SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

555 County Center
Redwood City, CA 94063

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flowstobay.org

September 26, 2023

Ms. Eileen White
Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: SUBMITTAL OF THE SAN MATEO COUNTYWIDE WATER POLLUTION PREVENTION PROGRAM'S FY 2022/23 ANNUAL REPORT

Dear Ms. White:

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), a program of the City/County Association of Governments of San Mateo County (C/CAG), is pleased to submit the attached Fiscal Year 2022/23 Annual Report. This report describes Municipal Regional Permit (MRP) compliance activities conducted at the regional and countywide levels on behalf of San Mateo County municipalities. It also incorporates by reference and includes as appendices two reports prepared via the Bay Area Municipal Stormwater Collaborative (BAMSC) on behalf of all Bay Area MRP Permittees and two reports prepared by the California Stormwater Quality Association (CASQA) that describe relevant statewide activities.

I certify under penalty of law that the SMCWPPP FY 2022/23 Annual Report was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my enquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SMCWPPP and the 22 municipal agencies in San Mateo County look forward to continuing to work with you and your staff on implementation of the MRP. If you have any questions or comments, please email me at rbogert@smcgov.org.

Sincerely,

Reid Bogert
Program Director

Attachment: SMCWPPP FY 2022/23 Annual Report

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.
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# FY 2022/2023 Annual Report

**September 26, 2023**

# Credits

This report is being submitted by the participating agencies in the

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.
www.flowstobay.org

Town of Atherton
City of Belmont
City of Brisbane
City of Burlingame
Town of Colma
City of Daly City
City of East Palo Alto
City of Foster City
City of Half Moon Bay
Town of Hillsborough
City of Menlo Park
City of Millbrae
City of Pacifica
Town of Portola Valley
City of Redwood City
City of San Bruno
City of San Carlos
City of San Mateo
County of San Mateo
San Mateo County Flood and Sea Level Rise Resiliency District
City of South San Francisco
Town of Woodside

*Prepared for:*

**San Mateo Countywide Water Pollution Prevention Program (SMCWPPP)**
**555 County Center, Redwood City, CA 94063**

*A Program of the City/County Association of Governments (C/CAG)*

*Prepared by:*

**EOA, Inc.**
**1410 Jackson St., Oakland, CA 94610**

# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

# LIST OF APPENDICES

**APPENDIX 9**

- Parks Maintenance & IPM Work Group Attendance List FY 2022/23
- Landscape Integrated Pest Management (IPM) Workshop – March 1, 2023
    - Workshop Agenda
    - Attendance List
    - Evaluations Summary
- Pest Control Point of Purchase Outreach

**APPENDIX 10**

- Trash Subcommittee Attendance List – FY 2022/23

**APPENDIX 11/12**

- Mercury and PCBs Control Measures Report (Version 1.0) – DRAFT – September 1, 2023

**APPENDIX 13 - BASMAA/CASQA**

- FY 2022/23 Regional Supplement for New Development and Redevelopment, San Francisco Bay Area, Municipal Regional Stormwater Permit, Bay Area Municipal Stormwater Collaborative, September 2023
- CASQA 2023 Pesticide Annual Report and Effectiveness Assessment Final Report, California Stormwater Quality Association, August 2023
- CASQA FY 2022-23 Our Water Our World (OWOW) Report, California Stormwater Quality Association, August 2023.
- Summary of Modifications to the Bay Area Hydrology Model (BAHM) during FY 22-23

**APPENDIX 17**

- Regional Best Management Practices Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations – September 30, 2023

# LIST OF ACRONYMS

| | |
|---|---|
| **BAMSC** | Bay Area Municipal Stormwater Collaborative |
| **BASMAA** | Bay Area Stormwater Management Agencies Association |
| **BAWSCA** | Bay Area Water Supply and Conservation Agency |
| **BMPs** | Best Management Practices |
| **BSM** | Biotreatment Soil Mix |
| **C3TG** | C.3 Stormwater Technical Guidance |
| **CALBIG** | California Building Inspectors Group |
| **CASQA** | California Stormwater Quality Association |
| **C/CAG** | City/County Association of Governments of San Mateo County |
| **CEQA** | California Environmental Quality Act |
| **CII** | Commercial/Industrial/Illicit Discharge |
| **DC** | Development Committee |
| **DIY** | Do-It-Yourself |
| **DO** | Dissolved Oxygen |
| **DPR** | Department of Pesticide Regulation |
| **EHS** | San Mateo County Environmental Health Services |
| **EPA** | Environmental Protection Agency |
| **FY** | Fiscal Year |
| **GSRD** | Gross Solids Removal Device |
| **GI** | Green Infrastructure |
| **GIS** | Geographic Information System |
| **IPM** | Integrated Pest Management |
| **IMR** | Information Monitoring Report |
| **JPA** | Joint Powers Authority |
| **LID** | Low Impact Development |
| **MRP** | Bay Area Stormwater NPDES Municipal Regional Permit |
| **MS4** | Municipal Separate Storm Sewer System |
| **NDS** | New Development Subcommittee |
| **NPDES** | National Pollutant Discharge Elimination System |
| **OAL** | California Office of Administrative Law |

| | |
|---|---|
| **O&M** | Operations and Maintenance |
| **OWOW** | Our Water Our World |
| **PCBs** | Polychlorinated Biphenyls |
| **PIP** | Public Information and Participation |
| **POC** | Pollutants of Concern |
| **POTW** | Publicly Owned Treatment Works (sewage treatment plants) |
| **RFQ** | Request for Qualifications |
| **RMP** | San Francisco Estuary Regional Monitoring Program |
| **SAP** | Sampling and Analysis Plan |
| **SCVURPPP** | Santa Clara Valley Urban Runoff Pollution Prevention Program |
| **SFEP** | San Francisco Estuary Partnership |
| **SFEI** | San Francisco Estuary Institute |
| **SMC** | San Mateo County |
| **SMCWPPP** | San Mateo Countywide Water Pollution Prevention Program |
| **SOP** | Standard Operating Procedure |
| **STLS** | Small Tributaries Load Strategy |
| **SWRP** | Stormwater Resource Plan |
| **SWPPP** | Stormwater Pollution Prevention Plan |
| **TAC** | Technical Advisory Committee |
| **TMA** | Trash Management Area |
| **TMDL** | Total Maximum Daily Load |
| **WLA** | Waste Load Allocation |
| **WY** | Water Year |

# EXECUTIVE SUMMARY

## INTRODUCTION

This FY 2022/23 Annual Report was developed in compliance with the reissued National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit (referred to as the MRP)[1] for stormwater runoff discharges from San Mateo County and certain other San Francisco Bay Area communities. It summarizes stormwater management activities implemented by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP or Countywide Program) in FY 2022/23. SMCWPPP's activities benefit 22 municipal agencies in San Mateo County: 15 cities, five towns, the County of San Mateo, and the San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD, also referred to as OneShoreline). Each of these agencies also separately submits an individual Annual Report to the San Francisco Bay Regional Water Quality Control Board (Water Board) focusing on that agency's stormwater management activities during FY 2022/23.

SMCWPPP is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint Powers Authority (JPA) that addresses issues of regional importance to San Mateo County jurisdictions such as congestion management and water quality. The C/CAG Board of Directors is comprised of a local elected city council representative from each city and town in San Mateo County, a member of the County Board of Supervisors, and representatives from the transit district and transportation authority. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting San Mateo County municipalities with complying with the municipal stormwater NPDES permit, including its latest incarnation as the MRP. Stormwater management-related activities of C/CAG and its various related committees and workgroups are described below.

### C/CAG Board of Directors

Throughout FY 2022/23, the C/CAG Board of Directors received presentations, updates, and took actions on various stormwater-related issues, as summarized below (all C/CAG Board of Directors meeting agenda materials and minutes are available at www.ccag.ca.gov/board-of-directors):

- July 2022 - Approved Resolution 22-68 authorizing the C/CAG Chair to execute three-year Agreements with EOA, Inc. and Craftwater Engineering, Inc. for on-call technical support services to the Countywide Stormwater Program.

[1]NPDES Permit No. CAS612008 (Order No. R2-2022-0018) dated May 11, 2022. The MRP has a five-year term: effective July 1, 2022 and expires June 30, 2027.

- September 2022 – Approved Resolution 22-73 authorizing the C/CAG Chair to execute Amendment No. 3 to the Agreement with EOA, Inc. extending the term to June 30, 2023 for no additional cost to enable completion of the existing Task Order EOA-14, which covers water quality monitoring activities and reporting requirements on behalf of the Countywide Stormwater Program for Water Year 2022; received a letter from C/CAG Chair to Honorable Gavin Newsom RE: Requesting Signature on Senate Bill 852 (Dodd) - Climate resilience districts: formation: funding mechanisms.
- October 2022 – Approved the appointment of Humza Javed, Public Works Director for the City of East Palo Alto, to serve on C/CAG's Stormwater Committee.
- November 2022 – Approved Resolution 22-99 authorizing the C/CAG Chair to execute Amendment No. 9 to the agreement with the Bay Area Water Supply and Conservation Agency for the Rain Barrel and Rain Garden Rebate Program to provide additional budget.
- December 2022 – Received a presentation on the Countywide Stormwater Program; approved Resolution 22-101 authorizing the C/CAG Executive Director to execute a grant agreement with Global Philanthropies Partnership, specifying C/CAG as the project lead in developing the Climate Resilience Resources Guide: Part 2; received a presentation on the recruitment process for the Central Region seat on the OneShoreline (San Mateo County Flood and Sea Level Rise Resiliency District) Board of Directors.
- January 2023 – Received a presentation from the San Francisco Estuary Institute Regional Monitoring Program on the Pulse of the Bay "50 Years After the Clean Water Act"; approved Resolution 23-04 appointing Adam Rak, Council Member from the City of San Carlos, representing the Central region for the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline); received a letter from C/CAG Executive Director Sean Charpentier to EPA Region 9 RE: Support for City of San Bruno's application for San Bruno Regional Stormwater Capture Project on 1/280; received a letter from C/CAG Executive Director Sean Charpentier to Ocean Protection Council RE: Support for HighTide's Statewide Socioeconomic Impact Assessment to Empower Equitable Sea Level Rise Adaption Proposal.
- February 2023 – Accepted the 2022 attendance report for the C/CAG Board and Committee meetings; received a press release RE: FY22-23 Rain Barrel Rebate Campaign; Everything South City article RE: FY22-23 Rain Barrel Rebate Campaign; received a copy of the San Mateo Daily Journal article RE: FY22-23 Rain Barrel Rebate Campaign.
- March 2023 - Approved Resolution 23-17 authorizing the C/CAG Chair to execute Amendment No. 4 to the agreement with the City of East Palo Alto for the Addison Avenue Integrated Safe Routes to School and Green Streets Infrastructure Pilot Project, extending the term to June 30, 2024 for no additional cost; approved appointment of Roland Yip, Deputy Director of Public Works for the City of Pacifica, to the Stormwater Committee; approved Resolution 23-24, authorizing a waiver of the Request for Proposals process and further authorizing the C/CAG Executive Director to execute an agreement with Colantuano, Highsmith & Whatley, PC for outside legal support on evaluating stormwater funding options in San Mateo County ; received a comment Letter on State Water Resources Control Board Consideration of Own Motion Review of the Municipal Regional Stormwater Permit (MRP 3.0).
- April 2023 – Received letters to the Honorable Dianne Feinstein, U.S. Senate, Alex Padilla, U.S. Senate, and Kevin Mullin, U.S. Congress Re: Fiscal Year 2024 Appropriations – Congressionally Directed Spending Request, including for the San Bruno Regional Stormwater Capture project.

- May 2023 – Received a copy of the Agreement with Brown and Caldwell for technical support to develop the San Mateo County OneWatershed Framework and Community-Led Resilience Plan.
- June 2023 – Received a presentation on C/CAG's Countywide Stormwater Green Infrastructure Program; approved Resolution 23-58 authorizing the C/CAG Chair to execute Amendment No. 10 to the Agreement with the Bay Area Water Supply and Conservation Agency for the Rain Barrel and Rain Garden Rebate Program, extending the term to June 30, 2024 to provide rebates during Fiscal Year 2023-24 for no additional cost; approved Resolution 23-59 authorizing the C/CAG Executive Director to execute Task Order EOA-16 with EOA for Fiscal Year 2023-24 for technical support services to the Countywide Stormwater Program; approved Resolution 23-60, authorizing the C/CAG Executive Director to execute Amendment No. 1 to the outside legal counsel retainer with Colantuono, Highsmith & Whatley PC, extending the term to June 30, 2025 and adding additional budget to support the Countywide Stormwater Program with stormwater funding discussions.

## Program Director and Stormwater Program Specialist

C/CAG's Program Director oversees the overall Countywide Program, serving as staff to the C/CAG Board and liaison among San Mateo County municipalities, technical consultants, committees, the Bay Area Stormwater Management Agencies Association (BASMAA) and its successor organization (Bay Area Municipal Stormwater Collaborative), the California Stormwater Quality Association (CASQA), and Regional Water Board staff. The Program Director represents San Mateo County municipalities at regional and statewide meetings and manages technical consultants that support programmatic activities. C/CAG's Stormwater Program Specialist (Specialist) supports the Program Director in implementing the Countywide Program. In early September 2021, the prior Program Director left C/CAG and the Stormwater Program Specialist was acting in the capacity of the Program Director overseeing the Countywide Program since then, until June 2023 when the Program Specialist was promoted to the Program Director role.

### *Participation in Relevant Regional and Statewide Organizations and Activities*

In addition to providing regular staff support, agenda reports, and presentations to the C/CAG Board and the Stormwater Committee, Countywide Program staff participated in the following activities during the FY 2022/23 reporting year:

- BAMSC: the Program Director started serving as Co-Chair of the Bay Area Municipal Stormwater Collaborative (BAMSC) Steering Committee in January 2022. The Program Director participated in Steering Committee meetings and subcommittee meetings and workgroups focused on MRP 3.0 implementation and development of the proposed MRP 3.0 permit amendment. Over the course of the fiscal year the Program Director continued serving as Vice Chair of the Monitoring and Pollutants of Concern Committee until December 2022 and also represented stormwater programs on the San Francisco Bay Regional Monitoring Program (RMP) Emerging Contaminant Work Group (ECWG) and two-day annual meeting in April 2023.
- CASQA: the Program Director attended and presented at the annual CASQA conference and participated in CASQA's Legislative Committee and presented on the Countywide Program's multi-scale green stormwater infrastructure strategy at the July 12, 2022 Quarterly Seminar. In December 2022, the Program Director was appointed by the CASQA Board of Directors to serve as a Co-chair of the Policy and Permitting Subcommittee.

- Regional Sustainable Streets Working Group: the Program Director participated on behalf of SMCWPPP at two meetings of the Regional Sustainable Streets Working Group, coordinated by the Association of Bay Area Governments and Save the Bay with participation from regional entities focused on climate resilience and green streets implementation. The Program Director presented at the December 2, 2022 meeting on MRP 3.0 requirements related to road projects.
- Green Infrastructure Leadership Exchange: the Program Director continued participating in the Green Infrastructure Leadership Exchange. The Program Director also completed in collaboration with four member agency partners a Collaborative Grant project administered by the GI Leadership Exchange to develop a Climate Resilience Resources Guide (CRRG) to advance integration of climate adaptation in municipal GI programs at a national/North American Level. The project was completed in August 2022. The Project Manager also submitted a successful grant application with support from the same partner agencies under the Regional Collaborative Grant program for $70,000 to develop Part 2 of the CRRG focused on developing decision support tools and resources to ensure greater success of implementing integrated GI and climate resilience programs. The project was initiated in January 2023 and will be completed by December 2023.
- Throughout FY 2022/23, the Program Director/Specialist gave a number of presentations, provided testimony, led efforts to obtain grant funding, and took various actions (e.g., submittal of comment letters) working with organizations such as CASQA, USEPA, the Bay Area Council, educational organizations, state and federal legislators, and Regional and State Water Boards on a variety of topics related to green infrastructure and stormwater management.

### *Grant-funded Project Activities*

The Program Director/Specialist continued advancing several grant-funded projects in support of SMCWPPP's countywide planning and implementation efforts. In December 2022, C/CAG and its project partners (San Carlos School District and school sites) completed the Resilient San Carlos Schoolyards Project funded via a $97,000 grant from the California Resilience Challenge in 2020. The project included the co-creation with school district and site partners guiding goals and principles for resilient schoolyards; site evaluation and selection guidance; school community engagement events and resources, including student design workshops and curriculum integration; and development of a final comprehensive Resilient San Carlos Schoolyards Concept Plan Report, including concept plans, engagement processes, and next steps for the three selected sites in the San Carlos School. The Program Director presented the final report to the San Carlos School Board at their February 16, 2023 Board meeting. The project has a dedicated webpage on the SMCWPPPP website - https://www.flowstobay.org/preventing-stormwater-pollution/in-my-community/schoolyard-greening/resilient-san-carlos-schoolyards/.

The Program Director also worked with the participating BAMS Collaborative countywide stormwater programs partnering on the Watching Our Watersheds Regional Trash Monitoring Program to submit a revised Work Plan to Region 9 US EPA to support the US EPA's funding recommendation to award the project $3,366,000 under the Fiscal Year 2024 San Francisco Bay Water Quality Improvement Fund program, with $3,366,000 in in-kind matching contributions from the countywide program partners. The Program Director submitted the revised Work Plan in March and received a notice of award from the US EPA on June 28, 2023. The grant agreement between has since then been executed and the project will begin in fall 2023.

Lastly, the Program Director worked with a group of regional partners in San Mateo County to submit a successful grant application under the Integrated Climate Adaptation and Resilience Program

administered by the Governor's Office of Planning and Research for an Adaptation Planning Grant Program grant of $649,648 to develop the San Mateo County OneWatershed Climate Resilience Framework and Community-Led Plan. This project will convene regional stakeholders and partners within San Mateo County to develop a community-based planning framework supportive of identifying and prioritizing new and planned green stormwater infrastructure projects for climate resilience, community adaptive capacity and environmental and water quality benefits. The project will develop a framework in collaboration with project partners and a community led OneWatershed climate resilience plan in the San Bruno Creek Watershed as a pilot study. The project will support additional policy and project concept development as well as the prioritization framework and methodology for addressing shared risk to climate change impacts for water infrastructure in the county. C/CAG received the notice of award on June 8, 2023 and the project is anticipated to begin in fall 2023.

## Stormwater Committee

C/CAG's stormwater management-related decisions are generally made in consultation with the NPDES Stormwater Committee. At its November 2012 meeting, the C/CAG Board authorized reconvening this committee to include director-level appointees with decision-making authority for implementing stormwater management programs within San Mateo County municipalities in compliance with requirements in the MRP. The Committee meets on an approximate bimonthly basis (depending on need) on the third Thursday of the month, formerly at the San Mateo County Transit District Office in San Carlos. Consistent with other C/CAG committees and the Board of Directors meetings, the Stormwater Committee has been meeting remotely pursuant to state and local public safety orders related to Covid-19 and the stipulations of AB 2449 and AB 361. Public notices for Committee meetings are posted in accordance with Brown Act requirements in C/CAG's designated kiosk located at 555 County Center, Redwood City.

The Stormwater Committee met 6 times during FY 2022/23 (August, October, November, January, March, and April) to assist with planning and organizing SMCWPPP's stormwater management activities including MRP compliance actions. Appendix 1 includes a table summarizing attendance at the Stormwater Committee meetings held during FY 2022/23. Details on Stormwater Committee meeting agendas, minutes, and presentations can be found on the Committee's website.

The Stormwater Committee currently has three Ad-hoc Workgroups, including the longstanding MRP 3.0 Implementation Workgroup, the reinstated Funding and Financing Ad-hoc Workgroup (reinstated March 2021), and the newly created Workgroup Advancing Regional Projects (WARP), which was established at the February 2022 Stormwater Committee with the responsibilities to advance the development of a Regional Collaborative Program to support regional-scale stormwater management via multi-jurisdictional projects and programmatic implementation of distributed green infrastructure.

## Technical Advisory Committee and Subcommittees

The Stormwater Committee provides direction to and receives feedback and recommendations from the Technical Advisory Committee (TAC). During FY 2012/13, the TAC transferred its former policy-related functions to the Stormwater Committee and transitioned to a quarterly workshop format. The new format allowed more detailed discussion of MRP compliance topics, including check-ins on what jurisdictions should be focused on in the coming quarter and what should have been accomplished and documented in the preceding quarter. The TAC did not meet in FY 2022/23 but received regular emails from the

Program Director and staff with updates on key permit compliance topics and occasional requests for feedback.

SMCWPPP has established various subcommittees and work groups to the TAC to help implement the different aspects of MRP, as shown on Figure 1-1. The subcommittees and work groups met regularly during FY 2022/23 and are further described below.

## Flood and Sea Level Rise Resiliency District (OneShoreline)

AB 825 (Mullin) became law on January 1, 2020, officially revamping the San Mateo County Flood Control District to become the San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD also known as "OneShoreline"). The FSLRRD is intended to address sea level rise, coastal erosion, flooding, and regional stormwater management. As such, assuming the FSLRRD can secure long-term, sustainable funding during the startup period, it will likely play a key role in helping to design, build, and maintain regional stormwater facilities that will help achieve water quality goals in the MRP. The three-year funding commitment by the County and cities/towns ($4.5 million over three years) is an important step forward for achieving integrated water management in San Mateo County.

The C/CAG Board appointed the five city/town elected officials to the governing board. The County Board of Supervisors appointed the two supervisors. At its December 2021 meeting, the C/CAG Board approved three appointments to the FSLRRD Board of Directors to fill the Coast, Central and At-large C/CAG-designated seats, which the authorizing legislation specified as the first round of staggered terms. The seven governing board members currently representing the different geographic areas in the county as of January 2023 are:

- North: Donna Colson, City of Burlingame
- Central: Adam Rak, City of San Carlos (previously Diane Papan, City of San Mateo)
- South: Lisa Gauthier, City of East Palo Alto
- Coast: Debra Ruddock, City of Half Moon Bay
- At-Large: Marie Chuang, Town of Hillsborough
- Coast Supervisor: Ray Mueller (previously Don Horsley)
- At-Large Supervisor: Dave Pine (Chair)

Len Materman (former San Francisquito Creek Joint Powers Authority Executive Director) was brought on as Chief Executive Officer in May 2020. Information on the FSLRRD can be found at its website, www.oneshoreline.org. The FSLRRD inherits the MRP permittee responsibilities of the prior Flood Control District, with those duties currently contracted to the County Department of Public Works for implementation and reporting. The FSLRRD was included as a replacement permittee under the MRP with its reissuance in 2022.

# ORGANIZATION OF REPORT

The remainder of this FY 2022/23 Annual Report is structured around the following major provisions of the reissued MRP:

- C.2. Municipal Operations
- C.3. New Development and Redevelopment
- C.4. Industrial and Commercial Site Controls
- C.5. Illicit Discharge Detection and Elimination
- C.6. Construction Site Control
- C.7. Public Information and Outreach
- C.8. Water Quality Monitoring
- C.9. Pesticides Toxicity Control
- C.10. Trash Load Reduction
- C.11. Mercury Controls
- C.12. PCBs Controls
- C.13. Copper Controls
- C.15. Exempted and Conditionally Exempted Discharges
- C.17. Discharges Associated with Unsheltered Homeless Populations
- C.20. Cost Reporting

The following sections briefly summarize how SMCWPPP assisted in FY 2022/23 in implementing the MRP for each of the above provisions.

## C.2 Municipal Operations

The objective of MRP Provision C.2 is "to ensure development and implementation of appropriate Best Management Practices (BMPs) by all Permittees to control and reduce discharges of non-stormwater and stormwater runoff pollutants to storm drains and watercourses during operation, inspection, repair and maintenance activities of municipal facilities and infrastructure." Most MRP-required Provision C.2 Municipal Operations tasks are implemented individually by each Permittee in San Mateo County. The Countywide Program helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance and the implementation of Municipal Operations tasks are coordinated through the SMCWPPP Public Works Municipal Maintenance Subcommittee.

SMCWPPP performs a number of tasks to assist San Mateo County Permittees with implementation of Provision C.2, with input and assistance provided by the Public Works Municipal Maintenance Subcommittee. FY 2022/23 accomplishments included the following:

- Held two Public Works Municipal Maintenance Subcommittee meetings.

- Updated SMCWPPP Corporation Yard Stormwater Pollution Prevention Plan (SWPPP) template and annual inspection form template;
- Drafted a proposed workplan memo to meet MRP C.2.h training requirements; and
- Updated a pesticide tracking template, in coordination with SMCWPPP's Parks Maintenance and IPM Work Group, to assist San Mateo County Permittees comply with pesticide tracking and reporting requirements in MRP Provision C.9.a.

## C.3 New Development and Redevelopment

SMCWPPP assists San Mateo County Permittees with implementation of MRP Provision C.3, New Development and Redevelopment, including supporting green infrastructure planning requirements, and helping to advance cost-effective multi-benefit stormwater capture projects in San Mateo County. FY 2022/23 accomplishments included the following:

- Held four meetings of the New Development Subcommittee (NDS) to assist municipal agencies in San Mateo County to comply with MRP Provisions C.3 and C.6 (Construction Controls). Each meeting was well attended.
- Facilitated NDS meetings and provided technical assistance to help advance key elements of San Mateo County Permittee GI Plans, including updates to municipal ordinances, review of proposed project opportunities and concepts, and implementation of C.3 requirements.
- Formed a Work Plan Work Group of Permittee staff to update and create guidance documents to reflect changes in MRP 3.0. The Work Group completed updates to existing checklists, fact sheets and memorandums, created new fact sheets for roads/pavement projects and single-family home projects, and completed significant updates to the C.3 Regulated Projects Guide and the C.3-C.6 Development Review Checklist to incorporate MRP 3.0 requirements and changes in regulated project thresholds.
- Continued to support municipal staff, consultants, and suppliers who have questions on the review and use of Biotreatment Soil Media (BSM) and the regional BSM specification.
- Conducted SMCWPPP's annual C.3 training workshop on January 31, 2023. The number of Permittee staff in attendance exceeded all previous years' attendance at this workshop.
- Collected data from Permittees on newly installed treatment and hydromodification systems and submitted the compiled data to the San Mateo County Mosquito and Vector Control District and Water Board per provision C.3.h.iv.(2).
- Continued promoting the Green Infrastructure Design Guide (GI Design Guide) for use by San Mateo County Permittees and external partners. The GI Design Guide includes broad guidance on the design and implementation of various green stormwater infrastructure treatment measures along with typical details and standard specifications for numerous GI design options and settings.
- Promoted the Green Infrastructure, Green Infrastructure Story Map, Green Infrastructure Design Guide, and Rain Garden pages on the SMCWPPP website (flowstobay.org).
- Partnered with the Bay Area Water Supply Conservation Agency (BAWSCA) to promote the highly successful countywide rain barrel program. The supporting Rain Barrel outreach campaign received 348 rebate applications from residents (7% increase from FY 2021/22) for a total of 574 rain barrel installations (5% increase from FY 2021/22). Over 3,274 rain barrels have been installed to-date in San Mateo County under the rebate program since its inception in 2014.

- Continued a bulk rain barrel distribution program in partnership with RainWater Solutions to provide county residents an opportunity to obtain high-quality, lower-cost rain barrels. The program distributed 825 barrels to 474 San Mateo County residents in 17 out of the County's 20 incorporated jurisdictions, as well as resident in unincorporated areas.
- Partnered with BAWSCA to promote rain garden rebate as part of the Lawn Be Gone! Rebate. Launched a campaign to promote the rebate, which included two free on-line webinars. Results of the campaigns include three rain garden rebates, one rain garden webinar with 84 attendees and a second webinar with 66 attendees, 2,657 pageviews on the campaign landing page, 79 downloads of the "Rebate Program Terms and Conditions," and 56 downloads of the "Rain Garden Rebate: Pre- and Post-Conversion Site Inspection Checklist".
- Featured two rain garden community champions in two separate blog posts on August 17 and September 20, 2022, and published a blog called "We're Keen on Green (Infrastructure)" which answered the questions "What is Green Infrastructure?" and "Where Can You See it in Action in San Mateo County?".
- Created an educational animated video on rain gardens and their benefits.
- Sent 9 (of 10 total) e-newsletters to a list of 4,309 active, opt-in subscribers with topics featuring GI, such as water-wise gardening tips and rain barrel/rain garden installation guidance and resources. Gained 244 new email subscribers and had an average open rate of 58%.
- Continued implementing the SMCWPPP Greening Schoolyards Program by supporting and facilitating the on-campus installation of eight BlueBarrel rain barrels and conducting two classroom lectures to teach students about watersheds and rainwater capture.
- Participated in 17 public outreach and citizen involvement events. Of the 17 events, 8 were focused on residential or community GI, including a "Sustainably Stylish Rain Garden" webinar, five rain barrel delivery events, two in-person rain barrel installation workshops, and one middle school and one high school presentation. In total, these events had 1,260 attendees.
- Conducted outreach to residents regarding GI via social media channels, including Facebook and Instagram.
- Continued to implement the San Mateo County Stormwater Resource Plan (SWRP) and Reasonable Assurance Analysis (RAA) by advancing projects on the parcel, street, and regional scale with Permittees and school districts. In FY 2022/23 C/CAG:
    - Continued implementation of the Sustainable Streets Master Plan.
    - Continued coordination of the Advancing Regional-scale Stormwater Management in San Mateo County project.
    - Continued to support regional GI projects in the cities of South San Francisco, Belmont, San Bruno, and Redwood City.
    - Completed concept plans for the three selected school sites and compiled the plans into a comprehensive Resilient San Carlos Schoolyards Concept Plan Report (available at the project website).
    - Updated the San Mateo County GI Tracking and Mapping Tool.
    - Sought additional funding sources for regional-scale multi-benefit stormwater projects.

- Submitted a successful grant application for $649,648 under the Governor's Office of Planning and Research's Integrated Climate Adaptation and Resilience Program to develop the San Mateo County OneWatershed Climate Resilience Framework and Community-led Plan.

- Created video titled "The Essential 8 Green Infrastructure Maintenance Tips" to help municipal staff, contractors, volunteers, and others who may be involved with the long-term maintenance of GI in San Mateo County.
- Developed and completed a five-part video series focusing on GI at different scales in San Mateo County, including Overall GI, Sustainable Streets, Schools, and Homes. The videos will be displayed on a new video resource page on the SMCWPPP website (www.flowstobay.org).
- Conducted regional collaboration and statewide promotion of GI:
  - Participated in the BAMSC Development Subcommittee (DS) and assisted with developing the agendas and arranging guest speakers for the DS meetings.
  - Participated in the Regional C.3 and development-related work groups.
  - Participated in an update to the Bay Area Hydrology Model.
  - Held discussions with state and federal legislators on opportunities to fund GI resulting in a successful request for $2.4 million in funding for a regional stormwater project in the City of San Bruno.
  - Made presentations at the CASQA quarterly seminar, the GI Leadership Exchange, the Green California Schools and Community Colleges Summit, the 2022 CASQA Conference, and the San Mateo County Office of Education's Climate Ready and Sustainable School Initiative.

## C.4 Industrial and Commercial Site Controls

A primary goal of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist San Mateo County Permittees in controlling the discharge of pollutants in stormwater from commercial and industrial businesses to the maximum extent practicable. San Mateo County Permittees are responsible for complying with various business inspection requirements under MRP Provision C.4. SMCWPPP's CII component assists San Mateo County Permittee staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. SMCWPPP's assistance with MRP Provision C.4 is coordinated through the CII Subcommittee, which met four times in FY 2022/23, with good participation by municipal staff.

During FY 2022/23, SMCWPPP performed a variety of tasks to assist San Mateo County Permittees with implementation of MRP Provision C.4, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Updated the Stormwater Facility Inspection Tracking Template;
- Updated the *How to Conduct Stormwater Business Inspections* Guidance Manual; and
- Updated the business stormwater inspector contact list on the SMCWPPP website.

## C.5 Illicit Discharge Detection and Elimination

Another important goal of SMCWPPP's CII component is to assist San Mateo County Permittees effectively prohibit the discharge of illicit, non-stormwater discharges to the municipal storm drain system. San Mateo County Permittees are responsible for controlling non-stormwater discharges prohibited by MRP Provision C.5. SMCWPPP's CII component assists San Mateo County Permittee staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. SMCWPPP's assistance with MRP Provision C.5 is coordinated through the CII Subcommittee.

During FY 2022/23, SMCWPPP performed a number of tasks to assist San Mateo County Permittees with implementation of MRP Provision C.5, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Updated the table of stormwater enforcement actions against mobile businesses to share countywide with stormwater inspectors.
- Updated the Countywide mobile business inventory.
- Mailed the Mobile Business BMP flyer and a letter to mobile businesses that received enforcement actions in multiple cities.
- Developed a Graffiti Removal BMP Fact Sheet.
- Developed Illicit Discharge Door Hangers.
- Revised the Illicit Discharge Tracking Template.
- Updated the Illicit Discharge contact list on the SMCWPPP website.

## C.6 Construction Site Control

This component of SMCWPPP assists San Mateo County municipalities in complying with MRP Provision C.6 (Construction Site Control). This assistance continued to be provided through the New Development Subcommittee (NDS). SMCWPPP's accomplishments during FY 2022/23 include the following tasks to assist San Mateo County municipalities with implementation of MRP Provision C.6:

- Conducted an on-line construction site controls and inspection training for the California Building Inspectors Group (CALBIG) on October 12, 2022.
- Conducted an on-line construction site inspector training for municipal staff, and consultants representing municipalities, on June 20, 2023.
- Provided updates to the NDS at meetings and through emails on the reissued State Construction Stormwater General Permit, and Qualified Stormwater Pollution Prevention Plan Developer (QSD) or Practitioner (QSP) training opportunities.
- Printed and distributed 400 copies of the Construction Site Inspection Form to the Subcommittee members.

## C.7 Public Information and Outreach

The SMCWPPP PIP Subcommittee oversees the development of outreach and educational materials and guides the implementation of the PIP component of the program. The Subcommittee met once in FY

2022/23 with good participation by municipal staff. SMCWPPP's PIP accomplishments during FY 2022/23 included the following:

- As described above in the C.3 section, partnered again with BAWSCA to promote the countywide rain barrel program in association with a bulk rain barrel distribution program.
- Completed the Resilient San Carlos Schoolyards Project and coordinated two hands-on rain barrel installations and workshops at Alta Loma Middle School and Central Middle School in San Carlos, partnering with a community partner, Each Green Corner.
- As described above in the C.3 section, partnered with BAWSCA to promote rain garden rebate as part of the Lawn Be Gone! Rebate. Launched a campaign to promote the rebate, which included garden-related posts on social media and the SMCWPPP website, a blog featuring 2 rain garden community champions, an educational animated video, 2 webinars, and a survey to discover motivators and barriers to lawn conversions and rain garden installations. The rain garden-related webinars, "Drought-Proof Your Garden Now for Spring and Summer" (October 2022) and "Sustainably Stylish Rain Gardens" (May 2023) had 84 and 66 attendees, respectively, and the "How do rain gardens work?" video has had 9.6K views on YouTube. Attendees of the May 2023 webinar will receive a second survey during FY 2023/24 to gauge engagement with the relevant actions involved in rain gardens and the relevant rebate discussed during the webinar.
- Boosted website materials with educational materials from LA Department of Water & Power to help residents navigate the lawn conversion and rain garden process.
- Promoted Coastal Cleanup Day for 4,170 volunteers, raising awareness of the event and the consequences of littering behaviors resulting in 22,400 pounds of litter reported being picked up.
- Promoted efforts that San Mateo County Environmental Health Services (EHS) is involved in, which included: a campaign to reduce littering of cigarette butts, an update to the Reusable Bag Ordinance, HHW Collection Program, Used Motor Oil/Filter Recycling Program, Fishing Smart in SF Bay, Safe Medicine Disposal, School Share Table Program, Healthy Nail Salon, and ReFuel Your Fun.
- Promoted Caltrans "Tarp Your Load" educational material regarding uncovered loads in English and Spanish.
- Doubled the Instagram following with 164 posts, reaching 39,000 and enjoying 2,956 interactions in posts with stormwater pollution prevention messaging, giveaways, ad campaigns and relevant TikTok video shares.
- Maintained over 26.6K followers on Facebook, with a total post reach of 141,443 and 1,306 interactions with stormwater pollution prevention Facebook messaging, giveaways, ad campaigns and relevant TikTok video shares.
- Sent 10 e-newsletters to a list of 4,309 active, opt-in subscribers with topics covering local events, online webinars, and stormwater pollution prevention information and tips. Gained 244 new email subscribers and had an average open rate of 57.9% and an average 4.6% click rate.
- Recorded 93,529 visitors to the SMCWPPP website, which focuses on stormwater pollution prevention messaging and provided resources to residents, businesses, teachers, and city departments.

- Participated in 17 public outreach and citizen involvement events. In total, we had 5,428 engaged participants or attendees. These events, a mixture of virtual and in-person, provided educational content and solutions to residents to inform and excite and also allowed residents to have their questions answered.
- Provided outreach materials to municipalities.
- Participated in countywide stormwater-focused campus presentations where we supported and facilitated the on-campus installation of eight BlueBarrel rain barrels and conducted one lecture to two high-school classes about watersheds, rainwater capture, and changing behavior.
- Performed point-of-purchase outreach with Our Water Our World materials to 12 hardware stores in San Mateo County while engaging residents and employees with eco-friendly alternatives to pesticides. Two of the 12 were new hardware stores to the program as of Q3. Both were Outdoor Supply & Hardware locations, and each received a tabling event and employee training to kick off the partnership and their participation as a resource in the community.
- Promoted outreach messaging to residents and pest control operators regarding eco-friendly alternatives to pesticides via business email, in SMCWPPP's newsletter, on the website, and social media channels.

## C.8 Water Quality Monitoring

On behalf of its member agencies, SMCWPPP performs water quality monitoring activities in compliance with MRP Provision C.8. Per Provision C.8, a complete documentation of all water quality monitoring data collected from October 1, 2022 through September 30, 2023 (i.e., Water Year 2023 or WY 2023) will be presented in SMCWPPP's Urban Creeks Monitoring Report, which will be submitted to the Regional Water Board by March 31, 2024.

## C.9 Pesticides Toxicity Control

During FY 2022/23, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.9, with input and assistance provided by the Parks Maintenance and IPM Work Group. Accomplishments included the following:

- Held one meeting of the Parks Maintenance and IPM Work Group.
- Conducted SMCWPPP's Annual Landscape IPM Training Workshop in March 2023.
- Continued coordinating with San Mateo County Agriculture / Weights and Measures.
- Updated the pesticides tracking template with the current two years of pesticide product data from the Department of Pesticide Regulation (DPR) website.
- Participated in relevant BAMSC and CASQA activities.
- Continued to maintain retail partnerships with 10 top-tier stores that sell pesticides/fertilizers within San Mateo County, (e.g., Home Depot and Hassett Ace Hardware). Tasks included ordering materials, organizing outreach collateral, checking in with store managers, and providing outreach to residents. Two new hardware stores were added to the program as of Q3, both Outdoor Supply Hardware locations, and each received a tabling event and employee training to kick off the partnership and presence as a resource to the community. SMCWPPP now hase 12 top-tier stores involved in the program.

- Conducted two online webinars with an IPM Advocate in association with Our Water Our World to educate residents about less toxic alternatives to commercial pesticides and fertilizers. The webinars had 278 registrants, 107 attendees, and 69 feedback surveys taken (64% response rate).
- The IPM Advocate also conducted in-person outreach at popular hardware stores with five tabling events from Fall through Spring and store training with employees at three stores, which required multiple sessions at each store to allow for employees to still be available to customers.
- Sent an email or mailed a letter to active-licensed pest control operators in San Mateo County.

## C.10 Trash Load Reduction

Provision C.10 of the MRP addresses stormwater discharges of trash. Permittees are required to implement a number of trash management and assessment tasks and ultimately demonstrate that trash loads have been reduced from their stormwater conveyance systems. SMCWPPP helps San Mateo County Permittee staff to understand trash load reduction requirements and develops various tools needed to effectively plan, implement, and report on compliance with C.10 requirements, with input and assistance provided by the SMCWPPP Trash Subcommittee. FY 2022/23 accomplishments included the following:

- Coordinated and facilitated five meetings of SMCWPPP's Trash Subcommittee.
- Assisted San Mateo County Permittees in delineating trash full capture treatment areas and managing trash full capture information in GIS (currently > 10,800 acres are treated by full capture systems in San Mateo County).
- Continued to implement SMCWPPP's Trash Assessment Strategy, including conducting 601 On-land Visual Trash Assessments (OVTAs) at 227 sites in FY 2022/23 and maintained the Countywide Program's Trash Load Reduction dashboard to allow San Mateo County Permittees to have access to load reduction estimates.
- Continued to provide guidance to San Mateo County Permittees on MRP operation and maintenance requirements and standard operating procedures for trash full capture systems.
- Held the Litter Work Group's 5$^{th}$ Roundtable Event to provide the results of the Litter Characterization Study on September 1, 2022, and shared information on best practices of litter and single-use plastic food service ware.
- Completed a memorandum describing the recommended approach for implementing a Model Private Land Drainage Areas (PLDAs) Trash Inspection Program (TIP), guidance on developing a San Mateo County Permittee PLDA Trash Inspection Program Plan and inventory of potential PLDAs.
- Shared information on regional, state, and federal litter-related topics including foodware reuse and reduction programs, legislation, illegal dumping, and guidance documents.
- Coordinated with the SMCWPPP Public Information and Participation (PIP) Subcommittee on public outreach efforts targeting litter reduction.
- Finalized an expanded countywide analysis to identify additional/revised large full trash capture systems that address Caltrans and SMCWPPP member agency trash generating areas (including re-evaluation of catchments with small full trash capture systems already installed).

- Coordinated with SMCWPPP Permittee, Caltrans, and the Regional Water Board staff on the potential installation of a large trash full-capture system through a cooperative implementation agreement.
- Developed guidance and templates for SMCWPPP Permittees that did not achieve the 90% trash load reduction benchmark by June 30, 2023.
- Assisted San Mateo County Permittees in developing information necessary for reporting trash load reductions with their FY 2022/23 Annual Reports.

## C.11/12 Mercury/PCBs Controls

Provisions C.11 and C.12 of MRP 3.0 require Permittees to implement control programs to reduce the stormwater impacts of mercury and PCBs on San Francisco Bay (Bay). The Water Board has previously determined that stormwater discharges of these legacy pollutants have contributed to exceedances of water quality objectives and that associated beneficial uses of the Bay are not achieved. The Water Board has therefore adopted water quality attainment strategies called Total Maximum Daily Loads (TMDLs) that assign pollutant load reductions (through waste load allocations) to Bay Area municipal stormwater dischargers. Provisions C.11 and C.12 implement the urban runoff requirements of the mercury and PCBs TMDLs. The control programs and other actions that Provisions C.11 and C.12 require Permittees to implement during the permit term include the following:

- Assess Mercury and PCBs Load Reductions from Stormwater (C.11/12.a.).
- Program for Source Property Identification and Abatement (C.11/12.b.).
- Program for Control Measure Implementation in Old Industrial Areas (C.11/12.c.).
- Mercury Collection and Recycling Implemented throughout the Region (C.11.d.).
- Program for Controlling PCBs from Bridges and Overpasses (C.12.d.).
- Program for Controlling PCBs from Electrical Utilities (C.12.e.).
- Plan and Implement Green Stormwater Infrastructure to reduce Mercury and PCBs Loads (C.11.e./C.12.f.).
- Manage PCBs-Containing Materials and Wastes During Building Demolition Activities (C.12.g.).
- Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations (C.11.f./C.12.h.).
- Fate and Transport Study of Mercury and PCBs: Urban Runoff Impact on San Francisco Bay Margins (C.11.g./C.12.i.).
- Risk Reduction Program for Mercury and PCBs (C.11.h./C.12.j.).

During FY 2022/23, Provisions C.11 and C.12 requirements were addressed primarily at three levels: directly by San Mateo County Permittees, at the countywide level via SMCWPPP, and/or at the regional level via BAMSC. The following sections describe FY 2022/23 accomplishments for each of the above control programs.

### *C.11/12.a. Assess Mercury and PCBs Load Reductions from Stormwater*

Provisions C.11/12.a. require Permittees to implement an assessment methodology and data collection program to quantify PCBs loads reduced through implementation of all controls described in Provisions C.11/12. The Water Board Executive Officer (EO) has approved for use during MRP 3.0 the accounting methodologies described in *BASMAA Source Control Load Reduction Accounting for Reasonable Assurance Analysis*. This document describes the calculation methodologies, data requirements, and model parameters used to quantify mercury and PCBs loads reduced for each type of control measure identified in Provisions C.11/12. To comply with the detailed requirements in the permit for reporting on the mercury and PCBs control programs, San Mateo County Permittees have developed a *Mercury and PCBs Control Measures Report* that will be updated each year of the permit term. Version 1.0 of this report is included in Appendix 11. The report provides:

- Documentation to confirm that all control measures effectuated during the previous permit term for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction.
- Documentation to demonstrate the status of control measure implementation during FY 2022/23.

### *C.11/12.b. Program for Source Property Identification and Abatement*

Provisions C.11/12.b. require San Mateo County Permittees to investigate, using both conventional sampling and laboratory analysis techniques, at least 1,411 acres of land areas during the MRP 3.0 permit term that likely contribute mercury and/or PCBs to MS4s. These investigations are focusing on land areas where industrial activities occurred prior to 1980 and continue today (i.e., old industrial land use areas that have not been redeveloped). For properties or land areas found to be contributing substantial amounts of mercury or PCBs or where high mercury or PCBs concentrations are found (generally areas with sediment concentrations greater than 0.5 mg/kg), Permittees will take actions to abate the mercury and PCBs sources into their MS4s or refer the properties to the Water Board for follow-up measures. Provisions C.11/12.b. reporting requirements include reporting in each Annual Report on progress on the acreage of land areas investigated, including progress toward investigation of the 1,411 acres of old industrial land uses in San Mateo County.

During FY 2022/23, the Countywide Program (on behalf of San Mateo County Permittees) continued to investigate old industrial land areas in San Mateo County using similar methods to those implemented during previous permit terms. The source property investigation related efforts conducted by SMCWPPP on behalf of San Mateo County Permittees during FY 2022/23 included the following actions:

- Desktop Evaluation and Field Reconnaissance to Identify Stormwater Runoff Sample Stations. During FY 2022/23, the Countywide Program conducted desktop review of parcel, street view, and MS4 infrastructure in GIS and Google Earth to identify likely stormwater flow pathways within catchments of interest and to begin to identify potential sites within the MS4 where screening level stormwater runoff samples could be collected. This was followed by field reconnaissance of these areas to better understand flow pathways through catchments and from parcels into the MS4, confirm locations of storm drain structures where samples (MS4 sediment or stormwater) could be collected, and to develop sampling plans. During FY 2022/23, Countywide Program staff conducted field reconnaissance in a total of 12 catchments with old industrial land uses. These efforts identified potential sample locations for MS4 stormwater runoff sampling, including four stormwater runoff stations that were sampled during the 2022/23 wet weather season.

- Screening-level Stormwater Sampling. Four stormwater runoff samples were collected from catchment outlets (WMAs 1016, 290, 77, and 293) during the 2022/23 wet weather season to screen for elevated mercury or PCBs in these WMAs. This sampling screened approximately 96 acres of old industrial land use parcels. The chemical analysis results and other aspects of this stormwater sampling, along with recommendations for next steps in these catchments, will be reported in SMCWPPP's WY 2023 Urban Creeks Monitoring Report, which is due March 31, 2024.
- Source Investigation Sediment Sampling. During FY 2022/23, SMCWPPP collected sediment samples within two primarily old industrial catchments in South San Francisco (WMAs 314 and 315). Eight sediment samples (four in each WMA) were collected in September 2022 as part of continued attempts to identify sources of PCBs in these catchments. All eight samples had relatively low PCBs concentrations and efforts to-date have not identified any source area(s) in these catchments.
- Planning for Ongoing Source Investigations. During FY 2022/23, the Countywide Program began developing a workplan that will outline the source investigation steps and proposed timeline for achieving the MRP 3.0 requirement to investigate 1,411 old industrial land use acres in San Mateo County during the MRP 3.0 permit term. The plan will be completed early in FY 2023/24. Additional documentation demonstrating implementation of the Source Property Investigation and Abatement control program in San Mateo County is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11).

### *C.11/12.c. Program for Control Measure Implementation in Old Industrial Areas*

San Mateo County MRP Permittees are required, during the permit term, to implement or cause to be implemented control measures to address 445 acres of old industrial land use areas at 70% control measure efficiency, or through accounting for the mass reduction of 19 g/yr of mercury and 81 g/yr of PCBs. Reporting requirements include the following:

- Submit plans and schedules for implementing controls in old industrial areas by March 31, 2023.
- In each Annual Report, Permittees are required to submit an account of the controls implemented consistent with the plan submitted in March 2023, and any modifications thereto. Reporting shall include maps of the areas treated, the acreage of catchments addressed, and a description of all control measures, installed treatment devices and routing facilities for each treated catchment.

During FY 2022/23, Countywide Program staff worked with San Mateo County Permittee staff to develop a *Pollutant Control Measure Plan (CMP) to Reduce PCBs And Mercury in Urban Runoff from Old Industrial Areas in San Mateo County, California* to address requirements of Provisions C.11/12.c. The CMP described the new and enhanced controls that San Mateo County Permittees anticipate will be implemented in old industrial land use areas in San Mateo County during the permit term to achieve the mercury and PCBs load reductions required by MRP C.11/12.c. The following stormwater control measures are considered in the CMP:

- PCBs source property investigation and abatement, including:
    - High PCBs concentrations – referred to the Water Board for cleanup.
    - Moderate PCBs concentrations – San Mateo County Permittees work with property owners to have property owners implement pollutant controls.
- Green Stormwater Infrastructure (GI), including:

    - Parcel-based Low Impact Development (LID).
    - Green streets and regional stormwater capture projects.
- Full Trash Capture (FTC).
- Enhanced operation and maintenance.
- Stormwater diversion to Publicly Owned Treatment Works (POTWs).

The CMP includes descriptions of existing, new, and enhanced PCBs and mercury control measures identified to date for implementation by San Mateo County Permittees during MRP 3.0. Planning efforts, anticipated loads reduced, and implementation schedules for each type of control measure are summarized. Additional documentation demonstrating implementation of the CMP in San Mateo County during FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). During FY 2022/23 and as described in the CMP, SMCWPPP continued developing and implementing a PCBs/mercury source property investigation and abatement program that consists of two general categories:

1. Properties with high PCBs concentrations (≥ 1 ppm in sediments) – an existing program developed during previous permit terms that entails identifying properties with high PCBs concentrations through research and monitoring and referring to the Water Board for cleanup.
2. Properties with moderate PCBs concentrations (≥ 0.2 ppm but < 1 ppm) – a new program that entails identifying properties with moderate PCBs concentrations through research and monitoring. Permittees then work with property owners as needed to have property owners implement pollutant controls.

Both of the above programs are being enhanced by a new effort to obtain access for inspectors and other pertinent staff to potential high and moderate PCBs concentration properties to collect monitoring data and to plan any needed referral or abatement actions.

In addition, the CMP describes how San Mateo County Permittees have conducted a number of key planning and evaluation efforts to support future implementation of public GI projects in San Mateo County, including development of the San Mateo County Stormwater Resource Plan in 2017, Permittee-specific Green Stormwater Infrastructure Plans completed in 2019, and an additional countywide analysis completed in 2022 of regional stormwater capture project opportunities based on key performance indicators, including control of PCBs. Despite the comprehensive countywide evaluation and screening processes conducted in San Mateo County, which included potential for PCBs load reduction as a priority screening factor, the potential for PCBs load reduction via feasible public ROW GI opportunities identified to date, including green streets and regional stormwater capture projects, has been relatively small. During FY 2022/23, San Mateo County Permittees have continued to implement public GI projects across San Mateo County including via implementation of their GI plans. Permittees have also continued to track the installation of private and public GI facilities to ensure proper maintenance and operation and to assist with demonstrating pollutant load reductions.

San Mateo County Permittees have also continued to plan and install full trash capture systems (both large high-flow capacity systems and small inlet-based devices) in public ROW locations that drain old industrial land use and other land use areas. During development of the CMP, Countywide Program staff prioritized potential locations for future device installation in old industrial land use areas that also have

moderate, high, or very-high trash generation. These planning efforts will continue during the next fiscal year and will likely result in the increased installation of full trash capture devices in locations that treat old industrial land uses.

Additional reporting on GI and other stormwater treatment control projects that were completed through the end of FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). It should be noted that information available for the current reporting year is considered preliminary, as the data on all projects completed in FY 2022/23 may not be available until after Annual Reporting in September 2023. Permittees will continue to gather this information as it becomes available and subsequent Annual Reports will be updated as needed.

### *C.11.d. Mercury Collection and Recycling Implemented throughout the Region*

MRP Permittees are required to promote, facilitate, and/or participate in collection and recycling of mercury containing consumer products, devices, and equipment to increase effectiveness and public participation. During FY 2022/23, San Mateo County municipalities continued to participate in San Mateo County Health Department's Household Hazardous Waste (HHW) Program and Very Small Quantity Generator Business Collection (VSQG) Program. The HHW Program offers residents the opportunity to drop-off mercury-containing devices and equipment and other hazardous wastes at designated drop-off points or drop-off events free of charge. The VSQG Program provides an inexpensive hazardous waste disposal option to eligible businesses, non-profits, and other government agencies that generate less than 100 kilograms of waste per month. It operates by appointment only and charges a fee to cover the cost of transportation and disposal. Many San Mateo County municipal agencies promote the availability of the HHW Program and VSQG Program on their agency websites. The estimated mass of mercury collected in FY 2017/18 through FY 2022/23 via these programs is shown in a table in Section 11/12 of this Annual Report (Table 11/12-1). It should be noted that these mass estimates are not directly comparable to pollutant load reductions in stormwater runoff discharges.

### *C.12.d. Program for Controlling PCBs from Bridges and Overpasses*

MRP Permittees are required to implement a Caltrans specification to manage, as part of bridge and overpass roadway replacement or major repair, potential PCBs-containing materials in bridge roadway expansion joints. The Caltrans specification is currently under development through a proposed requirement in Caltrans stormwater permit. Six months after availability of the specification, Permittees must begin to implement or cause to be implemented the Caltrans specification during applicable replacement activities that are under the direction of the Permittee. During FY 2022/23, San Mateo County Permittees developed an inventory of bridges within each Permittee's jurisdiction that includes bridge ownership and the bridge roadway replacement schedule. These inventories are provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). San Mateo County Permittees have also tracked the development of the Caltrans specification through participation in BAMSC meetings and inquiries to Caltrans and Water Board staff. Future Annual Reports will document the use of the Caltrans specification (once it is finalized and available) during all instances of bridge roadway replacement or repair within San Mateo County Permittees' jurisdictions.

### *C.12.e. Program for Controlling PCBs from Electrical Utilities*

MRP Permittees are required to develop and implement a program to manage PCBs in oil-filled electrical equipment (OFEE) for municipally owned electrical utilities in the MRP program area and collaborate with

the Water Board to determine PCBs loadings in OFEE from non-municipally owned electrical utilities. San Mateo County does not have any municipally owned electrical utilities. However, during FY 2022/23, Countywide Program staff tracked the activities of the BAMSC Municipal Electrical Utility Workgroup that was formed to facilitate implementation of the requirements in this sub-provision and ensure coordination across the MRP area.

### *C.11.e./C.12.f. Plan and Implement Green Stormwater Infrastructure to Reduce Mercury and PCBs Loads*

MRP Permittees are required to implement GI projects consistent with the requirements in Provision C.3.j. during the permit term. As noted earlier, additional reporting on GI and other stormwater treatment control projects that were completed through the end of FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11).

### *C.12.g. Manage PCBs-Containing Materials and Wastes During Building Demolition Activities*

MRP Permittees are required to continue to implement the protocols developed during the previous permit term for managing PCB-containing materials and wastes during building demolition so that PCBs do not enter MS4s. To provide Permittees with guidance on addressing MRP 3.0 C.12.g. requirements, MRP stormwater management programs (through BAMSC) conducted a regional collaborative project during FY 2022/23 that included the following tasks:

- To oversee the project, formed a regional Management of PCBs during Demolition Work Group that included countywide stormwater program and Permittee staff.
- Updated the existing BASMAA Model Applicant Package to accommodate the new tracking and reporting requirements (*PCBs in Priority Building Materials: Model Screening Assessment Applicant Package, August 2018 (Revised November 2019 and May 2023)*).
- Developed a set of recommended construction inspection and control program enhancement options for use by Program/Permittee staff, building on the existing C.6 inspection program (*Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program, Technical Memorandum to Bay Area Municipal Stormwater Collaborative Steering Committee, May 1, 2023*).

Countywide Program Staff and San Mateo County Permittee representatives participated in the regional work group and all other aspects of the FY 2022/23 BAMSC regional project. Per FY 2022/23 reporting requirements in MRP 3.0 Provision C.12.g. and the guidance in the technical memorandum described above, Permittee FY 2022/23 Annual Reports will summarize the enhancement options that each municipality anticipates implementing as of July 1, 2023. In addition, Appendix 11 of this Annual Report includes a technical memorandum prepared by Countywide Program Staff that addresses other FY 2022/23 reporting requirements in Provision C.12.g. (*Program for Management of PCBs during Building Demolition – Data Summary through FY 2022/23 for San Mateo County MRP Permittees*).

### *C.11.f./C.12.h. Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations*

MRP 3.0 requires that Permittees evaluate the effectiveness of all mercury and PCBs control measures in the 2020 *Mercury and PCBs Control Measure Plan and Reasonable Assurance Analysis (RAA)* that was submitted during the previous permit term and update the RAA as necessary. Permittees are also required

to prepare detailed implementation plans for all control measures to be implemented and inform permit requirements during the subsequent permit term. Permittees must identify all specific control measures to be implemented, the intensity of control measure implementation, and the estimated load reduction benefit from control measures implemented during the subsequent permit term. Permittees must submit the updated plan and schedule no later than March 31, 2026. During FY 2022/23, San Mateo County Permittees continued to track all control measures implemented to reduce mercury and PCBs stormwater loads in the County. San Mateo Couty Permitttees will continue to track control measure implementation and gather other data needed to update the Control Measure Implementation Plan and RAA by March 31, 2026. All available data on control measures implemented to reduce mercury and PCBs during FY 2022/23 are provided in the *Mercury and PCBs Control Measure Report* (Appendix 11).

### *C.11.g./C.12.i. Fate and Transport Study of Mercury and PCBs: Urban Runoff Impact on San Francisco Bay Margins*

MRP 3.0 Provisions C.11.g. and C.12.i. require Permittees to conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of mercury and PCBs discharged from urban runoff to San Francisco Bay margin areas. The studies should focus on near-shore areas contaminated with mercury and PCBs from historical activity and the expected trajectory of recovery as sources from local watersheds are reduced. Provisions C.11.g. and C.12.i. require Permittees to submit in their September 2023 Annual Report a work plan describing the specific manner in which these information needs will be accomplished and describing the studies to be performed with a preliminary schedule. Permittees are also required to report on the status of the studies in their 2023 Annual Report. Permittees are addressing Provisions C.11.g. and C.12.i. through a multi-year project by the San Francisco Bay (Bay) Regional Monitoring Program (RMP) to identify, model, and investigate embayments along the Bay shoreline designated “Priority Margin Units” (PMUs). RMP documents available at links shown in Section 11/12 of this Annual Report provide information that addresses this MRP requirement by describing relevant RMP studies and their anticipated schedules. During FY 2022/23 and the previous several years, BAMSC representatives participated in the RMP PCBs Work Group’s ongoing oversight of this project. During FY 2023/24 and at a minimum the remainder of the MRP 3.0 permit term, BAMSC representatives will continue to participate in the RMP PCBs Work Group to help oversee the project.

As of the end of FY 2022/23, the PMU conceptual modeling and associated special studies are continuing to progress. Four PMUs for initial study, characterization, and tracking have been identified, and conceptual models have been completed for three of the four PMUs. In conjunction with the modeling, RMP Special Studies are characterizing concentrations and the spatial distribution of PCBs in sediment and food web biota in PMUs and establishing baseline data on PCBs concentration and loading and will help evaluate the response of the PMUs to load reduction efforts in their watersheds. A general description and multi-year budget and schedule for associated special studies and monitoring from 2019 through 2027 is provided in the PCBs section of the RMP Multi-Year Plan which is available at: sfei.org/sites/default/files/biblio_files/MYP2022_final.pdf. In addition, BAMSC representatives will continue to participate in the RMP PCBs Workgroup to help oversee this work and guide it towards developing information that will inform implementing controls for mercury and PCBs in stormwater runoff and reducing the Bay’s impairment by these pollutants.

### *C.11.h./C.12.j. Implement a Risk Reduction Program*

MRP Provisions C.11.h. and C.12.j. require Permittees to conduct an ongoing risk reduction program to address public health impacts of mercury and PCBs in San Francisco Bay fish. The fish risk reduction

program is required to include actions to reduce actual and potential health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence fishers and their families. Permittees are required to report on the status of the risk reduction program in each of their Annual Reports, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish. SMCWPPP is assisting San Mateo County municipalities comply with the risk reduction program requirements by coordinating with and reporting on the Fish Smart program conducted by San Mateo County Environmental Health Services (EHS). During FY 2022/23, EHS continued to conduct a variety of activities that target at-risk populations (e.g., subsistence fisherman) via the Fish Smart program. A table in Section 11/12 of this Annual Report (Table 11/12-2) summarizes accomplishments of the Fish Smart program from FY 2015/16 through FY 2022/23. Various quantitative measures of outreach and outcomes are underlined (e.g., numbers of brochures distributed, numbers of people interacted with at outreach events, numbers of people receiving electronic newsletters, and social media postings impressions and reach). The summary illustrates the Fish Smart program's success over the past several years in providing outreach about potential health impacts of consuming certain types of fish caught in San Francisco Bay. It is likely these efforts have led to reduced health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence fishers and their families.

## C.13 Copper Controls

Provision C.13 of the MRP addresses copper control measures identified in the San Francisco Bay Basin Water Quality Control Plan (commonly referred to as the Basin Plan) that the Regional Water Board has deemed necessary to support copper site-specific objectives in San Francisco Bay. SMCWPPP's accomplishments during FY 2022/23 include the following tasks to assist San Mateo County Permittees with implementation of Provision C.13:

- Continued to train municipal inspectors on the MRP requirements and BMPs for architectural copper installation, cleaning, and treating. The trainings utilized a SMCWPPP factsheet entitled "Requirements for Architectural Copper: Protect water quality during installation, cleaning, treating, and washing!" which targets suppliers and installers of copper materials and is available on the SMCWPPP website (flowstobay.com). Municipal construction site stormwater inspectors received the information from a presentation at the SMCWPPP Construction Site Stormwater Inspections Training on June 20, 2023.
- Provided information through the SMCWPPP website, via a fact sheet entitled *Best Management Practices for Pools, Hot Tubs, and Fountain Water Discharges,* and social media posts related to managing discharges from pools, spas and fountains that includes information on avoiding the use of copper-based algaecides.
- Provided information through the SMCWPPP website on ensuring through routine industrial facility inspections that proper BMPs are in place at industrial facilities likely to use copper or have sources of copper.

## C.15 Exempted and Conditionally Exempted Discharges

The objective of MRP Provision C.15, Exempted and Conditionally Exempted Discharges, is to exempt unpolluted non-stormwater discharges from the MRP's general non-stormwater discharge prohibition (Provision A.1) and to conditionally exempt non-stormwater discharges that are potential sources of pollutants. SMCWPPP helps municipal staff understand the MRP's requirements and makes various MRP compliance support materials available for their use. SMCWPPP's PIP component conducts selected

activities to assist San Mateo County Permittees comply with outreach requirements in Provision C.15.b.iv. (Individual Residential Car Washing Discharge), C.15.b.v. (Swimming Pool, Hot Tub, Spa and Fountain Water), and Provision C.15.b.vi. (Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering).

SMCWPPP performs a variety of activities to assist San Mateo County Permittees with implementation of Provision C.15. SMCWPPP's FY 2022/23 accomplishments included the following:

- Actively participated in March and June 2023 BAMS Collaborative Firefighting Discharges Work Group meetings as part of the efforts to identify and evaluate opportunities to reduce the impacts of discharges to the MS4 associate with emergency firefighting activity (Provision C.15.b.iii).
- Continued outreach efforts through social media posts to encourage residents to use car washes rather than washing their cars at home.
- Continued conducting social media outreach to mobile car wash businesses and residents to educate them on the hazards of dumping their used wash waters down storm drains and related BMPs.
- Using a BMP fact sheet for swimming pools, hot tubs, spas, and fountain water discharges, promoted these types of BMPs through social media posts.
- Continued conducting outreach to San Mateo County residents to support and promote eco-friendly alternatives to toxic pesticides and to help avoid pollutants in stormwater discharges. This promotion took place on social media, during two webinars we conducted, the SMCWPPP newsletter, and blog. Additional messaging was provided through SMCWPPP's point-of-purchase program, where OWOW materials were distributed that educate residents about eco-friendly pesticide alternatives, and via six tabling event at local hardware stores.
- Continued promoting planting of drought tolerant, native vegetation through our online media channels, including social media and the SMCWPPP newsletter and blog. Messaging focused on the environmental benefits of planting native plants, including their tolerance to drought.
- Continued to promote water-conservation tips via social media and wrote a blog that feature water conservation.

## C.17 Discharges Associated with Unsheltered Homeless Populations

The objective of MRP Provision C.17, Discharges Associated with Unsheltered Homeless Populations, is to identify and ensure the implementation of appropriate control measures to address non-stormwater discharges into MS4s associated with unsheltered homeless populations, including discharges from areas where unsheltered people congregate. SMCWPPP helps municipal staff understand the MRP's requirements, makes various MRP compliance support materials available for their use and participates, on behalf of its members, in regional groups (e.g., BAMSC Work Group). A SMCWPPP C.17 Work Group was formed in FY 2022/23 to facilitate and coordinate providing this assistance to the member agencies. SMCWPPP's FY 2022/23 accomplishments included the following:

- Worked with San Mateo County Human Services Agency (HAS) to obtain biennial point-in-time (PIT) count data and created maps for Permittees of the approximate location(s) of unsheltered homeless populations, storm drain inlets and surface water bodies within the Permittee's jurisdiction.

- Actively participated in BAMS Collaborative Work Group and provided in-kind contributions to the development of the Regional BMP Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations (Regional BMP Report).
- The Regional BMP Report was submitted in compliance with MRP Provision C.17.a.iii.(1) and is included in Appendix 17.

## C.20 Cost Reporting

Provision C.20, Cost Reporting, is a new provision in MRP 3.0 which requires Permittees to: 1) prepare and submit a fiscal analysis of the capital and operation and maintenance costs incurred to comply with MRP requirements; 2) jointly develop, by June 30, 2023, a cost reporting framework and methodology to perform the fiscal analysis; and 3) submit their fiscal analyses annually starting with the 2025 Annual Report. In FY 2022/23, the Countywide Program collaborated with other Phase I countywide programs through the Bay Area Municipal Stormwater Collaborative (BAMSC) to complete a Bay Area Cost Reporting Framework and Guidance Manual in compliance with Provision C.20. A BAMSC Regional Cost Reporting Work Group was formed to plan and direct the project and representatives of the Countywide Program, the County of San Mateo, and the City of San Bruno participated in the Regional Work Group. In addition, two presentations to the C/CAG Stormwater Committee were made to obtain input on the first and second draft cost reporting products.

The project resulted in the development of a Bay Area Cost Reporting Framework (Excel-based cost reporting tool with tabs for each MRP provision) and a Guidance Manual providing instructions and guidance for Permittees using the Framework to conduct their fiscal analyses and assumptions made for each provision and cost category. After two rounds of review by countywide programs and permittees and revisions/responses to comments, the final draft Framework and Guidance Manual were approved in June by the countywide programs and the BAMSC Steering Committee. The final Framework and Guidance Manual were submitted to the Water Board on June 26, 2023.

# SECTION 1
# INTRODUCTION

## BACKGROUND

This FY 2022/23 Annual Report was developed in compliance with the reissued National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit (referred to as the MRP)[1] for stormwater runoff discharges from San Mateo County and certain other San Francisco Bay Area communities. It summarizes stormwater management activities implemented by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP or Countywide Program) in FY 2022/23. SMCWPPP's activities benefit 22 municipal agencies in San Mateo County: 15 cities, five towns, the County of San Mateo, and the San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD, also referred to as OneShoreline). Each of these agencies also separately submits an individual Annual Report to the San Francisco Bay Regional Water Quality Control Board (Water Board) focusing on that agency's stormwater management activities during FY 2022/23.

The organizational structure of SMCWPPP is shown in Figure 1-1. SMCWPPP is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint Powers Authority (JPA) that addresses issues of regional importance to San Mateo County jurisdictions such as congestion management and water quality. The C/CAG Board of Directors is comprised of a local elected city council representative from each city and town in San Mateo County, a member of the County Board of Supervisors, and representatives from the transit district and transportation authority. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting San Mateo County municipalities with complying with the municipal stormwater NPDES permit, including its latest incarnation as the MRP. Stormwater management-related activities of C/CAG and its various related committees and workgroups are described below.

### C/CAG Board of Directors

Throughout FY 2022/23, the C/CAG Board of Directors received presentations, updates, and took actions on various stormwater-related issues, as summarized below (all C/CAG Board of Directors meeting agenda materials and minutes are available at www.ccag.ca.gov/board-of-directors):

- July 2022 - Approved Resolution 22-68 authorizing the C/CAG Chair to execute three-year Agreements with EOA, Inc. and Craftwater Engineering, Inc. for on-call technical support services to the Countywide Stormwater Program and further authorizing the C/CAG Executive Director to

[1]NPDES Permit No. CAS612008 (Order No. R2-2022-0018) dated May 11, 2022. The MRP has a five-year term: effective July 1, 2022 and expires June 30, 2027.

issue task orders under said contracts in a cumulative amount not to exceed $1,905,000 for FY 2022/23.

- September 2022 – Approved Resolution 22-73 authorizing the C/CAG Chair to execute Amendment No. 3 to the Agreement with EOA, Inc. extending the term to June 30, 2023 for no additional cost to enable completion of the existing Task Order EOA-14, which covers water quality monitoring activities and reporting requirements on behalf of the Countywide Stormwater Program for Water Year 2022; received a letter from C/CAG Chair to Honorable Gavin Newsom RE: Requesting Signature on Senate Bill 852 (Dodd) - Climate resilience districts: formation: funding mechanisms.
- October 2022 – Approved the appointment of Humza Javed, Public Works Director for the City of East Palo Alto, to serve on C/CAG's Stormwater Committee.
- November 2022 – Approved Resolution 22-99 authorizing the C/CAG Chair to execute Amendment No. 9 to the agreement with the Bay Area Water Supply and Conservation Agency for the Rain Barrel and Rain Garden Rebate Program, adding an amount not to exceed $20,000 for the Fiscal Year 2022-23 for a new total amount not to exceed $155,000.
- December 2022 – Received a presentation on the Countywide Stormwater Program; approved Resolution 22-101 authorizing the C/CAG Executive Director to execute a grant agreement with Global Philanthropies Partnership, specifying C/CAG as the project lead in developing the Climate Resilience Resources Guide: Part 2; received a presentation on the recruitment process for the Central Region seat on the OneShoreline (San Mateo County Flood and Sea Level Rise Resiliency District) Board of Directors.
- January 2023 – Received a presentation from the San Francisco Estuary Institute Regional Monitoring Program on the Pulse of the Bay "50 Years After the Clean Water Act"; approved Resolution 23-04 appointing Adam Rak, Council Member from the City of San Carlos, representing the Central region for the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline); received a letter from C/CAG Executive Director Sean Charpentier to EPA Region 9 RE: Support for City of San Bruno's application for San Bruno Regional Stormwater Capture Project on 1/280; received a letter from C/CAG Executive Director Sean Charpentier to Ocean Protection Council RE: Support for HighTide's Statewide Socioeconomic Impact Assessment to Empower Equitable Sea Level Rise Adaption Proposal.
- February 2023 – Accepted the 2022 attendance report for the C/CAG Board and Committee meetings; received a press release RE: FY22-23 Rain Barrel Rebate Campaign; Everything South City article RE: FY22-23 Rain Barrel Rebate Campaign; received a copy of the San Mateo Daily Journal article RE: FY22-23 Rain Barrel Rebate Campaign.
- March 2023 - Approved Resolution 23-17 authorizing the C/CAG Chair to execute Amendment No. 4 to the agreement with the City of East Palo Alto for the Addison Avenue Integrated Safe Routes to School and Green Streets Infrastructure Pilot Project, extending the term to June 30, 2024 for no additional cost; approved appointment of Roland Yip, Deputy Director of Public Works for the City of Pacifica, to the Stormwater Committee; approved Resolution 23-24, authorizing a waiver of the Request for Proposals process and further authorizing the C/CAG Executive Director to execute an agreement with Colantuano, Highsmith & Whatley, PC for outside legal support on evaluating stormwater funding options in San Mateo County in Fiscal Year 2022-23 for an amount not to exceed $18,000; received a comment Letter on State Water Resources Control Board Consideration of Own Motion Review of the Municipal Regional Stormwater Permit (MRP 3.0).

- April 2023 – Received letters to the Honorable Dianne Feinstein, U.S. Senate, Alex Padilla, U.S. Senate, and Kevin Mullin, U.S. Congress Re: Fiscal Year 2024 Appropriations – Congressionally Directed Spending Request, including for the San Bruno Regional Stormwater Capture project.
- May 2023 – Received a copy of the Agreement with Brown and Caldwell for technical support to develop the San Mateo County OneWatershed Framework and Community-Led Resilience Plan in Fiscal Year 2022-23 for an amount not to exceed $20,000.
- June 2023 – Received a presentation on C/CAG's Countywide Stormwater Green Infrastructure Program; approved Resolution 23-58 authorizing the C/CAG Chair to execute Amendment No. 10 to the Agreement with the Bay Area Water Supply and Conservation Agency for the Rain Barrel and Rain Garden Rebate Program, extending the term to June 30, 2024 to provide rebates during Fiscal Year 2023-24 for no additional cost and a total Agreement amount not to exceed $155,000; approved Resolution 23-59 authorizing the C/CAG Executive Director to execute Task Order EOA-16 with EOA for an amount not to exceed $2,398,150 for Fiscal Year 2023-24 for technical support services to the Countywide Stormwater Program; approved Resolution 23-60, authorizing the C/CAG Executive Director to execute Amendment No. 1 to the outside legal counsel retainer with Colantuono, Highsmith & Whatley PC, extending the term to June 30, 2025 and adding an additional amount not to exceed $10,000 for a new total contract amount not to exceed $28,000 to support the Countywide Stormwater Program with stormwater funding discussions.

## Program Director and Stormwater Program Specialist

C/CAG's Program Director oversees the overall Countywide Program, serving as staff to the C/CAG Board and liaison among San Mateo County municipalities, technical consultants, committees, the Bay Area Stormwater Management Agencies Association (BASMAA) and its successor organization (Bay Area Municipal Stormwater Collaborative), the California Stormwater Quality Association (CASQA), and Regional Water Board staff. The Program Director represents San Mateo County municipalities at regional and statewide meetings and manages technical consultants that support programmatic activities. C/CAG's Stormwater Program Specialist (Specialist) supports the Program Director in implementing the Countywide Program. In early September 2021, the prior Program Director left C/CAG and the Stormwater Program Specialist was acting in the capacity of the Program Director overseeing the Countywide Program since then, until June 2023 when the Program Specialist was promoted to the Program Director role.

### *Participation in Relevant Regional and Statewide Organizations and Activities*

In addition to providing regular staff support, agenda reports, and presentations to the C/CAG Board and the Stormwater Committee, Countywide Program staff participated in the following activities during the FY 2022/23 reporting year:

- BASMAA/BAMSC: BASMAA formally dissolved as a non-profit organization at the end of FY 2020/21 and was succeeded by an informal collaborative called the Bay Area Municipal Stormwater Collaborative (BAMSC). The current Program Director started serving as Co-Chair of the BAMSC Steering Committee in January 2022. The Program Director participated in Steering Committee meetings and subcommittee meetings and workgroups focused on MRP 3.0 implementation and development of the proposed MRP 3.0 permit amendment. Over the course of the fiscal year the Program Director continued serving as Vice Chair of the Monitoring and Pollutants of Concern Committee until December 2022 and also represented stormwater programs on the San Francisco Bay Regional Monitoring Program (RMP) Emerging Contaminant Work Group (ECWG) and two-day annual meeting in April.

- CASQA: The Program Director attended and presented at the annual CASQA conference and participated in CASQA's Legislative Committee and presented on the Countywide Program's multi-scale green stormwater infrastructure strategy at the July 12, 2022 Quarterly Seminar. In December 2022, the Program Director was appointed by the CASQA Board of Directors to serve as a Co-Chair of the Policy and Permitting Subcommittee.
- Regional Sustainable Streets Working Group – the Program Director participated on behalf of SMCWPPP at two meetings of the Regional Sustainable Streets Working Group, coordinated by the Association of Bay Area Governments and Save the Bay with participation from regional entities focused on climate resilience and green streets implementation. The Program Director presented at the December 2, 2022 meeting on MRP 3.0 requirements related to road projects.
- Green Infrastructure Leadership Exchange: The Program Director continued participating in the Green Infrastructure Leadership Exchange. The Program Director also completed in collaboration with four member agency partners a Collaborative Grant project administered by the GI Leadership Exchange to develop a Climate Resilience Resources Guide (CRRG) to advance integration of climate adaptation in municipal GI programs at a national/North American Level. The project was completed in August 2022. The Project Manager also submitted a successful grant application with support from the same partner agencies under the Regional Collaborative Grant program for $70,000 to develop Part 2 of the CRRG focused on developing decision support tools and resources to ensure greater success of implementing integrated GSI and climate resilience programs. The project was initiated in January 2023 and will be completed by December 2023.
- FY 2022/23 Presentations/Actions/Activities by the Program Director / Specialist:
    - Presented at Green California Schools and Community Colleges Summit, October 18, 2022: "Rainwater Resilient Schools in San Mateo County", featuring collaborative grant-funded and other green stormwater partnership projects involving schools and school districts in San Mateo County.
    - Presented at the 2022 CASQA Conference, October 24, 2022, on "Activating Adaptation with the Climate Resilience Resources Guide, Part 1," a Regional Collaborative Grant project of the Green Infrastructure Leadership Exchange focusing on integrating climate adaptation with green stormwater management.
    - Presented at the 2022 CASQA Conference, October 25, 2022, on "The Currency Exchange – Translating Metrics for Stormwater and Green Infrastructure Planning and Reporting," with a focus on the development of methods to calculate green stormwater infrastructure project benefits associated with large-scale stormwater capture projects in San Mateo County.
    - Participated in a panel at the 2022 CASQA Conference, October 26, 2022, on the topic of "Rain Barrels, Rebates & Reciprocity: Encouraging Community Adoption of Stormwater Capture by Lowering the Cost of Entry and Increasing Accessibility," featuring a discussion of rain barrel and other green stormwater infrastructure rebate programs in California. Panelists also included Pam Boyle Rodriguez (City of Palo Alto) and Suzi Senna (SGA).
    - Provided testimony at the December 14, 2022 Water Board hearing regarding the Caltrans NPDES Permit Annual Report and Cease and Desist Order for trash discharges update, focusing on the need for ongoing collaboration with municipalities on remaining partnership opportunities.

- Participated on a panel organized by the San Mateo County Office of Education's Climate Ready and Sustainable Schools Initiative on January 10, 2023.
- Submitted a comment letter on behalf of SMCWPPP to the State Water Resources Control Board, dated February 21, 2023, regarding the State Board's consideration of its Own Motion Review authority to review the San Francisco Bay Regional Municipal Stormwater Permit (MRP 3.0).
- Presented on a panel at the Bay Area Council's California Resilience Challenge Grant 2020 grantee showcase on March 30, 2023, featuring the Resilient San Carlos Schoolyards Project, which developed campus-wide resilient schoolyard campus plans and a final report documenting effective school engagement and integration of greening with climate resilient school improvements.
- Submitted a successful grant application for the Integrated Climate Adaptation and Resilience Program Adaptation Planning Grant Program Adaptation Planning Grant Program to develop the San Mateo County OneWatershed Climate Resilience Framework and Community-led Plan for a grant amount of $649,648. The OneWatershed Climate Resilience Framework and Community-led Plan will build on regional partnerships focused on climate resilience and multi-benefit green stormwater infrastructure, with a focus on addressing the shared risk of climate change impacts on water infrastructure, and co-creation in planning with vulnerable communities in a pilot watershed within the San Bruno Creek Watershed.
- Submitted a comment letter on behalf of the SMCWPPP to the State Water Resources Control Board, dated April 3, 2023, regarding the proposed 2024 303(d) List and California Integrated Report.
- Received an award notification dated June 24, 2023 from the Region 9 US Environmental Protection Agency San Francisco Bay Water Quality Improvement Fund FY2024 Grant Program to fund the BAMSC Regional Trash Monitoring Project, for a grant amount not to exceed $3,366,000 with $3,366,000 in in-kind matching funds contributed by the partnering countywide stormwater programs (SMCWPPP, SCVURPPP, ACCWP, CCCWP, SSA).
- Continued working with C/CAG's state legislative advocate to make recommendations for C/CAG's Board to consider position letters and bill amendments on legislation that supports C/CAG's member agencies and the Countywide Program with meaningful and cost-effective stormwater management; C/CAG approved the following during the 2023 legislative cycle - AB 756 (Papan) Stormwater Runoff/Caltrans Pilot Project for Roadway Contaminants - SUPPORT; AB 1817 (Ting) PFAS Ban in Textiles – SUPPORT.
- Continued discussions with state and federal legislators and staff on opportunities to fund green stormwater infrastructure projects through climate resilience appropriations and earmark requests. Program Director submitted member-directed spending request to the US Congress to provide substantial funding for up to five sustainable streets projects in disadvantaged communities, which the House Committee on Transportation, Housing and Urban Development supported with an $850K proposal.
- Played an ongoing lead role in discussions with Water Board staff and regional program staff and permittees on the development of an Alternative Treatment Options proposal

for non-LID stormwater control measures.

- Submitted a comment letter on the Administrative Draft of the MRP 3.0 Permit Amendment on behalf of SMCWPPP on May 1, 2023.

### *Grant-funded Project Activities*

The Program Director and Specialist continued advancing several grant-funded projects in support of SMCWPPP's countywide planning and implementation efforts. In December 2022, C/CAG and its project partners (San Carlos School District and school sites) completed the Resilient San Carlos Schoolyards Project funded via a $97,000 grant from the California Resilience Challenge in 2020. The project included the co-creation with school district and site partners guiding goals and principles for resilient schoolyards; site evaluation and selection guidance; school community engagement events and resources, including student design workshops and curriculum integration; and development of a final comprehensive Resilient San Carlos Schoolyards Concept Plan Report, including concept plans, engagement processes, and next steps for the three selected sites in the San Carlos School. The Program Director presented the final report to the San Carlos School Board at their February 16, 2023 Board meeting. The project has a dedicated webpage on the SMCWPPPP website - https://www.flowstobay.org/preventing-stormwater-pollution/in-my-community/schoolyard-greening/resilient-san-carlos-schoolyards/.

The Program Director also worked with the participating BAMS Collaborative countywide stormwater programs partnering on the Watching Our Watersheds Regional Trash Monitoring Program to submit a revised Work Plan to Region 9 US EPA to support the US EPA's funding recommendation to award the project $3,366,000 under the Fiscal Year 2024 San Francisco Bay Water Quality Improvement Fund program, with $3,366,000 in in-kind matching contributions from the countywide program partners. The Program Director submitted the revised Work Plan in March and received a notice of award from the US EPA on June 28, 2023. The grant agreement between has since then been executed and the project will begin in fall 2023.

Lastly, the Program Director worked with a group of regional partners in San Mateo County to submit a successful grant application under the Integrated Climate Adaptation and Resilience Program administered by the Governor's Office of Planning and Research for an Adaptation Planning Grant Program grant of $649,648 to develop the San Mateo County OneWatershed Climate Resilience Framework and Community-Led Plan. This project will convene regional stakeholders and partners within San Mateo County to develop a community-based planning framework supportive of identifying and prioritizing new and planned green stormwater infrastructure projects for climate resilience, community adaptive capacity and environmental and water quality benefits. The project will develop a framework in collaboration with project partners and a community-led OneWatershed climate resilience plan in the San Bruno Creek Watershed as a pilot study. The project will support additional policy and project concept development as well as the prioritization framework and methodology for addressing shared risk to climate change impacts for water infrastructure in the county. C/CAG received the notice of award on June 8, 2023 and the project is anticipated to begin in fall 2023.

## Stormwater Committee

C/CAG's stormwater management-related decisions are generally made in consultation with the NPDES Stormwater Committee. At its November 2012 meeting, the C/CAG Board authorized reconvening this committee to include director-level appointees with decision-making authority for implementing stormwater management programs within San Mateo County municipalities in compliance with

requirements in the MRP. The Committee meets on an approximate bimonthly basis (depending on need) on the third Thursday of the month, formerly at the San Mateo County Transit District Office in San Carlos. Consistent with other C/CAG committees and the Board of Directors meetings, the Stormwater Committee has been meeting remotely pursuant to state and local public safety orders related to Covid-19 and the stipulations of AB 361. Public notices for Committee meetings are posted in accordance with Brown Act requirements in C/CAG's designated kiosk located at 555 County Center, Redwood City.

The Stormwater Committee met 6 times during FY 2022/23 (August, October, November, January, March, and April) to assist with planning and organizing SMCWPPP's stormwater management activities including MRP compliance actions. Appendix 1 includes a table summarizing attendance at the Stormwater Committee meetings held during FY 2022/23. Details on Stormwater Committee meeting agendas, minutes, and presentations can be found on the Committee's website.

The Stormwater Committee currently has three Ad-hoc Workgroups, including the longstanding MRP 3.0 Implementation Workgroup, the reinstated Funding and Financing Ad-hoc Workgroup (reinstated March 2021), and the newly created Workgroup Advancing Regional Projects (WARP), which was established at the February 2022 Stormwater Committee with the responsibilities to advance the development of a Regional Collaborative Program to support regional-scale stormwater management via multi-jurisdictional projects and programmatic implementation of distributed green infrastructure.

