Street sweeping waste and materials removed during storm drain cleaning are stored on a concrete or asphalt pad in a contained area. Water including decanted water from collected wastes drains to sanitary sewer or is allowed to evaporate so it doesn't flow to storm drain inlets
- Hazardous wastes are stored in compliance with hazardous waste regulations
- Describe any improvements needed: \_\_\_\_\_

**G. Outdoor Material Storage (Check all that were observed/determined):**

**Material is stored outdoors at corporation yard, if not do not complete this section**

- To the extent feasible materials that must be stored outside are stored in a roofed area that is bermed to prevent contact with stormwater
- Stockpiles of raw materials that cannot be stored under a roof are kept covered when the material is not being used
- If stockpiles are so large that they cannot feasibly be stored under a roof or covered, erosion control BMPs are used at the perimeter of the stockpile and sediment controls BMPs at downstream storm drain inlet(s)
- Fluids are stored within secondary containment to prevent accidental release
- Caution and control are used when transferring liquids to minimize spills
  - Not able to determine during inspection
- Containers are kept out of pooled or standing water
  - Not able to determine during inspection
- Storage areas are inspected regularly to detect any leaks and spills
- Describe any improvements needed: \_\_\_\_\_

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



## **Attachment**

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Provision C.3

1. Narrative discussion of 100% LID Feasibility

### 3. Narrative Discussion of LID Feasibility or Infeasibility

#### 201 Marshall Street

##### 1. Feasibility/Infeasibility of Onsite Infiltration, Evapotranspiration, and Harvesting/Use

The Countywide Program's infiltration/harvesting and use feasibility screening worksheet and rainwater harvesting and use worksheet were completed for the project. The results of this analysis showed that it was infeasible to treat the C.3.d amount of runoff with infiltration or harvesting and use.

##### 2. Feasibility/Infeasibility of Onsite LID Treatment

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

- a. **On-site Drainage Conditions.** On-site drainage consists of rainwater collected on the building roof and podium level courtyard. These waters will be collected through a system of pipes, routed through the building and treated through downspout media filters prior to discharge to the City's storm drain system.
- b. **Self-treating and Self-Retaining Areas and LID Treatment Measures** The proposed building will be constructed in accordance with the City's Downtown Precise Plan zoning, which provides for a zero lot-line setback. The majority of the site will be covered by roof or building footprint, with the exception being a small strip of land adjacent to the building and the neighboring property to the northeast. The majority of this strip of land is encumbered by an easement to PG&E, precluding the installation of any LID structures. The remainder is too narrow to allow for an LID structure.
- c. **Maximizing Flow to LID Features and Facilities.** Not applicable (see sections 2.a and 2.b above).
- d. **Constraints to Providing On-site LID.** See sections 2.a and 2.b above.
  - i. **Impervious paved areas:** The majority of the site will be covered by roof or building footprint, with the exception being a small strip of land adjacent to the building and the neighboring property to the northeast.
  - ii. **Landscaped areas:** The small strip of land adjacent to the building and the neighboring property to the northeast is mostly encumbered by an easement to PG&E, precluding the installation of any LID structures. The remainder is too narrow to allow for an LID structure.

##### 3. Feasibility/Infeasibility of Off-Site LID Treatment.

The possibility of providing off-site LID treatment was found to be infeasible for the following reasons.

- a. No additional property within the same watershed is owned by the project proponent. LID treatment in the public right-of-way adjacent to the project is infeasible for the following reasons:
  - Inadequate size to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
  - Conflict with subsurface utilities.
- b. There is no regional LID stormwater mitigation program available for in-lieu C.3 compliance.

Table prepared by CONTECH Vendor for BASMAA, with info from the TAPE program and 2 other governmental certification programs; BASMAA recommends using systems approved by TAPE for GULD Basic Treatment

<b>High Rate Biofilter and Media Filter Approvals and Design Constraints</b>					
Technology	Vendor	Technology Type	TAPE GULD for Basic Treatment <sup>1</sup>	TARP Tier II Approval <sup>2</sup>	Sacramento Stormwater Quality Partnership <sup>3</sup>
			Design Operating Rate	Design Operating Rate	Design Operating Rate
Filterra	Americast	High Rate BioFilter	Hydraulic conductivity of 35.46"/hr	n/a	50"/hr percolation rate
Stormwater Management StormFilter	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	2 gpm/sf filter surface area
Media Filtration System (MFS)	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	n/a
FloGard Perk Filter	Kristar Enterprises, Inc.	Media Filter	1.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
BayFilter Cartridge	Baysaver Technologies, Inc.	Media Filter	0.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
Enhanced Media Cartridge	Baysaver Technologies, Inc.	Media Filter	0.7 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
<p>1 - General Use Level Designation for Basic Treatment granted by the Washington State Department of Ecology. For program information and use level designation statements see: <a href="http://www.ecy.wa.gov/programs/wq/stormwater/newtech/basic.html">http://www.ecy.wa.gov/programs/wq/stormwater/newtech/basic.html</a></p>					
<p>2 - Certification of performance granted by the New Jersey Department of Environmental Protection based on field testing following the Technology Assessment Reciprocity Partnership Protocol for Stormwater Best Management Practice Demonstrations. For certification statements see: <a href="http://www.state.nj.us/dep/stormwater/treatment.html">http://www.state.nj.us/dep/stormwater/treatment.html</a></p>					
<p>3 - Approval by the Sacramento Stormwater Quality Partnership for stand alone treatment of stormwater. For program information and approved products list see: <a href="http://www.beriverfriendly.net/newdevelopment/propstormwatertreatdevice/">http://www.beriverfriendly.net/newdevelopment/propstormwatertreatdevice/</a></p>					

TAPE = Technical Assessment Protocol - Ecology, a certification program operated by Washington State Dept. of Ecology  
 GULD = General Use Level Designation

### 3. Narrative Discussion of LID Feasibility or Infeasibility

#### 640 Veterans Boulevard (Radius)

##### 1. Feasibility/Infeasibility of Onsite Infiltration, Evapotranspiration, and Harvesting/Use

The Countywide Program's infiltration/harvesting and use feasibility screening worksheet was completed for the project. The results of this analysis showed that it was infeasible to treat the C.3.d amount of runoff with infiltration, harvesting and use.

##### 2. Feasibility/Infeasibility of Onsite LID Treatment

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

- a. **On-site Drainage Conditions.** On-site drainage consists of rainwater collected on the building roof, podium level courtyard, a driveway to parking below buildings, minimal surface parking, hardscape surfaces and landscape areas around the buildings. The building roofs will drain to flow through planters on the podium, bioretention areas along Veterans Boulevard and the southeast side of the property and media filters prior to discharging to the City's storm drain system. Some of the runoff that flows through the flow through planters on the podium will be directed through the media filters because of site constraints. Drainage from the driveway will be directed to bioretention areas located at ground level and will also discharge through the media filter due to site constraints. Drainage from the walkway along the northwest side of the property will drain to a media filter. An existing Public Utility Easements along the southwest property line precludes the installation of LID treatment measures along the back of the buildings and a proposed Public Utility Easement and Public Access Easement prohibit the installation of LID treatment measures of a significant size between the buildings.
- b. **Self-treating and Self-Retaining Areas and LID Treatment Measures.** The proposed project will incorporate self-treating and bioretention areas where space allows. Self-treating areas include landscape areas around the buildings, pervious fire access lanes on the northwest and southwest sides of the buildings and permeable pavement walkways on the southwest side of the buildings.
- c. **Maximizing Flow to LID Features and Facilities.** The flow through planters on the podium will collect runoff from the roofs pitched towards the courtyards. The roofs along Veterans Boulevard will discharge above grade to bioretention areas located along the back of sidewalk. Runoff from the podium and southwestern and southeastern sides of the smaller building will discharge above grade to bioretention areas along the southeastern property line. The buildings utilize the two levels of parking below the podium to direct runoff to bioretention areas where possible and away from the existing Public Utility Easement(s) at the back of the buildings.
- d. **Constraints to Providing On-site LID.** The drainage management areas that are proposed to drain to tree-box type high flow rate biofilters and/or vault-based high flow rate media filters include some areas that are not covered by buildings. This area includes the pedestrian walkway along the fire line on the northwest property line. In these areas, conditions and technical constraints are present that preclude the use of LID features and facilities, as described below.
  - i. **Impervious paved areas:** The majority of the site will be covered by roof or building footprint, fire lane and public utility easement(s). The driveway and fire lane between the buildings is the main access for the site and does not have enough capacity to treat the paved surface and buildings. LID treatment measures have been sized to treat the impervious road/parking surface.
  - ii. **Landscaped areas:** The buildings are set back from the property lines approximately 30'. LID treatment measures are provided where space allows (along Veterans Boulevard and the southeast property line. Other areas are covered by fire lanes and public utility easements. These areas, coupled with required LID setbacks to buildings and property lines, render the spaces too small for the installation of LID treatment measures and the installation drainage facilities to the LID treatment measures.

- Inadequate size to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
- High groundwater or shallow bedrock;
- Conflict with subsurface utilities;
- Lack of head or routing path to move collected runoff to the landscaped area or from the landscaped area to a disposal point;

3. **Feasibility/Infeasibility of Off-Site LID Treatment.** The possibility of providing off-site LID treatment was found to be infeasible for the following reasons.

- i. Inadequate size to accommodate bioretention facilities that meet sizing requirements for the tributary area. The project is surrounded by city Right-of-Way or private property not owned by project owner;
- ii. Utility routing;
- iii. There is no regional LID stormwater mitigation program available for in-lieu C.3 compliance.

Table prepared by CONTECH Vendor for BASMAA, with info from the TAPE program and 2 other governmental certification programs; BASMAA recommends using systems approved by TAPE for GULD Basic Treatment

High Rate Biofilter and Media Filter Approvals and Design Constraints					
Technology	Vendor	Technology Type	TAPE GULD for Basic Treatment <sup>1</sup>		Sacramento Stormwater Quality Partnership <sup>3</sup>
			Design Operating Rate	TARP Tier II Approval <sup>2</sup>	Design Operating Rate
Filterra	Americast	High Rate BioFilter	Hydraulic conductivity of 35.46"/hr	n/a	50"/hr percolation rate
Stormwater Management StormFilter	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	2 gpm/sf filter surface area
Media Filtration System (MFS)	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	n/a
FloGard Perk Filter	Kristar Enterprises, Inc.	Media Filter	1.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
BayFilter Cartridge	Baysaver Technologies, Inc.	Media Filter	0.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
Enhanced Media Cartridge	Baysaver Technologies, Inc.	Media Filter	0.7 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a

1 - General Use Level Designation for Basic Treatment granted by the Washington State Department of Ecology. For program information and use level designation statements see: <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/basic.html>

2 - Certification of performance granted by the New Jersey Department of Environmental Protection based on field testing following the Technology Assessment Reciprocity Partnership Protocol for Stormwater Best Management Practice Demonstrations. For certification statements see: <http://www.state.nj.us/dep/stormwater/treatment.html>

3 - Approval by the Sacramento Stormwater Quality Partnership for stand alone treatment of stormwater. For program information and approved products list see: <http://www.beriverfriendly.net/newdevelopment/propstormwatertreatdevice/>

TAPE = Technical Assessment Protocol - Ecology, a certification program operated by Washington State Dept. of Ecology  
 GULD = General Use Level Designation



From the above stated and upon the city's approval the project would be 100% infeasible for LID treatment. In order to accommodate the anticipated condition, two non-LID media filters are being proposed to treat the runoff for the entire site. Storm water runoff will flow through such devices before connecting the City's system via new SD manholes at Fuller St. & Warren St.

#### Attachments

- Special Projects Worksheet
- Infiltration / Harvesting and Use Feasibility Screening Worksheet
- Web Soil Survey Soil Classification



### Infiltration/Harvesting and Use Feasibility Screening Worksheet

Apply these screening criteria for C.3 Regulated Projects\* required to implement Provision C.3 stormwater treatment requirements. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (\*). Contact municipal staff to determine whether the project meets Special Project\* criteria. If the project meets Special Project criteria, it may receive LID treatment reduction credits.

1. **Applicant Info** 052-331-020  
052-331-130  
 Site Address: 735 Brewster Ave., 313 Fuller St., 321 Fuller St., CA APN: 052-331-080  
 Applicant Name: Classic Communities, INC Phone No.: 650-496-4496  
 Mailing Address: Classic Communities, INC, 1068 East Meadow Circle, Palo Alto, CA 94303

2. **Feasibility Screening for Infiltration**

Do site soils either (a) have a saturated hydraulic conductivity\* (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?<sup>1</sup>

- Yes (continue)       No – complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, there is no need to complete the rest of this screening worksheet.

3. **Recycled Water Use**

Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

- The project is installing a recycled water plumbing system, and installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Skip to Section 6.

4. **Calculate the Potential Rainwater Capture Area\* for Screening of Harvesting and Use**

Complete this section for the entire project area. If rainwater harvesting and use is infeasible for the entire site, and the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then complete Sections 4 and 5 of this form for each of these buildings.

- 4.1 Table 1 for (check one):  The whole project       Area of 1 building roof (10,000 sq.ft. min.)

Table 1: Calculation of the Potential Rainwater Capture Area*				
<i>The Potential Rainwater Capture Area may consist of either the entire project area or one building with a roof area of 10,000 sq. ft. or more.</i>				
	1	2	3	4
	Pre-Project Impervious surface <sup>2</sup> (sq.ft.), if applicable	Proposed Impervious Surface <sup>2</sup> (IS), in sq. ft.		Post-project landscaping (sq.ft.), if applicable
		Replaced <sup>3</sup> IS	Created <sup>4</sup> IS	
a. Enter the totals for the area to be evaluated:	9,000	9,000	11,700	1925
b. Sum of replaced and created impervious surface:	N/A	20,700		N/A
c. Area of existing impervious surface that will NOT be replaced by the project.	0	N/A		N/A

<sup>1</sup> Base this response on the site-specific soil report, if available. If this is not available, consult soil hydraulic conductivity maps in Attachment 3.  
<sup>2</sup> Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the C.3.d amount of runoff\*.  
<sup>3</sup> "Replaced" means that the project will install impervious surface where existing impervious surface is removed.  
<sup>4</sup> "Created" means the project will install new impervious surface where there is currently no impervious surface.  
 \* For definitions, see Glossary (Attachment 1).

4.2 Answer this question ONLY if you are completing this section for the entire project area. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the existing area of impervious surface? (Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?)

- Yes, C.3. stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced. This is known as the 50% rule.
- No, C.3. requirements apply only to the impervious area created and/or replaced.

4.3 Enter the square footage of the Potential Rainwater Capture Area\*. If you are evaluating only the roof area of a building, or you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1.:

\_\_\_\_\_ 20,700 \_\_\_\_\_ square feet.

4.4 Convert the measurement of the Potential Rainwater Capture Area\* from square feet to acres (divide the amount in Item 4.3 by 43,560):

\_\_\_\_\_ .475 \_\_\_\_\_ acres.

**5. Feasibility Screening for Rainwater Harvesting and Use**

5.1 Use of harvested rainwater for landscape irrigation:

Is the onsite landscaping LESS than 2.5 times the size of the Potential Rainwater Capture Area\* (Item 4.3)? (Note that the landscape area(s) would have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

- Yes (continue)      No – Direct runoff from impervious areas to self-retaining areas\* OR refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

5.2 Use of harvested rainwater for toilet flushing or non-potable industrial use:

a. Residential Projects: Proposed number of dwelling units: \_\_\_\_\_ 18 \_\_\_\_\_  
Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the Potential Rainwater Capture Area\* in Item 4.4. Enter the result here:

\_\_\_\_\_ 37.89 \_\_\_\_\_ )

Is the number of dwelling units per impervious acre LESS than 100 (assuming 2.7 occupants/unit)?

- Yes (continue)      No – complete the Harvest/Use Feasibility Worksheet.

b. Commercial/Industrial Projects: Proposed interior floor area: \_\_\_\_\_ (sq. ft.)

Calculate the proposed interior floor area (sq.ft.) per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the Potential Rainwater Capture Area\* in Item 4.4. Enter the result here:*

\_\_\_\_\_ )  
Is the square footage of the interior floor space per impervious acre LESS than 70,000 sq. ft.?

- Yes (continue)      No – complete the Harvest/Use Feasibility Worksheet

c. School Projects: Proposed interior floor area: \_\_\_\_\_ (sq. ft.)

Calculate the proposed interior floor area per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the Potential Rainwater Capture Area\* in Item 4.4. Enter the result here:*

\_\_\_\_\_ )

Is the square footage of the interior floor space per impervious acre LESS than 21,000 sq. ft.?

- Yes (continue)      No – complete the Harvest/Use Feasibility Worksheet

\* For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gal/day): \_\_\_\_\_

Is the non-potable demand LESS than 2,400 gal/day per acre of the Potential Rainwater Capture Area?

- Yes (continue)     No – refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

**6. Use of Biotreatment**

If only the “Yes” boxes were checked for all questions in Sections 2 and 5, or the project will have a recycled water system for non-potable use (Section 3), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.

**7. Results of Screening Analysis**

Based on this screening analysis, the following steps will be taken for the project (check all that apply):

- Implement biotreatment measures (such as an appropriately designed bioretention area).
- Conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.
- Conduct further analysis of rainwater harvesting and use (check one):
  - Complete the Rainwater Harvesting and Use Feasibility Worksheet for:
    - The entire project
    - Individual building(s), if applicable, describe: \_\_\_\_\_
  - Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report
  - Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report.

\* For definitions, see Glossary (Attachment 1).

## Special Projects Worksheet

Complete this worksheet for projects that appear to meet the definition of "Special Project", per Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP). The form assists in determining whether a project meets Special Project criteria, and the percentage of low impact development (LID) treatment reduction credit. Special Projects that implement less than 100% LID treatment must provide a narrative discussion of the feasibility or infeasibility of 100% LID treatment.

Project Name: Classics at Redwood City

Project Address: 735 Brewster Avenue, Redwood City

Applicant/Developer Name: Classic Communities, Inc.

### 1. "Special Project" Determination:

#### Special Project Category "A"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
- Creates and/or replaces 0.5 acres or less of impervious surface;
- Includes no surface parking, except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones;
- Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.
- Yes – complete Section 2 of the Special Project Worksheet

#### Special Project Category "B"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
- Creates and/or replaces an area of impervious surface that is greater than 0.5 acres, and no more than 2.0 acres;
- Includes no surface parking, except for incidental parking for emergency access, ADA access, and passenger or freight loading zones;
- Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment;
- Minimum density of either 50 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)
- No (continue)       Yes – complete Section 2 of the Special Project Worksheet

#### Special Project Category "C"

Does the project have ALL of the following characteristics?

- At least 50% of the project area is within 1/2 mile of an existing or planned transit hub<sup>2</sup> or 100% within a planned Priority Development Area<sup>3</sup>;
- The project is characterized as a non-auto-related use<sup>4</sup>; and
- Minimum density of either 25 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)
- No       Yes – complete Section 2 of the Special Project Worksheet

<sup>1</sup> And built as part of a municipality's stated objective to preserve/enhance a pedestrian-oriented type of urban design.