The below sections describe the Stormwater Committee's mission statement, membership criteria, and roles and responsibilities.

### *Mission Statement*

The Stormwater Committee provides policy and technical advice and recommendations to the C/CAG Board of Directors and direction to technical committees (described below) on all matters relating to stormwater management and compliance with associated regulatory mandates from the State and Regional Water Boards.

### *Membership*

The Stormwater Committee is comprised of one director-level representative from each San Mateo County municipality, recommended by City/Town/County Managers, with decision-making authority and primary responsibility for implementing stormwater management programs within their jurisdictions, and one non-voting executive management representative from the Regional Water Board staff, all appointed by the C/CAG Board. There are no term limits and members may be removed and replaced as needed.

### *Roles & Responsibilities*

The role of the Stormwater Committee is to provide policy and technical advice, recommendations to the C/CAG Board, and direction to stormwater technical committees on matters related to stormwater management and associated regulatory requirements. While the Stormwater Committee may consider any item reasonably related to stormwater and associated regulatory requirements, the following issues are the primary focus of the Stormwater Committee:

- Review and provide recommendations for SMCWPPP's annual budget as part of the overall C/CAG budget approval process;

- Authorize submittal of countywide and regional compliance documents on behalf of their respective agencies for activities performed via C/CAG through SMCWPPP or the BAMSC Steering Committee;
- Convey relevant program and compliance information and direction to appropriate staff and departments within their agencies;
- Form ad-hoc work groups to address stormwater-related issues on an as-needed basis (e.g., permit reissuance);
- Discuss and provide policy recommendations on stormwater issues, such as:
    - Funding stormwater compliance activities at the local and countywide level;
    - Unfunded mandate test claims;
    - Permit appeals and litigation;
    - Reissuance of the MRP;
    - Permit requirements, especially those related to new and redevelopment, GI, monitoring, and pollutants of concern, including trash, mercury, PCBs, pesticides and emerging contaminants;
    - Training and technical support needs for municipal staffs; and
    - Legislation and statewide policy issues impacting San Mateo County municipalities.

## Technical Advisory Committee and Subcommittees

The Stormwater Committee provides direction to and receives feedback and recommendations from the Technical Advisory Committee (TAC). During FY 2012/13, the TAC transferred its former policy-related functions to the Stormwater Committee and transitioned to a quarterly workshop format. The new format allowed more detailed discussion of MRP compliance topics, including check-ins on what jurisdictions should be focused on in the coming quarter and what should have been accomplished and documented in the preceding quarter. The TAC did not meet in FY 2022/23 but received regular emails from the Program Director and staff with updates on key permit compliance topics and occasional requests for feedback.

SMCWPPP has established various subcommittees and work groups to the TAC to help implement the different aspects of MRP, as shown on Figure 1-1. The subcommittees and work groups met regularly during FY 2022/23 and are discussed further in the remaining sections of this report.

## Flood and Sea Level Rise Resiliency District (OneShoreline)

AB 825 (Mullin) became law on January 1, 2020, officially revamping the San Mateo County Flood Control District to become the San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD also known as “OneShoreline”). The FSLRRD is intended to address sea level rise, coastal erosion, flooding, and regional stormwater management. As such, assuming the FSLRRD can secure long-term, sustainable funding during the startup period, it will likely play a key role in helping to design, build, and maintain regional stormwater facilities that will help achieve water quality goals in the MRP. The three-year funding commitment by the County and cities/towns ($4.5 million over three years) is an important step forward for achieving integrated water management in San Mateo County.

The C/CAG Board appointed the five city/town elected officials to the governing board. The County Board of Supervisors appointed the two supervisors. At its December 2021 meeting, the C/CAG Board approved three appointments to the FSLRRD Board of Directors to fill the Coast, Central and At-large C/CAG-designated seats, which the authorizing legislation specified as the first round of staggered terms. The seven governing board members currently representing the different geographic areas in the county as of January 2023 are:

- North: Donna Colson, City of Burlingame
- Central: Adam Rak, City of San Carlos (previously Diane Papan, City of San Mateo)
- South: Lisa Gauthier, City of East Palo Alto
- Coast: Debra Ruddock, City of Half Moon Bay
- At-Large: Marie Chuang, Town of Hillsborough
- Coast Supervisor: Ray Mueller (previously Don Horsley)
- At-Large Supervisor: Dave Pine (Chair)

Len Materman (former San Francisquito Creek Joint Powers Authority Executive Director) was brought on as Chief Executive Officer in May 2020. Information on the FSLRRD can be found at its website, www.oneshoreline.org. The FSLRRD inherits the MRP permittee responsibilities of the prior Flood Control District, with those duties currently contracted to the County Department of Public Works for implementation and reporting. The FSLRRD was included as a replacement permittee under the MRP with its reissuance in 2022.

## ORGANIZATION OF REPORT

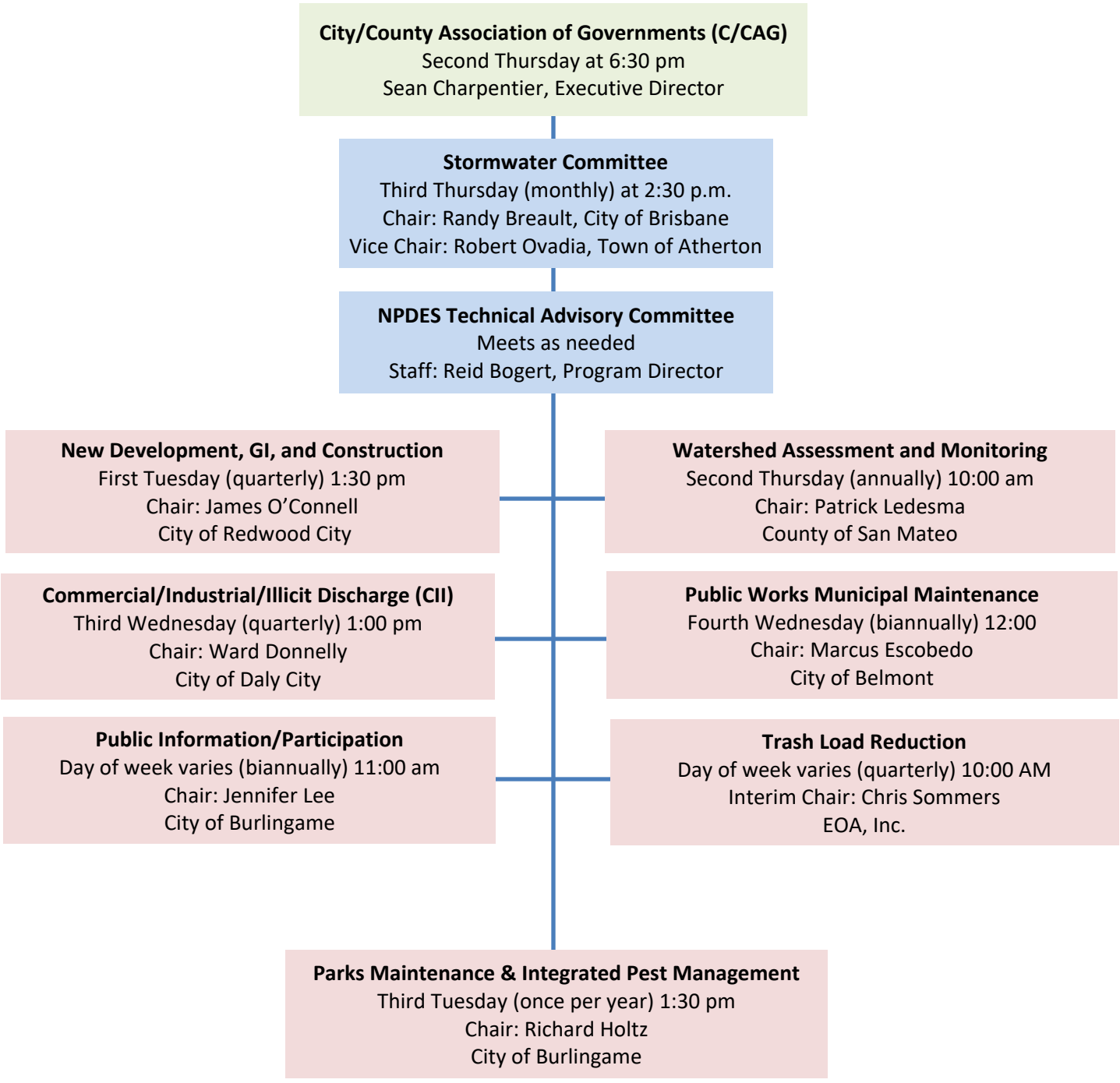
The remainder of this FY 2022/23 Annual Report is structured around the following major provisions of the reissued MRP:

- C.2. Municipal Operations
- C.3. New Development and Redevelopment
- C.4. Industrial and Commercial Site Controls
- C.5. Illicit Discharge Detection and Elimination
- C.6. Construction Site Control
- C.7. Public Information and Outreach
- C.8. Water Quality Monitoring
- C.9. Pesticides Toxicity Control
- C.10. Trash Load Reduction
- C.11. Mercury Controls
- C.12. PCBs Controls
- C.13. Copper Controls

- C.15. Exempted and Conditionally Exempted Discharges
- C.17. Discharges Associated with Unsheltered Homeless Populations
- C.20. Cost Reporting

The following sections of this report summarize how SMCWPPP assisted San Mateo County Permittees with implementing the MRP in FY 2022/23 for each of the above provisions. Each section includes three sub-sections: 1) Introduction, 2) Implementation of MRP Actions, and 3) Future Actions.

**Figure 1-1. Organizational Structure and FY 2022/23 Meeting Schedule.**



# SECTION 2
# C.2 MUNICIPAL OPERATIONS

## INTRODUCTION

The objective of MRP Provision C.2 is "to ensure development and implementation of appropriate Best Management Practices (BMPs) by all Permittees to control and reduce discharges of non-stormwater and stormwater runoff pollutants to storm drains and watercourses during operation, inspection, repair, and maintenance activities of municipal facilities and infrastructure."

Most MRP-required Provision C.2 Municipal Operations tasks are implemented individually by each Permittee in San Mateo County. The Countywide Program helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance and the implementation of Municipal Operations tasks are coordinated through the SMCWPPP Public Works Municipal Maintenance Subcommittee.

## IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP performs a number of tasks to assist San Mateo County Permittees with implementation of Provision C.2, with input and assistance provided by the Public Works Municipal Maintenance Subcommittee. FY 2022/23 accomplishments included the following:

- Held two Public Works Municipal Maintenance Subcommittee meetings;
- Updated SMCWPPP Corporation Yard Stormwater Pollution Prevention Plan (SWPPP) template;
- Updated SMCWPPP Corp Yard annual inspection form template;
- Drafted a proposed workplan memo to meet MRP C.2.h. training requirements; and
- Updated a pesticide tracking template, in coordination with SMCWPPP's Parks Maintenance and IPM Work Group, to assist San Mateo County Permittees to comply with pesticide tracking and reporting requirements in MRP Provision C.9.a.

More information on each of these accomplishments is provided below.

### Public Works Municipal Maintenance Subcommittee

The Public Works Municipal Maintenance Subcommittee provides the opportunity for sharing information about municipal operations related MRP requirements and methods for achieving compliance. The meetings provided a forum to share experiences with implementing MRP provisions and applying associated BMPs related to activities such as:

- Street and road repair maintenance activities;
- Sidewalk/plaza maintenance and pavement washing;

- Graffiti removal;
- Corporation yard activities; and
- Stormwater pump station monitoring and inspections.

Marcus Escobedo from the City of Belmont continued to chair the Subcommittee during FY 2022/23. The Subcommittee generally meets twice during each fiscal year. The Subcommittee met in October 2022 and April 2023, with good participation by municipal staff, as shown by the attendance list (Appendix 2).

Countywide Program staff also facilitated discussions at meetings about a variety of pertinent topics, including mosquito and vector control coordination, BMP documentation and new MRP 3.0 requirements in Provision C.2 Municipal Operations.

## Program Materials

Since the first version of the MRP was adopted in 2009, SMCWPPP staff has developed a variety of materials to assist municipal maintenance agency staff with implementing Provision C.2. These materials are all available on the SMCWPPP website (flowstobay.org) and continue to be useful tools that assist agency staff to achieve permit compliance. The materials are described below.

In FY 2009/10, SMCWPPP developed a Stormwater Pollution Prevention Plan (SWPPP) template for use by San Mateo County Permittees in tailoring, updating, or creating SWPPPs for their corporation yards, satellite facilities, and maintenance facilities. In FY 2010/11, SMCWPPP prepared the "Municipal Corporation Yard Inspection Form." This form provides detailed checklists for the types of BMPs recommended in the corporation yard SWPPP template. In FY 2022/23, the SWPPP template and corporation yard inspection form template were updated to address MRP 3.0 requirements.

During FY 2010/11, SMCWPPP developed the "Stormwater Pump Station Dry Season DO Monitoring and Inspection Form" to assist San Mateo County Permittees in developing a systematic and efficient way to collect dissolved oxygen (DO) monitoring and inspection information. The following 13 agencies in San Mateo County operate stormwater pump stations: Cities of Belmont, Burlingame, East Palo Alto, Foster City, Menlo Park, Millbrae, Pacifica, Redwood City, San Carlos, San Mateo, and South San Francisco, and the County of San Mateo and San Mateo County FSLRRD.

In FY 2015/16, SMCWPPP developed a trash full capture device inspection and cleaning field form template, a Small Full Capture Device O&M Standard Operating Procedure (SOP), a Hydrodynamic Separator O&M SOP, and a Trash Full-Capture Device O&M Verification Program Template and Guidance document. These materials were developed in coordination with the Trash Subcommittee to help municipal staff comply with new requirements in MRP Provision C.10.b.i., Full Trash Capture Systems. These requirements include certifying that trash full capture systems are operated and maintained to meet full trash capture system requirements and keeping associated maintenance records.

In FY 2016/17, SMCWPPP developed a trash full capture device inspection and cleaning data tracking Microsoft Excel template to assist with tracking and reporting requirements in MRP Provision C.10.b.i.
Also in FY 2016/17, SMCWPPP developed a template in Excel to assist with pesticide tracking and reporting requirements in MRP Provision C.9.a. The pesticides tracking template utilizes a lookup list of pesticides and active ingredients compiled from data tables available on the Department of Pesticide Regulation

(DPR) website. In coordination with the Parks Maintenance and IPM Work Group, the template was updated during FY 2022/23 with the current two years of pesticide product data from the DPR website.

In FY 2022/23 Countywide Program staff drafted a Proposed Workplan to meet MRP C.2.h. training requirements. The memo included links to available training materials such as videos, CASQA BMP fact sheets, Caltrans BMP fact sheets, BASMAA materials and other reference materials that could be used for in-house training.

# FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees understand and comply with requirements in Provision C.2 include the following:

- Continue holding two Public Works Municipal Maintenance Subcommittee meetings;
- Update tracking templates and guidance materials, as needed;
- Assist with developing maintenance training materials and/or workshops; and
- Coordinate with SMCWPPP's New Development Subcommittee to provide guidance on GI maintenance and related training materials.

# SECTION 3
# C.3 NEW DEVELOPMENT AND REDEVELOPMENT

## INTRODUCTION

This section describes SMCWPPP's activities to assist municipal agencies in San Mateo County to comply with MRP Provision C.3, New Development and Redevelopment. SMCWPPP continued to provide compliance assistance with MRP Provision C.3 (and Provision C.6 Construction Site Controls – see Section 6) through the New Development Subcommittee (NDS). SMCWPPP also obtained input and direction from agency representatives through the NDS. During FY 2022/23, James O'Connell with the City of Redwood City continued to chair the NDS. The NDS met four times in FY 2022/23 with good participation by municipal staff, as shown by the attendance list (Appendix 3) The NDS formed a Work Plan Work Group (Work Group) to assist with the implementation of FY 2022-23 NDS Work Plan tasks.

This section also describes C/CAG's efforts to: help advance the most cost-effective and maximum benefit stormwater projects in San Mateo County, in support of the Green Infrastructure (GI) Plan requirements in the MRP; promote GI through the County, region, and State; and participate in regional collaborative efforts.

## IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP's accomplishments during FY 2022/23 include the following tasks to assist San Mateo County municipalities with implementation of Provision C.3:

- Held four meetings of the NDS to assist municipal agencies in San Mateo County to comply with MRP Provisions C.3 (New Development and Redevelopment) and C.6 (Construction Controls). Each meeting was well attended (see Appendix 3 for the FY 2022/23 NDS attendance record).
- SMCWPPP's facilitation of the NDS meetings and related review of work outside of the meetings allowed SMCWPPP to help advance key elements of San Mateo County Permittee GI Plans, including updates to municipal ordinances, review of proposed project opportunities and concepts, and implementation of C.3 requirements.
- Completed significant updates to the C.3 Regulated Projects Guide and the C.3-C.6 Development Review Checklist to incorporate MRP 3.0 requirements and changes in regulated project thresholds.
- Participated in the BAMSC Development Subcommittee (DS) and assisted with developing the agendas and arranging guest speakers for the DS meetings.

- Continued promoting the Green Infrastructure Design Guide (GI Design Guide) for use by San Mateo County Permittees and external partners. The GI Design Guide includes broad guidance on the design and implementation of various green stormwater infrastructure treatment measures and typical details and standard specifications for numerous GI design options and settings.
- Conducted a variety of GI outreach activities, including promoting rain barrel and rain garden rebate programs and bulk order rain barrel distribution program, publishing blog posts and newsletter articles, creating a series of educational videos on green stormwater infrastructure in different settings, and posting on social media. SMCWPPP outreach staff also attended classroom presentations and participated in efforts to engage schools via programs led by the San Mateo County Office of Education, including acting as a community partner in last year's Sustainable Watersheds teacher fellowship program and the new Sustainable and Climate Ready Schools Initiative Partnership in the water focus area.
- Supported local and regional implementation of GI through three presentations featuring green stormwater infrastructure planning and climate adaptation presented by SMCWPPP staff at the 2022 California Stormwater Quality Association (CASQA) Annual Conference in October 2022, and presentations and engagement with numerous other organizations and partners across the county and region. C/CAG's Program Director also continued proactively seeking additional sources of funding to support green stormwater infrastructure implementation and additional planning efforts for a variety of GI project types and scales within the county, through State and federal funding.

Additional details about the above accomplishments are provided below.

## C.3 Implementation and Outreach Products

With the assistance of the NDS and the Work Group, SMCWPPP developed, updated and/or assisted with the following technical and outreach products:

- MRP 3.0 Fact Sheets:
  - Information for Developers, Builders, and Project Applicants
  - Construction, Reconstruction, and Maintenance of Roads and Other Pavement
  - Information for Single-Family Home Project Applicants
- MRP 3.0 C.3-C.6 Development Review Checklist (in Excel and PDF-Form versions)
- MRP 3.0 Small Projects Checklist
- Memorandum on Provision C.3.a with Model Conditions of Approval and CEQA Guidance

## New Development (C.3) Workshop

With the assistance of the NDS and the Work Group, SMCWPPP conducted the FY 2022/23 New Development Workshop on January 31, 2023. The workshop was held via Zoom and was attended by 85 municipal staff and consultants. The workshop was divided into a morning session focusing on C.3 requirements for parcel-based projects and an afternoon session on Capital Improvement Program (CIP) projects. Topics included:

- Overview of current and new C.3 requirements for parcel-based projects;

- Overview of the development review process related to stormwater requirements, with example projects from Redwood City and Burlingame;
- Presentations on current and new Green Infrastructure (GI) requirements, focusing on CIP projects;
- Review of methods to evaluate projects for GI opportunities;
- New requirements for transportation projects; and
- Case studies of projects from the Cities of San Mateo and Redwood City and C/CAG supported regional projects.

The agenda, attendance record, and evaluation summary are included in Appendix 3 and the presentations are posted on the SMCWPPP website.

## Operation and Maintenance of Stormwater Treatment Systems

SMCWPPP continued to collect data from Permittees on newly installed treatment and hydromodification systems for submittal to the San Mateo County Mosquito and Vector Control District and Regional Water Board per Provision C.3.h.iv.(2). The data were submitted to the Mosquito and Vector Control District on September 15, 2023. A copy of the communication and the list of treatment and hydromodification systems installed in FY 2022/23 is included in Appendix 3.

## Green Infrastructure Outreach

During FY 2022/23, SMCWPPP continued performing a variety of GI-related outreach, including the following efforts:

- Promoted the Green Infrastructure, Green Infrastructure Story Map, Green Infrastructure Design Guide, and Rain Garden pages on the redesigned SMCWPPP website (flowstobay.org).
- Partnered with BAWSCA to promote the countywide rain barrel program. The supporting Rain Barrel outreach campaign received 348 rebate applications from residents (a 7% increase from FY 21/22) for a total of 574 rain barrel installations (5% increase from FY 21/22). Over 3,274 rain barrels have been installed to-date in San Mateo County under the rebate program since its inception in 2014.
- Continued a bulk rain barrel distribution program in partnership with RainWater Solutions to provide county residents an opportunity to obtain high-quality, lower-cost rain barrels. The program distributed 825 barrels to 474 San Mateo County residents in 17 out of the County's 20 incorporated jurisdictions, as well as resident in unincorporated areas.
- Partnered with BAWSCA to promote rain garden rebate as part of the Lawn Be Gone! Rebate. Launched a campaign to promote the rebate, which included two free on-line webinars. Results of the campaigns include three rain garden rebates, one rain garden webinar with 84 attendees and a second webinar with 66 attendees, 2,657 pageviews on the campaign landing page, 79 downloads of the "Rebate Program Terms and Conditions," and 56 downloads of the "Rain Garden Rebate: Pre- and Post-Conversion Site Inspection Checklist".
- Featured two rain garden community champions in two separate blog posts on August 17 and September 20, 2022, and published a blog called "We're Keen on Green (Infrastructure)" which answered the questions "What is Green Infrastructure?" and "Where Can You See it in Action in San Mateo County?".

- Created an educational animated video on rain gardens and their benefits.
- Sent 9 (of 10 total) e-newsletters to a list of 4,309 active, opt-in subscribers with topics featuring GI, such as water-wise gardening tips and rain barrel/rain garden installation guidance and resources. Gained 244 new email subscribers and had an average open rate of 58%.
- Developed and completed a five-part video series focusing on GI at different scales in San Mateo County, including Overall GI, Sustainable Streets, Schools, and Homes. The videos are planned for display on a new video resource page on www.flowstobay.org.
- Partnered with and promoted the San Mateo County Office of Education's Teacher Fellowship with a focus on Sustainable Watersheds and advancing green stormwater infrastructure curriculum and project implementation at schools. Two teachers completed the fellowship, reaching a total of 68 students, grades K to 12.
- Continued implementing the SMCWPPP Greening Schoolyards Program by supporting and facilitating the on-campus installation of eight BlueBarrel rain barrels and conducting two classroom lectures to teach students about watersheds and rainwater capture.
- Participated in 17 public outreach and citizen involvement events. Of the 17 events, 8 were focused on residential or community GI, including a "Sustainably Stylish Rain Garden" webinar, five rain barrel delivery events, two in-person rain barrel installation workshops, and one middle school and one high school presentation. In total, these events had 1,260 attendees.
- Promoted outreach messaging to residents regarding GI via social media channels, including Facebook and Instagram. For example: "Check out the new Green Infrastructure (GI) Project on San Mateo Drive! See the GI story map at [link] #GreenerSanMateoCounty #GreenInfrastructure #GoingGreen" and "If you've been to City Hall in Brisbane, maybe you've noticed the rain garden and swale that capture runoff from the parking lot and other impervious surfaces! See more GI projects at https://www.flowstobay.org/greeninfrastructure".

## San Mateo Countywide Stormwater Resource Plan

In response to the State's legislative mandate for Stormwater Resource Plans in order to compete for voter-approved bond funds, C/CAG worked with its member agencies to develop the San Mateo County Stormwater Resource Plan in 2017. The plan utilized various metrics to prioritize opportunities for stormwater capture at varying scales. Since that time, San Mateo County Permittees have been working to advance implementation of stormwater management measures at three primary scales:

1) the parcel scale, where only the rain falling on a site is managed (primarily new and redevelopment projects);
2) the street scale, where stormwater runoff from public roadways and sidewalks and adjacent parcel run-on to the streets is managed via green street features; and
3) the regional scale, where runoff from watershed or drainage areas is managed in large, centralized facilities.

In FY 2022/23, C/CAG staff and its member agencies have advanced the original outputs from the Stormwater Resources Plan by advancing partnerships with schools on pilot projects and schoolyard greening concept plans; building on its existing rain barrel rebate program partnership; advocating for funding on Sustainable Streets Projects (at the federal, state, and local level, as well as through grants); exploring ways to jointly fund operation and maintenance of the completed Orange Memorial Park Regional Project and advancing new opportunities for regional stormwater capture through C/CAG's and

the County's efforts on the Regional Collaborative Program Framework White Paper and Interim MOU-Based Regional Collaborate Program Report.

## Reasonable Assurance Analysis (RAA) for Green Infrastructure and Regional Collaborative Program Development

As required under Provisions C.11 and C.12 (of the prior permit "MRP 2.0"), C/CAG developed a countywide pollutant transport/hydrology model coupled with GI scenario modeling to provide Permittees with quantitative details on how much GI would be needed spatially to meet the MRP 2.0 goal for PCBs load reduction via GI by 2040. The RAA helped Permittees recognize:

1) The rate of GI implementation via new and redevelopment is generally outside the control of municipalities, but the extent of projects subject to stormwater requirements is governed by both MRP and local requirements;
2) Meeting GI and stormwater treatment targets on a countywide basis instead of proportionally within each jurisdiction can result in overall cost savings by implementing projects where it makes most sense;
3) Regional-scale projects, while costly, can be very cost effective in terms of the overall volume managed vs. equivalent levels of small-scale distributed systems, especially with regard to operations and maintenance. These larger scale projects can also provide other significant benefits such as flood risk reduction and water supply augmentation, and are often competitive multi-benefit/multi-jurisdictional projects for state and federal grant programs; and
4) Green street implementation is likely to be the most impactful on local Permittee resources, both for capital expenses and long-term operations and maintenance given that it is most likely to be funded by the limited local allocations of transportation dollars and result in many distributed bioretention facilities requiring ongoing maintenance. This contrasts with parcel-scale projects funded primarily by private developers or regional-scale projects likely to be funded by significant state or federal grants due to the integrated, multi-benefit nature.

As a result, C/CAG and its member agencies began looking at options to meet water quality and treatment requirements while reducing the financial burden of green streets on local agencies when evaluating approaches for meeting long-term water quality goals. Subsequent efforts to support GI implementation across scales and for maximum benefit included: the development of the Sustainable Streets Master Plan (completed in winter 2021); the Advancing Regional-scale Stormwater Management in San Mateo County project (completed in winter 2022); the Resilient San Carlos Schoolyards Project (completed spring 2023); updating the San Mateo County GI Tracking and Mapping Tool to address missing or inaccurate data and improve mapping capabilities; seeking additional funding sources for regional-scale multi-benefit stormwater projects; and submitting a successful grant application for $649,648 under the Governor's Office of Planning and Research's Integrated Climate Adaptation and Resilience Program to develop the San Mateo County OneWatershed Climate Resilience Framework and Community-led Plan to support additional prioritization of new and planned multi-benefit stormwater capture projects from the perspective of addressing shared risk to water infrastructure in the face of climate change.

## Regional-Scale Stormwater Management and Countywide Collaboration

Since the Stormwater Resource Plan, SMCWPPP has helped shepherd several regional projects through initial planning, concept design and engineering (as well as construction in the case of South San

Francisco's Orange Memorial Park project). The following summarizes the status of the current regional projects underway in San Mateo County.

### *South San Francisco (Orange Memorial Park)*

This project, which is the first of its kind in the Bay Area, was completed in June 2022 and will provide water quality improvements to help meet the MRP requirements related to mercury, PCBs, and trash, and new requirements in the reissued permit (MRP 3.0) for retrofit of quantified amounts of green infrastructure not already defined as a Regulated Project pursuant to Provision C.3.b. The project includes an instream diversion and pre-treatment structure (trash screen and sediment removal chamber) in the upper end of the Colma Creek flood control channel within Orange Memorial Park. Pretreated water gravity drains to an underground stormwater reservoir where it is stored until either infiltrating or being further treated for direct non-potable reuse (i.e., irrigation for the park and nearby trails, as well as a source of water for street sweeping and urban trees). When storage capacity is exceeded, treated overflow is discharged back into the channel. Originally conceptualized in the Stormwater Resource Plan, the project will divert approximately 16% of the annual drainage from approximately 6,500 acres of land primarily in the City of South San Francisco, Town of Colma, the City of Daly City, and a portion of unincorporated San Mateo County, of which 9% will be treated to remove trash/sediment before being returned to the channel, 6% infiltrated into the Westside groundwater basin (approximately 240 acre-feet/year), and 1% treated and used onsite and in nearby linear parks for irrigation purposes (approximately 45 acre-feet/year). The project is anticipated to capture 100 tons of sediment, 10 grams of PCBs, and 30 grams of mercury, annually. The project was funded through a $15.5M Cooperative Implementation Agreement with Caltrans to help satisfy its pollutant load reduction requirements, focusing on trash load reductions. C/CAG has supported conversations with the City of South San Francisco, OneShoreline, and other agencies in the drainage area of this project to identify feasible and desired strategies to cost share the ongoing operations and maintenance needs. These discussions have been supported by the Work Group Advancing Regional Projects and the outcomes will be referenced in the updated Interim MOU-based Regional Collaborative Program Summary Report.

### *Belmont Project (Twin Pines Park)*

The Belmont project was originally conceptualized in the Stormwater Resource Plan as a small-scale regional facility capturing runoff from a small neighborhood. Since then, the Cities of Belmont and San Carlos and the County of San Mateo, through its Flood Resilience Program (now OneShoreline), jointly developed a Watershed Management Plan for Belmont Creek. In this plan, the Twin Pines Park project was increased in scale to be comparable to the other regional projects (~20 acre-feet of storage capacity), with an underground detention/retention gallery conceptualized beneath the Twin Pines Park parking lot. In early 2020 C/CAG, in conjunction with the California Natural Resources Agency, allocated $913,000 of a $2.94M State budget allocation to advance regional stormwater projects in San Mateo County to the Belmont project for preliminary design and environmental review. At the same time, OneShoreline was also successful in applying for Department of Water Resources grant for $1M to restore Belmont Creek within Twin Pines Park as a joint project. In FY 2021/22, the City of Belmont issued a joint Request for Proposals for design and construction services on both projects concurrently, leveraging an additional ~$6M grant from the California Natural Resources Agency received in early 2022. The City has contracted for design and construction services on both the stormwater capture and the creek restoration project. The City has secured partial funding for construction of the stormwater capture project through the CNRA grant and local matching funds from the City, the City of San Carlos and the County of San Mateo, and is actively seeking additional grant funds to secure full construction funding. The City has completed 60% design work and anticipates 100% designs in 2024.

### *San Bruno Project (I-280/380 Interchange)*

Subsequent to the project concepts developed for the Stormwater Resource Plan, C/CAG worked with its member agencies to develop additional regional project concepts to help reduce the potential green streets burden on cities indicated as needed by the RAA modeling to meet the MRP 2.0 goal for PCBs load reduction via GI by 2040. San Bruno had identified the need for retention within the Crestmoor Canyon watershed to address storm drain system capacity deficiencies. Ultimately, C/CAG and the City collaborated to conceptualize an approximately 20-acre-foot regional underground stormwater capture facility on Caltrans property within the large vacant land area within the I-280/380 interchange. Similar to the Belmont project, C/CAG worked with the Natural Resources Agency to provide $913,000 to San Bruno for preliminary design and environmental review for the project. In addition, the County of San Mateo received a U.S. EPA Water Quality Improvement Fund (WQIF) grant under which $200K was provided to the San Bruno project for preliminary design, for a total of $1.13M between the two funding sources. San Bruno participated in the joint Request for Proposals process with C/CAG, Redwood City, and the County of San Mateo and has contracted with a design consultant and executed a project oversight cooperative agreement with Caltrans. The City has currently progressed through the pre-design phase with geotechnical, utility surveys, and other preliminary design studies completed as part of the Caltrans Project Study Report-Project Development Support (PSR-PDS) document. The City has also coordinated on expectations for future ownership of the project and operations and maintenance needs, should the project get built, to support entering into a new cooperative agreement for the Project Approval & Environmental Documentation (PA&ED) phase. In FY 2022/23, with support from C/CAG via a member-directed spending request through Congresswoman Jackie Speier's office for an additional $2.4M towards (plus 20% matching funds), the project is slated to proceed through the PA&ED phases and Caltrans has indicated the PA&ED and PS&E phases of the project will be at no additional project cost to the City for Caltrans oversight.

### *Redwood City Project (Red Morton Park)*

Like the San Bruno project, C/CAG worked with Redwood City staff to identify a regional project opportunity to help the City reduce its potential green streets burden to meet the MRP 2.0 goal for PCBs load reduction via GI by 2040, identified through the RAA modeling. A two-phase project was conceptualized for Red Morton Park, with underground storage systems proposed beneath two playing fields, with a combined storage capacity of ~43 acre-feet. As with the San Bruno and Belmont projects, C/CAG worked with the Natural Resources Agency to provide $913,000 to do preliminary design and environmental review. Redwood City also participated in the joint Request for Proposals process and has contracted with a design consultant. Like San Bruno, the County of San Mateo is providing an additional $200,000 from its U.S. EPA grant for preliminary design, for a total of $1.13M between the two funding sources. The preliminary design report identified three primary potential project alternatives: one that is sized to treat the 85$^{th}$ percentile design storm (9.5 acre-feet of storage capacity); one that maximizes the size of the storage beneath the first playing field (23.5 acre-feet of storage); and a third that maximizes potential storage, including additional storage beneath the second field (30 acre-feet of storage). Based on further consideration of the preliminary design report, the City has since approved advancing design work for the maximized single field alternative. This fiscal year, the City advanced towards 60% designs for the single field project alternative for an 85$^{th}$ percentile capture design volume and is currently negotiating with Caltrans on potential funding support through a cooperative implementation agreement. Due to elevated groundwater levels, the project is not expected to be able to provide for infiltration of captured water and instead focuses on storage and treatment for return to the storm drain system. Additional project alternatives, including capability to utilize captured water for onsite irrigation and toilet flushing, diversion to sanitary sewer, permeable pavement in the adjacent parking lot, and a recirculating

surface stream are also being evaluated, and the project shows promise for stormwater capture and use for onsite direct non-potable use after treatment.

## Regional Project Planning and Collaborative Framework

As mentioned above, C/CAG worked with its state legislative delegation to secure a $3M ($2.94M after deducting the State's administrative costs) grant to advance regional stormwater capture opportunities and a coordinated programmatic approach to regional distributed GI implementation. The bulk of those funds were allocated to initial design and environmental review of the Belmont, San Bruno, and Redwood City regional projects, described above. C/CAG directed the remaining funds ($200,000) from the state budget allocation to a collaborative effort to further advance regional-scale stormwater management opportunities in San Mateo County. With oversight and input on the project deliverables through a Technical Advisory Committee, including representatives from C/CAG's member agencies, OneShoreline, the Bay Area Water Supply Conservation Agency, Silicon Valley Clean Water and the Regional Water Quality Control Board, C/CAG completed a multi-part project culminating in the Regional Collaborative Program Framework White Paper (White Paper) in January 2022.

The core components of the project included: 1) developing drivers and objectives for regional-scale stormwater management and a business case and collaborative framework for San Mateo County Permittees (and other potential project partners) to work together to share costs and benefits of these large-scale regional projects; 2) conducting a countywide analysis of regional capture project opportunities and ranking opportunities based on key performance indicators that map onto the selected multi-benefit drivers and objectives; 3) developing preliminary design concepts and cost estimates for the five highest performing sites from the analysis (note – this portion of the project was funded by a portion of the County's EPA Water Quality Improvement Fund grant); 4) conducting a countywide credit trading feasibility analysis focused on evaluating the market feasibility for Regulated Projects to participate in an off-site alternative compliance/credit trading program; and 5) developing an innovative funding and financing report to support further exploring options in San Mateo County for GI investments countywide, and how funding and financing options might be integrated into a Regional Collaborative Program. The final project deliverables are available on the dedicated Regional Collaborative Program website www.flowstobay.org/regional-collaborative.

The White Paper laid the foundation for further developing a Regional Collaborative Program that provides a cost-effective mechanism to meet local stormwater quality requirements while delivering multiple benefits, including sustainable stormwater management and climate resilience. The Technical Advisory Committee identified a Regional Collaboration Program framework option that includes both a near-term Memorandum of Understanding (MOU)-based approach and a longer-term market-based approach. In FY 2022/23, C/CAG developed the structure and parameters for an Interim MOU-Based Regional Collaborative Program (Interim Program) and outlined them in a draft Interim Program Report. The Interim Program is intended to enable County jurisdictions to participate in cost-sharing or other transactions to fund the implementation and maintenance of regional stormwater management projects. The Interim Program Report describes eligible participants, buyers, and sellers; a proposed unit of exchange ("greened acres") and cost basis; exchange boundaries; and methods of exchange based on an MOU approach (drawing from the coordination meetings and outcomes from discussions regarding initial operations and maintenance cost-sharing for the Orange Memorial Park regional project in South San Francisco, as described above). Completion of the draft Interim Program Report is pending additional discussions with C/CAG member agencies and other stakeholders. C/CAG has plans to expand the Regional Collaborative Program design to include a new OneWatershed Climate Resilience Framework with

recently awarded funds under the Governor's Office of Planning and Research's Integrate Climate Resilience and Adaptation Program Adaptation Planning Grant, which is set to kick-off in fall 2024.

## Parcel-Scale Stormwater Management

### *Expanded New/Redevelopment Requirements*

In recent years, an increasing number of San Mateo County Permittees began subjecting non-regulated new and redevelopment projects to stormwater management requirements. This effort to go beyond what was required in the MRP was intended to help meet the long-term goals of stormwater quality improvements and greening of infrastructure while lessening the financial burden to the municipalities. For example, Redwood City requires substantial commercial remodels and any new commercial or residential building to incorporate stormwater treatment measures sized in accordance with Provision C.3. Atherton, with the adoption of its Green Infrastructure Plan, requires full-site single family residential development projects that create or replace 10,000 square feet of impervious area to incorporate C.3-sized stormwater treatment measures. However, the new MRP 3.0 C.3 requirements for lower thresholds and treatment of improvements in the frontage, which took effect on July 1, 2023, will affect the ability of Permittees to require development projects to "go above and beyond" the MRP requirements in future years.

C/CAG has supported agencies following suit by providing details on these types of approaches to all member agencies for consideration. These tools and resources are available via the San Mateo Countywide Sustainable Streets Master Plan.

### *Rainwater Harvesting Rebates/Incentives*

C/CAG has been partnering with BAWSCA to implement a joint rebate/incentive program for rainwater harvesting since late 2014. Under this program, C/CAG has provided a countywide rebate of $50/barrel that is matched by many of the water purveyors in the county. Starting in FY 2020/21, C/CAG expanded its incentives to provide rebates for larger storage systems, offering $100 for systems between 100-199 gallons and $150 for over 200 gallons, all of which continue to be combined with $50/system rebates from participating water purveyors. In addition, C/CAG added a new stacked $300 rain garden incentive on top of rebates from participating water purveyors for BAWSCA's "Lawn Be Gone!" turf replacement program.

In FY 2021/22, C/CAG piloted two bulk order rebate campaigns, offering a discounted rain barrel on pre-order through a partnership with RainWater Solutions, and in FY 2022/23, C/CAG and RainWater Solutions offered four pre-order deliveries. During the four events, C/CAG helped distribute 825 rain barrels to residents throughout the county. Over 3,274 rain barrels have been installed to date in San Mateo County under the rebate program.

As part of the rain garden incentives program, C/CAG partnered with the Master Gardeners and University of California Extension to implement the second year of pilot Green Streets Stewardship Program to help raise awareness about GI in the county and to help municipalities ensure their facilities are properly maintained. Since 2020 when the pilot program began, the Master Gardeners have led nine stewardship events at two locations coinciding with the Safe Routes to School and Green Streets Infrastructure Pilot Projects funded by C/CAG mentioned below (Half Moon Bay Library/Cunha Middle School and Cabrillo Elementary School). The stewardship activities are focused on evaluating and improving sites in the following focus areas: litter/debris, vegetation, soils. In FY22/23, the Pilot Program was placed on hold until additional funding can be committed to advance community-based GI stewardship in the county.

### *California Resilience Challenge Grant – Resilient San Carlos Schoolyards*

During the 2020 grant cycle, C/CAG received one of 12 California Resilience Challenge grants in the state to develop resilient schoolyard concept plans for multiple sites in the San Carlos School District to show how GI can be integrated to build climate resilience while also improving water quality, increasing shading and greening on campuses, enhancing outdoor learning environments, and making curriculum connections with teachers and students. This builds on existing school-related efforts that C/CAG has been implementing, including partnership with the County Office of Education on its environmental literacy program and providing funding for integrated Safe Routes to School / Green Infrastructure projects further described below in the Street-Scale Stormwater Management section. In FY21/22, C/CAG and its partners completed the development of overarching goals and objectives for the resilient schoolyard project; site evaluation metrics and selection of three sites for concept development; school community engagement, including Stakeholder Advisory Committee meetings for each school, teacher training for student design workshops, curriculum integration training and site walk-throughs with each school Stakeholder Advisory Committee. During FY22/23, the project team completed the concept plans for the three selected school sites and compiled the plans into a comprehensive Resilient San Carlos Schoolyards Concept Plan Report (available at the project website). C/CAG's Program Manager co-presented the report with the project team and stakeholders at the February 16, 2023, San Carlos School Board meeting and advocated to include the concept plans in the parallel strategic planning and Facility Master Plan update. The Program Manager also presented the project at the March 31, 2023, panel on the 2023 California Resilience Challenge Grant Showcase hosted by the Bay Area Council.

### *Green Infrastructure Design Guide*

As reported in prior years and described above, C/CAG created a new comprehensive GI Design Guide detailing how GI can be effectively incorporated into both parcel- and street-scale projects, including a library of typical design details. C/CAG continued to educate and inform member agencies of its availability and supported its access via the flowstobay.org website. In FY 2021/22, C/CAG developed a series of GI videos that link back to the core focus areas and scales for GI described in the GI Design Guide. The four-part video series includes an overall GI video and three focus videos showcasing GI in sustainable streets, schools, and residential applications. The videos have been finalized and will be posted on the SMCWPPP website (www.flowstobay.org) in early FY 2023/24.

During FY 2022/23, an additional video titled "The Essential 8 Green Infrastructure Maintenance Tips" was developed to help municipal staff, contractors, volunteers and others who may be involved with the long-term maintenance of GI in San Mateo County. The "Essential 8" focuses on the best practices and potential pitfalls of GI maintenance, as well as the proper tools and protection to ensure safe and effective maintenance on any GI project and for any practitioner, whether a city staff, maintenance contractor on development projects, facilities lead at school district, or a homeowner transitioning a lawn to a water resilient landscape.

## Street-Scale Stormwater Management

### *Countywide Sustainable Streets Master Plan*

In 2018, C/CAG was awarded a nearly $1M Caltrans Climate Adaptation Planning grant to develop the San Mateo Countywide Sustainable Streets Master Plan (SSMP) that prioritizes opportunities to integrate GI with planned transportation projects to help adapt the roadway network to a changing climate while simultaneously improving water quality. The SSMP prioritizes identified transportation needs (pulled from active transportation and Complete Streets plans, Safe Routes to School walk audits, Specific Plans, etc.)

for GI integration using numerous technical suitability and co-benefit criteria. As part of the SSMP, C/CAG modeled future climate impacts on precipitation patterns, advancing the county's understanding of how storm intensity and frequency may change under future climate conditions. The SSMP includes 11 project concepts illustrative of different Sustainable Street typologies and geographically distributed throughout the county. Included in the appendices is a new Intersection Assessment Tool that allows municipalities to rapidly determine the feasibility of incorporating stormwater curb extensions at an intersection, as well as a complete library of typical design details for Sustainable Street projects. High-resolution drainage delineations were developed for the entire county, further advancing San Mateo Permittees' digital mapping of storm drain catchments down to the catch basin scale. The SSMP also includes model Sustainable Street policy language for Permittees to consider adopting, including model Sustainable Streets language for policy documents, a model Sustainable Streets resolution and policy to go beyond typical Complete Streets policies, a model resolution for GI development standards for new buildings, and model conditions of approval for development projects to require Sustainable Streets implementation as part of private development.

C/CAG staff presented on the GI Tracking and Mapping Tool updates and related modeling approaches for evaluating and visualizing project benefits for different scales and types of projects (parcel, street, regional) at the California Stormwater Quality Association (CASQA) Annual Conference in October 2022. C/CAG continued sharing resources within the SSMP to its member agencies through workshops and Subcommittee meetings, especially regarding updates to the GI Tracking and Mapping Tool and continued sharing the resources online through the dedicated SSMP webpage www.flowstobay.org/ssmp. Additionally, C/CAG staff pursued a member-directed spending request for federal earmark funding to support design phase funding for up to five projects with concept plans from the SSMP located in disadvantaged/vulnerable communities. As of spring 2023, the House Appropriations Committee on Transportation, Housing and Urban Development had proposed an appropriation of $850,000 to support this Sustainable Streets Design Pilot Program.

### *Safe Routes to School / Green Infrastructure Pilot Projects*

In 2017, C/CAG awarded just over $2M to 10 pilot projects throughout the County integrating Safe Routes to School and GI. These projects were funded with equal shares of Safe Routes to School and stormwater program funds, with funds from C/CAG covering up to 85% of construction costs. Nine of the ten projects have been constructed to date. C/CAG staff has been compiling information from each of the projects detailing total costs, relative shares of Safe Routes to School and stormwater costs, and impervious area treated. These results are summarized in Table 3-1.

Table 3-1 shows that the average cost per acre treated is approximately $300,000 when using just the estimated GI project costs (which are often difficult to clearly separate given the integrated nature of things like paving, concrete gutter work, etc.) or $550,000 when using total project costs. The costs also vary, with the projects treating the largest areas generally tending to be more cost effective, which highlights the importance of incorporating GI into projects where it will have the most benefit in terms of area treated. While these costs are still preliminary as C/CAG and member agency staff are finalizing results of the pilot program, they are illustrative of likely costs to treat an acre of impervious area within the public right of way. As of FY 2022/23, nine of ten projects have been completed. The City of East Palo Alto plans to have its project completed in FY 2023/24.

**Table 3-1. Pilot Integrated Safe Routes to School and Green Streets Infrastructure Project Costs (2017-2023).**

| Project Location | Description/Project Elements | Drainage Area (acres) | Green Infrastructure Project Costs | Safe Routes To School Project Costs | Non-participating/other costs | Total Cost | Cost/Acre Treated (GI Cost Only) | Total Project Cost/Acre Treated |
|---|---|---|---|---|---|---|---|---|
| Menlo Park | Two linear planters (both sides of street) w/underdrain, new crossing w/flashing beacons, new sidewalks/paths | 1.46 | $291,541 | $240,800 | $44,213 | $576,554 | $199,685.62 | $394,900.00 |
| Pacifica | Two curb extensions (both sides of the street) w/o underdrain, new crossing with island passage and flashing beacon | 1.25 | $147,392 | $150,246 | | $297,638 | $117,913.60 | $238,110.40 |
| County | One "L" shaped planter behind curb w/o underdrain, one mid-block crossing (no stormwater), one crossing with new valley gutter and sidewalk | 0.23 | $146,064 | $153,817 | $8,617 | $308,498 | $629,586.21 | $1,329,732.76 |
| Millbrae | Five curb extention/bulbouts w/underdrain, three crossing improvements | 1.95 | $349,663 | $157,190 | $396 | $507,249 | $179,314.36 | $260,127.69 |
| Brisbane | Six curb extention/bulbouts w/underdrain, and an island crossing, eight crossing improvements | 0.78 | $343,843 | $510,830 | | $854,673 | $439,135.38 | $1,091,536.40 |
| Colma | Two mid-block crossings with three curb extensions/bulbouts, w/underdrains and flashing beacons | 1.47 | $185,770 | $121,922 | | $307,692 | $126,374.15 | $209,314.29 |
| Half Moon Bay | Three bulbouts with five bioretention areas w/o underdrains, new crossings, and additional midblock crossing w/o bioretention | 0.48 | $303,554 | $202,369 | | $505,923 | $632,403.75 | $1,054,005.83 |
| Daly City | Two bulbouts with three bioretention areas w/underdrains, new crossings and ramps | 1.40 | $118,523 | $61,057 | | $179,580 | $84,659.29 | $128,271.43 |
| Redwood City | Five bioretention areas w/ underdrains, new crossings and ramps w/ four bulbouts, high visibility crosswalks and two RRFBs | 2.83 | $396,697 | $245,440 | | $642,137 | $140,175.62 | $226,903.53 |
| | | | | | | **Average** | $283,250 | $548,100 |

### *Non-Regulated Green Infrastructure Projects*

C/CAG and its member agencies have been proactively building non-regulated GI projects since C/CAG provided its first pilot project funding to four projects in 2007. During the current permit term, municipalities have continued implementing voluntary GI projects consistent with the MRP requirement for "no missed opportunities," primarily street-scale projects integrated with transportation improvements, as well as planning projects towards addressing the C.3.j GI numeric targets. C/CAG maintains a GIS Story Map detailing public GI projects (note: not all are non-regulated). C/CAG also supports its member agencies in tracking GI implementation for purposes of quantifying mercury and PCBs load reductions.

## Tracking and Reporting Progress on Green Infrastructure

During FY 2022/23, SMCWPPP completed development and implementation of methods to track and report implementation of GI in San Mateo County and track associated pollutant load reductions. At the end of each fiscal year, SMCWPPP Permittees provide data on completed GI projects in their jurisdictions, including information needed to calculate mercury and PCBs load reductions associated with these projects. The analysis of mercury and PCB loads reduction is described in Section 11/12 (Mercury/PCBs Controls) of this report and the *Mercury and PCBs Control Measures Report* in Appendix 11.

As mentioned above, C/CAG utilized funding through the San Mateo Countywide SSMP project to create an updated web-based San Mateo County GI Tracking Tool (Tool). The Tool is publicly available via the Countywide Program's website at this link. The Tool allows for tracking all scales of GI implementation (regional, street, and parcel), and provides the tracking needed to demonstrate that wasteload allocations

for TMDLs are being met. The public interface of the Tool is a dynamic map showing the locations of implemented GI with descriptions of the GI measure, location, characteristics of the area treated, and estimated pollutant load reductions.

The Tool has been populated with information on GI constructed in the County through FY 2021/22. (Data collected from Permittees on projects completed in FY 2022/23 will be uploaded to the Tool in early FY 23/24.) Enhancements to the Tool completed during FY 2022/23 focused on refining the data upload template, conducting QA/QC on data uploaded to date, improving the user functionality and interface of the tool, and expanding the ability to upload GIS shapefiles for drainage areas associated with any project. The tool has also been expanded to produce subwatershed-scale pollutant loading estimates for PCBs, mercury, and suspended sediments. Other improvements to the Tool are planned for FY 2023/24.

During FY 2022/23, the Tool development team developed a technical methodology to translate volumes of runoff managed by regional capture projects (and potentially other alternative compliance projects) to other MRP compliance metrics, specifically impervious acres managed ("Greened Acres") by GI retrofit projects. A memorandum was prepared that summarizes the proposed methodology for calculating stormwater capture for a regional project that diverts stormwater from a creek channel or storm drain, in a way that is translatable to the sizing criteria in Provision C.3.d and allows Greened Acres to be tracked for regional projects. The memorandum also describes the modeling analysis conducted to estimate stormwater capture for an example regional project in San Mateo County (Orange Memorial Park) and demonstrates the calculation of Greened Acres for this project. C/CAG staff and consultants met with Water Board staff on March 6, 2023, to discuss the proposed methodology and agreed to continue to meet during FY 2023/24 to address Water Board staff questions and finalize the methodology.

## Regional Collaboration

### *BAMSC Development Subcommittee*

SMCWPPP continued to participate in the Development Subcommittee (DS), which meets approximately quarterly, to share information on topics related to C.3 and GSI implementation. Topics discussed during FY 2022/23 included:

- Water Efficient Landscape Ordinance (WELO), including a presentation and discussion with BART staff on how they implement WELO and best irrigation practices in GSI facilities;
- Regional-Scale, Multi-benefit Stormwater Management, including a case study from C/CAG/SMCWPPP on their approach to prioritizing and identifying potential GSI sites;
- Alternative Compliance, including the Caltrans Partnership Pathways program that provides financial partnering opportunities with local jurisdictions for treatment and trash capture projects.

Through the BAMSC DS, SMCWPPP also participated in regional work groups and projects that assist SMCWPPP and its San Mateo County municipalities in meeting specific requirements of Provision C.3, as described below.

### *Regional C.3 Work Groups*

Following the May 11, 2022, MRP 3.0 adoption hearing, three C.3-related work groups were formed in response to Water Board member concerns about flexibility for treatment system selection and affordable housing treatment credits and the impacts of road reconstruction requirements on

disadvantaged communities (DACs). The three work groups – the Alternative Treatment Systems Work Group, the Special Projects Category C/Affordable Housing Work Group, and the Road Reconstruction in DACs Work Group – began meeting in August/September 2022. SMCWPPP actively participated in all work groups. Work group meetings continued through April 2023. Draft language for an MRP 3.0 Provision C.3 Amendment was shared by Water Board staff on April 7, 2023, and a Tentative Order for the Amendment was released on July 21, 2023, with an adoption hearing scheduled for October 11, 2023. SCMWPPP submitted comment letters on both the Administrative Draft and the Public Draft of the Tentative Order MRP 3.0 Amendment.

### *Bay Area Hydrology Model Update*

For Regulated Projects that are required to meet the hydromodification management (HM) requirements in Provision C.3.g, a continuous simulation hydrologic computer model must be used to simulate pre-project and post-project runoff and design HM controls to meet HM standards. The Bay Area Hydrology Model (BAHM) is a tool developed to assist permittees and development project engineers with sizing and design of facilities needed to meet the HM requirements in Provision C.3.g and to demonstrate that planned facilities meet the HM standards. The BAHM and a companion User Manual were developed in 2007 by Clear Creek Solutions, based on the Western Washington Hydrology Model (WWHM), and funded jointly by the Santa Clara, San Mateo, and Alameda countywide stormwater programs. These programs also funded an update to the BAHM and User Manual in 2013.

The BAHM is recognized in the MRP as an acceptable tool for showing compliance with HM standards and those standards have not changed in MRP 3.0. However, updates to BAHM and the User Manual were needed to improve model performance and design capability, extend rainfall and evaporation data, and make it more user-friendly. In addition, the Contra Costa Clean Water Program requested that data for their county be incorporated into the BAHM.

To accomplish these tasks, SMCWPPP provided financial support to a BAMSC project of regional benefit, along with the Santa Clara, Alameda, and Contra Costa programs, to update the BAHM and User Manual. The Project Team consisted of EOA and subcontractor Clear Creek Solutions. A Regional BAHM Updates Work Group was formed to scope and direct the project and five meetings were held at appropriate milestones. Representatives of SMCWPPP participated in the Regional Work Group.

Updates to the BAHM software and User Manual began in January 2023 and were completed in June 2023. The link to the updated software and User Manual were provided to the Work Group for review on June 30, 2023. The key changes included the following:

- Addition of Contra Costa County area map, and rainfall and evaporation data;
- Extension of the rainfall and evaporation data series for existing gages;
- Compatibility with Microsoft Windows 11 operating systems;
- Updated and standard defaults for bioretention elements;
- Addition of guidance for modeling a Self-Retaining Area;
- Addition of impervious area representation options; and
- Addition of options for riser and weir representations.

Provision C.3.g.vi.(4) requires Permittees allowing the use of BAHM to report collectively, with each Annual Report, a listing, summary, and date of modifications made to the BAHM, including the technical rationale. The BAMSC project of regional benefit included a task to develop a report summarizing the

updates included in BAHM 2023 for countywide programs to include in their FY 22-23 Annual Reports. The report "Summary of Modifications to the Bay Area Hydrology Model (BAHM) during FY 22-23" is provided in Appendix 13.

### *Biotreatment Soil Media (BSM) Specifications*

In FY 2022/23, SMCWPPP continued to support municipal staff, consultants and suppliers who have questions on the review and use of BSM. SMCWPPP staff screened and worked with vendors that are supplying the BSM product in the Bay Area and wish to be added to the vendor list that is posted on the SMCWPPP website. The vendors must demonstrate an understanding of the 2016 BASMAA specification, submit lab results and a sample of their BSM product, and use consistent terminology on their websites advertising the product. See the BAMSC and Flowstobay websites for vendor lists and more information.

### *Biotreatment Soil Media Specifications and Bioretention Design with Trees*

As a result of the Biotreatment Soil Roundtable held on June 30, 2016, a regional work group was formed to discuss designs that incorporate trees into bioretention areas. SMCWPPP staff has taken the lead on facilitating this BSM Tree-Design Work Group in the last few years. In FY 2022/23, the BSM Tree-Design Work Group took a hiatus while other regional work groups were meeting. In FY 2023/24, the Work Group will reconvene and provide a forum for evaluating the benefit and associated runoff reduction criteria associated with trees with respect to treatment control sizing, as encouraged by MRP Provision C.3.d.iv. Tree Runoff Reduction and Tree-Based Stormwater Treatment Systems. The Work Group will work with Water Board staff and other stakeholders to identify and quantify the multiple benefits of tree-based GI (e.g., urban forestry, suspended pavement systems), develop recommendations for Permittees to achieve the benefits, and suggest opportunities to modify Provision C.3 language in a future permit to better recognize broader benefits.

### *Participation in Processes to Promote Green Infrastructure*

Provision C.3.j.iii. requires that Permittees individually or collectively, track processes, assemble and submit information, and provide informational materials and presentations as needed to assist relevant regional, State, and federal agencies to plan, design, and fund incorporation of GI measures into local infrastructure projects, including transportation projects. SMCWPPP is tracking and participating in BAMSC activities as well as conducting its own activities to assist Permittees comply with this provision.

C/CAG staff participated in the following efforts to promote GI:

- Held discussions with state and federal legislators and staff on opportunities to fund green stormwater infrastructure projects through climate resilience appropriations and earmark requests. Successful request for $2.4M in funding for a regional stormwater capture project in the City of San Bruno.
- Presentation at the July 14, 2022, CASQA Quarterly Seminar on the topic of "Multi-Scale Green Stormwater Infrastructure in San Mateo County."
- Project manager for Climate Resiliency Resources Guide Part 2 Project for GI Leadership Exchange. This Collaborative Grant Program project under the GI Leadership Exchange is developing Part 2 of the Climate Resilience Resources Guide. This grant project will result in an updated "glossy" document incorporating the content from Part 1 of the Climate Resilience Resources Guide and focusing on providing decision support tools and resources to integrate climate resilience with all

phases of green stormwater infrastructure implementation. The project began in September 2022.

- Presentation at Green California Schools and Community Colleges Summit, October 18, 2022: "Rainwater Resilient Schools in San Mateo County", featuring collaborative grant-funded and other green stormwater partnership projects involving schools and school districts in San Mateo County.
- Presentation at the 2022 CASQA Conference, October 24, 2022, on "Activating Adaptation with the Climate Resilience Resources Guide, Part 1," a Regional Collaborative Grant project of the Green Infrastructure Leadership Exchange focusing on integrating climate adaptation with green stormwater management.
- Presentation at the 2022 CASQA Conference, October 25, 2022, on "The Currency Exchange – Translating Metrics for Stormwater and Green Infrastructure Planning and Reporting," with a focus on the development of methods to calculate green stormwater infrastructure project benefits associated with large-scale stormwater capture projects in San Mateo County.
- Participated in a panel at the 2022 CASQA Conference, October 26, 2022, on the topic of "Rain Barrels, Rebates & Reciprocity: Encouraging Community Adoption of Stormwater Capture by Lowering the Cost of Entry and Increasing Accessibility," featuring a discussion of rain barrel and other green stormwater infrastructure rebate programs in California. Panelists also included Peter Schultze-Allen (EOA), Pam Boyle Rodriguez (City of Palo Alto), and Suzi Senna (SGA).
- Participated on a panel organized by the San Mateo County Office of Education's Climate Ready and Sustainable Schools Initiative on January 10, 2023.

The BAMSC FY 2022/23 Annual Report Regional Supplement for New Development and Redevelopment (Appendix 13) provides additional information on regional participation in processes to promote GI.

## FUTURE ACTIONS

In FY 2023/24, SMCWPPP plans to continue working with the NDS to conduct the following activities to assist San Mateo County municipalities to comply with MRP Provision C.3:

- Continue to exchange information with San Mateo County municipalities on MRP implementation and other timely issues through NDS meetings and/or C.3 workshops.
- Update the GI Design Guide to align with the newly updated C.3 Regulated Projects Guide.
- Support San Mateo County municipalities with guidance on GI Plan implementation.
- Continue to conduct GI outreach and education with the public, municipal staff, and elected officials and further raising awareness about GI, including supporting and highlighting local GI projects and leveraging the newly developed GI video series, through the redesigned SMCWPPP website.
- Continue to coordinate with other related SMCWPPP subcommittees as needed (e.g., the Public Information and Participation Subcommittee to engage on GI outreach).
- Continue updating and improving the web-based Green Infrastructure Tracking Tool developed as part of the Sustainable Streets Master Plan, including training on use for Permittees, updating the database of projects and evaluating opportunities to expand the functionality of the tool to track and report information related to new asset management requirements under MRP 3.0.

- Continue to collaborate with BAMSC and Bay Area countywide stormwater programs on MRP 3.0 implementation, particularly GI implementation and guidance, updates to the BSM specifications and BSM suppliers list, and development of approaches for runoff reduction with trees through the BAMSC Development Subcommittee BSM-Tree Design Work Group.
- Collaborate with the BAMSC Development Subcommittee and Water Board staff and participate in regional development-related work groups as appropriate or discussions related to the amended MRP 3.0.
- As the C/CAG FY 23-24 budget allows, plan and conduct a development-related workshop for municipal staff, building on the training conducted in previous years.
- Continue advancing the Regional Project Planning and Collaborative Framework, including developing the initial phase of a proposed MOU-based program. New program elements and outputs may include development and legal review of an interim MOU-based Regional Collaborative Program, documents supporting initial pilot cost-sharing (e.g., a model MOU and/or interagency agreement, and O&M certification or other credit certification documents), and implementation of initial cost-sharing arrangements on a pilot project.
- Continue supporting, as needed, the Cities of San Bruno, Belmont, and Redwood City on advancing designs and environmental review for regional projects and seek new partnership and funding opportunities to advance the next five regional project concepts from preliminary design towards implementation.
- Advance the grant funded San Mateo County OneWatershed Climate Resilience Framework and Community-led Plan focusing on addressing shared risk to water infrastructure and supporting adaptive capacity for vulnerable communities and align new OneWatershed framework with and build from the existing Regional Collaborative Program developments.
- Continue seeking funding for pilot Resilient San Carlos Schoolyards projects and other schoolyard greening projects in the county, building from prior concept planning and engagement efforts. In parallel, as part of C/CAG's core outreach program, continue implementing pilot rain barrel installations at schools and community organizations including community-based workshops demonstrating how to install rainwater harvesting systems and providing details on C/CAG's and BAWSCA's rebate programs. Continue supporting the County Office of Education's Sustainable and Climate Ready Schools Initiative through community partnership.
- Continue supporting member agencies in pursuing funding for implementing projects identified in the Sustainable Streets Master Plan, including the 11 project concepts.
- Support completion of the last (of 10 total) integrated Safe Routes to School and Green Streets Infrastructure Project in East Palo Alto, funded by C/CAG's local vehicle registration fee.
- Continue administering the rainwater harvesting rebates and additional incentives for residential rain garden installations as part of the Lawn Be Gone! rebate program, in partnership with BAWSCA. The rain barrel rebate program will include a third pilot bulk-order campaign hosted by the City of San Mateo to keep up momentum and encourage participation in the program. Integrate GI outreach efforts to include webinars in partnership with BAWSCA focused on the rain garden and Lawn Be Gone! rebate program and lawn/rain garden integration replacement process.
- Plan to present at the annual CASQA conference in October 2023 on SMCWPPP's Resilient San Carlos Schoolyards Project, Climate Resilience Resources Guide Part 2, GSI Implementation

Opportunities and Challenges in the Bay Area, and Equity Considerations for Climate Resilience.

- Apply for funds under the NOAA Climate Resilience Regional Challenge Grant Track 2 for implementation funds for pilot OneWatershed projects and programmatic enhancements, including integrating the OneWatershed Framework with the Regional Collaborative Program for GSI and piloting a GI Work Force Development Program.

# SECTION 4
# C.4 INDUSTRIAL AND COMMERCIAL SITE CONTROLS

## INTRODUCTION

A primary goal of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist San Mateo County Permittees in controlling the discharge of pollutants in stormwater from commercial and industrial businesses to the maximum extent practicable. San Mateo County Permittees are responsible for complying with various commercial and industrial business facility inspection requirements under MRP Provision C.4. SMCWPPP's CII component assists San Mateo County Permittee staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. The CII component also assists San Mateo County Permittees to comply with other MRP provisions that are discussed in other sections of this report (Sections 5, Illicit Discharge Detection and Elimination and Section 13, Copper Controls).

SMCWPPP's assistance with MRP Provision C.4 and other CII component provisions is coordinated through the CII Subcommittee.

## IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP performs a variety of tasks to assist San Mateo County Permittees with implementation of MRP Provision C.4, with input and assistance provided by the CII Subcommittee. FY 2022/23 accomplishments included the following:

- Held four CII Subcommittee meetings;
- Updated the Stormwater Facility Inspection Tracking Template;
- Updated the *How to Conduct Stormwater Business Inspections* Guidance Manual; and
- Updated the business stormwater inspector contact list on the SMCWPPP website.

More information about each of these accomplishments is provided below.

### CII Subcommittee

The CII Subcommittee provides the opportunity for sharing information about MRP requirements related to commercial/industrial facility inspections and methods for achieving MRP compliance. The Subcommittee met four times during FY 2022/23 with good participation by municipal staff, as shown by the attendance list (Appendix 4). Ward Donnelly from the City of Daly City continued to chair the CII Subcommittee during FY 2022/23.

The meetings provided the opportunity for municipal staff to share their experiences with implementing

the MRP provisions related to the CII component, including Provision C.4. During FY 2022/23 meetings, the subcommittee discussed a number of pertinent topics, including new MRP 3.0 requirements, stormwater inspection fees, illicit discharges, reviewing and analyzing data, revising stormwater ordinances, illicit discharge enforcement through the District Attorney, mobile business inspections, annual reporting, and sharing outreach materials. The subcommittee also discussed other MRP provisions with new MRP 3.0 requirements that may overlap with these inspectors' activities including MRP C.15.b.iii. emergency firefighting discharges and trash management inspections of private land drainage areas (C.10).

## Program Materials

In FY 2017/18 Countywide Program staff updated the SMCWPPP Stormwater Facility Inspection Form Template and developed a Stormwater Facility Inspection Tracking Template for cities to track their stormwater inspection data, if needed. In FY 2022/23, the Stormwater Facility Inspection Tracking Template was updated to meet the requirements of MRP 3.0

In FY 2022/23, Countywide Program staff updated the *How to Conduct Stormwater Business Inspections* Guidance Manual. The last version of the manual was from April 2015, and updates to the manual were based on new MRP 3.0 requirements. Comments from municipal staff were also incorporated to provide additional information, lessons learned, and clarity. The updated manual was sent to industrial and commercial site inspectors in June 2023 as a training resource.

# FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees in complying with requirements in Provision C.4 of MRP 3.0 include the following:

- Hold two CII Subcommittee meetings;
- Continue to update existing, or develop new business outreach materials as needed; and
- Assist San Mateo County Permittees with the implementation of commercial and industrial stormwater inspection tasks, including updating the Business Inspection Plans (BIP) template, Enforcement Response Plans (ERP) template, and inspection form and inspection tracking table, as needed.

# SECTION 5
# C.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION

## INTRODUCTION

A primary goal of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist San Mateo County Permittees to effectively prohibit the discharge of illicit, non-stormwater discharges to the municipal storm drain system. San Mateo County Permittees are responsible for controlling non-stormwater discharges prohibited by MRP Provision C.5. SMCWPPP's CII component assists San Mateo County Permittee staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. SMCWPPP's CII component also assists Permittees to comply with other MRP provisions that are discussed in other sections of this report (see Section 4, Industrial and Commercial Site Controls, and Section 13, Copper Controls).

SMCWPPP's CII component is coordinated through the CII Subcommittee. See Section 4 for further details about the CII Subcommittee.

## IMPLEMENTATION OF MRP PROVISIONS

During FY 2022/23, SMCWPPP performed a number of tasks to assist San Mateo County Permittees with implementation of MRP Provision C.5, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Updated the table of stormwater enforcement actions against mobile businesses to share countywide with stormwater inspectors;
- Updated the Countywide mobile business inventory;
- Mailed the Mobile Business BMP flyer and a letter to mobile businesses that received enforcement actions in multiple cities;
- Developed a Graffiti Removal BMP Fact Sheet;
- Developed Illicit Discharge Door Hangers;
- Revised the Illicit Discharge Tracking Template; and
- Updated the Illicit Discharge contact list on the SMCWPPP website.

More information on these accomplishments is provided below.

## Countywide Program Materials

SMCWPPP has developed a variety of materials to assist municipal agency staff with implementing Provision C.5. These materials are all available on the SMCWPPP website (flowstobay.org) and continue to be useful tools that assist agency staff to achieve MRP compliance. The materials include an Illicit Discharge Investigation Field Form template, an Illicit Discharge Tracking Excel Template, and outreach materials. In FY2022/23, Countywide Program staff worked with the CII Subcommittee to update the Illicit Discharge Tracking Template to meet requirements of MRP 3.0.

In FY 2022/23, Countywide Program staff also worked with the CII Subcommittee to develop a Graffiti Removal BMP factsheet that presents BMPs for mobile businesses, residents, or commercial businesses that are removing graffiti from surfaces using pressure washing, sand blasting or painting. Final formatting was conducted by SMCWPPP's public outreach consultant. The Graffiti Removal BMP Fact Sheet was added to the SMCWPPP website's Preventing Stormwater Pollution – Mobile Cleaners and Businesses webpage. Countywide Program staff also continued to make other outreach materials available on the SMCWPPP website (flowstobay.org).

In addition, in FY2022/23 Countywide Program staff worked with the CII Subcommittee to develop a template Illicit Discharge Door Hangar for residential and commercial businesses. The door hangers are posted on the CII members only webpage for use by Permittees. Illicit discharge door hangers are typically used to educate residents in an area when a responsible party is not found for an illicit discharge.

Also available on the members only section of the SMCWPPP website is the countywide inventory of mobile businesses operating in San Mateo County. The mobile businesses identified in the inventory fall into the following categories: carpet cleaners, auto washers, steam cleaners, power washers, and pet care providers. The county inventory of mobile businesses is updated annually. In FY 2022/23 the inventory was updated to include mobile fuelers. Beginning in FY 2013/14, the CII Subcommittee surveyed San Mateo County agencies and compiled information on mobile businesses that were subject to stormwater enforcement actions during that fiscal year. This information was compiled in a table and made available on the members only section of the SMCWPPP website. The table is updated annually with additional enforcement action information. In FY 2022/23 a letter was mailed to mobile businesses that received enforcement actions in different jurisdictions. The letter included the Mobile Business BMP flyer in English, Spanish and Chinese.

In addition, BAMSC has a long-standing Surface Cleaner Training and Recognition program (developed by BASMAA[1]) that focuses on improving the use of BMPs for businesses that clean surfaces (i.e., sidewalks, plazas, parking areas, and building exteriors). San Mateo County Permittees have continued to refer cleaners to BAMSC's website for surface cleaning training materials.

# FUTURE ACTIONS

During FY 2023/24, SMCWPPP will assist San Mateo County Permittees comply with the requirements in MRP Provision C.5 by:

- Holding two CII Subcommittee meetings;

[1] BASMAA was dissolved as a 501(c)(3) non-profit organization in FY 2021/22 but this program is continuing via the Bay Area Municipal Stormwater Collaborative (BAMSC).

- Assisting with the implementation of illicit discharge detection and elimination tasks, including updating existing or developing new outreach materials as needed, and updating the Enforcement Response Plans (ERP) template, Illicit Discharge Investigation Field Form, and Illicit Discharge Tracking Template as needed; and
- Assisting Permittees in complying with the requirements for controlling mobile sources in MRP Provision C.5.e., including providing updated information on mobile business BMPs as needed, sharing enforcement information, annually updating the countywide mobile business inventory, and conducting outreach activities.

# SECTION 6
# C.6 CONSTRUCTION SITE CONTROL

## INTRODUCTION

This component of SMCWPPP assists San Mateo County municipalities in complying with MRP Provision C.6 (Construction Site Control). This assistance continued to be provided through the New Development Subcommittee (NDS, see Section 3 for more details). SMCWPPP staff also obtained input and direction from municipal agency representatives through the NDS when planning the trainings and other compliance assistance activities described below.

## IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP's accomplishments during FY 2022/23 include the following tasks to assist San Mateo County municipalities with implementation of MRP Provision C.6:

- Conducted an on-line construction site controls and inspection training for the California Building Inspectors Group (CALBIG) on October 12, 2022;
- Conducted an on-line construction site inspector training for municipal staff, and consultants representing municipalities, on June 20, 2023;
- Distributed 400 copies of the Construction Site Inspection Form to Subcommittee members.
- Provided updates to the NDS at meetings and through emails on the reissued State Construction Stormwater General Permit, and Qualified Stormwater Pollution Prevention Plan Developer (QSD) or Practitioner (QSP) training opportunities (see Section 3 for more details about the NDS).

### CALBIG Training Meeting

In FY 2022/23, SMCWPPP continued its partnership with CALBIG. Building inspectors and others from San Mateo County municipalities participate in this organization. At the group's October 12, 2022 meeting, SMCWPPP staff gave a presentation covering an overview of the MRP and Provisions C.3 and C.6, current stormwater requirements for construction sites, proper implementation of construction BMPs, MRP Provision C.13.a. (architectural copper), tips for keeping construction inspection programs in compliance, and the program to manage PCBs during building demolition. Approximately 52 people attended the training via Zoom, including agency inspectors, local stormwater program staff, and contractors. The attendance list is provided in Appendix 6.

### 2023 Construction Site Inspector Workshop

The 2023 Construction Site Inspector Workshop was held via Zoom on June 20, 2023. A total of 62 municipal and consultant staff attended the training. The workshop included presentations on MRP requirements, construction site best management practices, and new permit requirements related to PCBs and building demolition. The attendance record, agenda, and evaluation summary are included in

Appendix 6. Video recordings of the presentations are available on SMCWPPP's website (flowstobay.org). Based on the evaluation forms submitted, attendees generally found that the workshop was beneficial and met their expectations.

### Construction Site Inspection Form

In August 2022, SMCWPPP staff distributed to San Mateo County municipalities 400 copies in triplicate form of the SMCWPPP Construction Site Inspection Report.

## FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees comply with requirements in Provision C.6 of the reissued municipal stormwater permit (MRP 3.0) include the following:

- Continue to share information about construction site controls among San Mateo County municipalities through NDS meetings;
- Continue to provide training materials to construction site inspectors; and
- Continue to coordinate with partner organizations, such as CALBIG, to provide information on construction-related stormwater issues.

# SECTION 7
# C.7 PUBLIC INFORMATION AND PARTICIPATION

## INTRODUCTION

The primary goals of SMCWPPP's Public Information and Participation (PIP) component are to:

- Educate the public about the causes of stormwater pollution and its adverse effects on water quality in local creeks, lagoons, shorelines, and neighborhoods;
- Encourage residents to adopt less polluting and more environmentally beneficial practices; and
- Increase residents' participation and involvement in SMCWPPP activities.

PIP is essential for controlling and reducing the source of pollution since many preventable pollutants are associated with everyday residential activity. Stormwater pollution may be reduced when residents are educated and motivated by the benefits of reducing pollutants. This approach of education and motivation is cost-effective and efficient in meeting the goal of reducing pollutants in stormwater to the maximum extent practicable.

### Summary of Accomplishments in FY 2022/23

The SMCWPPP PIP Subcommittee oversees the development of outreach and educational materials and guides the implementation of the PIP component of the program. The Subcommittee met once in FY 2022/23 with 20 representatives attending. The attendance list is included in Appendix 7A.

SMCWPPP's PIP accomplishments during FY 2022/23 include the following:

- Partnered again with the Bay Area Water Supply Conservation Agency (BAWSCA) to promote the countywide rain barrel program in association with a bulk rain barrel distribution program. The supporting Rain Barrel outreach campaign received 348 rebate applications from residents (a 7% increase from FY 2021/22) for a total of 574 rain barrel installations (a 5% increase from FY 2021/22). Over 3,274 rain barrels have been installed to date in San Mateo County under the rebate program.
- Completed the Resilient San Carlos Schoolyards Project and coordinated two hands-on rain barrel installations and workshops at Alta Loma Middle School and Central Middle School in San Carlos, partnering with a community partner, Each Green Corner.

- Partnered with BAWSCA to promote rain garden rebate as part of the Lawn Be Gone! Rebate. Launched a campaign to promote the rebate, which included garden-related posts on social media and the Flows to Bay website, a blog featuring 2 rain garden community champions, an educational animated video, 2 webinars, and a survey to discover motivators and barriers to lawn conversions and rain garden installations. The rain garden-related webinars, "Drought-Proof Your Garden Now for Spring and Summer" (October 2022) and "Sustainably Stylish Rain Gardens" (May 2023) had 84 and 66 attendees, respectively, and the "How do rain gardens work?" video has had 9.6K views on YouTube. Attendees of the May 2023 webinar will receive a second survey during FY 2023/24 to gauge engagement with the relevant actions involved in rain gardens and the relevant rebate discussed during the webinar.
- Boosted website materials with educational materials from LA Department of Water & Power (LADWP) to help residents navigate the lawn conversion and rain garden process.
- Supported and promoted the San Mateo County Office of Education's Environmental Solutionary Teaching initiatives.
- Promoted Coastal Cleanup Day for 4,170 volunteers, raising awareness of the event and the consequences of littering behaviors resulting in 22,400 pounds of litter reported being picked up.
- Promoted efforts that San Mateo County Environmental Health Services (EHS) is involved in, which included: a campaign to reduce littering of cigarette butts, an update to the Reusable Bag Ordinance, HHW Collection Program, Used Motor Oil/Filter Recycling Program, Fishing Smart in SF Bay, Safe Medicine Disposal, School Share Table Program, Healthy Nail Salon, and ReFuel Your Fun.
- Promoted Caltrans "Tarp Your Load" educational material regarding uncovered loads in English and Spanish.
- Doubled the Instagram following with 164 posts, reaching 39,000 and enjoying 2,956 interactions in posts with stormwater pollution prevention messaging, giveaways, ad campaigns and relevant TikTok video shares.
- Maintained over 26.6K followers on Facebook, with a total post reach of 141,443 and 1,306 interactions with stormwater pollution prevention Facebook messaging, giveaways, ad campaigns and relevant TikTok video shares.
- Sent 10 e-newsletters to a list of 4,309 active, opt-in subscribers with topics covering local events, online webinars, and stormwater pollution prevention information and tips. Gained 244 new email subscribers and had an average open rate of 57.9% and an average 4.6% click rate.
- Recorded 93,529 visitors to the SMCWPPP website, which focuses on stormwater pollution prevention messaging and provided resources to residents, businesses, teachers, and city departments.
- Participated in 17 public outreach and citizen involvement events. In total, we had 5,428 engaged participants or attendees. These events, a mixture of virtual and in-person, provided educational content and solutions to residents to inform and excite and also allowed residents to have their questions answered.
- Provided outreach materials to municipalities.

- Participated in two countywide stormwater-focused campus presentations where we supported and facilitated two on-campus installations (for a total of 8 BlueBarrel rain barrels installed) and conducted a lecture to two high-school classes about watersheds, rainwater capture, and changing behavior.
- Performed point-of-purchase outreach with Our Water Our World materials to 12 hardware stores in San Mateo County while engaging residents and employees with eco-friendly alternatives to pesticides. Two of the 12 were new hardware stores to the program as of Q3. Both were Outdoor Supply & Hardware locations, and each received a tabling event and employee training to kick off the partnership and their participation as a resource in the community.
- Promoted outreach messaging to residents and pest control operators regarding eco-friendly alternatives to pesticides via business email, in SMCWPPP's newsletter, on the website, and social media channels.

# IMPLEMENTATION OF MRP PROVISION C.7

## C.7.b. Outreach Campaigns

### *Bulk Rain Barrel Pilot Outreach Program*

The Bulk Rain Barrel Pilot Outreach Program in San Mateo County consisted of a mixture of digital engagement, in-person events, and multiple press features. The goal of this outreach program was twofold. The first goal aimed to address barriers for San Mateo County residents wanting to install rain barrels on their properties. These barriers, identified through multiple survey data, were the high cost of rain barrels and the lack of convenience for finding rain barrels in the County. The second goal of this program was to promote the San Mateo County rain barrel rebate program and increase participation.

Since the success of the pilot program in FY 2021/22, the program has continued to gather strength. Partnering again with Rain Water Solutions in 2022/23, the program planned four distribution events with the goal of surpassing the previous year's sales and rebates of 726 and 324 respectively. The cities of Daly City, Millbrae, Redwood City, and San Mateo, each hosted an event in November and December of 2022.

Together, C/CAG, the cities, and Rain Water Solutions were able to provide an opportunity to deliver high-quality, lower-cost rain barrels to the public in a convenient manner while advancing the benefits of stormwater harvesting and stormwater pollution prevention messaging.

Combining the bulk discount rate with the rebate incentive gave residents in BAWSCA-participating member agency service areas the opportunity to receive a rain barrel at zero net cost (Figure 7-1.a and Figure 7-1.b).

**Figure 7-1.a. San Mateo County volunteers getting ready to distribute rain barrels during a rain barrel distribution event.**

**Figure 7-1.b. A happy resident loads a barrel into his car.**

### *Campaign Results & Evaluation*

The program distributed 825 rain barrels, surpassing last year's program by 99 barrels. The FY 2022/23 program also doubled the number of distribution events (4) compared to last year's program.

Results of the rain barrel outreach program as of June 30, 2023, included:

- 1,004,407 impressions to paid Meta and Google Ads campaigns.
- 13,190 clicks/engagement with paid Meta and Google Ads campaigns.
- 10,367 visits to the campaign landing page.
- 4,988 impressions on relevant e-newsletter and blog content.
- 191 downloads of the FY 2022/23 rain barrel paper application with rebate information on the relevant SMCWPPP web page.
- Selling and distributing 825 barrels (surpassing last year's program by 99 barrels) to 474 San Mateo County residents, which will capture 41,250 gallons of water each time the barrels are completely filled.
- 348 rain barrel rebate applications (a 7% increase from FY 2021/2022).
- 574 rebates administered and rain barrels installed (a 5% increase from FY 2021/2022).

To take a deeper dive into the program's success, and look to improve upon our efforts, we designed and distributed a survey to 474 program participants, which received a 27% response rate. As a direct result of the survey, C/CAG will work with BAWSCA, the rebate program administrator, to help streamline the process for residents. Other key survey takeaways included:

- 83% of respondents were very satisfied with the rain barrel program (an increase of 11% compared to FY 2021/22).
- 97% of respondents stated water conservation as the main reason they purchased a rain barrel (an increase of only 1% as compared to FY 2021/22) followed by wanting to save money on their water bill (49%). Interestingly, the factor of reducing stormwater pollution decreased from 68% last fiscal year to 39% this fiscal year. *Note: This question expresses to "select all that apply"*.

The full survey report can be seen in Appendix 7B.

The digital components of this program included a webpage on the SMCWPPP public education website, flowstobay.org. This page provided details of both the rebate program and bulk rain barrel, including a form to quickly understand how much rebate residents are eligible for, a step-by-step video on rain barrel installation, details on ordering and picking up the rain barrel, and a list of rain barrel installers should they require additional assistance. If residents were still interested in participating in the program, they were sent to an e-commerce site set up by Rain Water Solutions to purchase a barrel online securely.

To promote the pilot and rebate program, C/CAG sent out three e-newsletters, utilized its Instagram and Facebook platforms with 26K+ followers, used paid advertising, published on our website's blog (e.g., Figure 7-4), and asked that partnering agencies help spread the word on their own communications channels (Table 7-1). The paid advertising included Google Ads (Figure 7-2) and Meta Ads (Figure 7-3) campaigns in Spanish and Chinese in addition to English; results of the campaigns are described in Table

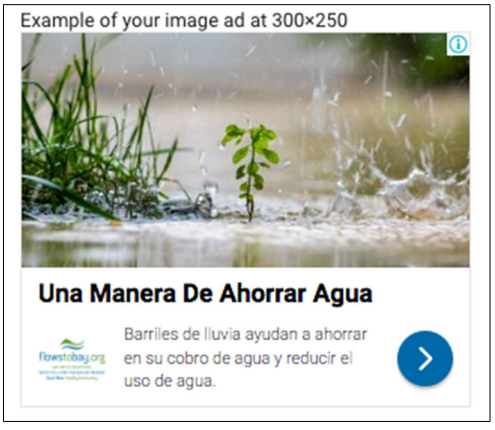
7-2. Note: There were two Chinese and two English Google Ads campaign with the second one for both specifically targeting Daly City.