<sup>2</sup> "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes. (A bus stop with no supporting services does not qualify.)

<sup>3</sup> A "planned Priority Development Area" is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program.

<sup>4</sup> Category C specifically excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; fast-food restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related project unrelated to the concept of transit oriented development.

## Special Projects Worksheet (continued)

### 2. LID Treatment Reduction Credit Calculation:

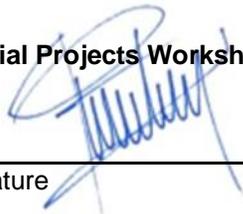
Category	Impervious Area Created/Replaced (acres)	Site Coverage (%)	Project Density or FAR	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
A			N.A.	N.A.	100%	
B				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
C				<b>Location credit (select one)<sup>5</sup>:</b>		
				Within ¼ mile of transit hub	50%	
				Within ½ mile of transit hub	25%	
				Within a planned PDA	25%	
				<b>Density credit (select one):</b>		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	
				<b>Parking credit (select one):</b>		
				≥ 10% at-grade surface parking <sup>6</sup>	10%	
No surface parking	20%					
<b>TOTAL TOD CREDIT =</b>						

### 3. Narrative Discussion of the Feasibility/Infeasibility of 100% LID Treatment:

If project will implement less than 100% LID, refer to the Potential Special Projects Reporting Form to prepare a discussion of the feasibility or infeasibility of 100% LID treatment, as required by MRP Provision C.3.e.vi(2).

**Special Projects Worksheet Completed by:**

Signature



02/05/2013

Date

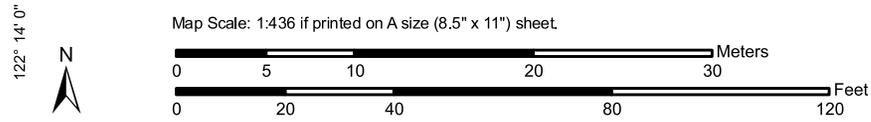
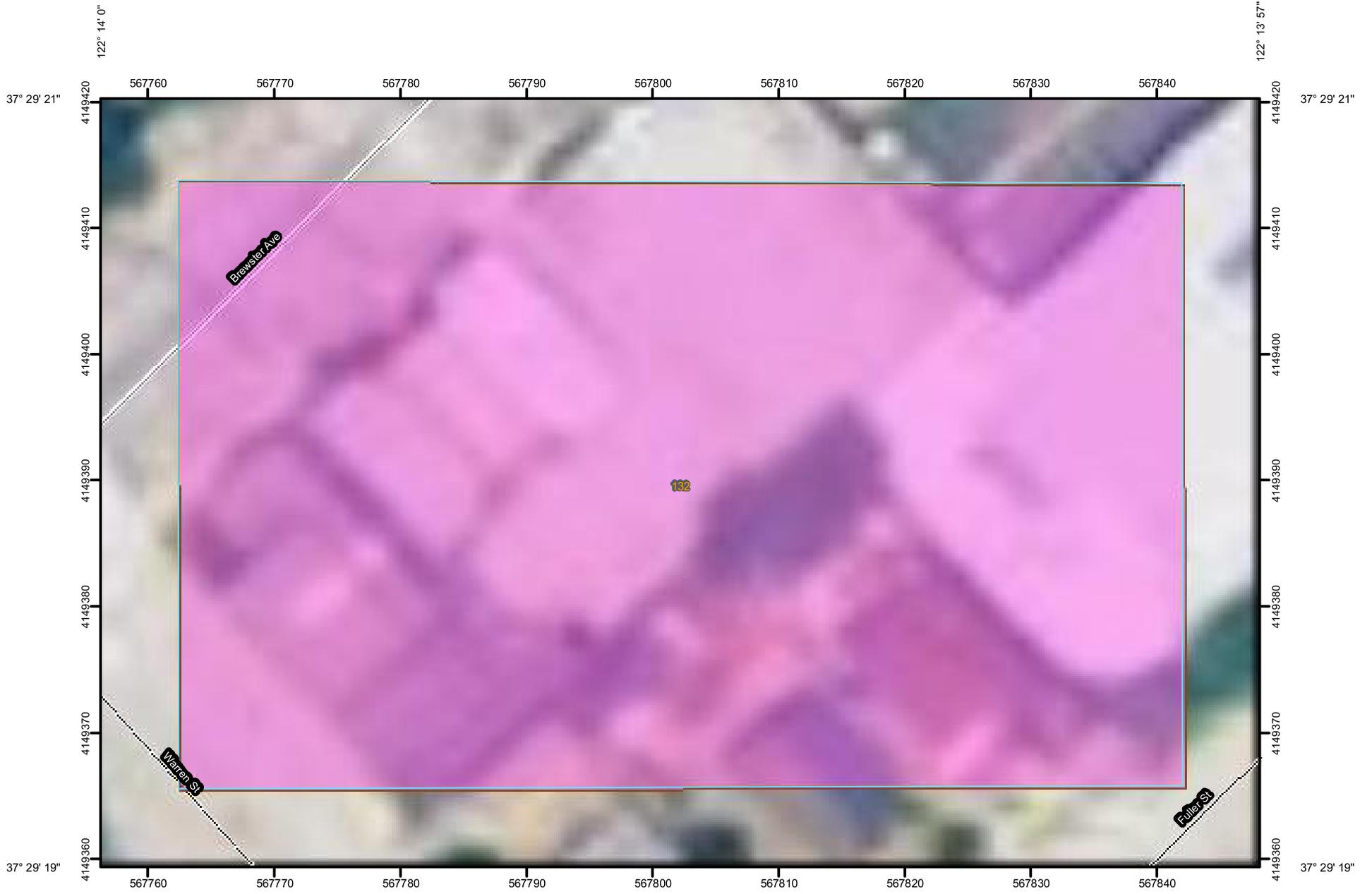
Norman Isaac Kontorovsky, P.E.

Print or Type Name

<sup>5</sup> To qualify for the location credit, at least 50% of the project's site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub, as defined on page 1, footnote 2. A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area. To qualify for the PDA location credit, 100% of the project site must be located within a PDA, as defined on page 1, footnote 3.

<sup>6</sup> The at-grade surface parking must be treated with LID treatment measures.

Hydrologic Soil Group—San Mateo County, Eastern Part, and San Francisco County, California



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Units

### Soil Ratings

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

## MAP INFORMATION

Map Scale: 1:436 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Mateo County, Eastern Part, and San Francisco County, California  
Survey Area Data: Version 9, Jul 11, 2011

Date(s) aerial images were photographed: 6/12/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — San Mateo County, Eastern Part, and San Francisco County, California (CA689)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
132	Urban land-Orthents, cut and fill complex, 0 to 5 percent slopes	D	0.9	100.0%
<b>Totals for Area of Interest</b>			<b>0.9</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

## 601 Main Street Project

### 1. Feasibility/Infeasibility of Onsite Infiltration, Evapotranspiration, and Harvesting/Use

The Countywide Program's infiltration/harvesting and use feasibility screening worksheet was completed for the project. The results of this analysis showed that it was infeasible to treat the C.3.d amount of runoff with infiltration, harvesting and/or reuse.

### 2. Feasibility/Infeasibility of Onsite LID Treatment

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

- a. **On-site Drainage Conditions.** The footprint of the proposed building occupies the entire property area. There are two-levels of below grade parking under the building. All stormwater that falls on the site will be collected by roof drains or courtyard drains and conveyed by the building storm drain plumbing system. The building plumbing system will run inside the parking level to an exterior wall. There will likely be two discharge points for the storm drain plumbing system. At each discharge point, runoff will flow through a media filter prior to entering the City's storm drain system. The media filters will be located on private property.
  - b. **Self-treating and Self-Retaining Areas and LID Treatment Measures.** Although the project will not have any LID treatment measures, there will be planters on the open courtyard level that will help to slow down the peak flow rate from the project.
  - c. **Maximizing Flow to LID Features and Facilities.** Since there are no LID features, all runoff from the building roofs and courtyards will be directed to a media filter prior to entering the City's storm drain system.
  - d. **Constraints to Providing Onsite LID.** The building and parking garage occupy the entire property leaving no space for on-grade LID measures.
    - i. Impervious paved areas: The entire site will be covered by the building footprint.
    - ii. Landscaped areas: The open courtyard located on the podium level will have some planters.
      - Insufficient area to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
      - High groundwater.
      - No landscape areas outside of building footprint and on private property.
3. **Feasibility/Infeasibility of Offsite LID Treatment.** The possibility of providing off-site LID treatment was found to be infeasible for the following reasons.
- i. Insufficient area to accommodate bioretention facilities that meet sizing requirements for the tributary area. The project is surrounded by City right-of-way or private property not owned by the project owner.
  - ii. There is no regional LID stormwater mitigation program available for in-lieu C.3 compliance.



February 2013

## GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS) TREATMENT

For

### CONTECH Engineered Solutions Media Filtration System (MFS)

#### Ecology's Decision:

1. Based on the Contech's application submissions and recommendations by the Technical Review Committee (TRC), Ecology hereby issues a General Use Level Designation (GULD) for the Media Filtration System (MFS):
  - As a basic stormwater treatment practice for total suspended solids (TSS) removal,
  - Using perlite media, with the size distribution described below,
  - Sized for a range of cartridge sizes from 12-inches to 22-inches tall assuming a constant unit flow rate of 1-gpm for every 2.44 inches of height. This results in an allowable operating rate of 4.9 gpm for the 12-inch tall cartridge and 9.0 gpm for the 22-inch tall cartridge (except as stated in Condition #1, below), and
  - Internal bypassing needs to be consistent with the design guidelines in Contech's current product design manual. Off-line configurations allow for easy identification of maintenance needs.
2. Ecology approved MFS systems containing perlite for treatment at 9.0 GPM for 22-inch tall cartridges and 4.9 gpm for 12-inch tall cartridges per 18-inch diameter cartridge. Designers shall calculate the water quality design flow rates using the following procedures:
  - **Western Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model.
  - **Eastern Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 2.2.5 of the

Stormwater Management Manual for Eastern Washington (SWMM EW) or local manual.

- Entire State: For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.
3. This designation has no expiration date, but it may be amended or revoked by Ecology, and is subject to the conditions specified below.

**Ecology's Conditions of Use:**

The MFS shall comply with these conditions:

1. Design, assemble, install, operate, and maintain the MFS system in accordance with applicable Contech Engineered Solutions manuals, documents and the Ecology Decision.
2. Install the MFS in such a manner that you bypass flows exceeding 9.0 gpm/cartridge or you will not re-suspend previously captured sediments. Design MFS in accordance with the performance goals in Ecology's most recent Stormwater Manual. The design, pretreatment, land use application, and maintenance criteria must follow the MFS design requirements.
3. Maintenance: The required maintenance interval for stormwater treatment devices is often dependent upon the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured filter treatment device.
  - Typically, CONTECH designs the MFS for a target filter media replacement interval of 12 months. Maintenance includes removing accumulated sediment from the vault, and replacing spent cartridges with recharged cartridges.
  - Testing results provided to Ecology for the Basic GULD approval indicate:
    - At one site, filter cartridges were still in operation after approximately ten months of monitoring and 35.6 inches of rainfall, with no apparent decrease in performance.
    - At a second site, Contech ceased monitoring before the hydraulic capacity decreased. Contech replaced cartridges after approximately four months of monitoring and 20.4 inches of rainfall to conduct a loading mass balance of the system. The loading mass balance of the entire system resulted in 51 lbs of sediment per cartridge.
    - Blockage or occlusion of the media did not occur as evidenced by lack of a decrease in TSS treatment or by elevated vault water levels during monitored storm events at either site. Contech analyzed spent cartridges and determined the cartridges were at full capacity for the

theoretical maximum allowable amount of solids capture.

- The above particular maintenance intervals do not necessarily determine the overall maintenance frequency for all Media Filtration Systems.
  - Owners/operators must inspect the MFS for a minimum of twelve months from the start of post-construction operation to determine site-specific maintenance schedules and requirements. You must conduct inspections monthly during the wet season, and every other month during the dry season. (According to the SWMMWW, the wet season in western Washington is October 1 to April 30. According to SWMMEW, the wet season in eastern Washington is October 1 to June 30). After the first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.
  - Conduct inspections by qualified personnel, follow manufacturer's guidelines, and you must use methods capable of determining either a decrease in treated effluent flowrate and/or a decrease in pollutant removal ability.
  - When inspections are performed, the following findings typically serve as maintenance triggers:
    - Accumulated vault sediment depths exceed an average of 12 inches, or
    - Accumulated sediment depths on the tops of the cartridges exceed an average of 0.5 inches, or
    - If excessive floatables (trash and debris) are present, perform a minor maintenance consisting of gross solids removal, not cartridge replacement.
    - Bypass during storms smaller than the design storm.
4. Contech shall maintain readily available those reports listed under "Application Documents" as public, as well as the documentation submitted with its previous conditional use designation application. Contech shall make this information available upon request, at no cost and in a timely manner.
5. The perlite media used shall conform with the following specifications:

The size of the media ranges from 0.125 to 0.375 inches. The dry bulk density ranges from 4.5 to 6.5 lbs per cubic foot. The following table shows a typical particle size distribution of the perlite media

**Sieve Analysis of the perlite media:**

US Sieve No.	Sieve Opening ( $\mu\text{m}$ )	% Retained by Volume
4	4760	35-50
8	2360	75-99
16	1180	98-100
30	600	99-100
50	300	99-100
100	150	99-100

**Each 22 inch cartridge contains a total of approximately 3.14 cubic feet of media.**

**Applicant:** Contech Engineered Solutions

**Applicant's Address:** Contech Engineered Solutions  
11835 NE Glen Widing Drive  
Portland, OR 97220

**Application Documents:**

“Application to Washington Department of Ecology Water Control Program for General Use Level Designation of Media Filtration System – Technical Evaluation Engineering Report”, Contech Engineered Solutions, July 2006. It includes the following public report:

- (Public) “Evaluation of the Media Filtration System: Data Validation Report and Summary of the Technical Evaluation Engineering Report (TEER)”, Water Resources Management, June 2006.
- Ecology’s technology assessment protocol requires the applicant to hire an independent consultant to complete the following work:
  1. Complete the data validation report.
  2. Prepare a TEER summary, including a testing summary and conclusions compared with the supplier’s performance claims.
  3. Provide a recommendation of the appropriate technology use level.
  4. Ecology recommends you post relevant information on Ecology’s website.
  5. Provide additional testing recommendations, if needed.”
- This report, authored by Roger B. James, P.E., Water Resources Management, satisfies the Ecology requirement.

Above-listed document noted as “public” is available by contacting Contech.

**Applicant's Use Level Request:**

General Use Level Designation for Basic Treatment for the MFS using perlite at 9.0 GPM/filter (18-in diameter, 22-in tall) in accordance with Ecology's most recent stormwater management manual.

**Applicant's Performance Claim:**

The combined data from the two field sites reported in this TEER (Silverton Highway, Hillsboro, OR and Lolo Pass, Zigzag, OR) indicate that the performance of a MFS configured for inline bypass with perlite media and a 9.0 GPM filtration rate per 22-inch tall cartridge meets Ecology performance goals for Basic Treatment.

**Technical Review Committee Recommendations:**

The TRC, based on the weight of the evidence and using its best professional judgment, finds that:

- The MFS, using perlite media and operating at no more than 9.0 GPM per 22-inch tall cartridge is expected to provide effective stormwater treatment achieving Ecology's basic treatment removal goals, as demonstrated by field and laboratory testing performed in accordance with the protocol; and
- Ecology deems the MFS satisfactory with respect to factors other than treatment performance.

**Findings of Fact:**

- Influent TSS concentrations and particle size distributions were generally within the range of "typical" concentrations for western Washington (silt to silt loam).
- Contech sampled storm events at two monitoring sites for storms from December 2005 to April 2006, and deemed twenty nine (29) as "qualified" and were therefore included in the data evaluation. Both sites were located on roadways.
- Statistical analysis of these 29 storm events verifies the data set's adequacy.
- For the ten (10) qualifying events with influent TSS concentrations greater than 100 mg/L but less than 300 mg/L, the average influent concentration, average effluent concentration, and average pollutant reduction were 151.70 mg/L, 24.81 mg/L, and 83.6%, respectively.
- For the nineteen (19) qualifying events with influent TSS concentrations less than 100 mg/L, the average influent concentration, average effluent concentration, and average pollutant reduction were 61.42 mg/L, 19.09 mg/L, and 68.9%, respectively.
- The float control valve operated as designed according to the inflow, outflow and water elevation measurements in the vault.
- Laboratory testing using U.S. Sil-Co-Sil 106 showed removal rates around 85% for flowrates 10 GPM or below, and between 72% and 81% for flowrates at or above 15 GPM.

- At the Silverton site, flows ranged between 19.6% and 304.5% of the water quality design flowrate, and averaged 138% of the water quality design flowrate.
- At the Lolo Pass site, flows ranged between 7.8% and 150.9% of the water quality design flowrate, and averaged 57.4% of the water quality design flowrate.
- Analyzing the individual storm events at Lolo Pass, Zigzag (20 storms) and Silverton Highway, Hillsboro site (11 storms), the average removal of total chromium ranged from 62.1% to 62.9%, the average removal of total zinc ranged from 51.9% to 63.5%, the average removal of total copper ranged from 57.2% to 61.3%, and the average removal of total lead ranged from 69.4% to 70.9%. These removals do not qualify for an enhanced treatment designation.
- Analyzing the individual storm events at Lolo Pass, Zigzag (17 storms) and Silverton Highway, Hillsboro site (11 storms) the removal of total phosphorus was 67%. These removals do not qualify for phosphorus treatment designations.
- The Contech application included a satisfactory discussion for the “Factors other than Treatment Performance” section.

*Note: Ecology’s 80% TSS removal goal applies to 100 mg/l and greater influent TSS. Below 100 mg/L influent TSS, the goal is 20 mg/L effluent TSS.*

### **Technology Description and System Operation:**

A weir diverts stormwater runoff entering the system and water flows to the portion of the vault beneath the cartridge where the system settles and captures larger solids. The system operates by filtering the stormwater through media filled cartridges. The system is designed to allow approximately 3 GPM or less to flow through each cartridge while the water level is rising in the vault (slide gate is in the closed position).

Filtered water enters a perforated drain tube located in the center of the cartridge and flows to the collector manifold through a flexible pipe. Contech plumbed the manifold to a float controlled slide gate that sets the overall operational control of the Media Filtration System to achieve a balance between flow and driving head level. Contech designed the float to fully open the slide gate as the water level reaches the top of the cartridges. The float control valve ensures that the system develops a uniform vertical pressure distribution from the bottom to the top of each cartridge, which ensures even hydraulic loading and maximum exposure of the perlite media within each cartridge filter at the same time and hydraulic loading rate.

After the storm event has ended, the remaining water is slowly released at less than or equal to 3GPM through each cartridge and the slide gate until the vault is drained to the outlet pipe's invert level. This less than or equal to 3 GPM/cartridge drain down is an engineered process that has been designed into the slide gate and is referred as the "leakage". This operation of the slide gate assures that the system doesn't expose media to artificial shocking flows or abrupt hammering hydraulic forces that can destabilize and/or induce channelization through the media. When stormwater runoff flows recede, the float controlled slide gate will close until the next triggering runoff event.