**Table 7-1. Bulk Rain Barrel Pilot Outreach Program - Multimedia Promotional Campaign Results**

| Platform | Impressions | Clicks/Engagement |
|---|---|---|
| Campaign landing page | 10,367 | 1,580 |
| Google Ads | 798,116 | 9,497 |
| Meta Ads | 206,291 | 3,693 |
| Facebook posts | 1,141 | 9 |
| e-Newsletter | 4,864 | 464 |
| Blog | 124 | 6 |

**Table 7-2. Bulk Rain Barrel Pilot Outreach Program - Paid Advertising Results FY 2022/23**

| Platform | Impressions | Clicks/Engagement |
|---|---|---|
| Meta Ads - English | 123,440 | 2,198 |
| Google Ads - English | 546,404 | 6,542 |
| Meta Ads - Spanish | 54,234 | 443 |
| Google Ads - Spanish | 95,712 | 1,362 |
| Meta Ads - Chinese | 16,497 | 583 |
| Google Ads - Chinese | 156,000 | 1,593 |
| Meta Ads - Boosted Post (English) | 12,120 | 469 |



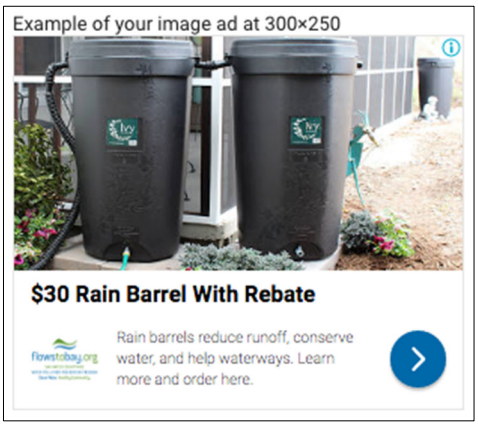




**Figure 7-2. Examples of the rain barrel program ads for the Google Ads campaigns.**

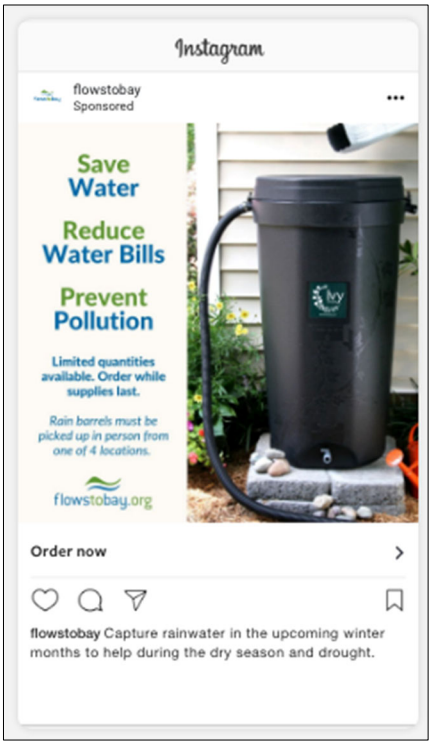




**Figure 7-3. Examples of the rain barrel program ads for the Meta Ads campaigns.**

Press releases were sent to media outlets during different stages of the program (Table 7-3). The event still garnered local attention, especially for its record sales.

**Table 7-3. Bulk Rain Barrel Pilot Outreach Program - Press Releases**

| News Outlet | Date | Article Title | Article Link |
|---|---|---|---|
| Everything South City | 11/22/22 | The San Mateo Countywide Rain Barrel Program Returns for a Second Year | link |
| Everything South City | 1/26/23 | San Mateo Countywide Program Announces Record year for Rain Barrel Sales | link |
| San Mateo Daily Journal | 1/27/23 | Record Year for Rain Barrel Sales in San Mateo County | link |


**Figure 7-4. A San Mateo resident and rain barrel program participant's series of Instagram posts, which was featured in our January 2023 blog.**

### *Rain Garden Outreach Program*

In FY 2022/23, SMCWPPP continued outreach efforts to promote the Rain Garden rebate as part of the BAWSCA Lawn Be Gone! (LBG) lawn conversion rebate program. The rebate provided a flat rate amount of $300 to residents in the participating BAWSCA member agency jurisdictions. Our efforts throughout the fiscal year included:

- Hosting 2 free online virtual workshops about rain gardens, titled "Drought-Proof Your Garden Now for Spring and Summer" and "Sustainably Stylish Rain Gardens" (Figure 7-5 and 7-6).
- Creating an educational animated video on rain gardens and their benefits (Figure 7-7).
- Featuring 2 rain garden community champions in two separate blog posts on Aug. 17 and Sep. 20 (Figure7-8 and 7-9).
- Adding to online video resources including adding LA Department of Water & Power (LADWP) educational materials to the website Figure 7-10).
- Publishing information about the rebate in e-newsletters.
- Posting rain garden-related posts on social media (Figure 7-11).
- Launching digital geo-targeted advertising campaign in November 2022.
- Partnering with PIP members who are also BAWSCA rain barrel rebate participating agencies to help promote the new rain garden rebate.

Residents were directed to the rain garden webpage on flowstobay.org which helped explain what rain gardens are and their benefits. Interactive "before" and "after" photos demonstrate how the rebate can be implemented in residents' yards, along with information about the Lawn Be Gone! (LBG) Rebate and the rain garden addition, and additional resources. The web page can be viewed here: www.flowstobay.org/rain-gardens.

### *Campaign Results & Evaluation*

The results of the campaign included:

- 3 rain garden rebate applications approved.
- 204 registrants and 84 total virtual workshop attendees for "Drought-Proof Your Garden Now for Spring and Summer".
- Of the attendees, 51 completed post-event surveys (61% response rate).

To gauge current behavior, respondents were asked "In the last 12 months, have you implemented any drought-friendly practices (i.e., rain barrel, native plants, drought tolerant plants, updated watering techniques) in your garden or lawn?":

- Yes: 71%.
- No: 29%.

When asked "After attending our webinar, which actions do you plan on bringing to your garden? (Select all that apply)", respondents expressed:

- Implement drought-friendly watering techniques or devices: 63%.
- Implementing water capture in the garden (i.e., rain barrel and/or rain garden): 49%.
- Use cover crops and/or mulch to protect my soil: 61%.
- Use compost to retain water in my soil: 71%.

When asked on a scale of 1-5 if "The presenter demonstrated knowledge of the topic and presented practical information you can use":

- 82% selected "5 (strongly agree)".
- 78% of respondents expressed "5 (very satisfied)" regarding their overall rating of the class (scale of 1-5).
- 147 registrants and 66 total virtual workshop attendees for "Sustainably Stylish Rain Gardens".
- Of the attendees, 40 completed post-event surveys (61% response rate).

When asked, "Do you think you will be replacing your lawn or installing a rain garden in the next 12 months?" respondents expressed:

- Yes, definitely! 65%.
- Not sure, still thinking about it. 32.5%.
- No. It doesn't seem right for me. 2.5% (one respondent).

When asked "What are the most important factors for you to consider when deciding if you will replace your lawn or install a rain garden? (Select 1-3 options)", respondents expressed:

- The cost of replacing your lawn or installing a rain garden: 52.5%.
- The time it may take to replace your lawn or install a rain garden: 30%.
- The appearance of your yard: 17.5%.

- How resilient your yard is to drought, flooding, heat, and other environmental factors: 55%.
- How your yard impacts the surrounding environment (such as preventing stormwater pollution or supporting local pollinators): 60%.

When asked, "The presenter demonstrated knowledge of the topic and presented practical information you can use":

- 80% selected "5 (strongly agree)".
- 72.5% of respondents expressed "5 (very satisfied)" regarding their overall rating of the class (scale of 1-5).
- 2,657 pageviews on the campaign landing page.
- 79 downloads of the "Rebate Program Terms and Conditions" on the campaign landing page.
- 56 downloads of the "Rain Garden Rebate: Pre- and Post-Conversion Site Inspection Checklist" on the campaign landing page.
- 49,758 impressions from campaign promotional materials.
    - Includes: Educational YouTube video about rain gardens, two relevant community champion blogs, three e-newsletters, two events on SMCWPPP's events calendar, two boosted Facebook events and a Meta Ads campaign.


**Figure 7-5. Promotional graphic for "Drought-Proof Your Garden Now for Spring and Summer" webinar.**


**Figure 7-6. Promotional graphic for "Sustainably Stylish Rain Gardens" webinar.**

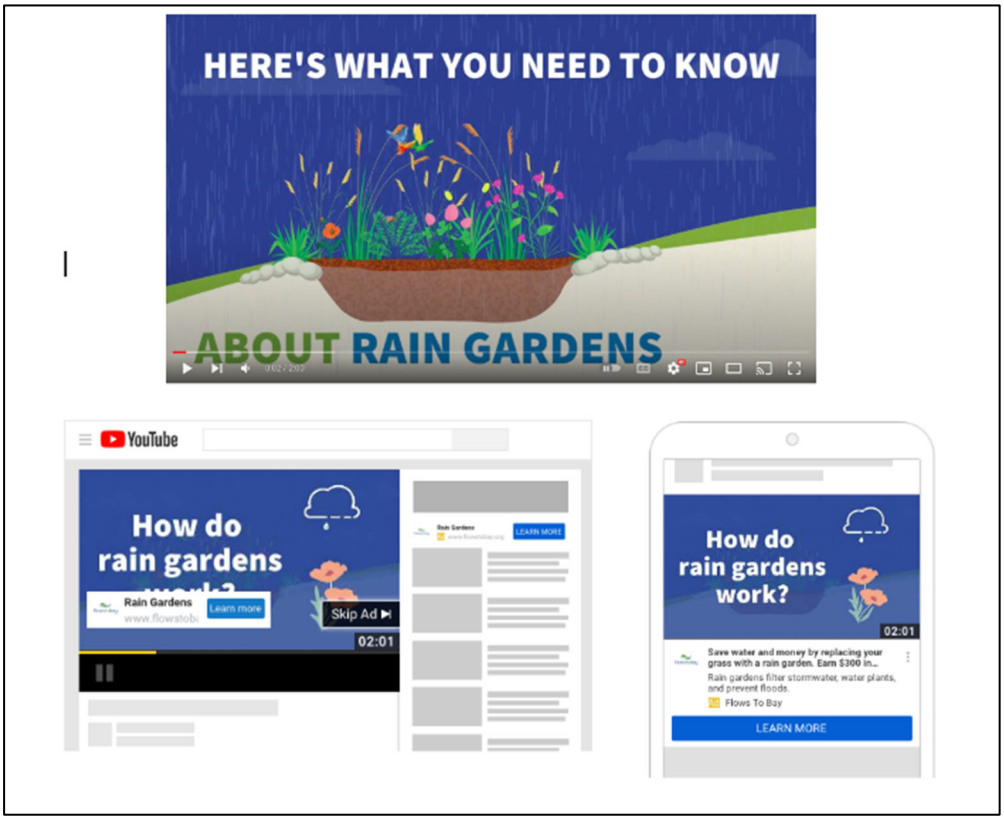



**Figure 7-7. Examples of promotion for the rain garden educational video.**


**Figure 7-8. Blog headline and top fold for community champion post.**


**Figure 7-9. Blog headline and top fold for community champion post.**

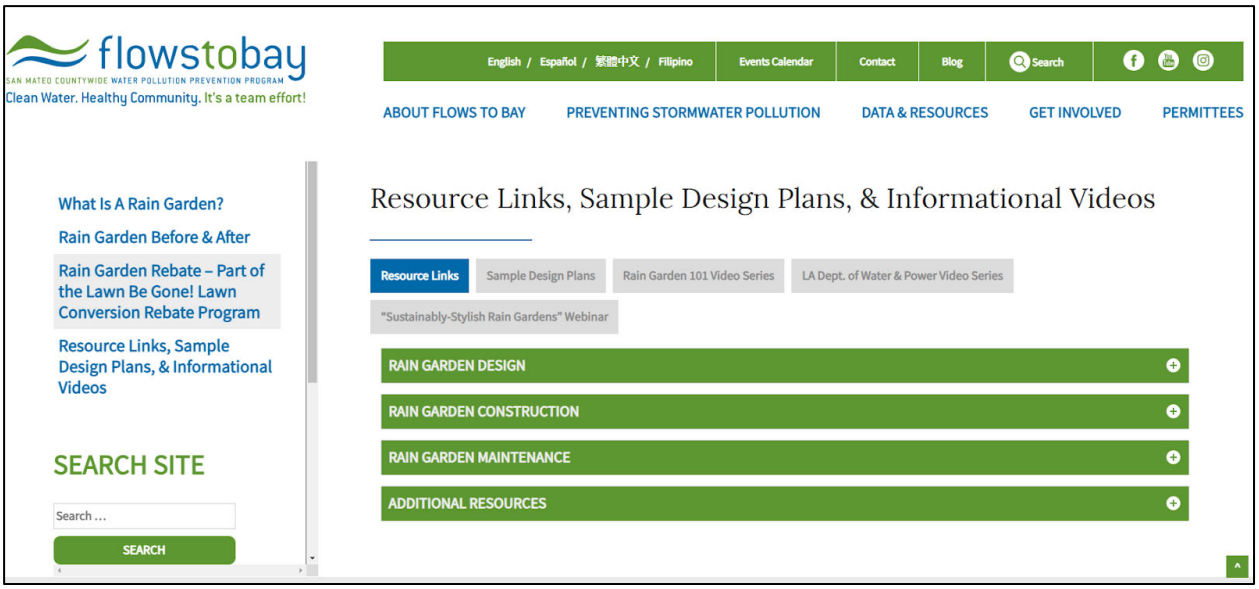



**Figure 7-10. Online website resources, including the LADWP videos and guides.**


**Figure 7-11. GIF about rain garden-related rebate for social media.**

### *Green Streets Stewards Pilot Program Continuation*

The goal of Green Streets Stewards (GSS) Program was to pilot a foundational program to support current and ongoing green stormwater infrastructure (GSI) facility maintenance needs across different jurisdictions while also engaging and educating residents, students, and community groups on the function and value of GSI. The pilot, began in FY 2020/21 in partnership with the UC Master Gardeners of San Francisco and San Mateo County, aimed to educate residents and community groups on the function

and value of GSI, and to promote sustainable stormwater management by empowering residents and community groups to perform basic maintenance on their local GSI in cooperation with the local municipal government agencies. The pilot program operated through FY 2022/23 with two events held at Integrated Safe Routes to School and Green Streets Pilot Program bioretention projects located in the City of Half Moon Bay and the City of Pacifica. In total, the program supported eleven events over two active program fiscal years. Due to program resource constraints under MRP 3.0, the pilot program is being put on hold starting FY 2023/24.

### *Campaign Evaluation*

FY 2022/23 marked the third year of the Green Streets Stewards Pilot Program and met the following project objectives:

- Implemented training curriculum and a community science protocol with UC Master Gardeners.
- Set up digital data collection using the ESRI Survey123 app.
- Recorded data such as vegetation condition, debris/sedimentation, soil compaction and soil infiltration during stewardship events.
- Tended and cared for the GI facilities in Half Moon Bay and Pacifica in July 2022.
- Engaged with the community to discuss GSI, its benefits, and its stewardship during the two events held this fiscal year.

## C.7.c. Stormwater Pollution Prevention Education

C.7.c. Stormwater Pollution Prevention Education SMCWPPP continued to use social media, the flowstobay.org website, and the electronic newsletter to promote stormwater pollution prevention messages.

### *Social Media*

SMCWPPP continued to maintain the social media platforms of Facebook and Instagram. These platforms were used as a tool for two-way communication and have continued to be an effective method to engage with residents. With an already established Facebook presence consisting of over 26K followers, we focused our efforts on increasing engagement and followership on Instagram.

By the end of the fiscal year, we gained 587 new followers on this platform bringing the total followers to 1139. We also maintained over 26.6K Facebook page likes between July 1, 2022, and June 30, 2023.

Facebook and Instagram were used to publicize stormwater issues, watershed characteristics, and stormwater pollution prevention alternatives. The platforms were primarily used to inform the public of online environmental outreach events, to promote a shift towards incorporating sustainable behaviors into daily lifestyles, and to provide environmental and marine news relevant to San Mateo County pollution prevention. The accounts were monitored on a weekly basis throughout the fiscal year. As part of the overall effort to enhance social presence and engagement with followers, we wrote blogs, posted about “community champions” (i.e., residents of San Mateo County who had gone above and beyond to be environmental stewards in their communities), and we responded to residents’ questions—often directing them to resources on our website.

The following is a breakdown of tasks and evaluation metrics associated with social media activity for FY 2022/2023:

- Continued utilizing Facebook as a two-way communication tool to share and exchange information on pollution prevention messages between SMCWPPP residents, businesses, nonprofits, and community stakeholders within San Mateo County. Specific program messages included watershed protection, water pollution and Bay area marine news, wash water pollution prevention, the benefits of GSI, household hazardous waste, and used motor oil & filter recycling content.
- Continued to utilize Facebook (Figure 7-12) and Instagram (Figure 7-13) as the SMCWPPP website's advertising platform to further promote messages.

Facebook metrics:

- Maintained over 26.6K followers.
- Garnered 773 total page impressions (number of people that viewed our page).
- Reached a total of 96,873 people (number of people who had content from our page enter their screen).
- Garnered 1,306 interactions (likes, comments, and shares).
- Published a total of 161 Facebook posts.

Instagram metrics:

- Gained 587 followers.
- Garnered 1,149 total page impressions (number of people that viewed our page).
- Garnered 2,956 interactions (likes, comments, and shares).
- Received 166 saves on posts.
- Received 85 website clicks from posts.
- Published a total of 164 Instagram account posts.
- Published a total of 223 Instagram story posts.

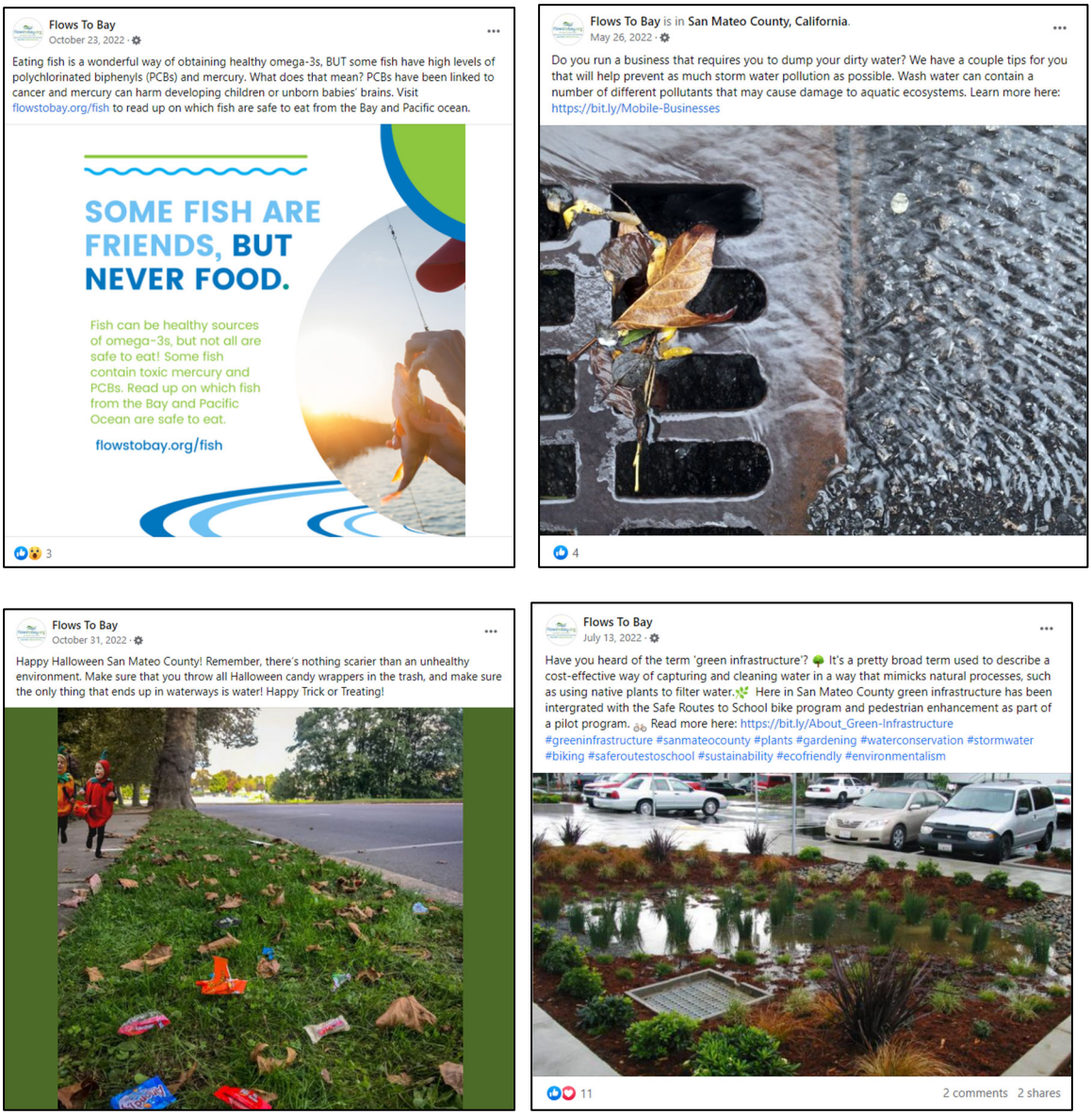
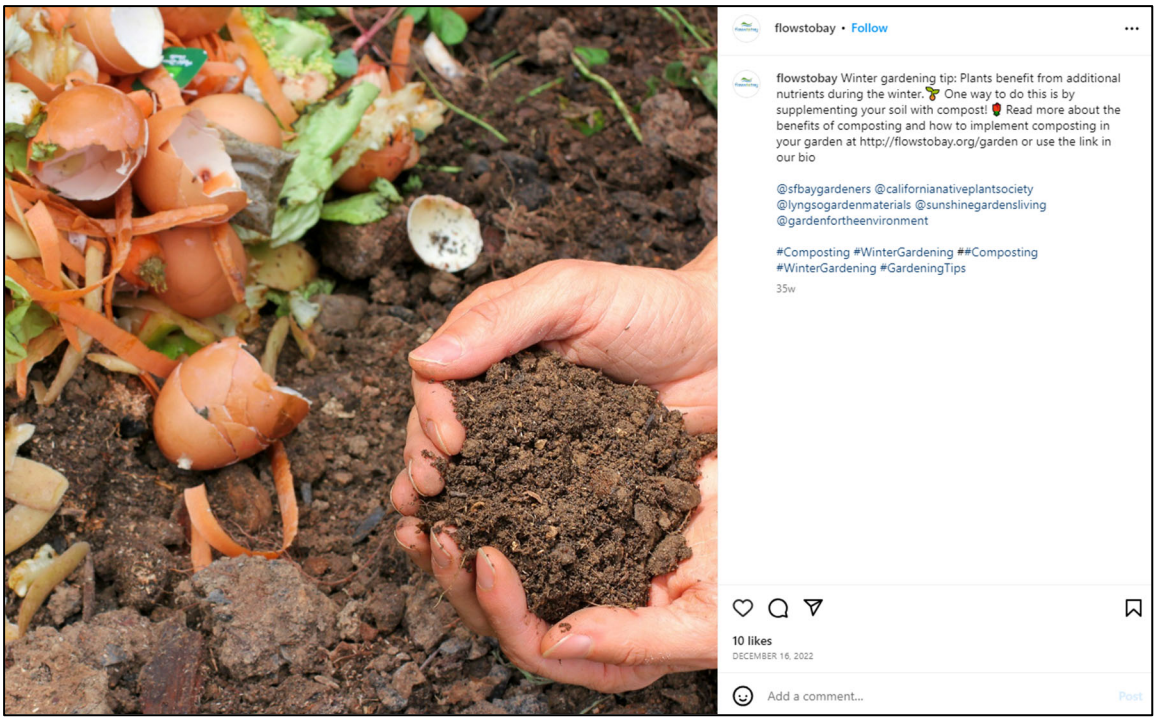
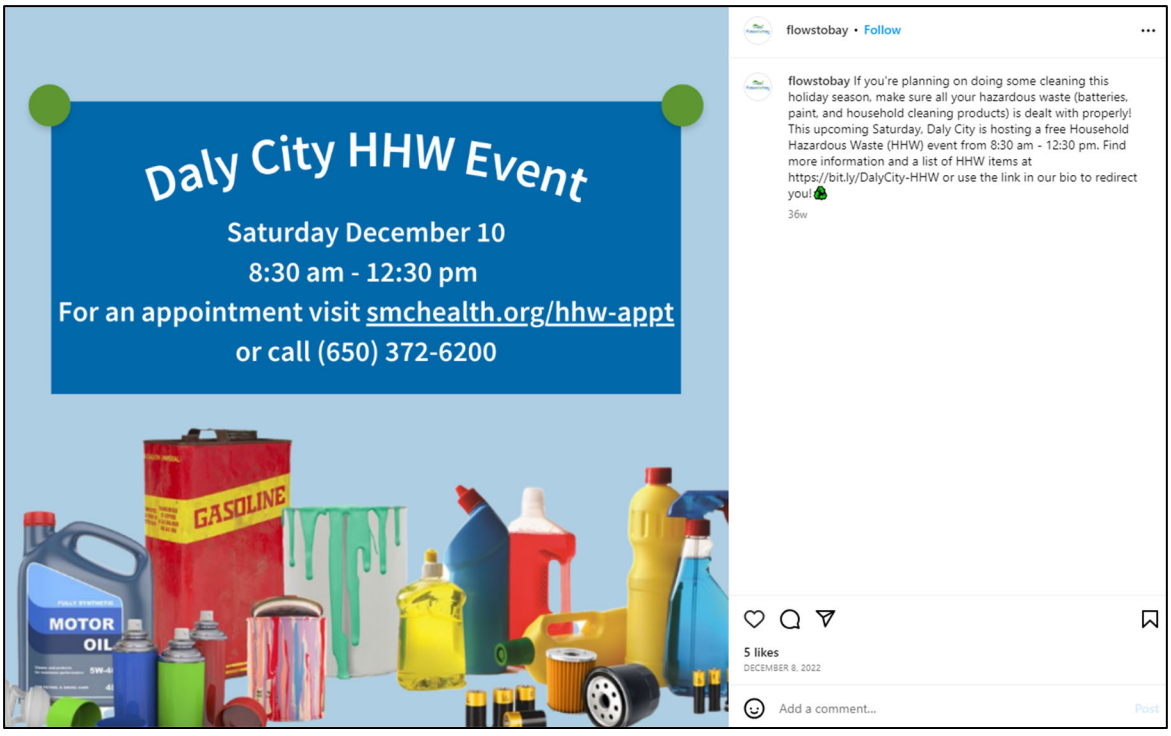
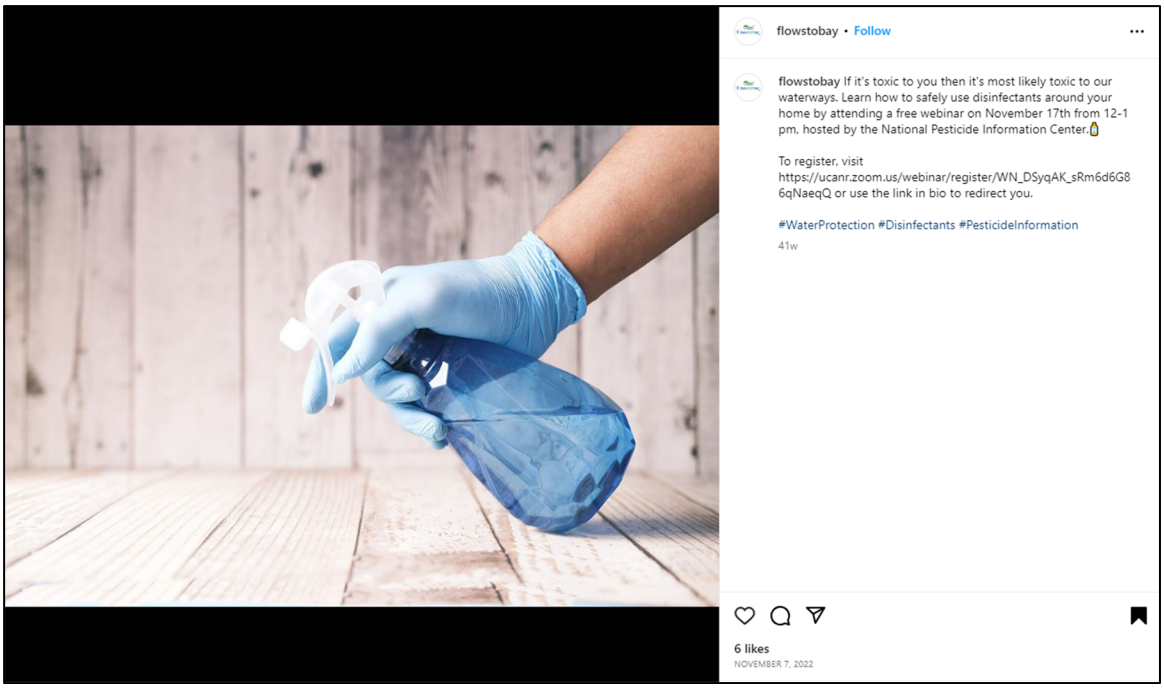



**Figure 7-12. Examples of FY 2022/23 Facebook Posts.**


flowstobay • Follow
flowstobay Winter gardening tip: Plants benefit from additional nutrients during the winter. One way to do this is by supplementing your soil with compost! Read more about the benefits of composting and how to implement composting in your garden at http://flowstobay.org/garden or use the link in our bio
@sfbaygardeners @californianativeplantsociety @lyngsogardenmaterials @sunshinegardensliving @gardenfortheenvironment
#Composting #WinterGardening ##Composting #WinterGardening #GardeningTips
35w
10 likes
DECEMBER 16, 2022
Add a comment...
Post


Daly City HHW Event
Saturday December 10
8:30 am - 12:30 pm
For an appointment visit smchealth.org/hhw-appt
or call (650) 372-6200
GASOLINE
MOTOR OIL
flowstobay • Follow
flowstobay If you're planning on doing some cleaning this holiday season, make sure all your hazardous waste (batteries, paint, and household cleaning products) is dealt with properly! This upcoming Saturday, Daly City is hosting a free Household Hazardous Waste (HHW) event from 8:30 am - 12:30 pm. Find more information and a list of HHW items at https://bit.ly/DalyCity-HHW or use the link in our bio to redirect you!
36w
5 likes
DECEMBER 8, 2022
Add a comment...
Post



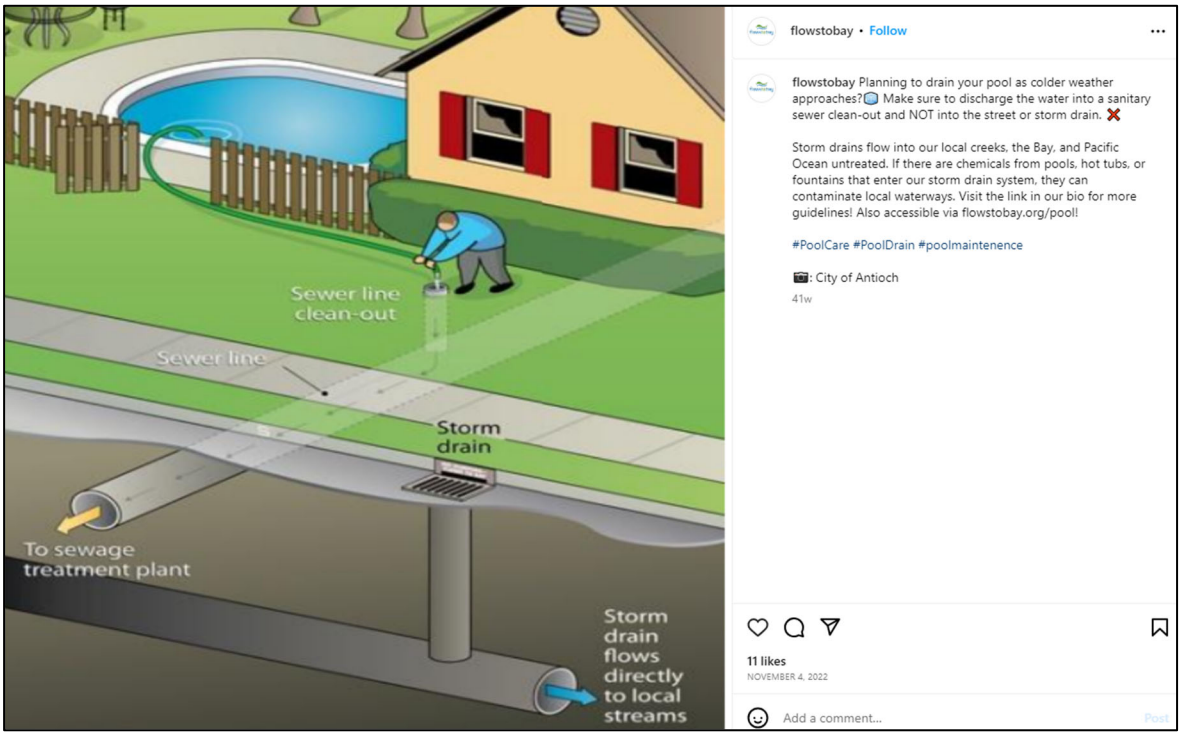




**Figure 7-13. Examples of FY 2022/23 Instagram Posts.**

### *Newsletter*

The SMCWPPP newsletter was used to publicize stormwater issues, watershed information, upcoming webinars, and stormwater pollution prevention options to residents. A total of 10 e-newsletters were sent out to our community newsletter subscriber list. SMCWPPP's subscriber list reached a total of 4,309 subscribers in FY 2022/23—adding a total of 244 new subscribers. We also achieved an average open rate of 57.9%, and an average click rate of 4.6%, both up from the previous FY and both higher than the government-industry averages of 28.8% and 4.0%, respectively. Table 7-4 details the data for each e-newsletter distributed to the community newsletter subscriber list.

**Table 7-4. SMCWPPP E-Newsletter Metrics for FY 2022/23.**

| Subject Line | Content | Send Date | Total Recipients | Open Rate | Click Rate | Clicks Per Unique Opens. |
|---|---|---|---|---|---|---|
| Coastal Cleanup Day and Rain Barrel Pre-Orders | • Volunteer<br>• Rain Barrel Program Coming up<br>• Community Champion Highlight | 9/8/2022 | 2,563 | 59.1% | 5.7% | 9.3% |
| Join Us for Our Fall Gardening Webinar! | • Register for webinar<br>• Upcoming IPM In-Person Advice Event<br>• Pest Management Techniques | 10/10/2022 | 2,554 | 50.4% | 3.0% | 5.9% |
| All About Rain Barrels and Rebates | • Are you eligible?<br>• Everything You Should Know About Rain Gardens<br>• Rain garden Success Stories<br>• Register for webinar | 10/19/2022 | 2,639 | 53.1% | 5.5% | 10.3% |
| The Bulk Rain Barrel Program is Back! | • Pre-purchase your discounted barrel<br>• How does the RB Program work?<br>• Why should you Purchase a Rain Barrel<br>• Read about last year's Program | 10/26/2022 | 2,686 | 56.9% | 6.8% | 11.9% |

| Subject Line | Content | Send Date | Total Recipients | Open Rate | Click Rate | Clicks Per Unique Opens. |
|---|---|---|---|---|---|---|
| Only 258 barrels left at the Daly City location! | • Get Your RB while supplies last<br>• Purchase your Discounted RB<br>• How Does the Program Work<br>• How Simple is the rain barrel Installation process? | 10/29/2022 | 2,684 | 62.7% | 5.5% | 8.7% |
| Two New Rain Barrel Pickup Dates Added | • More Inventory, More Dates!<br>• How Does the program Work?<br>• How Simple is the Rain barrel Installation Process | 11/10/2022 | 2,692 | 61.9% | 5.1% | 8.2% |
| Rain Barrel Giveaway! | • Rain Barrel Giveaway<br>• How Many gallons of water can you save?<br>• What are the benefits of owning a Rain Barrel? | 11/29/2022 | 2,694 | 61.3% | 4.2% | 6.8% |
| Rain On the Brain | • Rain Barrel Best Practices<br>• Learn more about rain garden rebate programs<br>• Free Hands-On Rain Barrel Installation Workshop at Central Middle School<br>• Rain, Rain Drain Away Panel Discussion with Stormwater Specialist | 03/22/23 | 2,732 | 57.1% | 4.0% | 7.1% |
| Adapting Our Gardens to the Changing Climate | • Prepare your garden for changeable events<br>• Register for Free webinar | 04/02/23 | 2,747 | 53.8% | 2.3% | 4.2% |

| Subject Line | Content | Send Date | Total Recipients | Open Rate | Click Rate | Clicks Per Unique Opens. |
|---|---|---|---|---|---|---|
| Create A Stylish Rain Garden | • Transform your yard into a turf-free, drought-tolerant designer garden<br>• Register for the webinar | 04/23/23 | 2,736 | 62.5% | 4.1% | 6.6% |

*Note: Industry average open rate is 28.8% and average click rate on articles is 4.0% (source from Oct 2019, Mailchimp).*

### *SMCWPPP Website*

This fiscal year, we linked or referenced content on our website through our various communication mediums, such as Facebook, Instagram, e-Newsletter, blogs, during webinars and workshops for resources. We kept our online community events calendar active. See Appendix 7C for blog and analytics data.

During FY 2022/23, the flowstobay.org website had the following results (Figure 7-14):

- 63,948 sessions (4.3% decrease from FY 21/22).
- 49,681 new users (7.0% decrease from FY 21/22).
- 93,529 page views (3.2% increase from FY 21/22).
- 1.29 sessions per user (2.6% increase from FY 21/22).
- 1.46 pages per session (7.9% increase from FY 21/22).
- 00:01:15 average session duration (19.16% increase from FY 21/22).
- 71.86% bounce rate (positive change of -6.19% decrease from FY 21/22).
- 9,487 resource downloads (8.8% increase from FY 21/22).
- 5,039 outbound links (12.6% increase from FY 21/22).

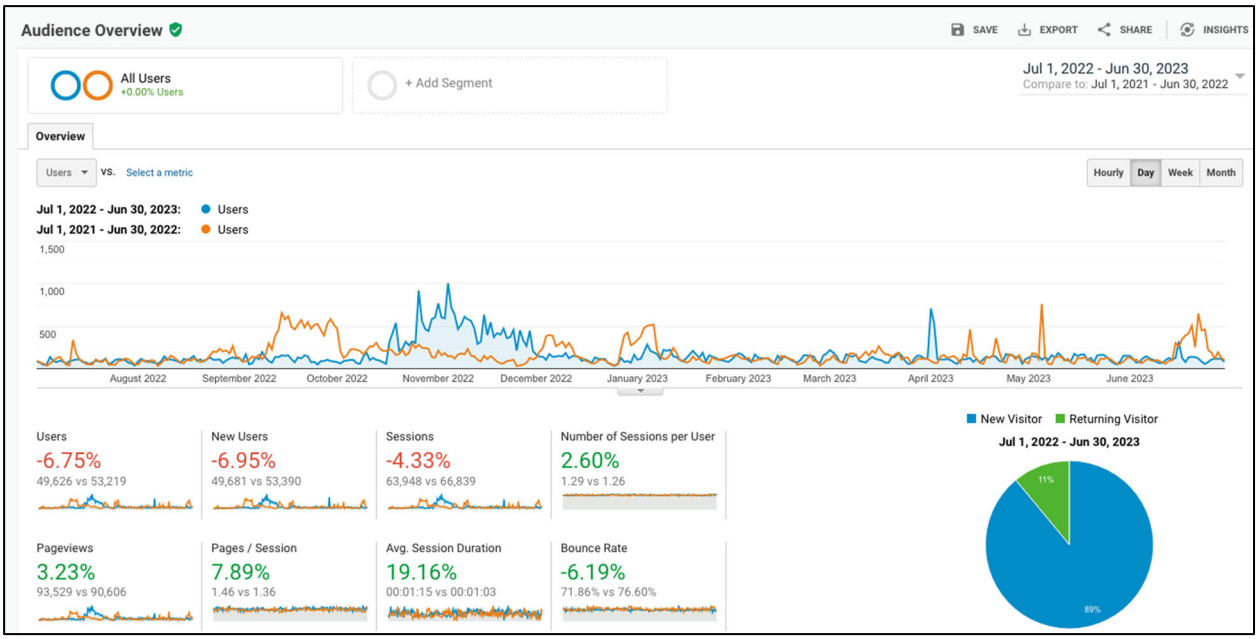



**Figure 7-14. Google Analytics metrics for FY 2022/23.**

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

### *Overview*

SMCWPPP directly participated in 17 public outreach and citizen involvement events in FY 2022/23 in order to reach a wide array of residents in different parts of the County (Figure 7-15 and Table 7-5). SMCWPPP used online channels, such as Facebook, Instagram, the SMCWPPP website, and if applicable, paid digital ads and e-newsletter to promote events and gather volunteers. In total, events had a reach of 1,095,923 with 5,430 event attendance.

### *Event Goals*

- Educate residents through personal interaction and educational materials.
- Build our existing database of residents interested in stormwater issues.
- Provide a platform for residents to engage with SMCWPPP messages.
- Develop outreach partnerships with County agencies, NGOs, and CBOs.
- Promote local cleanup events, such as Coastal Cleanup Day.

### *Outreach Materials*

The following SMCWPPP items are given out by request provided to Permittees, organizations, and residents in San Mateo County (not including the less-toxic pest control items listed in section C.9.h.ii).

- “You Are the Solution to Water Pollution” pamphlet (English and Spanish).
- Stormwater tip card (English, Mandarin, and Spanish).
- Rain barrel tip card.

- Pet waste tip card (English, Mandarin, and Spanish).
- Microplastics tip card (English, Mandarin, and Spanish).
- Litter tip card (English, Mandarin, and Spanish).
- BAWSCA rain barrel rebate packet.
- BAWSCA Lawn Be Gone! & Rain Garden Rebate packet.
- "Keep Car Wash Pollution out of the Storm Drain" pamphlet.
- "Tarp Your Load" flier (English front, Spanish back).
- Two children's activity books: "Pest or Pal" (OWOW – Our Water, Our World) and "Discover Storm Water".
- Green Stormwater Infrastructure Fact Sheet.
- Dog waste bag canister.
- Branded metal straw with rubber tip and cleaner.
- Recycled water bottle pens.
- Branded reusable bags.
- Sea animal stickers.
- Fish erasers.

**Table 7-5. FY 2022-23 Public Outreach and Citizen Involvement Events and Metrics.**

| Dates | Event Location | Event Name | Type of Event | Estimated Event Attendance | Category |
|---|---|---|---|---|---|
| September 17, 2022 | Various - San Mateo County | Coastal Cleanup Day | Volunteer effort | 4,170 | Resident Involvement + Public Outreach |
| October 15, 2022 | The Home Depot, San Mateo | Tabling Event, The Home Depot San Mateo | Tabling | 31 | Public Outreach |
| October 22, 2022 | Online Event | IPM Webinar, "Drought-Proof Your Garden Now for Spring and Summer" | Webinar | 84 | Public Outreach |
| November 3, 2022 | On-site/ In-person, Alta Loma Middle school | Rain Barrel Presentation & Installation, Alta Loma Middle School | Presentation & Installation | 41 | Resident Involvement + Public Outreach |
| November 12, 2022 | On-site In-person, (798 Niantic Ave, Daly City) | Rain Barrel Distribution Event, Daly City | Rain Barrel Distribution | 96 buyers | Resident Involvement + Public Outreach |

| Dates | Event Location | Event Name | Type of Event | Estimated Event Attendance | Category |
|---|---|---|---|---|---|
| November 12, 2022 | On-site In-person The Home Depot | Tabling Event, The Home Depot East Palo Alto | Tabling | 24 | Public Outreach |
| November 19, 2022 | On-site In-person Millbrae Library | Rain Barrel Distribution Event, Millbrae | Rain Barrel Distribution | 341 buyers | Resident Involvement + Public Outreach |
| December 3, 2022 | On-site In-person Redwood City Public Works | Rain Barrel Distribution Event, Redwood City | Rain Barrel Distribution | 165 buyers | Resident Involvement + Public Outreach |
| December 10, 2022 | On-site In-person 1949 Pacifica Blvd., San Mateo | Rain Barrel Distribution Event, San Mateo | Rain Barrel Distribution | 165 buyers | Resident Involvement + Public Outreach |
| January 26, 2023 | Zoom Online Event Thrive Alliance | Thrive Alliance “Rain, Rain Away” | Round Table Presentation | 6 Organizations and online attendees | Partnerships + Alliances |
| February 11, 2023 | Design Tech High-School, Redwood City | High School Presentation, Design Tech High School (Redwood City) | Presentation Interactive Game Quiz | 56 students | Resident Involvement + Public Outreach |
| February 11, 2023 | On-site In-person Hasset Ace Hardware | Tabling Event, Hassett Ace Hardware (Redwood City) | Tabling | 30 | Public Outreach |
| March 25, 2023 | On-site In-Person, Central Middle School (San Carlos) | Rain Barrel Presentation & Installation, Central Middle School | Rain Barrel Workshop Installation | 19 | Resident Involvement + Public Outreach |
| April 15, 2023 | Online event | IPM Webinar, “Gardening in a Changing Climate” | Webinar | 74 | Public Outreach |
| May 6, 2023 | Online event | Rain Garden Webinar, “Sustainably Stylish Rain Gardens” | Webinar | 66 | Public Outreach |

| Dates | Event Location | Event Name | Type of Event | Estimated Event Attendance | Category |
|---|---|---|---|---|---|
| June 10, 2023 | On-site In-person Outdoor Supply & Hardware, Redwood City | Tabling Event, Outdoor Supply & Hardware (Redwood City) | Tabling | 32 | Public Outreach |
| June 24, 2023 | On-site In-person Outdoor Supply & Hardware, Millbrae | Tabling Event, Outdoor Supply & Hardware (Millbrae) | Tabling | 30 | Public Outreach |

(a)

(b)


What Is Green Infrastructure?
Parcel-Scale
Green Streets
Regional Projects
C/CAG

(c)

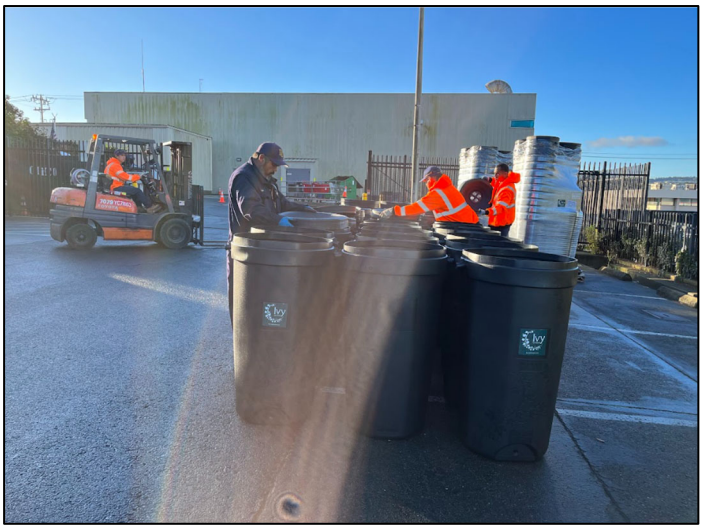

Healthy Garden Maintenance
• Harvest food crops, pick up fallen fruit and nuts that will attract pests like rats, yellowjackets, & other critters
• Fungal spores can spread from diseased leaves and fruit to new plants
• Cleaning up the garden helps us to monitor for problems
• Selective, mindful pruning
• Leave the leaves

(d)


Got garden questions? Get answers

(e)

(f)



(g)

**Figure 7-15. Variety of images from outreach events throughout the fiscal year.**

## C.7.e. Watershed Stewardship Collaborative Efforts

### *Rain Barrel Rebate Program*

During FY 2022/23 SMCWPPP continued its partnership with the Bay Area Water Supply and Conservation Agency (BAWSCA) to promote the countywide rain barrel and lawn replacement/rain garden rebate programs and inspire San Mateo County residents to join the rainwater harvesting movement and to help promote other water conservation events. The program subsidizes the cost of purchasing a rain barrel by providing rebates up to $200. In FY 2022/23 BAWSCA reported a total of 348 rebate applications for its service area (a 7% increase from FY21/22) for a total of 574 rain barrel installations (a 5% increase). This increase was directly impacted by the bulk rain barrel pilot outreach program discussed in section C.7.b.

To date, over 3,274 rain barrels have been installed in San Mateo County under the rebate program. See Section C.7.b. for additional details.

## C.7.f. School-Age Children Outreach

### *Schoolyard Rain Barrel Installation (Greening) Projects*

During the 2020 grant cycle, C/CAG received one of 12 California Resilience Challenge grants in the state to develop resilient schoolyard concept plans for multiple sites in the San Carlos School District to show how GI can be integrated to build climate resilience while also improving water quality, increasing shading and greening on campuses, enhancing outdoor learning environments, and making curriculum connections with teachers and students. This builds on existing school-related efforts that C/CAG has been implementing, including a partnership with the County Office of Education on its environmental literacy program and providing funding for integrated Safe Routes to School / Green Infrastructure projects further described in Section C.3. The final report for Resilient Schoolyards was published in January 2023 and is available to download from the Resilient Schoolyard page on the website here.

In FY 2022/23, with the Resilient Schoolyard Project completed, C/CAG continued the momentum of the project to continue the aims of the resilient schoolyard project and educate schools administrations, teachers, and parents about the benefits of Green Infrastructure on school campuses, by partnering with Each Green Corner and water harvesting specialist Chris Corvetti. Each Green Corner and Corvetti assessed four potential project locations and C/CAG and Each Green Corner sponsored rain barrel installations at two locations, Alta Loma Middle School and Central Middle School (Figure 7-16), both in the San Carlos School District (Table 7-6).

Each Green Corner supplied the barrels and C/CAG provided hardware, learning materials, and snacks. The installations were accompanied by community workshops led by Corvetti. Corvetti discussed rainwater capture, stormwater pollution prevention, and the benefits of rain barrels in mitigating runoff. Students and parents attended the events.

The goals of installation projects such as these are to:

- Conduct hands-on community-based events that engage schools, their students, and surrounding communities while educating and demonstrating how residents may install similar projects on their property.
- Provide climate resilience benefits of GSI to school campuses which may include flood mitigation, reducing urban heat island effects, and increasing natural habitat for pollinators and birds.
- Create an outdoor educational resource that may be used in classroom curricula to discuss the water cycle, environment, watersheds, and effects of climate change.

To learn about the installations at Alta Loma and Central Middle School, read the two posts published on the Flows to Bay website here and here.

**Table 7-6. Greening Schoolyards Program Reach.**

| School | Grades Level | Approximate Number of Students Reached | Details |
|---|---|---|---|
| Alta Loma | Grades 6-8 | 41 | • Classroom presentation to students<br>• Hands-on installation of a 220 Gallon 4-barrel BlueBarrel system |
| Central Middle School | Grades 6-8 | 19 | • Pre-installation workshop with participants.<br>• Hands-on installation of a 220 Gallon 4-barrel Daisy Chain system |

**Figure 7-16. Photos captured during the hands-on rain barrel installation workshop at Central Middle School.**

### *Stormwater Pollution In-Class High School Presentation*

Flows to Bay receives multiple inquiries for assistance with materials or presentations on stormwater pollution prevention. In addition to the two middle school installations, SMCWPPP also conducted a high school presentation on Stormwater Pollution Prevention to 56 students in two high school science classes at Design Tech High School in Redwood City (Figure 7-17). The presentation included an interactive game and a sophisticated activity on how to frame messaging posing issues with solutions for maximizing behavior change. The presentation allowed us to share our message about watershed protection, pollution prevention, and GSI with these impressionable students and the communities around them.



**Figure 7-17. Screen captures of the presentation for the in-class high school presentation.**

### *County Office of Education Environmental Solutionary Teacher Fellowship Program*

In FY 2021/22, SMCWPPP was a supporting partner with the San Mateo County Office of Education to implement a comprehensive, standards-aligned learning units that focused on the environmental, social, and economic impacts of stormwater pollution and watershed management. Flows To Bay served in the role of community-based partner, assisting with stormwater content and being available as a resource for teachers, and conducting in-class presentations as requested.

In total, six teachers from San Mateo County (four schools and three school districts) participated in the fellowship in 2023. SMCWPPP participated in the program as a Community Partner, offering schools an opportunity to have in-class presentations focused on stormwater pollution prevention, access to rain barrel installations, and supplemental eco-literacy resources via the www.flowstobay.org website. As a result of the 2022 program, SMCWPPP program staff presented at two high school science classes at Redwood City Design Tech, as noted above. SMCWPPP staff also planned for a presentation and materials outreach at a County Office of Education Teacher Fellowship Community Partner event in July 2023.

## C.7.g.iii. Reporting Table

Table 7-7 provides brief descriptions of the current year's outreach campaigns by type of outreach program implemented, per provision C.7.g.iii. reporting requirements. This information is also provided in individual San Mateo County Permittee Annual Reports.

**Table 7-7. C.7.g.iii. Reporting Table.**

| Type of Outreach Program Implemented | Brief Description of Current Year Campaigns | Number of Outreach Campaigns or Events Occurring during Each Permit Year, if Applicable | | | | |
|---|---|---|---|---|---|---|
| | | FY 2022/23 | FY 2023/24 | FY 2024/25 | FY 2025/26 | FY 2026/27 |
| C.7.a. Outreach Campaigns | SMCWPPP conducted several stormwater pollution prevention outreach campaigns covering water pollution, water conservation, water harvesting, wash water pollution, pool and spa discharge, pesticides, and trash and litter reduction, including:<br>▪ Multiple weekly messages on social channels, Facebook, and Instagram, aimed at residential and business audiences;<br>▪ A monthly newsletter aimed at residents containing information on water harvesting, rain gardens, rebates for installations, and featuring community champions who've created drought-resistant gardens;<br>▪ Monthly blogs covering topics such as pest management techniques, rain barrel and rain garden installation how-to, pollution prevention, and water conservation aimed at residents, school communities, and businesses;<br>▪ Live educational webinars on Zoom covering green infrastructure topics aimed at residents;<br>▪ A mail campaign regarding best business practices sent to pest control businesses;<br>▪ An educational video on How Rain Gardens Work placed on social, in newsletters, on the website, and on YouTube; | ▪ 200+ social posts<br>▪ 10 newsletters<br>▪ 12 blog articles<br>▪ 2 live webinars<br>▪ 1 mail campaign<br>▪ 1 video<br>▪ 3 classroom presentations<br>▪ 2 school rain barrel installation<br>▪ 2 workshops<br>▪ 4 Rain barrel distribution events<br>▪ 1 website | | | | |

| Type of Outreach Program Implemented | Brief Description of Current Year Campaigns | Number of Outreach Campaigns or Events Occurring during Each Permit Year, if Applicable | | | | |
|---|---|---|---|---|---|---|
| | | FY 2022/23 | FY 2023/24 | FY 2024/25 | FY 2025/26 | FY 2026/27 |
| | ▪ Classroom presentations and workshops on stormwater pollution prevention aimed at school communities;<br>▪ Rain Barrel distribution events in four cities aimed at residents of SMC; and<br>▪ The update and maintenance of the Flows to Bay website including information, education, guides, and best practices aimed at residents, businesses, and city departments. | | | | | |
| C.7.d. Public Outreach and Citizen Involvement Events | SMCWPPP conducted several resident-involved events including:<br>▪ A Coastal Cleanup Day Volunteer event;<br>▪ Rain barrel distribution events held in four cities aimed at residents;<br>▪ Rain Barrel workshops aimed at residents and school communities;<br>▪ On-site, hands-on rain barrel installations aimed at communities;<br>▪ On-site Integrated Pest Management tabling events aimed at pest control businesses, gardeners and shoppers;<br>▪ IPM store training visits and education aimed at business employees; | 17 events including:<br>▪ 1 Volunteer event<br>▪ 4 Rain Barrel distributions<br>▪ 2 On-site installation workshops<br>▪ 5 tabling events<br>▪ 2 hardware store trainings<br>▪ 1 Round-Table discussion<br>▪ 3 webinars | | | | |

| Type of Outreach Program Implemented | Brief Description of Current Year Campaigns | Number of Outreach Campaigns or Events Occurring during Each Permit Year, if Applicable | | | | |
|---|---|---|---|---|---|---|
| | | FY 2022/23 | FY 2023/24 | FY 2024/25 | FY 2025/26 | FY 2026/27 |
| | ▪ Round Table stormwater education participation with allied groups aimed at residents and municipalities;<br>▪ Virtual workshops and webinars aimed at residents. | | | | | |
| C.7.d. Watershed Stewardship Collaboration | Together with the Bay Area Water Supply and Conservation Agency (BAWSCA), SMCWPPP supported and participated in:<br>▪ A Rain Barrel Rebate program promoted to residents and conducted via newsletter, social media campaigns, and Google ads;<br>▪ A Rain Garden Rebate program aimed at residents and schools and conducted via newsletter, blog, webinar, and social media;<br>▪ And a Lawn B Gone Rebate program aimed at residents and businesses and conducted by newsletter, webinar, and social media.<br><br>The rebate program encourages rebates for stormwater harvesting, water conservation, and lawn replacement by San Mateo County residents. | ▪ 4 Rain Barrel Campaigns with Rebate promotion<br>▪ 2 Rain Garden Webinars with Rebate Promotion | | | | |
| C.7.e. School-Age Children Outreach | SMCWPPP conducted stormwater prevention outreach to K-12 school children including:<br>▪ Conducting 3 Classroom presentations aimed at High School and Middle School students;<br>▪ Leading 2 Hands-On Rain Barrel Installations with community workshops at two Middle Schools; | ▪ 2 Highschool presentations<br>▪ 1 Middle School presentation | | | | |

| Type of Outreach Program Implemented | Brief Description of Current Year Campaigns | Number of Outreach Campaigns or Events Occurring during Each Permit Year, if Applicable | | | | |
|---|---|---|---|---|---|---|
| | | FY 2022/23 | FY 2023/24 | FY 2024/25 | FY 2025/26 | FY 2026/27 |
| | ▪ Providing support for San Mateo's COE's Sustainable and Climate Ready Schools Initiative and the San Carlos Schoolyard Greening Project;<br>▪ And providing downloadable stormwater pollution educational materials, toolkits, and resources for aimed at each educational level for K-12 to teachers via the website. | ▪ 2 Installations and Workshops<br>▪ K-12 Teaching Materials | | | | |
| C.7.f. Outreach to Municipal Officials | SMCWPPP staff developed the following materials to help municipal staff inform municipal officials about MRP 3.0:<br>▪ Fact sheet titled "Stormwater Quality Control Requirements - Information for Developers, Builders and Project Applicants", January 2023.<br>▪ Fact sheet titled "Stormwater Requirements for Construction, Reconstruction, and Maintenance of Roads and Other Pavement", June 2023. | ▪ N/A | | | | |

# FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees comply with requirements in Provision C.7 of the reissued municipal stormwater permit (MRP 3.0) include the following:

- Grow the reach, engagement, and following of SMCWPPP's Facebook and Instagram accounts with posts and advertisements;
- Promote county outreach events through the website and social media;
- Support individual jurisdiction's Pervious Pavement projects to highlight the benefits and support for Green Infrastructure;
- Conduct litter and illegal dumping outreach campaigns to bring awareness to the issue and encourage litter prevention and participation in litter cleanup behavior;
- Continue the bulk rain barrel program to distribute low-cost, high-quality rain barrels to residents while promoting the rain barrel rebate;
- Continue facilitating online and in-person outreach events;
- Host and facilitate in-person tabling events at hardware stores across the county to support IPM message;
- Maintain and update SMCWPPP's www.flowstobay.org website to revise and update the content;
- Continue outreach and promotion of stormwater messaging through the e-newsletter, one of the top performing platforms;
- Grow e-newsletter subscribership numbers through cross-promotion on the website, social media platforms, giveaways, contests, and paid advertising media;
- Support and promote the rain barrel rebate and rain garden rebate programs in partnership with BAWSCA, with C/CAG providing ongoing funding;
- Create a comprehensive program that shares eco-friendly and stormwater pollution prevention practices, rebates, and educational workshops with residents;
- Support one greening project planning and implementation at a priority school, in partnership with community organization such as Each Green Corner, or similar to support GSI efforts, school-age education, and outreach; and
- Ongoing online support of Resilient San Carlos Schoolyards project and supporting COE's Sustainable and Climate Ready Schools Initiative.

# SECTION 8
# C.8 WATER QUALITY MONITORING

On behalf of its member agencies, SMCWPPP performs water quality monitoring activities in compliance with MRP Provision C.8. Per Provision C.8, a complete documentation of all water quality monitoring data collected from October 1, 2022 through September 30, 2023 (i.e., Water Year 2023 or WY 2023) will be presented in SMCWPPP's Urban Creeks Monitoring Report, which will be submitted to the Regional Water Board by March 31, 2024.

# SECTION 9

# C.9 PESTICIDE TOXICITY CONTROLS

## INTRODUCTION

The primary objective of MRP Provision C.9 Pesticides Toxicity Control is to prevent the impairment of urban streams by pesticide-related toxicity. Provision C.9 therefore helps implement the *TMDL for Diazinon and Pesticide-related Toxicity for Urban Creeks* in the San Francisco Bay region. Permittees are required to implement a pesticide toxicity control program that addresses their own use of pesticides and use by others within their jurisdictions. The focus is on pesticides that pose a threat to water quality, including applications with the potential to enter the municipal stormwater conveyance system.

Most MRP-required Provision C.9 tasks are implemented by each individual San Mateo County Permittee. SMCWPPP helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance with Provision C.9 is coordinated through SMCWPPP's Parks Maintenance and Integrated Pest Management (IPM) Work Group, except that Provision C.9.h., the public outreach portion of Provision C.9, is implemented via SMCWPPP's Public Information and Participation (PIP) component.

## IMPLEMENTATION OF MRP PROVISIONS

During FY 2022/23, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.9, with input and assistance provided by the Parks Maintenance and IPM Work Group. Accomplishments included the following:

- Held one meeting of the Parks Maintenance and IPM Work Group.
- Conducted SMCWPPP's Annual Landscape IPM Training Workshop in March 2023.
- Continued coordinating with San Mateo County Agriculture / Weights and Measures.
- Updated the pesticides tracking template with the current two years of pesticide product data from the Department of Pesticide Regulation (DPR) website.
- Participated in relevant BAMSC and CASQA activities.
- Continued to maintain retail partnerships with 10 top-tier stores that sell pesticides/fertilizers within San Mateo County, (e.g., Home Depot and Hassett Ace Hardware). Tasks included ordering materials, organizing outreach collateral, checking in with store managers, and providing outreach to residents. Two new hardware stores were added to the program as of Q3, both Outdoor Supply Hardware locations, and each received a tabling event and employee training to kick off the partnership and presence as a resource to the community. SMCWPPP now has 12 top-tier stores involved in the program.

- Conducted two online webinars with an IPM Advocate in association with Our Water Our World to educate residents about less toxic alternatives to commercial pesticides and fertilizers. The webinars had 278 registrants, 107 attendees, and 69 feedback surveys taken (64% response rate).
- The IPM Advocate also conducted in-person outreach at popular hardware stores with five tabling events from Fall through Spring and store training with employees at three stores, which required multiple sessions at each store to allow for employees to still be available to customers.
- Sent an email or mailed a letter to active-licensed pest control operators in San Mateo County.

More information on each of these accomplishments is provided below.

## Parks Maintenance and IPM Work Group

The Parks Maintenance and IPM Work Group provides the opportunity for sharing information about MRP Provision C.9 requirements and approaches for achieving compliance. Richard Holtz from the City of Burlingame chaired the work group. The Parks Maintenance and IPM Work Group met one time in FY 2022/23. The attendance list is included in Appendix 9.

## Annual Landscape Integrated Pest Management Workshop

The annual SMCWPPP Landscape IPM Workshop was held online on March 1, 2023. The workshop was attended by 56 municipal staff and contractors and covered the following topics:

- Pesticides and Water Quality
- IPM Techniques for Controlling Rats in Parks
- IPM for Turf Management and Alternatives to Neonicotinoids
- Managing Forests for Fire Resilience
- Regulatory Update and Common Violations

Evaluation forms completed by the workshop's attendees indicated that overall, the workshop was beneficial and met their expectations. Appendix 9 includes the workshop agenda, attendance list, and a summary of the evaluations. Other workshop materials are available on the SMCWPPP website (flowstobay.org).

## Coordination with San Mateo County Department of Agriculture

As in past years, San Mateo County Agriculture / Weights and Measures staff attended the FY 2022/23 meeting of the Parks Maintenance and IPM Work Group and received information on water quality issues and the MRP. In addition, SMCWPPP worked closely with San Mateo County Agriculture / Weights and Measures staff to provide DPR Continuing Education Hours for participants in the Landscape IPM Workshop.

## Pesticide Tracking Template

In FY 2016/17, SMCWPPP developed a template in Excel to assist with pesticide tracking and reporting requirements in MRP Provision C.9.a. The pesticides tracking template utilizes a lookup list of pesticides and active ingredients compiled from data tables available on the Department of Pesticide Regulation

(DPR) website. The template was updated during FY 2022/23 with the current two years of pesticide product data from the DPR website.

## Participation in CASQA

MRP Provision C.9.f. requires Permittees to track and participate in regulatory processes relevant to pesticide toxicity control. During FY 2022/23, SMCWPPP accomplished this task by working with CASQA. For additional information, see the *CASQA 2023 Pesticide Annual Report and Effectiveness Assessment* included in Appendix 13. In addition, SMCWPPP staff stayed current with pesticide controls and regulatory efforts by participating in selected CASQA meetings.

SMCWPPP also provided funds toward implementing the Regional OWOW Program, which is now being managed by CASQA. SMCWPPP staff participated in the CASQA OWOW Committee and provided input, as needed. Additional details are included in the *CASQA FY 22-23 OWOW Annual Report* included in Appendix 13.

## Point of Purchase Outreach

SMCWPPP conducted point-of-purchase outreach to home improvement store consumers at frequently visited stores (e.g., Home Depot and Hassett Ace Hardware), providing tips to residents about the proper use and disposal of pesticides and other lawn and garden chemicals. Through a partnership with a sub-consultant, Charlotte Canner (an IPM Advocate in association with Our Water Our World), SMCWPPP was also able to provide the public with a credible and reliable source of information at tabling events. Charlotte educated consumers and store employees about proper pesticide use, less toxic pesticide options, and effective alternatives to pesticides. Tabling events were held at larger store locations to maximize the outreach effort; photos are included in Appendix 9, Figure 9A-1. Tabling events were promoted via Facebook, Instagram, the SMCWPPP event calendar, and by PIP Subcommittee members.

SMCWPPP's in-store tabling events consisted of educating consumers about (1) stormwater runoff, (2) the role residents play in reducing pesticide use, (3) the less-toxic pesticides sold in the store, and (4) proper usage of pesticides and current pest problems/less-toxic solutions to these problems. At these events, consumers were directly engaged with and informed about solutions for every issue – from sooty mold to gophers. Swag items were also given away. Table 9-1 below summarizes the five tabling events held during FY 2022/23, which included engagement with 159 store associates and customers. Appendix 9, Figure 9A-2 shows examples of graphics designed to promote the events.

Program materials were provided directly to the public via point-of-purchase displays during tabling events at a time when residents are most receptive to hearing our message. Additionally, shelf talkers were placed next to products that are Our Water Our World (OWOW) certified as less toxic, and topic-specific factsheets from OWOW were re-stocked quarterly throughout the fiscal year during store visits. All of these efforts helped to promote the regional OWOW program. Table 9-2 lists the 12 stores that currently participate in the OWOW point-of-purchase program. Appendix 9, Figure 9A-3 shows photographs from store visits.

Charlotte, the point-of-purchase sub-consultant, was also the expert instructor for employee store training (Appendix 9, Figure 9A-4) and two IPM-focused webinars. The webinars educated residents about proper pesticide use, less toxic pesticide options, effective alternatives to pesticides, preventative pest management tips, and suggested actions for the garden and yard. Each webinar was tailored to the season.

The titles and dates of each webinar during FY 2022/23 were:

- October 22, 2022–*Drought-Proof Your Garden Now for Spring & Summer*
- April 15, 2023–*Gardening in a Changing Climate*

The online events were promoted via Facebook, Instagram, the SMCWPPP event calendar, Meta (Facebook and Instagram) ads, the SMCWPPP mailing list, and through the PIP Subcommittee members and local partners. Table 9-3 provides data from the IPM-focused webinars. Appendix 9, Figure 9A-5 shows graphics designed to promote the webinars.

**Table 9-1. FY 2022/23 San Mateo County IPM In-store Tabling Events**

| Store | Date of Tabling Event | Number of People Engaged With | Number of Surveys Taken |
|---|---|---|---|
| Home Depot, San Mateo | 10/15/22 | 31 customers and associates | 5 |
| Home Depot, East Palo Alto | 11/12/2022 | 24 customers/9 associates | 1 |
| Hassett Ace Hardware, Redwood City | 2/11/23 | 30 customers/3 associates | 4 |
| Outdoor Supply Hardware, Redwood City | 6/11/23 | 29 customers/3 associates | 0 |
| Outdoor Supply Hardware, Millbrae | 6/24/23 | 28 customers/ 2 associates | 2 |

**Table 9-2. FY 2022/23 San Mateo County Participating OWOW Hardware Stores**

| Store Name | Address | City |
|---|---|---|
| Brisbane Hardware | 1 Visitacion Ave. | Brisbane |
| Hassett Ace Hardware | 1029 Alameda de las Pulgas | Belmont |
| Hassett Ace Hardware | 545 1st Ave. | San Mateo |
| Hassett Ace Hardware | 111 Main St. | Half Moon Bay |
| Hassett Ace Hardware | 282 Woodside Plaza | Redwood City |
| Lyngso Garden Materials, Inc | 345 Shoreway Rd. | San Carlos |
| Outdoor Supply & Hardware | 900 El Camino Real | Millbrae |
| Outdoor Supply & Hardware | 2110 Middlefield Rd | Redwood City |

| Store Name | Address | City |
|---|---|---|
| The Home Depot | 2 Colma Blvd. | Colma |
| The Home Depot | 303 Lake Merced Blvd. | Daly City |
| The Home Depot | 1781 E Bayshore Rd. | East Palo Alto |
| The Home Depot | 2001 Chess Dr. | San Mateo |

**Table 9-3. FY 2022/23 IPM-Focused Webinar Data**

| Dates | Webinar Name | Number of Attendees | Number of Registrants | Attendee Rate | Number of Surveys Taken |
|---|---|---|---|---|---|
| 10/22/23 | Drought-Proof Your Garden Now For Spring & Summer | 84 | 204 | 41% | 51 |
| 4/15/23 | Gardening In A Changing Climate | 23 | 74 | 31% | 18 |

For each of the two webinars, SMCWPPP:

- Set up a registration page on Zoom, created Facebook and Instagram posts on our feed and Story, created and paid for boosting a Facebook event, and sent an e-newsletter to our mailing list. We also conducted outreach to the PIP members and local organizations to help spread awareness about our webinars. Some noteworthy about our process is that we set up unique URLs on the Zoom registration page for each promotional source, so we inform promotional strategy for our next webinar; this helps us learn what worked well and what didn't, which can influence strategy for future webinar promotional campaigns. Our e-newsletter continues to be the highest-performing source for webinar registrants.
- Conducted polls during the webinar and fielded questions during the webinar (the majority of which were answered live by the expert instructor).
- Sent a feedback survey after each webinar with an incentive to participate, which offered a gift card to a random winner at their choice of local hardware store so they can implement the practices discussed during the webinar. Resources shared during the webinar were also shared in the post-webinar email, as well as a recording of the full webinar, and often, shorter tip-focused clips from the webinar recording. Our YouTube page and embedded on our website's "Pest Management" page are webinar recordings and shorter clips.

Appendix 9, Figure 9a-6 and Figure 9a-7 provide screenshots captured during this fiscal year's webinars.

**Promotional Campaign Results – October '22 Webinar**

1,398 total Facebook reach on posts

- 630 total Instagram reach on posts

- 30 total page views on event within SMCWPPP's website Events Calendar
- 1,928 total reach for Facebook event
- 94 total event responses for Facebook events about the webinar
- 1,280 total opens for e-Newsletter about the webinar
- 67 total clicks to Zoom registration page for the webinar on the relevant e-Newsletter

**Promotional Campaign Results – April '23 Webinar**

- 5,098 total Facebook reach on posts
- 700 total Instagram reach on posts
- 12,512 reach on a Meta Ads campaign with 26,771 impressions and 209 link clicks
- 2,645 total reach for Facebook event
- 35 total event responses for Facebook events about the webinar
- 1,468 total opens for e-Newsletter about the webinar
- 76 total clicks to Zoom registration page for the webinar on the relevant e-Newsletter

Lastly, Charlotte also prepared a monthly "Simple Tip" social media post in English and Spanish covering seasonal pests, identification of pests, life cycle, prevention, and control options for pests. To support accessibility, we prepared Spanish translation of the tips. See Appendix 9, Figure 9A-8 for examples of these posts.

## Pest Control Contracting Outreach

In FY 2022/23, SMCWPPP continued outreach that directly targets residents and pest control contractors, to (1) encourage San Mateo County communities to reduce their reliance on toxic pesticides that threaten water quality, (2) encourage public and private landscape irrigation practices that minimize pesticide runoff, (3) promote appropriate disposal of unused pesticides, and (4) encourage residents to hire pest control professionals that use IPM practices.

SMCWPPP conducted this outreach via Facebook and Instagram. Examples of Facebook posts are shown in Figure 9-1 and Instagram posts in Figure 9-2.

The following is a breakdown of posts related to pest control promoted during FY 2022/23:

**Facebook**

- 30 posts
- 155 engagements (likes, comments, shares, and link clicks)
- 11,975 reach

**Instagram**

- 30 posts
- 245 engagements (likes, comments, shares, and saves)
- 4,772 reach

In addition to social media posts, SMCWPPP stocked OWOW fact sheets detailing IPM approaches to various pest-related problems, as well as resources for hiring pest control companies and disposing of pesticides responsibly in literature racks at the hardware stores listed in Table 9-2.

To help fulfill the MRP Provision C.9.e.ii. (3) requirement for outreach to pest control operators, the Countywide Program incorporated direct outreach to pest control operators. The aim of this outreach was to inform pest control operators of the hazards of pesticides and to encourage the reduction of their usage. Prior to outreach, the SMCWPPP team reviewed the Department of Consumer Affairs (DCA) License Database and updated our database of San Mateo County pest control operators accordingly. Research was conducted for active pest control operators' email addresses as needed. A page is dedicated to pest control professionals on the SMCWPPP website. The page can be viewed in Figure 9-3 or by visiting: flowstobay.org/preventing-stormwater-pollution/at-home/pestpro.

The SMCWPPP team sent a letter outlining best practices via mail to active pest control operators with an address in the database. The email focused on 1) The critical role pest control professionals in San Mateo County play in keeping pesticides out of our waterways, 2) Encouragement of pest control professionals to adopt IPM practices to help minimize the negative effects on water quality and aquatic life, and 3) Steps are listed for certifications. The letter was sent in late June at the beginning of the summer season.

**Results of Outreach (Table 9-4)**

- 38 active-licensed pest control operators received the letter via mail.

**Table 9-4. FY 2022/23 outreach results with licensed pest control operators**

| Number of Active-Licensed Pest Control Operators | Received Letter via Email |
|---|---|
| 38 | 38 |

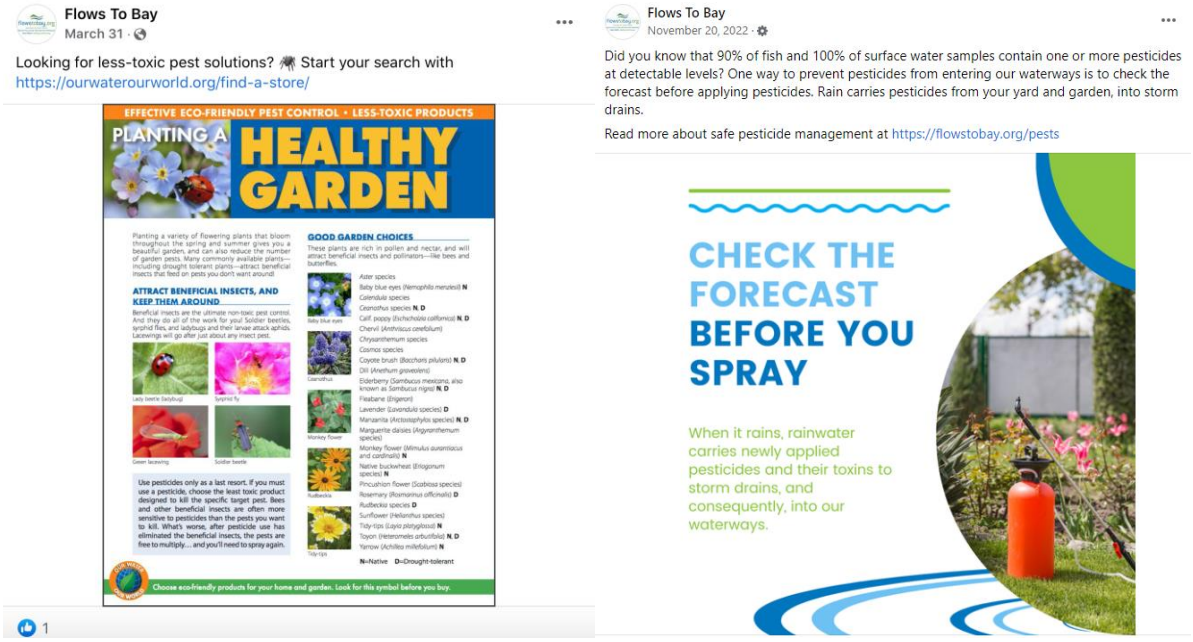



**Figure 9-1. Examples of Facebook posts promoting pesticide pollution prevention**

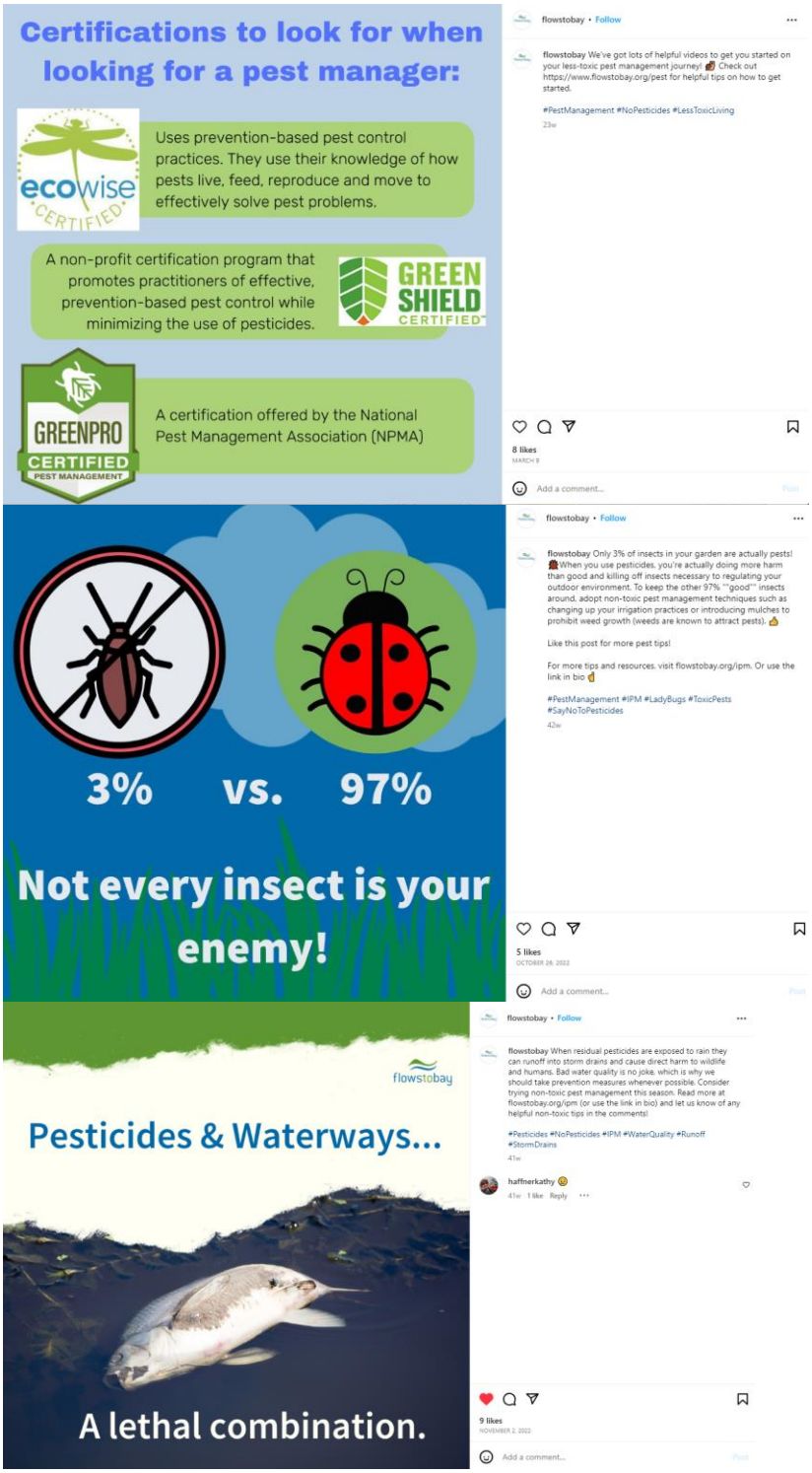



**Figure 9-2. Examples of Instagram posts promoting pesticide pollution prevention**

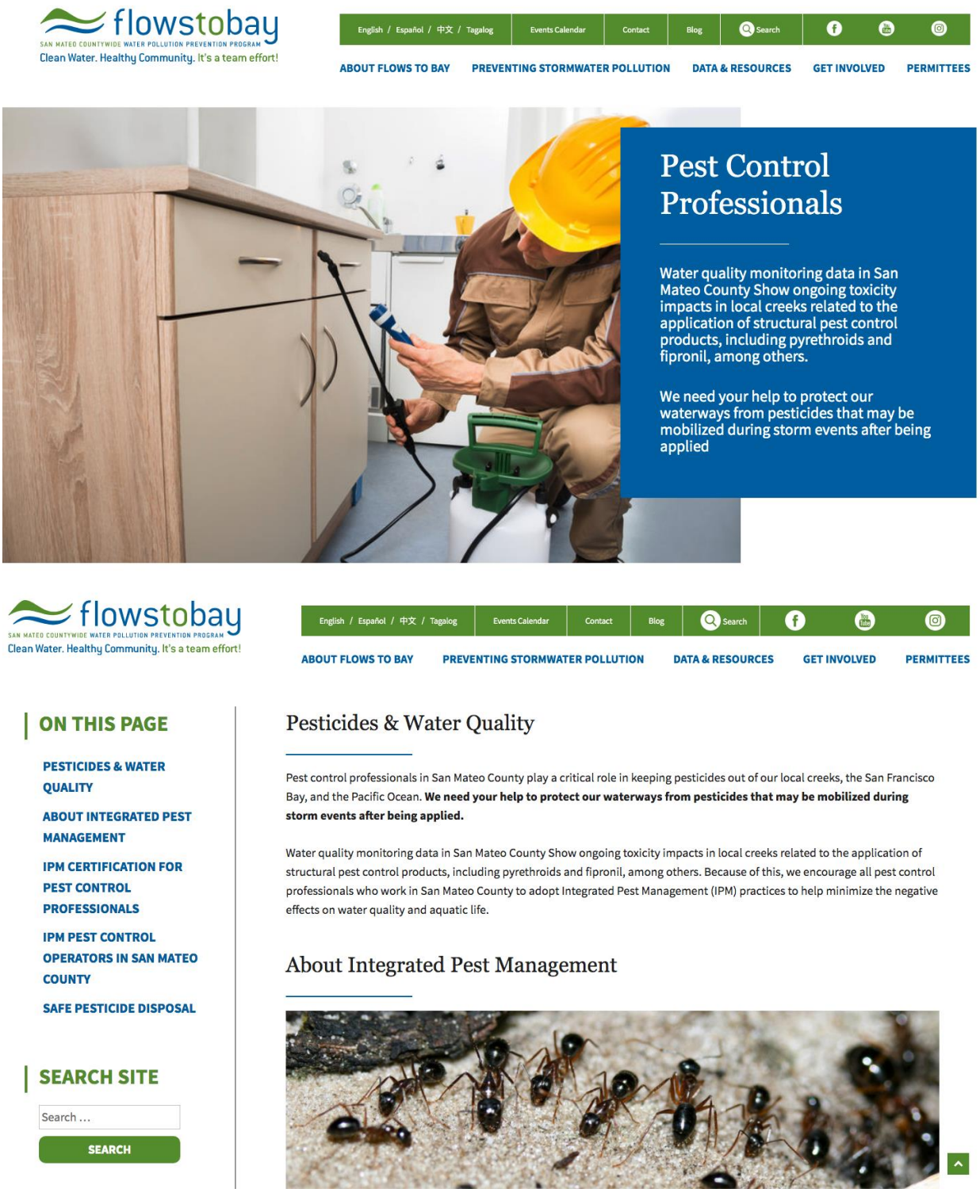



**Figure 9-3. Screenshots of "Pest Control Professionals" web page on the SMCWPPP website**

# FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees understand and comply with requirements in Provision C.9 of the reissued municipal stormwater permit (MRP 3.0) include the following:

- Continue to assist member agencies implement their IPM programs and policies, with input and assistance provided by the Parks Maintenance and IPM Work Group;
- Continue holding Parks Maintenance and IPM Work Group meetings once per year;
- Continue conduct annual landscape and/or structural IPM training workshop (if selected as priority topic among potential trainings using limited FY 2022/23 budget);
- Continue to coordinate with County Agriculture / Weights & Measures;
- Coordinate and execute online events related to water pollution prevention;
- Launch promotional campaigns to promote online events;
- Continue using signage and materials developed by OWOW for the point-of-purchase program;
- Perform outreach messaging to residents on best practices for hiring pest control contractors certified in IPM via fact sheets, SMCWPPP's website (flowstobay.org), social media posts, and the SMCWPPP e-newsletter; and
- Send direct mailers and email communications to pest control professionals that encourage IPM certification and education.

# SECTION 10
# C.10 TRASH LOAD REDUCTION

## INTRODUCTION

MRP Provision C.10 Trash Load Reduction tasks are implemented by each San Mateo County Permittee. SMCWPPP helps agency staff to understand trash load reduction requirements and develops various tools needed to effectively plan, implement, and report on compliance with the requirements. Provision C.10 requires Permittees (as applicable) to:

- Reduce trash discharges from 2009 levels by 90% by June 30, 2023 and 100% by June 30, 2025.
- Implement trash prevention and control actions, including full trash capture systems or other trash management actions, or combinations of actions, with trash discharge control equivalent to or better than full trash capture systems, to reduce trash generation to a low trash generation rate or better;
- Ensure that private lands that are moderate, high, or very high trash generating, and that drain to storm drain inlets that Permittees do not own or operate (private), but that are plumbed to Permittees' storm drain systems are equipped with full trash capture systems or are managed with trash discharge control actions equivalent to or better than full trash capture systems;
- Maintain and provide documentation of the design, operation, and maintenance of full trash capture systems, including the mapped location and drainage area served;
- Assess trash reductions associated with control measures other than full capture systems using a visual assessment protocol; and
- Maintain a Long-Term Trash Load Reduction Plan designed to achieve 100% trash reduction.

During FY 2022/23, SMCWPPP completed the tasks described below in support of member agency trash management activities conducted in compliance with the above requirements.

## IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP performs a variety of tasks to assist San Mateo County Permittees with implementation of MRP Provision C.10 and the requirements listed above, with input and assistance provided by the SMCWPPP Trash Subcommittee. FY 2022/23 accomplishments included the following:

- Coordinated and facilitated five meetings of SMCWPPP's Trash Subcommittee;
- Assisted San Mateo County Permittees in delineating trash full capture treatment areas and managing trash full capture information in GIS (currently > 10,800 acres are treated by full capture systems in San Mateo County);

- Continued to implement SMCWPPP's Trash Assessment Strategy, including conducting 601 On-land Visual Trash Assessments (OVTAs) at 227 sites in FY 2022/23 and maintained the Countywide Program's Trash Load Reduction dashboard to allow San Mateo County Permittees to have access to load reduction estimates;
- Continued to provide guidance to San Mateo County Permittees on MRP operation and maintenance requirements and standard operating procedures for trash full capture systems;
- Held the Litter Work Group's 5th Roundtable Event to provide the results of the Litter Characterization Study on September 1, 2022, and shared information on best practices of litter and single-use plastic food service ware;
- Completed a memorandum describing the recommended approach for implementing a Model Private Land Drainage Areas (PLDAs) Trash Inspection Program (TIP), guidance on developing a San Mateo County Permittee PLDA Trash Inspection Program Plan and inventory of potential PLDAs;
- Shared information on regional, state, and federal litter-related topics including foodware reuse and reduction programs, legislation, illegal dumping, and guidance documents;
- Coordinated with the SMCWPPP Public Information and Participation (PIP) Subcommittee on public outreach efforts targeting litter reduction;
- Finalized an expanded countywide analysis to identify additional/revised large full trash capture systems that address Caltrans and SMCWPPP member agency trash generating areas (including re-evaluation of catchments with small full trash capture systems already installed);
- Coordinated with SMCWPPP Permittee, Caltrans, and the Regional Water Board staff on the potential installation of a large trash full-capture system through a cooperative implementation agreement;
- Developed guidance and templates for SMCWPPP Permittees that did not achieve the 90% trash load reduction benchmark by June 30, 2023; and
- Assisted San Mateo County Permittees in developing information necessary for reporting trash load reductions with their FY 2022/23 Annual Reports.

More information on each of these accomplishments is provided below.

## Trash Subcommittee

SMCWPPP's Trash Subcommittee assists San Mateo County Permittees with the implementation of new or enhanced trash control measures and actions required by the MRP. The Trash Subcommittee generally meets quarterly. Additional meetings are scheduled as necessary to address high priority issues.

During FY 2022/23, SMCWPPP staff facilitated five Trash Subcommittee meetings, which were chaired by Chris Sommers (EOA, Inc.). The Trash Subcommittee continued to have excellent participation by municipal staff and other stakeholders, as shown in the FY 2022/23 attendance list (Appendix 10).

During the Trash Subcommittee meetings in FY 2022/23, Subcommittee members discussed and provided input on the following topics/projects:

- C.10 requirements in the MRP;

- SMCWPPP Long-Term Trash Reduction Guidance Work Plan tasks;
- Countywide expanded analysis of potential large trash full capture locations associated with Caltrans ROW;
- The development of a grant application through C/CAG for funding from the USEPA San Francisco Bay Water Quality Improvement Fund;
- New or planned installations of trash full capture systems in San Mateo County Permittee jurisdictions;
- The FY 2022/23 Annual Report format for Provision C.10;
- Trash Impracticability Report;
- Discharges associated with unsheltered homeless populations;
- Receiving water trash monitoring;
- Multi-benefit full trash capture system;
- Other opportunities for collaboration with Caltrans; and
- SMCWPPP Trash Assessment Strategy, including OVTAs conducted in Trash Management Areas (TMAs).

## Demonstration of Trash Load Reductions (C.10.a.ii.)

SMCWPPP developed an initial *Trash Assessment Strategy* (Assessment Strategy) in FY 2013/14 on behalf of San Mateo County Permittees. The Strategy was submitted to the Regional Water Board on February 3, 2014, as part of San Mateo County Permittee Long-Term Trash Load Reduction Plans and was intended to serve as version 2.0 of the trash tracking method required by the Permit. SMCWPPP began to implement the Strategy in FY 2013/14 and continued to implement it at a full-scale in FY 2022/23 on behalf of (and in collaboration with) all San Mateo County Permittees.

The Assessment Strategy is intended to provide information on the magnitude and extent of trash reductions associated with stormwater discharges in the San Mateo County. It is consistent with C.10 assessment and reporting requirements in the MRP and is primarily designed to answer the following core management question:

> *Have MS4 trash load reduction targets (i.e., 40%, 70%, and No Adverse Impacts) been achieved by San Mateo County Permittees?*

The primary environmental and programmatic indicators that SMCWPPP and San Mateo County Permittees currently track to answer this core management question are:

1. **Full Capture Systems** – The extent of areas effectively treated by trash full capture devices and the operation and maintenance of these devices;
2. **Other Trash Controls** – Reductions in the levels of trash observed on-land and available to enter MS4s;
3. **Additional Creek and Shoreline Cleanups (Offset)** – The volumes of trash removed via creek and shoreline cleanup events; and

4. **Source Controls (Credits)** – Reductions in the levels of litter prone items observed in the environment that are subject to source controls, such as ordinances that limit or prohibit the distribution of specific types of items;
5. **Direct Discharge Programs (Offset)** – The extent and magnitude of trash removed or prevented from entering a receiving water body from pathways other than stormwater that are directly impacting those water bodies (e.g., illegal dumping or illegal encampments).

In selecting the indicators above, San Mateo County Permittees recognized that multiple indicators can provide the information necessary to definitively determine that progress has been made to reduce trash discharged from MS4s. SMCWPPP's methods used to collect or track information on the primary indicators 1, 2 and 3 listed above are briefly described below, along with summaries of associated activities conducted by SMCWPPP in FY 2022/23. Because trash load reduction credits for existing source controls are no longer allowable under the MRP, indicator 4 is not used by SMCWPPP Permittees when demonstrating trash load reductions. Additionally, methods used to assess indicator 5 have not been implemented to-date because none of the San Mateo County Permittees has submitted or implemented an optional direct discharge plan as outlined in the MRP. Additional information and the results of data collected to support indicators 1, 2 and 3 are found in Section 10, Provision C.10.b.iii(a) and (b), of individual San Mateo County Permittee FY 2022/23 Annual Reports.

**1. Full Capture Systems (Including Operation and Maintenance)**

Devices and facilities meeting the trash full capture design criteria described in the MRP and certified by the State Water Resources Control Board (State Water Board) are effective trash controls if adequately maintained to ensure their capture efficiency. Consistent with the Long-Term Plan Framework and the State Water Board's Trash Amendments, if a full capture device is maintained effectively then trash from the area draining to the device is effectively reduced to a level of "no adverse impacts" and has achieved the ultimate trash reduction benchmark outlined in the MRP (i.e., 100% reduction). Additional trash reductions, therefore, are not needed in areas draining to (and treated by) full capture systems to demonstrate compliance with the MRP benchmarks.

From FY 2013/14 through FY 2022/23, SMCWPPP and San Mateo County Permittees have expended considerable time and resources identifying and mapping areas draining to full capture devices, using a combination of fieldwork and desktop Geographical Information System (GIS) analysis. Drainage areas for newly installed full capture devices are delineated and mapped as part of an annual update of individual San Mateo County Permittee full-capture device GIS data layers. As a result, all drainage areas have been delineated for all devices installed to-date in San Mateo County. More than 10,800 acres of land area is currently treated by full capture systems in San Mateo County. Trash reductions associated with these areas are calculated based on the baseline trash generation levels established on San Mateo County Permittee baseline trash generation maps and are reported in individual Permittee Annual Reports (see Section C.10).

In accordance with MRP provision C.10.a.ii(a) and the State Water Board's Trash Full Capture Certification process, stormwater treatment facilities (e.g., bioretention systems) implemented in accordance with MRP provision C.3 are deemed a full capture system if the facility, including its maintenance, prevents the discharge of trash to the downstream MS4 and receiving waters and discharge points from the facility, including overflows, are appropriately screened or otherwise configured to meet the full trash capture screening specification for storm flows up to the full trash capture one year, one hour storm hydraulic specification. Based on this definition, San Mateo County

Permittees have applied a very conservative assumption to determine which bioretention facilities constructed in San Mateo County are meeting the criteria included in the MRP and the State Water Board Certification Factsheets for "multi-benefit" stormwater treatment systems should be considered trash full capture systems. Currently, only bioretention facilities constructed after July 1, 2010, designed to treat at least 3% of the drainage management area (DMA), and have at least a 6-inch ponding depth have been identified by San Mateo County Permittees as meeting the definition of a trash full capture system. A technical memorandum describing the analysis conducted by the Santa Clara Valley Urban Pollution Prevention Program (SCVURPPP) that supports the application of these criteria and considering these multi-benefit systems as trash full capture systems was provided in Appendix 10-1 of SCVURPPP's FY 2021/22 Annual Report.

Additionally, SMCWPPP completed the development of a Model Trash Full Capture Device O&M Verification Program in FY 2015/16. The O&M Verification Program is intended to ensure that devices are operated at a level necessary to maintain their full capture designation. In FY 2022/23, SMCWPPP continued to provide guidance to San Mateo County Permittees on O&M requirements and standard operating procedures developed for San Mateo County Permittees as part of the Model Verification Program. San Mateo County Permittees with full capture devices have an O&M verification program tailored to fit the types of devices in their stormwater conveyance system and the associated maintenance procedures needed to adequately maintain these devices. Individual San Mateo County Permittee Annual Reports provide information regarding O&M of full capture devices and any associated issues with the devices (see Section 10, Provision C.10.b.i. and ii.).

**2. Other Trash Control Measures (via On-land Trash Visual Assessments)**

In FY 2013/14, SMCWPPP developed a pilot approach to assess trash reductions on land areas that generate substantial levels of trash (i.e., very high, high, or moderate trash generation) and are not treated by full capture devices. The approach uses on-land visual trash assessment (OVTA) protocols to record changes in the levels of trash on streets, sidewalks, and properties over time. The assessment protocols score sites/areas using a 4-tier system (A - D, A being the least amount of trash). The four OVTA scoring categories correspond with the four trash generation rate categories (i.e., low-A; moderate-B; high-C; and very high - D) and the associated weighting factors (i.e., 0, 1, 4, 12) included in the MRP.

Consistent with the MRP, OVTAs are conducted at randomly selected street/sidewalk sites representing at least 10% of the applicable street miles in each trash management area (TMA) where trash reductions are being reported by San Mateo County Permittees. OVTAs are conducted at a frequency necessary to confidently detect reductions in trash levels at these sites. Based on the findings of the *Tracking California's Trash* State Water Resources Control Board funded project, conducting between 4 and 6 assessments on average at a site will allow improvements in trash levels to be detected with an acceptable level of confidence. Currently, SMCWPPP annually conducts roughly three assessments at each site each FY and then averages two FYs of data to calculate trash load reductions in a given FY. For example, in reporting reductions for FY 2022/23, results from assessments conducted in both FY 2021/22 and FY 2022/23 were averaged and used to represent the "current" levels of trash within the applicable land areas.

During FY 2022/23, SMCWPPP staff conducted 601 OVTAs at 227 assessment sites (averaging 1,000 feet in length). All OVTA sites were assessed at least two times during FY 2022/23, and most were assessed three times. During a typical year, all sites are assessed three times. Table 10-1 summarizes

the number of OVTAs conducted each fiscal year from FY 2015/16 through FY 2022/23. OVTA data are stored in the SMCWPPP Trash Load Reduction Dashboard, which is available to San Mateo County Permittees.

**Table 10-1. Number of OVTAs completed in San Mateo County by fiscal year.**

| FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
|---|---|---|---|---|---|---|---|
| 688 | 499 | 827 | 704 | 562 | 788 | 677 | 601 |

**3. Additional Creek and Shoreline Cleanups (via volumes of trash removed from waterways)**

San Mateo County Permittees are also allowed to claim up to a 10% trash load reduction for conducting trash cleanups of creek and shoreline areas. SMCWPPP assists San Mateo County Permittees by calculating load reductions associated with these efforts based on the volumes of trash reported. Load reductions associated with these efforts are calculated based on methods described in the MRP and are reported in Section C.10.f.i. of individual San Mateo County Permittee Annual Reports.

**4. Direct Discharge Programs**

To-date, San Mateo County Permittees have not submitted or implemented an optional direct discharge plan as outlined in the MRP.

## Model Private Land Drainage Area Trash Control Program

As described in MRP 3.0 Provision C.10.a.ii(b), private properties that 1) generate moderate, high, or very high level of trash, 2) are plumbed to the San Mateo County Permittee's MS4, and 3) are not already addressed by a full capture device are required to be equipped with a full capture device or be managed by trash control measures equivalent to or better than a full capture device by July 1, 2025.

To address trash contributions from these properties, which are referred to as Private Land Drainage Areas (PLDAs), SMCWPPP finalized a memorandum in FY 2022/23 describing the recommended approach for implementing a Trash Inspection Program (TIP) for PLDAs. Guidance on developing a San Mateo County Permittee TIP Plan and inventory of PLDAs greater than 10,000 $ft^2$ were included as attachments to the memorandum. Through the TIP, inspections are performed on PLDAs and if the level of trash observed on the property via OVTAs is greater than low trash generation, property owners and/or managers are required to implement additional trash control measures and achieve low trash generation. Trash control measures may include FTC systems or other types of trash control actions. The goal of the TIP is to address trash from all PLDAs in the City by July 1, 2025. Some San Mateo County Permittees began implementing a TIP on PLDAs prior to or during FY 2022/23. As described in Permittee FY 2022/23 Annual Reports, in FY 2023/24 Permittees will implement the TIP, prioritizing inspections at PLDAs that are believed to generate the greatest levels of trash.

As part of part of launching San Mateo County Permittee PLDA TIPs, SMCWPPP plans to provide field training on how to perform PLDA trash inspections in October 2023. A standardized PLDA inspection data collection form is currently being developed and will be presented at the training. During FY 2023/24, SMCWPPP will also develop a fact sheet and inspection letter for San Mateo County Permittees to use in educating property owners and managers about trash reduction requirements; additional tools for

tracking, managing, and reporting PLDA inspections conducted in future years; and identify remaining PLDAs that are less than 10,000 $ft^2$ for inclusion in the TIPs.

## Litter Work Group

SMCWPPP's Litter Work Group, which was formed in March 2014, was integrated into the SMCWPPP Trash Subcommittee in FY 2022/23. Coordination on litter reduction efforts and other trash/litter issues related to MRP 3.0 compliance, is now discussed at Trash Subcommittee meetings. Topics discussed in FY 2022/23 include efforts by SMCWPPP, waste and stormwater program staff from San Mateo County Permittees, the San Mateo Countywide Recycling Committee, and franchised waste collection and processing companies serving those jurisdictions. During FY 2022/23, the Program shared information on regional, state, and federal topics including foodware reuse and reduction programs, legislation, illegal dumping, and guidance documents.

## Coordination with San Mateo Countywide Recycling Committee

To increase coordination among solid waste and recycling programs and San Mateo County Permittee MS4 trash reduction activities, SMCWPPP staff began attending Countywide Recycling Committee meetings in FY 2012/13. SMCWPPP continued to coordinate with the Recycling Committee in FY 2022/23, specifically targeting outreach and coordination with municipally solid waste/recyclables haulers in San Mateo County to reduce trash impacts associated with inadequate waste container management. SMCWPPP staff also coordinated with the Recycling Committee on collection activities, PCBs and demolition regulations, litter reduction and zero waste building design and operation, source reduction policies, and zero waste programs.

## Countywide Expanded Analysis of Potential Large Trash Full Capture Locations Associated with Caltrans ROW

On February 13, 2019, the Regional Water Board adopted a Cease-and-Desist Order (CDO) against Caltrans, requiring it to significantly increase the rate and extent of control measure implementation to address trash discharges from its right-of-way (ROW). To meet the CDOs required targets, Caltrans is attempting to identify trash full capture systems that would be mutually beneficial to Caltrans and MRP Permittees. To assist Caltrans in identifying these systems, on April 24, 2019, Regional Water Board staff requested that all MRP Permittees identify the following:

- Mapped drainage areas of municipal jurisdiction that abut Caltrans ROW; and
- A list of already completed, planned, or potential projects in municipal drainage areas that abut Caltrans ROW that control or would control trash from the adjacent Caltrans ROW.

In response to this request, SMCWPPP conducted a preliminary analysis and worked with San Mateo County Permittees to develop a list and series of maps illustrating completed, planned, and potential trash full capture projects in municipal drainage areas in San Mateo County that also address trash in stormwater that is generated on Caltrans ROW. The list included the following preliminary information:

- Estimated Caltrans ROW addressed by San Mateo County Permittees' existing or planned Trash Capture Systems (large and small);
- Whether the Permittee has an existing Cooperative Implementation Agreement with Caltrans on Trash Capture System(s);

- Caltrans ROW within Permittee boundaries that is not addressed by existing systems;
- Estimated Caltrans ROW that may be addressed by potential (future) trash capture systems and should be evaluated further; and
- San Mateo County Permittee contact information.

This information was submitted to Regional Water Board staff on May 31, 2019, in response to the request.

After the submittal of the information in May 2019, San Mateo County Permittees with support from SMCWPPP Program staff, continued to discuss potential cooperative agreements and reimbursements with Caltrans for existing, planned, and potential full capture systems that are mutually beneficial to Caltrans and San Mateo County Permittees. Meetings between Caltrans and SMCWPPP Permittees were coordinated by SMCWPPP to continue the discussion of opportunities. As a result of these discussions, in FY 2021/22 SMCWPPP Program staff conducted an expanded countywide analysis of potential large trash full capture locations associated with Caltrans ROW. This analysis was conducted to supplement the preliminary analysis Completed in May 2019. The analysis included a re-evaluation of catchments where small full trash capture systems have been installed by Permittees.

As part of Task 1 of the expanded analysis, a desktop evaluation was completed in January 2022 to identify which catchments drain Caltrans and San Mateo County Permittee trash generating areas. This evaluation resulted in the identification of 165 stormwater catchments, which was narrowed down to 41 based on criteria used to site large full capture systems. GIS and tabular data associated with the 41 catchments were provided to 14 San Mateo County Permittee that have trash generating areas within these catchments. Based on the input from San Mateo County Permittee staff, the 41 catchments were narrowed to 20, with 13 identified as high priority and 7 identified as moderate priority.

In March 2022, Countywide Program and San Mateo County Permittee staff conducted field visits to the 13 high priority catchments to further identify potential device locations and evaluate the feasibility of constructing large capture systems in these catchments. The field visits resulted in identification of 10 locations for large trash capture system conceptual design development. Conceptual designs were developed in late FY 2021/22 and include the results of a simplified hydrological analysis based on the 1-year, 1-hour storm for the drainage area associated with each proposed location to determine the peak flow rate. The designs also included the identification of potential system type(s) and configuration(s)/design(s), treatment areas, trash reduction benefits, preliminary capital and annual operation and maintenance costs, and site-specific considerations for each proposed large full capture system location. One-page fact sheets with conceptual designs/drawings for each proposed system location were developed to assist with further dialogue between each applicable San Mateo County Permittee and Caltrans. Final fact sheets with conceptual designs/drawings for the proposed 10 locations were completed in October 2022.

## BAMSC Trash Full Capture System Impracticability Report (C.10.e.)

Permit Provision C.10.e specifies that MRP Permittees may collectively submit a programmatic Trash Impracticability Report that describes the conditions under which it is impracticable to control trash via full trash capture devices. To guide the development of the report, the Bay Area Municipal Stormwater (BAMS) Collaborative formed the Trash Impracticability Work Group in September 2022. San Mateo County staff participated in three Work Group meetings held in October 2022, December 2022, and

February 2023. The final draft report entitled *Trash Full Capture System Impracticability Report (Report)* was approved by the BAMS Steering Committee on March 23, 2023, for submittal to the Water Board's Executive Officer by March 31. 2023. The Report provides information to improve the successful planning and implementation of control measures to address trash in stormwater. Information provided in the Report is based on a current understanding of the feasibility of siting, designing, installing, and maintaining the types of full trash capture systems certified by the State Water Resources Control Board as of March 2023. It was gained through a survey of BAMS Collaborative members and engineers that design and construct/install these types of systems. On August 14, 2023, Countywide Program Managers received comments on the Report from Water Board staff. Next steps will be discussed at future BAMS Collaborative Steering Committee and Trash Impracticability Work Group meetings in FY 2023/24.

# FUTURE ACTIONS

FY 2023/24 activities that are planned by SMCWPPP to assist San Mateo County Permittees comply with MRP 3.0 Provision C.10 requirements include the following:

- Continued facilitation of SMCWPPP Trash Subcommittee meetings;
- Conduct a series of tasks designed to assist San Mateo County Permittees with the achievement of the 100% trash load reduction or no adverse impact benchmark required by MRP 3.0. Planned tasks include:
    - Refinements of baseline trash generation maps based on more accurate data;
    - Further identification of areas draining to storm drain inlets on private property that should be identified as PLDAs;
    - Developing additional Model Trash Inspection Program tools for addressing trash on PLDAs;
    - Evaluating trash sources and recommending trash control measures for areas continuing to generate significant levels of trash in Permittee jurisdictional areas;
- Continued implementation of the SMCWPPP trash assessment strategy designed to demonstrate progress towards MRP 3.0 trash load reduction goals;
- Continued maintenance of SMCWPPP Trash Load Reduction Dashboard;
- Continued support for long-term plan implementation and control actions for trash management, including guidance on updating/revising Long-term Plans consistent with MRP 3.0 requirements;
- Continued calculation and reporting on trash load reductions for each San Mateo County Permittee;
- Continued calculation and reporting on the amount and types of trash removed via creek and/or shoreline cleanups;
- Continued update/revision of trash generation and full capture system maps and GIS data layers in preparation for the FY 2023/24 Annual Report submittal;
- Continued sharing of information on regional, state, and federal litter-related topics including foodware reuse and reduction programs, legislation, illegal dumping, and guidance documents;
- Continued coordination and information sharing with the SMCWPPP PIP Subcommittee on

countywide litter reduction efforts;

- Continued coordination and information sharing with the Zero Litter Initiative in Santa Clara County;
- Continued coordination with Caltrans for trash capture device design review, purchase, installation, and maintenance agreements; and
- Continued coordination with the New Development Subcommittee (and State and Regional Water Board staff) on trash load reduction credits for LID facilities.

# SECTION 11/12
# C.11/12 MERCURY/PCBs CONTROLS

## INTRODUCTION

Provisions C.11 and C.12 of MRP 3.0 require Permittees to implement control programs to reduce the stormwater impacts of mercury and PCBs on San Francisco Bay (Bay). The Water Board has previously determined that stormwater discharges of these legacy pollutants have contributed to exceedances of water quality objectives and that associated beneficial uses of the Bay are not achieved. The Water Board has therefore adopted water quality attainment strategies called Total Maximum Daily Loads (TMDLs) that assign pollutant load reductions (through waste load allocations) to Bay Area municipal stormwater dischargers. Provisions C.11 and C.12 implement the urban runoff requirements of the mercury and PCBs TMDLs.

The control programs and other actions that Provisions C.11 and C.12 require Permittees to implement during the permit term include the following:

- Assess Mercury and PCBs Load Reductions from Stormwater (C.11/12.a.);
- Program for Source Property Identification and Abatement (C.11/12.b.);
- Program for Control Measure Implementation in Old Industrial Areas (C.11/12.c.);
- Mercury Collection and Recycling Implemented throughout the Region (C.11.d.);
- Program for Controlling PCBs from Bridges and Overpasses (C.12.d.);
- Program for Controlling PCBs from Electrical Utilities (C.12.e.);
- Plan and Implement Green Stormwater Infrastructure to reduce Mercury and PCBs Loads (C.11.e./C.12.f.);
- Manage PCBs-Containing Materials and Wastes During Building Demolition Activities (C.12.g.);
- Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations (C.11.f./C.12.h.);
- Fate and Transport Study of Mercury and PCBs: Urban Runoff Impact on San Francisco Bay Margins (C.11.g./C.12.i.); and
- Risk Reduction Program for Mercury and PCBs (C.11.h./C.12.j.).

During FY 2022/23, Provisions C.11 and C.12 requirements were addressed primarily at three levels: directly by San Mateo County Permittees, at the countywide level via SMCWPPP, and/or at the regional level via the BAMSC. MRP mercury and PCBs requirements are similar due to similarities in the control programs for these sediment-associated and legacy pollutants. Therefore, descriptions of the activities conducted in compliance with the Provisions C.11 and C.12 requirements are grouped into this single section of the SMCWPPP Annual Report.

The remainder of this section is organized by the subprovisions in C.11 and C.12. The subsections below briefly describe the requirements in each subprovision and summarize the compliance activities conducted during FY 2022/23 at the Permittee, Countywide Program (SMCWPPP), and/or regional (BAMSC) levels to address these requirements.

# IMPLEMENTATION OF MRP PROVISIONS

## C.11/12.a. Assess Mercury and PCBs Load Reductions from Stormwater

### *Permit Requirements*

Provisions C.11/12.a. require Permittees to implement an assessment methodology and data collection program to quantify PCBs loads reduced through implementation of all controls described in Provisions C.11/12. At the end of the previous permit term, the Water Board Executive Officer (EO) approved for use during MRP 3.0 the accounting methodologies described in *BASMAA Source Control Load Reduction Accounting for Reasonable Assurance Analysis* (BASMAA 2022). This document describes the calculation methodologies, data requirements, and model parameters used to quantify mercury and PCBs loads reduced for each type of control measure identified in Provisions C.11/12. Permittees will use these methods to quantify the mercury and PCBs load reductions achieved through all controls implemented during the permit term as described in Provisions C.11/12.b. through C.11.e. and C.12.g. To comply with the detailed requirements in the permit for reporting on the mercury and PCBs control programs, San Mateo County Permittees have developed a *Mercury and PCBs Control Measures Report* that will be updated each year of the permit term. Version 1.0 of this report is included in Appendix 11. The report provides or will provide the following:

- Each Year of the Permit:
    - Documentation to confirm that all control measures effectuated during the previous permit term for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction; and
    - Documentation to demonstrate the status of control measure implementation during the current permit term, updated each year of the permit.
- In the 2026 Annual Report:
    - Mercury and PCBs load reductions achieved through implementation of controls since the beginning of the permit term, and estimates of the load reductions from controls taking place through the end of the permit term, including all supporting data to substantiate the load reduction estimates; and
    - Refinements to the measurement and estimation methodologies to assess mercury and PCBs load reductions from control measures in the subsequent permit for Water Board EO approval.

### *Progress during FY 2022/23*

During FY 2022/23, all control measures effectuated during the previous permit term for which load reduction credit was recognized, continued to be implemented at an intensity sufficient to maintain the credited load reduction. Documentation of these controls is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11).

## C.11/12.b. Program for Source Property Identification and Abatement

### *Permit Requirements*

Provisions C.11/12.b. require San Mateo County Permittees to investigate, using both conventional sampling and laboratory analysis techniques, at least 1,411 acres of land areas during the MRP 3.0 permit term that likely contribute mercury and/or PCBs to MS4s. These investigations are focusing on land areas where industrial activities occurred prior to 1980 and continue today (i.e., old industrial land use areas that have not been redeveloped). For properties or land areas found to be contributing substantial amounts of mercury or PCBs or where high mercury or PCBs concentrations are found (generally areas with sediment concentrations greater than 0.5 mg/kg), Permittees will take actions to abate the mercury and PCBs sources into their MS4s or refer the properties to the Water Board for follow-up measures. For each source property referred to the Water Board, Permittees will implement interim enhanced Operation and Maintenance (O&M) measures in the street or storm drain infrastructure adjacent to the referred source property or implement stormwater treatment downstream of the property. Provisions C.11/12.b. reporting requirements include the following:

- In each Annual Report through 2026, Permittees are required to:
    - Report progress on the acreage of land areas investigated, including progress toward investigation of the 1,411 acres of old industrial land uses in San Mateo County. The reporting shall indicate what action was taken for the parcels investigated (e.g., abatement, referral, enforcement, etc.). Permittees are required to submit all supporting data and information including referral reports.
    - Report on ongoing enhanced O&M activities associated with all past contaminated property referrals.
- In the 2026 Annual Report:
    - Report on total acreage of land area investigated, area and description of properties referred, description of enhanced O&M measures, and the estimated total mercury and PCBs mass load reduced (consistent with the approved accounting procedures) resulting from implementing this control measure.

### *Progress during FY 2022/23*

During FY 2022/23, the Countywide Program (on behalf of San Mateo County Permittees) continued to investigate old industrial land areas in San Mateo County using similar methods to those implemented during previous permit terms. The process generally includes screening relatively large areas (i.e., catchment or sub-catchment areas) via MS4 stormwater runoff or sediment samples. Areas that do not have elevated mercury or PCBs are generally deemed unlikely to be sources and are not further investigated. Areas with elevated mercury or PCBs (i.e., approximately ≥ 0.3 mg/kg mercury concentrations or ≥ 0.2 mg/kg PCBs concentrations) may be targeted for additional investigation aimed at identifying specific properties that are likely contributing to elevated concentrations in the catchment. Samples are collected in the MS4 from locations that drain one or more specific properties. Depending on where the samples were collected, properties may be identified as a source of mercury or PCBs to the MS4 based on these public ROW samples. However, in some cases onsite investigation of specific properties may be required to identify sources. When feasible, this level of investigation involves onsite inspections at suspect properties to determine potential sources and pathways of sediment bound

pollutants from the property to the MS4 and collection of sediment samples on the property. This process was described in more detail in SMCWPPP (2023).[1]

The source property investigation related efforts conducted by SMCWPPP on behalf of San Mateo County Permittees during FY 2022/23 included the following actions:

- Desktop Evaluation and Field Reconnaissance to Identify Stormwater Runoff Sample Stations. During FY 2022/23, the Countywide Program conducted desktop review of parcel, street view, and MS4 infrastructure in GIS and Google Earth to identify likely stormwater flow pathways within catchments of interest and to begin to identify potential sites within the MS4 where screening level stormwater runoff samples could be collected. This was followed by field reconnaissance of these areas to better understand flow pathways through catchments and from parcels into the MS4, confirm locations of storm drain structures where samples (MS4 sediment or stormwater) could be collected, and to develop sampling plans. During FY 2022/23, Countywide Program staff conducted field reconnaissance in a total of 12 catchments with old industrial land uses. The catchments were located in Belmont, Burlingame, East Palo Alto, Foster City, Menlo Park, Millbrae, San Mateo City, San Bruno, San Carlos, and South San Francisco (WMAs 77, 247, 290, 293, 1001, 1005, 1006, 1009, 1010, 1015, 1016, and 1001D). These efforts identified potential sample locations for MS4 stormwater runoff sampling, including four stormwater runoff stations that were sampled during the 2022/23 wet weather season.
- Screening-level Stormwater Sampling. Four stormwater runoff samples were collected from catchment outlets (WMAs 1016, 290, 77, and 293) during the 2022/23 wet weather season to screen for elevated mercury or PCBs in these WMAs. This sampling screened approximately 96 acres of old industrial land use parcels. The chemical analysis results and other aspects of this stormwater sampling, along with recommendations for next steps in these catchments, will be reported on in SMCWPPP's WY 2023 Urban Creeks Monitoring Report, which is due March 31, 2024.
- Source Investigation Sediment Sampling. During FY 2022/23, SMCWPPP collected sediment samples within two primarily old industrial catchments in South San Francisco (WMAs 314 and 315). Eight sediment samples (four in each WMA) were collected in September 2022 as part of continued attempts to identify sources of PCBs in these catchments.
    - WMA 314 is a 66-acre catchment located near Oyster Point that is comprised of light industrial land uses along with an old railroad right-of-way. Stormwater runoff samples were collected at the bottom of this catchment by the RMP STLS in WY 2015 and WY 2018 Both samples had an elevated PCBs particle ratio (0.95 and 0.86 mg/kg, respectively). The WY 2018 sample had a total PCBs concentration (71 ng/L) that was about an order of magnitude higher than the WY 2015 sample (8.6 ng/L). Since that time SMCWPPP has periodically collected sediment samples in this catchment in an attempt to identify PCBs sources. Two sediment samples collected in WY 2017 both had relatively low (urban background) concentrations of PCBs, with the highest concentration being 0.15 mg/kg. Another sediment sample taken in WY 2019 also had a low PCBs concentration of 0.02 mg/kg. The additional four sediment samples collected in FY 2022/23 (WY 2022) investigated about 27 acres of old industrial parcels in WMA 314. All four samples had

[1] Pollutant Control Measure Plan to Reduce PCBs And Mercury in Urban Runoff from Old Industrial Areas in San Mateo County, California, Plan and Schedule for Control Measure Implementation during MRP 3, SMCWPPP, March 31, 2023.

relatively low PCBs concentrations, with the highest concentration being 0.02 mg/kg. Thus, the efforts to-date have not identified any source area(s) associated with the elevated PCBs particle ratios in the stormwater runoff samples from this catchment.

- WMA 315 is a 108-acre catchment with an outfall very close to the outfall for WMA 314. The RMP STLS collected a stormwater runoff sample at the bottom of this catchment in WY 2016 and then resampled the same station in WY 2018. Total PCBs (5.8 ng/L) and PCBs particle ratio (0.18 mg/kg) were relatively low in the WY 2016 sample, but roughly an order of magnitude higher in the WY 2018 sample (total PCBs = 93.2 ng/L and PCBs particle ratio = 1.02 mg/kg). Similar to WMA 314, since that time SMCWPPP has periodically collected sediment samples in this catchment in an attempt to identify PCBs sources. Five sediment samples were collected in this catchment in WY 2019, with two of the samples having moderately elevated PCBs concentration (0.27 and 0.43 mg/kg). Both samples were along railroads, one active and one historic. The additional four sediment samples collected in FY 2022/23 (WY 2022) investigated about 5 acres of old industrial parcels in WMA 315. All four samples had relatively low PCBs concentrations, with the highest concentration being 0.14 mg/kg. Thus, the efforts to-date have not identified any specific source area(s) associated with the elevated PCBs particle ratio in the stormwater runoff sample from this catchment.

- Planning for Ongoing Source Investigations. During FY 2022/23, the Countywide Program began developing a workplan that will outline the source investigation steps and proposed timeline for achieving the MRP 3.0 requirement to investigate 1,411 old industrial land use acres in San Mateo County during the MRP 3.0 permit term. The plan will be completed early in FY 2023/24. In general, the source property identification and abatement program entails a process of records review, public right-of-way surveys and site visits, desktop evaluations, field reconnaissance, and sampling (stormwater and/or sediment samples) to identify properties that contribute elevated mercury/PCBs to the MS4 (i.e., source properties). Each year, SMCWPPP will document the acreage of old industrial land areas investigated and the location(s) of any identified source properties. As any new source properties are identified, SMCWPPP will assist San Mateo County Permittees in determining next steps and provide guidance on referrals or enforcement and/or abatement actions. These efforts will continue to be coordinated with Pollutants of Concern (POC) Monitoring required by Provision C.8 Water Quality Monitoring. In addition, the Countywide Program worked with San Mateo County Permittees during FY 2022/23 to begin to develop program enhancements including (1) onsite inspections and sample collection on private properties and (2) identifying and addressing properties with moderate PCBs concentrations. SMCWPPP will continue working with Permittees to begin implementing these enhancements in FY 2023/24. Additional documentation demonstrating implementation of the Source Property Investigation and Abatement control program in San Mateo County is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11).

## C.11/12.c. Program for Control Measure Implementation in Old Industrial Areas

### *Permit Requirements*

San Mateo County MRP Permittees are required, during the permit term, to implement or cause to be implemented control measures to address 445 acres of old industrial land use areas at 70% control measure efficiency, or through accounting for the mass reduction of 19 g/yr of mercury and 81 g/yr of PCBs. Reporting requirements include the following:

- Submit plans and schedules for implementing controls in old industrial areas by March 31, 2023.
- In each Annual Report starting in 2023, Permittees are required to submit an account of the controls implemented consistent with the plan submitted in March 2023, and any modifications thereto. Reporting shall include maps of the areas treated, the acreage of catchments addressed, and a description of all control measures, installed treatment devices and routing facilities for each treated catchment.
- In the 2026 Annual Report, Permittees are required to report on all control measures and stormwater diversion measures implemented during the permit term and provide the total acreage treated and an estimate of the total mercury and PCBs mass loads reduced resulting from this implementation.

### *Progress during FY 2022/23*

**Old Industrial Area Control Measures Plan**

During FY 2022/23, Countywide Program staff worked with San Mateo County Permittee staff to develop a Pollutant Control Measure Plan (CMP) to Reduce PCBs And Mercury in Urban Runoff from Old Industrial Areas in San Mateo County, California to address requirements of Provisions C.11/12.c (SMCWPPP 2023). In order to develop the CMP, the Countywide Program first developed a complete dataset of all old industrial parcels draining to MS4s within San Mateo County. The Countywide Program then conducted a thorough analysis of existing data to identify both the treatment status and the PCBs monitoring status of each old industrial parcel. This information was documented in a database. The treatment status for each parcel was based on available data on whether the parcel had been redeveloped since 2002, and/or treated with green stormwater infrastructure (GSI). The monitoring status for each parcel was determined based on sediment and/or stormwater runoff samples that were collected in locations that drain a given parcel. Parcels that drained to locations that had low PCBs concentrations (< 0.2 mg/kg) were categorized as “Low PCBs”, indicating these parcels were unlikely sources of elevated PCBs to the MS4. Parcels that drained to locations that had elevated PCBs (≥ 0.2 mg/kg) were categorized as “Moderate PCBs” (≥ 0.2 mg/kg to < 0.5 mg/kg) or “High PCBs” (≥ 0.5 mg/kg). Parcels that were not associated with any samples were categorized as having “No Monitoring Data”.

The CMP described the new and enhanced controls that San Mateo County Permittees anticipate will be implemented in old industrial land use areas in San Mateo County during the permit term to achieve the mercury and PCBs load reductions required by MRP C.11/12.c. The following stormwater control measures are considered in the CMP:

- PCBs source property investigation and abatement, including:
    - High PCBs concentrations – referred to the Water Board for cleanup;
    - Moderate PCBs concentrations – San Mateo County Permittees work with property owners to have property owners implement pollutant controls.
- Green Stormwater Infrastructure (GSI), including:
    - Parcel-based Low Impact Development (LID);
    - Green streets and regional stormwater capture projects.
- Full Trash Capture (FTC)
- Enhanced operation and maintenance

- Stormwater diversion to Publicly Owned Treatment Works (POTWs)

The CMP includes descriptions of existing, new, and enhanced PCBs and mercury control measures identified to date for implementation by San Mateo County Permittees during MRP 3.0. Planning efforts, anticipated loads reduced, and implementation schedules for each type of control measure are summarized.

The Countywide Program, on behalf of San Mateo County Permittees, submitted the CMP to the Water Board on March 31, 2023. Additional documentation demonstrating implementation of the CMP in San Mateo County during FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). Additional information on control measure planning and implementation in old industrial areas during FY 2022/23 is presented below.

**PCBs Source Property Investigation and Abatement**

During FY 2022/23 and as described in the CMP, SMCWPPP continued developing and implementing a PCBs/mercury source property investigation and abatement program that consists of two general categories:

1. Properties with high PCBs concentrations (≥ 1 ppm in sediments) – an existing program developed during previous permit terms that entails identifying properties with high PCBs concentrations through research and monitoring and referring to the Water Board for cleanup.
2. Properties with moderate PCBs concentrations (≥ 0.2 ppm but < 1 ppm) – a new program that entails identifying properties with moderate PCBs concentrations through research and monitoring. Permittees then work with property owners as needed to have property owners implement pollutant controls.

Both of the above programs are being enhanced by a new effort to obtain access for inspectors and other pertinent staff to potential high and moderate PCBs concentration properties to collect monitoring data and to plan any needed referral or abatement actions. These programs will contribute towards compliance with MRP 3.0 Provisions C.11/12.b. and C.11/12.c.

*Properties with High PCBs Concentrations Referral Program*

This program focuses on identifying through research and monitoring properties with high levels of PCBs (≥ 1 ppm in sediments) that are discharged to Permittee municipal storm drain systems. The properties are then referred to the Water Board for cleanup. The MRP also requires that Permittees conduct enhanced O&M activities in public ROWs adjacent to referred properties. SMCWPPP's source property identification and referral program conducted during previous permit terms has investigated over 2,300 acres of old industrial land use area to date and referred about 10 acres to the Water Board for cleanup. In addition, one source property with high PCBs concentrations (1411 Industrial Road in San Carlos) that was previously identified by this program was not referred but is currently being remediated with Water Board oversight. The abatement is expected to be completed by the end of this permit term. These efforts to identify properties with high levels of PCBs and as appropriate refer for cleanup continued during FY 2022/23 and will continue during the remainder of the MRP 3.0 permit term.

*Properties with Moderate PCBs Concentrations Abatement Program*

This new program was developed under the CMP for implementation by San Mateo County Permittees during MRP 3.0. It entails identifying properties with moderate PCBs concentrations through research and

monitoring. It is intended to fill a current gap that exists for properties that have elevated PCBs (i.e., above urban background, ≥ 0.2 mg/kg), but below the general threshold established for referral of properties to the Water Board for cleanup (i.e., ≥ 1 mg/kg). The new control measure program will specifically target properties in old industrial land use areas and other land areas that potentially contribute moderate levels of PCBs to Permittee stormwater drainage systems. Permittees then work with property owners as needed to have property owners implement pollutant controls.

**GSI and Other Treatment Controls in Old Industrial Areas**

San Mateo County Permittees have conducted a number of key planning and evaluation efforts to support future implementation of public GSI projects in San Mateo County, including development of the San Mateo County Stormwater Resource Plan in 2017, Permittee-specific Green Stormwater Infrastructure Plans completed in 2019, and an additional countywide analysis completed in 2022 of regional stormwater capture project opportunities based on key performance indicators, including control of PCBs. The guidance, tools, project concepts, and prioritized project opportunity maps developed through these efforts provide a foundation for public GSI planning and implementation during MRP 3.0. It is important to note that these countywide analyses and planning efforts have illustrated the challenges with identifying old industrial land use areas or other areas with moderate/high PCBs that are feasible and cost-effective to treat via GSI in the public ROW. Despite the comprehensive countywide evaluation and screening processes conducted in San Mateo County, which included potential for PCBs load reduction as a priority screening factor, the potential for PCBs load reduction via feasible public ROW GSI opportunities identified to date, including green streets and regional stormwater capture projects, has been relatively small.

During FY 2022/23, San Mateo County Permittees have continued to implement public GSI projects across San Mateo County including via implementation of their GSI plans. Permittees have also continued to track the installation of private and public GSI facilities to ensure proper maintenance and operation and to assist with demonstrating pollutant load reductions. Section 3 of this Annual Report provides additional information about green street and regional stormwater capture GSI projects in San Mateo County.

San Mateo County Permittees have also continued to plan and install full trash capture systems (both large high-flow capacity systems and small inlet-based devices) in public ROW locations that drain old industrial land use and other land use areas. During development of the CMP, Countywide Program staff prioritized potential locations for future device installation in old industrial land use areas that also have moderate, high, or very-high trash generation. These planning efforts will continue during the next fiscal year and will likely result in the increased installation of full trash capture devices in locations that treat old industrial land uses.

Additional reporting on GSI and other stormwater treatment control projects that were completed through the end of FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). The information provided in Appendix 11 includes supporting data and information needed to calculate the mercury and PCBs loads reduced, including descriptions of the projects, maps of the areas treated, and the acreages treated within each catchment by land use category. It should be noted that information available for the current reporting year is considered preliminary, as the data on all projects completed in FY 2022/23 may not be available until after Annual Reporting in September 2023. Permittees will continue to gather this information as it becomes available and subsequent Annual Reports will be updated as needed.

## C.11.d. Mercury Collection and Recycling Implemented throughout the Region

### *Permit Requirements*

Permittees are required to promote, facilitate, and/or participate in collection and recycling of mercury containing consumer products, devices, and equipment to increase effectiveness and public participation. Permittees must report on the following in each of the 2023 through 2026 Annual Reports:

- Efforts to promote recycling of mercury-containing products;
- Efforts to increase effectiveness of those recycling efforts; and
- The mass of mercury-containing material collected throughout the county along with an estimate of the mass of mercury contained in recycled material using the methodology contained in load reduction accounting system described and cited in the Fact Sheet.

Many types of devices and equipment (e.g., thermometers, switches, and fluorescent lamps) can contain mercury. When these devices are not adequately managed at their end-of-life, mercury can be released into the environment and become available to stormwater runoff. Control measures currently implemented by Permittees that address the potential for mercury releases include: 1) the support of policies and laws that reduce the mass of mercury in specific devices/equipment; and 2) the implementation of recycling programs that reduce the risk of mercury from being released at the end-of-life of these devices and equipment.

### *Progress during FY 2022/23*

San Mateo County municipalities participate in San Mateo County Health Department's Household Hazardous Waste (HHW) Program and Very Small Quantity Generator Business Collection (VSQG) Program. The HHW Program offers residents the opportunity to drop-off mercury-containing devices and equipment and other hazardous wastes at designated drop-off points or drop-off events free of charge. The VSQG Program provides an inexpensive hazardous waste disposal option to eligible businesses, non-profits, and other government agencies that generate less than 100 kilograms of waste per month. It operates by appointment only and charges a fee to cover the cost of transportation and disposal. Many San Mateo County municipal agencies promote the availability of the HHW Program and VSQG Program on their agency websites. The estimated mass of mercury collected in FY 2017/18 through FY 2022/23 via these programs is shown in Table 11-1.[2] It should be noted that these mass estimates are not directly comparable to pollutant load reductions in stormwater runoff discharges.

[2] The HHW Program canceled all collections from March 12 through June 3, 2020 due to the COVID-19 Shelter-in-Place order. This generally resulted in a relatively lower number of devices and associated mass of mercury collected in FY 2019/20.

**Table 11-1. Estimated mercury mass collected via the San Mateo County Health Department's Household Hazardous Waste (HHW) and Very Small Quantity Generator Business Collection (VSQG) programs.**

| Mercury Containing Device | FY 2017/18 | | FY 2018/19 | | FY 2019/20 | | FY 2020/21 | | FY 2021/22 | | FY 2022/23 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) |
| **Fluorescent Lamps (linear ft)[1,2]** | 125,582 | 0.3 | 107,269 | 0.2 | 77,004 | 0.2 | 148,912 | 0.3 | 112,938 | 0.2 | 49,759 | 0.1 |
| **CFLs (number of)[3]** | 18,689 | 0.1 | 18,513 | 0.1 | 10,014 | 0.05 | 7,633 | 0.03 | 8,843 | 0.04 | 9,937 | 0.04 |
| **Thermostats (number of )[4]** | 11 | 0.04 | 15 | 0.1 | 8 | 0.03 | 14 | 0.1 | 12 | 0.05 | 25 | 0.1 |
| **Thermometers (number of )[5]** | 0 | 0 | 25 | 0.02 | 6 | 0.004 | 45 | 0.03 | 115 | 0.07 | 19 | 0.01 |
| **Switches (number of)[6]** | 0 | 0 | 26 | 0.1 | 0 | 0 | 45 | 0.1 | 26 | 0.1 | 7 | 0.02 |
| **Total Mass of Mercury Collected (Kg)** | | **0.4** | | **0.5** | | **0.2** | | **0.6** | | **0.5** | | **0.3** |

[1] The County HHW Program reported the number of circle tubes and U-bent lights. A conservative assumption was made that all U-bent tubes were 22 inches and all circle tubes were 8 inches based on the most available, smallest sizes found on Internet searches.

[2] The average mercury content for a four-foot linear fluorescent lamp is 8.3 milligrams (mg). This is equal to 2.075 mg per linear foot. Source: NEMA 2005. Fluorescent and Other Mercury-Containing Lamps and the Environment: Mercury Use, Environmental Benefits, Disposal Requirements. National Electrical Manufacturers Association. March 2005. 14p.

[3] The National Electrical Manufacturers Association (NEMA) announced that under the new voluntary commitment, effective October 1, 2010, participating manufacturers will cap the total mercury content in CFLs that are under 25 watts at 4 mg per unit, and CFLs that use 25 to 40 watts of electricity will be capped at 5 mg per unit. Each CFL recycled is assumed to have an average mass of 4.5 mg mercury. New CFLs are also assumed to have 4.5 mg mercury on average. Source: NEMA 2010. NEMA Lamp Companies Agree to Reduction in CFL Mercury Content Cap. Available at http://www.nema.org/media/pr/20101004a.cfm. Accessed April 11, 2012.

[4] The amount of mercury in a thermostat is determined by the number of ampoules. There are generally one or two ampoules per thermostat (average is 1.4) and each ampoule contains an average of 2.8 grams (g) of mercury. Therefore, each thermostat recycled is assumed to contain approximately 4.0 g of mercury. Source: TRC 2008. Thermostat Recycling Corporation's Annual Report for the U.S. Prepared by the Thermostat Recycling Corporation. http://www.thermostat-recycle.org/files/u3/2008 TRC Annual Report.pdf.

[5] USEPA reports that glass mercury fever thermometers contain about 0.61 g of mercury. Source: USEPA 2012. Thermometers. Available at http://www.epa.gov/mercury/thermometer-main.html. Accessed April 11, 2012.

## C.12.d. Program for Controlling PCBs from Bridges and Overpasses

### *Permit Requirements*

Permittees are required to implement a Caltrans specification to manage, as part of bridge and overpass roadway replacement or major repair, potential PCBs-containing materials in bridge roadway expansion joints. The Caltrans specification is currently under development through a proposed requirement in Caltrans stormwater permit. Six months after availability of the specification, Permittees must begin to implement or cause to be implemented the Caltrans specification during applicable replacement activities that are under the direction of the Permittee. Permittees are required to report the following:

- In the Annual Report immediately following availability of the specification, provide a description of the Caltrans specification for managing PCBs-containing materials in bridge or roadway expansion joints during roadway replacement or repair;
- In the 2023 Annual Report, submit an inventory of bridges in the program area that includes bridge ownership and the bridge roadway replacement schedule;
- In the 2024 through 2026 Annual Reports, submit documentation confirming the use of the Caltrans specification (once it is available) during all instances of bridge roadway replacement or repair in their jurisdiction during that reporting year and provide an estimate of the volume of material managed and total PCBs mass load reduced resulting from implementation of the specification.
- In the 2026 Annual Report, report an estimate of the total PCBs mass load reduced, consistent with approved accounting procedures, resulting from implementing this control measure.

### *Progress during FY 2022/23*

During FY 2022/23, San Mateo County Permittees developed an inventory of bridges within each Permittee's jurisdiction that includes bridge ownership and the bridge roadway replacement schedule. These inventories are provided in the *Mercury and PCBs Control Measures Report* (Appendix 11).

San Mateo County Permittees have also tracked the development of the Caltrans specification through participation in BAMSC meetings and inquiries to Caltrans and Water Board staff. Currently, the Caltrans specification is still under development. Caltrans provided a draft *Standard Operating Procedure (SOP) for Inspecting, Removing and Reporting Materials Containing Polychlorinated Biphenyls (PCBs) Prior to Demolition or Renovation of Structures* to the Water Board at the end of June 2023. This draft is currently undergoing review by both State and Water Board Staff. During the next few months, the Countywide Program anticipates a revised version will be made available for a 30-day public comment period, revised as needed in response to comments, and then finalized. Permittees will continue to track the progress of this SOP and, six months after it becomes available, will be prepared to implement the Caltrans specification during bridge and roadway overpass replacement and major repairs. Future Annual Reports will document the use of the Caltrans specification (once it is finalized and available) during all instances of bridge roadway replacement or repair within San Mateo County Permittees' jurisdictions.

## C.12.e. Program for Controlling PCBs from Electrical Utilities

### *Permit Requirements*

Permittees are required to develop and implement a program to manage PCBs in oil-filled electrical equipment (OFEE) for municipally owned electrical utilities in the MRP program area and collaborate with

the Water Board to determine PCBs loadings in OFEE from non-municipally owned electrical utilities. Reporting requirements include the following:

- In the 2023 Annual Report:
    - Estimated PCBs loads avoided (along with supporting documentation) resulting from the removal of municipally owned PCBs-containing OFEE through maintenance programs and system upgrades for the period 2002 to the beginning of this permit term (2023).
    - A description of the improved spill response and reporting practices implemented by municipally owned electrical utilities.
    - A summary of the actions undertaken during that reporting year that remove municipally owned PCBs-containing OFEE along with the loads avoided and the details of the calculations and assumptions used to estimate the load reduced (due in every Annual Report starting in 2023).
- In the 2024 Annual Report, submit a summary of plans to maintain and upgrade OFEE for municipally owned electrical utilities.
- In the 2026 Annual Report, submit the estimated PCBs loads reduced during the permit term associated with municipally owned OFEE removal resulting from maintenance programs and system upgrades.
- Within 12-months of the Water Board transmitting to the Permittees information from the non-municipally-owned electrical utilities, Co-permittees shall submit a report discussing the following, to the extent possible given any data limitations: (a) locations of the PCBs-containing OFEE still in service, (b) previous locations of PCBs-containing OFEE, and (c) opportunities to improve non-municipally owned electrical utilities' standard operating procedures for spill response, reporting, cleanup, and sampling and analysis.

### *Progress during FY 2022/23*

San Mateo County does not have any municipally owned electrical utilities. Thus, most of the above MRP requirements do not apply to San Mateo County Permittees. However, during FY 2022/23, Countywide Program staff tracked the activities of the BAMSC Municipal Electrical Utility Workgroup (Workgroup), which was formed to facilitate implementation of the requirements in this sub-provision and ensure coordination across the MRP area. There are four municipal electrical utilities across the MRP area, including the following:

- Alameda Municipal Power, Alameda CA
- City of Palo Alto Utilities (CPAU), Palo Alto CA
- Pittsburg Power Company dba Island Energy, Pittsburg CA
- Silicon Valley Power (SVP), Santa Clara CA

The BAMSC Workgroup included representatives from countywide stormwater programs and staff from each of the above municipal electrical utilities. The Workgroup facilitated the development of an improved spill response and reporting SOP that each municipal electrical utility in the MRP area agreed to adopt as an addendum to their existing spill response and reporting SOPs. The addendum includes clear definitions of the OFEE that must follow these enhanced procedures in the event of a spill. These enhancements will apply to spills from all "Potentially PCBs-containing OFEE", which include all OFEE

unless they were installed/purchased after 1985, or if analytical tests with appropriately low detection limits (<0.010 ppm) demonstrate no detectable PCBs. The addendum focuses on three main types of enhancements, including (1) enhanced notification when spills/leaks from municipally-owned OFEE occur to include both Water Board and municipal stormwater staff; (2) enhanced clean-up/post-clean-up procedures to include testing of all potentially PCBs-containing OFEE oil when spills are discovered and enhance the post-clean-up soil verification testing procedures to include more sensitive PCBs analytical methods and reduced post-clean up allowable soil concentrations; and (3) enhanced reporting to include follow-up written reports to Water Board and Municipal Stormwater staff for all spills from potentially PCBs-containing OFEE. The "Enhanced Spill Response and Reporting SOP" addendum is provided as an attachment to *Mercury and PCBs Control Measure Report* (Appendix 11).

As of the end of FY 2022/23, the Water Board had not transmitted information from the non-municipally owned electrical utilities to the Permittees. Based on updates obtained from Water Board staff during recent BAMSC Monitoring and Pollutants of Concern (MPC) Sub-committee meetings, Water Board staff are planning to meet with representatives from Pacific Gas and Electric (PG&E), the primary non-municipally owned electrical utility that operates in the MRP area, during the next fiscal year.

## C.11.e/C.12.f Plan and Implement Green Stormwater Infrastructure to Reduce Mercury and PCBs Loads

### *Permit Requirements*

Permittees are required to implement GSI projects consistent with the requirements in Provision C.3.j. during the permit term. Reporting on this sub-provision will be required in the 2026 Annual Report, and will include the following information for all GSI projects implemented during the permit term:

- A summary description of the projects including GSI type, location, and area;
- The total acreage treated; and
- Estimates of the total mercury and PCBs mass load reduced resulting from this implementation.

### *Progress during FY 2022/23*

As discussed previously, San Mateo County Permittees have conducted a number of key planning and evaluation efforts to support future implementation of public GSI projects in San Mateo County, including development of the San Mateo County Stormwater Resource Plan in 2017, Permittee-specific Green Stormwater Infrastructure Plans completed in 2019, and an additional countywide analysis completed in 2022 of regional stormwater capture project opportunities based on key performance indicators, including control of PCBs. The guidance, tools, project concepts, and prioritized project opportunity maps developed through these efforts provide a foundation for public GSI planning and implementation during MRP 3.0. It is important to note that these countywide analyses and planning efforts have illustrated the challenges with identifying old industrial land use areas or other areas with moderate/high PCBs that are feasible and cost-effective to treat via GSI in the public ROW. Despite the comprehensive countywide evaluation and screening processes conducted in San Mateo County, which included potential for PCBs load reduction as a priority screening factor, the potential for PCBs load reduction via feasible public ROW GSI opportunities identified to date, including green streets and regional stormwater capture projects, has been relatively small.

During FY 2022/23, San Mateo County Permittees have continued to implement public GSI projects across San Mateo County including via implementation of their GSI plans. Permittees have also continued to track the installation of private and public GSI facilities to ensure proper maintenance and operation and to assist with demonstrating pollutant load reductions. Section 3 of this Annual Report provides additional information about green street and regional stormwater capture GSI projects in San Mateo County.

As noted earlier, additional reporting on GSI and other stormwater treatment control projects that were completed through the end of FY 2022/23 is provided in the *Mercury and PCBs Control Measures Report* (Appendix 11). The information provided in Appendix 11 includes supporting data and information needed to calculate the mercury and PCBs loads reduced, including descriptions of the projects, maps of the areas treated, and the acreages treated within each catchment by land use category. It should be noted that information available for the current reporting year is considered preliminary, as the data on all projects completed in FY 2022/23 may not be available until after Annual Reporting in September 2023. Permittees will continue to gather this information as it becomes available and subsequent Annual Reports will be updated as needed.

## C.12.g. Manage PCBs-Containing Materials and Wastes During Building Demolition Activities

### *Permit Requirements*

Permittees are required to continue to implement the protocols developed during the previous permit term for managing PCB-containing materials and wastes during building demolition so that PCBs do not enter MS4s. In addition, new requirements that become effective during FY 2023/24 include the following:

- Beginning July 1, 2023, for Applicable Structures containing building materials with PCBs ≥ 50 ppm, Permittee requirements include:
    - Require demolition contractors to provide notification to the Permittee, the Water Board, and US EPA at least one week before any demolition is to occur;
    - Enhance Permittee's construction site control programs to minimize migration of PCBs into the MS4 during demolition activities; and
    - For permits approved after July 1, 2023, verify that PCBs in demolished buildings are properly managed to minimize transport to the MS4 by obtaining official documentation that the building materials with PCBs ≥ 50 ppm were disposed appropriately according to state and federal regulations.
- Beginning with the 2023/24 rainy season, Permittees are required to inspect demolition sites with Applicable Structures containing building materials with PCBs ≥ 50 ppm pursuant to Provision C.6 to ensure that effective construction pollutant controls are used to prevent discharge into the MS4.

Reporting requirements include the following:

- Permittees seeking exemption from Provision C.12.g. requirements based on lack of Applicable Structures must submit documentation, such as historic maps or other historic records, that clearly demonstrates that the only structures that existed pre-1980 were single-family residential and/or wood-frame structures; and
- In their 2023 Annual Report, Permittees shall discuss enhancements to their construction site

control program to minimize migration of PCBs from demolition activities into the MS4.

- Beginning with their 2023 Annual Report, the Permittees are required to provide each of the following items:
    1. The number of Applicable Structures that applied for a demolition permit during the reporting year;
    2. A running list of the Applicable Structures that applied for a demolition permit since July 1, 2019, the number of samples each structure collected, and the concentration of PCBs in each sample;
    3. For each Applicable Structure, with PCBs concentrations ≥ 50 mg/kg, include the following: the project address, the demolition date, and a brief description of the PCBs-containing materials; and
    4. For each structure that was constructed or remodeled between the years 1950 and 1980 and requires emergency demolition to protect public health and/or safety, provide the following: address, date building was constructed, and date of demolition.
- Beginning with their 2024 Annual Report, Permittees are required to provide the following: whether the site was inspected during demolition, and for those cases where notification and advance approval from the U.S. EPA is not required and were approved for demolition after June 30, 2023, the hazardous waste manifest prepared for transportation of the material to a disposal facility;
- In their 2026 Annual Report, Permittees are required to submit an evaluation of the effectiveness of the protocol for controlling PCBs during building demolition as well as supporting data. This should be conducted and reported at the regional level on behalf of all Permittees and shall be considered the Report of Waste Discharge for Provision C.12.g. for the next permit reissuance; and
- In their 2026 Annual Report, Permittees may submit for use in the subsequent permit term an updated assessment methodology and data collection program to quantify PCBs loads reduced through implementation of the protocol for controlling PCBs-containing materials and wastes during demolition of Applicable Structures.

### *Progress during FY 2022/23*

To provide Permittees with guidance on addressing MRP 3.0 C.12.g. requirements, MRP stormwater management programs (through BAMSC) conducted a regional collaborative project during FY 2022/23 that included the following tasks:

- To oversee the project, formed a regional Management of PCBs during Demolition Work Group that included countywide stormwater program and Permittee staff;
- Updated the existing BASMAA Model Applicant Package to accommodate the new tracking and reporting requirements (*PCBs in Priority Building Materials: Model Screening Assessment Applicant Package, August 2018 (Revised November 2019 and May 2023)*); and
- Developed a set of recommended construction inspection and control program enhancement options for use by Program/Permittee staff, building on the existing C.6 inspection program (*Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program, Technical Memorandum to Bay Area Municipal Stormwater Collaborative*

*Steering Committee, May 1, 2023*).

The above deliverables from this regional collaboration were developed under the oversight of the regional work group. Draft products were reviewed by the work group members, their comments were incorporated, and then the products were finalized and distributed to Permittees in May 2023. Countywide Program Staff and San Mateo County Permittee representatives participated in the regional work group and all other aspects of the FY 2022/23 BAMSC regional project.

Per FY 2022/23 reporting requirements in MRP 3.0 Provision C.12.g. and the guidance in the technical memorandum described above, Permittee FY 2022/23 Annual Reports will summarize the enhancement options that each municipality anticipates implementing as of July 1, 2023. In addition, Appendix 11 includes a technical memorandum prepared by Countywide Program Staff that addresses other FY 2022/23 reporting requirements in Provision C.12.g. (*Program for Management of PCBs during Building Demolition – Data Summary through FY 2022/23 for San Mateo County MRP Permittees*). This memorandum documents the following items for San Mateo County MRP Permittees:

- The number of demolition permits issued for Applicable Structures during FY 2022/23, which is the fourth year of the program (data from FY 19-20 through FY 21-22, the first through third years of the program, are also included);
- A running list of the Applicable Structures for which a demolition permit was applied (since July 1, 2019, the date the PCBs control program began implementation) that had material(s) with total PCBs concentration ≥ 50 ppm, with the address and demolition date for each structure; and
- For FY 2022/23 samples with total PCBs concentration ≥ 50 ppm, the PCBs concentration in each sample and a brief description of PCBs-containing materials that were sampled.

## C.11.f./C.12.h. Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations

### *Permit Requirements*

MRP 3.0 requires that Permittees evaluate the effectiveness of all mercury and PCBs control measures in the 2020 Mercury and PCBs Control Measure Plan and Reasonable Assurance Analysis (RAA) that was submitted during the previous permit term and update the RAA as necessary. Updates can focus on those control measures for which new information is available and for control measures not evaluated in previous efforts. Permittees are also required to prepare detailed implementation plans for all control measures to be implemented and inform permit requirements during the subsequent permit term. These long-term plans must:

1. Identify all technically and economically feasible PCBs control measures to be implemented (including GSI projects);
2. Include a schedule according to which these technically and economically feasible control measures will be fully implemented; and
3. Provide an evaluation and quantification of the PCBs load reduction of such measures as well as an evaluation of costs, control measure efficiency and significant environmental impacts resulting from their implementation.

Additionally, Permittees must identify all specific control measures to be implemented, the intensity of control measure implementation, and the estimated load reduction benefit from control measures implemented during the subsequent permit term. This implementation plan must include:

- Identification of all control measures implemented during the current permit term and any additional control measures to be implemented in the subsequent permit term;
- A description of the intensity or extent of control measure implementation (e.g., acres treated, acres investigated for source areas, types of roadway projects for which protocols applied);
- Identification of accountability metrics to track during the subsequent permit corresponding to the proposed implementation intensity; and
- Estimates for load reductions to be achieved through implementation of control measures during subsequent permit term at the proposed intensity.

Permittees must submit the updated plan and schedule no later than March 31, 2026.

### *Progress during FY 2022/23*

During FY 2022/23, San Mateo County Permittees continued to track all control measures implemented to reduce mercury and PCBs stormwater loads in the County. San Mateo Couty Permitttees will continue to track control measure implementation and gather other data needed to update the Control Measure Implementation Plan and RAA by March 31, 2026. All available data on control measures implemented to reduce mercury and PCBs during FY 2022/23 are provided in the *Mercury and PCBs Control Measure Report* (Appendix 11). The information available for the current reporting year is considered preliminary, as the data on all projects completed in FY 2022/23 may not be available until after annual reporting. San Mateo County Permittees will continue to gather this information as it becomes available and subsequent Annual Reports will be updated as needed.

## C.11.g./C.12.i. Fate and Transport Study of Mercury and PCBs: Urban Runoff Impact on San Francisco Bay Margins

### *Permit Requirements*

MRP 3.0 requires Permittees to conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of mercury and PCBs discharged from urban runoff to San Francisco Bay margin areas. The studies should focus on near-shore areas contaminated with mercury and PCBs from historical activity and the expected trajectory of recovery as sources from local watersheds are reduced. Reporting requirements include the following:

- In the 2023 Annual Report:
    - Submit a workplan describing the specific manner in which these information needs will be accomplished and describing the studies to be performed with a preliminary schedule, and
    - Report on status of the studies.
- In the March 15, 2026, Integrated Monitoring Report:
    - Findings and results of the studies completed, planned, or in progress as well as implications of studies on potential control measures to be investigated, piloted, or implemented in future permit cycles.

### *Progress during FY 2022/23*

The Work Plan for the fate and transport study of mercury and PCBs during MRP 3.0 is provided below.

**Fate and Transport Study Work Plan**

There are still many uncertainties surrounding the magnitude and nature of mercury, PCBs, and other pollutants reaching the Bay in urban runoff and the ultimate fate of these pollutants, including biological uptake. MRP 3.0 Provisions C.11.g. and C.12.i. contain nearly identical language requiring Permittees to conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of mercury and PCBs, respectively, discharged from urban runoff to San Francisco Bay margin areas. These provisions state that the specific information needs include understanding the in-Bay transport of mercury/PCBs discharged in urban runoff, the sediment and food web mercury/PCBs concentrations in margin areas receiving urban runoff, the influence of urban runoff on the patterns of food web mercury/PCBs accumulation, especially in Bay margins, and the identification of drainages where urban runoff mercury/PCBs are particularly important in food web accumulation. The provisions also state that the studies should focus on near-shore areas contaminated with mercury/PCBs from historical activity and the expected trajectory of recovery as sources from local watersheds are reduced.

Conceptually, advances in this type of knowledge could allow the Regional Water Board to explore revising the mercury and PCBs TMDLs to incentivize implementing management actions in such drainages that drain to sensitive Bay margin areas. Prioritizing actions in these drainages could possibly facilitate reaching TMDL goals more efficiently, though establishing this type of prioritization process would be challenging.

Provisions C.11.g. and C.12.i. require Permittees to submit in their September 2023 Annual Report a work plan describing the specific manner in which these information needs will be accomplished and describing the studies to be performed with a preliminary schedule. Permittees are also required to report on the status of the studies in their 2023 Annual Report. In addition, Permittees are required to report in the March 15, 2026 Integrated Monitoring Report the findings and results of the studies completed, planned or in progress as well as implications of studies on potential control measures to be investigated, piloted, or implemented in future permit cycles. Permittees are addressing Provisions C.11.g. and C.12.i. through a multi-year project by the San Francisco Bay (Bay) Regional Monitoring Program (RMP) to identify, model, and investigate embayments along the Bay shoreline designated “Priority Margin Units” (PMUs). RMP documents available at the links below provide information that helps to address this MRP requirement by providing information on studies and anticipated schedules.

The multi-year RMP project has been ongoing for a number of years. The project:

- Identified four PMUs for initial study that are located downstream of urban watersheds where PCBs management actions are ongoing and/or planned;
- Is developing conceptual and pollutant mass budget models for each of the four PMUs; and
- Is conducting monitoring in the PMUs to evaluate trends in pollutant levels and track responses to pollutant load reductions.

The objectives of this effort to model and investigate Bay PMUs include:

- Characterizing concentrations and the spatial distribution of pollutants in sediment and food web biota in PMUs, including establishing baseline data on PCBs concentration and loading;

- Evaluating the response of PMU receiving waters over time to load reduction efforts in the watershed, such as remediation of PCBs-contaminated properties, including tracking PCBs in sport fish as the ultimate indicator of progress in reduction of impairment; and
- Informing the review and possible revision of Bay TMDLs.

In addition, the PMU conceptual models, and associated ongoing hydrodynamic, sediment, and food web modeling are intended to help improve our understanding of pollutant fate and transport, provide a foundation for monitoring to track responses to pollutant load reductions, and may eventually help guide planning of management actions for PCBs, mercury, contaminants of emerging concern (CEC), and other pollutants.

During FY 22-23 and the previous several years, BAMSC representatives participated in the RMP PCBs Work Group's ongoing oversight of this project. During FY 23-24 and at a minimum the remainder of the MRP 3.0 permit term, BAMSC representatives will continue to participate in the RMP PCBs Work Group to help oversee the project.

**Status of PMU Conceptual Models**

The following summarizes the status of conceptual model development in each of the four PMUs.

- *Emeryville Crescent* - A final conceptual model report (dated April 2017) is available on the San Francisco Estuary Institute (SFEI) website: https://www.sfei.org/sites/default/files/biblio_files/Emeryville%20Crescent%20Draft%20Final%20Report%2005-02-17%20Final%20Clean_0.pdf

  The report's key finding, which was based on a simple one-box pollutant fate model and dependent on assumptions made for the model's input parameters, was that PCBs concentrations in sediment and the food web could potentially decline fairly quickly (within 10 years) in response to load reductions from the watershed.

- *San Leandro Bay* - A conceptual model for San Leandro Bay was developed in three phases, with reports available on the SFEI website. The Phase 1 report (dated June 2017) presented analyses of watershed loading, initial retention, and long-term fate, including results of sediment sampling in 2016: sfei.org/sites/default/files/biblio_files/Yee%20et%20al%202017%20Conceptual%20Model%20Report%20San%20Leandro%20Bay%20Phase%201.pdf

  The Phase 2 report (dated December 2017) is designated a data report and documented the methods, quality assurance, and all of the results of the 2016 field study: sfei.org/sites/default/files/biblio_files/San%20Leandro%20Bay%20PCB%20Study%20Data%20Report%20Final.pdf

  The Phase 3 report (dated November 2019) is available here: sfei.org/sites/default/files/biblio_files/San%20Leandro%20Bay%20PCBs%20Phase%203%20Final%20Report%20_0.pdf. This final report incorporates all of the results of the 2016 field study and includes additional discussion of the potential influence of contaminated sites in the watershed and the results of passive sampling by Stanford researchers. It also includes a comparative analysis of long-term fate in San Leandro Bay and the Emeryville Crescent, a section on bioaccumulation, and a concluding section with answers to the management questions that were the impetus for the work.

The report included a discussion of the results of mass budget modeling that illustrated one type of challenge encountered during the PMU conceptual modeling effort. A wetland sediment core profile at Damon Slough indicated a substantial reduction in PCBs between the 1970s and the early 2000s. The simple mass budget model developed during this study suggested continued reductions in PCBs. However, a comparison of the results of extensive sampling of San Leandro Bay surface sediment in 1998 and in 2016 suggested minimal decline in PCBs over this more recent 18-year period. This finding may suggest that continuing PCBs inputs from the watershed are greater than estimated as part of the mass budget modeling and are slowing the recovery of San Leandro Bay. It is important to note that numerous uncertainties associated with the model and its parameters influence projected system response time.

- *Steinberger Slough / Redwood Creek* - A final conceptual model for Steinberger Slough / Redwood Creek PMU (dated April 2017) is available on the SFEI website: sfei.org/sites/default/files/biblio_files/Steinberger%20Slough%20Final%20Report%20with%20Cover.pdf

  Like the other conceptual models, it includes results of monitoring in the PMU and watershed, analyses of watershed loading, development of a mass budget, and long-term fate modeling, including projected PCBs concentrations in sediment and the food web in response to load reductions from the watershed. A simple mass budget model suggested that concentrations of PCBs in water and sediment would respond fairly quickly to reductions in loads, but not as quickly as Emeryville Crescent or San Leandro Bay. The conceptual model report concluded that recovery of the PMU from PCBs contamination would be maximized by a load reduction strategy that focuses on highly contaminated source areas and, more generally, older industrial areas in the PMU watersheds.

- *Richmond Harbor* - Due to budget limitations and because other RMP efforts were deemed higher priority, a conceptual model for the Richmond Harbor PMU is not yet under development.

**RMP Special Studies Related to PMUs**

In addition to ongoing conceptual model development (as described above), and continuing technical and logistical support for the RMP PCBs Workgroup, various types of RMP Special Studies related to PMUs are ongoing, including the following:

- Shiner Surfperch PCBs Monitoring in PMUs – shiner surfperch (*Cymatogaster aggregate*) is a crucial indicator of impairment, due to its explicit inclusion as an indicator species in the TMDL, importance as a sport fish species, tendency to accumulate high concentrations, site fidelity, and other factors. The conceptual site models recommend periodic monitoring of shiner surfperch to track trends in the PMUs, and as the ultimate indicator of progress in reduction of impairment. A coordinated sampling of PCBs in shiner surfperch in PMUs is being conducted as an add-on to RMP Status and Trends (S&T) sport fish sampling. A dataset for shiner surfperch is being developed that is directly comparable across the PMUs and the five locations that are sampled in S&T monitoring.

- Stormwater Runoff PCBs Monitoring in PMUs – this study is collecting information on PCBs concentrations and particle ratios in stormwater in watersheds draining to the PMUs to better estimate current PCBs loads into the PMUs (a critical component of the PMU mass budgets) and to help track the effectiveness of PCBs controls such as remediation of PCBs-contaminated properties.

- Assess Loading and Spatial Distribution of PCBs in PMU – this study is establishing baseline data for evaluating the response of these receiving waters to load reduction efforts in the PMUs. Passive sampling devices (PSDs) have been deployed in the Steinberger Slough / Redwood Creek and San Leandro Bay PMUs to assess spatial patterns in dissolved PCBs in pore water and surface water and provide information on spatial patterns in an index of current biotic exposure. In addition, analysis of depth profiles of pore water with PSDs, accompanied by bulk sediment chemistry in cores, is providing information on the chronology of loading and exposure over the past 50 years.
- Steinberger Slough/Redwood Creek Sediment and Prey Fish Study – this two-year effort commenced in 2022 and is collecting composite sediment samples from a total of 16 sites, distributed throughout the Steinberger Slough / Redwood Creek PMU complex. Prey fish are being sampled at five sites (three composites at each), consisting of primarily topsmelt (*Atherinops affinis*).

**Discussion**

As of the end of FY 2022/23, the PMU conceptual modeling and associated special studies are continuing to progress. Four PMUs for initial study, characterization, and tracking have been identified, and conceptual models have been completed for three of the four PMUs. In conjunction with the modeling, RMP Special Studies are characterizing concentrations and the spatial distribution of PCBs in sediment and food web biota in PMUs and establishing baseline data on PCBs concentration and loading and will help evaluate the response of the PMUs to load reduction efforts in their watersheds. A general description and multi-year budget and schedule for associated special studies and monitoring from 2019 through 2027 is provided in the PCBs section of the RMP Multi-Year Plan which is available at: sfei.org/sites/default/files/biblio_files/MYP2022_final.pdf

In addition, BAMSC representatives will continue to participate in the RMP PCBs Workgroup to help oversee this work and guide it towards developing information that will inform implementing controls for mercury and PCBs in stormwater runoff and reducing the Bay's impairment by these pollutants.

## C.11.h./C.12.j. Implement a Risk Reduction Program

MRP Provisions C.11.h. and C.12.j. require Permittees to conduct an ongoing risk reduction program to address public health impacts of mercury and PCBs in San Francisco Bay fish. The fish risk reduction program is required to include actions to reduce actual and potential health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence fishers and their families. The Countywide Program is required to have the potential to reach 3,000 individuals annually (Bay Area-wide total for all MRP 2.0 Permittees) who are likely consumers of San Francisco Bay-caught fish. Permittees are required to report on the status of the risk reduction program in each of their Annual Reports, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish.

SMCWPPP is assisting San Mateo County municipalities comply with the risk reduction program requirements by coordinating with and reporting on the Fish Smart program conducted by San Mateo County Environmental Health Services (EHS). Fish Smart builds upon the San Francisco Bay Fish Project (sfei.org/sfbfp#sthash.eOcfwrhA.dpbs), a risk reduction framework developed regionally in the previous permit term. The Fish Project funded Bay Area community-based organizations to develop and deliver

appropriate communications to appropriately targeted individuals and communities about how to reduce their exposure to mercury and PCBs from consuming San Francisco Bay fish.

During FY 2022/23, EHS continued to conduct a variety of activities that target at-risk populations (e.g., subsistence fisherman) via the Fish Smart program. Table 11-2 summarizes accomplishments of the Fish Smart program from FY 2015/16 through FY 2022/23. Various quantitative measures of outreach and outcomes are underlined (e.g., numbers of brochures distributed, numbers of people interacted with at outreach events, numbers of people receiving electronic newsletters, and social media postings impressions and reach). The summary illustrates the Fish Smart program's success over the past several years in providing outreach about potential health impacts of consuming certain types of fish caught in San Francisco Bay. It is likely these efforts have led to reduced health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence fishers and their families.

**Table 11-2. Summary of Fish Smart program accomplishments**

| Fiscal Year | Summary of Accomplishments |
|---|---|
| 2015/16 | During FY 2015/16, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Maintained signs that were previously posted by EHS along the Bay's shore (e.g., at fishing piers) in most cities in San Mateo County.<br>▪ Continued to distribute educational materials (i.e., a Fish Project brochure entitled "Guide to Eating Fish and Shellfish from San Francisco Bay") at targeted locations:<br>• EHS provided 100 brochures to the San Mateo Medical Center (a county health services clinic).<br>• EHS provided 50 brochures to Save Our Shores, a non-profit that works with boaters.<br>• EHS displayed an example sign and provided brochures at the County Fair and interacted there with about 300 persons regarding Fish Smart and other EHS programs.<br>▪ Conducted a "train the trainer" effort by presenting risk reduction information to nurses with the San Mateo County Health System, including nurses who serve appropriate communities.<br>▪ Presented risk reduction information and handed out brochures at code enforcement and food inspection team meetings.<br>▪ Posted an entry dated June 7, 2016 about Fish Smart on the EHS blog which has been viewed 20 times based on a web page analytic report. |
| 2016/17 | During FY 2016/17, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Maintained signs that were previously posted by EHS at 12 locations along the Bay's shore (e.g., at fishing piers) in the Cities of Brisbane, Burlingame, Redwood City, San Mateo, and South San Francisco.<br>▪ Provided new signs to the North Fair Oaks Community Center, Docktown Marina, and 9 fishing supply stores<br>▪ Continued to distribute educational materials (i.e., a Fish Project brochure entitled "Guide to Eating Fish and Shellfish from San Francisco Bay") at targeted locations:<br>• EHS provided 50 brochures each to 4 marinas in San Mateo County.<br>• EHS provided 50 brochures to Save Our Shores, a non-profit that works with boaters. |

| Fiscal Year | Summary of Accomplishments |
|---|---|
| | • EHS attended 6 community health fairs and the San Mateo County Fair, where brochures were provided and where a spinning wheel game was played. Over 1,500 people were reached regarding Fish Smart and other EHS programs.<br>• EHS provided brochures to 11 fishing supply stores in San Mateo County.<br>▪ Included a Fish Smart article in the Pollution Prevention Post Newsletter which was distributed to over 5,000 people electronically, and 800 people via hard copy.<br>▪ Presented the Fish Smart program to 14 San Mateo County employees from various departments.<br>▪ Posted an entry dated March 28th, 2017 about Fish Smart on the EHS blog which has been viewed 17 times based on a web page analytic report.<br>▪ Posted 3 social media posts on the Countywide Program totaling 16,517 impressions combined.<br>▪ Maintained the smchealth.org/fishsmart webpage which received 538 views over a 10-month period<br><br>Cumulatively, EHS had over 23,000 electronic or in person Fish Smart program impressions for FY 2016-17. |
| **2017/18** | During FY 2017/18, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Maintained signs that were previously posted by EHS at 11 locations along the Bay's shore (e.g., at fishing piers) in the Cities of Brisbane, Burlingame, Redwood City, San Mateo, and South San Francisco.<br>▪ Printed Fish Project brochure "Guide to Eating Fish and Shellfish from San Francisco Bay" in English, Spanish, Chinese, and Tagalog.<br>▪ Continued to distribute educational materials (i.e., a Fish Project brochure entitled "Guide to Eating Fish and Shellfish from San Francisco Bay") at targeted locations:<br>• EHS provided 50 brochures each to 4 marinas in San Mateo County.<br>• EHS attended 17 community health fairs, events, and the San Mateo County Fair, where brochures were provided and where a spinning wheel game was played. Over 4,000 people were reached regarding Fish Smart and other EHS programs.<br>• EHS created a Fish Smart fishing game where children catch fish with a fishing pole and identify if the fish is safe or not safe to each in exchange for a prize.<br>▪ Presented the Fish Smart program to 30 San Mateo County Family Health Division Women, Infant, and Children (WIC) employees and provided brochures to them to distribute to their clients.<br>▪ Posted 4 social media posts on the Countywide Program totaling 4,114 impressions combined.<br>▪ Maintained the smchealth.org/fishsmart webpage which received 3,800 views over a 11-month period.<br><br>Cumulatively, EHS had nearly 12,000 electronic or in person Fish Smart program impressions for FY 2017/18. |
| **2018/19** | During FY 2018/19, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ EHS staff maintained signs posted along the San Francisco Bay shore (e.g., at fishing piers) in the Cities of Brisbane, South San Francisco, San Mateo, Burlingame, and Redwood City. In addition, two new Fish Smart in San Francisco Bay signs were installed at locations where fishing has been observed. |

| Fiscal Year | Summary of Accomplishments |
|---|---|
| | ▪ The Office of Environmental Health Hazard Assessment (OEHHA) updated its statewide advisory for the California Coast in FY 2018/19. EHS provided signs in English, Spanish, Tagalog, and Chinese to City of Pacifica staff to post at the Pacifica Pier and printed the advisories in four languages to distribute in flyer format.<br>▪ EHS staff spoke with 2,500 residents at 10 events where information on the Fish Smart in San Francisco Bay, California Coast, and Monterey Bay Aquarium's Seafood Watch Programs was provided.<br>▪ Maintained the smchealth.org/fishsmart webpage which received over 2,700 views.<br>▪ EHS created 10 social media posts about safe fish consumption guidelines for the Bay and Ocean. Posts combined totaled over 110,000 impressions (number of times a post was on-screen), and over 9,800 engagements (e.g., a link in the post was clicked on).<br>▪ One social media post about surfperch reached over 16,000 people and had over 500 shares. |
| **2019/20** | During FY 2019/20, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ EHS staff maintained signs posted along the San Francisco Bay shore (e.g., at fishing piers) in the Cities of Brisbane, South San Francisco, San Mateo, Burlingame, and Redwood City. One sign was replaced at the Brisbane Lagoon due to the previous sign and pole being knocked down.<br>▪ EHS continued to promote the Fish Smart program using the California OEHHA fish consumption advisories in various languages through flyer distribution at community events, bait and tackle stores, harbormaster offices, and WIC community offices. 1,075 flyers in various languages were distributed at 20 locations within the County.<br>▪ EHS staff spoke with 1,128 residents at 4 events where information on the Fish Smart in San Francisco Bay, California Coast, and Monterey Bay Aquarium's Seafood Watch Programs was provided.<br>▪ Maintained the smchealth.org/fishsmart webpage which received 4,212 views.<br>▪ EHS created three social media posts and shared them on both Facebook and Twitter for a total of six posts. One of the posts was also shared to over 124,000 households countywide on Nextdoor.com. Posts combined had a reach or impression total of 16,961, depending on the platform. Combined, the posts had 1,250 engagements.<br>▪ On February 13th, 2020, 13 surveys were conducted at the Pacifica Pier to discuss the OEHHA fish consumption guidelines. Results showed that 92% of respondents eat the fish they caught and shared at least some types of the fish they caught with their friends or family. When asked if they knew that certain fish were not safe to eat due to high mercury and PCB levels, 84% indicated they were aware of this. |
| **2020/21** | During FY 2020/21, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Completed annual sign audits and updated and maintained tracking sheet and Google sign location map.<br>▪ Scouted and reached out to potential new posting locations.<br>▪ Added links to the smchealth.org/fishsmart website for Spanish, Chinese, and Tagalog Coast & Bay safe-to-eat fish guides (PDF format).<br>▪ Provided nine new OEHHA coast signs to State Parks to put up along the coast.<br>▪ Provided one new OEHHA coast sign for Pillar Point Harbor's new fishing pier.<br>▪ Communicated with OEHHA on obtaining Google analytic page views from the Bay Area and discussed salmon on the protected species list concern.<br>▪ Communicated with Alameda County's Fish Smart Program lead to obtain ideas for FY 2021/22.<br>▪ Called, mailed, or visited 15 partner locations to discuss Fish Smart Program promotion and provided 1150 flyers in English, Spanish, Tagalog and Chinese. |

| Fiscal Year | Summary of Accomplishments |
|---|---|
| | ▪ Sent out a Constant Contact email that linked to an upcoming Monterey Bay Aquarium Seafood Watch webinar as well as the OEHHA bay and coast guidelines PDF. Results: sent to 103 residents with an open rate of 44% (compared to industry average of 28%).<br>▪ Worked with our contractor SGA to create Google ads that aired in March 2021 in English & Spanish that received a total of 455,724 impressions and 3,676 clicks to the website.<br>▪ As of 6/01/2021, smchealth.org/fishsmart had 2,763 page visits of which 1,848 were new visitors. |
| **2021/22** | During FY 2021/22, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Completed annual sign audits and updated and maintained tracking sheet and Google sign location map.<br>▪ Added links to the smchealth.org/fishsmart website for Vietnamese Coast & Bay safe-to-eat fish guides (PDF format).<br>▪ Visited 29 partner locations to discuss Fish Smart Program promotion and provided 2,250 flyers in English, Spanish, Tagalog, Vietnamese and Chinese.<br>▪ Worked with our contractor SGA to create Google ads that aired between April and June 2022 in English that received a total of 1,082,569 impressions and 11,787 clicks to the website.<br>▪ As of 6/15/2022, smchealth.org/fishsmart had 12,153 page visits of which 10,523 were new visitors.<br>▪ Began Fish and Shellfish Advisory Signage Grant application process through State Water Resources Control Board (SWRCB) and California Conference of Directors of Environmental Health (CCDEH) to obtain funding to create new signage at SMC Fish Smart locations. |
| **2022/23** | During FY 2022/23, EHS conducted the following activities that target at-risk populations (e.g., subsistence fisherman) via its Fish Smart program:<br>▪ Awarded grant funding through State Water Resources Control Board (SWRCB) to replace all Fish Smart/OEHHA signage throughout county. All signs have been replaced with the newest guidelines.<br>▪ EffecTV Ads: Created ad in 2 different languages (English and Spanish) to educate the public in San Mateo County about the Fish Smart Program. 284 hours were spent interacting with the video, with 88% of the video ad impressions viewed in full.<br>▪ Google Ads: Created multilingual ads to educate the public on the Fish Smart Program. This garnered 2,023,597 impressions.<br>▪ Youth Education Presentations: developed presentation & collateral to educate youth about Fish Smart program, drafted recruitment email. |

# FUTURE ACTIONS

During FY 2023/24, Countywide Program staff will continue to assist San Mateo County Permittees comply with all mercury and PCBs control program requirements, as described above.