Contech positions cartridges 21 inches above the vault floor providing an underbay (forebay) volume for settling larger, heavier sediments below the cartridges preventing occlusion of the media resulting from sediment buildup. When the system is operating at a 9GPM/cartridge design loading rate, the maximum upflow velocity in the vault is approximately 2 mm/sec. At this upflow velocity, particles in the 45 to 50 micron size range with a specific gravity of 2.65 may settle in the area beneath the cartridges removing the majority of the mass of suspended solids found in stormwater runoff. This presettling design feature makes for long filter bed run times, reduces the frequency of maintenance, and negates the need to thoroughly clean the entire vault structure each time you exchange or recharge media cartridges.

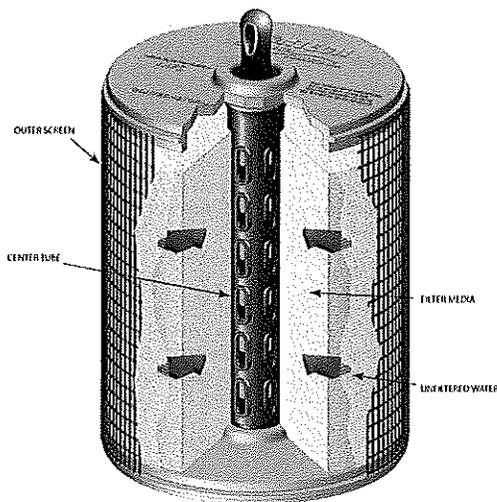


Figure 1 - Image of a MFS cartridge

**MFS Configurations:**

Contech offers the MFS in four basic configurations: precast manhole, trench catchbasin, and vault or cast-in-place vault form. The precast models use pre-manufactured units to ease the design and installation process. Contech can customize cast-in-place units for larger flows and may be either uncovered or covered underground units.

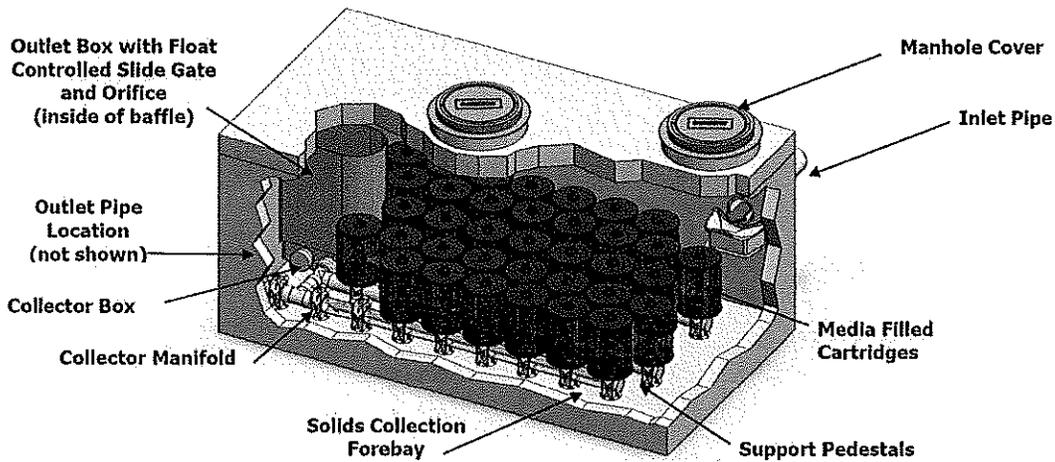


Figure 2 - The Precast Media Filtration System

**Recommended Research and Development:**

Ecology encourages Contech to pursue continuous improvements to the MFS. To that end, Ecology recommends the following actions:

- Conduct a hydraulic analysis of units that require complete drawdown of water between events. Conduct a hydraulic analysis to discover the percent of untreated water that is lost during drawdown and operation of these units.
- Continue work on developing best operation and maintenance practices. Contech is encouraged to update Ecology and the TRC of their operation and maintenance experiences.
- As you gain experience on operation and maintenance, Contech is encouraged to update their O&M manual to reflect learned knowledge.

**Contact Information:**

Applicant Contact: Sean Darcy  
Contech Engineered Solutions  
11835 NE Glenn Widing Drive  
Portland, OR, 97220  
503-258-3105  
[sdarcy@conteches.com](mailto:sdarcy@conteches.com)

Applicant Web link: [www.conteches.com](http://www.conteches.com)

Ecology web link: [www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html](http://www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html)

Ecology Contact: Douglas C. Howie, P.E.  
Water Quality Program  
(360) 407-6444  
[douglas.howie@ecy.wa.gov](mailto:douglas.howie@ecy.wa.gov)

**Revision History**

<b>Date</b>	<b>Revision</b>
November 2006	GULD for Basic Treatment
December 2011	Updated information on cartridge heights and flows
February 2013	Maintenance requirements updated, design storm discussion revised

### 3. Narrative Discussion of LID Feasibility or Infeasibility

#### Elan Redwood City, 145 Monroe Street

#### 1. Feasibility/Infeasibility of Onsite Infiltration, Evapotranspiration, and Harvesting/Use

The Countywide Program's Rainwater Harvesting and Use Feasibility Worksheet was completed for the project. The results of this analysis showed that it was infeasible to treat the C.3.d amount of runoff with infiltration and/or harvesting and re-use.

#### 2. Feasibility/Infeasibility of Onsite LID Treatment

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

- a. **On-site Drainage Conditions.** On-site drainage consists of rainwaters collected on the building roof and podium level courtyard. These waters will be collected through a system of pipes, routed through the building and treated through BASMAA Approved subgrade media filters prior to discharge to the City's storm drain system.
  - b. **Self-treating and Self-Retaining Areas and LID Treatment Measures.** The proposed building will be constructed in accordance with the City's Downtown Precise Plan zoning, which provides for a zero lot-line setback. The majority of the site will be covered by roof or building footprint, with the exception being a strip of land adjacent to the Caltrain right of way to be used as an access and circulation corridor. This area will be paved for fire traffic loading in accordance with Downtown Specific Plan requirements. The remainder does not provide adequate space to allow for the installation of LID structures.
  - c. **Maximizing Flow to LID Features and Facilities.** Not applicable (see sections 2.a and 2.b above).
  - d. **Constraints to Providing On-site LID.** Conditions and technical constraints are present that preclude the use of LID features and facilities, as described below.
    - i. Impervious paved areas:
      - Fire loading in the only on-site paved area (access drive) precludes the installation of LID measures.
    - ii. Landscaped areas:
      - Inadequate size to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
3. **Feasibility/Infeasibility of Off-Site LID Treatment.** The possibility of providing off-site LID treatment was found to be infeasible for the following reasons.
- i. No additional property within the same watershed is owned by the project proponent. LID treatment in the public right-of-way adjacent to the project is infeasible for the following reasons:
    - Inadequate size to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
    - Conflict with subsurface utilities.
  - ii. There is no regional LID stormwater mitigation program available for in-lieu C.3 compliance.

**REDWOOD TOWERS (File No. DPC2012-12)**  
**NARRATIVE DISCUSSION OF LID FEASIBILITY OR INFEASIBILITY**

**1. Feasibility/Infeasibility of Onsite Infiltration, Evapotranspiration, and Harvesting/Use**

The San Mateo Countywide Water Pollution Prevention Program's (SMCWPPP) checklists (R1 and R2) and Special Projects Worksheet were completed for the proposed project. The results of the analyses include that it was infeasible to treat the C.3.d amount of runoff with infiltration or rainwater harvesting and use.

**2. Feasibility/Infeasibility of Onsite LID Treatment**

The proposed project was reviewed to evaluate the possibility of providing 100% LID (low impact development) treatment measures. The preliminary results conclude that it was possible to treat 50% of the C.3.d amount of runoff with LID treatment measures (biotreatment). The findings of this review are described below:

**Onsite Drainage Conditions.** The project site is generally flat with ground surface elevation ranging from Elevation 109.5 to 111.8 feet. The proposed project consists of 300,980 square feet of office space and 5,075 square foot of restaurant space. The project also includes a parking garage with two underground levels and four above-ground levels. The two office buildings are 6 stories and 4 stories above the podium level. The buildings all have sloping roofs but only portions drain to the bioretention areas. Other portions of the roof, the podium floor, parking garage entry drive, and at-grade onsite walkways flow to media filter system (MFS). The project also includes self-retaining areas along the Jefferson Avenue side. The preliminary Stormwater Control Plan (SCP) divided the site into six drainage areas. Area 6, which accounts for 50% of the C.3.d amount of runoff, drains to the bioretention areas. This is a preliminary estimate since the plumbing consultant has not been engaged. Runoff from Areas 1 to 5, which accounts for 50% of the C.3.d amount of runoff, drains to media filter system.

- a. **Self-Retaining Areas and LID Treatment Measures.** Approximately 4% of the total site is a self-retaining area. It includes at-grade landscaped areas along the southerly property line and Jefferson Avenue.
- b. **Maximizing Flow to LID Features and Facilities.** As proposed, 50% of the C.3.d amount of runoff from the site's impervious surfaces flows to LID treatment areas.
- c. **Constraints to Providing Onsite LID.** LID treatment of runoff from the podium deck and roof areas along Middlefield Road was not possible due to flow routing constraints; there was inadequate vertical clearance to achieve positive drainage to bioretention areas. Additionally, it was not feasible to route pipes around stairs and ventilation shafts at certain locations. These project constraints caused the project to utilize 50% of its 80% LID treatment reduction credit.

**3. Offsite LID Treatment.**

Offsite LID treatment was not used because the project proponent did not propose to use another site within the same watershed to accommodate in perpetuity off-site biotreatment facilities to treat runoff for this project. A regional LID stormwater mitigation program is not available at this time for the project to use in-lieu C.3 compliance.

Table prepared by CONTECH Vendor for BASMAA, with info from the TAPE program and 2 other governmental certification programs; BASMAA recommends using systems approved by TAPE for GULD Basic Treatment

High Rate Biofilter and Media Filter Approvals and Design Constraints					
Technology	Vendor	Technology Type	TAPE GULD for Basic Treatment <sup>1</sup>	TARP Tier II Approval <sup>2</sup>	Sacramento Stormwater Quality Partnership <sup>3</sup>
			Design Operating Rate Hydraulic conductivity of 35.46"/hr	Design Operating Rate	Design Operating Rate
Filterra	Americast	High Rate BioFilter		n/a	50"/hr percolation rate
Stormwater Management StormFilter	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	2 gpm/sf filter surface area
Media Filtration System (MFS)	CONTECH Construction Products, Inc.	Media Filter	1 gpm/ft <sup>2</sup> of filter surface area	2 gpm/ft <sup>2</sup> filter surface area	n/a
FloGard Park Filter	Kristar Enterprises, Inc.	Media Filter	1.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
BayFilter Cartridge	Baysaver Technologies, Inc.	Media Filter	0.5 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a
Enhanced Media Cartridge	Baysaver Technologies, Inc.	Media Filter	0.7 gpm/ft <sup>2</sup> of filter surface area	n/a	n/a

1 - General Use Level Designation for Basic Treatment granted by the Washington State Department of Ecology. For program information and use level designation statements see: <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/basic.html>

2 - Certification of performance granted by the New Jersey Department of Environmental Protection based on field testing following the Technology Assessment Reciprocity Partnership Protocol for Stormwater Best Management Practice Demonstrations. For certification statements see: <http://www.state.nj.us/dep/stormwater/treatment.html>

3 - Approval by the Sacramento Stormwater Quality Partnership for stand alone treatment of stormwater. For program information and approved products list see: <http://www.beriverfriendly.net/newdevelopment/propstormwatertreatdevice/>

TAPE = Technical Assessment Protocol - Ecology, a certification program operated by Washington State Dept. of Ecology  
 GULD = General Use Level Designation

## Special Projects Worksheet

Complete this worksheet for projects that appear to meet the definition of "Special Project", per Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP). The form assists in determining whether a project meets Special Project criteria, and the percentage of low impact development (LID) treatment reduction credit. Special Projects that implement less than 100% LID treatment must provide a narrative discussion of the feasibility or infeasibility of 100% LID treatment.

Project Name: Redwood Towers

Project Address: 950 Middlefield Road

Applicant/Developer Name: Hunter Storm Properties

### 1. "Special Project" Determination:

#### Special Project Category "A"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
  - Creates and/or replaces 0.5 acres or less of impervious surface;
  - Includes no surface parking, except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones;
  - Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.
- No (continue)       Yes – complete Section 2 of the Special Project Worksheet

#### Special Project Category "B"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
  - Creates and/or replaces an area of impervious surface that is greater than 0.5 acres, and no more than 2.0 acres;
  - Includes no surface parking, except for incidental parking for emergency access, ADA access, and passenger or freight loading zones;
  - Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment;
  - Minimum density of either 50 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)
- No (continue)       Yes – complete Section 2 of the Special Project Worksheet

#### Special Project Category "C"

Does the project have ALL of the following characteristics?

- At least 50% of the project area is within 1/2 mile of an existing or planned transit hub<sup>2</sup> or 100% within a planned Priority Development Area<sup>3</sup>;
  - The project is characterized as a non-auto-related use<sup>4</sup>; and
  - Minimum density of either 25 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)
- No       Yes – complete Section 2 of the Special Project Worksheet

<sup>1</sup> And built as part of a municipality's stated objective to preserve/enhance a pedestrian-oriented type of urban design.

<sup>2</sup> "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes. (A bus stop with no supporting services does not qualify.)

<sup>3</sup> A "planned Priority Development Area" is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program.

<sup>4</sup> Category C specifically excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; fast-food restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related project unrelated to the concept of transit oriented development.

## Special Projects Worksheet (continued)

**2. LID Treatment Reduction Credit Calculation:**

Category	Impervious Area Created/Replaced (acres)	Site Coverage (%)	Project Density or FAR	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
A			N.A.	N.A.	100%	
B				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
C	2.24	87	3:1	<b>Location credit (select one)<sup>5</sup>:</b>		
				Within ¼ mile of transit hub	50%	<input checked="" type="checkbox"/>
				Within ½ mile of transit hub	25%	<input type="checkbox"/>
				Within a planned PDA	25%	<input type="checkbox"/>
				<b>Density credit (select one):</b>		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	<input checked="" type="checkbox"/>
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	<input type="checkbox"/>
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	<input type="checkbox"/>
				<b>Parking credit (select one):</b>		
				≥ 10% at-grade surface parking <sup>6</sup>	10%	<input type="checkbox"/>
No surface parking	20%	<input checked="" type="checkbox"/>				
<b>TOTAL TOD CREDIT =</b>						<b>80%</b>

**3. Narrative Discussion of the Feasibility/Infeasibility of 100% LID Treatment:**

If project will implement less than 100% LID, refer to the Potential Special Projects Reporting Form to prepare a discussion of the feasibility or infeasibility of 100% LID treatment, as required by MRP Provision C.3.e.vi(2).

**Special Projects Worksheet Completed by:**

  
 \_\_\_\_\_  
 Signature

03-25-13  
 \_\_\_\_\_  
 Date

Ryan Do / Kier & Wright Civil Engineers & Surveyors, Inc.

Print or Type Name

<sup>5</sup> To qualify for the location credit, at least 50% of the project's site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub, as defined on page 1, footnote 2. A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area. To qualify for the PDA location credit, 100% of the project site must be located within a PDA, as defined on page 1, footnote 3.

<sup>6</sup> The at-grade surface parking must be treated with LID treatment measures.

FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



## **Attachment**

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Provision C.4 Industrial and Commercial Site Controls

1. C.4.b.iii(1) Potential Facilities List
2. C.4.b.iii.(2) Facilities Scheduled for Inspection

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

Provision C.4.b.iii(1) Potential Facilities List

Facility	Address
TAFT SCHOOL	903 10TH
ALPHA OMEGA AUTO REPAIR	451 1ST
TODO PARA TUS CREACIONES Y MAS	401 2ND
MR HAUL	867 2ND
WEBER CONSTRUCTION SERVICES INC	867 2ND
HACIENDA TAQUERIA	895 2ND
FIRE STATION #11	1091 2ND
ONE STOP LIQUORS	390 4TH
CHAVEZ SUPERMARKET	46 5TH
CARNICERIA LA GUADALUPE	55 5TH
LA ROCA	55 5TH
AAA RENTALS	82 5TH
SIRENA MOWER SHOP	91 5TH
DOMINOS PIZZA	100 5TH
LA PASADITA MARKET-BAKERY	151 5TH
PENINSULA CATERING & EVENTS	175 5TH
EVEREST PUBLIC HIGH SCHOOLS	455 5TH
ANSON CATERING	604 5TH
TACOS EL GRULLENSE #3	795 5TH
VALERO	795 5TH
ARTEAGAS STARLITE SUPERMARKET	812 5TH
JOES FIAT SERVICE	819 5TH
SUPER PURE WATER	826 5TH
TRADICIONES PERUANAS	828 5TH
MARIAS CAFE	834 5TH
5TH AVE 76	844 5TH
SEVEN ELEVEN STORE #14339	895 5TH
SEQUOIA HEALTH SERVICES	170 ALAMEDA DE LAS PULGAS
LA FIESTA MEXICAN RESTAURANT	314 ARGUELLO
VLY RADIOLOGISTS MED. GRP INC.	500 ARGUELLO
CHAVEZ MEAT MARKET	775 ARGUELLO
CHAVEZ SUPERMARKET	817 ARGUELLO
ALPINE CONSTRUCTION	927 ARGUELLO
A1 RENTAL CENTER	1125 ARGUELLO
SEWER LIFT STATION #17	11 AVOCET
BOARDWALK MOTORCAR GROUP	1 BAIR ISLAND
SWIMMING POOL PERFECTIONS	629 BAIR ISLAND
REDWOOD CITY AUTO REPAIR	891 BARRON
BRISTOL MYERS SCQUIBB COMPANY	700 BAY
COUNTY SPECIALTY GASES LLC	2200 BAY
H J MALONE	2220 BAY
QUIZNOS CLASSIC	2300 BAY
DAN PARDINIS AUTO BODY	2366 BAY
ULTRA SONIC DE BURRING INC	2500 BAY
PENTAIR THERMAL MANAGEMENT	2555 BAY
QUALITY AUTO BODY & PAINT	2566 BAY
ALAN STEEL & SUPPLY CO	505 BAYSHORE
TOYOTA 101	525 BAYSHORE
AI LLC	1709 BAYSHORE
RUSH HOUR CATERING	1757 BAYSHORE
ARGUELLO CATERING CO SOUTH	1757 BAYSHORE
CASSIS CATERING	1757 BAYSHORE
A-1 MATERIALS	1771 BAYSHORE
AIRE SHEET METAL INC	1973 BAYSHORE
TRU GEEN LANDCARE	1995 BAYSHORE
CALTRANS REDWOOD CITY MAINT	2501 BAYSHORE
FIFTH AVE PUMP STATION	3011 BAYSHORE
IDEAL R V & TRAILER SUPPLY	3375 BAYSHORE
CALIFORNIA AUTO DETAILERS	113 BEECH
MALIBU GRAND PRIX	340 BLOMQUIST

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

T&H LUMBER	350 BLOMQUIST
GRANITE ROCK CORP	355 BLOMQUIST
GRANITE ROCK ASPHALT&ROAD OILS	365 BLOMQUIST
MAGUIRE CORRECTIONAL FACILITY	300 BRADFORD
TRAGON CORP	350 BRIDGE
REDWOOD SHORES CLEANERS	370 BRIDGE
MISTRAL RESTAURANT	370 BRIDGE
LIFT STATION #25	1599 BRIDGE
REDWOOD TERRACE CAFE	430 BROADWAY
AMPEX DATA SYSTEMS CORP	500 BROADWAY
GENENTECH RWC	550 BROADWAY
SILVER SPRING NETWORK	555 BROADWAY
TRANS AUTO REPAIR	610 BROADWAY
PETERSEN PRECISION	611 BROADWAY
AUTO HEADQUARTERS	650 BROADWAY
SHERWIN WILLIAMS CO	696 BROADWAY
VERTEX MECHANICAL INC	730 BROADWAY
PACFUL PRINTING & FULFILLMENT	785 BROADWAY
SUMMIT PREPARATORY CHARTER H S	890 BROADWAY
EARL SCHEIB AUTO PAINTING	899 BROADWAY
EXPERT WOODWORKING	924 BROADWAY
ROBERTS & BRUNE	939 BROADWAY
MATHESON TRI GAS DBA AERIS INC	947 BROADWAY
BROADWAY AUTO INC	1101 BROADWAY
SMART & FINAL	1185 BROADWAY
DENNYS	1201 BROADWAY
JACK IN THE BOX #525	1205 BROADWAY
CVS/PHARMACY #9690	1301 BROADWAY
MUNICIPAL SERVICES CTR	1400 BROADWAY
SMCO THHW	1400 BROADWAY
FOODS CO	1401 BROADWAY
MAR Y TIERRA TAQUERIA	1475 BROADWAY
RICKSHAW CHINESE FOOD	1483 BROADWAY
BIG LOTS #4313	1525 BROADWAY
SILVER GAS	1603 BROADWAY
REDWOOD GENERAL TIRE SERVICE	1630 BROADWAY
ERICS AUTO BODY & PAINT	1661 BROADWAY
7-ELEVEN, STORE 2366-15896E	1700 BROADWAY
LA VIGA RESTURANT	1772 BROADWAY
AHISUSHI AND HIBACHI	1784 BROADWAY
GROCERY OUTLET INC	1833 BROADWAY
MANDALOUN RESTAURANT	2021 BROADWAY
VINO SANTO BISTRO	2030 BROADWAY
EDS SUB CENTER	2034 BROADWAY
FORTUNE RESTAURANT	2039 BROADWAY
REDWOOD CREEK GRILL	2050 BROADWAY
SUISHA HOUSE	2053 BROADWAY
ROCKN WRAPS	2053 BROADWAY
HEIMERHAUS DELI	2074 BROADWAY
TALK OF BROADWAY	2096 BROADWAY
MARGARITAS	2098 BROADWAY
THE OLD SPAGHETTI FACTORY	2107 BROADWAY
SAKURA	2198 BROADWAY
QUINTO SOL RESTAURANT	2201 BROADWAY
FROYOLA (SEASONAL PERMIT)	2206 BROADWAY
FOX THEATER	2221 BROADWAY
LE BOULANGER	2225 BROADWAY
BLUEFIN PARTY SUSHI	2327 BROADWAY
FUSION FOOD CONCEPTS INC	2397 BROADWAY
NEW KAPADOKIA	2399 BROADWAY
2411 BROADWAY STREET LLC	2411 BROADWAY
SEASONAL SUSHI	2432 BROADWAY
PHO DONG RESTAURANT	2610 BROADWAY

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

GOURMET HAUS STAUDT	2615 BROADWAY
SIDETRAX BAR AND GRILL	2616 BROADWAY
CITY PUB & CAFE	2620 BROADWAY
NARANJOS TAQUERIA	2647 BROADWAY
RWC UNDERGROUND PUB	2650 BROADWAY
PARDIS	2653 BROADWAY
I DUMPLINGS	2660 BROADWAY
STANFORD MEDICINE OUTPATIENT CTR	420-450 BROADWAY
RB AUTOMOTIVE	219 BUCKEYE
JESUS AUTO REPAIR GARAGE	2701 BUCKINGHAM
PG&E JEFFERSON SUBSTATION	CANADA RD 1 MILE JEFFERSON
PG&E WATERSHED SUBSTATION	CANADA RD/ACROSS FRM PULG
PULGAS DECHLORAMINATION FAC/PUMP ST	66 CANADA RD-S OF HWY 92
CANYON INN	587 CANYON
CANYON GAS & PROPANE	590 CANYON
CANYON AUTO SERVICE	590 CANYON
TOWNE AUTO BODY	111 CEDAR
EL CAMINO AUTO BODY	51 CHARTER
MI RANCHO	150 CHARTER
HOOVER SCHOOL	701 CHARTER
SELTZER SISTERS	816 CHARTER
JIM LORD LANDSCAPE SERVICE	851 CHARTER
A-ABCO RENTS & SELLS	1050 CHARTER
BAROSENSE INC	250 CHESAPEAKE
AVINGER	400 CHESAPEAKE
CODEXIS, INC	501 CHESAPEAKE
PULMONX CORPORATION	700 CHESAPEAKE
CAFE N S	701 CHESAPEAKE
ONCOMED PHARMACEUTICALS INC	800 CHESAPEAKE
CHESTNUT AUTOMOTIVE BRAKE/ALIGNMENT	160 CHESTNUT
MCDONALD	185 CHESTNUT
APATZINGAN #2	739 CHESTNUT
SAN MATEO COUNTY CORP YARD	752 CHESTNUT
SMC ROAD/SEWER DEPT	752 CHESTNUT
STUDEBAKERS WEST	335 CONVENTION
VERIZON WIRELESS	350 CONVENTION
CALIFORNIA HIGHWAY PATROL	355 CONVENTION
RON CHUCK ENGINEERING	375 CONVENTION
PENINSULA INFINITI	386 CONVENTION
PUTNAM LEXUS	390 CONVENTION
PUTNAM LEXUS	400 CONVENTION
LAND ROVER	440 CONVENTION
HALL OF JUSTICE	400 COUNTY CENTER
COUNTY OFFICE BLDG.#1	455 COUNTY CENTER
COUNTY OFFICE BLDG #2	555 COUNTY CENTER
CALIFORNIA WATER SVC CO MPS 117	CRESTVIEW DR & EDGEWOOD
INDUSTRIAL FINISHING INC.	2825 CROCKER
EL CHINO AUTO REPAIR	2903 CROCKER
PABLOS AUTO REPAIR	2931 CROCKER
FREDS GARAGE INC	416 D
SOUTH BAY BODY SHOP	417 D
SEWER LIFT STATION #10	747 DAVIT
NATIONAL AUTO BODY SHOP	20 DILLER
MARINE SCIENCE INSTITUTE	500 DISCOVERY
GREAT MARQUES	815 DOUGLAS
KUNOS INC	881 DOUGLAS
F M W MACHINE SHOP	894 DOUGLAS
SPECIALTY ALIGNMENT & BRAKES	1011 DOUGLAS
BIOSTRIDE INC	1201 DOUGLAS
MAGIC AUTO PAINT & BODY	417 DUMBARTON
CHANIKES AUTO REPAIR	425 DUMBARTON
NOMAS AUTO REPAIR & BODY SHOP	435 DUMBARTON
EDGEWOOD WATER STATION	EDGEWOOD

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

A & B TRAILER HITCH INC	3051 EDISON
CORDILLERAS HOSPITAL	200 EDMONDS
COOKS UPHOLSTERY	1823 EL CAMINO
VERIZON BUSINESS	EL CAMINO N OF WHIPPLE
AUTO MASTER	67 EL CAMINO REAL
LEGACY AUTO REPAIR	105 EL CAMINO REAL
MOUNTAIN MIKES PIZZA	120 EL CAMINO REAL
KENTUCKY FRIED CHICKEN	204 EL CAMINO REAL
REDWOOD TOUCHLESS CAR WASH	215 EL CAMINO REAL
JON'S 76	234 EL CAMINO REAL
STACKS RESTAURANT	314 EL CAMINO REAL
7 ELEVEN #2366-22434D	400 EL CAMINO REAL
NIKKOS MEXICAN GRILL	408 EL CAMINO REAL
NURIS DONUT HOUSE	416 EL CAMINO REAL
PASTA POMODORO	490 EL CAMINO REAL
STARBUCKS COFFEE	490 EL CAMINO REAL
BEN FRANKS RESTAURANT	491 EL CAMINO REAL
HIGUMA JAPANESE RESTAURANT	540 EL CAMINO REAL
A AUTO SERVICE	540 EL CAMINO REAL
MENLO MAZDA	543 EL CAMINO REAL
BK 2443	575 EL CAMINO REAL
HONDA REDWOOD CITY	601 EL CAMINO REAL
EL CAMINO MARTCO	602 EL CAMINO REAL
AMERICAN LEGION #105 RWC POST	651 EL CAMINO REAL
FLYERS #270	699 EL CAMINO REAL
PANDA DUMPLING	711 EL CAMINO REAL
ESTAMPAS PERUANAS	715 EL CAMINO REAL
PENINSULA LIQUORS	717 EL CAMINO REAL
SODINIS	727 EL CAMINO REAL
LA CASITA CHILANGA #2	761 EL CAMINO REAL
BANGKOK BAY INC	825 EL CAMINO REAL
AUTOZONE #4026	901 EL CAMINO REAL
YUMI YOGURTS	947 EL CAMINO REAL
TACOS EL GRULLENSE E & E	999 EL CAMINO REAL
MAX RESTAURANT	1001 EL CAMINO REAL
LA SWEET	1003 EL CAMINO REAL
JAMBA JUICE COMPANY #69	1007 EL CAMINO REAL
LITTLE MADFISH	1021 EL CAMINO REAL
KENNEDY & ALLEN INC	1026 EL CAMINO REAL
CVS/PHARMACY #9329	1039 EL CAMINO REAL
STARBUCKS COFFEE	1045 EL CAMINO REAL
FRANKLIN ST COFFEE	1053 EL CAMINO REAL
NOAHS BAGELS	1067 EL CAMINO REAL
SAFeway STORE #305	1071 EL CAMINO REAL
BLOCKBUSTER LLC	1073 EL CAMINO REAL
FRESH CHOICE	1099 EL CAMINO REAL
ROYS CLEANER	1100 EL CAMINO REAL
JOHNNY ROCKETS	1111 EL CAMINO REAL
PAPA JOHNS PIZZA	1201 EL CAMINO REAL
TAQUERIA EL GRULLENSE	1280 EL CAMINO REAL
PRECISION TUNE AUTO CARE	1304 EL CAMINO REAL
CYCLE GEAR	1326 EL CAMINO REAL
HAPPY DONUT	1330 EL CAMINO REAL
ECONO LUBE & TUNE	1331 EL CAMINO REAL
MUFFLER EXPRESS	1414 EL CAMINO REAL
FIRESTONE TIRES #3671	1458 EL CAMINO REAL
HOPKINS ACCURA	1555 EL CAMINO REAL
TOWNE FORD SALES	1601 EL CAMINO REAL
PREMIER AUTO COLLISON	1612 EL CAMINO REAL
MARDI GRAS LOUNGE	1628 EL CAMINO REAL
TACOS LOS GEMELOS	1630 EL CAMINO REAL
ROOSEVELT LIQUOR & GROCERY	1700 EL CAMINO REAL
TAQUERIA LOS TEMOS	1714 EL CAMINO REAL

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

EL MERCADITO LATINO	1726 EL CAMINO REAL
THAI HOUSE	1742 EL CAMINO REAL
BEVERAGES & MORE	1745 EL CAMINO REAL
EL ZARAPE BAR-N-GRILL	1808 EL CAMINO REAL
WENDYS OLD FASHIONED HAMBURGER	1852 EL CAMINO REAL
STARBUCKS COFFEE	1900 EL CAMINO REAL
HARRYS HOFBRAU	1909 EL CAMINO REAL
FIVE POINTS MARKET INC	1922 EL CAMINO REAL
SUBWAY SANDWICHES & SALADS #2622	1926 EL CAMINO REAL
FIVE POINTS TIRE IMPORTS	2115 EL CAMINO REAL
MIDAS MUFFLER SHOP	2121 EL CAMINO REAL
REDWOOD CITY U HAUL CTR	2200 EL CAMINO REAL
CHEVRON STATION	2215 EL CAMINO REAL
CERRONE EUROPEAN	2306 EL CAMINO REAL
BIG O TIRES	2310 EL CAMINO REAL
STUTTGART MOTORS	2315 EL CAMINO REAL
RAYS AUTO REPAIR, INC.	2333 EL CAMINO REAL
REDWOOD RENTAL & REPAIR	2336 EL CAMINO REAL
WHEEL WORKS 8232/240716	2411 EL CAMINO REAL
OREILLY AUTO PARTS #3474	2411 EL CAMINO REAL
TARGET STORE #0321	2485 EL CAMINO REAL
U S CHINESE FOOD	2490 EL CAMINO REAL
NOR CAL COLLISION	2504 EL CAMINO REAL
CALIDAD MARKET	2512 EL CAMINO REAL
EL GRULLENSE GRILL	2525 EL CAMINO REAL
GENERAL NUTRITION CTR #6113	2539 EL CAMINO REAL
CHUCK E CHEESE	2541 EL CAMINO REAL
MARSHALLS	2545 EL CAMINO REAL
PRONTO PIZZERIA & ROTISSERIE	2560 EL CAMINO REAL
PANADERIA MICHOCAN #4	2561 EL CAMINO REAL
PACIFIC INN	2610 EL CAMINO REAL
TACOS EL CAMINO RESTAURANT	2627 EL CAMINO REAL
KYS AUTO REPAIR	2633 EL CAMINO REAL
THE LATIN CLUB	2651 EL CAMINO REAL
CHRISTINAS DELI	2701 EL CAMINO REAL
AYAR PRODUCE & MEAT MARKET	2727 EL CAMINO REAL
FERRARI-MASERATIO	2750 EL CAMINO REAL
FERRARI MASERATI OF SILICON VALLEY	2750 EL CAMINO REAL
LA COSTA RESTAURANT	2761 EL CAMINO REAL
OIL CHANGERS #202	2762 EL CAMINO REAL
REDWOOD MINI MARKET	2775 EL CAMINO REAL
HOLIDAY INN EXPRESS	2834 EL CAMINO REAL
DEGNAN PRINTERS	2893 EL CAMINO REAL
JOHN BENTLEY RESTAURANT	2915 EL CAMINO REAL
CHANTILLY INC	3001 EL CAMINO REAL
K & L LIQUORS	3005 EL CAMINO REAL
ATHERTON U SAVE LIQUORS	3107 EL CAMINO REAL
JACK IN THE BOX #438	3199 EL CAMINO REAL
BONSAI JAPANESE RESTAURANT	3401 EL CAMINO REAL
MAIN ST COFFEE ROASTING CO	150 ELM
PACIFIC DINING-CANADA	4200 FARM HILL
FACILITIES DEPT-CANADA	4200 FARMHILL
BEST MOWER SHOP	474 FIRST
KEY MARKETS	3640 FLORENCE
MARSH MANOR LIQUORS	3700 FLORENCE
ANGEL HEART CAKES	3716 FLORENCE
LOS GALLOS TAQUERIA	3726 FLORENCE
FREEWHEEL BREWING CO	3736 FLORENCE
MARSH MANOR CLEANERS	3760 FLORENCE
YAT SING	3770 FLORENCE
GENOMIC HEALTH INC	101 GALVESTON
ACELRX PHARMACEUTICALS INC	351 GALVESTON
SEAPORT LIFT STATION #2	501 GALVESTON

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

PERSEID	515 GALVESTON
ARANA THERAPEUTICS	735 GALVESTON
GLENLOCK WATER STATION	GLENLOCK OFF HILLCREST
GLENWOOD PUMP STATION	3628 GLENWOOD
KENNEDY SCHOOL	2521 GOODWIN
SABA CAFE	823 HAMILTON
ABC COMPANIES	3508 HAVEN
BAYSIDE EQUIPMENT CO	3562 HAVEN
GRIFFIN PAINTING	3580 HAVEN
EL DORADO FORKLIFT CO	3582 HAVEN
C F ARCHIBALD PAVING INC	3624 HAVEN
CARLSEN MOTOR CARS, INC.	3636 HAVEN
ALDEA PHARMACEUTICALS	3696 HAVEN
TOY AUTO CLINIC	35 HAZEL
PG&E SHREDDER SUBST	775 HINEMAN
PURPLETIE	500 HOWLAND
METAL FUSION	425 HURLINGAME
HIGH QUALITY CUSTOM CABINETRY	437 HURLINGAME
WEST VALLEY	809 HURLINGAME
BAEZA AUTOMOTIVE	816 HURLINGAME
AVENUE SILVER PLATING	861 HURLINGAME
AUTOHAUS KLAUS NAGEL	1690 INDUSTRIAL
PRO CARE	1704 INDUSTRIAL
ACTION TOWING	1790 INDUSTRIAL
COOKS COLLISION	1800 INDUSTRIAL
AIRGAS	1826 INDUSTRIAL
BENZ AUTO BODY	1850 INDUSTRIAL
SPECIALTYS CAFE & BAKERY	1100 ISLAND
ORACLE AMERICA INC	301-501 ISLAND PARK
SEQUOIA HIGH SCHOOL	480 JAMES
SUHSD/TRANSPORTATION	480 JAMES
REDWOOD CITY SCHOOL WAREHOUSE	501 JAMES
MAINTENANCE & OPERATION DIV	601 JAMES
TARBOOSH	837 JEFFERSON
PACIFIC BELL dba AT & T CALIFORNIA	1121 JEFFERSON
WHOLE FOODS MARKET	1250 JEFFERSON
EMERALD CITY LIQUORS	3025 JEFFERSON
A B & W MARKET	3115 JEFFERSON
DONUT KING	3123 JEFFERSON
GAS AND SHOP	3139 JEFFERSON
PENINSULA COVENANT COMMUNITY C	3623 JEFFERSON
FIRE STATION #12	3700 JEFFERSON
MORELLO METAL FAB INC	811 KAYNYNE
STRIKER COLLISION & TOWING	830 KAYNYNE
AUTO QUEST	876 KAYNYNE
THE PATIO CAFE	1 LAGOON
LAKEVIEW RESERVOIR	815 LAKEVIEW
BENS AUTO TECH	413 LATHROP
THE MECHANIC	48 LAUREL
EXCLUSIVE AUTO CARE	94 LAUREL
KOTO JAPANESE STEAKHOUSE	373 MAIN
HEIMERHAUS	601 MAIN
IMAGE AUTO	623 MAIN
MAIN ST MARKET	804 MAIN
MARTINS WEST	831 MAIN
CHINS RESTAURANT	855 MAIN
THE PATTY SHACK	909 MAIN
BURI TARA THAI CUISINE	911 MAIN
LITTLE INDIA RESTAURANT	917 MAIN
PHIL FINER REFRIGERATION	1001 MAIN
ALANAS CAFE	1020 MAIN
COOKS COLLISION	1104 MAIN
REDWOOD ROLLER RINK	1303 MAIN