# SECTION 13
# C.13 COPPER CONTROLS

## INTRODUCTION

Provision C.13 of the MRP addresses copper control measures identified in the San Francisco Bay Basin Water Quality Control Plan (commonly referred to as the Basin Plan). The Regional Water Board has deemed these controls are necessary to support copper site-specific objectives in San Francisco Bay. C.13 includes the following sub-provisions:

- C.13.a. Manage waste generated from cleaning and treating copper architectural features, including copper roofs, during construction and post-construction;
- C.13.b. Manage discharges from pools, spas and fountains that contain copper-based chemicals; and
- C.13.c. Industrial Sources.

In FY 2022/23, Permittees and the Countywide Program continued to conduct activities related to complying with Provision C.13. Local copper control actions are documented in each Permittee's individual Annual Report. This section summarizes related activities conducted by the Countywide Program.

## IMPLEMENTATION OF MRP PROVISIONS

### C.13.a. Copper Architectural Features

Provision C.13.a. requires Permittees to manage waste from cleaning and treating copper architectural features, including copper roofs, during construction and post-construction.

During FY 2022/23, SMCWPPP continued to train municipal staff on the MRP requirements and BMPs for architectural copper installation, cleaning, and treating. The trainings utilized a SMCWPPP factsheet entitled "Requirements for Architectural Copper: Protect water quality during installation, cleaning, treating, and washing!" which targets suppliers and installers of copper materials and is available on the SMCWPPP website (flowstobay.org). Municipal construction site stormwater inspectors received the information from a presentation at the SMCWPPP Construction Site Stormwater Inspections Training on June 20, 2023 (see Section 6 for more details).

### C.13.b. Manage Discharges from Pools, Spas and Fountains

Provision C.13.b. requires Permittees to manage discharges from pools, spas and fountains that contain copper-based chemicals by adopting local ordinances. These requirements are implemented by individual Permittees and are reported on in their Annual Reports. Guidance on these requirements for illicit discharge inspectors is provided through SMCWPPP's CII Subcommittee and public outreach on related

BMPs is provided through SMCWPPP's PIP Subcommittee. A fact sheet entitled *Best Management Practices for Pools, Hot Tubs, and Fountain Water Discharges* was developed in FY 2018/19 and includes information on avoiding the use of copper-based algaecides. The fact sheet is available on the SMCWPPP website (flowstobay.org). Section 15 discusses related public outreach by SMCWPPP to promote pool, spa, and fountain discharge BMPs through social media posts.

### C.13.c. Industrial Sources

Provision C.13.c. requires Permittees to ensure through routine industrial facility inspections that proper BMPs are in place at industrial facilities likely to use copper or have sources of copper. SMCWPPP's CII Subcommittee assists San Mateo County municipal agency staff with understanding this MRP requirement and SMCWPPP develops MRP compliance support materials, as necessary. In addition, in June 2010 BASMAA developed pollutants of concern commercial/industrial inspector training materials and a guidance manual. These documents address industrial sources of copper and are available on SMCWPPP's members only website.

## FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees comply with MRP requirements in Provision C.13 include the following:

- Continue to provide information on MRP requirements regarding architectural sources of copper to construction site and building inspectors at New Development Subcommittee meetings, construction site stormwater inspector training workshops and materials, and at presentations to CALBIG or other partner organizations;
- Provide guidance to San Mateo County Permittees via SMCWPPP's CII Subcommittee and/or SMCWPPP stormwater business inspector training workshops and materials to assist them with conducting routine industrial facility inspections that ensure proper BMPs are in place at industrial facilities likely to use copper or have sources of copper; and
- Continue to provide outreach material and guidance via SMCWPPP's CII and PIP Subcommittees regarding pool, spa, and fountain discharge BMPs.

# SECTION 15
# C.15 EXEMPTED AND CONDITIONALLY EXEMPTED DISCHARGES

## INTRODUCTION

The objective of MRP Provision C.15, Exempted and Conditionally Exempted Discharges, is to exempt unpolluted non-stormwater discharges from the MRP's general non-stormwater discharge prohibition (Provision A.1) and to conditionally exempt non-stormwater discharges that are potential sources of pollutants. This section describes SMCWPPP's countywide activities conducted to help its member agencies implement this provision. SMCWPPP helps municipal staff understand the MRP's requirements and makes various MRP compliance support materials available for their use. The SMCWPPP CII Subcommittee, discussed in Section 4, facilitates and coordinates providing this assistance to the member agencies for a variety of different types of non-stormwater discharges that may be conditionally exempted.

In addition, during FY 2022/23 SMCWPPP's PIP component conducted selected activities to help San Mateo County Permittees comply with public outreach requirements in Provision C.15.b.iv. Individual Residential Car Washing Discharge, C.15.b.v. Swimming Pool, Hot Tub, Spa and Fountain Water, and Provision C.15.b.vi. Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering. These activities are described below.

## IMPLEMENTATION OF MRP PROVISIONS

### Provision C.15.b.iii. Emergency Discharges of Firefighting Water and Foam

Permittees are required to collectively convene a regionwide Firefighting Discharges Work Group to identify and evaluate opportunities to reduce the impacts of discharges to the MS4 associated with emergency firefighting activities. During FY 2022/23, SMCWPPP surveyed the CII Subcommittee for stormwater program and fire department representatives that would like to participate in the BAMSC Firefighting Discharges Work Group. Countywide Program staff actively participated in the March 14 and June 1, 2023 Work Group meetings. Countywide Program staff provided information on the Work Group activities to the CII Subcommittee. The BAMSC Work Group developed a draft Project Profile with tasks and schedule for a regional collaborative project to develop a Regional Firefighting Discharges Report, per the MRP requirement. SMCWPPP will provide in-kind services for the development of the regional report and SMCWPPP representatives will continue to participate in the Regional Work Group.

### Provision C.15.b.iv. Individual Residential Car Washing

During FY 2022/23, SMCWPPP continued previous years' outreach efforts through social media posts to encourage residents to use professional car wash companies rather than washing their cars at home

(Figure 15-1). The practice of using commercial car washes helps keep soaps, automotive pollutants, and environmental toxins from washing into San Mateo County storm drains. Through social media posts, residents were directed to learn more about why they should choose car wash companies and best practices to use at home if they need to wash at home. The SMCWPPP webpage shown in Figure 15-2 received 357 pageviews in FY 2022/23.

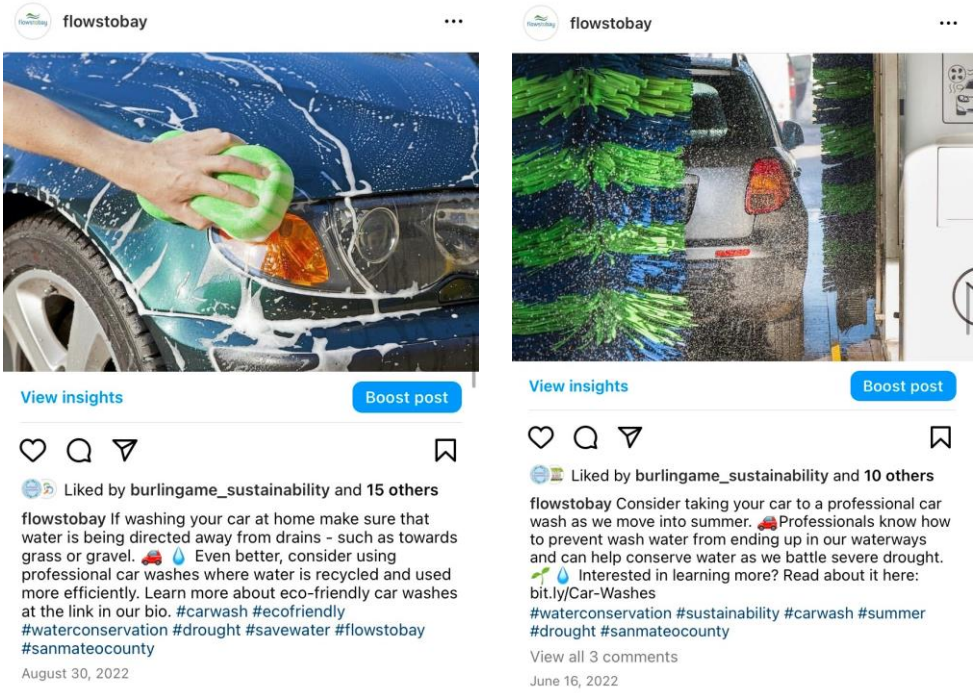



**Figure 15-1. Examples of Instagram posts about car washing**

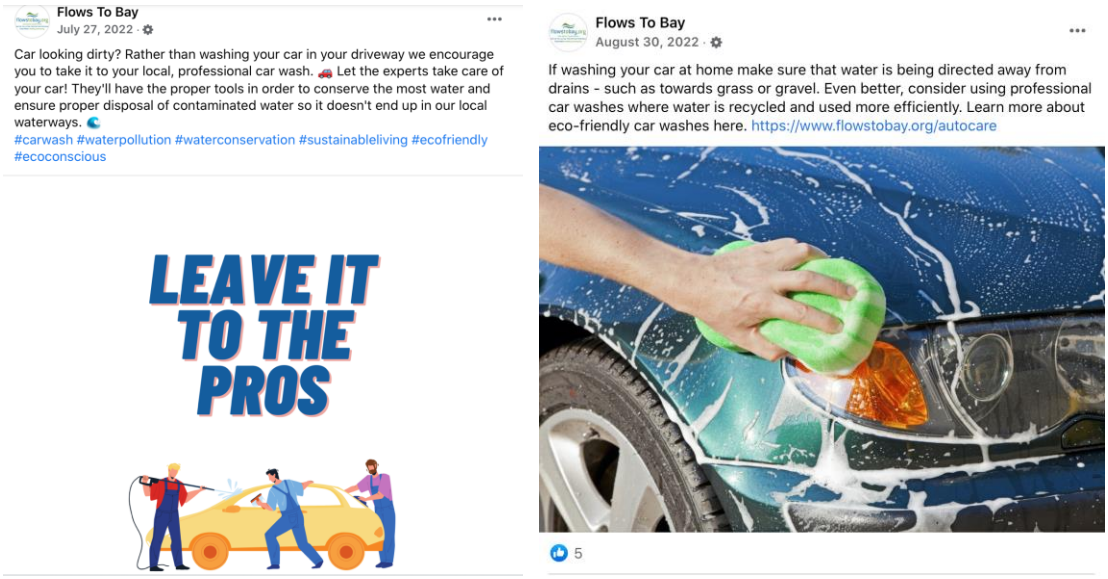



**Figure 15-1. Examples of Facebook posts about car washing**.

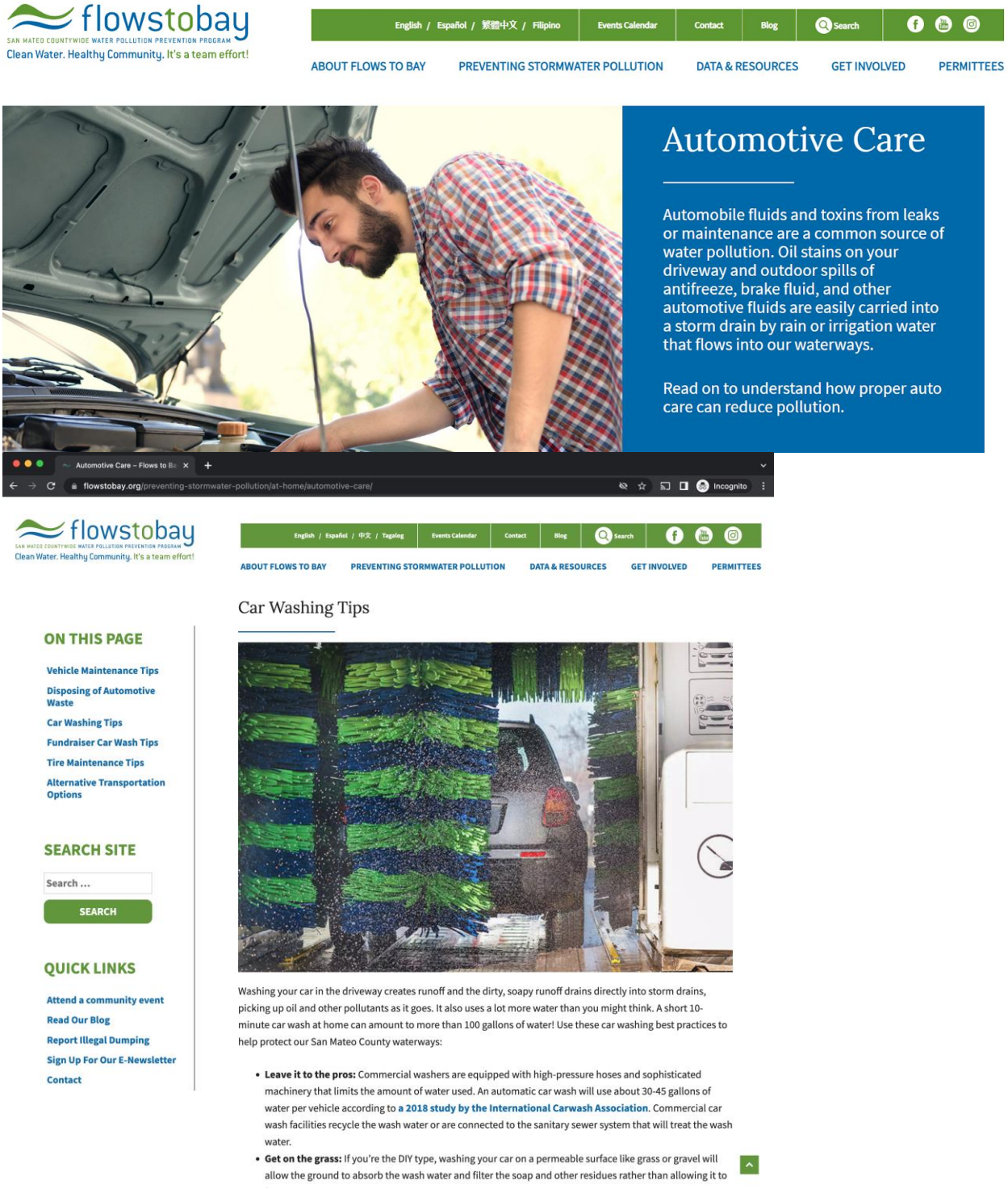



**Figure 15-2. Automotive maintenance webpage.**

## Provision C.15.b.v. Swimming Pool, Hot Tub, Spa, and Fountain Water Discharges

During FY 2022/23, SMCWPPP continued public outreach and educational efforts to encourage the implementation of appropriate BMPs in commercial, municipal, and residential facilities. SMCWPPP shared with member agencies BMP fact sheets that specifically target swimming pools, hot tubs, spas, and fountain water discharges (Figure 15-3) and also made the information available to read and download on their website. Best practices were also promoted through social media posts (Figure 15-4).

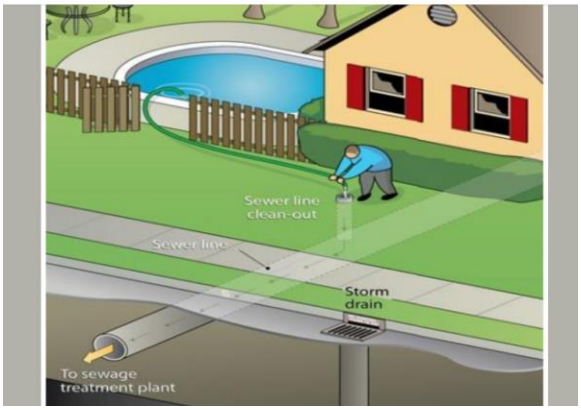

**Figure 15-3. Swimming pool, hot tub, spa, and fountain water discharge BMP fact sheet.**

**Flows To Bay**
November 4, 2022 ·

Planning to drain your pool as colder weather approaches? Make sure to discharge the water into a sanitary sewer clean-out and NOT into the street or storm drain.

Storm drains flow into our local creeks, the Bay, and Pacific Ocean untreated. If there are chemicals from pools, hot tubs, or fountains that enter our storm drain system, they can contaminate local waterways. Read more helpful guidelines at flowstobay.org/pool.

📷: City of Antioch




**Flows To Bay**
October 2, 2022 ·

As the weather gets cooler and you transition from pools to spas and hot tubs, keep these cleaning tips in mind! You should never clean filters or drain pool/spa water in the street or down storm drains. Instead, discharge water to a sanitary sewer- clean out! The water in pools, hot tubs, and spas contain chemicals that should never enter storm drains. Find more tips at flowstobay.org/pool


**Flows To Bay**
July 19 ·

Did you know that the water from swimming pools, hot tubs, and fountains often contain additional chemicals that are harmful to creek life and water quality? Here's how to get rid of water safely.

Check out the link in our bio to learn more about how to properly clean, maintain, and drain your pools!

You and 1 other

**Flows To Bay**
November 6, 2022 ·

Attention all mobile businesses! It's important that you responsibly deal with grease, dirt, debris, soap, oil, and other wash-water to prevent harmful chemicals reaching our waterways and negatively impacting local species. Plan ahead and check out our comprehensive guide on best practices for mobile businesses by visiting https://flowstobay.org/mobile-business

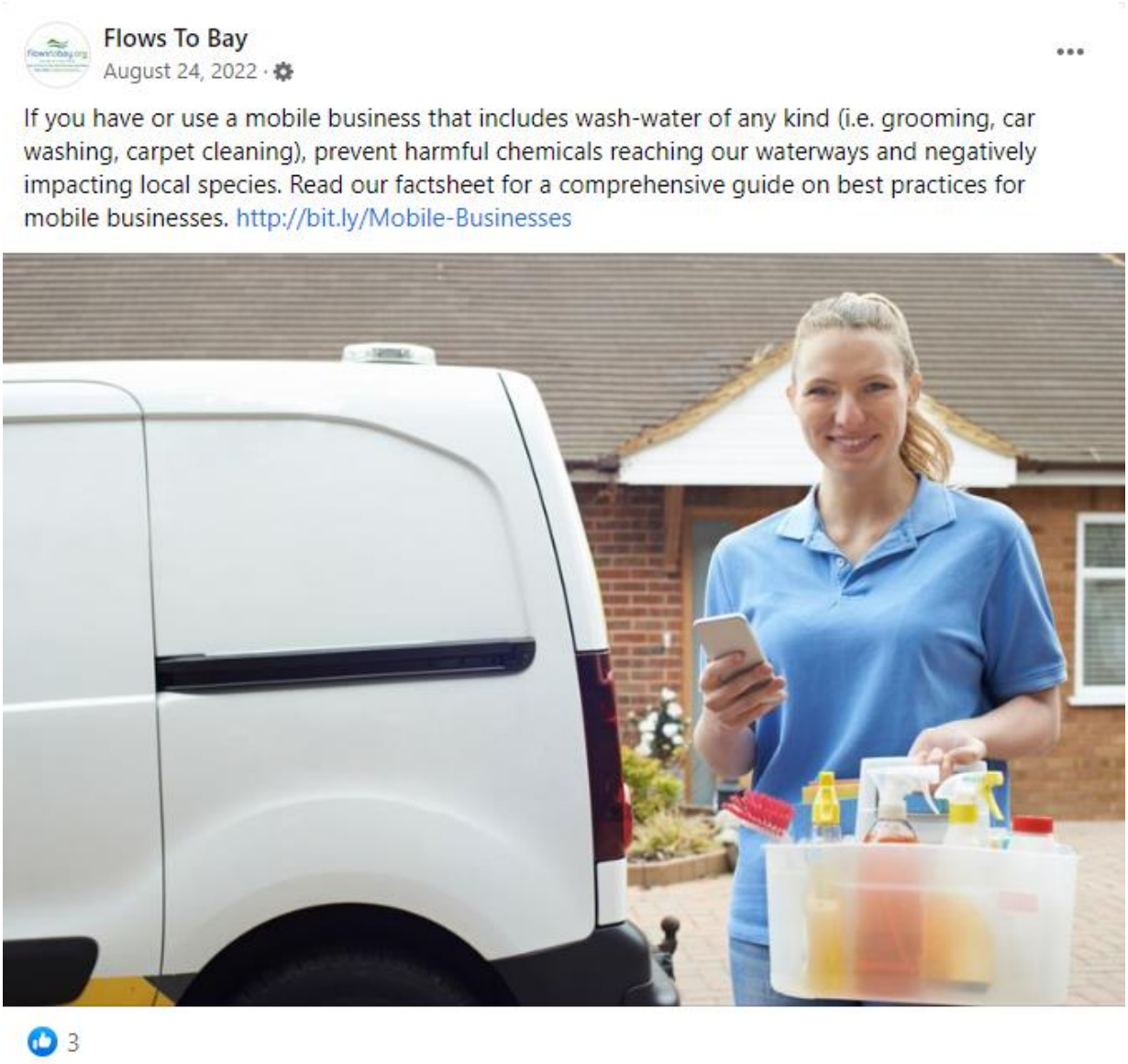



**Figure 15-4. Examples of Facebook posts to businesses about swimming pool, hot tub, spa, and fountain water discharge.**

## Provision C.15.b.vi. Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering

In FY 2022/23, SMCWPPP implemented the following outreach activities to promote the use of less-toxic options for pest control and landscape management, and the use of drought tolerant native vegetation to minimize landscape irrigation demands:

- Conducted outreach to San Mateo County residents to support and promote eco-friendly alternatives to toxic pesticides (Figures 15-5 and 15-6; Tables 15-1 and 15-2). The promotion took place on social media, in the two IPM webinars conducted, and the SMCWPPP

newsletter. Additional messaging was provided through SMCWPPP's point-of-purchase program, where OWOW materials were distributed to educate residents about eco-friendly pesticide alternatives at five tabling events and 10 local hardware stores.

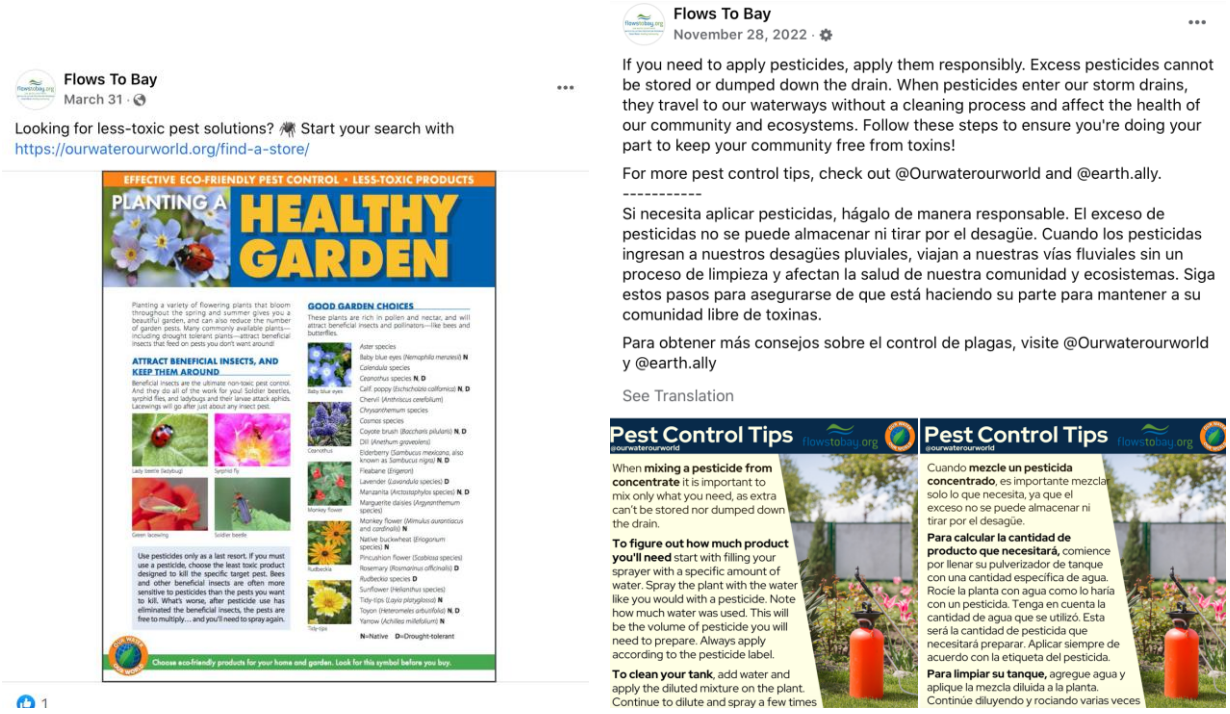
- Continued to promote water-conservation tips via social media, a webinar entitled "Drought-Proof Your Garden" and wrote 3 blogs that feature water conservation (Figure 15-7) two of which highlighted local community champions who are working on solutions.
- Promoted planting of drought-tolerant, native vegetation through our online media channels, including social media (Figures 15-8 and 15-9, Tables 15-3 and 15-4) and the SMCWPPP newsletter and blogs. Messaging focused on the environmental benefits of planting native plants, including their tolerance to drought (Figure 15-10).
- Held a webinar in April titled "Gardening in a Changing Climate" in which our IPM expert (Charlotte with OWOW) presented IPM strategies for weather events such as drought and storms. The webinar had 84 attendees (Figure 15-11).

**Table 15-1. Summary of Facebook posts on pesticide pollution prevention topics**

| Post Focus | Reach | Engagements (likes, comments, and shares) | Clicks |
|---|---|---|---|
| Integrated Pest Management (# posts) | 8,200 | 143 | 432 |
| Hiring a Pest Control Operator (# posts) | 890 | 2 | 0 |
| Links Between Pesticides & Water Quality (# posts) | 1,636 | 17 | 0 |

**Table 15-2. Summary of Instagram posts on pesticide pollution prevention topics**

| Post Focus | Reach | Engagements (likes, comments, shares, and saves) |
|---|---|---|
| Integrated Pest Management (# posts) | 3,932 | 175 |
| Hiring a Pest Control Operator (# posts) | 408 | 9 |
| Links Between Pesticides & Water Quality (# posts) | 1,183 | 61 |



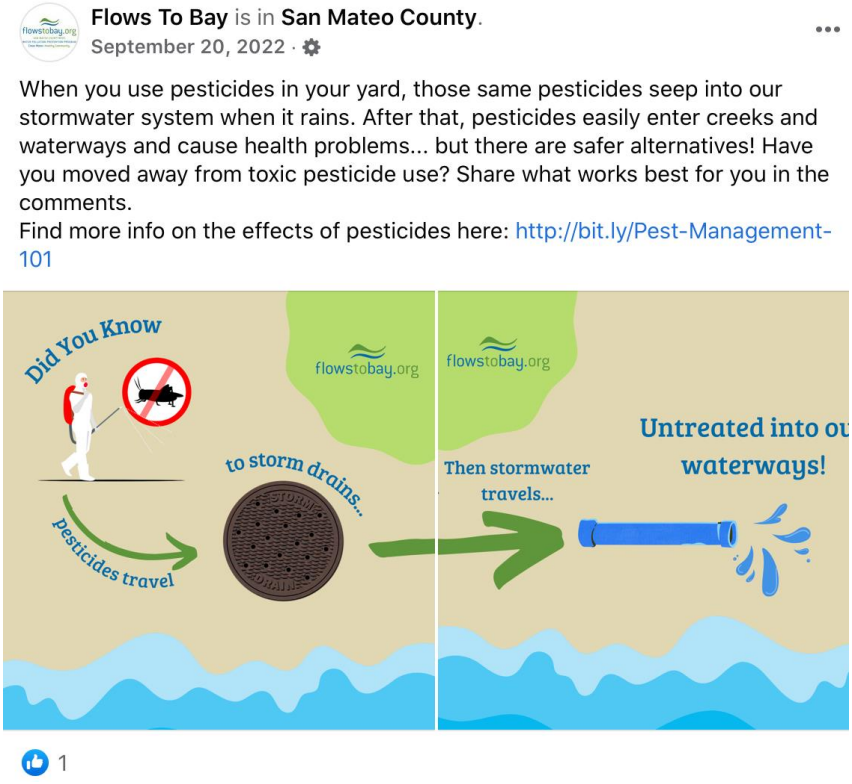




**Figure 15-5. Facebook posts on pesticide pollution prevention topics.**

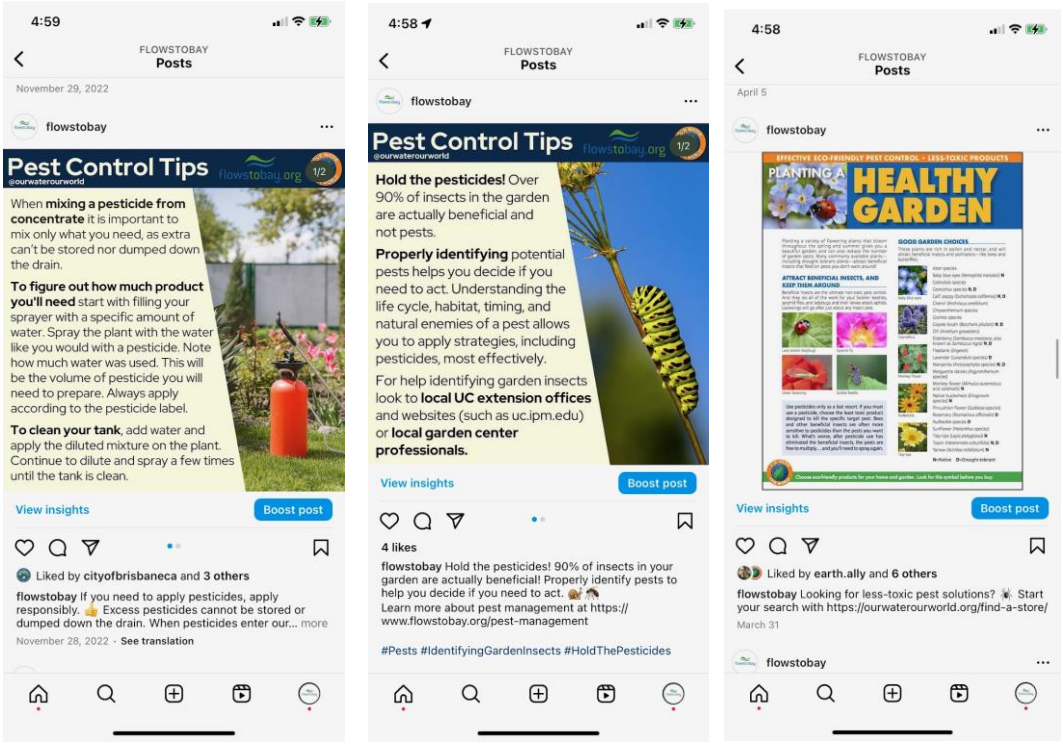



**Figure 15-6. Instagram posts on pesticide pollution prevention topics.**

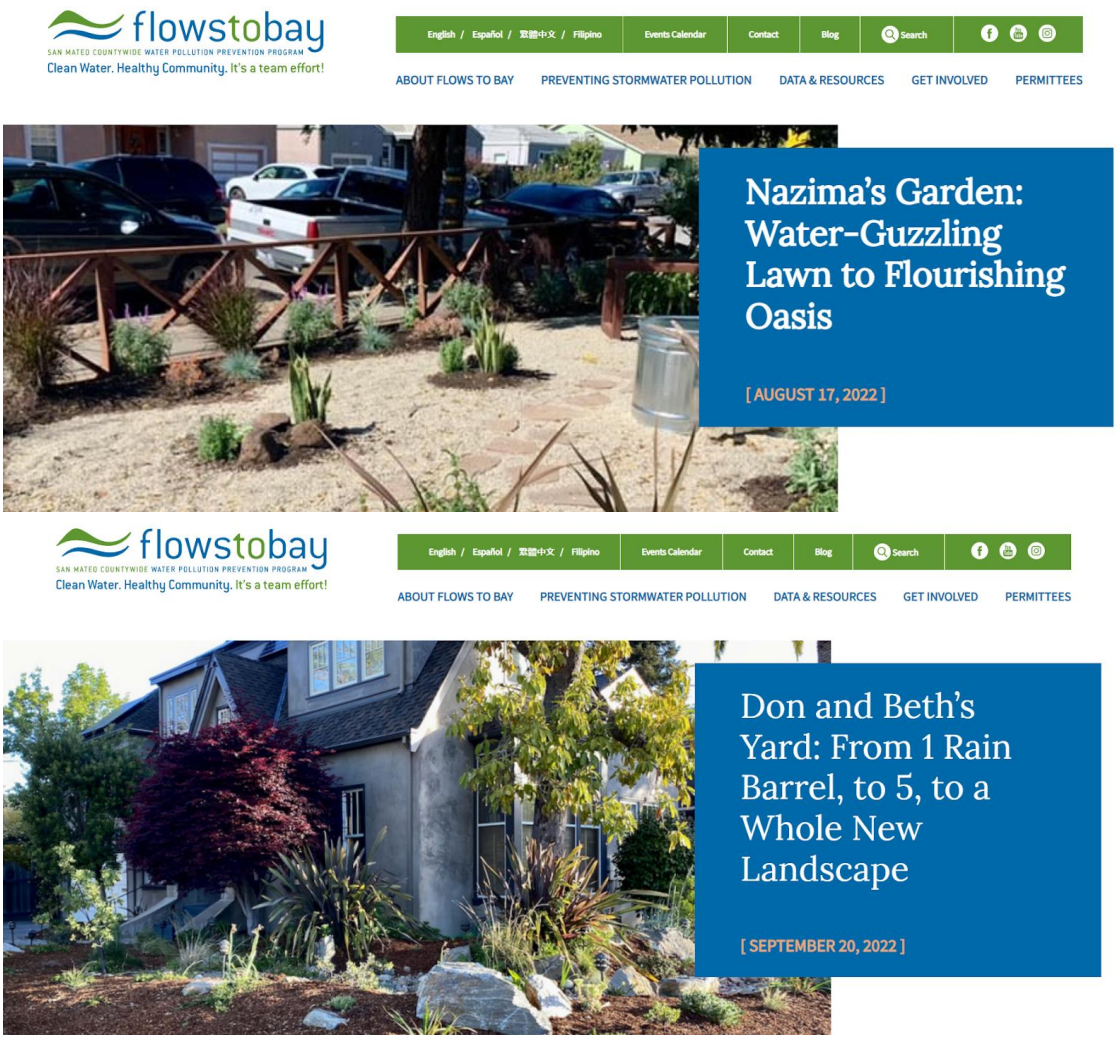



**Figure 15-7. Screenshots of blogs on SWMPPP's website that featured water conservation tips.**

**Table 15-3. Summary of Facebook posts promoting landscape management and the use of drought-tolerant, native vegetation**

| Post Focus | Reach | Engagements (likes, comments, and shares) | Clicks |
|---|---|---|---|
| Drought Tolerant, Native Vegetation (11 posts) | 6,084 | 121 | 37 |
| Best Practices for Hiring Landscape Professionals (6 posts) | 5,181 | 66 | 100 |

**Table 15-4. Summary of Instagram posts promoting landscape management and the use of drought-tolerant, native vegetation**

| Post Focus | Reach | Engagements (likes, comments, shares, and saves) |
|---|---|---|
| Drought Tolerant, Native Vegetation (# posts) | | |
| Best Practices for Hiring Landscape Professionals (# posts) | | |

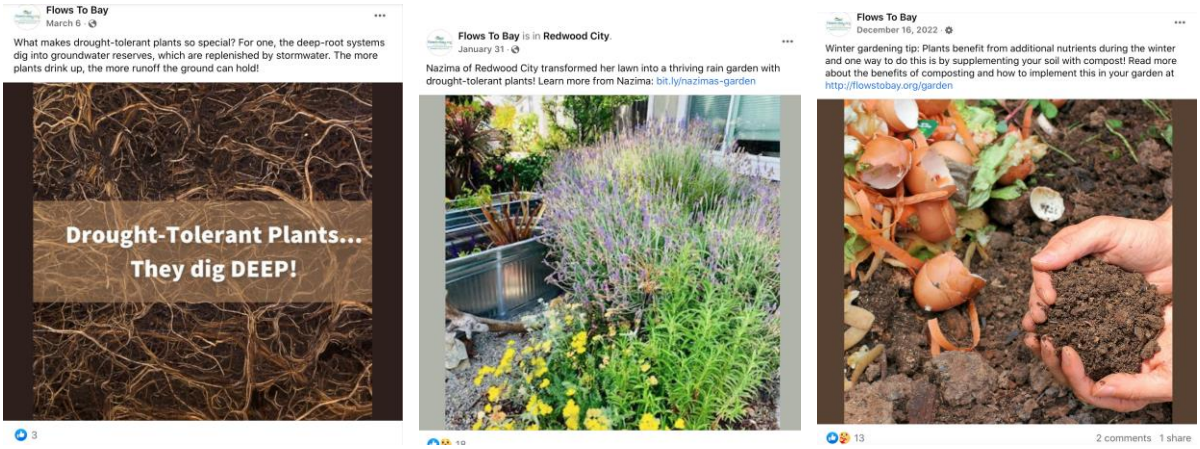



**Figure 15-8. Facebook posts promoting landscape management and the use of drought-tolerant, native vegetation.**

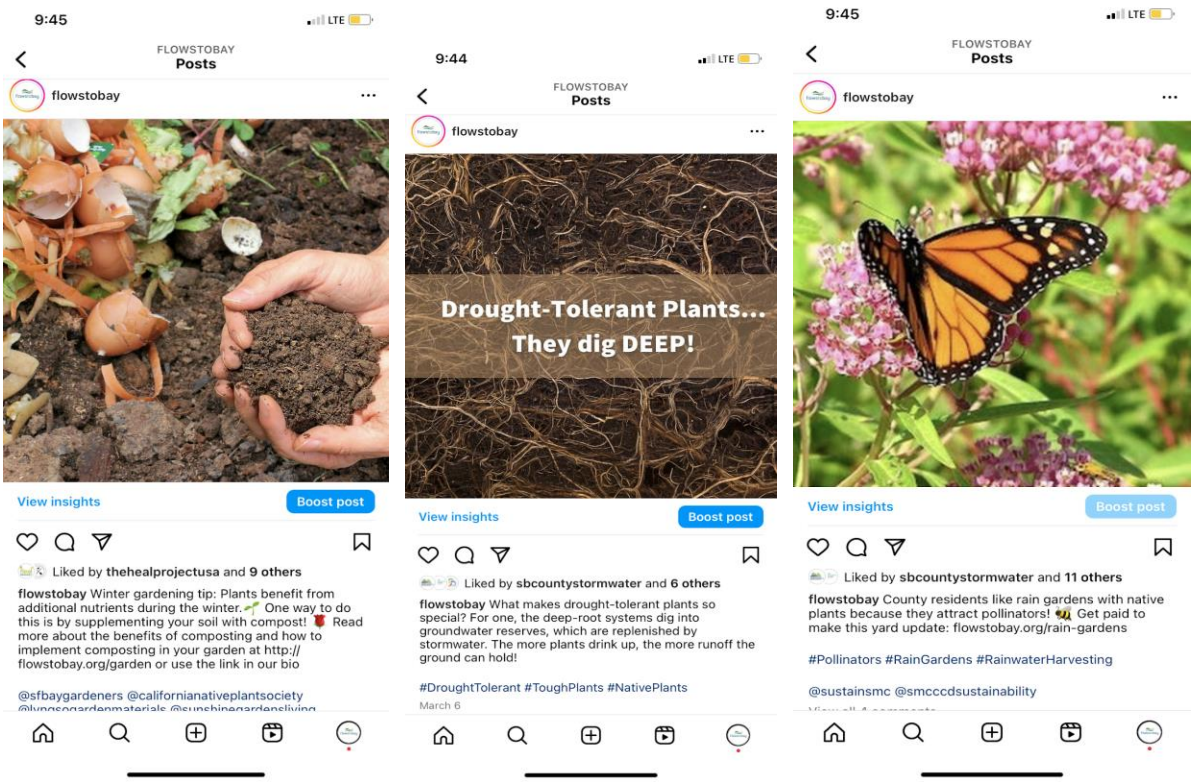



**Figure 15-9. Instagram post promoting landscape management and the use of drought-tolerant, native vegetation.**

## The Benefits of California Native Plants

With winter on the horizon and the rainy season among us, now is the time to consider how colder and wetter conditions impact water conservation efforts in our yard and garden. California is still in a drought, so make the most of the gift of rain this season and incorporate native plants into your landscape to maximize the benefits of rain while minimizing rainwater runoff pollution!

San Mateo County receives an average of 24 inches of rain per year, with the rainy season lasting from October to May. During this period, the excess rainwater that does not soak into the ground travels on streets and pavements (also known as impermeable surfaces) and will pick up pollutants along the way into storm drains, which drain into local creeks, the San Francisco Bay, and the Pacific Ocean. Because native plants are best suited for the semi–Mediterranean climate, their deep roots absorb rainwater and prevent runoff from ever reaching these impermeable surfaces.

## Rain Garden Before & After

Below are some below and after photos to demonstrate the possibilities! Move the slider left and right to view the images.


**Figure 15-10. Screenshots of SWMPPP's website content that features native plants**

flowstobay.org
SAN MATEO COUNTYWIDE WATER POLLUTION PREVENTION PROGRAM
Clean Water. Healthy Community.

**Prepare Your Garden for Changeable Weather Events**


**Upcoming FREE Webinar | April 15th at 10-11:30AM**

Adapt to our changing climate and keep your garden healthy! Get your garden ready for any weather event—sunshine, drought, heat wave, rainfall, or flood. Register for our free webinar on Saturday, April 15 from 10 am to 11:30 am. We'll cover how to protect your plants from changing weather, environmental damage, and pests!

Discover what we as gardeners can do to prevent weather-related issues. Learn the difference between environmental and pest damage and how to approach each to keep our gardens healthy and resilient. The presentation will be approximately an hour with a Q&A session to follow—so bring your questions!

Also, San Mateo County residents who take a short 3-minute survey after the webinar will be entered into our raffle. You'll have a chance to **win a $100 gift card** of your choice to either Hassett Ace Hardware, The Home Depot, or Lyngso Garden Materials to assist with your garden preparation needs!

**Register for the Webinar Now**

**Figure 15-11. Screenshot of newsletter sent in April 2023 promoting a webinar that tackled healthy approaches to gardening and pest management.**

# FUTURE ACTIONS

In FY 2023/24, SMCWPPP will continue to assist member agencies to comply with requirements in the reissued regional municipal stormwater permit (MRP 3.0) related to conditionally exempt non-stormwater discharges, including conducting selected types of related outreach.

# SECTION 17
# C.17 DISCHARGES ASSOCIATED WITH UNSHELTERED HOMELESS POPULATIONS

## INTRODUCTION

Provision C.17, Discharges Associated with Unsheltered Homeless Populations, is a new provision introduced with MRP 3.0. The objective of Provision C.17 is to identify and ensure the implementation of appropriate control measures to address non-stormwater discharges into MS4s associated with unsheltered homeless populations, including discharges from areas where unsheltered people congregate. This section describes SMCWPPP's countywide activities conducted to help San Mateo County Permittees implement this provision. SMCWPPP helps municipal staff understand the MRP's requirements, makes various MRP compliance support materials available for their use and participates, on behalf of its members, in regional groups (e.g., BAMSC Work Group). A SMCWPPP C.17 Work Group was formed in FY 2022/23 to facilitate and coordinate providing this assistance to the Permittees.

## IMPLEMENTATION OF MRP PROVISIONS

### Provision C.17.a.ii.(1) Unsheltered Homeless Population Map

Permittees must submit a map with their FY 2022/23 Annual Report that identifies the approximate location(s) of unsheltered homeless populations, storm drain inlets and existing streams, rivers, flood control channels, and other surface water bodies within the Permittee's jurisdiction. The MRP allows the use of biennial point-in-time (PIT) census surveys results to develop the maps. SMCWPPP worked with San Mateo County Human Services Agency (HSA) staff to obtain data from the most recent PIT Count and Survey from February 2022.

The biennial PIT count is designed to meet the United States Department of Housing and Urban Development (HUD) requirements to apply for McKinney-Vento Homeless Assistance funds (also known as Continuum of Care funds) and provide data for local homeless system planning. Approximately 400 volunteers consisting of community-based providers, members of the public, City and County staff, and community expert guides conducted observational counts and surveys of people experiencing unsheltered homelessness in each census tract in the County. The County conducts the count every two years, although the 2021 count was postponed to 2022 due to COVID-19 (*2022 San Mateo County One Day Homeless County and Survey*, August 2022).

To determine whom to count, the HSA used the definition of homelessness established in the federal McKinney-Vento Homeless Assistance Act:

1. An individual who lacks a fixed, regular, and adequate nighttime residence, and
2. An individual who has a primary nighttime residence that is:
    a. A supervised publicly or privately-operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, non-congregate shelters, and transitional housing for the mentally ill); or
    b. An institution that provides a temporary residence for individuals intended to be institutionalized; or
    c. A public or private place not designated for, or ordinarily used as, a regular sleeping accommodation for human beings.

In 2022 the number of people experiencing homelessness in San Mateo County included

- 1,092 people experiencing unsheltered homelessness on the streets, in Safe Parking programs, in vehicles (cars, vans, and recreational vehicles [RVs]), or in structures (tents, encampments, and other structures); and
- 716 people experiencing sheltered homelessness in emergency shelters and transitional housing programs. (2022 San Mateo County One Day Homeless County and Survey, August 2022)

SMCWPPP developed a map for each Permittee using the data provided by San Mateo County HSA. Due to privacy and safety concerns raised, the location data were mapped at the census tract level for the publicly available report. The more specific, but still approximate, location data provided by the HSA was made available to Permittees. The data provided was the approximate location and observational counts of people, vehicles, and structures. Vehicles and structures were counted but the number of people staying inside was not directly counted. HSA's approach to data analysis was to develop a multiplier to estimate the numbers of people in vehicles and structures. The multipliers were derived from survey responses from people who indicated that they had slept in a car, van, RV, tent, makeshift shelter, or other sleeping locations on the night of the count (*2022 San Mateo County One Day Homeless County and Survey*, August 2022). People sleeping on streets and staying in safe parking locations were counted directly so no multiplier was used for these counts. SMCWPPP used the same multipliers when mapping the observation data provided to estimate the number of unsheltered homeless in each census tract.

## Provision C.17.a.ii.(2) Regional Best Management Practices Report

To encourage ongoing regional, countywide, and municipal coordination efforts, the MRP requires Permittees to collectively develop a best management practice report that identifies effective practices to address non-storm water discharges associated with homelessness into MS4s that impact water quality. The BAMSC formed a Work Group to develop the *Regional BMP Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations* (Regional BMP Report). SMCWPPP staff provided in-kind contributions towards the development of the Regional BMP Report and actively participated in the Work Group. The Work Group included representatives from SMCWPPP, the Alameda Countywide Clean Water Program, the Contra Costa Clean Water Program, the Santa Clara Valley Urban Runoff Pollution Prevention Program, the Solano Stormwater Alliance, and individual cities, counties, and special districts in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano Counties

regulated by the MRP. The Work Group also reached out to homeless service provider agencies, Caltrans, and other partner agencies in the development of this Regional BMP Report.

The BAMSC Work Group met five times in FY 2022/23 with meeting held in October and November 2022 and January, March, and May 2023. The January 2023 Work Group meeting was a special information sharing meeting providing information on activities related to addressing unsheltered homeless populations. The meeting included representatives from Water Board staff, EPA Region 9, Caltrans, City of Oakland, City of San Jose, Valley Water and Contra Costa County's Health, Housing and Homeless Services Division. In addition, Countywide Program representatives met with a representative from the City of Eugene Oregon and Water Board staff in June 2023 to learn about programs being implemented in Eugene. Countywide Program representatives also met with the Water Board staff in March, May, and June 2023 to relay the progress of the BAMSC Work Group.

SMCWPPP staff worked with the SMCWPPP C.17 Work Group to review BAMSC work products, including reviewing and distributing a BMP survey collecting information on practices implemented by Permittees. Information from the survey and SMCWPPP C.17 Work Group was compiled and incorporated into the Regional BMP Report.

The Regional BMP Report describes the BMPs that may be, or are currently being, implemented by Permittees to address discharges associated with homelessness impacting water quality. Each BMP is presented as a Fact Sheet in the BMP Report. The Fact Sheets describe the BMP, goals, limitations, and challenges, and provide local implementation examples. The Regional BMP Report was approved by the SMCWPPP Stormwater Committee via email in August 2023 and the BAMS Collaborative Steering Committee on August 24, 2023. The Regional BMP Report was submitted in compliance with MRP Provision C.17.a.iii.(1) and is included in Appendix 17.

## Coordination with County Human Services Agency

SMCWPPP recognizes that identifying BMPs and strategies to manage the water quality impacts associated with unsheltered populations does not inherently address the complex issues contributing to and impacting the chronic homelessness in the County. The San Mateo County Board of Supervisors is committed to preventing homelessness and ensuring anyone who is experiencing homelessness is supported with safe shelter and a pathway to housing. The HSA is the County Department tasked with implementing this vision on behalf of the Board of Supervisors and the San Mateo County Continuum of Care Steering Committee (CoC), a diverse, cross-sectoral body that guides and shapes the countywide response to homelessness. HSA works in close collaboration with other County departments and community partners in these efforts (San Mateo County CoC Strategic Plan on Homelessness, July 2022).

The County's CoC Strategic Plan on Homelessness (July 2022) identifies the programs, initiatives and strategies in place and system improvements for the next three years. The programs and services described include outreach and engagement, shelter/interim housing, housing solutions, prevention assistance, and targeted programs for special populations. The Plan identifies the strategies to accomplish the goals and track progress towards these goals, including reaching functional zero homelessness. SMCWPPP will continue to engage with these organizations whose primary mission is to end homelessness to ensure stormwater agency efforts are supportive and not disruptive of the existing efforts.

# FUTURE ACTIONS

In FY 2023/24, SMCWPPP will continue to assist member agencies to comply with requirements in MRP 3.0 related to discharges from unsheltered homeless populations and participate in the BAMSC Work Group.

# SECTION 20
# C.20 COST REPORTING

## INTRODUCTION

Provision C.20, Cost Reporting, is a new provision introduced with MRP 3.0. Provision C.20.a. requires each Permittee to annually prepare and submit a fiscal analysis of the capital and operation and maintenance costs incurred to comply with MRP requirements. Provision C.20.b.i. requires Permittees to develop a cost reporting framework and methodology to perform the fiscal analysis. Permittees are encouraged to collaboratively develop the framework and methodology. The framework is required to consider identification of costs incurred solely to comply with MRP requirements as compared to costs shared with other programs or regulatory requirements, provide meaningful data to assess costs of different program areas, and allow for comparisons and to identify trends over time. Provision C.20.c. requires Permittees to submit the cost reporting framework and methodology to the Water Board by June 30, 2023, and to submit their fiscal analyses annually according to the accepted cost reporting framework and methodology starting with the 2025 Annual Report.

In FY 2022/23, the Countywide Program collaborated with other MRP countywide programs through the (BAMSC) to complete a Bay Area Cost Reporting Framework and Guidance Manual in compliance with Provision C.20.b.i. This section provides information on this collaborative effort, including the products developed and next steps.

## IMPLEMENTATION OF MRP PROVISIONS

### Provision C.20.b.i Cost Reporting Implementation

The Countywide Program provided in-kind support to a BAMSC project of regional benefit to jointly develop a cost reporting framework and methodology, along with other BAMSC MRP countywide stormwater programs. The Project Team consisted of consulting firms already under contract to the participating countywide programs (EOA and LWA). MRP Provision C.20 required permittees to collectively develop the cost reporting framework and methodology during FY 2022/23 for submittal to the Water Board by June 30, 2023.

A BAMSC ("Regional") Cost Reporting Work Group was formed to plan and direct the project and four meetings were held at appropriate milestones. (A fifth meeting of the Regional Work Group was held to update State and Regional Water Board staff on the project.) Representatives of the Countywide Program, the County of San Mateo, and the City of San Bruno participated in the Regional Work Group. In addition, two presentations to the C/CAG Stormwater Committee were made to obtain input on the first and second draft cost reporting products.

The project resulted in the development of a Bay Area Cost Reporting Framework (Excel-based cost reporting tool with tabs for each MRP provision) and a Guidance Manual providing instructions and

guidance for Permittees using the Framework to conduct their fiscal analyses and assumptions made for each provision and cost category. The Framework tool complies with MRP Provision C.20 requirements and is consistent with State Water Board efforts currently underway to develop a statewide cost reporting framework. The Framework and Manual are intended to be used by individual Permittees to prepare their fiscal analyses beginning in FY 2024/25, per Provision C.20 requirements. The products provide flexibility by incorporating several different options for Permittees to estimate and summarize costs. It is anticipated that adjustments to the Framework and methodology may be made over time as Permittees gain experience with estimating and submitting MRP implementation costs.

After two rounds of review by countywide programs and permittees and revisions/responses to comments, the final draft Framework and Guidance Manual were approved in June 2023 by the countywide programs and the BAMSC Steering Committee. The final Framework and Guidance Manual were submitted to the Water Board on June 26, 2023.

## FUTURE ACTIONS

FY 2023/24 activities planned by SMCWPPP to assist San Mateo County Permittees comply with MRP requirements in Provision C.20 include the following:

- Respond to Water Board staff comments on the Cost Reporting Framework and Guidance Manual developed during FY 2022/23 and support updates to the Framework and Manual as needed; and
- Support San Mateo County Permittees in beginning to develop their first annual fiscal analyses due with the FY 2024/25 Annual Reports by answering Permittee questions and conducting brief presentations of the methodology in appropriate forums.

# Appendix 1

- Stormwater Committee – Attendance List for FY 2022/23

| 2022-23 Stormwater Committee Attendance | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Agency** | **Representative** | **Position** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** |
| Atherton | Robert Ovadia | Public Works Director | | x | | x | x | | x | | x | x | | |
| Belmont | Peter Brown | Public Works Director | | | | x | x | | x | | o | x | | |
| Brisbane | Randy Breault | Public Works Director/City Engineer | | | | x | x | | x | | | x | | |
| Burlingame | Syed Murtuza | Public Works Director | | x | | | x | | x | | x | x | | |
| Colma | Brad Donohue | Director of Public Works and Planning | | x | | | o | | x | | o | x | | |
| Daly City | Richard Chiu | Public Works Director | | | | x | | | x | | x | | | |
| East Palo Alto | Kamal Fallala (through August)/Humza Javed (starting October) | Public Works Director | | | | x | o | | x | | x | x | | |
| Foster City | Louis Sun | Public Works Director | | x | | x | | | x | | | | | |
| Half Moon Bay | Maziar Bozorginia | City Engineer | | x | | x | | | x | | x | x | | |
| Hillsborough | Paul Willis | Public Works Director | | x | | x | x | | x | | x | x | | |
| Menlo Park | Nikki Nagaya | Public Works Director | | x | | x | x | | x | | x | | | |
| Millbrae | Vacant (May through September)/Sam Bautista (starting November) | Public Works Director | | | | o | o | | o | | o | x | | |
| Pacifica | Lisa Petersen | Public Works Director | | | | | x | | x | | x/r/nv | | | |
| Portola Valley | Howard Young | Public Works Director | | x | | x | x | | | | | x/r/nv | | |
| Redwood City | Saber Saraway (through October)/Vacant (starting November) | Supervising Civil Engineer | | | | | o | | | | o | | | |
| San Bruno | Matthew Lee | Public Works Director | | x | | x | | | x | | x | o | | |
| San Carlos | Steven Machida | Public Works Director | | o | | x | x | | x | | x | | | |
| San Mateo | Azalea Mitch | Public Works Director | | x | | x | x | | x | | x | x | | |
| South San Francisco | Eunejune Kim | Public Works Director | | x | | x | x | | x | | x | | | |
| Woodside | Sean Rose | Public Works Director | | x | | x | x | | x | | | | | |
| San Mateo County | Ann Stillman | Public Works Director | | x | | x | x | | o | | x | x | | |
| Regional Water Quality Control Board | Tom Mumley | Assistant Executive Officer | | | | | | | | | | | | |

CANCELED

"x" - Committee Member Attended

"x/r/v" - Committee Member Attended Remotely/Voting under AB 2449 beginning March 2023

"x/r/nv" - Committee Member Attended Remotely/Non-voting beginning March 2023

"o" - Other Jurisdictional Representative Attended

# Appendix 2

- Municipal Maintenance Subcommittee – Attendance List for FY 2022/23

**SMCWPPP Municipal Maintenance Subcommittee Attendance FY 2022/23**

| NAME | MUNICIPALITY | 10/26/2022 | 4/26/2023 |
|---|---|---|---|
| Sung Kwon | Atherton | ✓ | |
| Tony Enochson | Atherton | | ✓ |
| Marcus Escobedo | Belmont | ✓ | |
| Brandon Tyler | Belmont | ✓ | |
| Tim Murray | Belmont | ✓ | |
| Keegan Black | Brisbane | ✓ | ✓ |
| Kessel Crockett | Brisbane | ✓ | ✓ |
| Dolan Shoblo | Brisbane | ✓ | ✓ |
| Greg Baeza | Foster City | ✓ | ✓ |
| Taniela Map | Foster City | | ✓ |
| Todd Seeley | Half Moon Bay | | ✓ |
| Hugo Torres | Menlo Park | ✓ | ✓ |
| Scott Jaw | Menlo Park | | ✓ |
| Michael Killigrew | Millbrae | ✓ | ✓ |
| Paul Lavorini | Pacifica | ✓ | |
| Vicki Sherman | Redwood City | ✓ | ✓ |
| Robin Kim | Redwood City | ✓ | ✓ |
| Cory Cattaneo | Redwood City | ✓ | |
| Ted Chapman | San Bruno | ✓ | ✓ |
| Aaron San Antonio | San Carlos | ✓ | |
| Vatsal Patel | San Carlos | ✓ | |
| Sven Edlund | San Mateo | ✓ | ✓ |
| Gustavo Lopez | San Mateo | ✓ | ✓ |
| Eric Morkve | San Mateo | ✓ | |
| Selena Gonzalez | San Mateo County | ✓ | |
| Julie Casagrande | San Mateo County | | ✓ |
| Marissa Garren | South San Francisco | | ✓ |
| Reid Bogert | C/CAG | | ✓ |
| Casey Stevenson | San Mateo County Mosquito and Vector Control | ✓ | ✓ |
| Kelly Carroll | CSG | ✓ | |
| Katherine Sheehan | Black&Veatch | | ✓ |
| Kristin Kerr | EOA, Inc. | ✓ | ✓ |
| Ileana Alvarado | EOA, Inc. | ✓ | ✓ |
| Sergio Rodriguez | | ✓ | |

# Appendix 3

- New Development Subcommittee – Attendance List for FY 2022/23
- Annual Development (C.3) Workshop – January 31, 2023
    - Workshop Agenda
    - Workshop Attendance
    - Workshop Evaluation Summary
- Communication to San Mateo County Mosquito and Vector Control District Re: Transmittal of FY 2022/23 List of Newly Installed Treatment Measures in San Mateo County

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community. www.flowstobay.org

| Representing | Name | Phone Number | Aug | Nov | Feb | May |
|---|---|---|---|---|---|---|
| Atherton | Ralph Robinson | 650-752-0544 | | | | |
| Belmont | Matt Hoang, Gilbert Yau, Selena Lau | 650-637-2985 | X | X | XXX | X |
| | Tracy Scramaglia | | | | X | X |
| | Elizabeth Wada | | X | X | | |
| Brisbane | Ken Johnson, Julia Ayres | 415-508-2120 | X | X | X | X |
| Burlingame | Jennifer Lee | 650-558-7381 | X | X | X | |
| Colma | Muneer Ahmed (CSG), Alvin Jen | 650-757-8894 | X | X | XX | X |
| | Kelly Carroll (CSG) | 408-921-4480 | X | | X | |
| County of San Mateo | Camille Leung | 650-363-1826 | X | X | X | X |
| | Krista McDonald/ Julie Casagrande | 650-363-4071 | X | X | X | XX |
| | Aaron Mao | 650-363-1812 | | X | X | X |
| | Sultan Henson, Kaila Jones | | X | X | XX | XX |
| C/CAG – SMCWPPP | Reid Bogert | 650-599-1419 x33 | X | X | X | X |
| Daly City | Sibely Calles | 650-991-8054 | | X | X | X |
| | Michael Van Lonkhuysen/Sam Fielding | 650-991-8156 | X | X | X | |
| East Palo Alto | Michelle Daher | 650-388-0467 | X | | | |
| | Adrian Biggs | 650-338-8404 | X | | | |
| EOA-SMCWPPP | Jill Bicknell | 408-720-8811 x1 | X | | X | X |
| | Peter Schultze-Allen | 510-832-2852 x128 | X | X | X | X |
| Foster City | Taniela Mapa | 650-286-3270 | X | X | X | X |
| Half Moon Bay | Nick Zigler (BV)/Katherine Sheehan | 408-921-4480 | X | X | X | XX |
| | Jonathan Woo/ Matt Nichols | 650-726-7177 | X | X | | |
| Hillsborough | Natalie Gribben | 650-375-7444 | X | | | |
| | Doug Belcik | 650-375-7444 | X | X | X | X |
| | Irfan Aziz | | X | X | X | X |
| Menlo Park | Rambod Hakhamaneshi | 650-330-6740 | X | X | X | X |
| | Ed Rangeen | | X | | | |
| Millbrae | Armando Mora | | X | | | |
| | Roscoe Mata | | | | | |
| | Nicole Tandel | 650-522-2506 | X | | X | X |
| Pacifica | Stephanie Cervantes | 650-738-7444 | | X | | |
| | James Lin | 650-738-3767 | X | | X | X |
| Portola Valley | CheyAnne Brown/Thomas Geisler | 650-851-1700 | X | X | | X |
| Redwood City | James O'Connell | 650-780-5923 | X | X | X | X |
| San Bruno | Matt Neuebaumer | 650-616-7042 | X | | | |
| | Frank Navarro (CSG) | 925-575-0417 | X | X | X | X |
| | Eliseo Amaya/Steve Ojeda | | X | X | | XX |
| | Paul Chytia-Hinze | | X | | | |
| San Carlos | Vatsal Patel | 650-802-4212 | X | X | | |
| | Evan Cai | | | | X | X |
| San Mateo (City) | Gustavo Lopez | 650-522-7342 | X | | X | X |
| | Laura Richstone/Ella Phillips | | X | | X | X |
| | Karen Magallanes | | X | X | X | X |
| | Ryan Brunmeier/ Ben Zarrabi | | X | X | X | XX |
| | Sven Edlund | 650-522-7296 | X | XX | XX | X |
| San Mateo County RCD | Noah Katz/Nicole Schmidt | 650-712-7765 x117 | | | | |
| South S.F. | Andrew Wemmer/Daniel Garza | 650-829-3840 | X | X | XX | |
| Woodside | Dong Nguyen/Muneer Ahmed (CSG) | 650-851-6790 | X | X | X | X |

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

# Annual Development (C.3) Workshop

***MRP 3.0 Requirements, January 31, 2023***

***9:00 AM – 3:00 PM***

***via Zoom***

## WORKSHOP AGENDA

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### Session One: Development Projects

| | | |
|---|---|---|
| 9:00 AM | Welcome<br>Logistics and Agenda Overview | Reid Bogert,<br>*SMCWPPP* |
| 9:10 AM | Overview of Current and New C.3 Requirements for Parcel-Based Development Projects<br>• Low Impact Development (LID) Measures<br>• Current and Future Project Types and Thresholds<br>• Consideration of Project Frontage<br>• Special Projects Criteria<br>Q&A | Jill Bicknell,<br>*EOA, Inc*. |
| 9:40 AM | Development Review Process: Incorporating Stormwater Requirements<br>• Typical Review Process and Submittals<br>• How to Review a Stormwater Management Plan<br>• Helpful Resources<br>Q&A | Jill Bicknell,<br>*EOA, Inc.* |
| 10:30 AM | **BREAK** | |
| 10:45 AM | Development Review Process<br>• Example Project Using the Updated MRP 3.0 C.3-C.6 Development Review Checklist<br>• Reviewing the Frontage Area in the Checklist<br>Q&A | Peter Schultze-Allen,<br>*EOA, Inc.* |
| 11:15 AM | Development Review Process:<br>Stormwater Control Plan and SMCWPPP C.3-C.6 Development Review Checklist<br>Case Studies:<br>• City of Redwood City<br>• City of Burlingame<br>Q&A | James O'Connell,<br>*City of Redwood City*<br>Jennifer Lee,<br>*City of Burlingame* |
| 12:00 PM | **BREAK** | |

*** Attendance at the workshop is acceptable for 5 PDUs toward maintaining CPESC, CESSWI and/or CPSWQ certifications. ***

## Session Two: Capital Improvement Projects

| | | |
|---|---|---|
| 12:15 PM | Welcome – Session Two | Reid Bogert, *SMCWPPP* |
| 12:20 PM | Green Infrastructure<br>• Current and New Requirements<br>• Evaluating CIP Projects for GSI Opportunities<br>Q&A | Jill Bicknell, *EOA, Inc.* |
| 1:10 PM | Green Infrastructure<br>New Requirements for Transportation Projects<br>• New and Widened Roads<br>• Road Reconstruction<br>• Road Maintenance<br>• Alternative Compliance<br>Q&A | Peter Schultze-Allen, *EOA, Inc.* |
| 1:45 PM | **BREAK** | |
| 2:00 PM | Green Infrastructure<br>Case Studies:<br>• Park Project<br>  ○ Magical Bridge Park – Redwood City<br>• Road Projects<br>  ○ City of San Mateo<br>• Regional Projects<br>  ○ C/CAG<br>Q&A | James O'Connell, *City of Redwood City*<br>Sven Edlund, *City of San Mateo*<br>Reid Bogert *C/CAG* |
| 3:00 PM | **ADJOURN** | |

| | First Name | Last Name | Organization |
|---|---|---|---|
| 1 | Katherine | Sheehan | Brown & Veatch |
| 2 | Reid | Bogert | C/CAG |
| 3 | Matt | Hoang | City of Belmont |
| 4 | Selena | Lau | City of Belmont |
| 5 | Tracy | Scramaglia | City of Belmont |
| 6 | Elizabeth | Wada | City of Belmont |
| 7 | Julia | Ayres | City of Brisbane |
| 8 | Keegan | Black | City of Brisbane |
| 9 | Ken | Johnson | City of Brisbane |
| 10 | Jeremiah | Robbins | City of Brisbane |
| 11 | Dolan | Shoblo | City of Brisbane |
| 12 | Weizhi | Cheng | City of Burlingame |
| 13 | Amelia | Kolokihakaufisi | City of Burlingame |
| 14 | Jennifer | Lee | City of Burlingame |
| 15 | Kevin | Okada | City of Burlingame |
| 16 | Mahesh | Yedluri | City of Burlingame |
| 17 | Michael | Burnfield | City of Daly City |
| 18 | Sibely | Calles | City of Daly City |
| 19 | Sam | Fielding | City of Daly City |
| 20 | Alexander | Yuen | City of Daly City |
| 21 | Taniela | Mapa | City of Foster City |
| 22 | Rambod | Hakhamaneshi | City of Menlo Park |
| 23 | Eric | Hinkley | City of Menlo Park |
| 24 | Chris | Witschi | City of Menlo Park |
| 25 | Lawrence | Henriquez | City of Pacifica |
| 26 | Alex | Chan | City of Redwood City |
| 27 | Christian | Craig | City of Redwood City |
| 28 | Peter | Delgado | City of Redwood City |
| 29 | Avery | Lai | City of Redwood City |
| 30 | Vicky | Lau | City of Redwood City |
| 31 | David | Lei | City of Redwood City |
| 32 | Calyn | Lim | City of Redwood City |
| 33 | James | O'Connell | City of Redwood City |
| 34 | Patti | Schrotenboer | City of Redwood City |
| 35 | Erik | Zhen | City of Redwood City |
| 36 | Eliseo | Amaya | City of San Bruno |
| 37 | Steve | Ojeda | City of San Bruno |
| 38 | Evan | Cai | City of San Carlos |
| 39 | Jessica | Lee | City of San Carlos |
| 40 | Nidhi | Thanki | City of San Carlos |
| 41 | Evan | Albert | City of San Mateo |
| 42 | Ryan | Brunmeier | City of San Mateo |
| 43 | Leo | Chow | City of San Mateo |
| 44 | Sven | Edlund | City of San Mateo |
| 45 | Stephanie | Gindlesperger | City of San Mateo |
| 46 | Gustavo | Lopez | City of San Mateo |

| | First Name | Last Name | Organization |
|---|---|---|---|
| 47 | Karen | Magallanes | City of San Mateo |
| 48 | Laura | Richstone | City of San Mateo |
| 49 | Sarah | Scheidt | City of San Mateo |
| 50 | Elton | Yee | City of San Mateo |
| 51 | Eduardo | Cabrera | City of South San Francisco |
| 52 | Natasha | Gutierrez | City of South San Francisco |
| 53 | Thomas | Siphongsay | City of South San Francisco |
| 54 | Sonal | Aggarwal | County of San Mateo |
| 55 | Rosa | Albanese | County of San Mateo |
| 56 | Zack | Azzari | County of San Mateo |
| 57 | Summer | Burlison | County of San Mateo |
| 58 | Julie | Casagrande | County of San Mateo |
| 59 | Atkins | De Guzman | County of San Mateo |
| 60 | Tiffany | Deng | County of San Mateo |
| 61 | Katie | Faulkner | County of San Mateo |
| 62 | Selena | Gonzalez | County of San Mateo |
| 63 | Sultan | Henson | County of San Mateo |
| 64 | KAILA | JONES | County of San Mateo |
| 65 | Kayla | Kim | County of San Mateo |
| 66 | Camille | Leung | County of San Mateo |
| 67 | Anthony | Lum | County of San Mateo |
| 68 | Aaron | Mao | County of San Mateo |
| 69 | Michelle | Mason | County of San Mateo |
| 70 | Krista | McDonald | County of San Mateo |
| 71 | Wency | Ng | County of San Mateo |
| 72 | Sina | Oshaghi | County of San Mateo |
| 73 | Monika | Raman | County of San Mateo |
| 74 | Alan | Velasquez | County of San Mateo |
| 75 | Alex | Zhang | County of San Mateo |
| 76 | Kelly | Carroll | CSG Engineering |
| 77 | Frank | Navarro | CSG Engineering |
| 78 | Sandra | Carroll | Schaaf & Wheeler |
| 79 | Robin | Lee | Schaaf & Wheeler |
| 80 | Muneer | Ahmed | Town of Colma |
| 81 | Irfan | Aziz | Town of Hillsborough |
| 82 | Douglas | Belcik | Town of Hillsborough |
| 83 | CheyAnne | Brown | Town of Portola Valley |
| 84 | Jay | Radke | Town of Portola Valley |
| 85 | Sindhi | Mekala | Town of Woodside |
| 86 | Laura | Suarez | Veolia North America |

SAN MATEO COUNTYWIDE
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**Workshop Evaluation Summary**

**86 Attendees**
**39 Responses per Question**

# Annual Development (C.3) Workshop
# MRP 3.0 Requirements
## Zoom Meeting - Tuesday, January 31, 2023

**What Did You Think of the Following Presentations?**

1. **Overview of Current and New C.3 Requirements for Parcel-Based Development Projects," –** *Jill Bicknell, EOA, Inc.*

   **49** very useful **6** somewhat useful **0** not useful

2. **Development Review Process: Incorporating Stormwater Requirements,") –** Jill Bicknell, *EOA, Inc*

   **48** very useful **9** somewhat useful **0** not useful

3. **Development Review Process," –** *Peter Schultze-Allen, EOA, Inc***.**

   **39** very useful **13** somewhat useful **0** not useful

4. **Development Review Process: Stormwater Control Plan and SMCWPPP C.3 – C.6 Development Review Checklist Case Studies," –** *James O'Connell, City of Redwood City*

   **50** very useful **7** somewhat useful **0** not useful

5. **Development Review Process: Stormwater Control Plan and SMCWPPP C.3-C.6 Development Review Checklist Case Studies," –** *Jennifer Lee, City of Burlingame*

   **55** very useful **0** somewhat useful **0** not useful

6. **Green Stormwater Infrastructure –** *Jill Bicknell, EOA, Inc.*

   **45** very useful **6** somewhat useful **0** not useful

7. **Green Stormwater Infrastructure New Requirements for Transportation Projects –** *Peter Schultze-Allen, EOA, Inc.*

   **46** very useful **11** somewhat useful **0** not useful

8. **Green Stormwater Infrastructure Case Studies –** *Sven Edlund, City of San Mateo*

   **34** very useful **9** somewhat useful **0** not useful

9. **Green Stormwater Infrastructure Case Studies –** *James O'Connell, City of Redwood City*

   **31** very useful **7** somewhat useful **0** not useful

10. **Green Stormwater Infrastructure Case Studies –** *Reid Bogert, C/CAG*

    **37** very useful **6** somewhat useful **0** not useful

**Did this workshop meet your expectations?**

**39** Yes **0** Somewhat **0** No

**Are you willing to make a short presentation at future trainings?**

**22** Don't Call me, I'll Call You **11** I'll think about it **3** Yes

**Do you have any general comments on the training?**

- None (13)
- Good presentations. Good reminders on the new permit changes.
- I thought the team did a really nice job pulling this together and all parts felt complementary and relevant.
- Much more technical. A good review of the issues that are unclear and reasonable interpretation and discussion how to address them.
- Very good. Perhaps we can update some of the graphics that were reused from previous presentations so there is new content.
- Longer lunch break! Otherwise very informative and clear.
- Helpful review of MRP updates, the visuals were especially helpful in explaining the changes.
- Very useful presentations. I really liked Jill's presentation of what to look for in reviewing a C.3 project with the visual slides of the treatments measures and where located in the project DMA's.
- I thought the training was great. Great relevant topics, informative and appreciate the number of presentations and different speakers to help break it up.
- The training was good. It would be great to have a brief overview of why the C.3 requirements need to be implemented. It would also be helpful to know how the "credits" work.
- I appreciated that we left the basics of C.3 aside and focused on the changes from the MRP, public installations, alternative compliance, and regional-scale projects.
- Very informative.
- Great presentations and presenters (2.
- I really liked the "case studies" and thought the MRP 3.0 slides were every informative.

- Great training, nice to hear about example projects.
- Need longer lunch break :-)
- Very informative and learned a lot.
- Good slides; Would have liked a bit more info on the C.3-C.6 checklist.
- Great variety of topics and presenters.
- Really good and informative.
- I appreciated the sample projects and also the high-level changes to the MRP with the latest update.
- Would be nice to see more in field pictures of how things get installed and how not to install.
- With the transition into MRP 3.0 in the works some of the training was a little too open ended and hard to follow.
- Great training! Really appreciated all the real-world examples and case studies (and the fake one too- thanks Peter!).
- I still have some confusion about the MRP project area as at one point it was said the 50% rule only applies to the on-site land, but the off-site land is now considered the project.
- Great!

**Do you have any ideas for topics for future trainings?**

- No (21).
- Detailed example(s) of infeasibility analysis that are accepted by the water board.
- Would be good to go into detail on operations and maintenance again at some point. Also new regulations on roads as the permit advances.
- I think alternative compliance was a topic mentioned in every presentation - an issue getting more attention since many regulated projects can't fit GI into their frontage and are looking for options.
- I think it would be cool to crowdsource a checklist of things to look for during plan. reviews. Ex: check ponding height, check location of cleanouts, check native plants.
- Can someone share how they're successfully tracking alternative compliance? We tend to avoid this due to the complications of having treatment somewhere other than the project site/frontage.
- The impact of extreme flooding events and rainfall on GI and C3 regulated projects - some new innovations or ideas that would help address extreme flooding events.
- Asset management.
- It would be nice to include more time on worksheets.
- There was a question asked about in-person trainings. I'm not sure if it's feasible, but conducting in-person trainings via site visits of case studies around the area would be insightful.
- Maybe we can talk about how C.3 affects single family homes.
- Interested about how silva cell maintenance has been.
- More updates as MRP 3.0 progresses.
- More on alternative compliance.
- A BMP presentation.
- Installation observations.
- C.4, C.5 and C.6.
- A common comments presentation would be great, so all plan reviewers have a standard way of communicating with our clients.

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

September 26, 2023

Brian Weber
District Manager
San Mateo County Mosquito and Vector Control District
1351 Rollins Road
Burlingame, CA 94010

***Transmitted via email:*** *bweber@smcmvcd.org*

**Subject:** Information on Newly Installed Stormwater Treatment Systems and Hydromodification Management (HM) Controls - FY 22-23

Dear Mr. Weber:

On behalf of San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), and in accordance with the requirements in Provision C.3.h.v.(2) of NPDES Permit No. CAS612008 (Order No. R2-2022-0018, i.e., MRP 3.0), I have attached the following document for your information and use:

***FY 22-23 Newly Installed Stormwater Treatment Systems and Hydromodification Management (HM) Controls***

The report provides relevant information (e.g., name of facility, address of facility, party responsible for maintenance, and type of treatment/HM control(s)) for stormwater treatment systems and hydromodification management controls installed during FY 22-23. We have compiled this information from the permittees into one document.

The following permittees reported no newly installed treatment systems and/or HM systems: Atherton, Brisbane, Colma, San Mateo County Flood and Sea Level Rise Resiliency District (One Shoreline), Half Moon Bay, Hillsborough, Millbrae, Pacifica, Portola Valley and San Bruno. Information from the City of East Palo Alto was not available as of the date of this transmittal but will be provided as soon as it becomes available.

If you have any questions regarding this submittal, please contact me at rbogert@smcgov.org or 650-599-1433.

Sincerely,

Reid Bogert
Program Director

Attachment: FY 22-23 Newly Installed Stormwater Treatment Systems and Hydromodification Management (HM) Controls

Cc: Keith Lichten, SFBRWQCB
Derek Beauduy, SFBRWQCB
Imtiaz-Ali Kalyan, SFBRWQCB
SMCWPPP Stormwater Committee

County Government Center P 650.599.1514
555 County Center, 5th Floor F 650.363.7882
Redwood City, CA 94063 flowstobay.com

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Firehouse Square Phase 1 | 1300 El Camino Real | Sares Regis Group | Bioretention planters, Media Filter Units |
| NA | NA | NA | NA |
| NA | NA | NA | NA |
| NA | NA | NA | NA |
| NA | NA | NA | NA |
| NA | NA | NA | NA |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Putnam Subaru | 85 California Drive | Property Owner | Bioretention area and pervious pavement |
| 920 Bayswater Avenue | 920 Bayswater Avenue | Property Owner | Flow-through planter and media filter |
| 831-839 Mitten Road | 831-839 Mitten Road | Property Owner | Flow-through planter |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

## C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

See the attached copy of the communication to San Mateo County Mosquito and Vector Control District.

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Carvana Daly City | 2123-2147 Junipero Serra Blvd., Daly City, CA . 94014 | Project Developer | Bioretention area |
| Garden Valley Residential Subdivision | 317 Second Ave, Daly City, CA 94014. | Project Developer | Non-LID Treatment: Media filter and Tree well filter, Bioretention area |
| McDonalds | 505 Serramonte Boulevard, Daly City, CA 94015 | Project Developer | Biotreatment Measures: Flow-through planter. The site is located in an area that is Exempt from HM Controls |
| | | | |
| | | | |
| | | | |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

Foster City

| C.3.h.v.(2) - Table of Newly Installed Stormwater Treatment Systems and Hydromodification Management (HM) Controls | | | |
|---|---|---|---|
| **Name of Facility** | **Address of Facility** | **Party Responsible For Maintenance** | **Type of Treatmen/HM Contol(s)** |
| Gilead Wellbeing Center | 305 Velocity Way | Gilead Sciences, Inc. | Vegetated bioretention |
| Gilead Park | 307 Velocity Way | Gilead Sciences, Inc. | Bioretention |

**C.3.h.v.(2). ►Table of Newly Installed[34] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

| Name of Facility | Address of Facility | Party Responsible[35] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| 1540 El Camino Real | 1540 El Camino Real between Encinal Avenue and Glenwood Avenue | 1540 ECR Owner LLC | Flow-through planters |
| 1300 El Camino Real | 1300 El Camino Real, Menlo Park | REAL SOCIAL GOOD INVESTEMENTS LLC | Bioretention area |
| | | | |
| | | | |
| | | | |
| | | | |

[34] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[35] State the responsible operator for installed stormwater treatment systems and HM controls.

## C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)

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

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| 353 Main | 353 Main Street, Redwood City, CA | Property Owner | Flow-through Planters and Media Filter |
| 211 Vera | 211-217 Vera Ave, Redwood City, CA | Property Owner | Flow-Through Planters |
| 120 El Camino Real | 120 El Camino Real, Redwood City, CA | Property Owner | Bioretention Areas, flow-through planters |
| Maple Street and Blomquist Extension | 1500 Block of Maple Street, 900 Block of Blomquist Street | Treats public streets (green infrastructure). Maintenance by City. | Bioretention treatment section within Silva Cells. |
| 1153 Ruby | 1153 Ruby Street, Redwood City, CA | Property Owner | Infiltration Trench |
| 1304 El Camino Real | 1304 El Camino Real, Redwood City, CA | Property Owner | Flow-Through Planter |
| 702 Chestnut | 702 Chestnut, Redwood City, CA | Property Owner | Bioretention Areas |
| 142 Warwick | 142 Warwick, Redwood City, CA | Property Owner | Gravel Basins |
| 2761 Ohio | 2761 Ohio, Redwood City, CA | Property Owner | Infiltration Trench |
| 275 Blomquist | 275 Blomquist, Redwood City, CA | Property Owner | Bioretention Areas and Media Filter |
| 624 Myrtle | 624 Myrtle, Redwood City, CA | Property Owner | Infiltration Trench |
| 1106 Virginia | 1106 Virginia, Redwood City, CA | Property Owner | Infiltration Trench |
| 910 Woodside | 910 Woodside, Redwood City, CA | Property Owner | Green Roof, Pervious Pavers |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

San Carlos

**C.3.h.v.(2). ►Table of Newly Installed[1] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

| Name of Facility | Address of Facility | Party Responsible[2] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| San Carlos Apartments, 817 Walnut St | 817 Walnut St | City of San Carlos | Flow-through planter |
| San Carlos Ave, Wellington Dr to Sycamore St | Intersections of San Carlos Ave at Arundel Rd, San Carlos Ave at Alameda de las Pulgas, and San Carlos Ave at Vista Ave | City of San Carlos | Flow-through planters, and bio-retention. |
| 2022 Annual Pavement Rehabilitation Project | Intersections of Melendy Drive at Torino Drive and Melendy Drive at Rockridge Road. | City of San Carlos | Flow-through planters, and bio-retention. |

[1] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[2] State the responsible operator for installed stormwater treatment systems and HM controls.

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Hampton Inn and Suites | 2940 South Norfolk Street | Founder's Investment Corporation | Bioretention |
| 115 Monte Diablo Avenue | 115 Monte Diablo Avenue | Chabad NP | Flow through planters |
| 303 Baldwin | 303 Baldwin Avenue | Mark Tragoutsis and Ekaternin Tragoutsis, Trustees under Tragoutsis Trust Agreement; John Tragoutsis, Co-Trustee under Tragoutsis Trust Agreement; 303 Baldwin, LP | Flow through planter; media filter |
| | | | |
| | | | |
| | | | |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Encina Ave - Road Improvement Project | Encina Ave near Oak Ave., Redwood City | County of San Mateo Dept. of Public Works | Subsurface Infiltration Gallery |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

## C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)

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

See the SMCWPPP FY 22-23 Annual Report for a copy of the communication to Vector Control.

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Gateway of the Pacific Phases 2 & 3 | 700/750/800 Gateway Blvd., South San Francisco, CA | BMR Gateway of the Pacific | Bioretention Areas |
| Kilroy OPD Phase 1D | 348-354 Oyster Pt. Blvd., South San Francisco, CA | KR Oyster Pt Developer LLC | Bioretention Areas |
| 418 Linden | 418 Linden Ave., South San Francisco, CA | ROEM Corp | Bioretention Area, Media Filter |
| 201 Grand | 201 Grand Ave., South San Francisco, CA | ROEM Corp | Flow-through Planter, Media Filter |
| Community Civic Campus (Phase 2) | 1 Chestnut Ave., South San Francisco, CA | City of SSF | Flow-through Planters |

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

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

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
| Menlo Country Club* | 2300 Woodside Rd, Woodside, CA | Menlo Country Club | Bioretention areas and pervious pavement |

*Note that the Menlo Country Club was mistakenly not reported during the reporting year FY21-20, so it was reported as part of this year.

[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

# Appendix 4

- CII Subcommittee – Attendance List for FY 2022/23

**SMCWPPP Commercial/Industrial/Illicit Discharge (CII) Subcommittee Attendance – FY 2022/23**

| Name | Agency | 9/6/22 | 12/6/22 | 3/7/23 | 6/6/23 |
|---|---|---|---|---|---|
| Tony Enochson | Atherton | | | ✓ | |
| Bozhena Palatnik | City of Belmont | ✓ | ✓ | ✓ | ✓ |
| Tracy Scramaglia | City of Belmont | | | ✓ | |
| Keegan Black | City of Brisbane | ✓ | ✓ | ✓ | |
| Dolan Shoblo | City of Brisbane | ✓ | ✓ | ✓ | ✓ |
| Jennifer Lee | City of Burlingame | ✓ | | ✓ | ✓ |
| Richard Kraft | City of Burlingame (Veolia) | | ✓ | | ✓ |
| Laura Suarez | City of Burlingame (Veolia) | | ✓ | | ✓ |
| Ward Donnelly | City of Daly City | ✓ | ✓ | ✓ | ✓ |
| Sibely Calles | City of Daly City | ✓ | ✓ | ✓ | ✓ |
| Michele Daher | City of East Palo Alto | ✓ | | | |
| Taniela Mapa | City of Foster City | ✓ | ✓ | ✓ | ✓ |
| Irfan Aziz | Town of Hillsborough | | | ✓ | ✓ |
| Doug Belcik | Town of Hillsborough | | | | ✓ |
| Jordan Chu | City of Menlo Park | | ✓ | | |
| Scott Jaw | City of Menlo Park | | ✓ | | |
| Page Saber | City of Menlo Park | | | | ✓ |
| Cliff Ly | City of Millbrae | ✓ | | ✓ | |
| Raymund Donguines | City of Pacifica | | | ✓ | ✓ |
| David Harvey | City of Pacifica | | | | ✓ |
| Vicki Sherman | City of Redwood City | ✓ | ✓ | ✓ | ✓ |
| Robin Kim | City of Redwood City | | ✓ | ✓ | |
| Ted Chapman | City of San Bruno | | ✓ | | |
| Aaron San Antonio | City of San Carlos | | ✓ | | |
| Matthew Richards | City of San Carlos | | ✓ | | |
| Vatsal Patel | City of San Carlos | | | ✓ | |
| Nidhi | City of San Carlos | | | | ✓ |
| Louis Gotelli | City of San Carlos | | | | ✓ |
| Ella Philips | City of San Mateo | | | ✓ | ✓ |
| Ben Zarrabi | City of San Mateo | | | ✓ | ✓ |
| Gustavo Lopez | City of San Mateo | ✓ | ✓ | ✓ | ✓ |
| Sven Edlund | City of San Mateo | ✓ | | ✓ | |
| Daniel Garza | South San Francisco | ✓ | ✓ | ✓ | |
| Natasha Gutierrez | South San Francisco | ✓ | | ✓ | ✓ |
| Pat Ledesma | County of San Mateo | ✓ | ✓ | | ✓ |
| Sultan Henson | County of San Mateo | | ✓ | ✓ | ✓ |
| Krista McDonald | County of San Mateo | | ✓ | ✓ | ✓ |
| Crystal Chau | County of San Mateo District Attorney | | | ✓ | |
| Susan Hiestand | Silicon Valley Clean Water (SVCW) | | ✓ | ✓ | ✓ |
| Ben Padua Jr | SVCW | ✓ | | ✓ | |
| Kelly Carroll | CSG | ✓ | ✓ | | |
| Nick Zigler | Black & Veatch | | | ✓ | ✓ |

| Name | Agency | 9/6/22 | 12/6/22 | 3/7/23 | 6/6/23 |
|---|---|---|---|---|---|
| Mark Lander | MLRD Consulting | | | | ✓ |
| Reid Bogert | C/CAG | | ✓ | | ✓ |
| Kristin Kerr | EOA, Inc. | ✓ | ✓ | ✓ | ✓ |

# Appendix 6

- CALBIG Meeting: Construction Site Stormwater Compliance – 2022
  - Attendance List
- Construction Site Stormwater Inspections Training – June 20, 2023
  - Workshop Agenda
  - Attendance List
  - Evaluations Summary

| CALBIG C.6 Construction Site Stormwater Inspection Presentation<br>October 12, 2022 Attendance List | | | |
|---|---|---|---|
| | **First Name** | **Last Name** | **Agency/Company** |
| 1 | Anthony | L | Caccia Plumbing |
| 2 | Matt | Hoang | City of Belmont |
| 3 | Elizabeth | Wada | City of Belmont |
| 4 | Jose | Ortiz | City of Belmont |
| 5 | Keegan | Black | City of Brisbane |
| 6 | Dolan | Shoblo | City of Brisbane |
| 7 | Joe | Mccluskey | City of Burlingame |
| 8 | Laura | Suarez Veolia | City of Burlingame |
| 9 | Sibely | Calles | City of Daly City |
| 10 | Roland | Yip | City of Daly City |
| 11 | A | Villega | City of East Palo Alto |
| 12 | Ben | Zarrabi | City of East Palo Alto |
| 13 | Rambod | Hakhamaneshi | City of Menlo Park |
| 14 | Keith | Voong | City of Millbrae |
| 15 | Andy | Wong | City of Millbrae |
| 16 | Robert | Johnson | City of Milpitas |
| 17 | Patti | Schrotenboer | City of Redwood City |
| 18 | Vicki | Sherman | City of Redwood City |
| 19 | Thomas | Silipin | City of Redwood City |
| 20 | Eliseo | Amaya | City of San Bruno |
| 21 | Darcy | Axiaq | City of San Bruno |
| 22 | Ryan | Martino | City of San Carlos |
| 23 | Gustavo | Lopez | City of San Mateo |
| 24 | Natasha | Gutierrez | City of South San Francisco |
| 25 | Thomas | Siphongsay | City of South San Francisco |
| 26 | Andrew | Wemmer | City of South San Francisco |
| 27 | Skip | Walker | Code Check/American Society of Home Inspectors |
| 28 | Rich | Harlan | College of San Mateo |
| 29 | Zack | Azzari | County of San Mateo |
| 30 | Michael | Barber | County of San Mateo |
| 31 | Julie | Casagrande | County of San Mateo |
| 32 | Sultan | Henson | County of San Mateo |
| 33 | Janelle | Lee | County of San Mateo |
| 34 | Fred | Lustenberger | County of San Mateo |
| 35 | Krista | McDonald | County of San Mateo |
| 36 | Kevin | Ruybal | County of San Mateo |
| 37 | Alan | Velasquez | County of San Mateo |
| 38 | Milton | Wong | County of San Mateo |
| 39 | Kareem | Arabi | CSG Consultants |
| 40 | Dave | Bishop | CSG Consultants |
| 41 | Kelly | Carroll | CSG Consultants |
| 42 | Catherine | Chan | CSG Consultants |

| CALBIG C.6 Construction Site Stormwater Inspection Presentation<br>October 12, 2022 Attendance List | | | |
|---|---|---|---|
| | **First Name** | **Last Name** | **Agency/Company** |
| 43 | Arash | Kimia | CSG Consultants |
| 44 | Brian | Lapaglia | CSG Consultants |
| 45 | Chai | Lor | CSG Consultants |
| 46 | Mehdi | Sharifi | CSG Consultants |
| 47 | Jeff | Frishof | Eagle One Inspection Services |
| 48 | Sung H. | Kwon | M-Group |
| 49 | Irfan | Aziz | Town of Hillsborough |
| 50 | Douglas | Belcik | Town of Hillsborough |
| 51 | Isaac | Ocon | Town of Hillsborough |
| 52 | Joe | Rossbach | WC-3 |

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

# Construction Site Stormwater Inspection Training for Municipal Inspectors

## Tuesday, June 20, 2023: 9am to 12pm

**Zoom Registration Link (Register for Meeting Link)**

**Meeting ID: 839 0855 6523, Passcode: 599369**
**Dial-In Audio: (669)-900-6833**

## AGENDA

---

| | | |
|---|---|---|
| **9:00 AM** | **Welcome** | Reid Bogert, *C/CAG* |
| 9:10 AM | Regulatory Basics | Kristin Kerr, P.E., *EOA Inc.* |
| 10:00 AM | Construction Site Best Management Practices | Peter Schultze-Allen, *EOA, Inc.* |
| **10:30 AM** | **Break** | |
| 10:40 AM | PCBs and Demolition – MRP 3.0 Update | Peter Schultze-Allen, *EOA Inc.* |
| 11:55 AM | Q&A and Evaluations | All |
| **12:00 PM** | **Adjourn** | |

**SMCWPPP C.6 Construction Workshop Attendance**

**Tuesday, June 20, 2023**

| | First Name | Last Name | Agency |
|---|---|---|---|
| 1 | Nick | Zigler | Black & Veatch/Half Moon Bay |
| 2 | Reid | Bogert | C/CAG |
| 3 | Matt | Hoang | City of Belmont |
| 4 | Pravnesh | Jit | City of Belmont |
| 5 | Jose | Ortiz | City of Belmont |
| 6 | Keegan | Black | City of Brisbane |
| 7 | Dolan | Shoblo | City of Brisbane |
| 8 | Jerred | Cayabyab | City of Burlingame |
| 9 | Francis | Dollard | City of Burlingame |
| 10 | Leo | Ortiz | City Of Burlingame |
| 11 | John | Arellano | City of Daly City |
| 12 | Taniela | Mapa | City of Foster City |
| 13 | Matthew | Nichols | City of Half Moon Bay |
| 14 | Todd | Seeley | City of Half Moon Bay |
| 15 | Rambod | Hakhamaneshi | City of Menlo Park |
| 16 | Rushabh | Rupesh | City of Menlo Park |
| 17 | Brianne | Harkousha | City of Pacifica |
| 18 | Katelyn | Snodgrass | City of Pacifica |
| 19 | Alex | Chan | City of Redwood City |
| 20 | Christian | Craig | City of Redwood City |
| 21 | Jonah | Glen | City of Redwood City |
| 22 | James | O'Connell | City of Redwood City |
| 23 | Theresa | Santos | City of Redwood City |
| 24 | Patti | Schrotenboer | City of Redwood City |
| 25 | Steve | Ojeda | City of San Bruno |
| 26 | Evan | Cai | City of San Carlos |
| 27 | Jessica | Lee | City of San Carlos |
| 28 | Nidhi | Thanki | City of San Carlos |
| 29 | Sven | Edlund | City of San Mateo |
| 30 | Gustavo | Lopez | City of San Mateo |
| 31 | Ella | Phillips | City of San Mateo |
| 32 | Jimmy | Vo | City of San Mateo |
| 33 | Ben | Zarrabi | City of San Mateo |
| 34 | Laura | Richstone | City of San Mateo |
| 35 | Eduardo | Cabrera | City of South San Francisco |
| 36 | Natasha | Gutierrez | City of South San Francisco |
| 37 | Sam | Becker | County of San Mateo |
| 38 | Olivia | Boo | County of San Mateo |
| 39 | Jonathan | Bruns | County of San Mateo |
| 40 | Scott | Burklin | County of San Mateo |
| 41 | Summer | Burlison | County of San Mateo |
| 42 | Julie | Casagrande | County of San Mateo |

| | | | |
|---|---|---|---|
| 43 | Katheryne | Castro Rivera | County of San Mateo |
| 44 | Tim | Cheng | County of San Mateo |
| 45 | Isabella | DeGraca | County of San Mateo |
| 46 | Tiffany | Gee | County of San Mateo |
| 47 | Melia | Green | County of San Mateo |
| 48 | Sultan | Henson | County of San Mateo |
| 49 | KAILA | JONES | County of San Mateo |
| 50 | Janelle | Lee | County of San Mateo |
| 51 | Luis | Topete | County of San Mateo |
| 52 | Rosa | Albanese | County of San Mateo |
| 53 | Tiffany | Deng | County of San Mateo |
| 54 | Selena | Gonzalez | County of San Mateo |
| 55 | Ryan | Rasmussen | County of San Mateo |
| 56 | Muneer | Ahmed | CSG - Town of Colma |
| 57 | Nona | Espinosa | NV5 - Town of Portola Valley |
| 58 | Jay | Radke | NV5 - Town of Portola Valley |
| 59 | Marvin | Samaile | Redwood City |
| 60 | Carlos | Varela | Redwood City |
| 61 | Douglas | Belcik | Town of Hillsborough |
| 62 | Isaac | Ocon | Town of Hillsborough |

**Workshop Evaluation Summary**

**62 Attendees**
**19 Responses**

# C.6 Construction Site Stormwater Inspection Training for Municipal Inspectors

**Zoom Meeting Tuesday, June 20, 2023**
**9am – 12pm**

**What Did You Think of the Following Presentations?**

1. **Regulatory Basics** – Kristin Kerr, *EOA, Inc.*

   **15** very useful **3** somewhat useful **1** neutral **0** not useful

   **Comments on Presentation:**

   - Great Refresher (3)

2. **Construction Site Best Management Practices** – Peter Schultze-Allen, *EOA, Inc.*

   **15** very useful **3** somewhat useful **1** neutral **0** not useful

   **Comments on Presentation:**

   - Good examples (2)
   - Helpful to see updated/latest materials

3. **PCBs and Demolition – MRP 3.0 Update –** Peter Schultze-Allen, *EOA, Inc.*

   **16** very useful **1** somewhat useful **1** neutral **1** not useful

   **Comments on Presentation:**

   - Very helpful to understand the 3.0 updates on this!
   - Good list of recommendations
   - Very much needed.
   - Some attendees don't do building-related construction inspections, so this content wasn't relevant

**Did this workshop meet your expectations?**

**17** Yes **2** Somewhat **0** No

**Are you willing to make a short presentation at future trainings?**

**0** Yes **19** No **0** Yes

**Do you have any general comments on the training?**

- Great workshop (3)
- I always learn something new
- Too much on PCBs, more focus on proper BMPs would have been better, especially for new inspectors
- It was very useful for people new to erosion control plan checking
- Maybe focusing a bit more on the BMPs but overall, very helpful
- Thanks (2)

**Do you have any ideas for topics for future trainings?**

- Adding more engaging portions (i.e., polls, breakout rooms) would help. Reduce the number of words per slide.
- The training was a bit long.
- Breaking it into two parts (2)

# Appendix 7

- Public Information and Participation Subcommittee – Attendance List– FY 2022/23
- Rain Barrel Outreach Program Survey Report
    - Program Awareness
    - Resident Satisfaction with Program
    - Motivators for Rain Barrel Purchase
    - Rebate Application Process
    - Additional Feedback Provided
- SMCWPPP Blog and Analytics

**Appendix 7A: PIP Subcommittee Meeting Attendance**

| Public Information and Participation Subcommittee | | FY 22-23 |
|---|---|---|
| AGENCY | NAME | 3/29/2023 |
| C/CAG | Reid Bogert | x |
| | | |
| Atherton | Nestor Delgado | |
| Atherton | Jacob Garcia | |
| Atherton | Ralph Robinson | |
| Belmont | Diane Lynn | |
| Belmont | Julie Freitas | |
| Belmont | Tracy Scramaglia | x |
| Brisbane | Shelley Romriell | |
| Brisbane | Keegan Black | |
| Burlingame | Jennifer Lee | x |
| Colma | Muneer Ahmed | |
| Colma | Kelly Carroll | |
| Colma | Jeffrey Le | |
| Colma | Nick Zigler | |
| Daly City | Ward Donnelly | |
| Daly City | Sibely Calles | |
| Daly City | Stephen Stolte | |
| East Palo Alto | Michelle Daher | |
| East Palo Alto | Jorge Luna | |
| East Palo Alto | June Canter | |
| Foster City | Taniela Mapa | x |
| Half Moon Bay | Mark Lander | |
| Half Moon Bay | Kelly Carroll | |
| Half Moon Bay | Jeffrey Le | |
| Half Moon Bay | Veronika Vostinak | |
| Half Moon Bay | Colleen Lettire | |
| Half Moon Bay | Nick Zigler | |

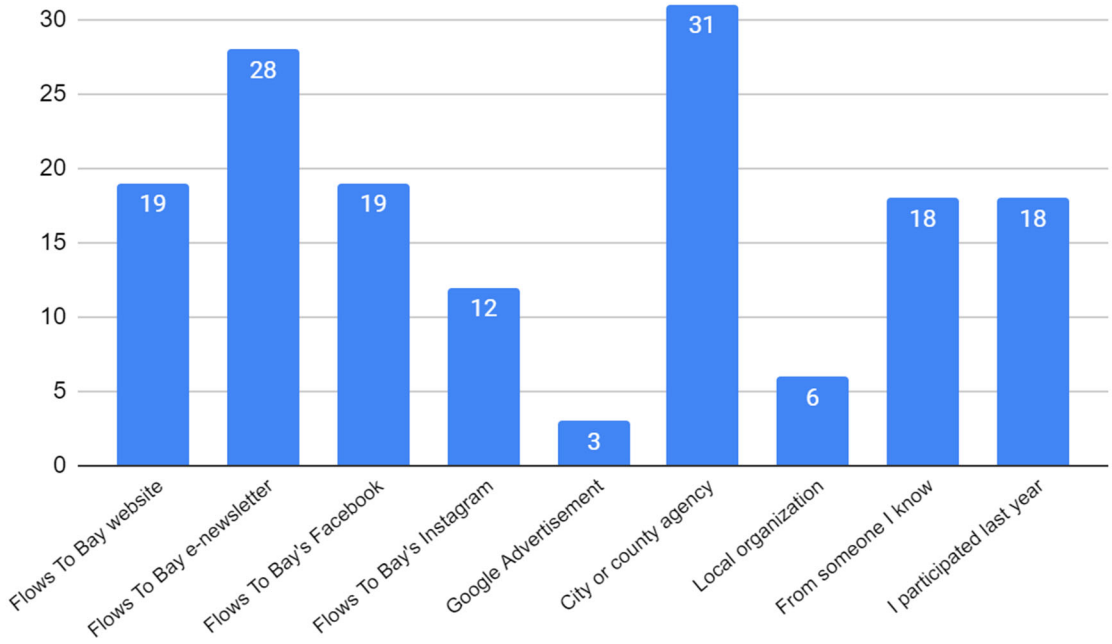
| | | |
|---|---|---|
| Hillsborough | Sara Bachmann | x |
| Menlo Park | Candice Almendral | |
| Menlo Park | Alexandria Skoch | |
| Menlo Park | Esther Jung | x |
| Millbrae | Andrea Pappajohn | x |
| Pacifica | Yessika Dominguez | |
| Pacifica | Michelle Trayer | x |
| Pacifica | Kevin Sandberg (intern) | |
| Portola Valley | Ali Taghari | |
| Portola Valley | Brandi de Garmeaux | |
| Redwood City | Vicki Sherman | |
| Redwood City | Christopher Fajikos | |
| Redwood City | Adrian Lee | |
| San Bruno | Jim Burch | |
| San Carlos | Vatsal Patel | x |
| San Mateo City | Gustavo Lopez | x |
| San Mateo City | Sven Edlund | x |
| San Mateo City | Ben Zarrabi | x |
| San Mateo County | Krista McDonald | x |
| San Mateo County | Sultan Henson | x |
| San Mateo County Health | | |
| South San Francisco | Daniel Garza | |
| South San Francisco | Andrew Wemmer | |
| South San Francisco | Natasha Gutierrez | x |
| Woodside | Dong Nguyen | |
| | | |
| SGA | Michelle Dissel | x |
| SGA | Paige Rosenberg | x |
| EOA | Peter Schultz-Allen | x |
| Caltrain | Carolyn Critz | x |
| BAWSCA (guest) | Kyle Ramey | x |

**Appendix 7B: Rain Barrel Outreach Program Survey Report**
The survey was sent to 474 program participants and received 129 responses.

## Program Awareness

As indicated in Figure 1, the majority of respondents heard about the Flows to Bay Rain Barrel Program via one of four ways: a city or county agency (~20%), the Flows to Bay e-newsletter (~18%), Flows To Bay's Website (~12%) or Flows To Bay's Facebook (~12%).

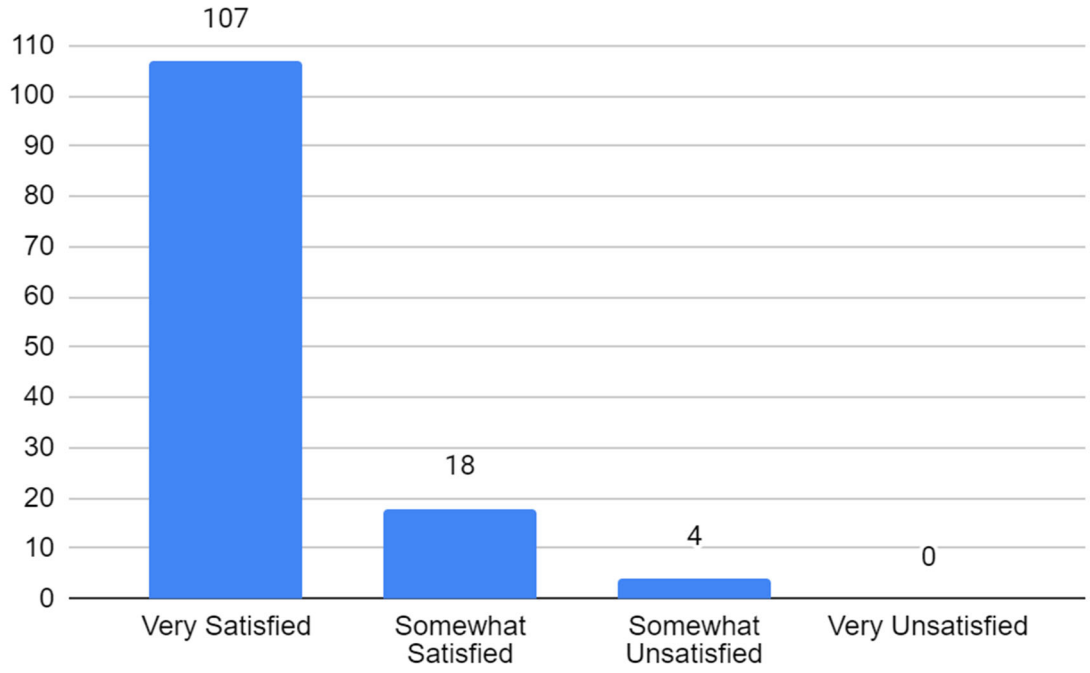
*Figure 7C-1. How did you hear about the Flows To Bay Rain Barrel Program?*



### Resident Satisfaction with Program

Respondents were very satisfied with this rain barrel program, with 83% indicating that they were "very satisfied" and 14% indicating "somewhat satisfied." Only 3% of respondents were somewhat dissatisfied with the program, and no respondents were very dissatisfied.

*Figure 7C-2. How satisfied were you with this rain barrel program?*




Residents were given an opportunity to elaborate on their dissatisfaction as indicated in Figure 2. The highest concern areas were the timing of the distribution event relative to the start of the rainy season and residents' rebate eligibility.

Participant concerns have been synthesized as follows:

- **Rebate eligibility:** 1 respondent had concerns with rebate eligibility. They stated that their address was eligible for the rebate but it didn't mention that their provider doesn't participate in the rebate program.
- **Timing of rain barrel distribution event:** 1 respondent had concerns regarding the timing of the rain barrel distribution event in the city of San Mateo. They said that, just as the prior year, the event happened after the typical rainy season starts, and emphasized that it should happen before that in September or October.
- **Rain barrel storage capacity:** 1 respondent had concerns because their barrel overflowed during the first rain of the season.

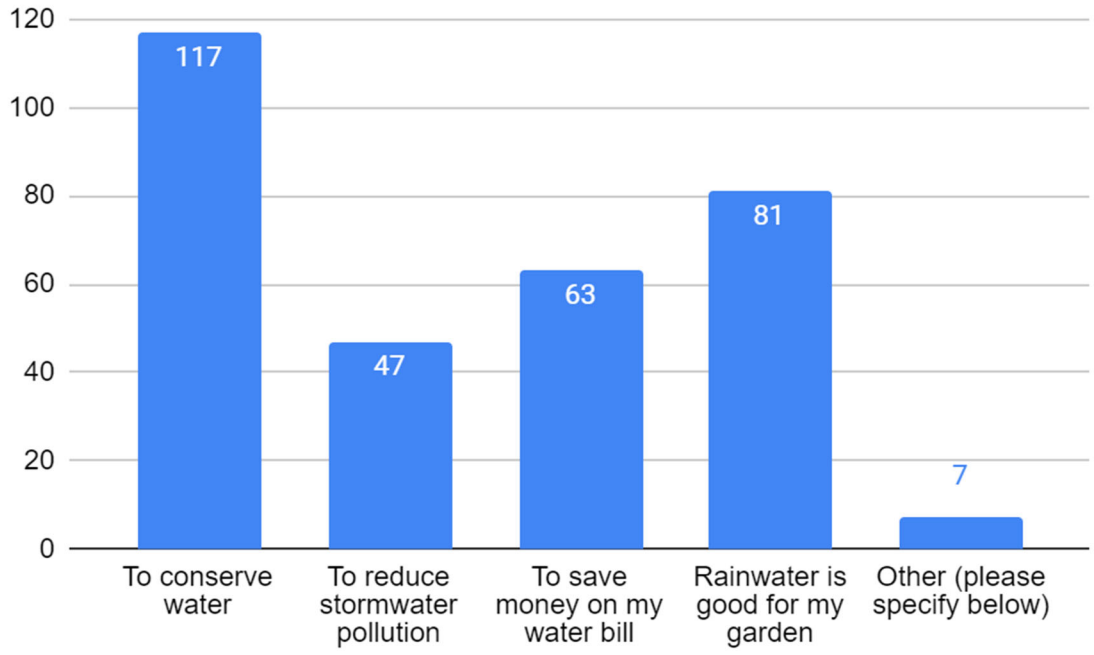
### Motivators for Rain Barrel Purchase

Indicated in Figure 3, the strongest motivator for residents is water conservation, with 91% of respondents indicating "to conserve water" as one of the reasons they purchased a rain barrel. Additionally, 63% of respondents noted that they purchased a rain barrel since "rain water is good for my garden." Saving money ranked third in terms of motivators (49% of respondents), followed by reducing stormwater pollution (36%).

For those that responded with "other," the following answers were provided:

- "Be a good steward of earth's resources"
- "For the rebate which I still can not accurately enter in online"
- "With my rain chains, the water does not flow away from my house and collects at foundation. With the barrels I can collect water and also keep water diverted from my foundation."
- "It was a good idea and the rebate (last year) was a plus"
- "I've been collecting & using rainwater for many years. These barrels will be labor saving"
- "It will help to water my carnivorous plants with rain water"

*Figure 7C-3. Why did you decide to purchase a rain barrel? (Select all that apply.)*

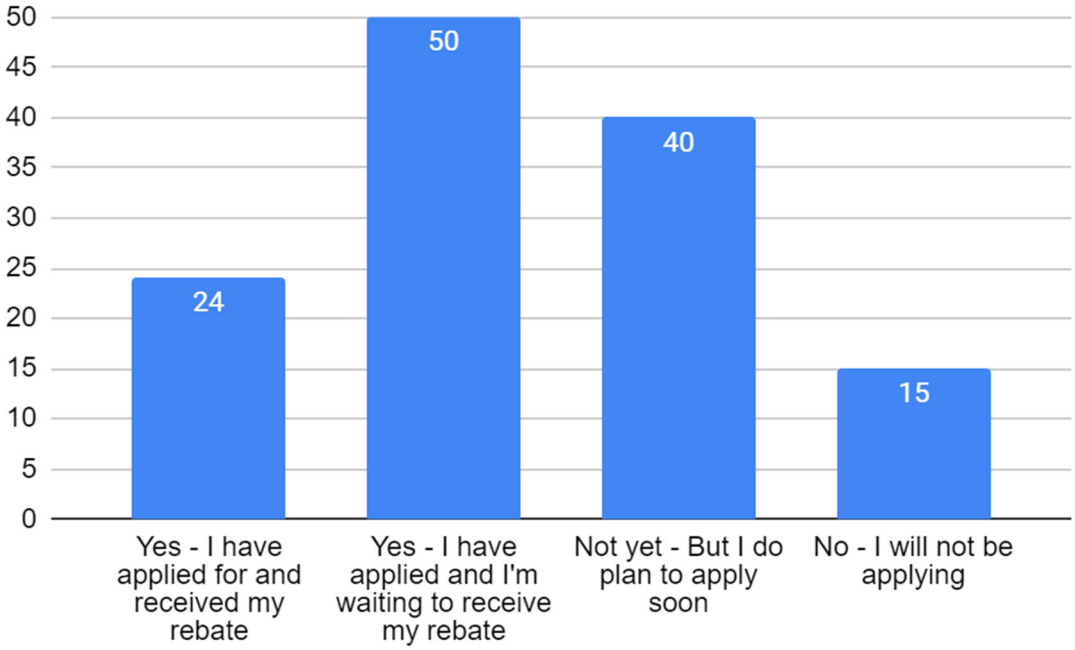



### Rebate Application Process

57% of respondents have already applied for a BAWSCA rain barrel rebate for their purchased barrels, roughly a third (32%) of which have already received their rebate and two thirds (68%)

of which are still awaiting their rebate. 31% of respondents plan to apply soon and 12% will not be applying.

*Figure 7C-4. Have you applied for a BAWSCA rain barrel rebate for your purchased barrel(s)?*




Concerns with the BAWSCA rain barrel rebate application process are as follows:

- 1 resident could not apply for the rebate for their second barrel because their first barrel's status was still "pending"
- 1 resident was still waiting on confirmation of submission of their application
- 2 residents were concerned about not yet receiving their rebates
    - 1 resident had been waiting for their rebate for 2 months after submitting their application
    - 1 resident was specifically worried about not knowing if they had any problems with their application
- 2 residents experienced challenges with submitting photos on the website
    - 1 resident reported that the website would not allow them to add photos of their barrel, and had spoken with a representative of the program, but had not received their rebate
    - 1 resident reported that only some of the photos they submitted were uploaded, and there was no way to go back to correct the issue. They had not yet received confirmation of their application and suggested adding an error message and a way for participants to correct photo uploads on their own.

Barriers to applying for a rebate were provided as follows:

- 11 residents were not (or thought they were not) qualified for the rebate:
    - 4 residents had already received the rebate last year and understood that it was a one-time rebate only
    - 2 residents said they did not qualify this year and provided no additional information
    - 1 resident's provider doesn't participate in the program
    - 1 resident did not think they were qualified because they are a renter who pays cash and has a post office box and no proof of rent
    - 1 resident was unsure if they would complete the installation since their barrels were already full from the rains and they did not want to connect and potentially damage their downspouts. They expressed interest in getting a new barrel to connect, but none were available at the time.
    - 1 resident did not think they would qualify because they use a copper drain spout
    - 1 resident did not think they would be able to install their barrels in time to meet the deadline
- 1 resident said it was" too much of a hassle" to apply
- 1 resident wasn't aware of the rebate
- 1 resident was happy with their purchase and did not mind spending the money
- 1 resident could not install their barrel to collect roof water since they have a shingle roof that could contaminate the water collected in the barrel

## Additional Feedback Provided

### Positive Feedback

- **Pickup Process**: 2 respondents commented on the ease of the pickup process.
    - Ex; "I have to congratulate you on how smooth the barrel pick-up process was. It's a great program."
- **General**: 2 respondents were very appreciative of the program and expressed interest in participating again in the future.
    - Ex; "Good program. If offered again next year, I will do it."
    - Ex; "Thank you. Will you be providing this program in future? We could use more barrels?"

### Constructive Feedback

**Rebate Process**: 7 respondents commented on the rebate process, including concerns with the online application, accessibility, and the delay/timeline in obtaining their rebate. Respondents primarily expressed interest in greater assistance with the online process.

*Online Application*

- Ex; “The rebate online form does not work when entering in my information and I emailed asking a question weeks ago with no reply”
- Ex; “I created a profile on BAWSC but it won’t let me add our water account & w/o that step, I can’t get my rebate.”

*Rebate Process Accessibility*

- Ex; “The rebate process assumes everyone has the electronic equipment and knowledge to complete the application (including photos and scanned documents).”

*Rebate Process Timeline*

- Ex; “Some confusion initially about my rebate a few years ago not being paid. Called the BAWSCA office and [a representative] helped me resolve the problem and apply for the rebate. Still waiting for the rebate however.”
- “Applied for rebate but haven't heard back with an update. Also, I don't remember how I heard about the program but was required to pick something in the first question, so I guessed.”

**Number of rain barrels/rebates:** 3 residents commented that they would like greater availability of rain barrels and accompanying rebates.

- Ex; “I wish I would have been able to purchase more than one! I didn't even have gutters but had placed the barrel where I saw the most water channeling off the roof, and my barrel was full after the FIRST storm!!”
- Ex; “The rain barrels filled up after one rainstorm. Would like to purchase additional barrels through another rebate program.”

**Rain Barrels**: 3 residents commented on the physical nature of the rain barrels

- Ex; “I noticed recently that both barrels which are sitting next to each other seem to be leaking at the bottom. My patio is wet around both barrels. They don't appear to be leaking from spouts so I am not sure if they have cracks or if I should have done something to prepare them. I won't be able to drain them now so I will have to wait and see how much water remains in spring and summer when I water my new front landscaping (water-tolerant plants).”
- Ex; “The barrels are fairly expensive and not very well made. I think you should look for a better product.”
- Ex; “I’ve changed out the spigots to brass for easier opening and closing. gotten hose clamps to stop the leak between the two barrels.”

**Miscellaneous Feedback**

- **Installation Resources:** "For Senior Citizens or Folks with Disabilities have a list of resources people can call for assistance with connecting their Rain Barrel.”
- **Outreach:** “Might be worth reaching out to people when they pull a roof building permit, as that’s the perfect time to install a barrel.”
- **Online Pickup Instructions:** “It was not clear to me at first that you have to BUY the barrel before you can pick it up. I "reserved" a time to get the barrels and it takes you to a page where you are offered a calendar reminder. But you have to scroll down past

that to see that your barrel(s) is not reserved until you pay for it. So I made an unnecessary trip and was told that my name was not on the list. Strip down and simplify the web pages, make them clearer and get rid of annoying "pop-down" menus."

- **Affordability:** "It might be helpful if there were other options of rain barrels or even a kit to convert a heavy-duty trash can lid into an acceptable receiver, so that there were more affordable options."

**Appendix 7C: SMCWPPP Blog and Analytics**

| Blog Title | Page Views | Unique Page Views | Time on Page | Bounce Rate |
|---|---|---|---|---|
| Byrd's Filling Station: Making Zero Waste Easy | 70 | 63 | 0:04:39 | 85.71% |
| Nazima's Garden: Water-Guzzling Lawn to Flourishing Oasis | 151 | 144 | 0:02:54 | 66.67% |
| The Coast is Clear: 2022 Coastal Cleanup Day | 59 | 55 | 0:02:37 | 75.00% |
| Don and Beth's Yard: From 1 Rain Barrel, to 5, to a Whole New Landscape | 359 | 343 | 0:01:22 | 87.16% |
| Senate Bill 54: Putting an End to Single-Use Plastic Production | 75 | 65 | 0:02:09 | 94.00% |
| Countywide Discounted Rain Barrel Program Is Now Open! | 124 | 115 | 0:01:25 | 84.00% |
| Every Litter Bit Hurts | 56 | 53 | 0:02:11 | 80.00% |
| California Native Plants and Winter Gardening Tips | 149 | 143 | 0:02:07 | 90.50% |
| The "Rain" Event of the Season: 2023 Bulk Rain Barrel Program | 82 | 78 | 0:01:23 | 79.41% |
| We're Keen on Green (Infrastructure) | 73 | 72 | 0:01:18 | 84.44% |
| Catching Rain is Catching on at Half Moon Bay High School | 24 | 23 | 0:02:47 | 100.00% |
| Central Middle Schoole's New Daisy Chain to Capture Rain | 30 | 29 | 0:02:24 | 78.26% |

# Appendix 9

- Parks Maintenance & IPM Work Group Attendance List FY 2022/23
- Landscape Integrated Pest Management (IPM) Workshop – March 1, 2023
    - Workshop Agenda
    - Attendance List
    - Evaluations Summary
- Pest Control Point of Purchase Outreach

**San Mateo Countywide Water Pollution Prevention Program**
**Parks Maintenance IPM Work Group Attendance List - FY 2022/23**

| Contact Information | | | Attendance |
|---|---|---|---|
| **MUNICIPALITY** | **REPRESENTATIVE** | **EMAIL** | **11/29/2022** |
| Atherton | Sally Bentz-Dalton | sbentz@ci.atherton.ca.us | |
| Belmont | Daniel Ourtiague | dourtiague@belmont.gov | |
| | Matt Ward | mward@belmont.gov | |
| Brisbane | Keegan Black | kblack@ci.brisbane.ca.us | |
| | Joe Friars | | |
| Burlingame | Rich Holtz | Rholtz@burlingame.org | X |
| | Cornelius (Neil) Brosnan | cbrosnan@burlingame.org | X |
| Colma | Louis Gotelli | Louis.Gotelli@colma.ca.gov | |
| | Brian Dossey | brian.dossey@colma.ca.gov | |
| Daly City | Chris Caliendo | ccaliendo@dalycity.org | X |
| | Jeff Fornesi | jfornesi@dalycity.org | |
| | Sibely Calles | scalles@dalycity.org | |
| | Dennis Bray | dbray@dalycity.org | |
| | Nicholas Crescenzi | ncrescenzi@dalycity.org | |
| | Jeff Templin | jtemplin@dalycity.org | |
| East Palo Alto | Jay Farr | jfarr@cityofepa.org | |
| | Lenin Mecgar | lmelgar@cityofepa.org | |
| | Benjamin Zarrabi | bzarrabi@cityofepa.org | |
| | Michelle Daher | mdaher@cityofepa.org | |
| Foster City | Greg Baeza | gbaeza@fostercity.org | |
| | Frank Fanara | Ffanara@fostercity.org | |
| | Taniela Mapa | | X |
| | Garrett Gotthardt | | X |
| Half Moon Bay | Katherine Sheehan | katherines@csgengr.com | |
| | Maziar Bozorginia | MBozorginia@hmbcity.com | |
| Hillsborough | Garry Francis | gfrancis@hillsca.org | |
| | Natalie Asai | nasai@HILLSBOROUGH.NET | |
| Menlo Park | Scott Jaw | | |
| Millbrae | Ken Crosetti | kcrosetti@ci.millbrae.ca.us | |
| | John Gianoli | jgianoli@ci.millbrae.ca.us | |
| Pacifica | Paul Lavorini | | X |
| | Estevan Renteria | Lavorinip@ci.pacifica.ca.us | |
| | Raymond Donguines | donguinesr@ci.pacifica.ca.us | |
| Portola Valley | Howard Young | hyoung@portolavalley.net | |
| Redwood City | Lucas Wilder | LWilder@redwoodcity.org | X |
| | Terence Kyaw | TKyaw@redwoodcity.org | |
| | Michael Bauer | | X |
| | Francisco Espinoza | fespinoza@redwoodcity.org | |
| San Bruno | Rene Walsh | rwalsh@ci.sanbruno.ca.us | |
| | Danielle Brewer | DBrewer@sanbruno.ca.gov | |
| | Dan Venezia | Dvenezia@sanbruno.ca.gov | |
| | | | |

**San Mateo Countywide Water Pollution Prevention Program**
**Parks Maintenance IPM Work Group Attendance List - FY 2022/23**

| Contact Information | | | Attendance |
|---|---|---|---|
| **MUNICIPALITY** | **REPRESENTATIVE** | **EMAIL** | **11/29/2022** |
| San Carlos | Arturo Burgueno | aburgueno@cityofsancarlos.org | |
| | Chris Zanoni | czanoni@cityofsancarlos.org | |
| | Jean St. Martin | jsaintmartin@cityofsancarlos.org | |
| | Luis Estrada | lestrada@cityofsancarlos.org | |
| | Kathryn Robertson | krobertson@cityofsancarlos.org | |
| City of San Mateo | Sarah Scheidt | sscheidt@cityofsanmateo.org | |
| | Jim Burch | JBurch@sanbruno.ca.gov | |
| | Dennis Pawl | dpawl@cityofsanmateo.org | |
| | Sven Edlund | sedlund@cityofsanmateo.org | |
| | Ron Hostick | rhostick@cityofsanmateo.org | |
| San Mateo Co. Parks | Sam Herzberg | SHerzberg@co.sanmateo.ca.us | |
| | Scott Lombardi | slombardi@co.sanmateo.ca.us | |
| | Julie Casagrande | jcasagrande@co.sanmateo.ca.us | |
| | Kim Springer | kspringer@smcgov.org | |
| | Dan Krug | dkrug@smcgov.org | X |
| San Mateo Co. Office of Sustainability | John Allan | jallan@smcgov.org | |
| SM County PW | Jeff Pacini | JPacini@co.sanmateo.ca.us | |
| | Kevin Lu | khlu@smcgov.org | |
| County Agriculture Weights and Measures | Ione Yuen | IYuen@smcgov.org | |
| | Jeremy Wagner | JWagner@smcgov.org | |
| | Joseph Hannen | JHannen@smcgov.org | X |
| | Jenny Gossett | jgossett@smcgov.org | |
| | Richard Garcia | rgarcia@smc.gov | |
| | Nancy Poss | Nposs@smc.gov | |
| South San Francisco | Donald Louie | donald.louie@ssf.net | X |
| | Joshua Richardson | | X |
| | Greg Mediati | Greg.Mediati@ssf.net | |
| Woodside | Dong Nguyen | | |
| | Sean Rose | srose@woodsidetown.org | |
| UCCE/UC IPM | Andrew Sutherland | amsutherland@ucanr.edu | |
| EOA | Jon Konnan | jkonnan@eoainc.com | |
| | Vishakha Atre | vatre@eoainc.com | X |
| | Eliza Perkins | eperkins@eoainc.com | X |
| SMCWPPP | Reid Bogert | rbogert@smcgov.org | |
| | | | |
| **Other Attendees** | | | |
| | | | |
| Kelly Carrol | CSG/Half Moon Bay/Colma | kellyc@csgengr.com | X |

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

# Landscape Integrated Pest Management Webinar

**Wednesday, March 1, 2023**

**8:30 a.m. – 12:30 p.m.**

*Sponsored by the SMCWPPP Parks Maintenance and IPM Work Group*

*This is a free webinar.*

*This webinar is open to municipal agency staff and landscape contractors working for municipal agencies.*

**Department of Pesticide Regulation Continuing Education Hours: Pending Approval**

***Workshop Topics***

- IPM for Turf in Urban Areas
- IPM Techniques for Managing Rats
- Alternatives to Neonicotinoid Pesticides
- IPM Techniques for Managing Wildlands to Prevent Fires
- Regulatory Updates (including Municipal Regional Permit 3.0)

**CLICK HERE TO REGISTER**

**A link for joining the webinar will be sent to you after registering**

**Registration Deadline: February 27, 2023** Questions? Call Lynn with EOA at 510-832-2852 ext. 101 (Monday to Thursday, 9 am - 3 pm) or email lpinell@eoainc.com

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

# AGENDA

## Landscape Integrated Pest Management (IPM) Webinar

**(Sponsored by SMCWPPP Parks Maintenance and IPM Workgroup)**
**Wednesday, March 1, 2023**
**8:30 am – 12:30 pm**

---

| | |
|---|---|
| **Welcoming Remarks and Instructions for Continuing Education**<br>Vishakha Atre*, EOA* | 8:30 am – 8:40 am |
| **Regulatory Update - Pesticides Toxicity Control Requirements in the Municipal Stormwater Regional Permit**<br>Vishakha Atre*, EOA* | 8:40 am – 8:50 am |
| **IPM Techniques for Controlling Rats in Parks**<br>Dr. Carolyn Whitesell, *UC Cooperative Extension* | 8:50 am – 9:20 am |
| **IPM for Turf Management and Alternatives to Neonicotinoids**<br>Eric Carlson, *Target Specialty Products* | 9:20 am – 10:20 am |
| **Break** | 10:20 am – 10:30 am |
| **Managing Forests for Fire Resilience**<br>Timothy Federal, *San Mateo Resource Conservation District* | 10:30 am – 11:15 am |
| **Regulatory Update, Common Violations**<br>Avneet Kakkar, *San Mateo County Agriculture/Weights and Measures* | 11:15 am – 12:15 pm |
| **Quiz for Continuing Education Units** | 12:15 pm |
| **Adjourn** | 12:30 pm |

SMCWPPP Landscape IPM Workshop

March 1, 2023

Attendance List

| | First Name | Last Name | Organization |
|---|---|---|---|
| 1 | Alain | Urruty | City of Belmont |
| 2 | Jeffrey | Coffey | City of Belmont |
| 3 | Kieran | Cronin | City Of Belmont |
| 4 | Matt | Ward | City of Belmont |
| 5 | Michael | Stevens-Nappi | City of Belmont |
| 6 | Sean | Brosnan | City of Belmont |
| 7 | Joe | Friars | City of Brisbane |
| 8 | Keegan | Black | City of Brisbane |
| 9 | Mike | Terrell | City of Burlingame |
| 10 | Pedro | Barron | City of Burlingame |
| 11 | Stephen | Pappas | City of Burlingame |
| 12 | Richard | Holtz | City of Burlingame |
| 13 | Jimmy | Vistan | City of Daly  City |
| 14 | Chris | Caliendo | City of Daly City |
| 15 | Fernando | Barron | City of Daly City |
| 16 | Jeff | Templin | City of Daly City |
| 17 | Nicholas | Crescenzi | City of Daly City |
| 18 | Alo | Sanft | City of East Palo Alto |
| 19 | Amir | Mahmoudi | City of East Palo Alto |
| 20 | Jaime | Martinez | City of East Palo Alto |
| 21 | Jonathan | Calderon | City of East Palo Alto |
| 22 | Carlos | Valerio | City of Foster City |
| 23 | Frank | Fanara | City of Foster City |
| 24 | Garrett | Gotthardt | City of Foster City |
| 25 | Gregory | Shimizu | City of Foster City |
| 26 | Jamie | Echeverria | City of Foster City |
| 27 | Lava | Kioa | City of Foster City |
| 28 | Manuel | Garcia | City of Foster City |
| 29 | Raul | Salazar | City of Foster City |
| 30 | Taniela | Mapa | City of Foster City |
| 31 | Armando | Munguia | City of Half Moon Bay |
| 32 | Juan | Salazar | City of Half Moon Bay |
| 33 | Rob | Eastman | City of Half Moon Bay |
| 34 | Bill | Halleck | City of Menlo Park |
| 35 | Glenn | Fukudome | City of Redwood City |
| 36 | Jose | Solis | City of Redwood City |
| 37 | leonardo | Moreno | City of Redwood City |
| 38 | Martin | Hernandez | City of Redwood City - Parks |
| 39 | Arturo | Burgueno | City of San Carlos |
| 40 | Gustavo | Lopez | City of San Mateo |
| 41 | Brandon | Cutajar | City of South San Francisco |
| 42 | Brian | Brunelli | City of South San Francisco |

SMCWPPP Landscape IPM Workshop

March 1, 2023

Attendance List

| | First Name | Last Name | Organization |
|---|---|---|---|
| 43 | Donald | Louie | City of South San Francisco |
| 44 | Peter | Shea | City of South San Francisco |
| 45 | Zachary | Kust | City of South San Francisco |
| 46 | Joshua | Richardson | City of South San Francisco |
| 47 | Ione | Yuen | San Mateo County Dept. of Agriculture |
| 48 | Daniel | Krug | San Mateo County Parks |
| 49 | Greg | Escoto | San Mateo County Parks |
| 50 | Lisa | Di Lorenzo | San Mateo County Parks |
| 51 | Mark | Rogers | San Mateo County Parks |
| 52 | William | Segale | Segale & Cerini,  Inc. |
| 53 | George H | DeOcampo | SF BART |
| 54 | Ryan | Zuehlsdorf | City of San Mateo |
| 55 | Louis | Gotelli | Town of Colma |
| 56 | Justin | Bixby | Town of Portola Valley |

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

**Summary of Evaluation Forms**

**56 Attendees**
**31 Evaluations**

# Landscape Integrated Pest Management (IPM) Workshop
## (Sponsored by SMCWPPP Parks Maintenance and IPM Workgroup)
## Zoom Webinar Wednesday, March 1, 2023
## 8:30 a.m. – 12:30 p.m

**What Did You Think of the Following Presentations?**

1. **Regulatory Update - Pesticides Toxicity Control Requirements in the Municipal Stormwater Regional Permit** - *Vishakha Atre, EOA*

   **24** very helpful **6** somewhat helpful **0** not helpful **1** did not attend

2. **IPM Techniques for Controlling Rats in Parks** - *Dr. Carolyn Whitesell, UC Cooperative Extension*

   **28** very helpful **3** somewhat helpful **0** not helpful **0** did not attend

3. **IPM for Turf Management and Alternatives to Neonicotinoids** - *Eric Carlson, Target Specialty Products*

   **22** very helpful **9** somewhat helpful **0** not helpful **0** did not attend

4. **Managing Forests for Fire Resilience** - *Timothy Federal, San Mateo Resource Conservation District*

   ***25*** very helpful **6** somewhat helpful **0** not helpful **0** did not attend

5. **Regulatory Update, Common Violations** - *Avneet Kakkar, San Mateo County Agriculture/Weights and Measures*

   **26** very helpful **5** somewhat helpful **0** not helpful **0** did not attend

**Did this workshop meet your expectations?** **31** Yes **0** No

**Suggestions for future workshop topics:**

- CPESC - coordinate to have Professional Development credits for both since this is related to stormwater.
- Tree related topics, health and safety related topics.
- Green infrastructure and pesticide use.
- Anecdotes/examples like the fire clearance presentation would be good for herbicide discussions.

**General Comments**:

- Excellent program, I look forward to the next offering.
- Overall good webinar. Always looking for more natural methods of management that work on municipal scale.
- Thank you.

# Appendix 9:

**Point of Purchase Outreach**

Figure 9A-1. Photos from C.9. public outreach tabling events.


Figure 9A-2. Examples of graphics designed to promote the C.9. public outreach tabling events.


Figure 9A-3. Photos from FY 22/23 in-person store visits for POP outreach.


Figure 9A-4. Photos from C.9. employee outreach and store training.

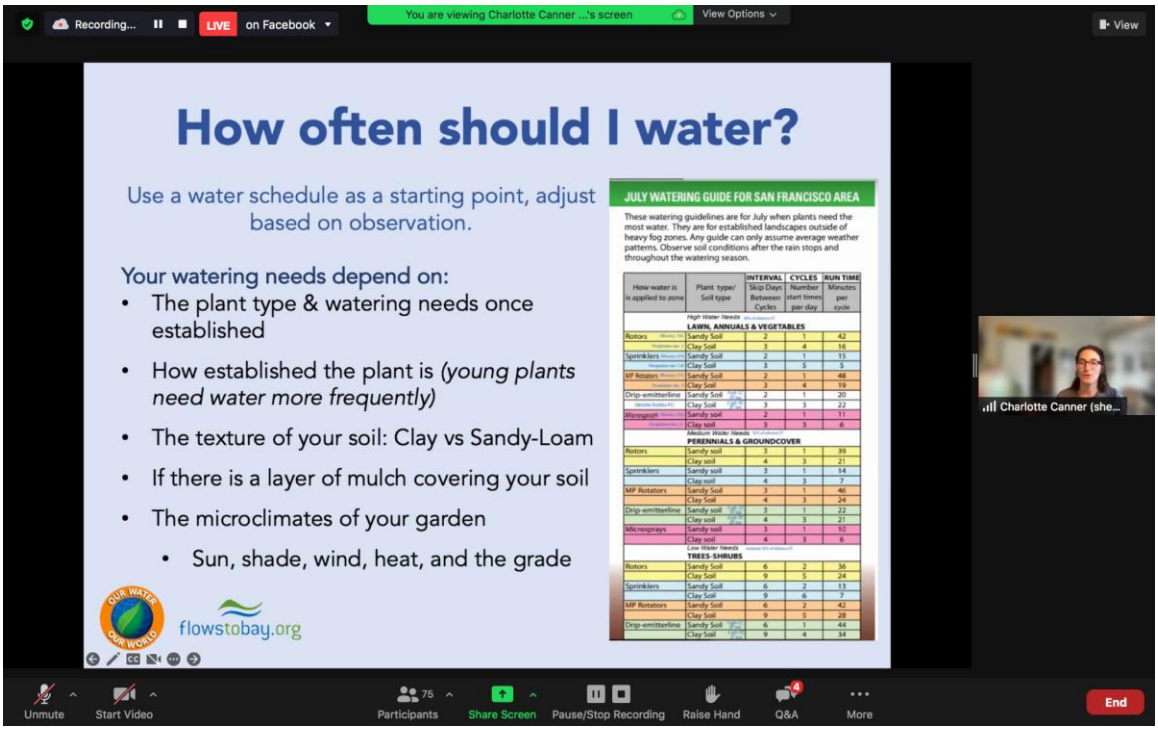


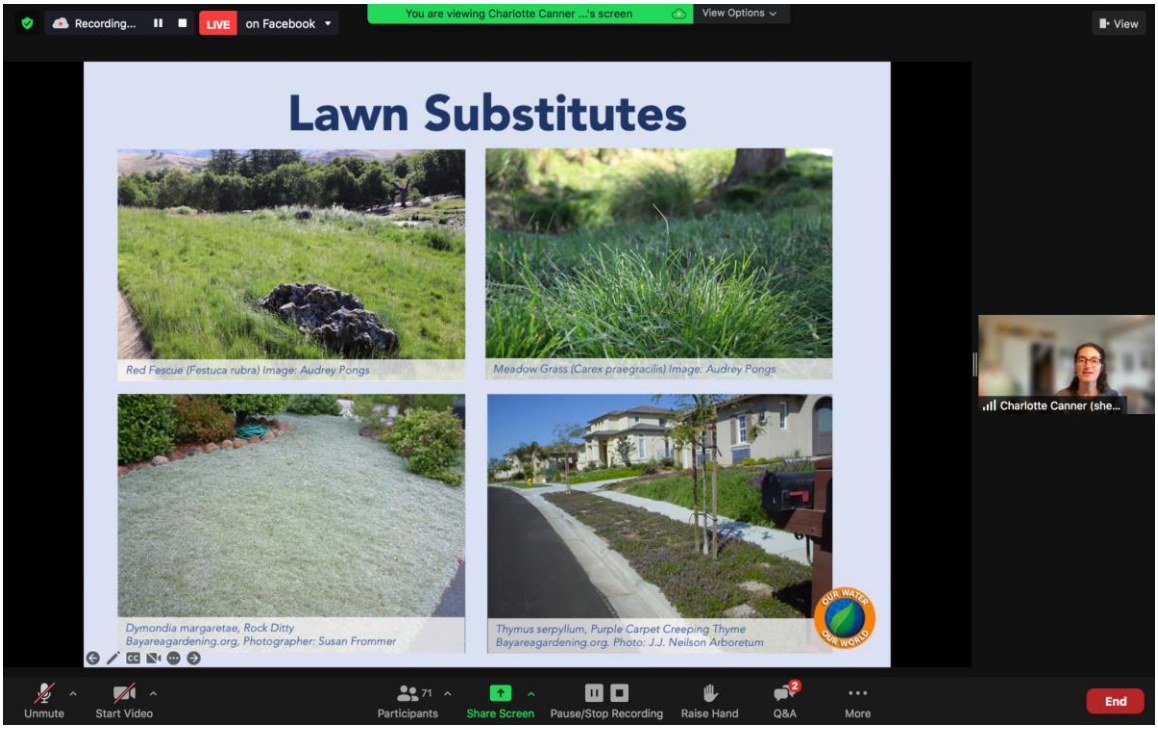

Figure 9A-5. Designed graphics to promote the IPM-focused webinars.



GARDENING IN A
CHANGING CLIMATE
HOT
flowstobay.org
SATURDAY, APRIL 15
10-11:30AM
ONLINE WEBINAR
ORGANIC
FERTILIZER

Figure 9A-6. Screenshots captured during the October webinar on Zoom and Facebook Live



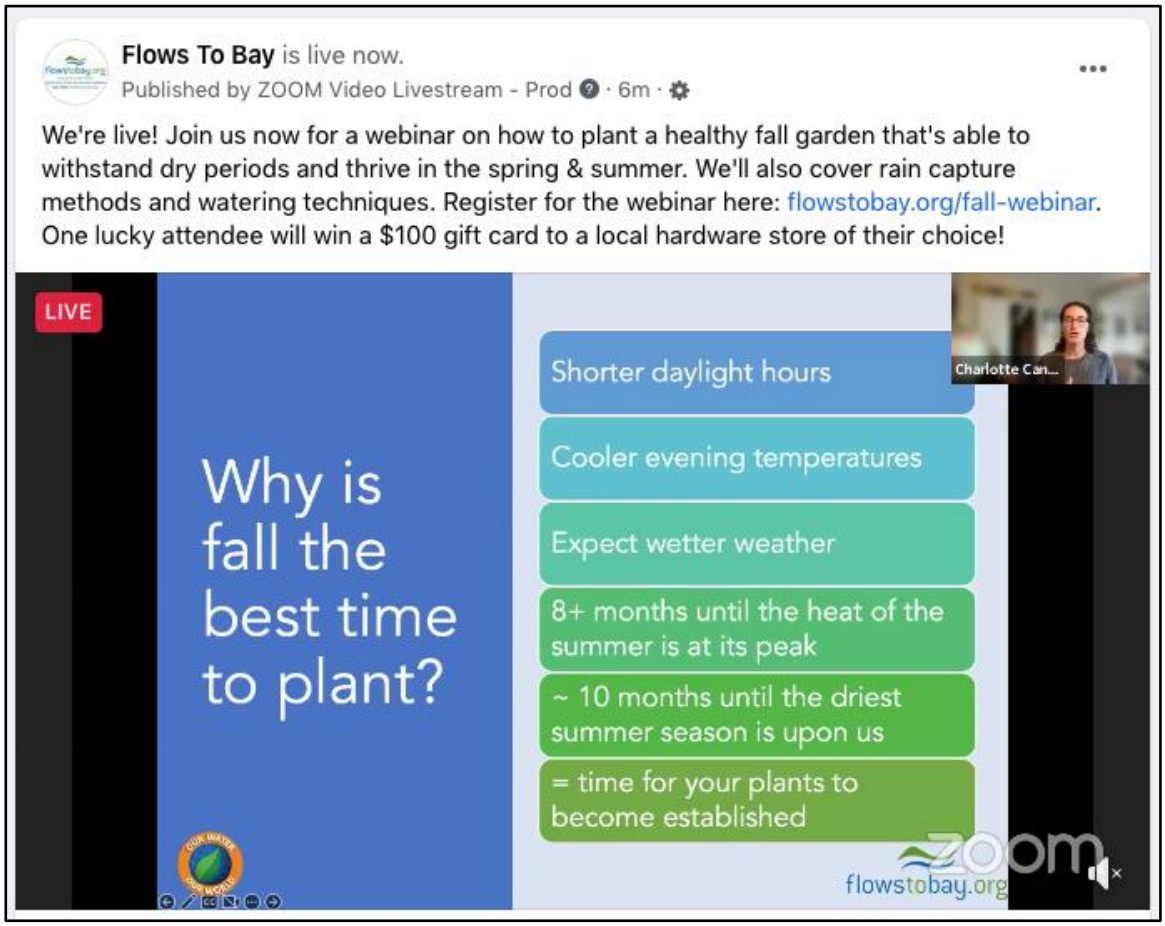
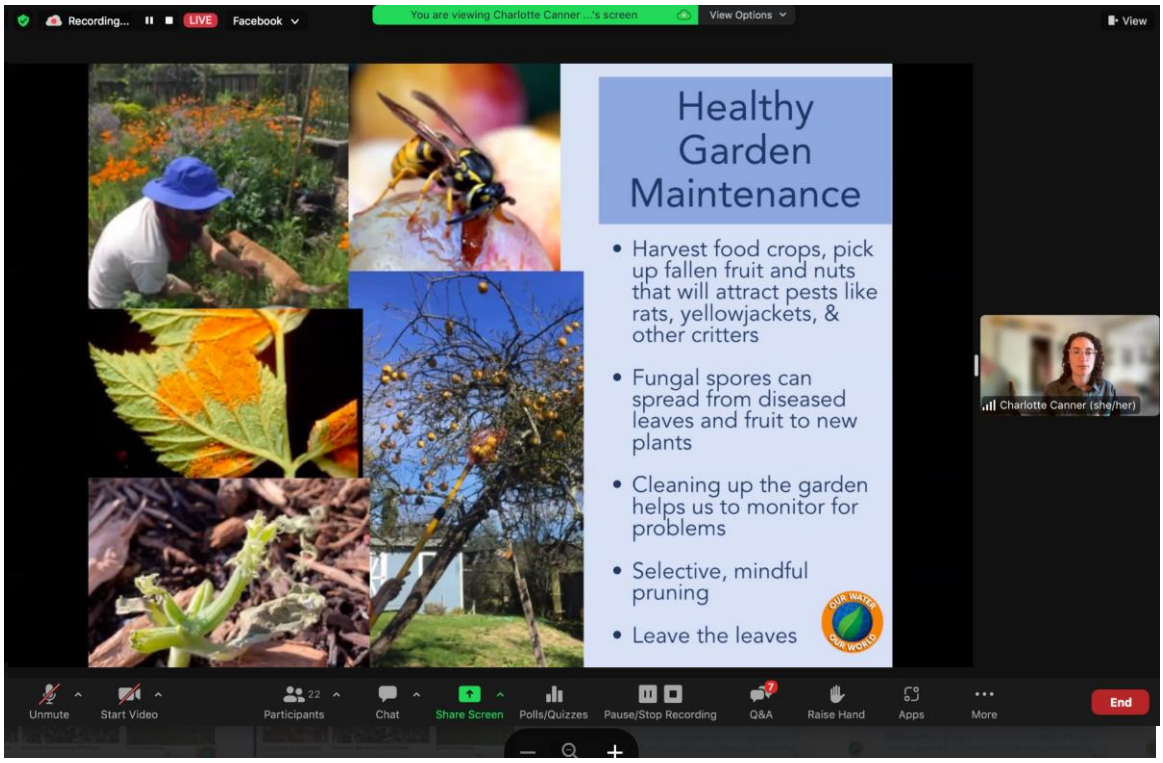

Flows To Bay is live now.
Published by ZOOM Video Livestream - Prod · 6m ·
We're live! Join us now for a webinar on how to plant a healthy fall garden that's able to withstand dry periods and thrive in the spring & summer. We'll also cover rain capture methods and watering techniques. Register for the webinar here: flowstobay.org/fall-webinar. One lucky attendee will win a $100 gift card to a local hardware store of their choice!
LIVE
Why is fall the best time to plant?
Shorter daylight hours
Cooler evening temperatures
Expect wetter weather
8+ months until the heat of the summer is at its peak
~ 10 months until the driest summer season is upon us
= time for your plants to become established
Charlotte Can...
zoom
flowstobay.org

Figure 9A-7. Screenshots captured during the April webinar on Zoom and Facebook Live



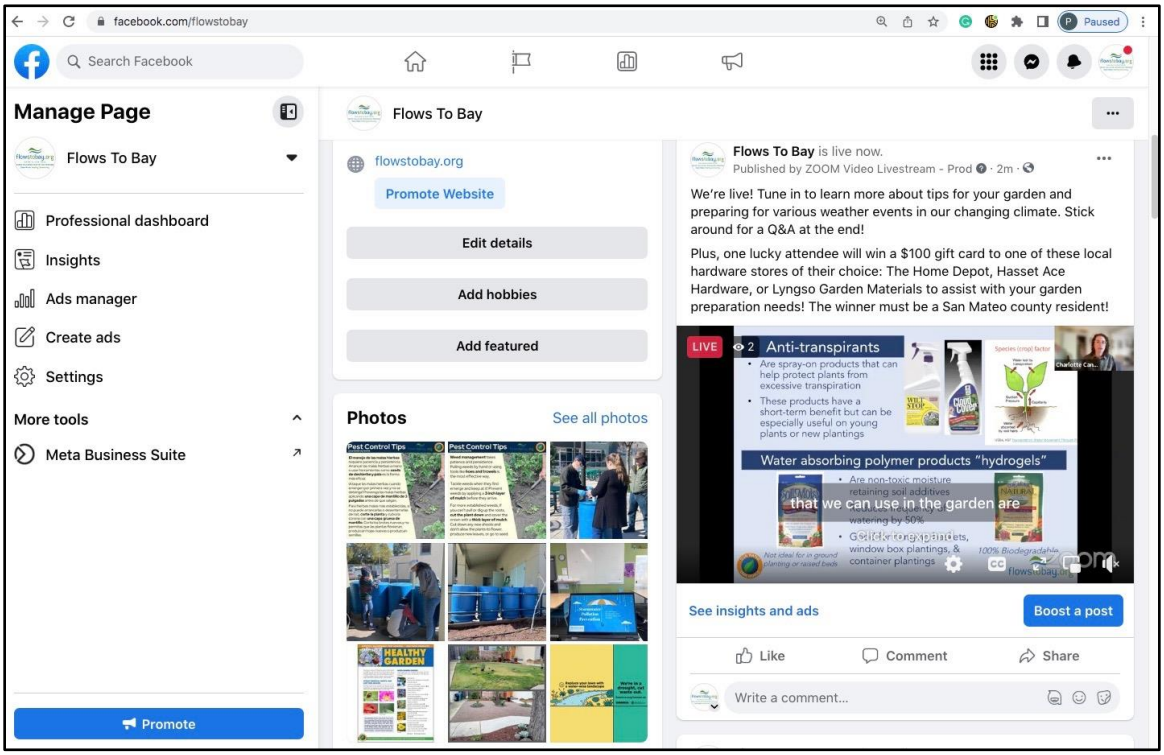
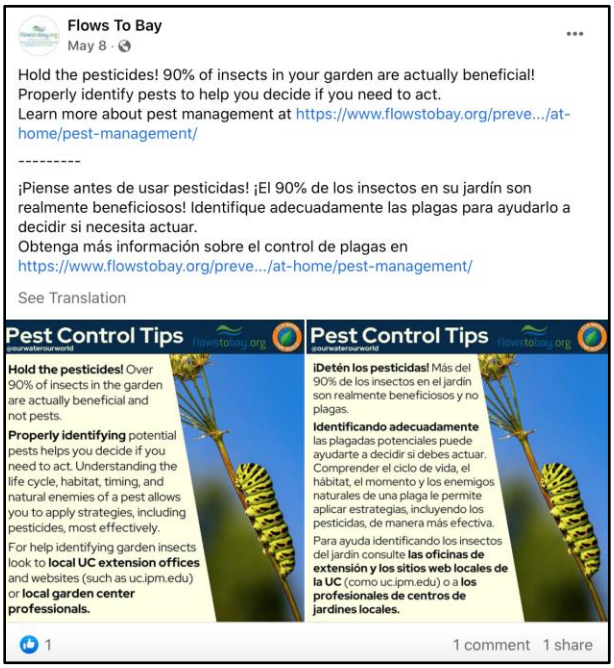
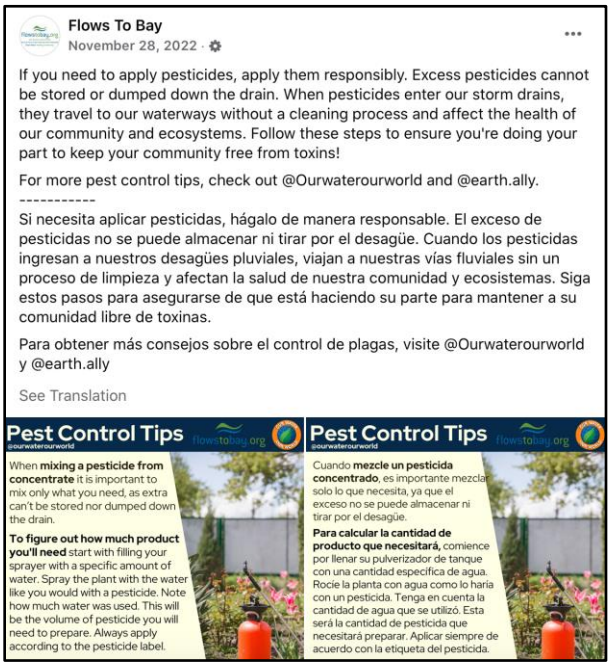



Figure 9A-8. Examples of "Simple Tip" social media posts discussing a seasonal pest, identification, life cycle, prevention, and control options.




# Appendix 10

- Trash Subcommittee Attendance List – FY 2022/23

## Trash Subcommittee Meeting Attendance – FY 2022/23

| Name | Agency | Phone | E-Mail | 07/19/22 | 09/20/22 | 12/05/22 | 03/02/23 | 06/08/23 |
|---|---|---|---|---|---|---|---|---|
| Tim Murray | City of Belmont | (650) 222-6460 | tmurray@belmont.gov | X | X | X | X | X |
| Marcus Escobedo | City of Belmont | (650) 222- 6459 | mescobedo@belmont.gov | X | X | X | X | X |
| Reid Bogert | C/CAG | (650) 599-1433 | rbogert@smcgov.org | X | X | X | X | X |
| Keegan Black | City of Brisbane | (415) 728-7986 | kblack@ci.brisbane.ca.us | X | | X | X | |
| Dolan Shoblo | City of Brisbane | | dolanshoblo@ci.brisbane.ca.us | | X | X | X | X |
| Randy Breault | City of Brisbane | (415) 508-2131 | rbreault@ci.brisbane.ca.us | | | | | |
| Rick Horne | City of Burlingame | (650) 558-7672 | rhorne@burlingame.org | | | X | X | X |
| Mike Heathcote | City of Burlingame | (650) 558-7679 | mheathcote@burlingame.org | | | | | |
| Jennifer Lee | City of Burlingame | (650) 558-7381 | jlee@burlingame.org | X | X | | X | X |
| Muneer Ahmed | Town of Colma | (650) 757-8894 | Muneer.ahmed@colma.ca.gov | X | | X | | X |
| Kelly Carroll | Town of Colma | (408) 921-4480 | kellyc@csgengr.com | X | X | X | | |
| Jeff Fornesi | City of Daly City | (650) 991-5752 | jfornesi@dalycity.org | | | | | |
| John Sanchez | City of Daly City | (650) 991-8265 | jsanchez@dalycity.org | X | X | X | X | X |
| Sibely Calles | City of Daly City | (650) 991-8054 | scalles@dalycity.org | | | X | | X |
| Lejane Kwan | City of Daly City | | lkwan@dalycity.org | | | | X | X |
| Richard Chiu | City of Daly City | (650) 991-8064 | rchiu@dalycity.org | | | | | X |
| Michelle Daher | City of East Palo Alto | (650) 853-3197 | mdaher@cityofepa.org | X | | | | |
| Greg Baeza | City of Foster City | | gbaeza@fostercity.org | X | X | X | X | |
| Taniela Mapa | City of Foster City | | tmapa@fostercity.org | X | X | X | X | X |
| Jennifer Chong | City of Half Moon Bay | | jchong@hmbcity.com | X | | | | |
| Nick Zigler | City of Half Moon Bay | (925) 949-5976 | ziglern@bv.com | | | | X | X |
| Brian Henry | City of Menlo Park | (650) 330-6799 | bphenry@menlopark.org | X | | | | |
| Scott Jaw | City of Menlo Park | (650) 330-6694 | scjaw@menlopark.org | X | X | X | X | |
| Jordan Chu | City of Menlo Park | | jcchu@menlopark.org | X | X | X | | |
| Esther Jung | City of Menlo Park | | ejjung@menlopark.gov | | | | X | |
| Paige Saber | City of Menlo Park | (650) 330-6773 | pesaber@menlopark.gov | | | | | X |
| Mike Killigrew | City of Millbrae | (650) 259-2374 | mkilligrew@ci.millbrae.ca.us | | | | X | |
| Andrea Pappajohn | City of Millbrae | | apappajohn@ci.millbrae.ca.us | | | X | | |
| Raymund Donguines | City of Pacifica | (650) 738-3767 | donguinesr@ci.pacifica.ca.us | X | | X | | |
| Paul Lavorini | City of Pacifica | | lavorinip@ci.pacifica.ca.us | X | | | | |
| Louis Langi | City of Pacifica | | llangi@pacifica.gov | | | X | | |

## Trash Subcommittee Meeting Attendance – FY 2022/23

| Name | Agency | Phone | E-Mail | 07/19/22 | 09/20/22 | 12/05/22 | 03/02/23 | 06/08/23 |
|---|---|---|---|---|---|---|---|---|
| Howard Young | Town of Portola Valley | (650) 851-1700 X214 | hyoung@portolavalley.net | | | | | |
| Vicki Sherman | City of Redwood City | (650) 780-7472 | vsherman@redwoodcity.org | X | X | X | X | X |
| Jason Claire | City of Redwood City | (650) 208-6365 | jclaire@redwoodcity.org | | | | | |
| Robin Kim | City of Redwood City | (650) 780-5971 | rkim@redwoodcity.org | X | | X | X | X |
| Dennis Bosch | City of San Bruno | (650) 616-7179 | dbosch@sanbruno.ca.gov | | | | | |
| Robert Wood | City of San Bruno | (650) 616-7046 | rwood@sanbruno.ca.gov | | | | | |
| Ted Chapman | City of San Bruno | (650) 616-7169 | TChapman@sanbruno.ca.gov | X | X | X | X | |
| Sean Morris | City of San Bruno | | smorris@sanbruno.ca.gov | | X | | | X |
| Ed Maxion | City of San Bruno | | emaxion@sanbruno.ca.gov | | X | | | X |
| Vatsal Patel | City of San Carlos | (650) 802-4202 | vpatel@cityofsancarlos.org | | X | X | | |
| Aaron San Antonio | City of San Carlos | | asanantonio@cityofsancarlos.org | | | X | | |
| Evan Cai | City of San Carlos | | ecai@cityofsancarlos.org | | | | X | |
| Jessica Lee | City of San Carlos | | jlee@cityofsancarlos.org | | | | | X |
| Rick Pina | City of San Mateo | (650) 522-7373 | rpina@cityofsanmateo.org | | | | | |
| Sven Edlund | City of San Mateo | (650) 522-7342 | sedlund@cityofsanmateo.org | X | X | X | X | X |
| Siliva Pa'uli | City of San Mateo | | spauli@cityofsanmateo.org | X | | | | X |
| Ryan Nahe | City of San Mateo | | rnahe@cityofsanmateo.org | | | X | | |
| Jack Johnson | City of San Mateo | | jjohnson@cityofsanmateo.org | | | X | X | |
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| Peter Schultze-Allen | EOA, Inc. | (510) 832-2852 X128 | pschultze-allen@eoainc.com | | | | | |
| **No. Attending** | | | | **32** | **29** | **36** | **33** | **28** |

# Appendix 11/12

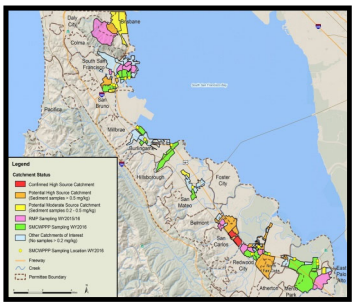
- Mercury and PCBs Control Measures Report (Version 1.0) – September 26, 2023

SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program

# Mercury and PCBs Control Measures Report

## Version 1.0

*Submitted by the San Mateo Countywide Water Pollution Prevention Program on behalf of all MRP 3.0 (NPDES Permit No. CAS612008, Order No. R2-2022-0018) Permittees in San Mateo County, in compliance with Provisions C.11/12.a.iii(2)*



**September 26, 2023**

# CREDITS

This report is submitted by the participating agencies in the

SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program
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**Town of Atherton**
**City of Belmont**
**City of Brisbane**
**City of Burlingame**
**Town of Colma**
**City of Daly City**
**City of East Palo Alto**
**City of Foster City**
**City of Half Moon Bay**
**Town of Hillsborough**
**City of Menlo Park**
**City of Millbrae**
**City of Pacifica**
**Town of Portola Valley**
**City of Redwood City**
**City of San Bruno**
**City of San Carlos**
**City of San Mateo**
**City of South San Francisco**
**Town of Woodside**
**County of San Mateo**
**OneShoreline**

*Prepared for:*

**San Mateo Countywide Water Pollution Prevention Program (SMCWPPP)**
**555 County Center, Redwood City, CA 94063**
**A Program of the City/County Association of Governments (C/CAG)**

*Prepared by:*

**EOA, Inc.**
**1410 Jackson St., Oakland, CA 94610**

# TABLE OF CONTENTS

# LIST OF TABLES



# LIST OF ATTACHMENTS

# LIST OF ABBREVIATIONS

| | |
|---|---|
| BAMSC | Bay Area Stormwater Collaborative |
| BASMAA | Bay Area Stormwater Management Agencies Association |
| BMP | Best Management Practice |
| CWA | Clean Water Act |
| FY | Fiscal Year |
| GIS | Geographic Information System |
| GI | Green Infrastructure |
| HDS | Hydrodynamic Separator Unit |
| HHW | Household Hazardous Waste |
| LID | Low Impact Development |
| MIP | Model Implementation Process |
| MRP | Municipal Regional Permit |
| MS4 | Municipal Separate Storm Sewer System |
| NPDES | National Pollution Discharge Elimination System |
| O&M | Operation and Maintenance |
| PPM | Parts Per Million |
| PCBs | Polychlorinated Biphenyls |
| PG&E | Pacific Gas and Electric |
| POC | Pollutant of Concern |
| POTW | Publicly Owned Treatment Works |
| RAA | Reasonable Assurance Analysis |
| Water Board | San Francisco Bay Regional Water Quality Control Board |
| ROW | Right-of-Way |
| SAP | Sampling and Analysis Plan |
| SFEP | San Francisco Estuary Partnership |
| SMCWPPP | San Mateo Countywide Water Pollution Prevention Program |
| TMDL | Total Maximum Daily Load |
| USEPA | United Stated Environmental Protection Agency |
| WMA | Watershed Management Area |

# SECTION 1 -INTRODUCTION

## REGULATORY BACKGROUND

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

The PCBs and mercury TMDLs indicate that a 90% reduction in PCBs and 50% reduction in mercury from urban stormwater runoff to the Bay are needed to achieve water quality standards and restore beneficial uses. Provisions C.11 and C.12 of the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit no. CAS612008 (MRP 3.0; Order R2-2022-0018) implement the urban runoff requirements of the mercury and PCBs TMDLs. These provisions require Permittees to plan, implement and report on control programs during the permit term to reduce the urban runoff loads of these pollutants.

## PURPOSE OF CONTROL MEASURES REPORT

This Mercury and PCBs Control Measures Report was developed to comply with the reporting requirements identified in Provisions C.11 and C.12. Each year of the permit, Permittees are required to track and report on the implementation of the control programs described in Provisions C.11.b. through C.11.e. and C.12.b. through C.12.g. The associated mercury and PCBs load reductions reduced or avoided due to implementation of these control programs must be reported in the fourth year of the permit (2026). Loads avoided/reduced will be assessed following the methodologies identified in the *Source Control Load Reduction Accounting for Reasonable Assurance Analysis* (BASMAA 2022)

This Report (Version 1.0) is the first version of this report submitted under MRP 3.0. This report documents the control measure programs that were implemented in San Mateo County during the permit term to date (i.e., through Fiscal Year (FY) 2022/23). This report will be updated each subsequent year of the permit to provide new or revised information on control measure program implementation as required.

## APPROACH TO CONTROL MEASURE IMPLEMENTATION AND TRACKING

MRP 3.0 provides a renewed focus on implementing mercury and PCBs control measures in old industrial land use areas and/or areas that have moderate to high mercury or PCBs. Old industrial land use areas are defined as parcels that were industrialized prior to 1980, and that continued to have industrial activities through at least 2002 (i.e., the approximate start of the PCBs TMDL). Because PCBs

were more heavily used in older industrial areas, these areas are believed to contribute much higher masses of PCBs per unit area than newer urban land use areas. The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) has identified and mapped all old industrial land use parcels as of 2002 within San Mateo County. As these parcels are redeveloped into new urban land use, or other control measures applied, the masses of mercury and PCBs contributed by these areas is expected to substantially reduce. Therefore, the majority of control measure planning and implementation is focused on catchments containing old industrial parcels.

Stormwater catchments were chosen as the primary geographical scale at which planning, implementation and tracking of control measures is conducted. Catchment areas are based on SMCWPPP's current understanding of the stormwater and runoff patterns and hydrology in the Basin. In San Mateo County, catchments where control measures are planned and implemented are identified as Watershed Management Areas (WMAs). All mercury and PCBs control measures that are implemented across San Mateo County are tracked and reported for each SMCWPPP Permittee by WMA.

During MRP 2.0, SMCWPPP Permittees developed a web-based system for tracking and mapping Green Infrastructure (GI) and other stormwater treatment implementation in San Mateo County. This system is called the San Mateo County GI Tracking Tool (Tool). During MRP 3.0, SMCWPPP Permittees will continue to track control measure implementation in the Tool. The Tool is available via the Countywide Program's website at this link. The Tool allows for tracking all scales of GI implementation (regional, street, and parcel), and provides the tracking needed to demonstrate that wasteload allocations for TMDLs are being met.

This Report provides data on existing PCBs and mercury control measures implemented during MRP 3.0 to date based on the information currently incorporated into the San Mateo County GI Tracking Tool, as well as information gathered from SMCWPPP Permittees on other types of control measures.

## ROLES AND RESPONSIBILITIES FOR CONTROL MEASURE IMPLEMENTATION

SMCWPPP Permittees are responsible for the implementation of PCBs and mercury control measures, or causing control measures to be implemented by other parties. Depending on the size and complexity of the public agency and the type of control measure, implementation can occur via an array of Permittee departments and divisions.

The SMCWPPP (Program) provides assistance to SMCWPPP Permittees by developing guidance on control measure implementation, assisting with the identification and prioritization of control measure types and locations, and tracking, monitoring and reporting on control measures and the resulting load reduction benefits. SMCWPPP does not directly implement PCBs and mercury control measures.

Similar to SMCWPPP, the former BASMAA (and now the Bay Area Municipal Stormwater Collaborative, or BAMSC) did not directly implement control measures. BASMAA conducted projects of regional benefit that developed guidance and tools to assist Permittees with control measures implementation. Regional projects have typically been conducted to reduce costs and/or to develop regional consistency. BAMSC continues to conduct projects of regional benefit to support Permittees implementation of control measures and other MRP requirements.

## ORGANIZATION OF THE REPORT

The remainder of this report is organized as follows:

- Section 2 – Source Property Identification and Abatement
- Section 3 – Green Infrastructure and Other Stormwater Treatment Controls
- Section 4 – Controlling PCBs from Bridges and Overpasses
- Section 5 – Controlling PCBs from Electrical Utilities
- Section 6 – Managing PCBs-Containing Materials and Wastes During Building Demolition
- Section 7 – Mercury Collection and Recycling
- Section 8 – Mercury and PCBs Loads Reduced

Section 2 through Section 7 each describe the applicable control measure program, document continuation of actions completed during MRP 2.0 for which load reduction credit was received (if any), and document the actions completed during MRP 3.0 to date (i.e., through FY 2022/23) by providing all supporting data required to calculate the mercury and PCBs loads reduced. Within each control measure section, any controls implemented in old industrial land use areas are also highlighted. Section 8 describes the accounting methods that will be used during MRP 3.0 to calculate mercury and PCBs loads reduced for all control measures described in the report. In the FY 2025/26 version of this report, Section 8 will also present the calculated mercury and PCBs loads reduced for all controls implemented during MRP 3.0.

The information provided includes all information on control measures compiled by SMCWPPP to-date and may not include all existing or planned control measures. The inventory of control measures implemented or caused to be implemented by SMCWPPP Permittees will continue to be updated and refined as additional information becomes available and as new or enhanced actions are implemented.

# SECTION 2 - SOURCE PROPERTY INVESTIGATION AND ABATEMENT

This section describes the Source Property Investigation and Abatement control program, documents continuation of actions completed during MRP 2.0 for which load reductions credit was received and provides documentation of the actions completed during MRP 3.0 to date (i.e., through FY 2022/23), including all supporting data required to calculate any mercury and PCBs loads reduced.

## CONTROL MEASURE DESCRIPTION

PCBs and mercury source properties are those that disproportionately contribute elevated pollutants to MS4s. PCBs are considered elevated if concentrations in sediment are ≥ 0.2 mg/kg, if stormwater particle ratios are ≥ 0.2 mg/kg, or if stormwater concentrations are ≥ 36 ng/L (i.e., the top 15% of concentrations measured in stormwater across the Bay Area ). Mercury is considered elevated if the concentration in sediment (or the stormwater particle ratio) is ≥ 0.3 mg/kg. Land areas that contribute elevated PCBs (or mercury) to the MS4 require control measures to reduce or abate the sources. Identification and subsequent abatement of these properties and/or focused control measure implementation on properties to reduce pollutant release and/or in the public right-of-way (ROW) around source properties to remove historically deposited pollutants can provide an opportunity for meaningful PCBs and mercury stormwater load reductions. Reductions occur through the abatement of properties via referrals to the Water Board or through Permittees working with property owners.

SMCWPPP Permittees have identified and referred PCBs source properties to the Water Board in the recent past, and continue to conduct source property investigations. Source investigations are typically conducted in older industrial land areas or in other areas where mercury or PCBs were historically used, disposed of, or released. SMCWPPP's source investigation efforts during MRP 3.0 are primarily focused on old industrial land use areas that have not already been investigated, and that have not already been addressed via green infrastructure (GI)/low impact development (LID), or source property abatement. At a minimum, SMCWPPP's source investigations will investigate 1,411 acres of old industrial land use areas by the end of the permit term.