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

J & G LIQUORS	1402 MAIN
B & D AUTOMOTIVE	1510 MAIN
LA AZTECA	1531 MAIN
HN LOCKWOOD INC	450 MAPLE
REDWOOD CITY POLICE DEPARTMENT	1301 MAPLE
JIMS MOBILE DIESEL REPAIR	1548 MAPLE
DOCKTOWN MARINA INC	1548 MAPLE
SBSA PUMP STATION	1581 MAPLE
SEA LINK CAFE	399 MARINE
SEWER LIFT STATION #1	100 MARINE PARKWAY
SEWER LIFT STATION #2	600 MARINE WORLD
SEWER LIFT STATION #12	790 MARINE WORLD
ATHERTON SUBS	995 MARSH MANOR
STARBUCKS COFFEE CO 6585	995 MARSH MANOR
FIRE STATION #9	755 MARSHALL
SATELLITE DIALYSIS	1410 MARSHALL
HENRY FORD SCHOOL	2498 MASSACHUSETTS
PARKING GARAGE	400 MIDDLEFIELD
FIVE GUYS BURGER	801 MIDDLEFIELD
FISHS WILD FISH GRILL & MORE	855 MIDDLEFIELD
CHIPOTLE MEXICAN GRILL	861 MIDDLEFIELD
ARYA GLOBAL CUISINE	885 MIDDLEFIELD
MILAGROS RESTAURANT	1099 MIDDLEFIELD
TACOS EL GRULLENSE #1	1243 MIDDLEFIELD
ARCO 00306	1700 MIDDLEFIELD
BK 6292	2102 MIDDLEFIELD
ORCHARD SUPPLY HARDWARE #220	2110 MIDDLEFIELD
ANNUZZIS CUSTOM CABINET	2127 MIDDLEFIELD
LA ESTRELLITA	2205 MIDDLEFIELD
COSTCO WHOLESALE	2300 MIDDLEFIELD
SIGONAS FARMERS MARKET	2345 MIDDLEFIELD
EL GRULLENSE E & E	2401 MIDDLEFIELD
A & D AUTOMATIC GATE CO	2490 MIDDLEFIELD
SPEEDERIA PIZZERIA	3201 OAK KNOLL
CANYON COFFEE ROASTERY	3203 OAK KNOLL
SANCHOS TAQUERIA	3205 OAK KNOLL
TYCO ELECTRONICS	501 OAKSIDE
CENTRUM LIFT STATION	184 ORACLE
BON APPETIT 200	200 ORACLE
BON APPETIT 350 CAFE	350 ORACLE
BON APPETIT 400 CAFE	400 ORACLE
BON APPETIT 500 CAFE	500 ORACLE
ORACLE CORP	100-600 ORACLE
CODEXIS, INC	200 PENOBSCOT
SEAPORT PUMP STATION #3	207 PENOBSCOT
GENOMIC HEALTH	301 PENOBSCOT
CODEXIS, INC	400 PENOBSCOT
HALCYON MOLECULAR INC	505 PENOBSCOT
PENINSULA 2 RESERVOIR 1	545 PICO
PRECISION AUTO REPAIR	110 PINE
GARAFFO AUTO REPAIR	301 PINE
ENVIRONMENTAL HEALTH STORAGE	310 PINE
BAY LEAF CAFE & CATERING	1201 RADIO
SBSA	1400 RADIO
PARKS & RECREATION	1400 RADIO
RECYCLED WATER PLANT	1402 RADIO
KNBR TRANSMITTER FACILITY	1410 RADIO
ELECTRONIC ARTS INC	209 REDWOOD SHORE PARKWAY
REDWOOD SHORES AREA #A	200 REDWOOD SHORES
PACIFIC ATHLETIC CLUB	200 REDWOOD SHORES
VERIZON WIRELESS	201 REDWOOD SHORES
EQUITY OFFICE PROPERTIES TRUST	203 REDWOOD SHORES
BON APPETIT @ EA COMMONS CAFE	211 REDWOOD SHORES

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

JAMBA JUICE COMPANY #45	220 REDWOOD SHORES
UNA MAS MEXICAN GRILL	224 REDWOOD SHORES
AMICIS EAST COAST PIZZERIA	226 REDWOOD SHORES
TOKYO STAR	238 REDWOOD SHORES
TOGOS EATERY	242 REDWOOD SHORES
YEAH! RESTAURANT	246 REDWOOD SHORES
BAGEL STREET CAFE	254 REDWOOD SHORES
MILK SHAKE WERKS	256 REDWOOD SHORES
GENERAL NUTRITION CENTER # 1613	260 REDWOOD SHORES
STARBUCKS COFFEE	264 REDWOOD SHORES
NOB HILL FOODS #628	270 REDWOOD SHORES
FIRE STATION #20	680 REDWOOD SHORES
SANDPIPER SCHOOL	801 REDWOOD SHORES
SEWER LIFT STATION #22	999 REDWOOD SHORES
GP ENTERPRISES	3014 ROLISON
PORTAS AUTO BODY	3020 ROLISON
MOTOLAB	3046 ROLISON
SANZ BODY SHOP	3150 ROLISON
ROOSEVELT SHELL	2108 ROOSEVELT
SUMMIT COFFEE	2137 ROOSEVELT
DECARLOS PLACE	2139 ROOSEVELT
AVENUE LIQUORS	2147 ROOSEVELT
RITE AID	2150 ROOSEVELT
A P PHARMA	123 SAGINAW
PEARL THERAPEUTICS INC	200 SAGINAW
ABBOTT VASCULAR	400 SAGINAW
VERINATA HEALTH INC	800 SAGINAW
GARCIAS AUTO REPAIR	436 SAN MATEO
GOLDEN GLAZE BAKERY & MARKET	2780 SAN MATEO
PG&E REDWOOD SUBSTATION	10 SEAPORT
VERIZON WIRELESS-HWY 101/Seaport	10 SEAPORT
LYNGSO GARDEN MATERIALS INC	19 SEAPORT
PENINSULA BUILDING MATERIALS	109 SEAPORT
HARBOR READY MIX	123 SEAPORT
PAVEX	195 SEAPORT
PG & E BAIR SUBSTATION	255 SEAPORT
CARGILL SALT	295 SEAPORT
SEQUOIA YACHT CLUB	441 SEAPORT
PT OF RC-USED OIL COLLECTION CTR	451 SEAPORT
MARINA STATION	473 SEAPORT
UNIVAR USA INC	525 SEAPORT
CENTRAL CONCRETE SUPPLY	635 SEAPORT
PORT OF REDWOOD CITY (YACHT HA	675 SEAPORT
GYPSUM PILE PORT OF RWC	675 SEAPORT
SEAPORT REFINING & ENV LLC	679 SEAPORT
CLEAN HARBORS ENV SERVICES INC	695 SEAPORT
SIMS METAL MANAGEMENT	699 SEAPORT
CEMEX CONST. MATERIALS PAC LLC	775 SEAPORT
ESBRO	775 SEAPORT
PACIFIC SHORES STORM PUMP STA	800 SEAPORT
CEMEX RWC CEMENT TERMINAL	876 SEAPORT
PACIFIC SHORES LIFT STATION #1	1150 SEAPORT
ABBVIE	1500 SEAPORT
PACIFIC SHORES CAFE	1600 SEAPORT
PACIFIC SHORES LIFT STATION #2	1855 SEAPORT
PICENOS COMPLETE AUTO WORKS	1175 SHASTA
SEWER LIFT STATION #19	SHEARWATER @ HAMPTON/SHOA
WEST COAST COLLISION	525 STANDISH
C G & E AUTO BODY	545 STANDISH
GALAXY CABINETS & CUSTOM WOODWORK	438 STANFORD
BAY PRECISION MACHINING	815 SWEENEY
VKK SIGNMAKERS, INC	820 SWEENEY
TOP METAL DESIGNS	831 SWEENEY

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

MOTOR CITY	856 SWEENEY
COASTAL CIRCUITS	1602 TACOMA
PENINSULA AIR CONDITIONING INC	1690 TACOMA
SEWER LIFT STATION #3	512 TRIDENT
BON APPETIT MGMT	10 TWIN DOLPHIN
ORACLE USA INC	10 TWIN DOLPHIN
HOTEL SOFITEL	223 TWIN DOLPHIN
STEVES CAFE & CATERING	303 TWIN DOLPHIN
REDWOOD SHORES STATION #15	333 TWIN DOLPHIN
EQUITY OFFICE PROPERTIES	333 TWIN DOLPHIN
PETES HARBOR	1 UCCELLI
KEY MARKET	1063 UPTON
PG&E LAS PULGAS SUBSTATION	VALOTA & SIERRA
VERA CASH MARKET	400 VERA
CARLSEN SUBARU	480 VETERANS
IHOP #684	491 VETERANS
CHEF PEKING RESTAURANT	515 VETERANS
SPEEDEE OIL CHANGE	550 VETERANS
VETERANS SHELL 148	690 VETERANS
RANCHO AUTO SERVICE	692 VETERANS
CHEF CHENS	820 VETERANS
FRIDA BAR & RESTAURANT	820 VETERANS
HAPPY DONUT	820 VETERANS
IN N OUT BURGER #246	949 VETERANS
CHEVRON STATION #91374	990 VETERANS
CARLS JR RESTAURANT	1001 VETERANS
SIZZLER	1011 VETERANS
TACO BELL #17997	1103 VETERANS
KAISER PERMANENTE HOSPITAL	1150 VETERANS
FRESH & NATURAL CAFE	1150 VETERANS
KMART #4349	1155 VETERANS
APPLEBEES	1155 VETERANS
CASA DE REDWOOD	1280 VETERANS
PARTY CITY	1289 VETERANS
CARPET MAINT SUPPLY INC	1475 VETERANS
QUICKLY	300 WALNUT
ERIKS DELI CAFE	400 WALNUT
STARBUCKS COFFEE	400 WALNUT
RWC AUTO REPAIR	400 WARRINGTON
D AMBRA IRON WORKS	420 WARRINGTON
LALOS AUTO MECHANIC SHOP	700 WARRINGTON
REYES AUTO REPAIR	725 WARRINGTON
LUCIANO CONCRETE CONSTRUCCION INC	732 WARRINGTON
DARRINS TRUCKING SERVICE	766 WARRINGTON
VALERO STATION #7245	503 WHIPPLE
PROPEL BIO FUELS	503 WHIPPLE
WHIPPLE ARCO	504 WHIPPLE
CAR DAY CARE TIRE CENTER	535 WHIPPLE
MCDONALDS RESTAURANT	536 WHIPPLE
WHIPPLE CHEVRON	585 WHIPPLE
PIZZA HUT #283335	600 WHIPPLE
WHIPPLE AVENUE SHELL SERVICE	639 WHIPPLE
JIFFY LUBE	640 WHIPPLE
ROYAL CLEANERS	902 WHIPPLE
FOOD STOP MARKETS	916 WHIPPLE
PADILLAS AUTO REPAIR	24 WILLOW
CASTILLOS AUTO ELECTRIC	24 WILLOW
FOLEY BROTHERS CUSTOM WORKS	32 WILLOW
WILLOW MARKET	37 WILLOW
TOYOTA SCION SPECIALIST	61 WILLOW
ARGO MACHINES	824 WILLOW
GOLDEN ROOFING	828 WILLOW
GAS 2 YOU	836 WILLOW

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

ELKS LODGE	938 WILMINGTON
NORDIC MOTORS	65 WINSLOW
BAY AREA CIRCUITS INC	91 WINSLOW
SAN MATEO COUNTY MOTOR POOL	501 WINSLOW
BOBBY D'S SPORTS BAR & COCKTAIL LOUNGE	700 WINSLOW
PIZZA AND PIPES	821 WINSLOW
WOODSIDE CLEANERS	317 WOODSIDE
WOODSIDE AUTO & TIRE CENTER	333 WOODSIDE
QUALITY COACHWORKS LTD	411 WOODSIDE
SEVEN ELEVEN STORE 2366-25411C	460 WOODSIDE
WOODSIDE MANOR LIQUORS	524 WOODSIDE
WOODSIDE MANOR SHELL	582 WOODSIDE
HUDSON AUTO INC	582 WOODSIDE
KARAKADE THAI CUISINE	593 WOODSIDE
DINER JAPONICA	593 WOODSIDE
ARCO 00573	610 WOODSIDE
DAIRY QUEEN KITCHEN	640 WOODSIDE
KENTUCKY FRIED CHICKEN	659 WOODSIDE
MCDONALDS	709 WOODSIDE
WOODSIDE GASOLINE INC	710 WOODSIDE
PHO TRUONG LONG VIETNAMESE	756 WOODSIDE
CHUCKS DONUTS	801 WOODSIDE
SAFeway STORE #747	850 WOODSIDE
ANDY BP	895 WOODSIDE
WOODSIDE CAR WASH INC	909 WOODSIDE
AUTO PRIDE CAR WASH	909 WOODSIDE
THAI BODIA INC	910 WOODSIDE
KINGS UNION 76	975 WOODSIDE
FIFTH QUARTER	976 WOODSIDE
BRAVO TAQUERIA	980 WOODSIDE
JACK IN THE BOX #469	986 WOODSIDE
KELLY MOORE PAINTS	1391 WOODSIDE
GRAYS OF REDWOOD CITY	1411 WOODSIDE
WOODSIDE DELICATESSEN	1453 WOODSIDE
CORNER YOGURT	1501 WOODSIDE
ROSITAS TACO STOP	1515 WOODSIDE
HELENS ONE HOUR CLEANERS	1594 WOODSIDE
PRESS RITE CLEANERS	1595 WOODSIDE
THE SADDLE ROOM	1607 WOODSIDE
WOODSIDE SHELL	1667 WOODSIDE
LUCIAS PIZZERIA	1725 WOODSIDE
ARCO 06023	1801 WOODSIDE
YAT SING RESTAURANT	38 WOODSIDE PLAZA
ROUND TABLE PIZZA	128 WOODSIDE PLAZA
C/O LICENSING DEPT	340 WOODSIDE PLAZA
RITE AID	340 WOODSIDE PLZ
BON APPETIT 300 CAFE	300 ORACLE
3CI SYSTEMS INTEGRATION INC.	902 WILMINGTON WAY
4 ON YOUR FLOOR	2787 OHIO
A DOG'S BEST FRIEND	112 F STREET
A-1 BOBCAT GRADING SERVICE	PO BOX 3898
ALANIS MARBLE & GRANITE	450 VERA AVE. # 9
ALL AMERICAN EQUIPMENT RENTAL,LLC	901 SHASTA ST.
ALL SORTS OF PETS CARE	510 SHANNON WAY # 2105
AROUND THE BAY MEDICAL TRANSPORTATION	1405 MARSHALL ST. # 204
AT THE VERY LEASH	311 SAN CARLOS AVE.
BARAJAS MASONRY	3514 MISSION VIEW DR
BENJI'S BACKYARD	941 TAFT ST.
BEST MARBLE	230 PINE ST
BLITZKRIEG DOBEMANN'S	245 G ST
BPK 9U DBA MID PENINSULA BARK BUSTER	505 TRIDENT DR
CALIFORNIA MASONRY	1021 MARSH RD.
CAST IN STONE	265 PACIFIC AVE.

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

CONTI DIRECT DISTRIBUTING	706 VERA AVE.
CRITTER COMFORTS	9 ODESSA CT
DAY TRIPPING DOGS	849 ARLINGTON RD.
DEBBIE OLSEN	856 NEWPORT CIRCLE
DJ'S PERSONAL PET CARE	159 NORTHUMBERLAND AVE.
EXPRESS LIMO SERVICE	105 POPLAR AVE. #7
FRANCY'S PET GROOMING	650 A EL CAMINO REAL
FUR THE LOVE OF PETS	3499 E. BAYSHORE RD. # 58
FURRY FRIENDS PET SITTING SERVICES	1228 JUNIPERO AVE
G. S. HALY CO., INC	156 ARCH STREET
GARCIA'S IMPORTS	830 MAIN ST. #122
GOAN FANTASY LIMO	1305 MARSHALL ST. # 105
GOOD DOG FOR LIFE	251 LAKEVIEW WAY
GRECO GRANITE	211 BUCKEYE ST
GREGOR MRAZ	50 HORGAN AVE. #15
GROOMING WITH TLC	2070 BROADWAY
HAROLD L. KING & CO., INC.	1420 STAFFORD ST.
HEALTHY GRAINS BAKERY	151 5TH AVE.
HEAVENLY PAWS TRAINING	1811 JEFFERSON AVE
J T TILE	1611 OXFORD ST #10
J&J MARBLE	1692 TACOMA WAY # 11
JAVA DOG TRAINING CENTER	2601 SPRING STREET
JB TILE & STONE, INC.	509 HOWLAND ST.
JD'S PET SERVICES & DOG WALKING	836 8TH AVE.
JUMP'N JAVA AGILITY	1166 VIRGINIA AVE
KVT SERVICES	427 SAMSON STREET #B
LET SLEEPING DOGS LIE	2787 OHIO AVE
MAGDY WHOLESAL	1405 MARSHALL ST. # 501
MANLAO RIVER COFFEE COMPANY	322 ST. MARTIN DR.
MARCAN ENTERPRISE, INC.	1155 BROADWAY SUITE 103
MEL'S PET & HOME SERVICES	1134 REDWOOD AVENUE
MI PERU PRODUCTS IMPORT	2487 SPRING ST #1
MITCHELL TILE CO.	211 HILLVIEW AVENUE
MURRAY WEBER TRACTOR SERVICE	867 2ND AVE.
NATURAL STONES, INC.	3608 BAY RD.
OUT & ABOUT PETS	1587 CORDILLERAS RD.
PETS IN NEED	871 5TH AVE.
PH7 EXCHANGE	225 ISLEFORD LANE
RAUL'S GROOMING CENTER	1530 MAIN ST
REDWOOD CITY DOG CLUB	45 FULTON ST.
REDWOOD RENTAL AND REPAIR	2336 EL CAMINO REAL
SCAN-TOP	2575 MIDDLEFIELD RD.
STEWART TILE, INC.	356 QUAY LANE
SUNSTAR LIMOUSINE	519 DOUGLAS AVE.
SUSAN LIMOUSINE	950 MAIN ST. # 305
TAPIA TILE & MARBLE	1023 HAVEN AVE.
TEXEIRA BACKHOE SERVICE	204 E STREET
THE CAT COACH	58 IRIS ST
THE PAWSITIVE PROFESSOR	456 NORTHUMBERLAND AVE.
CRUZ TOURS	P.O. BOX 345
DV 8 DEFENDERS S.C., LLC	675 UPLAND RD.
I9 SPORTS	202 DEMI LANE
JUCO FOOTBALL NETWORK INC.	555 PENNSYLVANIA AVE
MALIBU CASTLE & GOLF	320-340 BLOMQUIST ST
MARINE SCIENCE INSTITUTE	888 SEAPORT BLVD
MARINE SCIENCE INSTITUTE	500 DISCOVERY PARKWAY
PENINSULA ROLLER GIRLS, INC	P.O. BOX 1093
REDWOOD CITY NATIONAL LITTLE LEAGUE	PO BOX 5575
SEQUOIA YACHT CLUB	441 SEAPORT COURT
SPINNAKER SAILING	451 SEAPORT CT
THE CREATIVE LEARNING LOFT	2149 ROOSEVELT AVE.
THE SEQUOIA CLUB	1695 BROADWAY
AUTO DETAIL FACTORY	1615 HUDSON ST. # 112

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

AUTO PRIDE CAR WASH	909 WOODSIDE ROAD, RC
AUTO PRIDE CAR WASH	909 WOODSIDE ROAD, RC
CALIFORNIA AUTO DETAILERS	113 BEECH STREET
CLAUDIA MINCHEZ'S AUTO DETAILING	150 HARRISON AVE. 1A
CLEARWATER CAR WASH	1641 BROADWAY
JOSE L. ROMAN	871 WILLOW ST.
MAIN ST SELF SERVE CAR WASH	1385 MAIN ST.
REDWOOD TOUCHLESS CAR WASH	215 EL CAMINO REAL
ROCKY'S MOBILE SERVICE	1021 HILTON ST. #B
THE NEXT LEVEL	219-B BUCKEYE ST
WEST COAST WASH & WAX	2701 WASHINGTON AVE
WEST-COAST AUTO RECON	117 JAMES AVE.
WOODSIDE ROAD SELF SERVE CAR WASH	305 WOODSIDE RD.
WIRELESS RIDES	533 QUARTZ ST.