### SOURCE PROPERTY INVESTIGATION PROCESS

Source investigations use research and monitoring data to identify land areas or parcels that are contributing moderate to high levels of PCBs (or mercury) to the MS4. SMCWPPP has developed a multi-phased investigation approach that starts with screening-level monitoring at the catchment or sub-catchment scale and moves to more site-specific monitoring at the parcel scale. Investigations of all of the unaddressed old industrial land use areas in San Mateo County will proceed through the investigation process until each parcel can be grouped into one of the following four categories based on sampling data:

- PCBs Source Properties – Parcels associated with high PCBs (≥ 1 mg/kg), typically identified through onsite sampling. These parcels are prioritized for abatement actions to reduce/prevent the release of high PCBs to the MS4.

- Moderate PCBs-Contributing Properties – Parcels associated with moderate PCBs (≥ 0.2 and < 1 mg/kg) typically identified through onsite sampling. These parcels are prioritized for onsite control measures to reduce/prevent the release of moderate PCBs to the MS4.
- Low PCBs– Parcels associated with low PCBs (< 0.2 mg/kg). These areas are considered unlikely to contribute elevated PCBs to the MS4, and no PCBs control measures are required at this time.
- Undetermined PCBs – Parcels associated with unknown PCBs concentrations. These areas include parcels associated with elevated public ROW PCBs concentrations, but onsite samples have not been collected due to lack of property/business owner cooperation, or lack of viable sampling locations.

The source property investigation process generally includes screening relatively large areas (i.e., catchment or sub-catchment areas) via MS4 stormwater runoff or sediment samples. Areas that do not have elevated mercury or PCBs are generally deemed unlikely to be sources and are not further investigated. Areas with elevated mercury or PCBs may be targeted for additional investigation aimed at identifying specific properties that are likely contributing to elevated concentrations in the catchment. Samples are collected in the MS4 from locations that drain one or more specific properties. Depending on where the samples were collected, properties may be identified as a source of mercury or PCBs to the MS4 based on these public ROW samples. However, in some cases onsite investigation of specific properties may be required to identify sources. When feasible, this level of investigation involves onsite inspections at suspect properties to determine potential sources and pathways of sediment bound pollutants from the property to the MS4 and collection of sediment samples on the property. This process was described in more detail in SMCWPPP (2023a).

Information collected during source investigations regarding pollutant concentrations observed, evidence of transport to the MS4, previous stormwater violations, and other pertinent information is used to confirm a PCBs source property. The next steps for confirmed PCBs source properties include one of the following:

1. Submit a referral to the Water Board (or other regulatory agency) for follow-up investigation and abatement. Referrals must include a plan for enhanced operation and maintenance (O&M) in the public ROW adjacent to or downstream of the source property that the City will implement or cause to be implemented until the time the property is deemed abated.
2. Abate or cause the property to be abated directly, without referral to a regulatory agency. For this option, the City will work directly with the property owner to ensure the property is fully abated.

# CONTROL MEASURE IMPLEMENTATION

## CONTINUATION OF MRP 2.0 ACTIONS FOR LOAD REDUCTION CREDIT

During MRP 2.0, SMCWPPP Permittees submitted two PCBs source property referrals to the Water Board for follow-up investigation and abatement (Table 2.1). SMCWPPP Permittees received 20 g/yr of PCBs load reduction credit and 5 g/yr of mercury load reduction credit during MRP 2.0 for these referrals. This credit represents 50% of the total load reduction available for abatement of the source properties, and has been contingent on continued implementation of enhanced O&M measures or other treatment controls in the vicinity of each referred source property. Although to date, none of these referred properties have been fully abated, ongoing controls have continued in the vicinity of these properties following submittal of the referrals to reduce release of PCBs from these properties and remove historically deposited PCBs in the public ROW. A description of these planned and ongoing activities is provided in Table 2.1. These activities will continue until the properties have been fully abated.

**Table 2.1. List of PCBs source properties in San Mateo County that were referred to the Water Board during MRP 2.0 for follow-up investigation and abatement.**

| City | WMA | Location/APN | Area (Acres) | Referral Date | Enhanced O&M Description |
|---|---|---|---|---|---|
| San Carlos | 977 and 1007/1011 Bransten Road | | 2.2 | FY 18-19 | Installation and maintenance of seven curb extensions with bioretention facilities along Bransten Road on both sides of the street, including four facilities on the same side of the street and adjacent to the 977 and 1007/1011 Bransten Road properties and one facility just downstream. The bioretention areas, some of which were built with underdrains, were designed to remove pollutants from stormwater runoff flowing through the public ROW, including particle-bound pollutants such as PCBs (the underdrains are currently sealed off from the MS4). |
| San Carlos | 270 Industrial Road / 495 Bragato Road | | 7.7 | FY 18-19 | Installation and maintenance of temporary sediment barriers at the edge of the property during redevelopment activities; planning for storm drain line cleanout by the property owners is currently underway with support from Water Board and SMCWPPP. |

## SOURCE INVESTIGATIONS CONDUCTED DURING FY 2022/23

The source property investigation related efforts conducted by SMCWPPP on behalf of San Mateo County Permittees during FY 2022/23 included the following actions:

- Desktop Evaluation and Field Reconnaissance to Identify Stormwater Runoff Sample Stations. During FY 2022/23, the Countywide Program conducted desktop review of parcel, street view, and MS4 infrastructure in GIS and Google Earth to identify likely stormwater flow pathways within catchments of interest and to begin to identify potential sites within the MS4 where screening level stormwater runoff samples could be collected. This was followed by field reconnaissance of these areas to better understand flow pathways through catchments and from parcels into the MS4, confirm locations of storm drain structures where samples (MS4 sediment or stormwater) could be collected, and to develop sampling plans. During FY 2022/23, Countywide Program staff conducted field reconnaissance in a total of 12 catchments with old industrial land uses. The catchments were located in Belmont, Burlingame, East Palo Alto, Foster City, Menlo Park, Millbrae, San Mateo City, San Bruno, San Carlos, and South San Francisco (WMAs 77, 247, 290, 293, 1001, 1005, 1006, 1009, 1010, 1015, 1016, and 1001D). These efforts identified potential sample locations for MS4 stormwater runoff sampling, including four stormwater runoff stations that were sampled during the 2022/23 wet weather season.
- Screening-level Stormwater Sampling. Four stormwater runoff samples were collected from catchment outlets (WMAs 1016, 290, 77, and 293) during the 2022/23 wet weather season to screen for elevated mercury or PCBs in these WMAs. This sampling screened approximately 96 acres of old industrial land use parcels. The chemical analysis results and other aspects of this stormwater sampling, along with recommendations for next steps in these catchments, will be reported on in SMCWPPP's WY 2023 Urban Creeks Monitoring Report, which is due March 31, 2024.
- Source Investigation Sediment Sampling. During FY 2022/23, SMCWPPP collected sediment samples within two primarily old industrial catchments in South San Francisco (WMAs 314 and 315). Eight sediment samples (four in each WMA) were collected in September 2022 as part of continued attempts to identify sources of PCBs in these catchments (Table 2.2).[1]
    - WMA 314 is a 66-acre catchment located near Oyster Point that is comprised of light industrial land uses along with an old railroad right-of-way. Stormwater runoff samples were collected at the bottom of this catchment by the RMP STLS in WY 2015 and WY 2018 Both samples had an elevated PCBs particle ratio (0.95 and 0.86 mg/kg, respectively). The WY 2018 sample had a total PCBs concentration (71 ng/L) that was about an order of magnitude higher than the WY 2015 sample (8.6 ng/L). Since that time SMCWPPP has periodically collected sediment samples in this catchment in an attempt to identify PCBs sources. Two sediment samples collected in WY 2017 both had relatively low (urban background) concentrations of PCBs, with the highest concentration being 0.15 mg/kg.

[1] These data were previously reported in the SMCWPPP Urban Creeks Monitoring Report for Water Year 2022 (SMCWPPP 2023b).

Another sediment sample taken in WY 2019 also had a low PCBs concentration of 0.02 mg/kg. The additional four sediment samples collected in FY 2022/23 (WY 2022) investigated about 27 acres of old industrial parcels in WMA 314. All four samples had relatively low PCBs concentrations, with the highest concentration being 0.02 mg/kg. Thus, the efforts to-date have not identified any source area(s) associated with the elevated PCBs particle ratios in the stormwater runoff samples from this catchment.

- WMA 315 is a 108-acre catchment with an outfall very close to the outfall for WMA 314. The RMP STLS collected a stormwater runoff sample at the bottom of this catchment in WY 2016 and then resampled the same station in WY 2018. Total PCBs (5.8 ng/L) and PCBs particle ratio (0.18 mg/kg) were relatively low in the WY 2016 sample, but roughly an order of magnitude higher in the WY 2018 sample (total PCBs = 93.2 ng/L and PCBs particle ratio = 1.02 mg/kg). Similar to WMA 314, since that time SMCWPPP has periodically collected sediment samples in this catchment in an attempt to identify PCBs sources. Five sediment samples were collected in this catchment in WY 2019, with two of the samples having moderately elevated PCBs concentration (0.27 and 0.43 mg/kg). Both samples were along railroads, one active and one historic. The additional four sediment samples collected in FY 2022/23 (WY 2022) investigated about 5 acres of old industrial parcels in WMA 315. All four samples had relatively low PCBs concentrations, with the highest concentration being 0.14 mg/kg. Thus, the efforts to-date have not identified any specific source area(s) associated with the elevated PCBs particle ratio in the stormwater runoff sample from this catchment.

- Planning for Ongoing Source Investigations. During FY 2022/23, the Countywide Program began developing a workplan that will outline the source investigation steps and proposed timeline for achieving the MRP 3.0 requirement to investigate 1,411 old industrial land use acres in San Mateo County during the MRP 3.0 permit term. The plan will be completed early in FY 2023/24. In general, the source property identification and abatement program entails a process of records review, public right-of-way surveys and site visits, desktop evaluations, field reconnaissance, and sampling (stormwater and/or sediment samples) to identify properties that contribute elevated mercury/PCBs to the MS4 (i.e., source properties). Each year, SMCWPPP will document the acreage of old industrial land areas investigated and the location(s) of any identified source properties. As any new source properties are identified, SMCWPPP will assist San Mateo County Permittees in determining next steps and provide guidance on referrals or enforcement and/or abatement actions. These efforts will continue to be coordinated with Pollutants of Concern (POC) Monitoring required by Provision C.8 Water Quality Monitoring. In addition, the Countywide Program worked with San Mateo County Permittees during FY 2022/23 to begin to develop program enhancements including (1) onsite inspections and sample collection on private properties and (2) identifying and addressing properties with moderate PCBs concentrations. SMCWPPP will continue working with Permittees to begin implementing these enhancements in FY 2023/24.

**Table 2.2. Source property investigation sediment samples collect in San Mateo County in FY 2022/23 and analyzed for mercury and PCBs.**

| Station Code | Latitude | Longitude | WMA[a] | Old Industrial Land Use Area Investigated (acres) | Total PCBs (mg/kg dry weight) | Total Mercury (mg/kg dry weight) | Description |
|---|---|---|---|---|---|---|---|
| SM-SSF-01-R | 37.656717 | -122.395713 | 315 | 2.9 | 0.015 | 0.018 | Sampled between railway and sidewalk on north side of Forbes at Eccles Ave. W |
| SM-SSF-01-S | 37.657026 | -122.395447 | 315 | | 0.14 | 0.013 | Sampled embankment along railway on Eccles Ave. across from 417 Eccles Ave. |
| SM-SCS-0921-X[b] | 37.65872 | -122.386156 | 315 | | 0.027 | 0.015 | Sampled where old railway came out onto Eccles Ave. Sampled exposed sediments at sidewalk. |
| SM-SSF-01-Q | 37.656478 | -122.396134 | 315 | 2.53 | 0.047 | 0.015 | Sampled railway at sidewalk on south side of Forbes at Eccles Ave. |
| SM-SSF-01-T | 37.660064 | -122.39097 | 314 | 3.47 | 0.020 | 0.021 | Sampled from inlet at 528 Eccles Ave. |
| SM-SSF-01-U | 37.660096 | -122.3911 | 314 | 5.89 | 0.019 | 0.018 | Sampled inlet at Avis rent a car on Eccles Ave. |
| SM-SSF-01-V | 37.66089 | -122.39036 | 314 | 15.72 | 0.0024 | 0.018 | Sampled inlet at 550 Eccles Ave. |
| SM-SSF-01-W | 37.66097 | -122.390441 | 314 | 2.17 | 0.0030 | 0.022 | Sampled inlet in driveway at 551 Eccles Ave. |

[a] WMA = Watershed Management Area.

[b] A field duplicate was also collected at the same location as sample SM-SCS-0921-X.

# SECTION 3 -GREEN INFRASTRUCTURE AND OTHER TREATMENT CONTROLS

This section describes GI and other stormwater treatment controls (i.e., full trash capture) that provide load reduction benefits for mercury and PCBs, demonstrates continuation of controls implemented during MRP 2.0, and provides documentation of the projects built and installed during MRP 3.0 to date (i.e., through FY 2022/23), including all supporting data required to calculate the mercury and PCBs loads reduced. All projects that treat old industrial land use areas are also identified.

## CONTROL MEASURE DESCRIPTION

### GREEN INFRASTRUCTURE

GI facilities are stormwater management systems that use vegetation, soils, and natural processes to capture and treat stormwater runoff and improve water quality. Examples of GI include bioretention, low impact development (LID), green/complete streets, and other systems that generally use the natural filtration or infiltration of stormwater.

There are three main categories of GI facilities, which are largely based on their location and extent of upstream catchment area:

1. Parcel-based New Development and Redevelopment Projects. These projects include LID treatment measures that are designed to capture/treat runoff generated on a parcel. LID measures are implemented during development or re-development of a parcel and are currently required by the MRP for any project creating or replacing greater than 10,000 square feet of impervious area. These projects can be located on either publicly- or privately-owned parcels.
2. Public Green Street Projects. These projects include GI facilities that are located along or within a street or public ROW. They are typically designed to capture and treat runoff from the street and possibly portions of adjacent parcels.
3. Regional Projects. These projects include parcel-based GI measures that capture runoff from off-site areas. Typically located on publicly owned lands, development and implementation of regional projects may involve collaboration among multiple municipalities and/or public agencies to construct large facilities that capture and treat stormwater from large drainage areas. Collaboration among multiple jurisdictions may allow for larger projects with greater economies of scale, specifically cost-sharing opportunities and greater flood control and pollutant reduction capacity.

The most common types of GI facilities that are constructed in urban areas include bioretention, stormwater tree well filters, pervious pavement, infiltration facilities, green roofs, and rainwater harvesting and use facilities.

### TRASH CAPTURE SYSTEMS (LARGE AND SMALL DEVICES)

Full trash capture systems are devices or series of devices that trap all particles retained by a 5 mm mesh screen and have a design treatment capacity of not less than the peak flow rate resulting from a one-year, one-hour, storm in the tributary drainage catchment area. The State and Water Boards have approved a variety of proprietary devices as achieving the full capture definition. These devices are grouped into two general categories - "large devices", treating hundreds of acres, or "small devices", typically treating an acre or less of land. Examples of large devices include hydrodynamic separator (HDS) devices, debris-separating baffle boxes (DSBBs) and in-line gross solid removal devices (GSRDs). Small inlet-based devices are generally screens or baskets that are installed in storm drain inlets.

## CONTROL MEASURE IMPLEMENTATION

The locations of GI facilities and other stormwater treatment systems are illustrated on control measure maps included as **Attachment A**. These maps include projects reported to date within San Mateo County since the start of the PCBs TMDL (i.e., about 2002).

### KEY PLANNING AND EVALUATION EFFORTS TO SUPPORT FUTURE IMPLEMENTATION OF PUBLIC GI PROJECTS

San Mateo County Permittees have conducted a number of key planning and evaluation efforts to support future implementation of public GI projects in San Mateo County, including development of the San Mateo County Stormwater Resource Plan in 2017, Permittee-specific Green Stormwater Infrastructure Plans completed in 2019, and an additional countywide analysis completed in 2022 of regional stormwater capture project opportunities based on key performance indicators, including control of PCBs. The guidance, tools, project concepts, and prioritized project opportunity maps developed through these efforts provide a foundation for public GI planning and implementation during MRP 3.0. It is important to note that these countywide analyses and planning efforts have illustrated the challenges with identifying old industrial land use areas or other areas with moderate/high PCBs that are feasible and cost-effective to treat via GI in the public ROW. Despite the comprehensive countywide evaluation and screening processes conducted in San Mateo County, which included potential for PCBs load reduction as a priority screening factor, the potential for PCBs load reduction via feasible public ROW GI opportunities identified to date, including green streets and regional stormwater capture projects, has been relatively small.

### CONTINUATION OF MRP 2.0 ACTIONS FOR LOAD REDUCTION CREDIT

During MRP 2.0, SMCWPPP Permittees were credited with 790 g/yr mercury and 66 g/yr PCBs for implementation of GI/LID and other stormwater treatment controls, as reported in the FY 2021/22 Annual Report (SMCWPPP 2022). This included treatment of nearly 1,300 acres by GI/LID, and treatment of more than 500 acres via FTC devices. These projects are identified in each municipality on the maps provided in **Attachment A**. To continue to receive load reduction credit for these controls, SMCWPPP Permittees must conduct inspections to ensure GI/LID projects built according to C.3 regulations are properly maintained and operated. SMCWPPP Permittees have continued to implement their ongoing C.3 inspection programs to ensure appropriate maintenance for all C.3 regulated projects. SMCWPPP Permittees report on inspections conducted each year at C.3 regulated projects in their Annual Reports

to the Water Board. In addition, SMCWPPP Permittees conduct the appropriate maintenance to ensure proper functioning of all public green street projects and full trash capture devices located within the public ROW. These efforts are fully documented in SMCWPPP Permittee Annual Reports submitted in September of each year to the Water Board.

## GREEN INFRASTRUCTURE PROJECTS REPORTED IN FY 2022/23

SMCWPPP Permittees continue to track and report on completed GI projects in San Mateo County via the San Mateo County GI Tracking Tool (Tool). The information on these projects in the Tool provides the documentation needed to calculate mercury and PCBs load reductions associated with projects that drain to the Bay. The data collected to date on GI projects that have been completed and reported in San Mateo County since the previous Annual Report[2] are summarized in Table 3.1. The information available for the current reporting year is considered preliminary, as the data on all projects completed in FY 2022/23 may not be available until after Annual reporting. However, SMCWPPP Permittees will continue to gather this information as it becomes available and subsequent Annual Reports will be updated as needed. To ensure SMCWPPP Permittees document all GI projects within their jurisdictions, projects that were not reported in the FY 2021/22 Annual Report may be included in this table, even if their completion dates are prior to FY 2022/23. All of the data required to calculate mercury and PCBs load reductions for the projects that drain to the Bay, including the project type, and the area treated by land use category are provided in Table 3.1. In total 133 acres are being treated via newly built parcel-based GI/LID redevelopment in San Mateo County during MRP 3.0 to date, including treatment of 42 acres of old industrial land use areas. An additional 12.25 acres are being treated via newly built green street/regional retrofit projects across San Mateo County during MRP 3.0 to date, including treatment of 3.13 acres of old industrial land use areas.

[2] Data on projects that were built during the previous fiscal year (FY 2021/22) but were not reported in the FY 2021/22 Annual Report because the information was not yet available are documented in this Control Measure Report. These are projects for which load reduction credit was not received during MRP 2.0.

**Table 3.1. Green Infrastructure/Low Impact Development (GI/LID) projects reported in San Mateo County during FY 2022/23.[a,b]**

| Project Type | Agency | Fiscal Year (FY) Built | WMA ID | Total Area (Acres) | Area by Land Use Category (Acres) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Old Industrial | Old Urban - Commercial/ Transportation | Old Urban - Residential | New Urban | Ag/ Open Space |
| Green Street/ Regional Retrofits | Belmont | FY22-23 | Other - BEL | 4.00 | | | 4.00 | | |
| | Burlingame | FY22-23 | Other - BUR | 0.47 | | 0.47 | | | |
| | Menlo Park | FY22-23 | 238A | 1.12 | | 1.12 | | | |
| | Redwood City | FY22-23 | 1000 | 3.13 | 3.13 | | | | |
| | San Mateo City | FY21-22 | Other-SMO | 2.31 | | 2.31 | | | |
| | San Mateo County | FY22-23 | Other-SMC | 1.20 | | | 1.20 | | |
| | South San Francisco | FY21-22 | 293 | 0.02 | | 0.02 | | | |
| | **Green Street/Regional Retrofits Total** | | | **12.25** | **3.13** | **3.92** | **5.20** | | |
| Parcel-Based GI/LID Projects | Belmont | FY22-23 | 1011 | 1.25 | | | 0.32 | | 0.40 |
| | | FY22-23 | Other - BEL | 1.47 | | | 0.26 | | |
| | | | Belmont Total | 2.72 | | | 0.58 | | 0.40 |
| | Burlingame | FY22-23 | 149 | 0.51 | 0.15 | | | | |
| | | FY21-22 | 164 | 1.31 | 3.17 | | | | |
| | | FY22-23 | Other - BUR | 3.42 | 0.47 | 1.65 | 0.77 | | |
| | | FY21-22 | Other-BUR | 0.77 | | 0.52 | | | |
| | | | Burlingame Total | 6.01 | 3.79 | 2.17 | 0.77 | | |
| | Daly City | FY21-22 | 329 | 0.17 | | 0.17 | | | |
| | Menlo Park | FY21-22 | 238 | 16.39 | 15.05 | | | | |
| | | FY22-23 | 247 | 15.60 | | | 4.96 | | |
| | | FY19-20 | 1014 | 5.40 | 5.40 | 4.92 | | | |
| | | FY22-23 | Other-MPK | 8.43 | 6.00 | 2.43 | | | |
| | | | Menlo Park Total | 45.82 | 26.45 | 7.35 | 4.96 | | |
| | Redwood City | FY20-21 | 261 | 0.16 | | | 0.16 | | |
| | | FY22-23 | 266 | 2.93 | | 0.43 | | 2.50 | |
| | | FY21-22 | 269 | 4.37 | | | | 4.37 | |
| | | FY22-23 | 324 | 0.15 | 0.15 | | | | |
| | | FY22-23 | 336 | 1.82 | | 1.82 | | | |
| | | FY21-22 | 388 | 0.43 | 0.24 | 0.30 | 0.12 | | |
| | | FY22-23 | 379A | 5.72 | 5.70 | | | | |

| Project Type | Agency | Fiscal Year (FY) Built | WMA ID | Total Area (Acres) | Area by Land Use Category (Acres) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Old Industrial | Old Urban - Commercial/ Transportation | Old Urban - Residential | New Urban | Ag/ Open Space |
| | | FY22-23 | Other - RCY | 9.47 | | 0.44 | 1.36 | 7.67 | |
| | | FY22-23 | Other SMC | 0.40 | 0.10 | | 0.30 | | |
| | | FY22-23 | Other-RCY | 20.04 | 1.20 | 15.14 | 3.72 | | |
| | | Redwood City Total | | 45.48 | 7.29 | 18.13 | 5.66 | 14.54 | 0.00 |
| | San Bruno | FY20-21 | 290 | 9.72 | 0.00 | 9.26 | | 0.00 | 0.00 |
| | San Carlos | FY21-22 | Other-SCS | 0.25 | | | 0.17 | | |
| | San Mateo City | FY22-23 | 111 | 0.88 | 0.26 | 0.62 | | | |
| | | FY22-23 | 149 | 1.16 | 0.00 | 0.00 | 1.16 | 0.00 | |
| | | FY21-22 | 156 | 1.07 | | 1.07 | | | |
| | | FY22-23 | Other-SMO | 0.77 | | 0.37 | | 0.37 | |
| | | San Mateo City Total | | 3.88 | 0.26 | 2.06 | 1.16 | 0.37 | |
| | San Mateo County | FY21-22 | 379 | 1.42 | | 0.15 | | | |
| | | FY22-23 | Other - SMC | 4.18 | | | 1.13 | | 0.67 |
| | | San Mateo County Total | | 5.60 | | 0.15 | 1.13 | | 0.67 |
| | South San Francisco | FY21-22 | 293 | 2.50 | | 0.67 | | | |
| | | FY21-22 | 307 | 4.91 | | 0.33 | | | |
| | | FY21-22 | 316 | 0.73 | 1.64 | | | | |
| | | FY21-22 | 319 | 2.03 | 2.03 | | | | |
| | | FY22-23 | 1001 | 1.67 | | | 1.67 | | |
| | | FY21-22 | Other-SSF | 1.69 | | 1.64 | | | |
| | | South San Francisco Total | | 13.53 | 3.67 | 2.64 | 1.67 | | |
| | **Parcel-Based GI/LID Total** | | | **133.18** | **41.46** | **41.93** | **16.10** | **14.91** | **1.07** |
| **All Project Types Total** | | | | **145.43** | **44.59** | **45.85** | **21.30** | **14.91** | **1.07** |

a – The data and acreages described in this table represent the GI projects completed in watersheds draining to the San Francisco Bay.

b – Projects reported here as built prior to FY22-23 were not reported in the Program's previous Annual Reports because the data were not yet available at the time of reporting. Any projects built during FY22-23, but not reported here because data were not yet available will be reported in future Annual Reports.

## FULL TRASH CAPTURE PROJECTS REPORTED IN FY 2022/23

SMCWPPP Permittees continue to track and report on all completed FTC projects that were installed during FY 2022/23 in San Mateo County. These include large devices (hydrodynamic separator units (HDS), debris separating baffle boxes (DSBBs), and gross solids removal devices (DSBBs)) as well as small inlet-based devices. All of the data required to calculate mercury and PCBs load reductions for these projects, including the device type, and the area treated by land use category are provided in Table 3.2. There are a total of 300 acres across SMCWPPP Permittees that are being treated by a combination of small (inlet-based) and large FTC devices that were installed during FY 2022/23, including treatment of 40 acres of old industrial land use areas.

**Table 3.2. Treatment areas of small (inlet-based) and large (debris separating baffle boxes, DSBB and gross solids removal devices, GSRDs) full trash capture (FTC) devices installed in San Mateo County during FY 2022/23.**

| FTC Device Type | Agency | Total Area (Acres) | Area by Land Use Category (Acres) | | | | |
|---|---|---|---|---|---|---|---|
| | | | Old Industrial | Old Urban - Commercial/ Transportation | Old Urban - Residential | New Urban | Ag/ Open Space |
| **Small FTC (inlet-based)** | Millbrae | 17 | | 7 | 10 | | 0.001 |
| | San Bruno | 161 | 2 | 59 | 95 | | 5 |
| | South San Francisco | 26 | 13 | 11 | 0 | | 2 |
| **Large FTC - DSBB** | San Mateo | 477 | 20 | 43 | 407 | | 6 |
| **Large FTC - GSRD** | San Mateo | 300 | 5 | 68 | 223 | | 4 |
| | **Total** | **981** | **40** | **189** | **735** | | **17** |

# SECTION 4 -CONTROLLING PCBS FROM BRIDGES AND OVERPASSES

This section describes the Program for Controlling PCBs from Bridges and Overpasses and provides the bridge inventory within each SMCWPPP Permittee's jurisdiction. Future versions of this report will also provide documentation of implementation of this control measure during bridge and overpass replacement.

## CONTROL MEASURE DESCRIPTION

The program for controlling PCBs in bridges and overpasses will implement a new Caltrans specification for removal and handling of potentially PCBs-containing materials during bridge and overpass replacement projects. Use of the new specification will prevent or reduce the release of PCBs into the environment by detailing appropriate methods for the removal, handling, and disposal of caulk or sealant materials during infrastructure replacement or joint maintenance projects for applicable structures (i.e., those built prior to 1980 when PCBs-containing joint sealants and caulk were available).

## CONTROL MEASURE IMPLEMENTATION

### CONTINUATION OF MRP 2.0 ACTIONS FOR LOAD REDUCTION CREDIT

This is a new control measure in MRP 3.0, therefore no controls (or associated load reduction credits) were implemented by SMCWPPP Permittees during MRP 2.0. The new actions implemented during MRP 3.0 to date are described below.

### IMPLEMENTATION DURING FY 2022/23

SMCWPPP Permittees have developed inventories of applicable bridges and overpasses within their jurisdictions which include bridge ownership and replacement schedules. These inventories are provided as **Attachment B**. SMCWPPP Permittees will maintain these inventories and, in the future, after the Caltrans specification has been developed, will implement or cause to be implemented the Caltrans specification during all applicable bridge projects that are under their direction.

# SECTION 5 -CONTROLLING PCBS FROM ELECTRICAL UTILITIES

This section describes the Program for Controlling PCBs from Electrical Utilities.

## CONTROL MEASURE DESCRIPTION

For this control measure, municipally-owned electrical utilities will implement the following actions to further avoid/reduce the release of PCBs from oil-filled electrical equipment (OFEE):

1. Develop and implement improved spill response and reporting procedures for PCBs-containing OFEE;
2. Develop and implement a plan to remove all PCBs-containing OFEE from active service; and
3. Document the removal of PCBs-containing OFEE since the start of the PCBs TMDL and in the future until all PCBs-containing OFEE have been removed from active service.

Additionally, it is anticipated that non-municipally owned regional electrical utilities that are not currently subject to PCBs load reduction requirements (i.e., PG&E) have been and will continue to remove PCBs-containing OFEE and document these efforts, past and present, consistent with methods used by applicable MRP permittees.

## CONTROL MEASURE IMPLEMENTATION

### CONTINUATION OF MRP 2.0 ACTIONS FOR LOAD REDUCTION CREDIT

This is a new control measure in MRP 3.0; therefore, no controls (or associated load reduction credits) were implemented by SMCWPPP Permittees during MRP 2.0.

### IMPLEMENTATION DURING FY 2022/23

San Mateo County Permittees do not own or operate any municipal electrical utilities. Thus, most of the related MRP requirements do not apply to San Mateo County Permittees. However, during FY 2022/23, Countywide Program staff tracked the activities of the BAMSC Municipal Electrical Utility Workgroup (Workgroup), which was formed to facilitate implementation of the requirements in this sub-provision and ensure coordination across the MRP area. There are four municipal electrical utilities across the MRP area, including the following:

- Alameda Municipal Power, Alameda CA
- City of Palo Alto Utilities (CPAU), Palo Alto CA
- Pittsburg Power Company dba Island Energy, Pittsburg CA
- Silicon Valley Power (SVP), Santa Clara CA

The BAMSC Workgroup included representatives from countywide stormwater programs and staff from each of the above municipal electrical utilities. The Workgroup facilitated the development of an improved spill response and reporting SOP that each municipal electrical utility in the MRP area agreed to adopt as an addendum to their existing spill response and reporting SOPs. The addendum includes clear definitions of the OFEE that must follow these enhanced procedures in the event of a spill. These enhancements will apply to spills from all "Potentially PCBs-containing OFEE", which include all OFEE unless they were installed/purchased after 1985, or if analytical tests with appropriately low detection limits (<0.010 ppm) demonstrate no detectable PCBs. The addendum focuses on three main types of enhancements, including (1) enhanced notification when spills/leaks from municipally-owned OFEE occur to include both Water Board and municipal stormwater staff; (2) enhanced clean-up/post-clean-up procedures to include testing of all potentially PCBs-containing OFEE oil when spills are discovered and enhance the post-clean-up soil verification testing procedures to include more sensitive PCBs analytical methods and reduced post-clean up allowable soil concentrations; and (3) enhanced reporting to include follow-up written reports to Water Board and Municipal Stormwater staff for all spills from potentially PCBs-containing OFEE. The "Enhanced Spill Response and Reporting SOP" addendum is provided as an attachment to *Mercury and PCBs Control Measure Report* (Appendix 11).

As of the end of FY 2022/23, the Water Board had not transmitted information from the non-municipally owned electrical utilities to the Permittees. Based on updates obtained from Water Board staff during recent BAMSC Monitoring and Pollutants of Concern (MPC) Sub-committee meetings, Water Board staff are planning to meet with representatives from Pacific Gas and Electric (PG&E), the primary non-municipally owned electrical utility that operates in the MRP area, during the next fiscal year.

# SECTION 6 -MANAGING PCBS DURING BUILDING DEMOLITION

This section describes the program for managing PCB-containing materials and wastes during building demolition so that PCBs do not enter MS4s, which was developed during the previous permit term. Permittees are required to continue to implement these protocols during MRP 3.0. In addition, new requirements that become effective during FY 2023/24 include the following:

- Beginning July 1, 2023, for Applicable Structures containing building materials with PCBs ≥ 50 ppm, Permittee requirements include:
    - Require demolition contractors to provide notification to the Permittee, the Water Board, and US EPA at least one week before any demolition is to occur;
    - Enhance Permittee's construction site control programs to minimize migration of PCBs into the MS4 during demolition activities; and
    - For permits approved after July 1, 2023, verify that PCBs in demolished buildings are properly managed to minimize transport to the MS4 by obtaining official documentation that the building materials with PCBs ≥ 50 ppm were disposed appropriately according to state and federal regulations.
- Beginning with the 2023/24 rainy season, Permittees are required to inspect demolition sites with Applicable Structures containing building materials with PCBs ≥ 50 ppm pursuant to Provision C.6 to ensure that effective construction pollutant controls are used to prevent discharge into the MS4.

Reporting requirements include the following:

- Permittees seeking exemption from Provision C.12.g. requirements based on lack of Applicable Structures must submit documentation, such as historic maps or other historic records, that clearly demonstrates that the only structures that existed pre-1980 were single-family residential and/or wood-frame structures; and
- In their 2023 Annual Report, Permittees shall discuss enhancements to their construction site control program to minimize migration of PCBs from demolition activities into the MS4.
- Beginning with their 2023 Annual Report, the Permittees are required to provide each of the following items:
    1. The number of Applicable Structures that applied for a demolition permit during the reporting year;
    2. A running list of the Applicable Structures that applied for a demolition permit since July 1, 2019, the number of samples each structure collected, and the concentration of PCBs in each sample;
    3. For each Applicable Structure, with PCBs concentrations ≥ 50 mg/kg, include the following: the project address, the demolition date, and a brief description of the PCBs-containing materials; and

4. For each structure that was constructed or remodeled between the years 1950 and 1980 and requires emergency demolition to protect public health and/or safety, provide the following: address, date building was constructed, and date of demolition.

- Beginning with their 2024 Annual Report, Permittees are required to provide the following: whether the site was inspected during demolition, and for those cases where notification and advance approval from the U.S. EPA is not required and were approved for demolition after June 30, 2023, the hazardous waste manifest prepared for transportation of the material to a disposal facility;
- In their 2026 Annual Report, Permittees are required to submit an evaluation of the effectiveness of the protocol for controlling PCBs during building demolition as well as supporting data. This should be conducted and reported at the regional level on behalf of all Permittees and shall be considered the Report of Waste Discharge for Provision C.12.g. for the next permit reissuance; and
- In their 2026 Annual Report, Permittees may submit for use in the subsequent permit term an updated assessment methodology and data collection program to quantify PCBs loads reduced through implementation of the protocol for controlling PCBs-containing materials and wastes during demolition of Applicable Structures.

## CONTROL MEASURE DESCRIPTION

SMCWPPP Permittees developed the PCBs in building materials control programs by July 1, 2019, as required by MRP 2.0 Provision C.12.f., and continued implementation into MRP 3.0. The programs include the following process:

- Municipalities inform applicable demolition permit applicants that their projects are subject to the program for managing materials with PCBs, necessitating, at a minimum, an initial screening for priority PCBs–containing materials.
- For every applicable demolition project, applicants implement the BASMAA protocol for identifying building materials with PCBs concentrations of 50 ppm and then complete and submit a version of BASMAA's model "PCBs Screening Assessment Form" (Screening Form) or equivalent to the municipality.
- The municipality reviews the Screening Form to make sure it is filled out correctly and is complete and works with the applicant to correct any deficiencies.
- The municipality then issues the demolition permit or equivalent, according to its procedures.
- The municipality sends each completed Screening Form for applicable structures and any supporting documents to its countywide program. The countywide program compiles the forms and works with the other MRP countywide programs to manage and evaluate the data, and to assist Permittees with associated MRP reporting requirements.

# CONTROL MEASURE IMPLEMENTATION

## CONTINUATION OF MRP 2.0 ACTIONS FOR LOAD REDUCTION CREDIT

All SMCWPPP Permittees have continued to implement their PCBs in building materials control programs through the present date. During MRP 2.0, SMCWPPP Permittees were credited with 247 g/yr PCBs load reduction due to implementing these programs. SMCWPPP Permittees provided all required data on the implementation of these programs during MRP 2.0 with SMCWPPP's Annual Report submitted in September 2022 (SMCWPPP 2022). This information has included the following data: (a) number of applicable structures that applied for a demolition permit during the reporting year, and (b) a running list of the applicable samples from structures that applied for a demolition permit since the start of the PCBs control protocol that had material(s) with PCBs at 50 ppm or greater, with the address, demolition date, and brief description of PCBs control method(s) used. **Attachment C** provides all the data gathered during MRP 2.0 to document implementation of this program. These data demonstrate that SMCWPPP Permittees continue to implement their building demolition programs consistent with the load reduction credits that were received during MRP 2.0.

## IMPLEMENTATION DURING FY 2022/23

To provide Permittees with guidance on addressing MRP 3.0 C.12.g. requirements, MRP stormwater management programs (through BAMSC) conducted a regional collaborative project during FY 2022/23 that included the following tasks:

- To oversee the project, formed a regional Management of PCBs during Demolition Work Group that included countywide stormwater program and Permittee staff;
- Updated the existing BASMAA Model Applicant Package to accommodate the new tracking and reporting requirements (PCBs in Priority Building Materials: Model Screening Assessment Applicant Package, August 2018 (Revised November 2019 and May 2023)); and
- Developed a set of recommended construction inspection and control program enhancement options for use by Program/Permittee staff, building on the existing C.6 inspection program (*Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program, Technical Memorandum to Bay Area Municipal Stormwater Collaborative Steering Committee, May 1, 2023*).

The above deliverables from this regional collaboration were developed under the oversight of the regional work group. Draft products were reviewed by the work group members, their comments were incorporated, and then the products were finalized and distributed to Permittees in May 2023. Countywide Program Staff and San Mateo County Permittee representatives participated in the regional work group and all other aspects of the FY 2022/23 BAMSC regional project.

Per FY 2022/23 reporting requirements in MRP 3.0 Provision C.12.g. and the guidance in the technical memorandum described above, Permittee FY 2022/23 Annual Reports will summarize the enhancement options that each municipality anticipates implementing as of July 1, 2023. In addition, **Attachment C** includes a technical memorandum prepared by Countywide Program Staff that addresses other FY

2022/23 reporting requirements in Provision C.12.g. (*Program for Management of PCBs during Building Demolition – Data Summary through FY 2022/23 for San Mateo County MRP Permittees*). This memorandum documents the following items for San Mateo County MRP Permittees:

- The number of demolition permits issued for Applicable Structures during FY 2022/23, which is the fourth year of the program (data from FY 2019/20 through FY 2021/22, the first through third years of the program, are also included);
- A running list of the Applicable Structures for which a demolition permit was applied (since July 1, 2019, the date the PCBs control program began implementation) that had material(s) with total PCBs concentration ≥ 50 ppm, with the address and demolition date for each structure; and
- For FY 2022/23 samples with total PCBs concentration ≥ 50 ppm, the PCBs concentration in each sample and a brief description of PCBs-containing materials that were sampled.

# SECTION 7 -MERCURY COLLECTION AND RECYCLING

This section describes the Program for Mercury Collection and Recycling.

## CONTROL MEASURE DESCRIPTION

Permittees are required to promote, facilitate, and/or participate in collection and recycling of mercury containing consumer products, devices, and equipment to increase effectiveness and public participation. Permittees must report on the following in each of the 2023 through 2026 Annual Reports:

- Efforts to promote recycling of mercury-containing products;
- Efforts to increase effectiveness of those recycling efforts; and
- The mass of mercury-containing material collected throughout the county along with an estimate of the mass of mercury contained in recycled material using the methodology contained in load reduction accounting system described and cited in the Fact Sheet.

Many types of devices and equipment (e.g., thermometers, switches, and fluorescent lamps) can contain mercury. When these devices are not adequately managed at their end-of-life, mercury can be released into the environment and become available to stormwater runoff. Control measures currently implemented by Permittees that address the potential for mercury releases include: 1) the support of policies and laws that reduce the mass of mercury in specific devices/equipment; and 2) the implementation of recycling programs that reduce the risk of mercury from being released at the end-of-life of these devices and equipment.

## CONTROL MEASURE IMPLEMENTATION

San Mateo County municipalities participate in San Mateo County Health Department's Household Hazardous Waste (HHW) Program and Very Small Quantity Generator Business Collection (VSQG) Program. The HHW Program offers residents the opportunity to drop-off mercury-containing devices and equipment and other hazardous wastes at designated drop-off points or drop-off events free of charge. The VSQG Program provides an inexpensive hazardous waste disposal option to eligible businesses, non-profits, and other government agencies that generate less than 100 kilograms of waste per month. It operates by appointment only and charges a fee to cover the cost of transportation and disposal. Many San Mateo County municipal agencies promote the availability of the HHW Program and VSQG Program on their agency websites. The estimated mass of mercury collected in FY 2017/18 through FY 2022/23 via these programs is shown in Table 7-1.[3] It should be noted that these mass estimates are not directly comparable to pollutant load reductions in stormwater runoff discharges.

[3] The HHW Program canceled all collections from March 12 through June 3, 2020 due to the COVID-19 Shelter-in-Place order. This generally resulted in a relatively lower number of devices and associated mass of mercury collected in FY 2019/20.

**Table 7.1. Estimated mercury mass collected via the San Mateo County Health Department's Household Hazardous Waste (HHW) and Very Small Quantity Generator Business Collection (VSQG) programs.**

| Mercury Containing Device | FY 2017/18 | | FY 2018/19 | | FY 2019/20 | | FY 2020/21 | | FY 2021/22 | | FY 2022/23 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) | Total Amount of Devices Collected | Estimated Mass of Mercury Collected (kg) |
| Fluorescent Lamps (linear ft)[1,2] | 125,582 | 0.3 | 107,269 | 0.2 | 77,004 | 0.2 | 148,912 | 0.3 | 112,938 | 0.2 | 49,759 | 0.1 |
| CFLs (number of)[3] | 18,689 | 0.1 | 18,513 | 0.1 | 10,014 | 0.05 | 7,633 | 0.03 | 8,843 | 0.04 | 9,937 | 0.04 |
| Thermostats (number of )[4] | 11 | 0.04 | 15 | 0.1 | 8 | 0.03 | 14 | 0.1 | 12 | 0.05 | 25 | 0.1 |
| Thermometers (number of )[5] | 0 | 0 | 25 | 0.02 | 6 | 0.004 | 45 | 0.03 | 115 | 0.07 | 19 | 0.01 |
| Switches (number of)[6] | 0 | 0 | 26 | 0.1 | 0 | 0 | 45 | 0.1 | 26 | 0.1 | 7 | 0.02 |
| **Total Mass of Mercury Collected (Kg)** | | **0.4** | | **0.5** | | **0.2** | | **0.6** | | **0.5** | | **0.3** |

[1] The County HHW Program reported the number of circle tubes and U-bent lights. A conservative assumption was made that all U-bent tubes were 22 inches and all circle tubes were 8 inches based on the most available, smallest sizes found on Internet searches.

[2] The average mercury content for a four-foot linear fluorescent lamp is 8.3 milligrams (mg). This is equal to 2.075 mg per linear foot. Source: NEMA 2005. Fluorescent and Other Mercury-Containing Lamps and the Environment: Mercury Use, Environmental Benefits, Disposal Requirements. National Electrical Manufacturers Association. March 2005. 14p.

[3] The National Electrical Manufacturers Association (NEMA) announced that under the new voluntary commitment, effective October 1, 2010, participating manufacturers will cap the total mercury content in CFLs that are under 25 watts at 4 mg per unit, and CFLs that use 25 to 40 watts of electricity will be capped at 5 mg per unit. Each CFL recycled is assumed to have an average mass of 4.5 mg mercury. New CFLs are also assumed to have 4.5 mg mercury on average. Source: NEMA 2010. NEMA Lamp Companies Agree to Reduction in CFL Mercury Content Cap. Available at http://www.nema.org/media/pr/20101004a.cfm. Accessed April 11, 2012.

[4] The amount of mercury in a thermostat is determined by the number of ampoules. There are generally one or two ampoules per thermostat (average is 1.4) and each ampoule contains an average of 2.8 grams (g) of mercury. Therefore, each thermostat recycled is assumed to contain approximately 4.0 g of mercury. Source: TRC 2008. Thermostat Recycling Corporation's Annual Report for the U.S. Prepared by the Thermostat Recycling Corporation. http://www.thermostat-recycle.org/files/u3/2008 TRC Annual Report.pdf.

[5] USEPA reports that glass mercury fever thermometers contain about 0.61 g of mercury. Source: USEPA 2012. Thermometers. Available at http://www.epa.gov/mercury/thermometer-main.html. Accessed April 11, 2012.

# SECTION 8 -MERCURY AND PCBS LOADS REDUCED DURING MRP 3.0

SMCWPPP Permittees began implementing PCBs and mercury control measures with the adoption of the PCBs and Mercury TMDLs. Enhanced control measure implementation throughout MRP 3.0 primarily focuses on: 1) conducting source investigation projects that will likely lead to referrals to the Water Board for further investigation and abatement, and/or identify properties contributing moderate PCBs to the MS4 for abatement; 2) implementation of green infrastructure and other treatment controls on both public and private property, and in the public ROW; 3) implementing other types of control measures in old industrial land use areas; 4) implementing a program to manage PCBs-containing joint caulking during bridge or roadway overpass rehabilitation or major repair; 5) reducing the release of PCBs from oil-filled electrical equipment; 6) continuing to implement a protocol to manage PCBs in building materials during demolition, and 7) continuing to collect and recycle mercury-containing products. In the 2026 Annual Report, MRP 3.0 SMCWPPP Permittees will be required to report the annual PCBs and mercury load reductions achieved due to implementation of these control measures each year of the permit term.

## APPROACH TO REPORTING PCBS AND MERCURY LOADS REDUCED

The data needed to calculate the loads reduced for each control measure are provided in Sections 2 through 7 of this report. These data include the total acres (and associated land-uses) addressed by each type of control measure. The methods used to calculate the loads reduced are consistent with the methodologies and data collection programs that were developed by BASMAA member agencies in consultation with the Water Board, and in accordance with MRP provisions C.11.b.iii(1) and C.12.b.iii(1). These methods were fully described in the *Source Control Load Reduction Accounting for Reasonable Assurance Analysis* (BASMAA 2022), which was approved by the Water Board's Executive Officer in Spring 2022 for use by SMCWPPP Permittees during MRP 3.0.

Note: Due to the timing of MRP reporting, not all GI facilities constructed during the current reporting year are reported in this document. At a minimum, as the data become available, control measures implemented through FY 2022/23 will be fully reported in the future.

## PCBS LOADS REDUCED

PCBs loads reduced for the control measured implemented in San Mateo County during MRP 3.0 will be reported in the 2026 Annual Report.

## MERCURY LOADS REDUCED

Mercury loads reduced for the control measured implemented in San Mateo County during MRP 3.0 will be reported in the 2026 Annual Report.

# SECTION 9 -REFERENCES

BASMAA (2022). Source Control Load Reduction Accounting for Reasonable Assurance Analysis. January 2022. Prepared for BASMAA by Geosyntec Consultants, Inc. and EOA, Inc.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). (2021). Updated Control Measure Plan *for PCBs and Mercury in San Mateo County Stormwater Runoff.* September, 2021.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). (2022). Updated Control Measure Plan *for PCBs and Mercury in San Mateo County Stormwater Runoff.* September, 2022.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). (2023a). Pollutant *Control Measure Plan to Reduce PCBs and Mercury in Urban Runoff from Old Industrial Areas in San Mateo County, California*. March 31, 2023.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). (2023b). *Urban Creeks Monitoring Report – Water Quality Monitoring – Water Year 2022 (October 2021 – September 2022)*. March 31, 2023.

# Attachment A

## Maps of GI and Other Stormwater Treatment Controls built/installed in San Mateo County through FY 2022/23

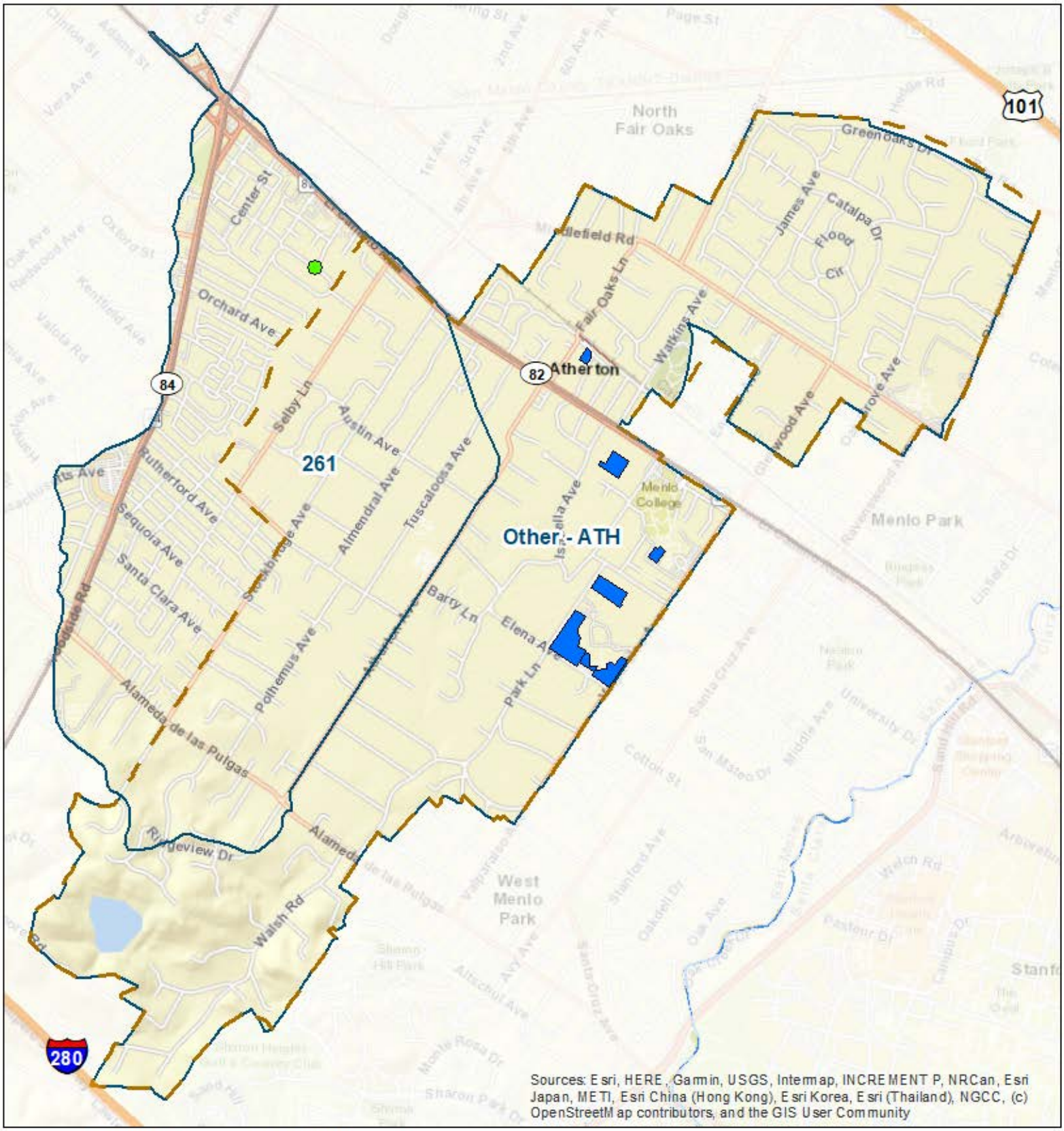


**Figure A-1.** WMAs and GSI/LID in Atherton

**Atherton Watershed Management Area Map**

- Green Street Project
- Permittee Boundary
- Watershed Management Area (WMA)
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

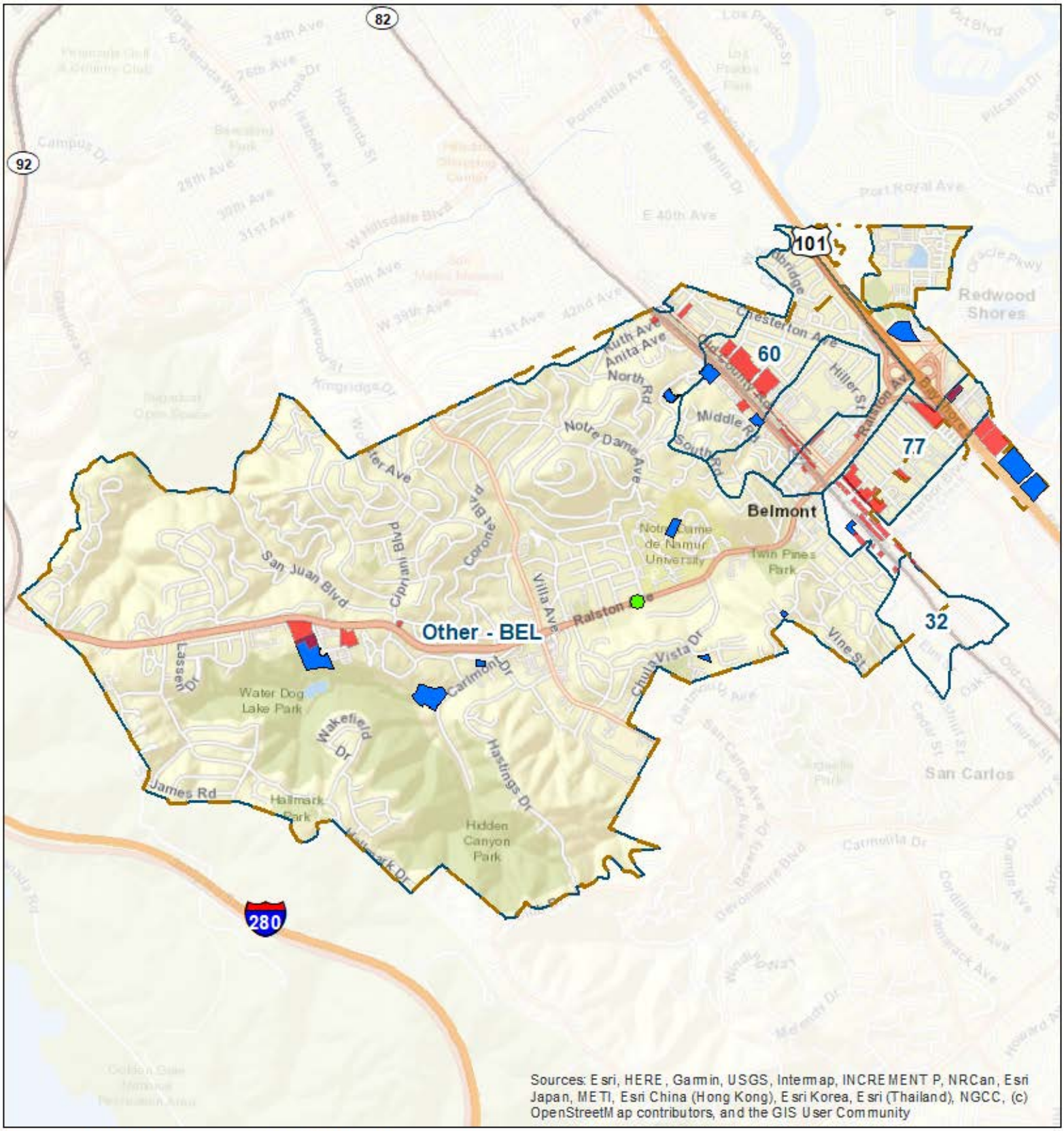


**Figure A-2.** WMAs and GSI/LID in Belmont

**Belmont Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

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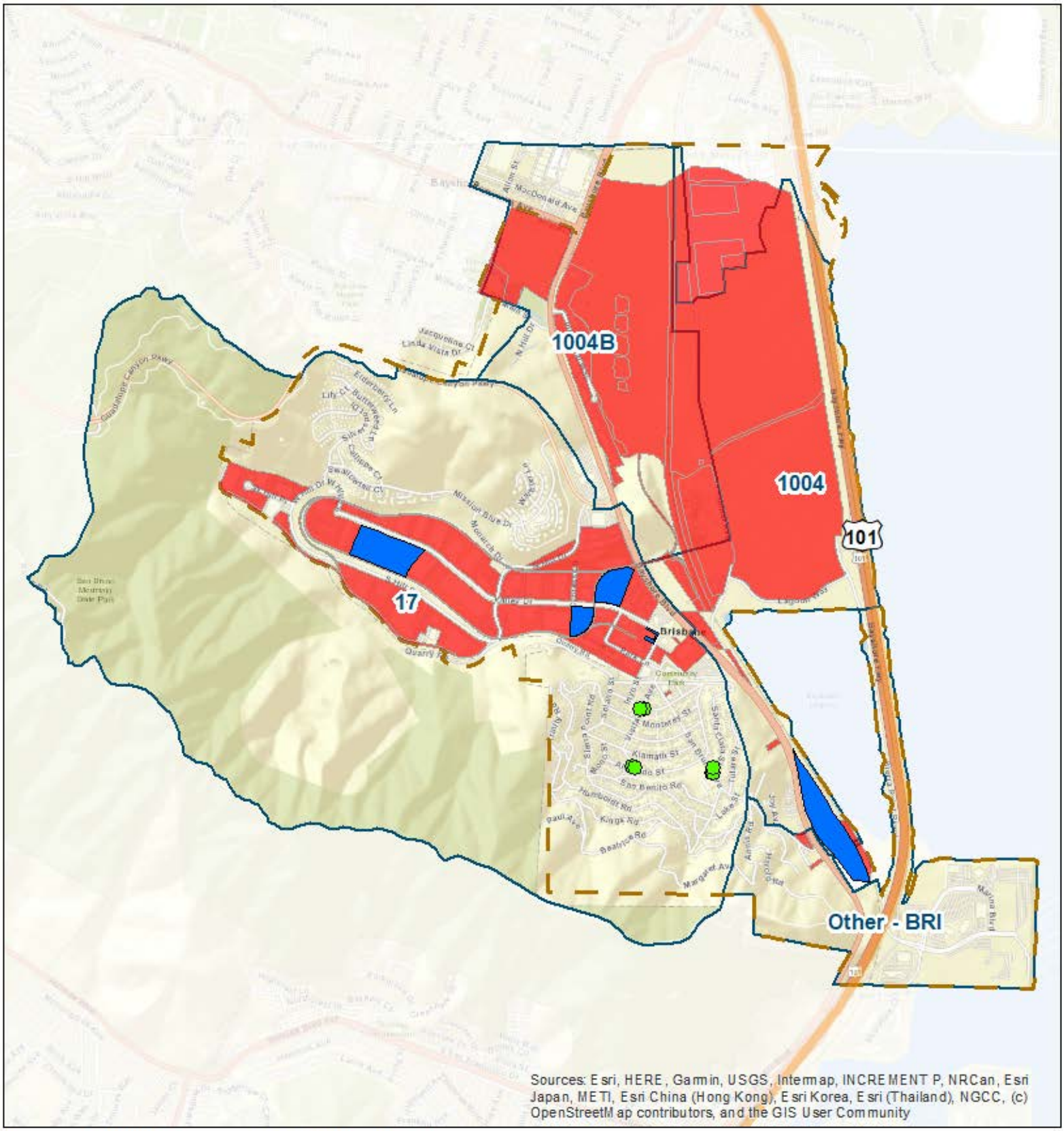