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

Provision C.4.b.iii(2) Facilities Scheduled for Inspection

Facility	Address
SAKURA	2198 BROADWAY
TODO PARA TUS CREACIONES Y MAS	401 2ND
MR HAUL	867 2ND
ANSON CATERING	604 5TH
SUPER PURE WATER	826 5TH
TRADICIONES PERUANAS	828 5TH
FRENCH CONNECTION BAKERY	2810 BAY
RUSH HOUR CATERING	1757 BAYSHORE
CASSIS CATERING	1757 BAYSHORE
TRAGON CORP	350 BRIDGE
JACK IN THE BOX #525	1205 BROADWAY
CVS/PHARMACY #9690	1301 BROADWAY
7-ELEVEN, STORE 2366-15896E	1700 BROADWAY
LA VIGA RESTURANT	1772 BROADWAY
AHISUSHI AND HIBACHI	1784 BROADWAY
REDWOOD CREEK GRILL	2050 BROADWAY
ROCKN WRAPS	2053 BROADWAY
HEIMERHAUS DELI	2074 BROADWAY
THE OLD SPAGHETTI FACTORY	2107 BROADWAY
QUINTO SOL RESTAURANT	2201 BROADWAY
FROYOLA (SEASONAL PERMIT)	2206 BROADWAY
FOX THEATER	2221 BROADWAY
BLUEFIN PARTY SUSHI	2327 BROADWAY
FUSION FOOD CONCEPTS INC	2397 BROADWAY
NEW KAPADOKIA	2399 BROADWAY
2411 BROADWAY STREET LLC	2411 BROADWAY
PHO DONG RESTAURANT	2610 BROADWAY
GOURMET HAUS STAUDT	2615 BROADWAY
SIDETRAX BAR AND GRILL	2616 BROADWAY
PARDIS	2653 BROADWAY
I DUMPLINGS	2660 BROADWAY
VERIZON WIRELESS	350 CONVENTION
JON'S 76	234 EL CAMINO REAL
7 ELEVEN #2366-22434D	400 EL CAMINO REAL
BK 2443	575 EL CAMINO REAL
PANDA DUMPLING	711 EL CAMINO REAL
PENINSULA LIQUORS	717 EL CAMINO REAL
MAX RESTAURANT	1001 EL CAMINO REAL
LA SWEET	1003 EL CAMINO REAL
TACOS LOS GEMELOS	1630 EL CAMINO REAL
TAQUERIA LOS TEMOS	1714 EL CAMINO REAL
EL MERCADITO LATINO	1726 EL CAMINO REAL
EL ZARAPE BAR-N-GRILL	1808 EL CAMINO REAL
EL GRULLENSE GRILL	2525 EL CAMINO REAL

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

ATHERTON U SAVE LIQUORS	3107 EL CAMINO REAL
ANGEL HEART CAKES	3716 FLORENCE
FREEWHEEL BREWING CO	3736 FLORENCE
ACELRX PHARMACEUTICALS INC	351 GALVESTON
GLENWOOD PUMP STATION	3628 GLENWOOD
SABA CAFE	823 HAMILTON
SPECIALTYS CAFE & BAKERY	1100 ISLAND
TARBOOSH	837 JEFFERSON
WHOLE FOODS MARKET	1250 JEFFERSON
A B & W MARKET	3115 JEFFERSON
GAS AND SHOP	3139 JEFFERSON
KOTO JAPANESE STEAKHOUSE	373 MAIN
MAIN ST MARKET	804 MAIN
THE PATTY SHACK	909 MAIN
BURI TARA THAI CUISINE	911 MAIN
SATELLITE DIALYSIS	1410 MARSHALL
FIVE GUYS BURGER	801 MIDDLEFIELD
FISHS WILD FISH GRILL & MORE	855 MIDDLEFIELD
ARYA GLOBAL CUISINE	885 MIDDLEFIELD
A & S AUTOMOTIVE	2670 MIDDLEFIELD
AIDS COMMUNITY RESEACH CONSORTIUM	2684 MIDDLEFIELD
CATRINAS TAQUERIA	2855 MIDDLEFIELD
CENADURIA LOS MANGUITOS	3143 MIDDLEFIELD
SPEEDERIA PIZZERIA	3201 OAK KNOLL
UNA MAS MEXICAN GRILL	224 REDWOOD SHORES
DECARLOS PLACE	2139 ROOSEVELT
AVENUE LIQUORS	2147 ROOSEVELT
SOPHIA'S EURO ASIA MOTORS	2581 SPRING
HOTEL SOFITEL	223 TWIN DOLPHIN
HAPPY DONUT	820 VETERANS
SIZZLER	1011 VETERANS
CASA DE REDWOOD	1280 VETERANS
QUICKLY	300 WALNUT
NORDIC MOTORS	65 WINSLOW
BOBBY D'S SPORTS BAR & COCKTAIL LOUNGE	700 WINSLOW
PIZZA AND PIPES	821 WINSLOW
DINER JAPONICA	593 WOODSIDE
AUTO PRIDE CAR WASH	909 WOODSIDE
RITE AID	340 WOODSIDE PLZ
BANGKOK BAY INC	825 EL CAMINO REAL
3CI SYSTEMS INTEGRATION INC.	902 WILMINGTON WAY
4 ON YOUR FLOOR	2787 OHIO
A DOG'S BEST FRIEND	112 F STREET
A-1 BOBCAT GRADING SERVICE	PO BOX 3898
ALANIS MARBLE & GRANITE	450 VERA AVE. # 9
ALL AMERICAN EQUIPMENT RENTAL,LLC	901 SHASTA ST.
ALL SORTS OF PETS CARE	510 SHANNON WAY # 2105

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

AROUND THE BAY MEDICAL TRANSPORTATION	1405 MARSHALL ST. # 204
AT THE VERY LEASH	311 SAN CARLOS AVE.
BARAJAS MASONRY	3514 MISSION VIEW DR
BENJI'S BACKYARD	941 TAFT ST.
BEST MARBLE	230 PINE ST
BLITZKRIEG DOBEMANNS	245 G ST
BPK 9U DBA MID PENINSULA BARK BUSTER	505 TRIDENT DR
CALIFORNIA MASONRY	1021 MARSH RD.
CAST IN STONE	265 PACIFIC AVE.
CONTI DIRECT DISTRIBUTING	706 VERA AVE.
CRITTER COMFORTS	9 ODESSA CT
DAY TRIPPING DOGS	849 ARLINGTON RD.
DEBBIE OLSEN	856 NEWPORT CIRCLE
DJ'S PERSONAL PET CARE	159 NORTHUMBERLAND AVE.
EXPRESS LIMO SERVICE	105 POPLAR AVE. #7
FRANCY'S PET GROOMING	650 A EL CAMINO REAL
FUR THE LOVE OF PETS	3499 E. BAYSHORE RD. # 58
FURRY FRIENDS PET SITTING SERVICES	1228 JUNIPERO AVE
G. S. HALY CO., INC	156 ARCH STREET
GARCIA'S IMPORTS	830 MAIN ST. #122
GOAN FANTASY LIMO	1305 MARSHALL ST. # 105
GOOD DOG FOR LIFE	251 LAKEVIEW WAY
GRECO GRANITE	211 BUCKEYE ST
GREGOR MRAZ	50 HORGAN AVE. #15
GROOMING WITH TLC	2070 BROADWAY
HAROLD L. KING & CO., INC.	1420 STAFFORD ST.
HEALTHY GRAINS BAKERY	151 5TH AVE.
HEAVENLY PAWS TRAINING	1811 JEFFERSON AVE
J T TILE	1611 OXFORD ST #10
J&J MARBLE	1692 TACOMA WAY # 11
JAVA DOG TRAINING CENTER	2601 SPRING STREET
JB TILE & STONE, INC.	509 HOWLAND ST.
JD'S PET SERVICES & DOG WALKING	836 8TH AVE.
JUMP'N JAVA AGILITY	1166 VIRGINIA AVE
KVT SERVICES	427 SAMSON STREET #B
LET SLEEPING DOGS LIE	2787 OHIO AVE
MAGDY WHOLESAL	1405 MARSHALL ST. # 501
MANLAO RIVER COFFEE COMPANY	322 ST. MARTIN DR.
MARCAN ENTERPRISE, INC.	1155 BROADWAY SUITE 103
MEL'S PET & HOME SERVICES	1134 REDWOOD AVENUE
MI PERU PRODUCTS IMPORT	2487 SPRING ST #1
MITCHELL TILE CO.	211 HILLVIEW AVENUE
MURRAY WEBER TRACTOR SERVICE	867 2ND AVE.
NATURAL STONES, INC.	3608 BAY RD.
OUT & ABOUT PETS	1587 CORDILLERAS RD.
PETS IN NEED	871 5TH AVE.
PH7 EXCHANGE	225 ISLEFORD LANE

FY 2012-2013 Annual Report

Permittee Name: City of Redwood City

RAUL'S GROOMING CENTER	1530 MAIN ST
REDWOOD CITY DOG CLUB	45 FULTON ST.
REDWOOD RENTAL AND REPAIR	2336 EL CAMINO REAL
SCAN-TOP	2575 MIDDLEFIELD RD.
STEWART TILE, INC.	356 QUAY LANE
SUNSTAR LIMOUSINE	519 DOUGLAS AVE.
SUSAN LIMOUSINE	950 MAIN ST. # 305
TAPIA TILE & MARBLE	1023 HAVEN AVE.
TEXEIRA BACKHOE SERVICE	204 E STREET
THE CAT COACH	58 IRIS ST
THE PAWSITIVE PROFESSOR	456 NORTHUMBERLAND AVE.
CRUZ TOURS	P.O. BOX 345
DV 8 DEFENDERS S.C., LLC	675 UPLAND RD.
I9 SPORTS	202 DEMI LANE
JUCO FOOTBALL NETWORK INC.	555 PENNSYLVANIA AVE
MALIBU CASTLE & GOLF	320-340 BLOMQUIST ST
MARINE SCIENCE INSTITUTE	888 SEAPORT BLVD
MARINE SCIENCE INSTITUTE	500 DISCOVERY PARKWAY
PENINSULA ROLLER GIRLS, INC	P.O. BOX 1093
REDWOOD CITY NATIONAL LITTLE LEAGUE	PO BOX 5575
SEQUOIA YACHT CLUB	441 SEAPORT COURT
SPINNAKER SAILING	451 SEAPORT CT
THE CREATIVE LEARNING LOFT	2149 ROOSEVELT AVE.
THE SEQUOIA CLUB	1695 BROADWAY
AUTO DETAIL FACTORY	1615 HUDSON ST. # 112
AUTO PRIDE CAR WASH	909 WOODSIDE ROAD, RC
AUTO PRIDE CAR WASH	909 WOODSIDE ROAD, RC
CALIFORNIA AUTO DETAILERS	113 BEECH STREET
CLAUDIA MINCHEZ'S AUTO DETAILING	150 HARRISON AVE. 1A
CLEARWATER CAR WASH	1641 BROADWAY
JOSE L. ROMAN	871 WILLOW ST.
MAIN ST SELF SERVE CAR WASH	1385 MAIN ST.
REDWOOD TOUCHLESS CAR WASH	215 EL CAMINO REAL
ROCKY'S MOBILE SERVICE	1021 HILTON ST. #B
THE NEXT LEVEL	219-B BUCKEYE ST
WEST COAST WASH & WAX	2701 WASHINGTON AVE
WEST-COAST AUTO RECON	117 JAMES AVE.
WOODSIDE ROAD SELF SERVE CAR WASH	305 WOODSIDE RD.
WIRELESS RIDES	533 QUARTZ ST.

FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



**Attachment**

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Provision C.7

Redwood City Website Stormwater Information and FAQ


[ABOUT THE CITY](#)
[BUSINESS](#)
[GOVERNMENT](#)
[RESIDENTS](#)
[DEPARTMENTS](#)
[ONLINE SERVICES](#)

[Home](#) » [CD](#) » [Public Works](#) » **Storm Drain, Creek and Channel Services**

## Storm Drain, Creek and Channel Services

[Stormwater BMPs for Citizens](#)

[FAQs](#)

[Lagoon](#)

[Links](#)

[Sandbags](#)

- [Storm Preparation Information](#) (pdf, 73KB)
- [Fight Flooding at Home](#) Brochure
- [San Mateo Countywide Water Pollution Prevention Program](#)
- [Protect Our Creeks and Waterways Pamphlet](#) (pdf, 1,249KB)
- [Storm Drain System Overview](#) presentation (pdf, 4.5MB)
- [Controlling Mosquitoes](#) (pdf, 48KB)
- [Redwood Shores Lagoon Management Plan \(draft\)](#) (pdf, 1,176KB)
- [The Bay and Ocean Begin At Your Front Door](#) (pdf, 1,090KB)
- [Creek Care Guide For Residents & Businesses](#) (pdf, 1.12MB)

### [Important Illicit Discharge Information](#)

(Illegal Storm Drain Dumping)

### Objective

Maintain, repair, and operate the storm water drainage system in compliance with county, state, and federal regulations, safely and effectively.

### Overview

The Public Works Division annually completes maintenance and clearing of all pump stations, catch basins, inlets, and creeks (lined and unlined) before October 15, the start of the wet season. A strategy of preventive maintenance, periodic inspections and as needed cleanings drives the annual work schedule. Typically, to maintain proper flow, crews remove and dispose of 400 cubic yards of trash and debris from basins and inlets, and 1,650 cubic yards of trash, debris and sediment from creeks, channels and drainage ditches.



The Redwood City storm water drainage system consists of:

- 19 Pump Stations
- 2,685 storm drain catch basins, inlets and siphons
- Over 100 miles of storm drain pipe
- 150 acres of storm retention basin in Redwood Shores (lagoons)
- 82 open culverts

- Over 10 miles of creeks, drain ditches and canals

HOME

CAREERS

CALENDAR

CONTACT US

SITEMAP

FOLLOW US



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[Terms of Service](#) | [Comments and Suggestions](#)

1017 Middlefield Road, Redwood City 94063 | 650-780-7000



[Home](#) » [CD](#) » [Public Works](#) » [Storm Drains](#) » **Frequently Asked Questions (FAQs)**

## Frequently Asked Questions (FAQs)

### [Stormwater BMPs for Citizens](#)

All problems can be reported directly to Public Works by [clicking here to Report Problems](#).

### [FAQs](#)

### [Lagoon](#)

### [Links](#)

### [Sandbags](#)

### Creeks/Channels

- [We live adjacent to a concrete lined creek, who is responsible for cleaning and maintaining the channel?](#)
- [We live adjacent to a creek in Redwood City and we are concerned with mosquitoes, what should I do about them?](#)
- [I would like to know what can be done about rats in our creek.](#)
- [Where do I call to report a dead animal in a creek?](#)
- [I wish to report someone for dumping from private property into the creek?](#)
- [I witnessed someone dumping trash in the creek. What can be done about it?](#)
- [We noticed a foreign substance, i.e. liquid \(other than debris or trash\) in the creek and are concerned.](#)
- [Where do I call to report algae growth, stagnant water or bad odors in the creek?](#)
- [Who should I call to report graffiti on the walls of a concrete lined creek?](#)
- [My neighbor is dumping garbage in the creek. What can the city do?](#)
- [We live adjacent to a natural creek, is the City responsible for creek maintenance, including removal of fallen trees that can block the flow of water?](#)

### Lagoons / Waterways

- [We have mosquitoes around the backyard and our boat dock.](#)
- [Who is responsible for maintaining the water quality of the Redwood Shores Lagoon?](#)
- [What is the water level in the lagoon low in the winter months and higher in the summer months?](#)
- [Is it legal for people to fish or gather bait in the Lagoons?](#)
- [Who do I contact to schedule and / or get permission to hold an event on the Redwood Shores Lagoon?](#)

### Storm Drains/Culverts/Catch Basins/Inlets/Siphons

- [What are culverts, catch basins, inlets and siphons and how do they differ?](#)
- [Does Redwood City maintain the catch basin in front of our home?](#)
- [During heavy storms the catch basins seem to fill with water or leaves wash over the grates and clog them, what should I do?](#)
- [The catch basin or siphon near my home is full of water and / or debris, and it smells, can I have something done about it?](#)
- [The homeowners association where I live is interested in stenciling the catch basins and inlets in our development with either "No Dumping, Flows to the Bay" or "No Dumping, Flows to the Lagoon." How do we get the stenciling](#)

- [done?](#)
6. [Who is responsible for maintaining catch basins and drains on private property?](#)
  7. [How frequently should private catch basins and drains be cleaned?](#)
- 

## I. Creeks/Channels

1. **We live adjacent to a concrete lined creek, who is responsible for cleaning and maintaining the channel?** *Concrete lined creeks were designed and built to improve water flow and minimize flooding conditions. The City cleans and maintains lined concrete channels. However, residents are asked to avoid dumping debris, such as yard waste, and trash in the channels. These channels are maintained to protect adjacent properties from flooding. It is illegal to dump in any channel, creek or stream.*
2. **We live adjacent to a creek in Redwood City and we are concerned with mosquitoes, what should I do about them?**

*If you are experiencing problems with mosquitoes or yellowjackets in your area contact the San Mateo County Mosquito Abatement District (SMCMAD) at (650) 344-8592 and be prepared to provide the following information:*

- o Name
- o Daytime phone number
- o Street address and cross street
- o Nature of the call (mosquitoes, mosquitofish, yellowjackets, insect identification)

For more information on the services provided by SMCMAD visit <http://www.smcmad.org>

3. **I would like to know what can be done about rats in our creek.** *The City of Redwood City contracts for vector control services and the program is managed by San Mateo County Health Services Agency, Vector Control Program. You may contact Redwood City Public Works to report problems or you may call County Health Services directly at (650) 363-4676 or [visit their website for more information](#).*
4. **Where do I call to report a dead animal in a creek?** *You may contact the City of Redwood City and we will contact, report and follow up with the San Mateo County Humane Society or you can contact the Humane Society directly by calling (650) 340-8200. For more information on the Peninsula Humane Society visit: <http://www.peninsulahumanesociety.org>*
5. **I wish to report someone for dumping from private property into the creek?** *Private property issues can be directed to the Redwood City Code Enforcement Department by calling (650) 780-7354*
6. **I witnessed someone dumping trash in the creek. What can be done about it?** *Please call the Public Works Division immediately at (650) 780-7464 and be prepared to provide us with the location, any information about the person seen dumping, i.e. house address, license number, address or a company name on the truck, and we will investigate. Callers remain anonymous.*
7. **We noticed a foreign substance, i.e. liquid (other than debris or trash) in the creek and are concerned.** *Please notify the Redwood City Fire Department or Public Works immediately.*

*Illicit discharges are taken very serious and need to be investigated as soon as possible.*

**8. Where do I call to report algae growth, stagnant water or bad odors in the creek?**

*Please call Public Works at (650) 780-7464 so we can evaluate the problem and take steps to address the problem.*

**9. Who should I call to report graffiti on the walls of a concrete lined creek?**

*Please call our 24 hour graffiti hot line at (650) 780-7304.*

**10. My neighbor is dumping garbage in the creek. What can the city do?**

*Please call the Public Works Division at (650) 780-7464 directly and we will investigate and take proper measures. Callers can remain anonymous.*

**11. We live adjacent to a natural creek, is the City responsible for creek maintenance, including removal of fallen trees that can block the flow of water?**

*The City is not responsible for the maintenance of natural creeks. Each property owner is responsible for the maintenance of the creek, including pruning and care of trees and the removal of fallen trees. For more information about the "do's" and don'ts" of tree removal consult the City's Tree Ordinance.*

## **II. Lagoons / Waterways**

**1. We have mosquitoes around the backyard and our boat dock.**

*You may call the San Mateo Mosquito Abatement District at (650) 344-8592 or visit their website at <http://www.smcmad.org> and provide the following information:*

- o Name
- o Daytime phone number
- o Street address and cross street
- o Nature of the call (mosquitoes, mosquitofish, yellowjackets, insect identification).

**2. Who is responsible for maintaining the water quality of the Redwood Shores Lagoon?**

*The Public Works Division is responsible for maintaining the water quality of the waterway under the regulatory authority of the San Francisco Bay Regional Water Quality Control Board. Water quality is maintained by applying pesticide treatments to algae blooms and widgeon grass, as well as by mechanical harvesting of widgeon grass. You should immediately report sightings of algae, widgeon grass, dirty water, bad odors, dead fish and trash/debris in the waterways to Public Works by calling (650) 780-7464 or emailing [protectlagoons@redwoodcity.org](mailto:protectlagoons@redwoodcity.org). For more information about the City's responsibilities [view the City's Redwood Shores Lagoon Management Plan online](#) (pdf).*

**3. What is the water level in the lagoon low in the winter months and higher in the summer months?**

*The City regulates the water level of the lagoon. During the winter months the water level is lower to ensure adequate storage capacity for stormwater runoff from adjacent properties. During the summer months the water level is raised to enhance the beneficial recreational uses of the lagoon by Redwood City residents.*

**4. Is it legal for people to fish or gather bait in the Lagoons?**

*Fishing and bait gathering is allowed with a valid fishing permit from the California Department of Fish & Game (CDFG). The State provides for two free fishing days each year, when the permit is not required. For information about a fishing permit and the free fishing days of the year visit the CDFG website at <http://www.dfg.ca.gov/licensing/index.html>.*

**5. Who do I contact to schedule and / or get permission to hold an event on the Redwood Shores Lagoon?**

*Organizations or individuals interested in holding events on the lagoon should contact the Redwood Shores Community Association (RSCA). For information and a contact at the RSCA visit their website at <http://www.lawadmissions.com/index.html> and to [see the Guidelines for use of the lagoon for events](#) (pdf).*

**III. Storm Drains/Culverts/Catch Basins/Inlets/Siphons**

**1. What are culverts, catch basins, inlets and siphons and how do they differ?**

*Generally, these are types of drainage structures, all designed to capture surface runoff and channel it into the storm drain collection system running under roadways.*

**2. Does Redwood City maintain the catch basin in front of our home?**

*Yes, the Redwood City Public Works Division maintains all public storm drain facilities that are within the city right of way (public street). This service includes a thorough cleaning once each year before the start of the wet season and regular inspection, and cleaning if necessary, during the season.*

**3. During heavy storms the catch basins seem to fill with water or leaves wash over the grates and clog them, what should I do?**

*Call the Public Works Division at (650) 780-7464 and report the location of the catch basin (or the nearest house address). During heavy rains, city crews respond to all calls in priority order and address the more severe problems first.*

**4. The catch basin or siphon near my home is full of water and / or debris, and it smells, can I have something done about it?**

*Yes, you can call Public Works at (650) 780-7464 and we will schedule, inspect and clean, as needed. If the problem occurs during a major storm, city crews will respond to the call in priority order. If you notice mosquitoes around the area, calls and you may contact San Mateo County Mosquito Abatement District (SMCMAD) immediately at (650) 344-8592 or visit <http://www.smcmad.org>.*

**5. The homeowners association where I live is interested in stenciling the catch basins and inlets in our development with either “No Dumping, Flows to the Bay” or “No Dumping, Flows to the Lagoon.” How do we get the stenciling done?**

*Redwood City is also responsible for stenciling pollution prevention awareness information on all public catch basins and inlets. We would like to encourage all businesses and homeowners associations to stencil private catch basins and inlets. We will complete the stenciling for the HOA or business at the cost of materials and labor. Contact Public Works at (650) 780-7464 and schedule an appointment.*

**6. Who is responsible for maintaining catch basins and drains on private property?**

*It is the responsibility of the private property owner, whether a homeowners association, residential owner or business owner, to maintain structures on his/her property. The City is not responsible for maintaining drainage structures on private property.*

**7. How frequently should private catch basins and drains be cleaned?**

*Private drainage systems should be cleaned at least once a year before the start of wet season and then inspected throughout the wet season. It is important to remove trash and debris, and ensure that private drainage systems work properly to minimize flooding hazards. Please remember that private system do eventually connect to the public storm drain system and ultimately San Francisco Bay. Flushing debris from a private system into the City's system is pushing the problem away temporarily and is equal to illegal dumping. This practice can lead to back flows and back ups in your private system and cause flooding during the storm season. Debris and sediment in your private storm drain system should be vacuumed out and hauled away for disposal. Public Works will provide this service to private developments for the cost of materials, equipment and labor. To learn more about the City's storm drain system cleaning schedule, contact Public Works at (650) 780-7464.*

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FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



## **Attachment**

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Provision C.9

1. IPM Pest Service
2. Green Pro Certificate

# **TERMINIX. COMMERCIAL**

**August 8, 2012**

**To: Daniel Burton** City of Redwood City  
Department of Parks and Recreation

**Fr: David Clare** Branch Manager of Service  
Terminix Branch #2137  
East Bay Commercial Office

**Re: 2012 Integrated Pest Management Program for Redwood City Service Sites**

This letter is to confirm the continuation of the Integrated Pest Management (IPM) Program for the City of Redwood City that has been in place at all contracted sites since 2006.

- No spraying of pesticides according to a pre-set schedule.
- Inspection and Monitoring for pest activity before any treatments are applied.
- Baiting for ants – no pyrethroids or Fipronil can be applied without advance approval from RWC.
- Use of least toxic materials when pesticide applications are necessary.
- No organophosphates, carbamates or Fipronil without advance approval from RWC.
- Educating RWC building occupants about best practices to reduce interior pest harborages (sanitation, proper food storage in kitchenettes, proper landscaping maintenance around building exteriors, etc).

If you have any questions regarding these methods or you service in general, please do not hesitate to contact me.

Sincerely,



David Clare  
650-225-0131  
[dclare@terminix.com](mailto:dclare@terminix.com)



**GREENPRO**  
Eco-Effective Pest Control

Presenting this certificate of excellence to

**The Terminix International Co.**

in acknowledgment of your continuing efforts toward professional excellence and environmental awareness in the pest management industry. You have met the GreenPro testing requirements for eco-effective pest control.

A handwritten signature in blue ink, appearing to read "Anders Ouellet".

*official signature*



FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



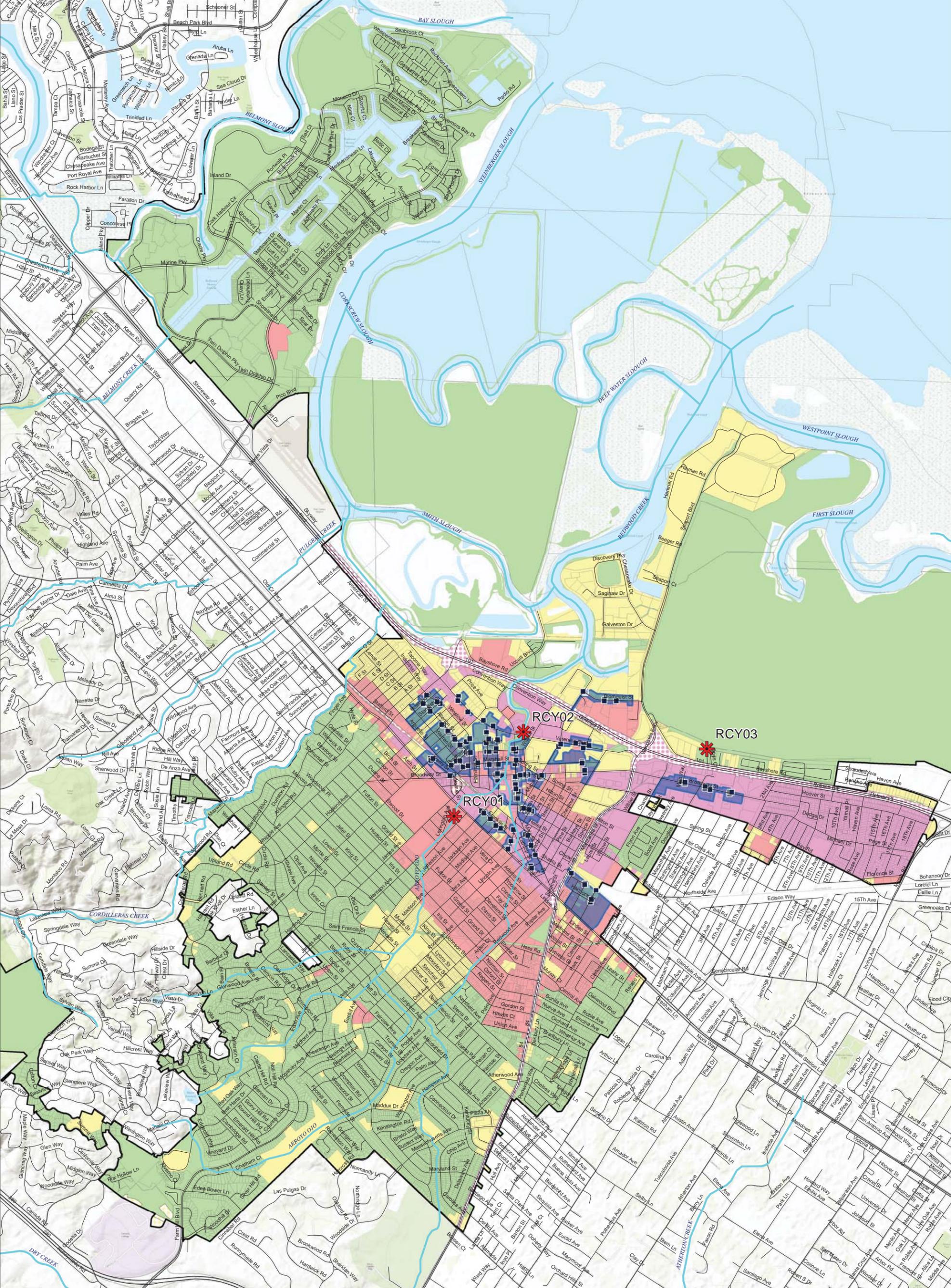
## **Attachment**

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Provision C.10

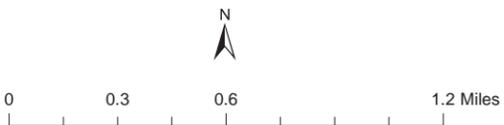
1. Full Trash Capture Device Map
2. Trash Management Area Map
3. Webpage – Ban on Polystyrene
4. Webpage – Reusable Bag Ordinance
5. Summary of Regional / Countywide Trash Reduction Actions

# City of Redwood City DRAFT Full Trash Capture Map



**Legend**

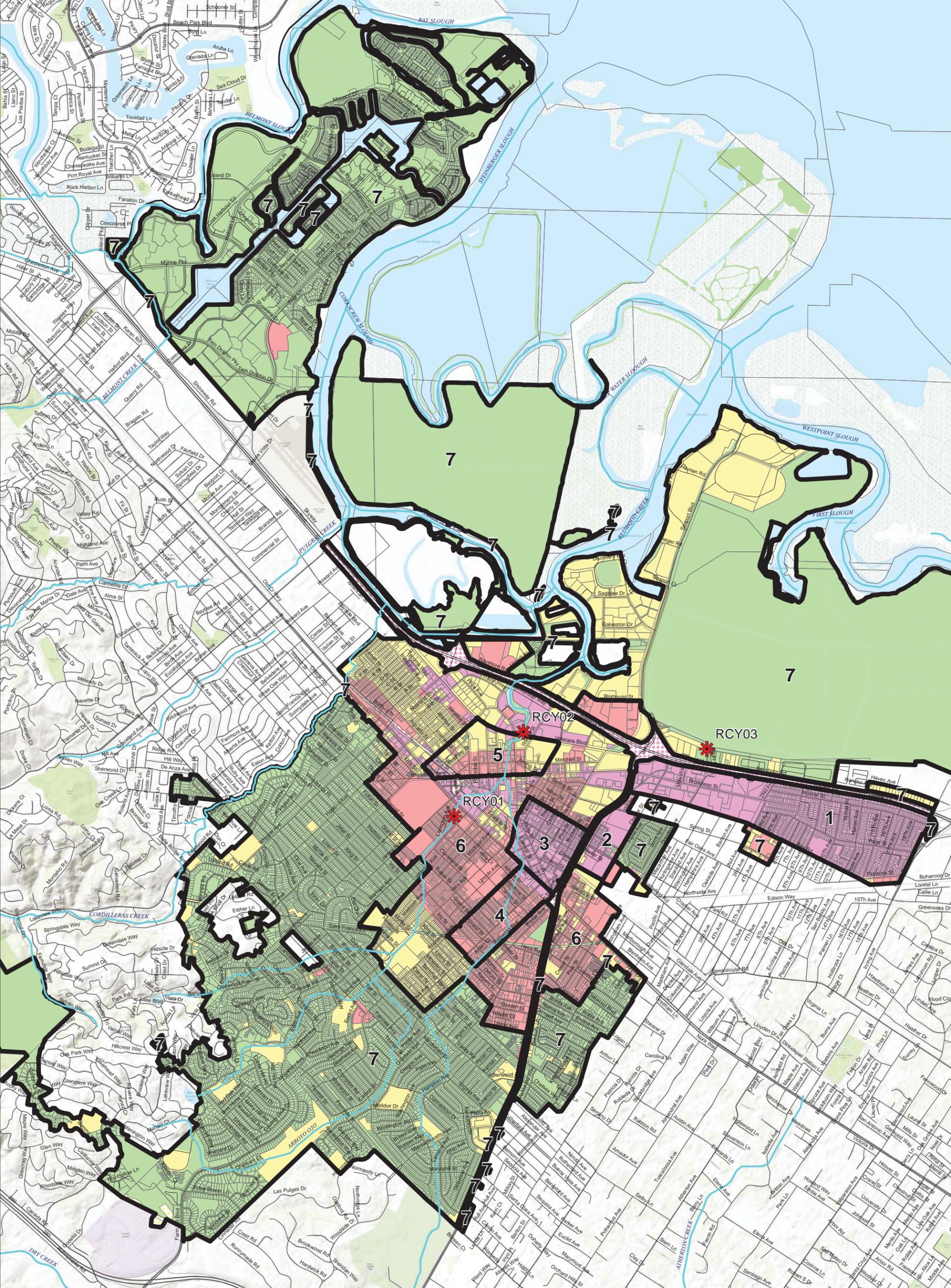
<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Low	<span style="color:red; font-size:2em;">*</span> Creek/Shoreline Hotspot	<span style="border-bottom:1px solid black; width:20px; display:inline-block;"></span> Streets
<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Medium	<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Full-Capture Location	<span style="border-bottom:1px solid black; width:20px; display:inline-block;"></span> Agency Boundary
<span style="display:inline-block; width:15px; height:15px; background-color:lightcoral; border:1px solid black;"></span> High	<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black; border-style:dotted;"></span> Full Trash Capture	<span style="border-bottom:1px solid black; width:20px; display:inline-block;"></span> Creeks
<span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Very High	<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black; border-style:dotted; border-radius:50%;"></span> Non-Jurisdictional (Dot color = Generation Category)	<span style="border-bottom:1px solid black; width:20px; display:inline-block;"></span> Parcel Boundary



**Data Sources:**  
 Roads: San Mateo County  
 City Boundaries: San Mateo County  
 Background: ESRI World Topographic Map

**Map Created By:**  
 EOA, Inc.  
**Date:**  
 September 11th, 2013

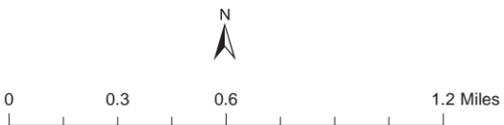
# City of Redwood City DRAFT Trash Management Areas Map



**Legend**

**Trash Generation Category**

- Low
- Medium
- High
- Very High
- \* Creek/Shoreline Hotspot
- Trash Management Area
- Non-Jurisdictional (Dot color = Generation Category)
- Streets
- Agency Boundary
- Creeks
- Parcel Boundary



**Data Sources:**  
 Roads: San Mateo County  
 City Boundaries: San Mateo County  
 Background: ESRI World Topographic Map

**Map Created By:**  
 EOA, Inc.

**Date:**  
 September 11th, 2013



City of Redwood City  
Redwood City, California

[Home](#) » [Government](#) » [City Council](#) » **Proposed Ban on Polystyrene**

## City Council

## Advisory Boards, Committees, and Commissions

## Local Appointments List

## How the City Works!

## City Budget and Financial Information

## City Charter

## Codes and Ordinances

## Document Archives

## Other Government Links

## Redwood City's Action on Reducing Use of Polystyrene Effective January 1, 2013

([Información en Español](#))

**Latest update: January 1, 2013** - Redwood City's ban on use of polystyrene food service containers is now in effect.

### Background:

At its Monday May 7, 2012, meeting, the City Council of Redwood City adopted an ordinance which prohibits the use of food service ware made of polystyrene (Styrofoam), effective on January 1, 2013.

- [What is polystyrene and why is it being prohibited?](#)
- [What are approved food service ware products?](#)
  - [Fact sheet](#)
- [Where can alternative food service ware products be purchased?](#)
  - [List of vendors](#) (source: [www.sfenvironment.org/foodservice](http://www.sfenvironment.org/foodservice))
- [City actions taken toward banning polystyrene food containers](#)
- [What are the key elements of the ordinance?](#)

### What is polystyrene and why is it being prohibited?

- Polystyrene is often referred to by its Dow Chemical trademark "Styrofoam." It is a petroleum-based, lightweight plastic material with many uses and commonly used by retail food vendors for disposable take-out purposes. According to the County, polystyrene has been identified as an environmental pollutant in part because it is non-biodegradable and generally non-recyclable and non-reusable. Various state and federal agencies indicate that polystyrene persists in the environment indefinitely without breaking down and consequently is showing up on roads, waterways, and the ocean.



The County is moving to reduce the daily use of disposable foodservice containers in order to help reduce the volume of this pollutant and related litter, and has requested cities to do the same. The City's action is to adopt, by reference, the County's ordinance which became effective on July 1, 2012.

### **What are approved food service ware products?**

Compostable products include:

- Paper or other plant fiber, such as from sugarcane, rice, or bamboo.
- Corn, soy, potato or other plant starch based bio-plastics, such as "PLA" clear plastic, that are labeled as "compostable" and meet compostability standards (ASTM D6400). These products should be marked with a green band, stripe or sticker to allow compostable identification by the compostables collector and processor.

Recyclable products include:

- Aluminum foil or trays and 2 , 4 and 5 plastic containers and lids.

### **Polystyrene Fact Sheet**

### **Where can alternative food service ware products be purchased?**

- Ask your current supplier about products that meet the City's new requirements.

### **List of suppliers for compostable and recyclable products**

### **City actions taken toward banning polystyrene food containers**

- **February 6, 2012:** The City Council first discussed a possible ban at its meeting of February 6, 2012. At that time, they directed staff to return with a proposed ordinance to prohibit retail food vendors in Redwood City from using polystyrene-based disposable food service containers, as a means of promoting sustainability.

#### **[February 6, 2012 staff report](#)**

- **April 9, 2012:** At the April 9, 2012 City Council meeting, an ordinance was introduced to prohibit retail food vendors in Redwood City from using polystyrene-based disposable food service containers – typically known as Styrofoam. The Council set a public hearing on the "second reading" of that ordinance, and proposed adoption, for May 7, 2012. If adopted by the Council, the ban on polystyrene food service containers would be in place as of January 1, 2013.

#### **[April 9, 2012 staff report](#)**

#### **[Resolution](#)**

#### **[Proposed ordinance](#)**

#### **[San Mateo County's ordinance](#)**

- **March 7, 2012:** The City Council adopted an ordinance prohibiting retail food vendors in Redwood City from using polystyrene-based disposable food service containers.

#### **[May 7, 2012 staff report](#)**

At its Monday May 7, 2012, meeting, the City Council of Redwood City adopted an ordinance which prohibits the use of food service ware made of polystyrene

### **What are the key elements of the ordinance?**

- Banned products are single-use disposable products used in restaurants and the food service industry for serving and transporting prepared, ready-to-consume food and beverages including plates, bowls, trays, and hinged or lidded containers (“clamshells”), but excluding disposable packaging for unprepared food.
- Automatic exemptions contained in the ordinance are prepackaged foods, and polystyrene coolers and ice chests.
- Other requests for exemptions may be made for undue hardship where a suitable alternative does not exist for a specific application and/or situations where no reasonably feasible alternative exists to a specific and necessary prohibited container.
- The application process for seeking an exemption is through the County's Environmental Health Division and, if granted, is for the period of one year.
- The County's Environmental Health Division will administer and enforce the ordinance and may issue fines for violations in an amount not to exceed \$100 for a first violation, \$200 for a second violation, and \$500 for a third violation. After ample opportunities to comply, any fines levied would go to the County, earmarked for use to supplement outreach and education around polystyrene.
- Effective date established as January 1, 2013, in order to provide 30 days for the ordinance to become effective and six months as a transition period
- Redwood City will work with San Mateo County to reach out to affected businesses in order to ensure they are aware of the upcoming ban and have sufficient information to transition to non-polystyrene containers.

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# City of Redwood City

## Redwood City, California

### City Manager

[Home](#) » [City Manager](#) » **Reusable Bag Ordinance**

## Redwood City Approves Reusable Bag Ordinance

### Our Core Purpose and Values

### City Manager's Initiatives

- Economic Development
- Verde
- Neighborhood Liaison Program
- PACT
- Neighborhood Associations
- RWC 2020
- Pride and Beautification Committee
- RCI/Sister Cities
- Build a Great Community Together
- Civic Engagement -- a White Paper
- "Community Builders" Program
- Community Improvement Grant Program
- ICMA
- Neighborhood Survey
- Green Business Program

[City Council approves reusable bag ordinance](#) - implementation and enforcement will be effective on October 1, 2013.

### Updates::

1. Affected stores ARE ALLOWED to implement the plastic bag ban and start charging for paper bags prior to the October 1 deadline.
2. A plastic bag that is 2.25 mil thick or thicker is considered a reusable bag and can be provided by stores, and the store may charge for that reusable bag.
3. To report an alleged violation of the ordinance (after October 1, 2103 in Redwood City, or currently in unincorporated San Mateo County) please call 650-372-6200.

### Documents and other information:

- [Read the ordinance](#)
- [Staff Report and other documents](#) - March 25 City Council meeting (scroll down to item 6.5.A)
- [Staff Report, Ordinance, and other documents](#) - March 11 City Council meeting (scroll down to item 6.2.A)
- [Information meetings held](#)
- **News Releases**
  - [March 26, 2013 - Council Adopts Reusable Bag Ordinance](#)
  - [February 5, 2013 - Council Considering Reusable Bag Ordinance](#)
- [Why consider a ban on plastic bags?](#)
- [What does the reusable bag ordinance do?](#)
- [What about concerns with health and hygiene related to reusable bags?](#)
- [Fact sheet \(English & Español\)](#)
- [San Mateo County's Reusable Bag Ordinance information page](#)

### Budget

### City Council adopts ordinance on reusable bags

### Economic Development

At its meeting of March 25, 2013, the City Council of Redwood City unanimously adopted a reusable bag ordinance to prohibit the distribution of single-use plastic bags within the City. The first reading of the ordinance was held at the Council meeting on March 11.

### News Releases

### E-News

**Implementation and enforcement of the reusable bag ordinance will become**

**Awards and Recognition**

**Biography of City Manager Bob Bell**

**Contact the Staff of the City Manager's Office**

**effective as of October 1, 2013.**

Redwood City's action follows San Mateo County's adoption of a reusable bag ordinance last year, which has subsequently been adopted by a number of other cities on the peninsula.

The County prepared an environmental analysis of a reusable bag ordinance, which the cities, including Redwood City, can use for their ordinance. The purpose of a multi-agency process such as this is to provide for a uniform, consistent standard across the region, making for a smoother transition and easier compliance by affected businesses. Implementation of the City's ordinance will take place on October 1, 2013.

**Information meetings held**

Two informational meetings were held to assist businesses and community members with understanding the scope and effect of the reusable bag ordinance:

For Businesses.....Wednesday, February 13, 2 pm  
For Community Members.....Tuesday, February 19, 7 pm

Both meetings took place in the Community Room of the Redwood City Downtown Library, at 1044 Middlefield Road. Any community member or businessperson was welcome to attend either meeting, as the information presented was identical at each one.

**Why consider a ban on plastic bags?**

The EIR notes that an estimated 400 million single-use plastic bags are used each year in San Mateo County, including an estimated 42 million in Redwood City, with only a small percentage being recycled. The majority end up in the landfill, or as litter and in storm drains, and they are a common litter item found in roadway, park, and creek cleanups in Redwood City. As litter, these plastic bags can adversely affect marine life when they find their way into streams, creeks, lakes, and the bay. The EIR estimates that an ordinance would potentially reduce Redwood City's annual use of plastic bags by 95%.

Further, use of reusable bags reduces litter and conserves natural resources: a reusable bag has the potential to replace over 600 single-use plastic bags over its lifetime, significantly reducing plastic bag litter, and reducing the one-time use of paper bags.

**What does the reusable bag ordinance do?**

The ordinance bans distribution of plastic bags by all retailers except restaurants and nonprofits (not including protective bags for produce or meat, dry-cleaning, and newspapers, among other exemptions), and requires retailers to charge a minimum of 10¢ per paper bag used (25¢ as of 2015). Enforcement will be complaint-based, and conducted by San Mateo County.

An evaluation of a similar ordinance in San Jose (which became effective on January 1, 2012) concludes that the ordinance has had an observable effect on reduction of plastic bags in the environment:

- Decrease of 89% in storm drains
- Decrease of 35-50% in downtime from plastic bag damage at recycling facilities
- Increase in reusable bag use from 4% up to 62%
- Decrease in plastic bag use from 3 to 0.3 bags per customer per visit to stores

More information on the impacts of a ban on plastic bags is available on San Mateo County's website at <http://smchealth.org/bagban>.

### **What about concerns with health and hygiene related to reusable bags?**

Some have contended that reusable bags may pose a danger to public health, that if they become dirty they may harbor potentially dangerous bacteria. San Mateo County's Health Officer notes that:

- There is nothing about reusable bags that renders them more susceptible to bacterial contamination than other common items that consumers encounter every day.
- Other jurisdictions which have banned disposable plastic shopping bags have seen no increased rates of bacterial infections associated with the increased use of reusable bags.
- There is no study that remotely suggests reusable bags could be considered a public health threat or a notable source of disease.
- The County's ordinance requires reusable bags to be machine washable or made from a material that can be cleaned or disinfected.
- Periodic washing of reusable bags for hygienic purposes would be the responsibility of the individual customers, and it is assumed that individuals would generally continue to practice good hygiene.

Read San Mateo County Health Officer Dr. Scott Morrow's [statement about health concerns](#) related to reusable bags.

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## **C.10.d - Summary of Trash Reduction Actions**

### **Regional and Countywide Public Education and Outreach Programs**

#### **Continued Pre-MRP Actions:**

The City of Redwood City implemented the following public education and outreach control measures prior to the effective date of the MRP and has continued to implement these measures since MRP adoption.

#### ***SMCWPPP Public Information and Participation Program (Countywide)***

Through participation and funding of the San Mateo Countywide Water Pollution Prevention Program's (SMCWPPP) Public Information and Participation program (PIP), the City of Redwood City plans to continue implementing litter reduction outreach to school-age children and youth. SMCWPPP currently oversees a contract to provide direct outreach to grades K-5 in a school setting on behalf of all permittees. The contract is currently held by the Banana Slug String Band, which performs a presentation called "We All Live Downstream." Through songs and interactive exercises, the message of not putting anything in the stormdrains (including trash) is delivered, along with basic concepts of the water cycle and the impact of pollution on aquatic life. In addition, SMCWPPP has developed a presentation entitled "Water Pollution Prevention: Problems and Solutions" that is delivered to high school students. This presentation is dedicated to watershed and stormdrain education, and the impact of litter on local creeks and waterways. Both efforts are managed to ensure that schools in each community in the County are reached. For communities without High Schools, the feeder schools in neighboring communities are specifically targeted for presentations. In addition to outreach at the school sites, a number of student activity guides and coloring books related to watershed health and littering are provided to children who attend outreach events. Schools are also directly targeted in promotion of Coastal Cleanup Day.

PIP also participates in a regional anti-littering campaign developed by BASMAA targeted at youth ages 14 to 24. As acting chair of the BASMAA PIP committee, SMCWPPP PIP has participated in the development and dissemination of campaign materials, and has conducted local events on behalf of all jurisdictions to promote the campaign. The campaign, entitled "Be The Street You Want to See", will soon transition from building a community of youth dedicated to not littering to engaging that community in action.

SMCWPPP, through its PIP program, plans to continue to conduct community outreach events on behalf of Permittees who request support. Outreach materials related to litter that are distributed include, in addition to the children's materials listed above under Outreach to School-age Children or Youth, a promotional sign for cigarette smokers to discourage cigarette litter, and pocket ashtrays are given out. A general stormwater pollution prevention flyer in English and Spanish that includes litter reduction in its messaging is distributed. In addition to table outreach events conducted for specific Permittees, PIP also conducts a Countywide Event aimed to reach residents from throughout the County. PIP manages an online calendar which promotes cleanup events by non-profit organizations throughout the County. In FY 2012, PIP completed its 7th year acting as the county coordinator for Coastal Cleanup Day, increasing volunteer participation by 400% in that time, and trash removal increased by 300%. During the term of the MRP, new outreach materials have been disseminated to the public, including reusable shopping bags to encourage reduction in use of plastic carryout bags. PIP has supported a countywide ban on carryout bags that began implementation on April 22, 2013. In

addition, spring cleanups taking place in individual jurisdictions are promoted under one theme by PIP, entitled Spring Cleaning SMC. PIP assists in directing volunteers to cleanup events in their communities. SMCWPPP conducted a total of 11 outreach events on behalf of various jurisdictions within the County in the 2012-13 fiscal year. SMCWPPP will also continue maintaining an online calendar of cleanups on a monthly basis. In addition to using the SMCWPPP website, flowstobay.org, to promote cleanups, PIP is actively involved in social media platforms such as Facebook, Twitter, You Tube, and Instagram to deliver anti-littering and cleanup messages.

### ***Coastal Cleanup Day Promotion (Countywide)***

On the countywide level, SMCWPPP also conducts annual press releases for Coastal Cleanup Day, and uses Twitter to promote cleanup events. These releases are intended to gain support and assistance for cleanup events conducted each September in local water bodies.

### ***BASMAA Regional Media Relations Project (Regional)***

Through participation and funding of the **BASMAA Regional Media Relations Project**, the City of Redwood City is continuing to implement a media relations project partially designed to reduce littering from target audiences in the Bay Area. The goal of the BASMAA Media Relations Project is to generate media coverage that encourages individuals to adopt behavior changes to prevent water pollution, including littering. At least two press releases or PSAs focus on litter issues each year (e.g., creek clean-up activities, preventing litter by using reusable containers, etc.). In FY 12-13, the Media Relations project developed a press release new and recent bag bans in cities around the region. The pitch included information on the litter caused by plastic bags. Information ran on KBAY, KCBS and on eight Bay Area Patch.com sites.

### **New/Enhanced Post-MRP Actions Initiated/Planned:**

In addition to the control measures continued post-MRP adoption, the City of Redwood City is currently implementing or planning to implement the following public education and outreach control measures that were initiated after the MRP was adopted.

### ***BASMAA Youth Outreach Campaign (Regional)***

Through participation and funding of the regional **BASMAA Youth Outreach Campaign**, the City of Redwood City is implementing an outreach campaign designed to reduce littering from the target audience in the Bay Area. The Youth Outreach Campaign was launched in September 2011 and aims to increase the awareness of Bay Area Youth (ages 16-24) on litter and stormwater pollution issues, and eventually change their littering behaviors. Combining the ideas of Community Based Social Marketing with traditional advertising, the Youth Campaign aims to engage youth to enable the peer-to-peer distribution of Campaign messages. The Campaign will at least run through FY 13-14. A brief description of the Campaign activities is provided below:

- o Raising Awareness: The Campaign is raising awareness of the target audience on litter and stormwater pollution issues. Partnerships with youth commissions, high schools, and other youth focused organizations have been developed to reach the target audience. Messages targeted to youth have been created and distributed via paid advertising, email marketing, Campaign website and social networking sites (e.g., Facebook and Twitter).
- o Engage the Youth - The advertisements encourage the audience to participate in the Youth Campaign by joining a Facebook page, entering a contest, taking an online quiz,

etc., and providing their contact information. At the beginning of FY 12-13, a video contest was launched to get Bay Area youth further involved in the Campaign. An online voting system was used to select the winning entry. Media advertising was conducted to promote the winning entry.

- o Change Behaviors: To move the audience along the behavior change continuum, the Campaign is using electronic platforms such as email marketing and social networking sites to encourage participants to engage in increasingly more difficult behavior changes, such as participating in a clean-up, organizing a clean-up, etc.
- o Maintain Engagement: The Campaign continues to interact with the target audience through email marketing and social media websites.

The Youth Campaign includes a pre and post campaign survey to evaluate the effectiveness of outreach. The pre-campaign survey was conducted in FY 11-12 and the post campaign survey will begin in FY 13-14. Other evaluation mechanisms, such as website hits, number of youth engaged in the Campaign's social networking website, etc. are also being used to evaluate its effectiveness in increasing awareness and changing behavior.

Activities in FY 12-13 included maintaining the website [www.BetheStreet.org](http://www.BetheStreet.org), Facebook page, and Instagram account. A video contest asking participants to submit their best anti-litter video was also conducted. The Be the Street campaign received 52 entries in response to the contest. The winning video was promoted on television, Pandora (online music site), YouTube, Google, and Facebook.

FY 2012-2013 Annual Report  
Permittee Name: City of Redwood City

**City of Redwood City**



## **Attachment**

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Provision C.13

1. Architectural Copper BMPs

## Requirements for Architectural Copper

**Protect water quality during installation, cleaning, treating, and washing!**

### Copper from Buildings May Harm Aquatic Life

Copper can harm aquatic life in San Francisco Bay. Water that comes into contact with architectural copper may contribute to impacts, especially during installation, cleaning, treating, or washing. Patination solutions that are used to obtain the desired shade of green or brown typically contain acids. After treatment, when the copper is rinsed to remove these acids, the rinse water is a source of pollutants. Municipalities prohibit discharges to the storm drain of water used in the installation, cleaning, treating and washing of architectural copper.



*Building with copper flashing, gutter and drainpipe.*

### Use Best Management Practices (BMPs)

The following Best Management Practices (BMPs) must be implemented to prevent prohibited discharges to storm drains.

#### ***During Installation***

- If possible, purchase copper materials that have been pre-patinated at the factory.
- If patination is done on-site, implement one or more of the following BMPs:
  - Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
  - Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
  - Collect the rinse water in a tank and haul off-site for proper disposal.
- Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.



*Storm drain inlet is blocked to prevent prohibited discharge. The water must be pumped and disposed of properly.*

#### ***During Maintenance***

Implement the following BMPs during routine maintenance activities, such as power washing the roof, re-patination or re-application of impervious coating:

- Block storm drain inlets as needed to prevent runoff from entering storm drains.
- Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

### Protect the Bay/Ocean and yourself!

If you are responsible for a discharge to the storm drain of non-stormwater generated by installing, cleaning, treating or washing copper architectural features, you are in violation of the municipal stormwater ordinance and may be subject to a fine.



*Photo credit: Don Edwards National Wildlife Sanctuary*

### Contact Information

The San Mateo Countywide Water Pollution Prevention Program lists municipal stormwater contacts at [www.flowstobay.org](http://www.flowstobay.org) (click on "Business", then "New Development", then "local permitting agency").