**Figure A-3.** WMAs and GSI/LID in Brisbane

**Brisbane Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.2 0.4 0.8 Miles

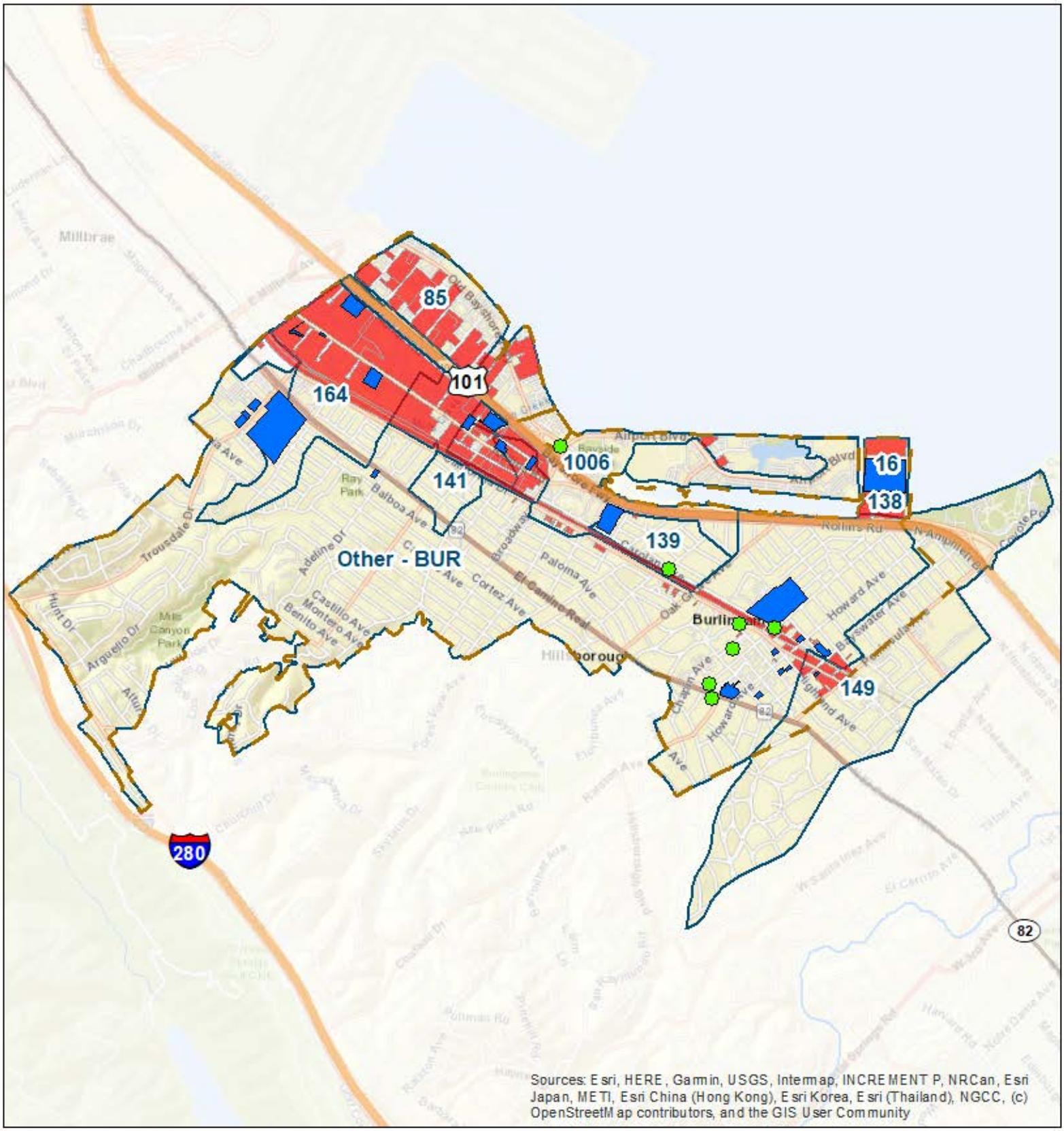


**Figure A-4.** WMAs and GSI/LID in Burlingame

**Burlingame Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.275 0.55 1.1 Miles

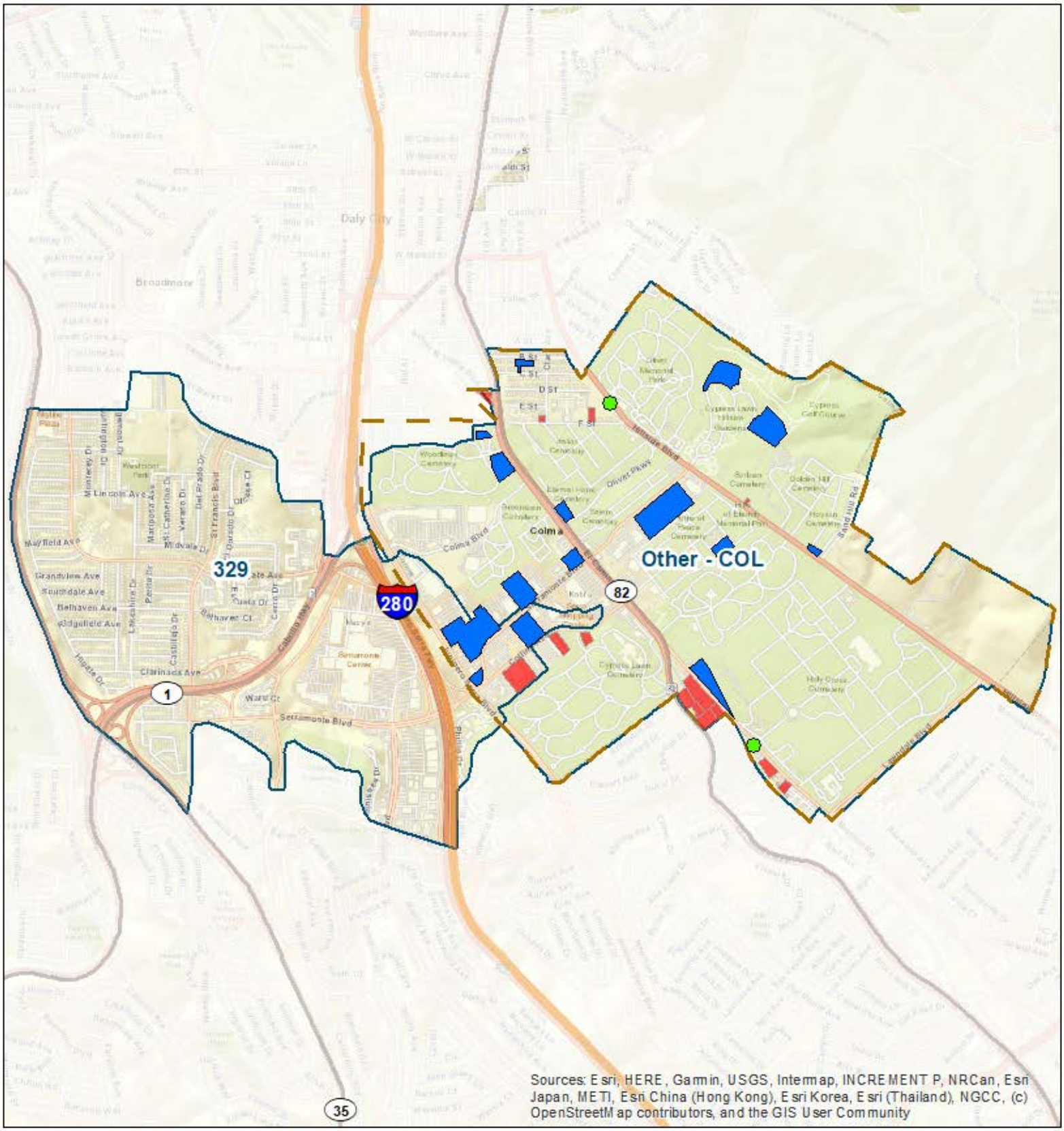


**Figure A-5.** WMAs and GSI/LID in Colma

**Colma Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.2 0.4 0.8 Miles

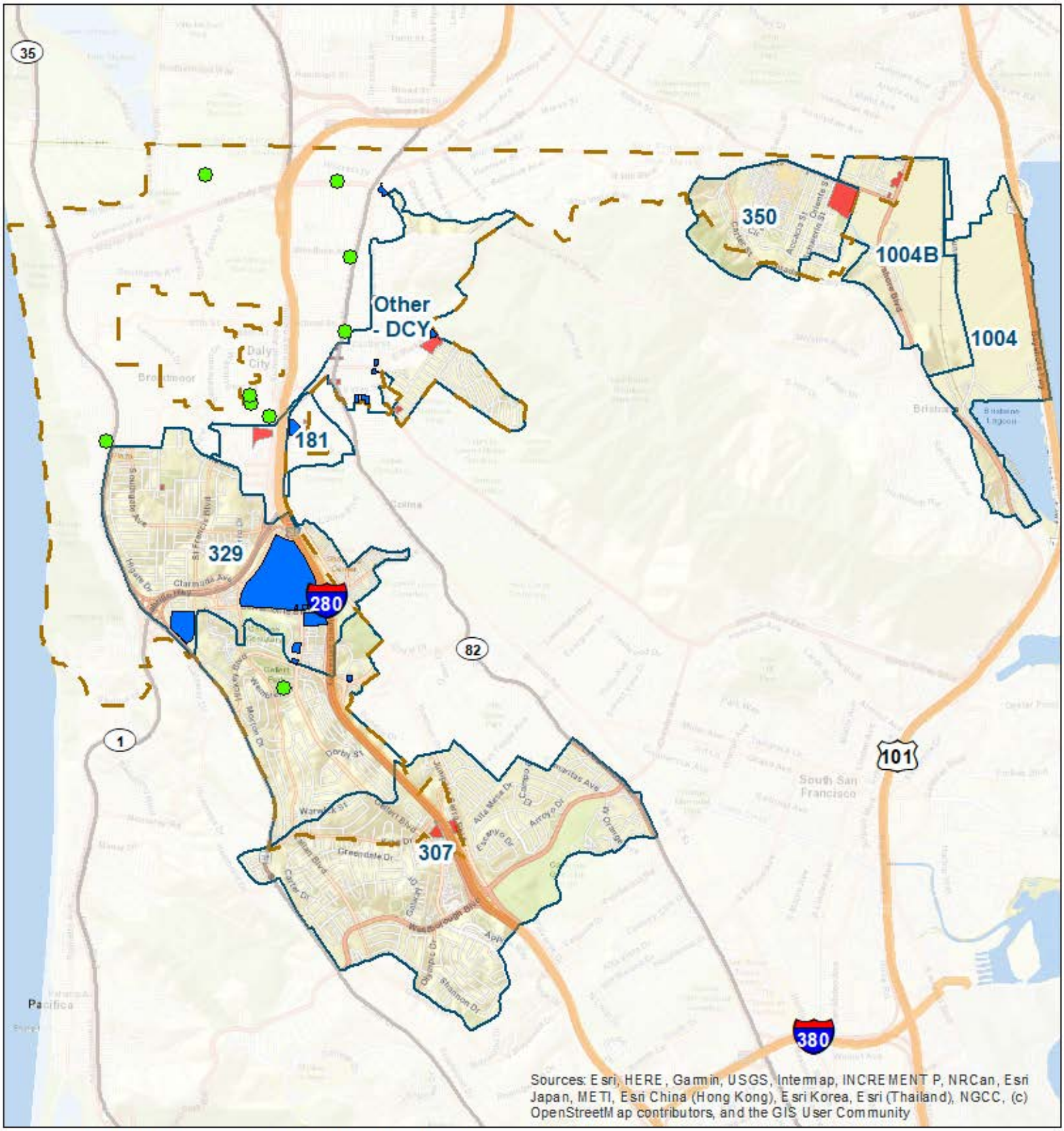


**Figure A-6.** WMAs and GSI/LID in Daly City

**Daly City Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.4 0.8 1.6 Miles

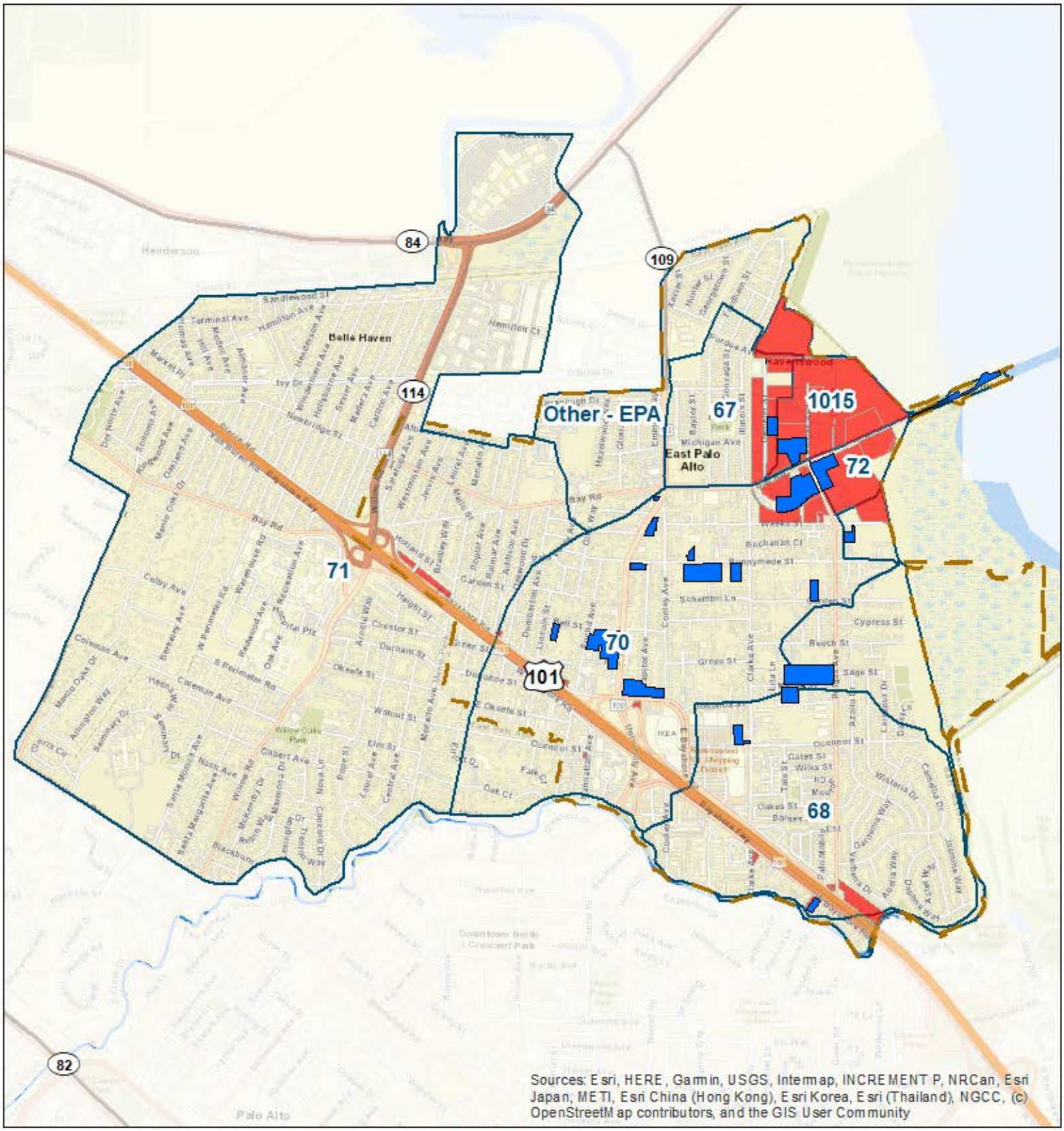


**Figure A-7.** WMAs and GSI/LID in East Palo Alto

**East Palo Alto Watershed Management Area Map**

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Old Industrial Land Use

Permittee Boundary

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.2 0.4 0.8 Miles

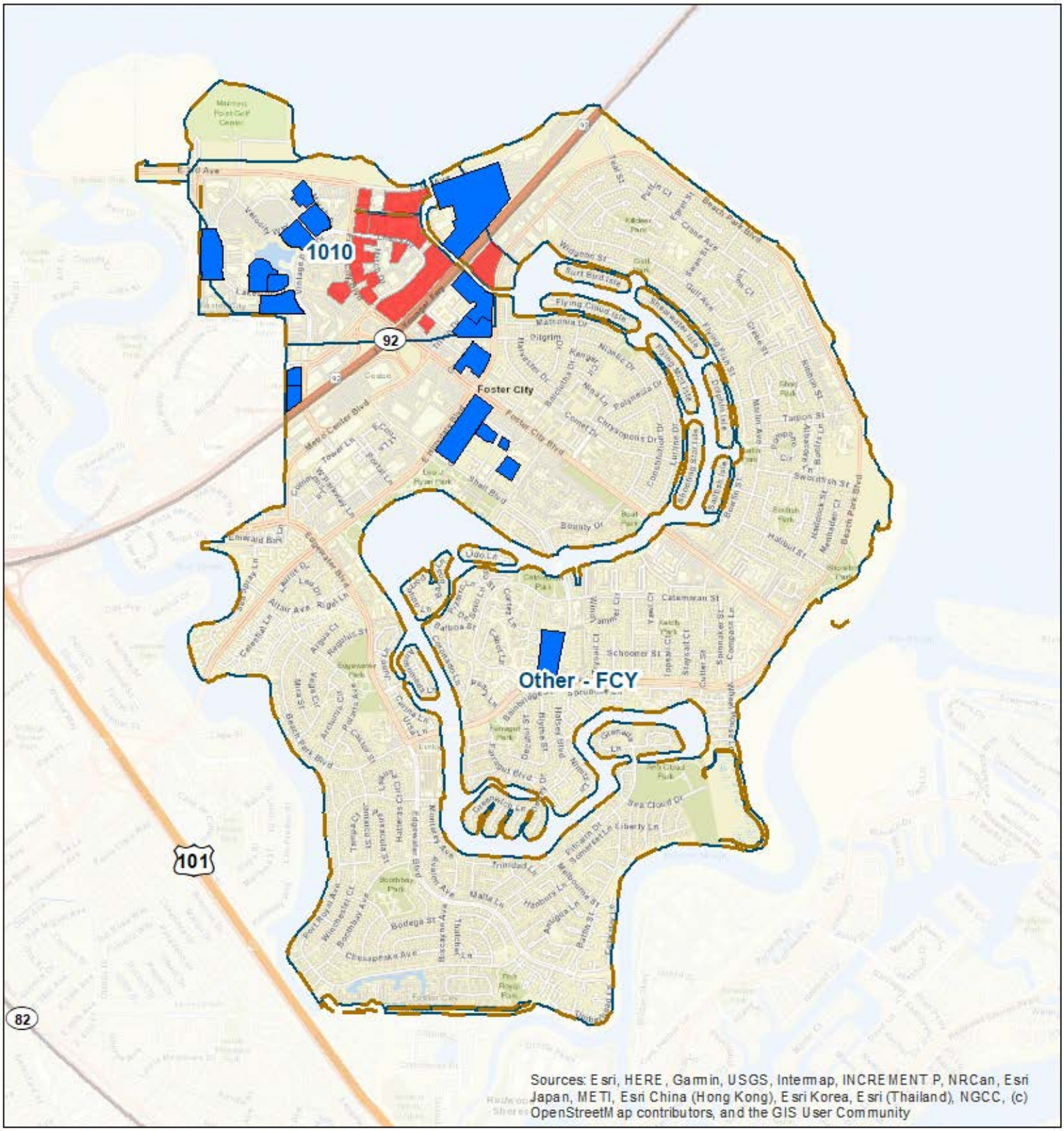


**Figure A-8.** WMAs and GSI/LID in Foster City

**Foster City Watershed Management Area Map**

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Old Industrial Land Use

Permittee Boundary

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.2 0.4 0.8 Miles

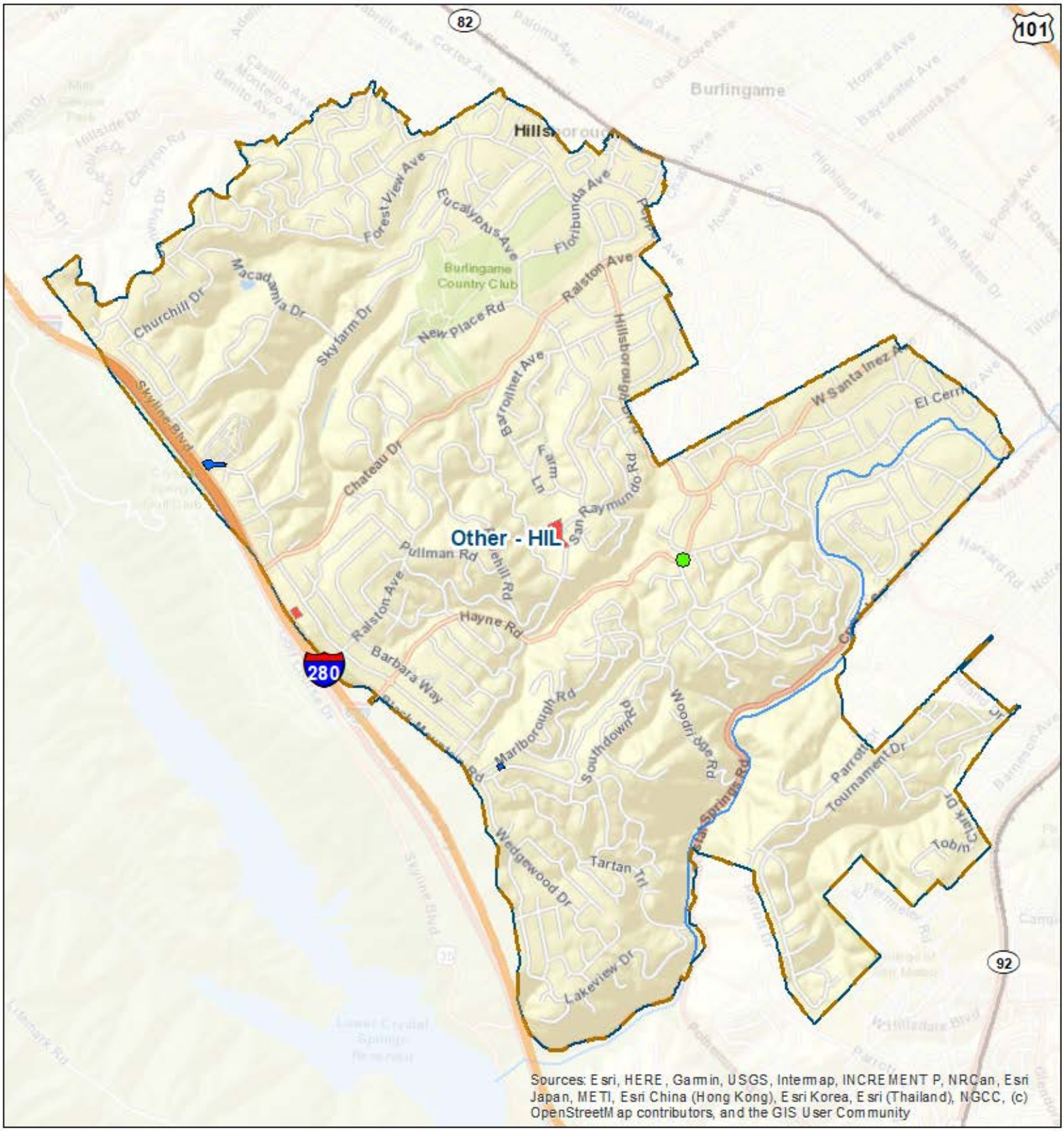


**Figure A-9.** WMAs and GSI/LID in Hillsborough

**Hillsborough Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

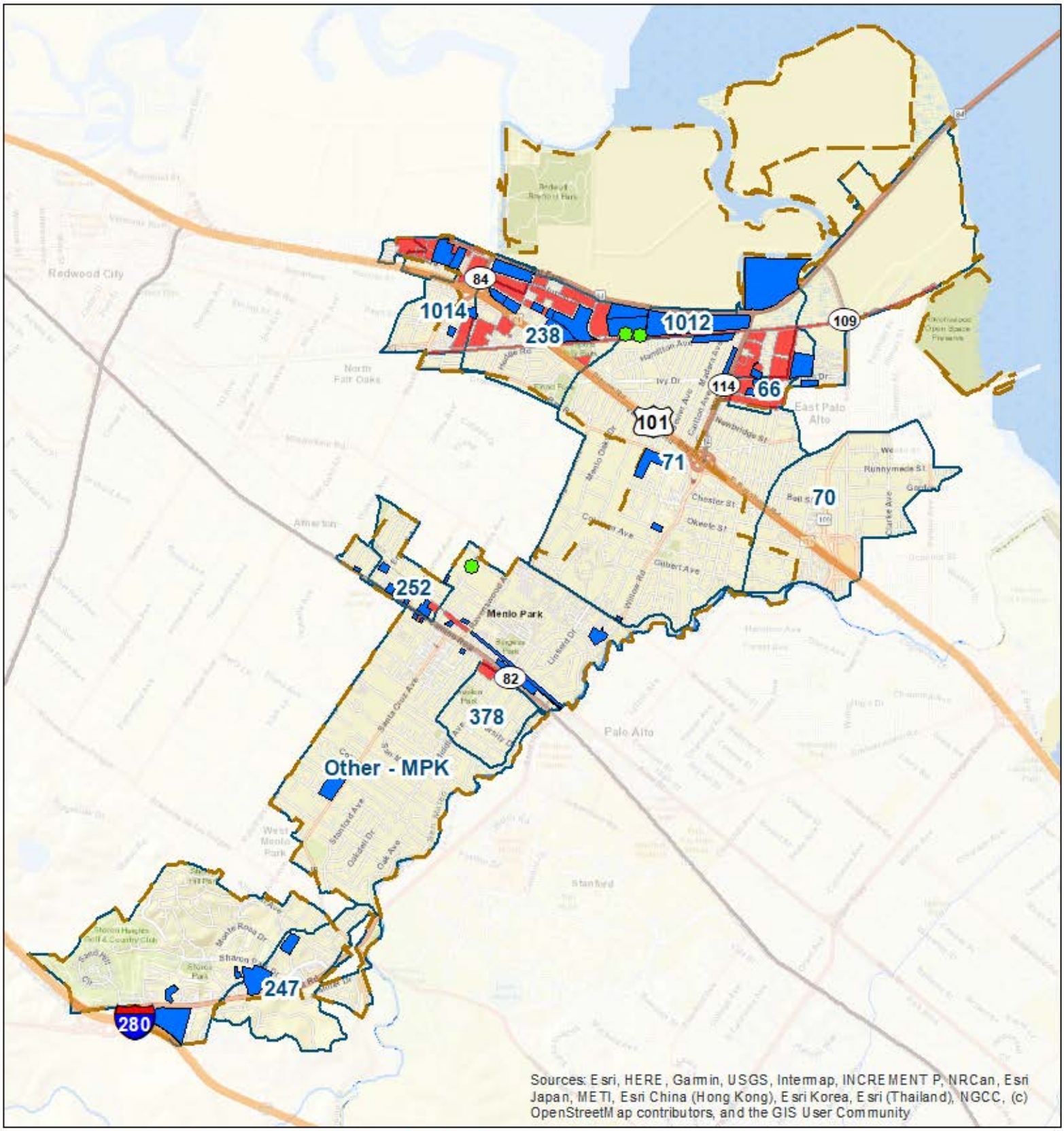


**Figure A-10.** WMAs and GSI/LID in Menlo Park

**Menlo Park Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date:** August 2023

N

0 0.4 0.8 1.6 Miles

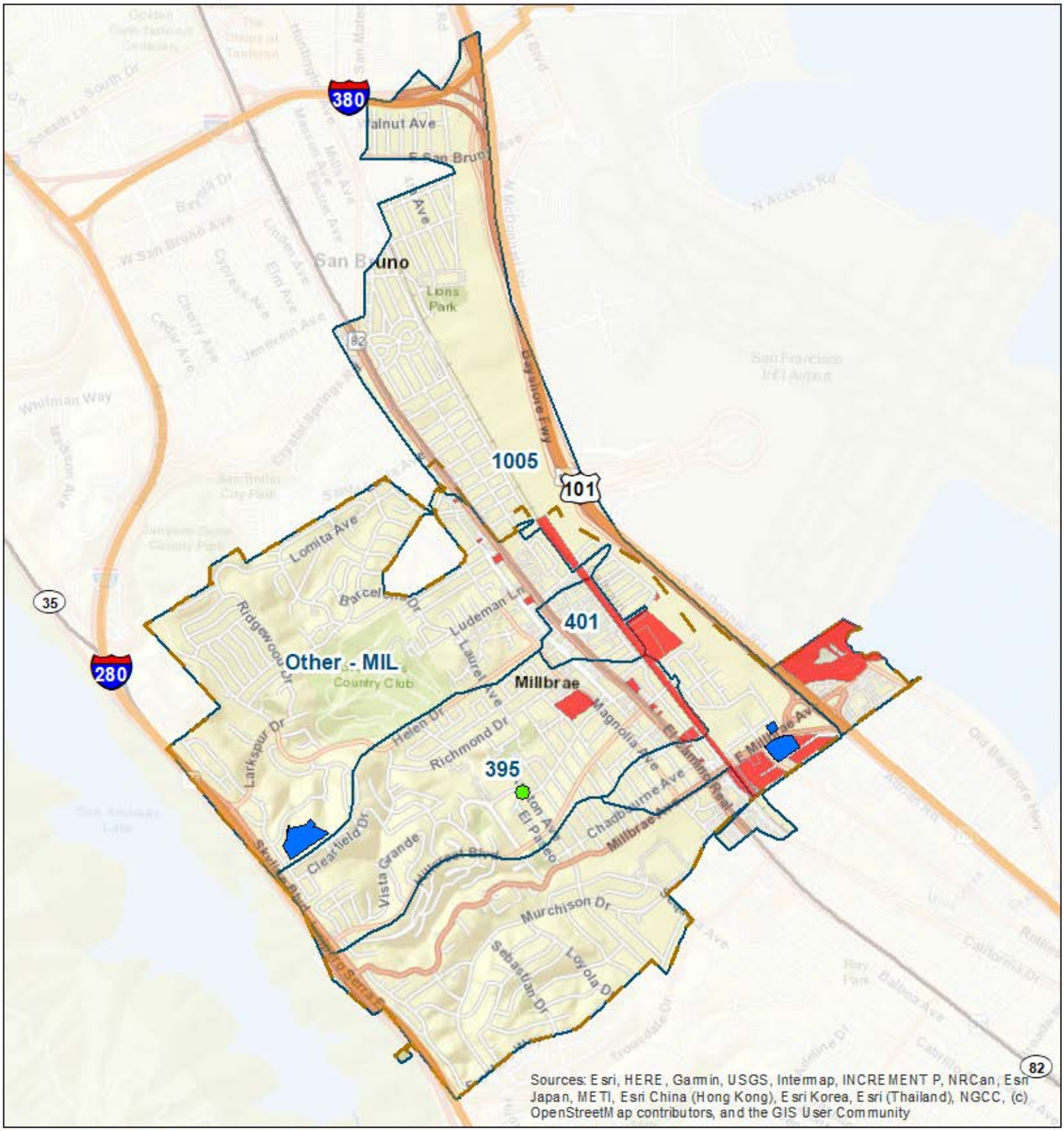


**Figure A-11.** WMAs and GSI/LID in Millbrae

**Millbrae Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

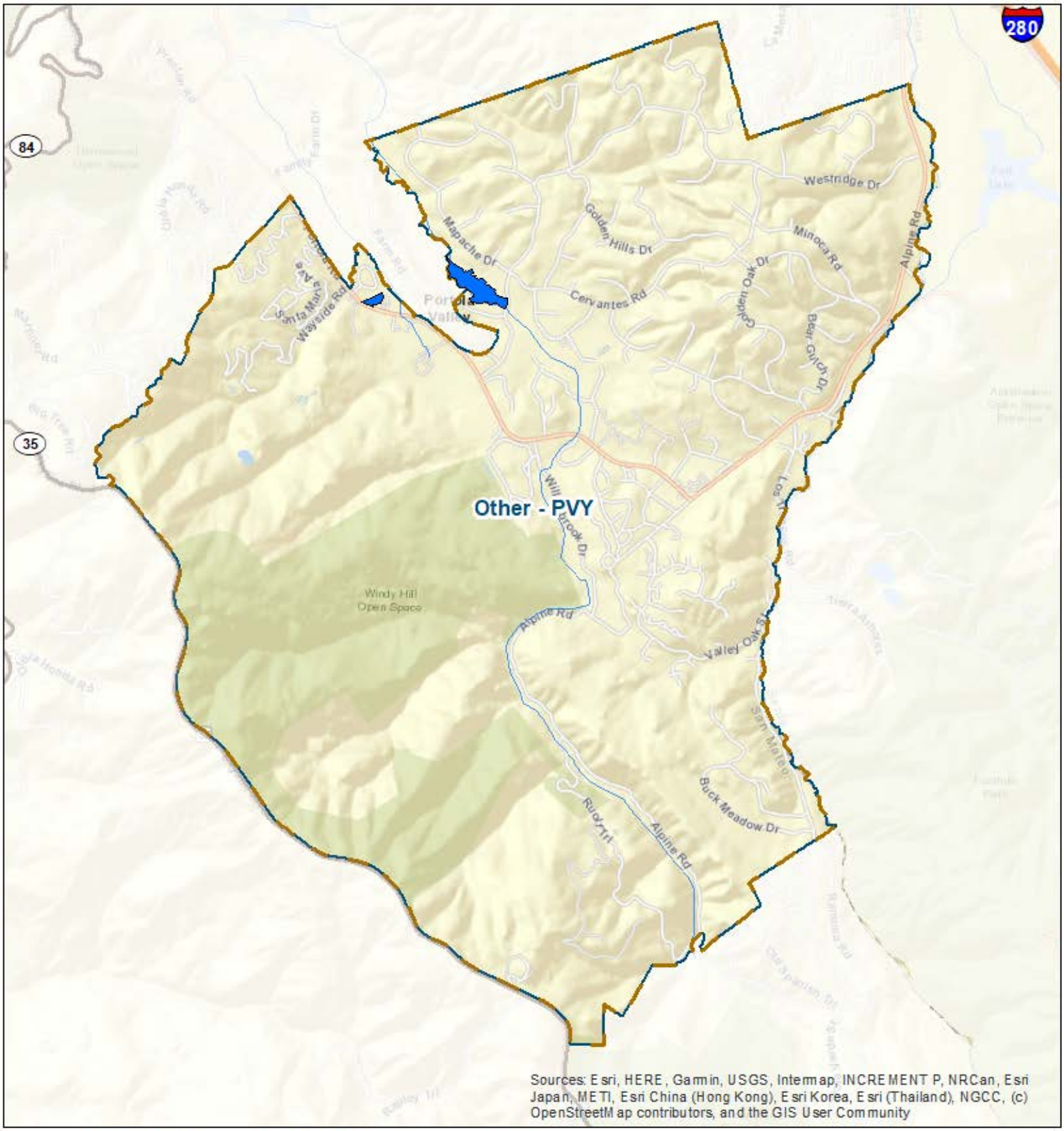


**Figure A-12.** WMAs and GSI/LID in Portola Valley

**Portola Valley Watershed Management Area Map**

Permittee Boundary

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.275 0.55 1.1 Miles

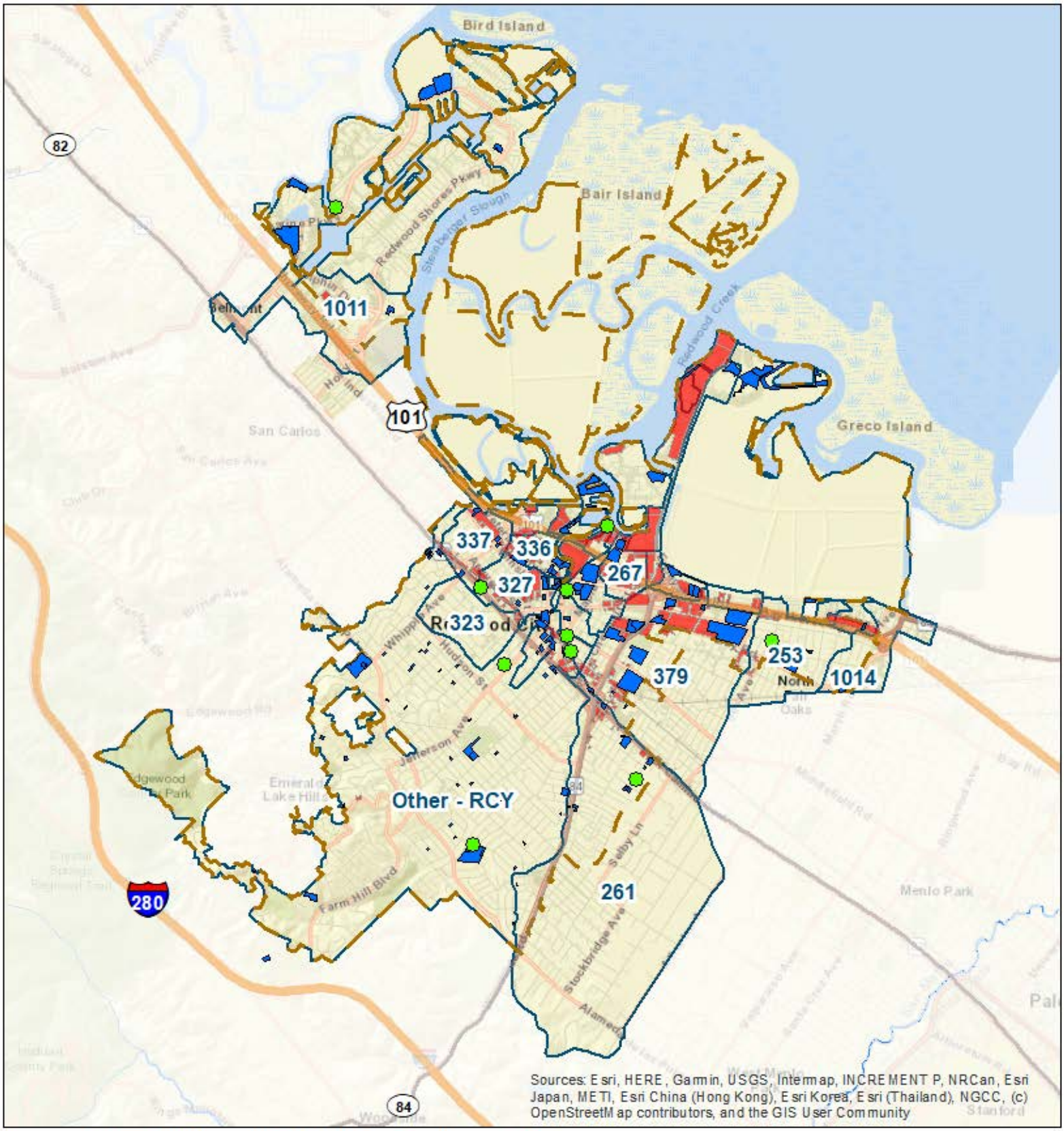


**Figure A-13.** WMAs and GSI/LID in Redwood City

**Redwood City Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.5 1 2 Miles

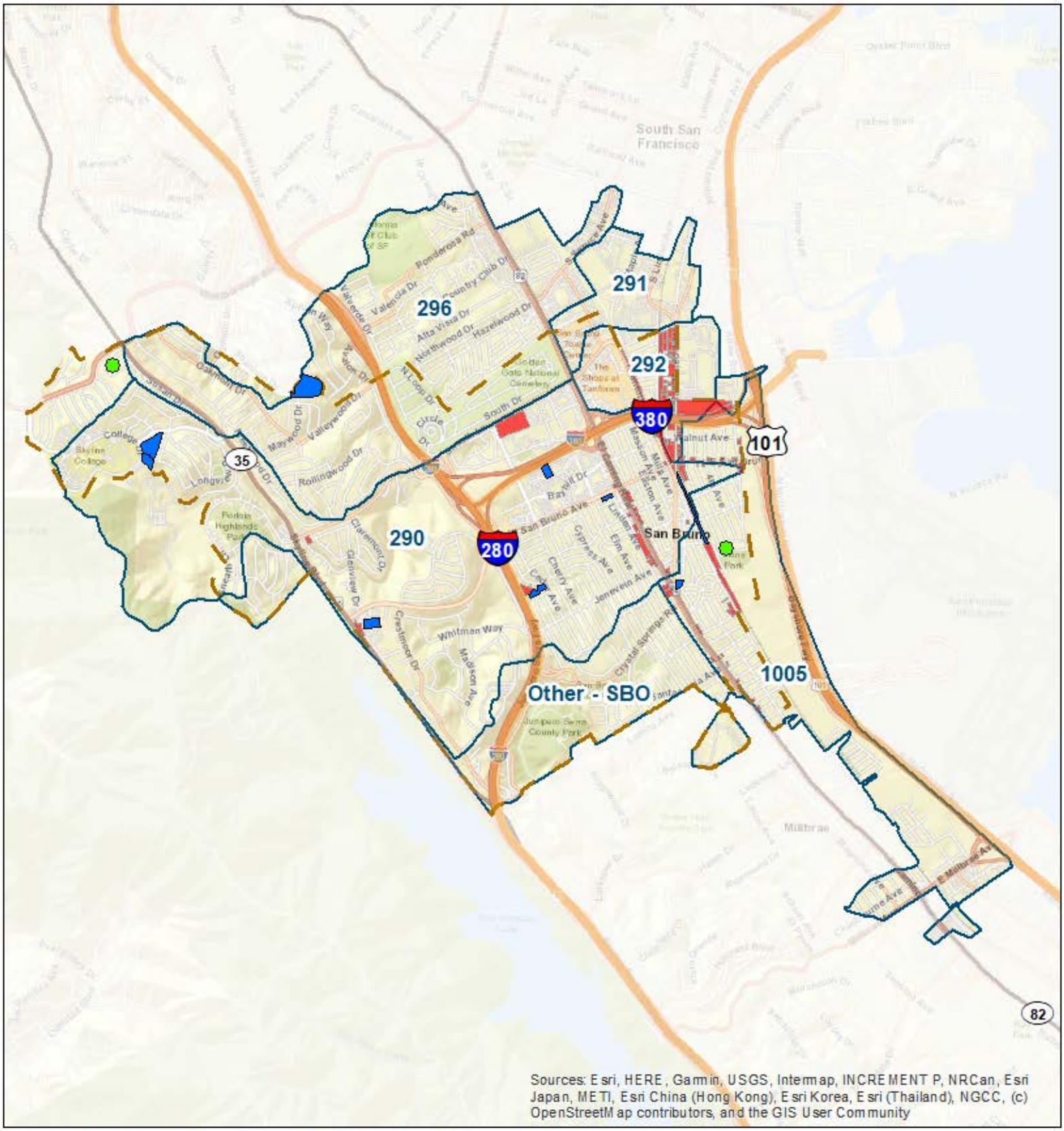


**Figure A-14.** WMAs and GSI/LID in San Bruno

**San Bruno Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.35 0.7 1.4 Miles

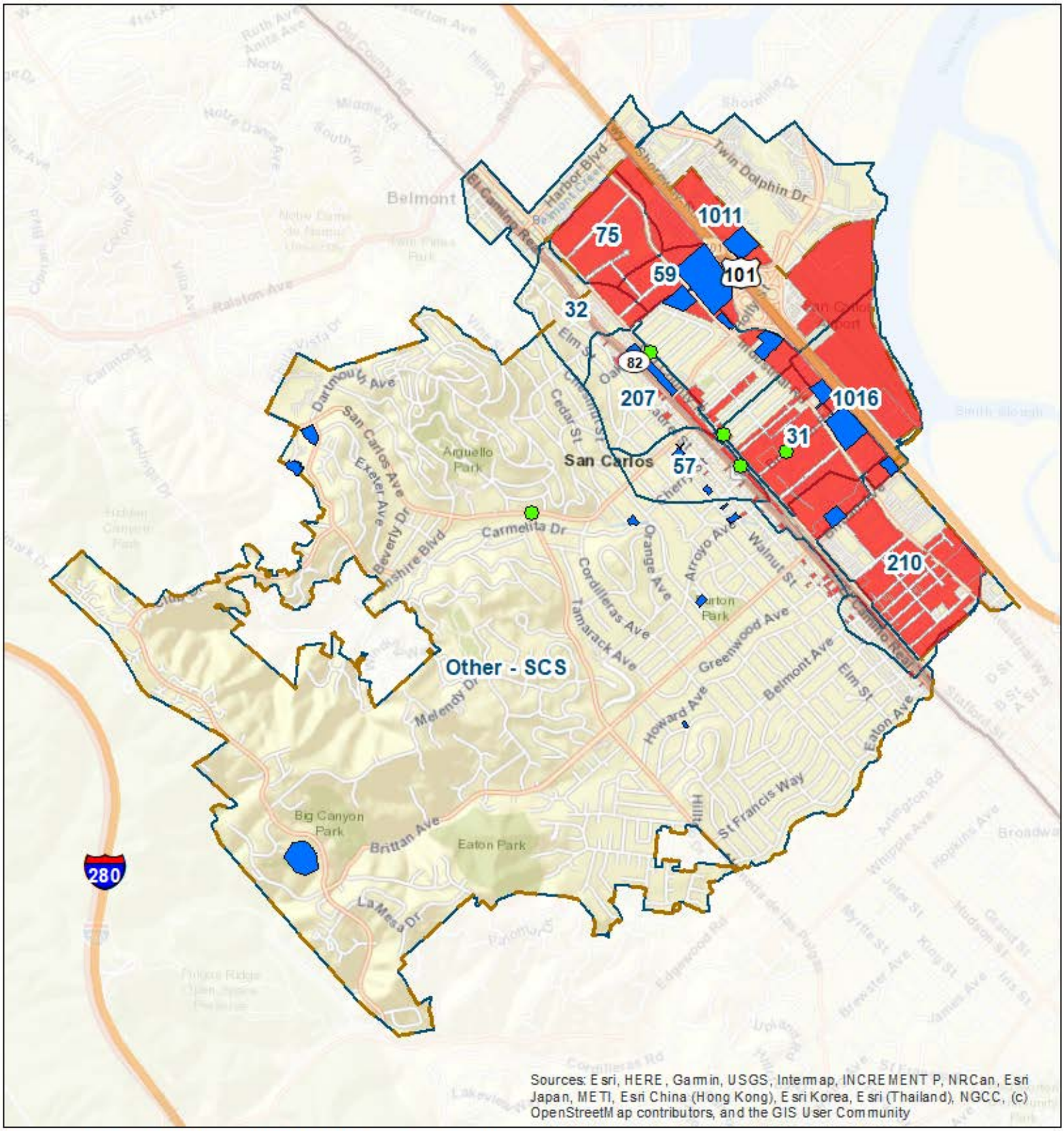


**Figure A-15.** WMAs and GSI/LID in San Carlos

**San Carlos Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

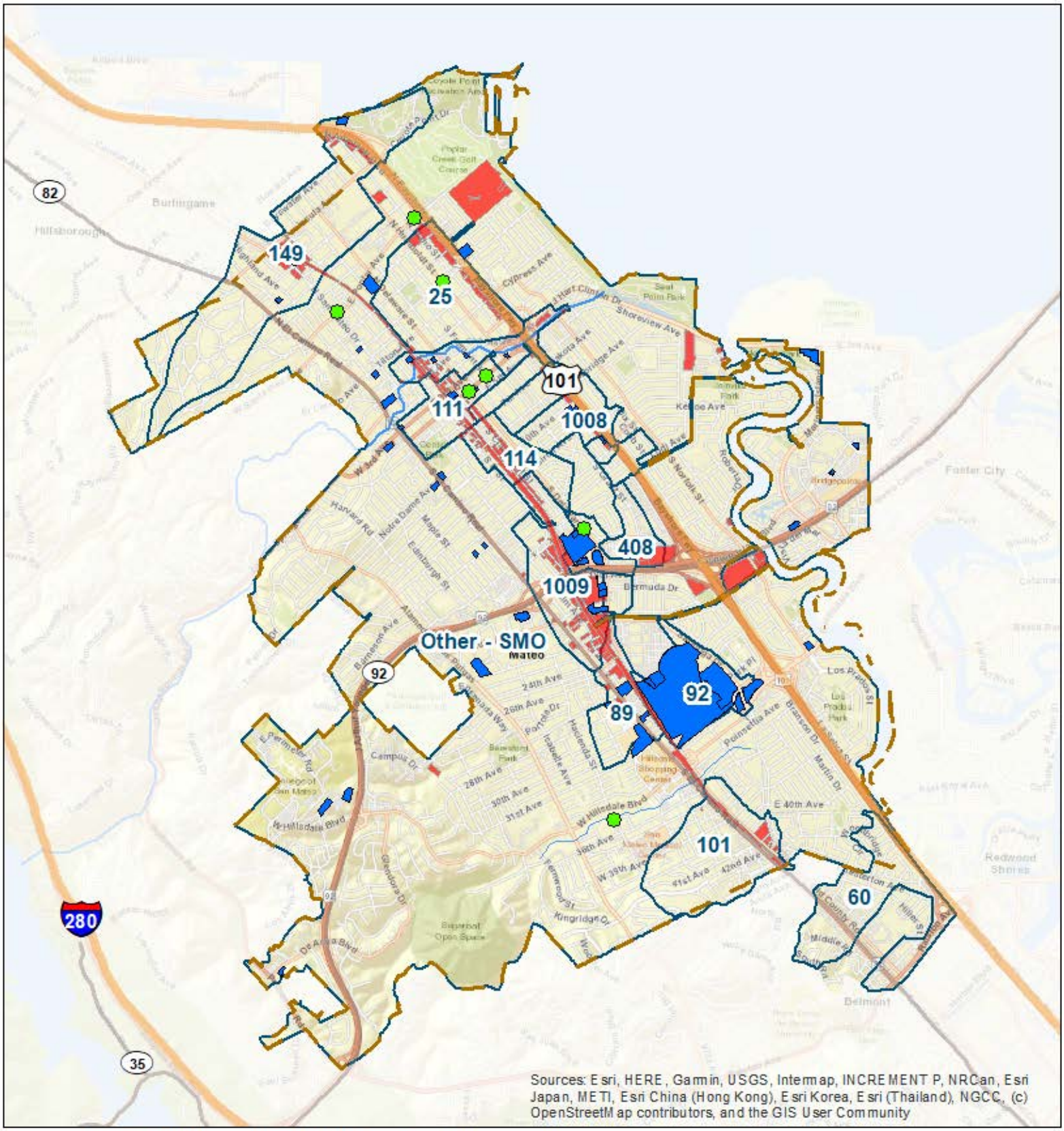


**Figure A-16.** WMAs and GSI/LID in San Mateo City

**San Mateo City Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.375 0.75 1.5 Miles

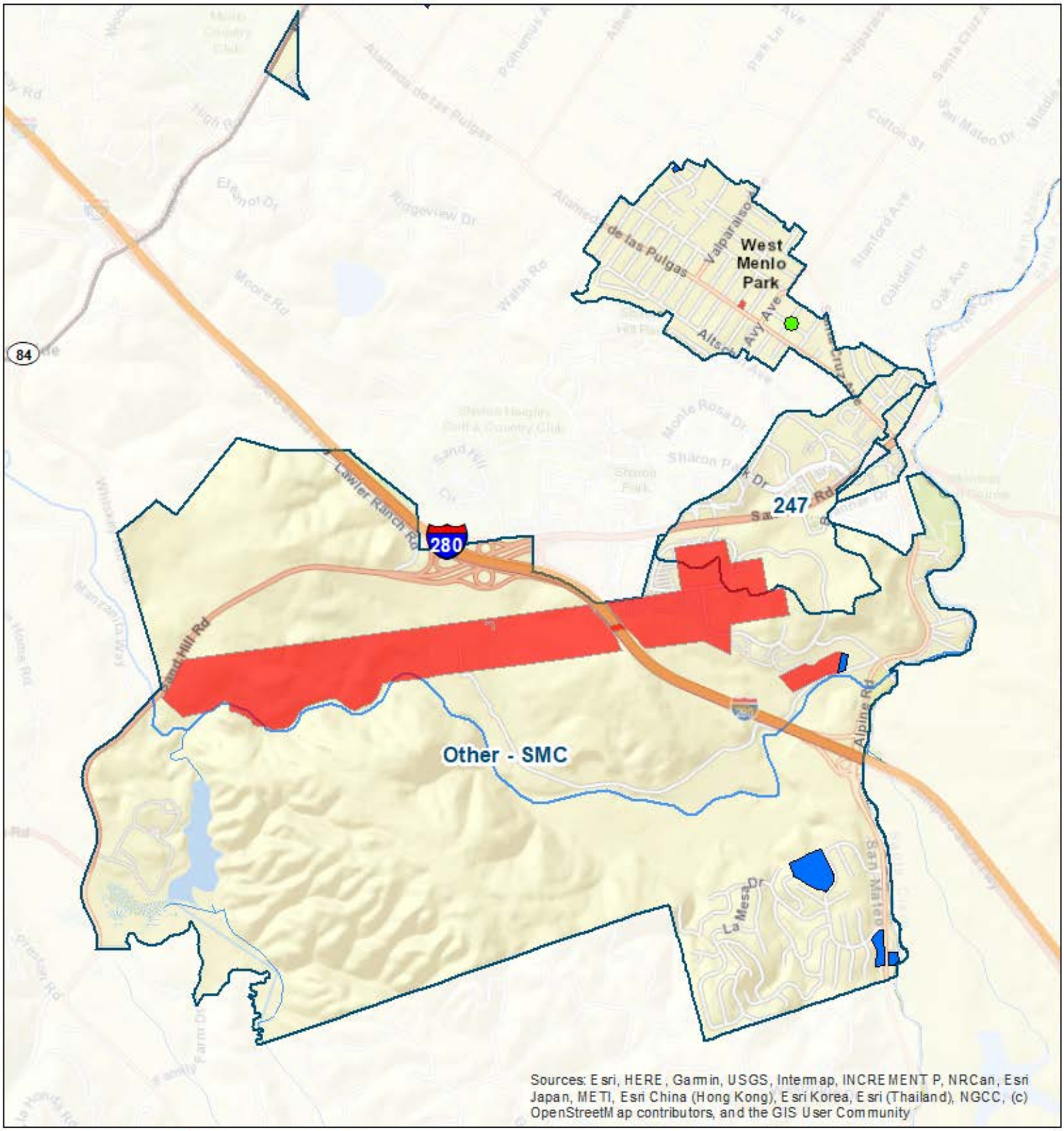


**Figure A-17a.** WMAs and GSI/LID in Unicorporated San Mateo County

**San Mateo County Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

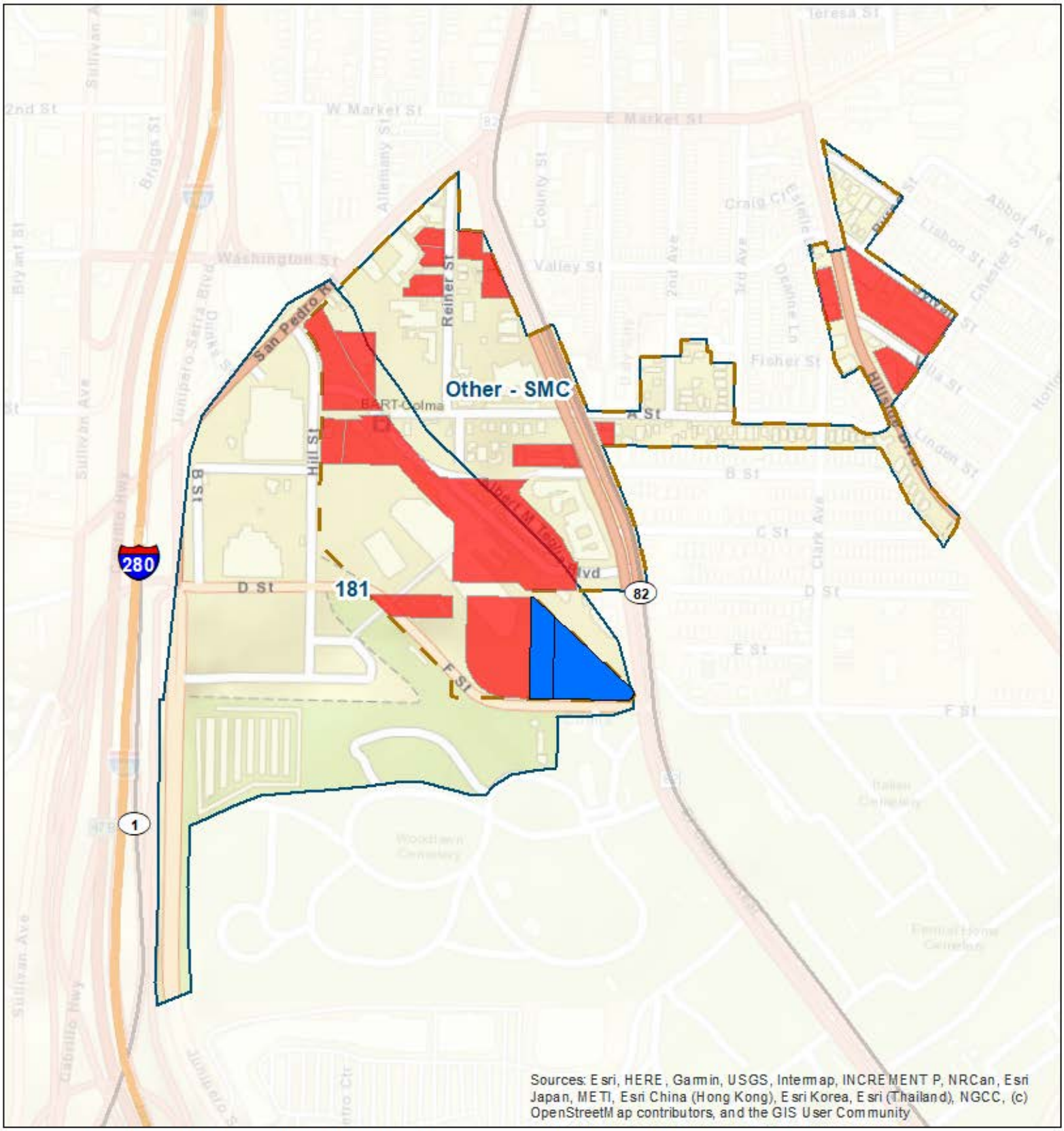


**Figure A-17b.** WMAs and GSI/LID in Unincorporated San Mateo County

**San Mateo County Watershed Management Area Map**

Old Industrial Land Use

Permittee Boundary

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.05 0.1 0.2 Miles

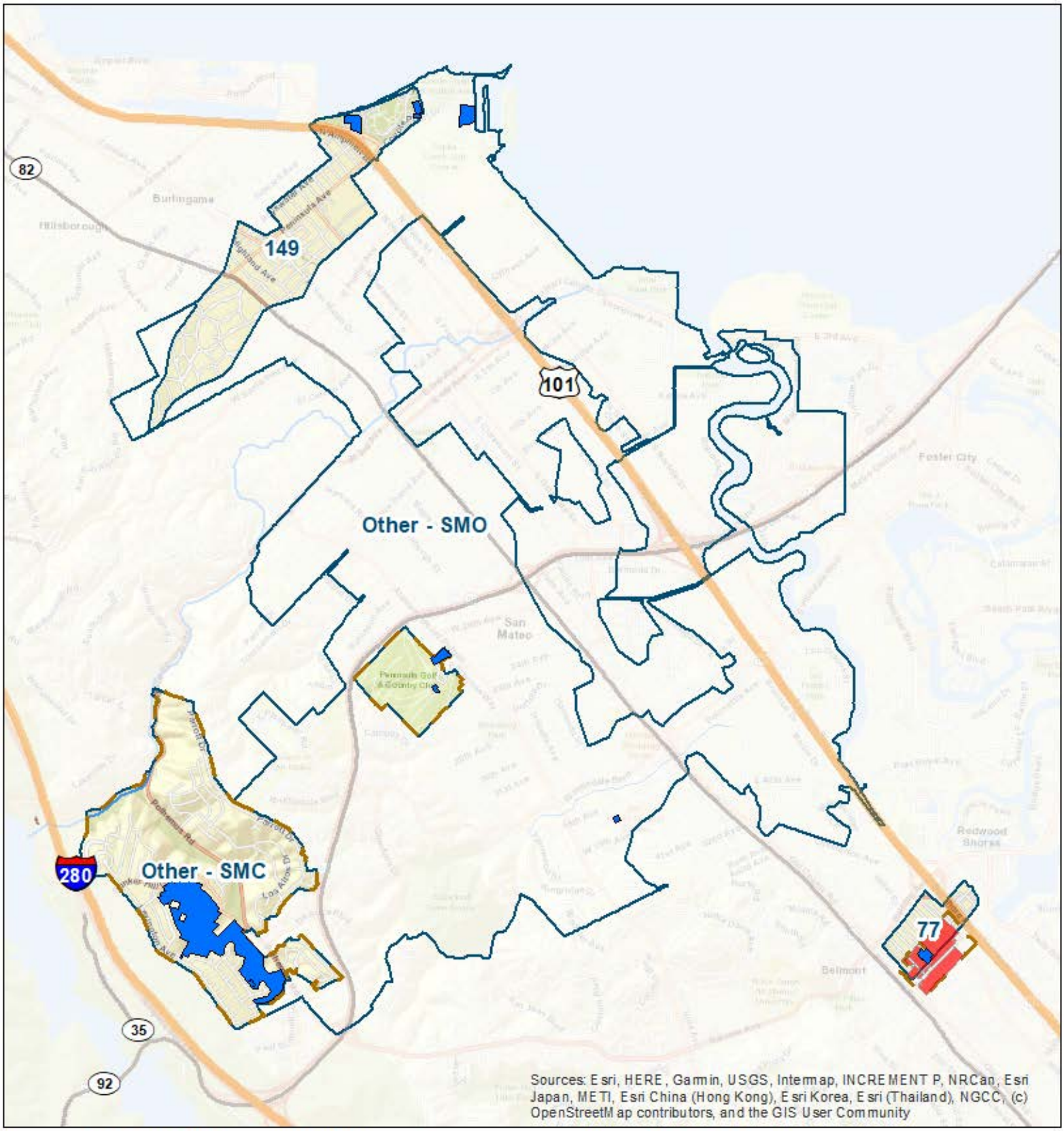


**Figure A-17c.** WMAs and GSI/LID in Unincorporated San Mateo County

**San Mateo County Watershed Management Area Map**

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Old Industrial Land Use

Permittee Boundary

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.375 0.75 1.5 Miles

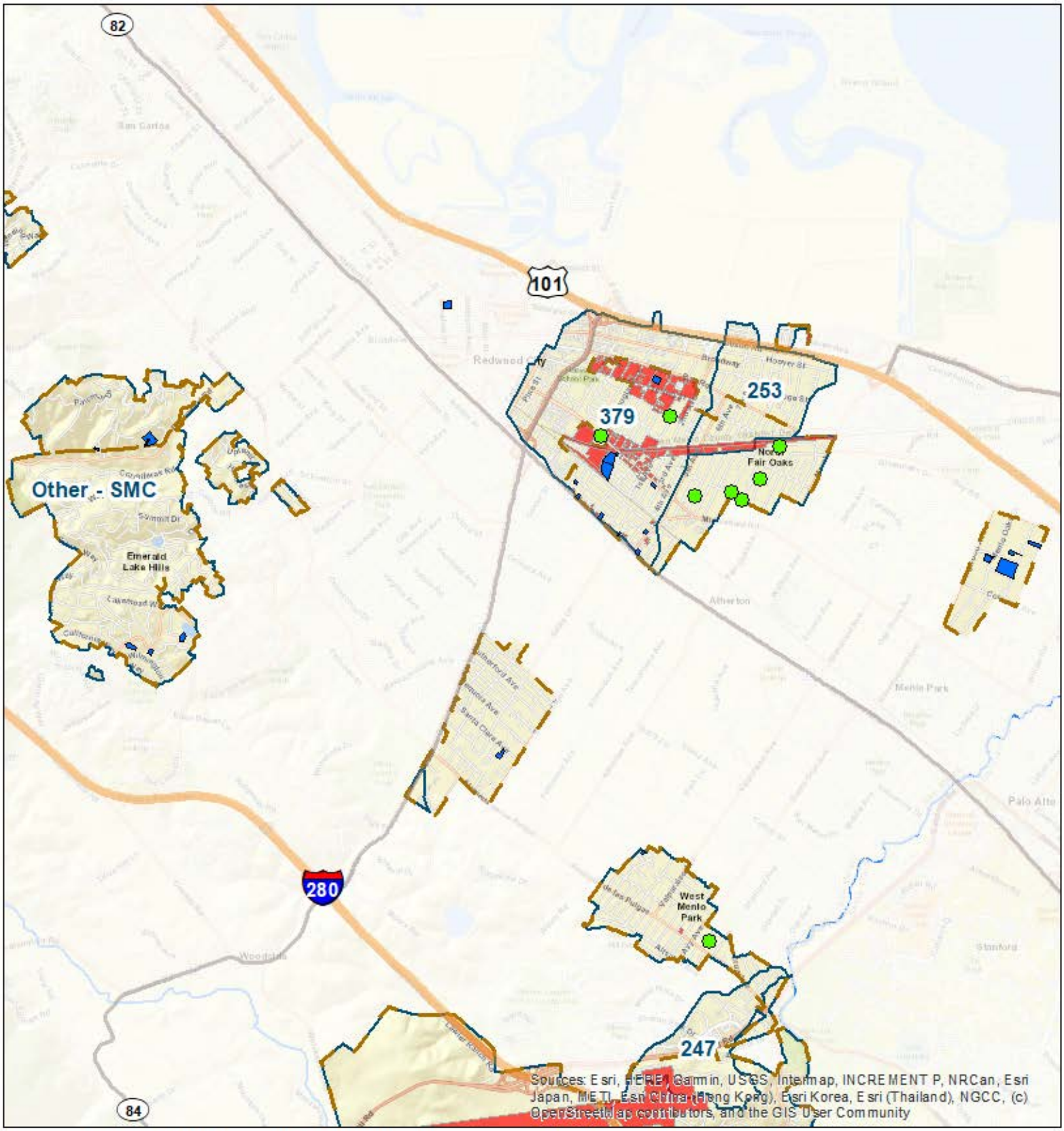


**Figure A-17d.** WMAs and GSI/LID in Unincorporated San Mateo County

**San Mateo County Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.425 0.85 1.7 Miles

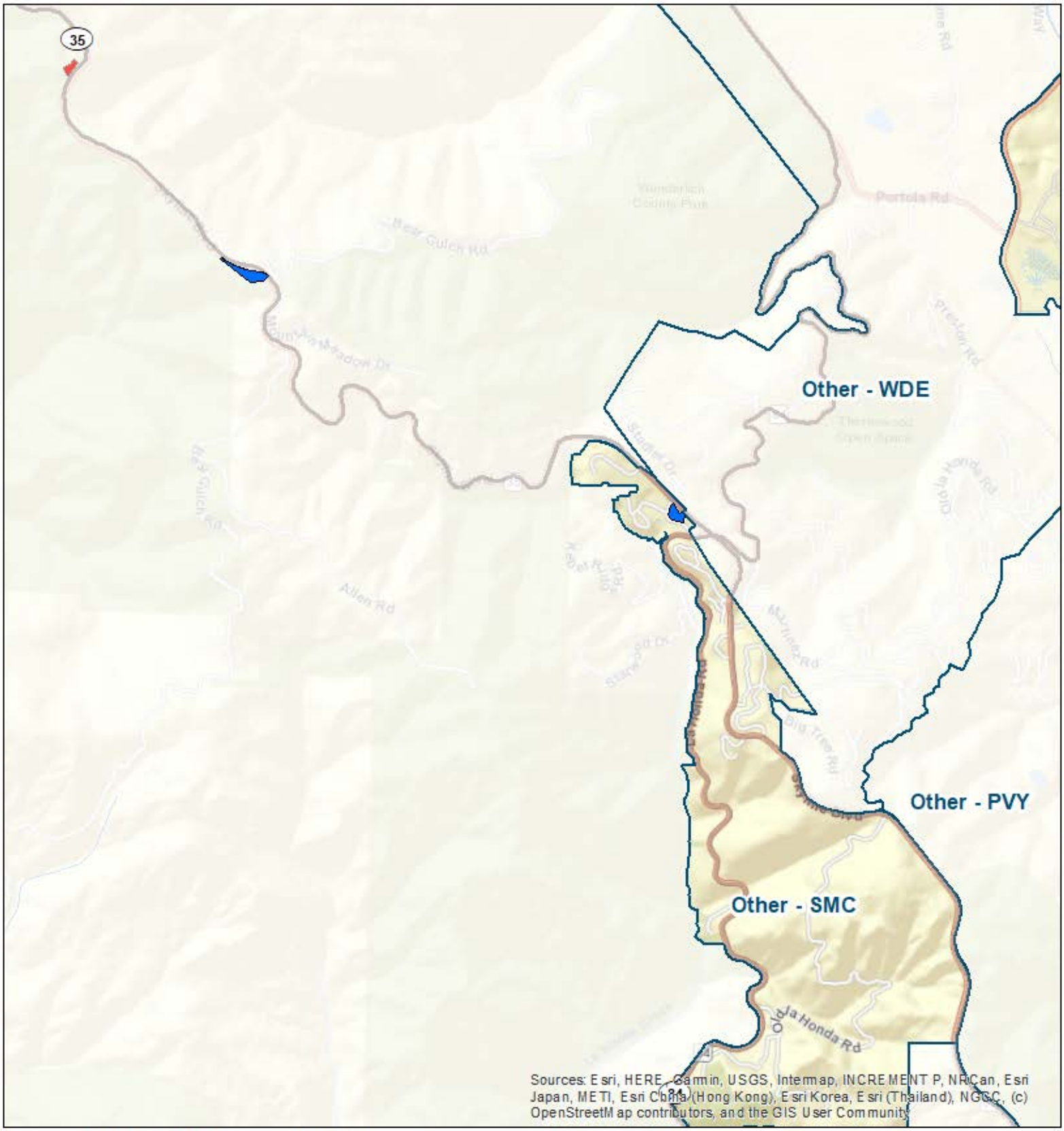


**Figure A-17a.** WMAs and GSI/LID in Unicorporated San Mateo County

**San Mateo County Watershed Management Area Map**

Old Industrial Land Use

Permittee Boundary

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.25 0.5 1 Miles

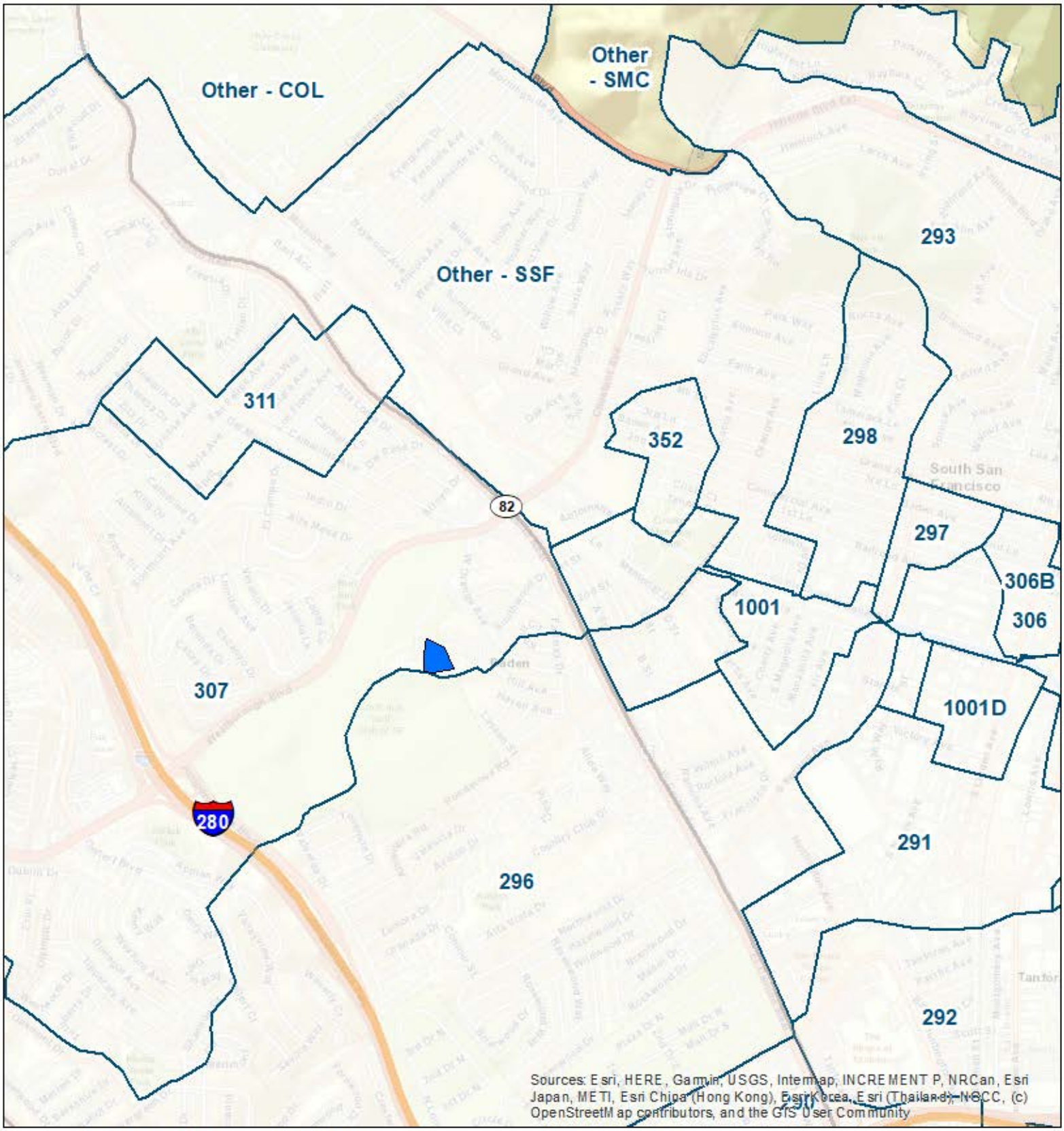


**Figure A-17a.** WMAs and GSI/LID in Unicorporated San Mateo County

**San Mateo County Watershed Management Area Map**

GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)

Permittee Boundary

Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.15 0.3 0.6 Miles

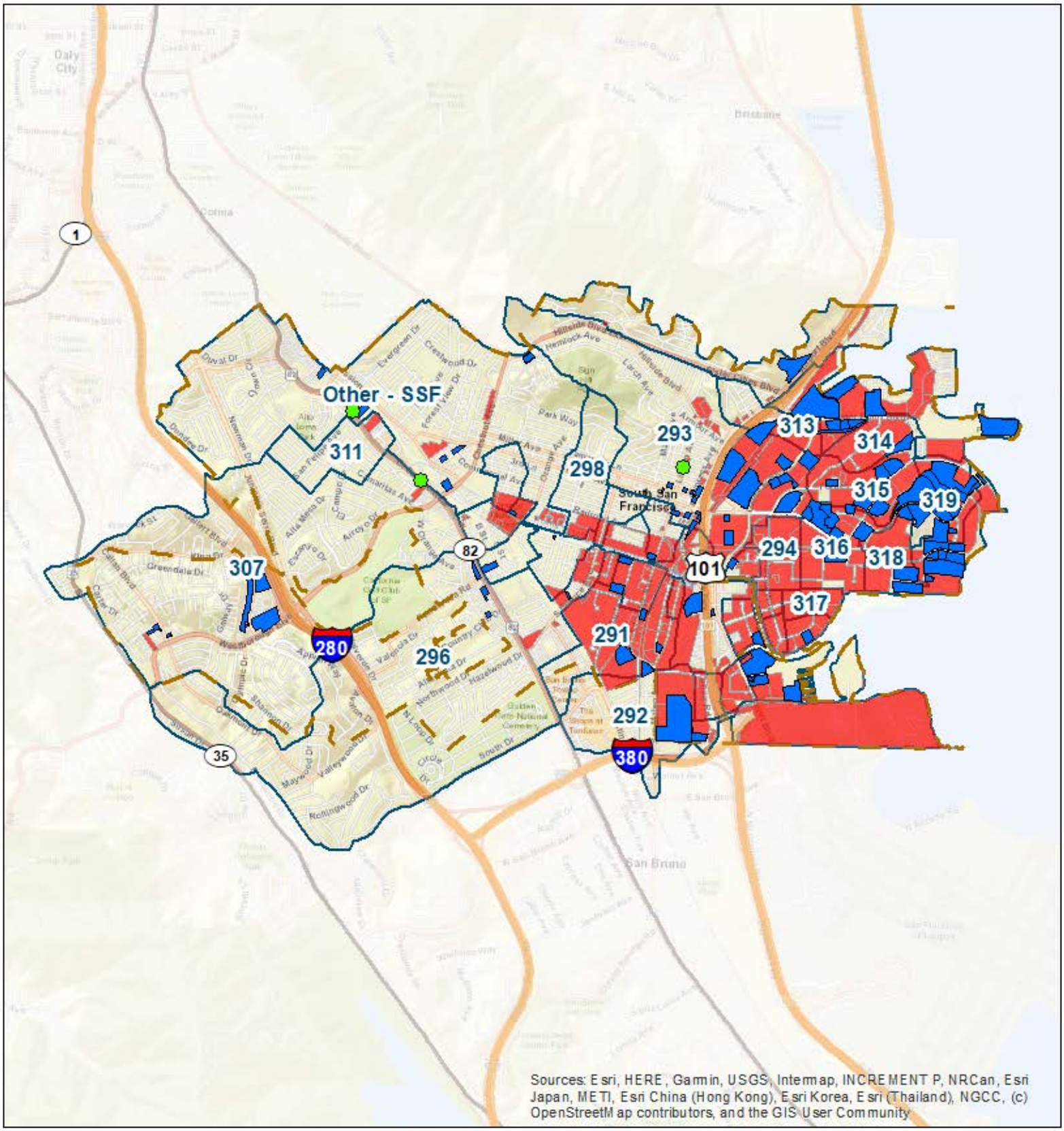


**Figure A-18.** WMAs and GSI/LID in South San Francisco

**South San Francisco Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- Permittee Boundary
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.375 0.75 1.5 Miles

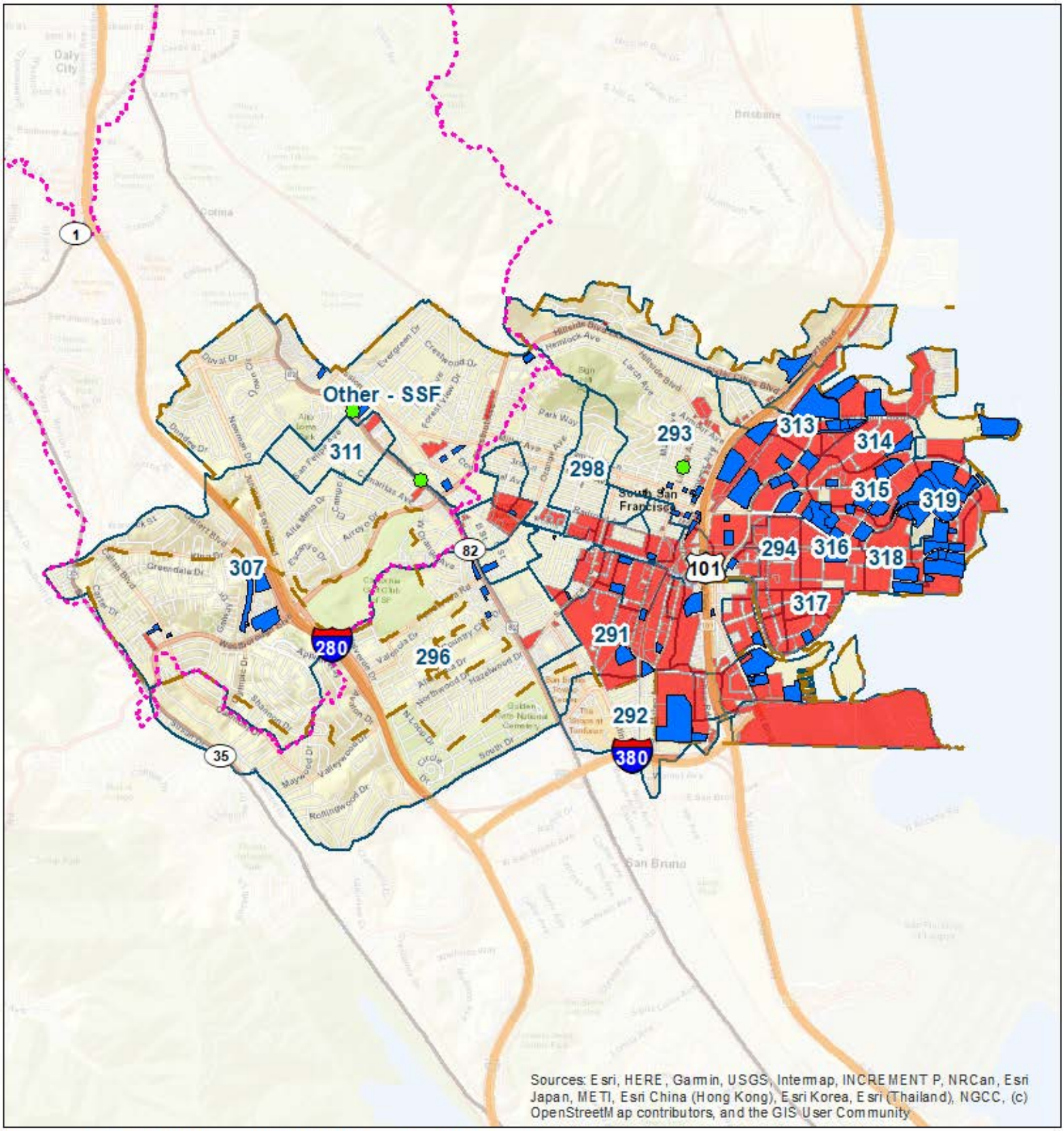


**Figure A-18.** WMAs and GSI/LID in South San Francisco

**South San Francisco Watershed Management Area Map**

- Green Street Project
- Old Industrial Land Use
- GSI/LID in Parcel-based New and Redevelopment Projects (Parcel Area)
- Watershed Management Area (WMA)
- Permittee Boundary
- Orange Memorial Park Stormwater Capture Drainage Area

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.375 0.75 1.5 Miles

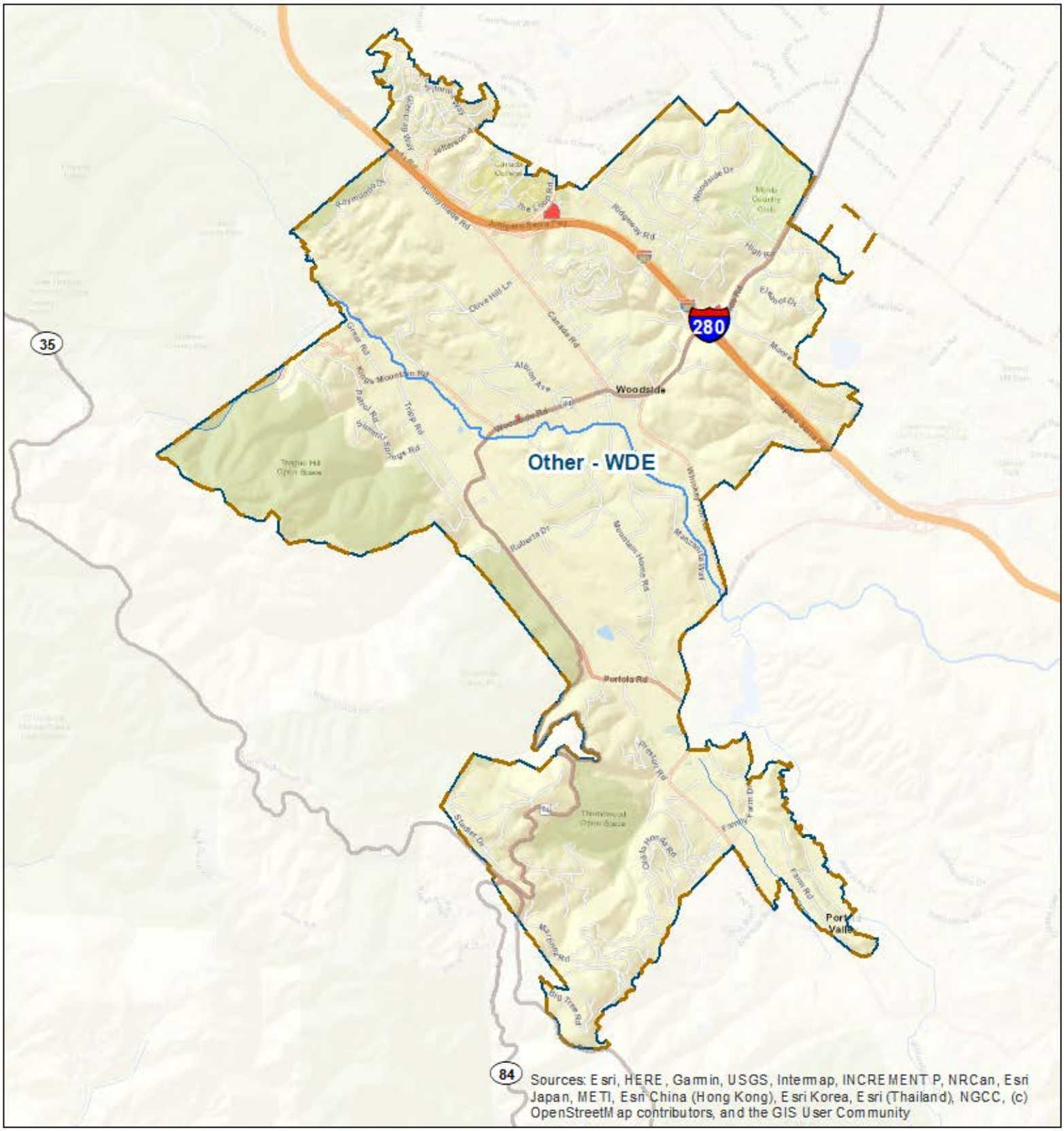


**Figure A-19.** WMAs and GSI/LID in Woodside

**Woodside Watershed Management Area Map**

Old Industrial Land Use

Watershed Management Area (WMA)

Permittee Boundary

**Data Sources:**
**City Boundaries:** San Mateo County
**Catchment Boundaries:** Mattern/WLA
**Background:** ESRI World Street Map

**Map Created By:** EOA, Inc.
**Date: August 2023**

N

0 0.4 0.8 1.6 Miles

# Attachment B

## SMCWPPP Permittee Bridge Inventories

**Table B-1. Belmont Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0018 | 37311815 | 122155189 | U.S. HIGHWAY 101 | 04-SM-101-9.11-BMT | 1930 | 1953 | Concrete continuous | Caltrans | Caltrans | No |
| 35 0114 | 37313350 | 122161328 | RALSTON AVENUE | 04-SM-101-9.55-BMT | 1974 | -- | Prestressed concrete continuous | Caltrans | Caltrans | No |

**Table B-2. Brisbane Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0130 | 37402277 | 122232425 | U.S. HIGHWAY 101 | 04-SM-101-23.66-BSBN | 1956 | 1969 | Steel | Caltrans | Unknown | Unknown |
| 35C0028 | 37412393 | 122241146 | BAYSHORE BLVD | 0.2 MI. N. OF VALLEY DR. | 1928 | 1951 | Concrete | City or Municipal Highway Agency | Unknown | Unknown |

**Attachment B-3. Burlingame Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0017 | 37351906 | 122213024 | U.S. HIGHWAY 101 | 04-SM-101-16.40-BURL | 1928 | 1970 | Concrete continuous | Caltrans | Caltrans | No |
| 35C0086 | 37352719 | 122201836 | AIRPORT BLVD | 1.3 MI E OF BAYSHORE HWY | 1970 | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| 35C0104 | 37354986 | 122215673 | BAYSHORE HWY | 0.5 MI N AIRPORT BLVD | 1950 | -- | Concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| 35C0105 | 37345431 | 122221524 | BERNAL AVE | EAST OF EASTON DR | 1936 | -- | Concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| 35C0145 | 37344814 | 122215856 | DRAKE AVE | EAST OF CARMELITA | 1930 | -- | Concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| 35C0146 | 37345705 | 122221353 | DRAKE AVE | EAST OF EASTON DRIVE | 1930 | -- | Concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| 35C0211 | 37342834 | 122231648 | EL PRADO ROAD | JUST SE OF CANYON RD | 1956 | -- | Concrete | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37364755 | 122224253 | U.S. HIGHWAY 101 | US 101 SOUTH OF MILLBRAE AVENUE | -- | -- | Concrete continuous | Caltrans | Caltrans | No |
| -- | 37355805 | 122224253 | U.S. HIGHWAY 101 | US 101 NEAR MITTEN ROAD | -- | -- | Concrete continuous | Caltrans | Caltrans | No |
| -- | 37354046 | 122224749 | U.S. HIGHWAY 101 | US 101 AT MILLS CREEK (NORTH OF BURLWAY RD) | -- | -- | Concrete continuous | Caltrans | Caltrans | No |
| -- | 37353373 | 122215335 | U.S. HIGHWAY 101 | US 101 AT EASTON CREEK (SOUTH OF HYATT REGENCY) | -- | -- | Concrete continuous | Caltrans | Caltrans | No |
| -- | 37353476 | 122214973 | OLD BAYSHORE HWY | OLD BAYSHORE HWY AT EASTON CREEK (1300 BLOCK OF BAYSHORE) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37352869 | 122222438 | ROLLINS RD | ROLLINS ROAD AT EASTON CREEK (SOUTH OF EDWARDS RD) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37352665 | 122224497 | N. CAROLAN AVE | N. CAROLAN AVE AT EASTON CREEK (SOUTH OF EDWARDS RD) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37353336 | 122221086 | ROLLINS RD | ROLLINS ROAD AT MILLS CREEK (NORTH OF EDWARDS CT) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37361321 | 122222804 | OLD BAYSHORE HWY | OLD BAYSHORE HWY AT MILLBRAE CREEK (NORTH OF COWAN RD) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37355664 | 122225562 | ROLLINS RD | ROLLINS ROAD AT MILLBRAE CREEK (SOUTH OF ADRIAN RD) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37363567 | 122224396 | ADRIAN RD | ADRIAN RD (NORTH OF ADRIAN CT) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37355359 | 122229169 | BALBOA AVE | BALBOA AVENUE, BETWEEN EASTON DR AND SHERMAN AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |

**Attachment B-3. Burlingame Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| -- | 37353126 | 122221167 | CORTEZ AVE | CORTEZ AVE, BETWEEN EASTON DR AND SHERMAN AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37350754 | 122221397 | CABRILLO AVE | CABRILLO AVE BETWEEN EASTON DR AND SHERMAN AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37351268 | 122224819 | BERNAL AVE | BERNAL AVE SOUTH OF DEVEREUX DR | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37351784 | 122213163 | ROLLINS RD | 1095 ROLLINS RD (BETWEEN BROADWAY AND ANSON) | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37345238 | 122215274 | CORTEZ AVE | CORTEZ AVE BETWEEN CARMELITA AND SANCHEZ AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37345417 | 122214927 | BALBOA AVE | BALBOA AVENUE, BETWEEN CARMELITA AND SANCHEZ AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |
| -- | 37345045 | 122215559 | CABRILLO AVE | CABRILLO AVE BETWEEN CARMELITA AND SANCHEZ AVE | -- | -- | Prestressed concrete continuous | City or Municipal Highway Agency | City or Municipal Highway Agency | No |

**Table B-4. Colma Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0003 | 37401980 | 122271341 | STATE ROUTE 82 | 04-SM-082-22.36-CLM | 1913 | 1927 | Concrete | Caltrans | Caltrans | No |

**Table B-5. Daly City Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0202R | 37397667 | 122271331 | INTERSTATE 280 NB | 04-SM-280-R23.16-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0202L | 37396948 | 122271404 | INTERSTATE 280 SB | 04-SM-280-R23.16-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0116R | 37394787 | 122275507 | INTERSTATE 280 NB | 04-SM-280-R24.20-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0116L | 37394824 | 122275688 | INTERSTATE 280 SB | 04-SM-280-R24.20-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0209R | 37401095 | 122275688 | NB STATE RTE 280 | 04-SM-280-R24.63-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0209L | 37401041 | 122275795 | SB STATE RTE 280 | 04-SM-280-R24.63-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0178 | 37402992 | 122288399 | INTERSTATE 280 | 04-SM-280-R25.04-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0180R | 37403802 | 122281811 | STATE ROUTE 1 NB | 04-SM-001-R47.76-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0238G | 37403237 | 122282063 | N1-S280 CONNECTOR | 04-SM-001-R47.62-DLC | 1968 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0238R | 37403237 | 122282172 | STATE ROUTE 1 NB | 04-SM-001-R47.62-DLC | 1968 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0186K | 37404209 | 122281919 | SULLIVAN-S280 ONRP | 04-SM-280-R25.34-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0238L | 37403233 | 122282243 | STATE ROUTE 1 SB | 04-SM-001-R47.62-DLC | 1968 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0295G | 37403230 | 122282352 | N280-S1 CONNECTOR | 04-SM-280-R25.32-DLC | 1968 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0179G | 37403813 | 122282172 | N280-S1 CONNECTOR | 04-SM-280-R25.26-DLC | 1967 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0237 | 37401653 | 122283396 | STATE ROUTE 1 | 04-SM-001-R47.27-DLC | 1968 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0181 | 37414415 | 122281919 | SAN PEDRO ROAD | 04-SM-280-R25.78-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0182 | 37412148 | 12228156 | JUNIPERO SERRA BL | 04-SM-280-R26.04-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0185 | 37411615 | 12228174 | WASHINGTON STREET | 04-SM-280-R25.97-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0183 | 37413562 | 122281487 | SCHOOL STREET | 04-SM-280-R26.35-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0184 | 37414239 | 122281524 | JUNIPERO SERRA BLV | 04-SM-280-R26.50-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0236 | 3740129 | 122284944 | STATE ROUTE 1 | 04-SM-001-R47.03-DLC | 1972 | -- | Prestressed Concrete | Caltrans | Unknown | Unknown |
| 35 0175S | 37422001 | 122281451 | JUNIPERO SERRA-NB1 | 04-SM-001-R48.38-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0174K | 37422012 | 122281451 | S280-JUNIPERO SERR | 04-SM-280-M27.20L-DLC | 1965 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0206G | 37401091 | 122285915 | N35-N1 CNNCTR RMP | 04-SM-035-R28.64-DLC | 1972 | -- | Prestressed Concrete | Caltrans | Unknown | Unknown |
| 35 0206 | 37401149 | 122285987 | STATE ROUTE 1 | 04-SM-001-R46.86-DLC | 1972 | -- | Prestressed Concrete | Caltrans | Unknown | Unknown |
| 35 0205R | 37406276 | 122294199 | NB STATE ROUTE 35 | 04-SM-035-R28.66-DLC | 1972 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0204F | 37401415 | 122295999 | S1-S35 CONNECTOR | 04-SM-001-R46.65-DLC | 1972 | -- | Prestressed Concrete Continuous | Caltrans | Unknown | Unknown |
| 35 0205L | 37405195 | 12229492 | SB STATE ROUTE 35 | 04-SM-035-R28.66-DLC | 1972 | -- | Concrete Continuous | Caltrans | Unknown | Unknown |

**Table B-6. East Palo Alto Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0113 | 37273588 | 122082657 | UNIVERSITY AVE NB | 04-SM-101-0.88-EAPA | 1958 | -- | Steel | Caltrans | Unknown | Unknown |
| 35 0155 | 37273624 | 122082714 | UNIVERSITY AVE SB | 04-SM-101-0.89-EAPA | 1958 | -- | Steel | Caltrans | Unknown | Unknown |
| 35C0029 | 37272783 | 122083060 | UNIVERSITY AVE | 0.01 MI S WOODLAND AVE | 1925 | 1958 | Concrete | City or Municipal Highway Agency | Unknown | Unknown |

**Table B-7. Foster City Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35C0062 | 37324573 | 122161664 | BEACH PARK BLVD | 0.1 MI E EDGEWATER BLVD | 1975 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0070L | 37331866 | 122152965 | FOSTER CITY BLVD | EAST OF BOUNTY DR | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0070R | 37331908 | 122152932 | FOSTER CITY BLVD | EAST OF BOUNTY DRIVE | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0071L | 37331102 | 122155022 | SHELL BLVD | .3 MI N/O BEACH PARK ROAD | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0071R | 37331121 | 122154964 | SHELL BLVD | .3 MI N/O BEACH PARK ROAD | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |

**Table B-9. Hillsborough Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0210L | 37324983 | 122222091 | STATE ROUTE 280 SB | 04-SM-280-R14.22-HIL | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0210R | 37325104 | 122221905 | STATE ROUTE 280 NB | 04-SM-280-R14.22-HIL | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35C0037 | 37323099 | 122205677 | CRYSTAL SPRINGS RD | 0.4 MI N TARTAN TRAILS RD | 1904 | -- | Concrete | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0038 | 37330808 | 122202364 | CRYSTAL SPRINGS RD | N EL CERRITO AVE | 1904 | -- | Concrete | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0042 | 37334144 | 122194743 | CRYSTAL SPRINGS RD | 0.24 MI W OF SH 82 | 1901 | -- | Concrete | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0095 | 37321249 | 122205964 | TARTAN TRAIL RD | WEST CRYSTAL SPRINGS RD | 1964 | -- | Steel | City or Municipal Highway Agency | Unknown | Unknown |

**Table B-10. Menlo Park Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0064 | 37290286 | 122105680 | U.S. HIGHWAY 101 | 04-SM-101-3.70-MLP | 1930 | 1958 | Concrete continuous | Caltrans | Caltrans | No |
| 35 0357 | 37291252 | 122105172 | HAVEN AVE | 04-SM-000-0.00-MLP | 1954 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35C0108 | 37285875 | 122105957 | MARSH RD | MARSH RD AT ROLISON | 1960 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0109 | 37271419 | 122094541 | MIDDLEFIELD RD | 0.1 MI E WILLOW RD | 1936 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| -- | 3745649 | 12215339 | CHAUCER ST | POPE CHAUCER BRIDGE | -- | -- | -- | City of Menlo Park, City of Palo Alto | City of Palo Alto and City of Menlo Park | Maybe |
| -- | 3744688 | 12217154 | EL CAMINO REAL | EL CAMINO REAL CROSSING SAN FRANCISQUITO CREEK | -- | -- | -- | Caltrans | Caltrans | No |

**Table B-11. Millbrae Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0089 | 37360663 | 122225316 | MILLBRAE AVENUE | 04-SM-101-17.95-MLBR | 1947 | 1976 | Steel | Caltrans | Unknown | Unknown |
| 35 0126 | 37361462 | 122225615 | U.S. HIGHWAY 101 | 04-SM-101-18.09-MLBR | 1947 | 1961 | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0211L | 37352081 | 122244485 | STATE ROUTE 280 SB | 04-SM-280-R17.92-MLBR | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0211R | 37352134 | 122244399 | STATE ROUTE 280 NB | 04-SM-280-R17.92-MLBR | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0216L | 37354561 | 122250933 | SB STATE RTE 280 | 04-SM-280-R18.52-MLBR | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0216R | 37354606 | 122250846 | NB STATE RTE 280 | 04-SM-280-R18.52-MLBR | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |

**Table B-12. Pacifica Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0021L | 37374697 | 122292213 | STATE ROUTE 1 SB | 04-SM-001-R43.74-PFA | 1965 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0021R | 37374697 | 122292120 | STATE ROUTE 1 NB | 04-SM-001-R43.74-PFA | 1965 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0025 | 37385720 | 122292785 | MANOR DRIVE | 04-SM-001-R45.12-PFA | 1965 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0170 | 37373273 | 122291669 | SHARP PARK ROAD | 04-SM-001-R43.46-PFA | 1965 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0187 | 37381113 | 122292462 | PALOMA AVENUE | 04-SM-001-R44.21-PFA | 1965 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35C0097 | 37345334 | 122283209 | ODDSTAD BLVD | 0.1 MI N LINDA MAR BLVD | 1948 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |

**Table B-13. Portola Valley Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 37C0513 | 37225833 | 122113516 | ARASTRADERO ROAD | 0.03 MI E/O ALPINE RD | 1955 | -- | Concrete | County Highway Agency | Unknown | Unknown |

**Table B-14. Redwood City Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0001 | 37293736 | 122143923 | STATE ROUTE 82 | 04-SM-082-5.15-RDWC | 1915 | 1937 | Concrete | Caltrans | Caltrans | No |
| 35 0019 | 37300105 | 122142521 | U.S. HIGHWAY 101 | 04-SM-101-7.13-RDWC | 1930 | 1971 | Concrete continuous | Caltrans | Caltrans | No |
| 35 0052 | 37284400 | 122131359 | STATE ROUTE 84 | 04-SM-084-24.86-RDWC | 1965 | -- | Steel | Caltrans | Caltrans | No |
| 35 0065 | 37292298 | 122125109 | U.S. HIGHWAY 101 | 04-SM-101-5.50-RDWC | 1958 | 1972 | Concrete continuous | Caltrans | Caltrans | No |
| 35 0065F | 37291929 | 122125229 | S101-S84 CONNECTOR | 04-SM-101-5.50-RDWC | 1972 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0081G | 37292436 | 122124179 | N101-S84 CONNECTOR | 04-SM-101-5.39-RDWC | 1958 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0083 | 37292064 | 122124437 | U.S. HIGHWAY 101 | 04-SM-101-5.39-RDWC | 1958 | 1972 | Prestressed concrete | Caltrans | Caltrans | No |
| 35 0087 | 37293077 | 122131484 | MAPLE STREET | 04-SM-101-5.88-RDWC | 1958 | -- | Prestressed concrete | Caltrans | Caltrans | No |
| 35 0093 | 37283519 | 122131850 | STATE ROUTE 84 | 04-SM-084-24.68-RDWC | 1965 | -- | Prestressed concrete continuous | Caltrans | Caltrans | No |
| 35 0145 | 37293965 | 122133187 | U.S. HIGHWAY 101 | 04-SM-101-6.20-RDWC | 1958 | 1972 | Concrete continuous | Caltrans | Caltrans | No |
| 35C0013 | 37291896 | 122133781 | BRADFORD ST | BTWN MAIN ST & JEFFSN AVE | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0050 | 37293955 | 122143890 | STAFFORD ST | NORTH OF F ST | 1903 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0073 | 37313977 | 122160436 | MARINE PKWY | EAST OF S.H. 101 | 1968 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0074L | 37314396 | 122151566 | BRIDGE DR PARKWAY | EAST OF MARINE PKWY | 1971 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0074R | 37314426 | 122151530 | BRIDGE DR PARKWAY | EAST OF MARINE PKWY | 1971 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0128 | 37285563 | 122133484 | MAPLE ST | NORTH LATHROP ST | 1919 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0153 | 37285297 | 122133395 | LATHROP ST | SOUTH OF MAPLE ST | 1955 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0049 | 372952 | 1221427 | INDUSTRIAL WAY | NORTH OF G ST | 1930 | -- | Unknown | City or Municipal Highway Agency | Caltrans | No |

**Table B-15. San Bruno Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0062G | 37373390 | 122254425 | N280-E380 CONNECTR | 04-SM-280-R20.90-SBR | 1971 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0196L | 37365344 | 122252797 | INTERSTATE 280 SB | 04-SM-280-R20.04-SBR | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0196R | 37365214 | 122252711 | INTERSTATE 280 NB | 04-SM-280-R20.04-SBR | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0197K | 37370267 | 122252900 | S280-CRYSTAL SP OR | 04-SM-280-R20.22-SBR | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0197L | 37370274 | 122252787 | INTERSTATE 280 SB | 04-SM-280-R20.22-SBR | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0197R | 37370305 | 122252685 | INTERSTATE 280 NB | 04-SM-280-R20.22-SBR | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0200G | 37361538 | 122253837 | N280-N35 CNNTR RMP | 04-SM-035-L23.00-SBR | 1967 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0201 | 37362089 | 122254254 | CRYSTAL SPRINGS RD | 04-SM-280-R19.36-SBR | 1967 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0217 | 37373725 | 122254898 | INTERSTATE 280 | 04-SM-280-R20.97-SBR | 1971 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0218S | 37373769 | 122254811 | SAN BRUNO-N280 ONR | 04-SM-280-R20.96-SBR | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0219F | 37373679 | 122255385 | W380-S280 CONNECTR | 04-SM-380-4.65-SBR | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0220K | 37373656 | 122255497 | S280-SAN BRUNO OFF | 04-SM-280-R20.98-SBR | 1973 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0221L | 37373804 | 122255418 | WB RTE380 (FUTURE) | 04-SM-380-4.67-SBR | 1973 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0221R | 37373765 | 122255277 | EB RTE380 (FUTURE) | 04-SM-380-4.67-SBR | 1973 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0223 | 37375757 | 122250940 | INTERSTATE 380 | 04-SM-380-5.45-SBR | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0225 | 37374836 | 122260758 | SNEATH LANE | 04-SM-280-R21.30-SBR | 1971 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0226 | 37374548 | 122253572 | INTERSTATE 380 | 04-SM-380-T4.98-SBR | 1971 | 1973 | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0227 | 37372811 | 122254127 | INTERSTATE 280 | 04-SM-280-R20.75-SBR | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0253 | 37380261 | 122245223 | INTERSTATE 380 | 04-SM-380-5.73-SBR | 1971 | 1973 | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0254G | 37380286 | 122242234 | E380-N101 CONNECTR | 04-SM-380-6.37-SBR | 1976 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0256F | 37380520 | 122242252 | S101-W380 CONNECTR | 04-SM-101-R20.65-SBR | 1976 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0261L | 37380451 | 122242237 | INTERSTATE 380 WB | 04-SM-380-6.20-SBR | 1976 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0261R | 37380339 | 122242234 | INTERSTATE 380 EB | 04-SM-380-6.20-SBR | 1976 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0263G | 37380166 | 122242220 | E380-S101 CONNECTR | 04-SM-380-6.19-SBR | 1976 | -- | Prestressed concrete continuous | Caltrans | Unknown | Unknown |
| 35 0264 | 37375127 | 122241322 | SAN BRUNO AVENUE | 04-SM-101-R20.39-SBR | 1976 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0281F | 37381596 | 122241193 | W380-N101 CONNECTR | 04-SM-380-6.48-SBR | 1976 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35C0102 | 37373500 | 122262957 | SNEATH LN | E CLAREMONT DR | 1975 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |
| 35C0103 | 3737359178 | 122262764 | SNEATH LN | EAST CLAREMONT DR | 1975 | -- | Concrete continuous | City or Municipal Highway Agency | Unknown | Unknown |

**Table B-16. San Carlos Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35C0049 | 37295396 | 122142808 | INDUSTRIAL BLVD | NORTH OF G ST | 1930 | -- | Concrete continuous | City of San Carlos | City of San Carlos | No |
| 35C0083 | 37300595 | 122150904 | OLD COUNTY RD | SOUTH COMMERCIAL ST | 1920 | -- | Concrete continuous | City of San Carlos | City of San Carlos | No |

**Table B-17. San Mateo Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0010 | 37341414 | 122184819 | U.S. HIGHWAY 101 | 04-SM-101-13.44-SM | 1928 | 1952 | Concrete | Caltrans | Caltrans | No |
| 35 0047 | 37335089 | 122193702 | STATE ROUTE 82 | 04-SM-082-11.82-SM | 1935 | -- | Concrete | Caltrans | Caltrans | No |
| 35 0105 | 37320960 | 122174598 | STATE ROUTE 82 | 04-SM-082-9.24-SM | 1965 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0138 | 37323923 | 122171772 | EAST HILLSDALE BL | 04-SM-101-11.15-SM | 1954 | 1976 | Steel continuous | Caltrans | Caltrans | No |
| 35 0156L | 37330058 | 122184439 | WB STATE ROUTE 92 | 04-SM-092-R11.19-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0156R | 37330011 | 122184385 | EB STATE ROUTE 92 | 04-SM-092-R11.19-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0157L | 37330661 | 122183474 | WB STATE ROUTE 92 | 04-SM-092-R11.38-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0157R | 37330584 | 122183431 | EB STATE ROUTE 92 | 04-SM-092-R11.38-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0158L | 37330931 | 122182026 | WB STATE ROUTE 92 | 04-SM-092-R11.61-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0158R | 37330860 | 122182015 | EB STATE ROUTE 92 | 04-SM-092-R11.61-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0160 | 37330374 | 122183792 | STATE ROUTE 92 | 04-SM-092-R11.30-SM | 1963 | -- | Concrete | Caltrans | Caltrans | No |
| 35 0161 | 37325013 | 122192387 | ALAMEDA DE LAS PUL | 04-SM-092-R10.56-SM | 1963 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0162 | 37315697 | 122194621 | STATE ROUTE 92 | 04-SM-092-R9.38-SM | 1967 | -- | Prestressed concrete | Caltrans | Caltrans | No |
| 35 0198 | 37321292 | 122175116 | HILLSDALE BLVD | 04-SM-082-9.35-SM | 1965 | -- | Concrete continuous | Caltrans | Caltrans | No |
| 35 0203 | 37312130 | 122195590 | STATE ROUTE 92 | 04-SM-092-R8.67-SM | 1967 | -- | Prestressed concrete | Caltrans | Caltrans | No |
| 35 0252L | 37331685 | 122172299 | SR 92 WB & RAMPS | 04-SM-092-R11.78-SM | 1971 | -- | Prestressed concrete continuous | Caltrans | Caltrans | No |
| 35 0252R | 37331636 | 122172198 | SR 92 EB & RAMPS | 04-SM-092-R11.78-SM | 1971 | -- | Prestressed concrete continuous | Caltrans | Caltrans | No |
| 35 0284 | 37332428 | 122170916 | MARINERS ISLAND BL | 04-SM-092-R12.78-SM | 1977 | -- | Prestressed concrete continuous | Caltrans | Caltrans | No |
| 35C0066 | 37335567 | 122174985 | KEHOE AVENUE | WEST OF LODI AVE | 1955 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0067 | 37334234 | 122175754 | NORFOLK ST | SOUTH OF LODI AVE | 1953 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0075 | 37330927 | 122172415 | NORFOLK ST | 0.1 MI N/O DAY AVE | 1955 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0077 | 37325865 | 122174545 | BERMUDA DR | SOUTH OF FIESTA DRIVE | 1955 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | Yes |
| 35C0081 | 37321502 | 122174785 | PACIFIC BLVD | PACIFIC BLVD @ HILLSDALE | 1965 | -- | Prestressed concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0088 | 37340872 | 122191960 | DELAWARE ST | SOUTH OF CYPRESS AVE | 1910 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0130 | 37321937 | 122172986 | OTAY AVE | 0.05 MI E CURTISS ST | 1961 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0141 | 37341061 | 122191139 | FREMONT ST | 2ND AVE & FREMONT ST | 1920 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0143 | 37340882 | 122192427 | N CLAREMONT | NORTH OF 1ST ST | 1920 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0144 | 37340830 | 122192848 | RAILROAD AVE | SOUTH OF TILTON | 1902 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0155 | 37340528 | 122193014 | NORTH B STREET | BALDWIN AVE @ NORTH B ST | 1924 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0160 | 37331820 | 122172546 | FASHION ISLAND DR | 0.5 MI E OF S NORFOLK ST | 1967 | -- | Prestressed concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0042 | 373343 | 1221948 | CRYSTAL SPRINGS RD | 0.24 MI W OF SH 82 | 1901 | -- | Concrete | City or Municipal Highway Agency | Caltrans | No |
| 35C0089 | 373350 | 1221926 | PARKING STRUCTURE | ELLSWORTH AVE/SAN MATEO DR | 1966 | -- | Concrete continuous | City or Municipal Highway Agency | Caltrans | No |
| 35C0164 | 37381968 | 122234773 | ACCESS ROAD | NORTH OF NORTH ACCESS RD | 1948 | -- | Concrete continuous | City or Municipal Highway Agency / County of San Mateo | Municipal Highway Agency | Unknown |

**Table B-18. San Mateo County Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35C0004 | 37132732 | 122242016 | BEAN HOLLOW ROAD | 0.2 MI NORTH OF S.H. 1 | 1922 | -- | Concrete continuous. Reinforced concrete 4 box culvert | County of San Mateo Department of Public Works | Caltrans | Yes |
| 35C0005 | 37150006 | 122234469 | PESCADERO RD | 0.3 MI E BEAN HOLLOW RD | 1961 | -- | Concrete continuous. Concrete slab. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0018 | 37153957 | 122194554 | PESCADERO RD (HAYWARD BRIDGE) | 2 MI E BUTANO CUTOFF | 1937 | -- | Concrete continuous. Concrete box girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0041 | 37125725 | 122205892 | CLOVERDALE RD | 0.2 MI N CANYON RD | 1963 | -- | Concrete continuous. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0051 | 37264670 | 122241759 | HIGGINS PURISIMA R | 1.5 MI E OF MAIN ST | 1914 | -- | Concrete. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0052 | 37151519 | 122222271 | PESCADERO RD | 2.6 MI E SR 1/@ CLOVRDALE | 1957 | -- | Concrete continuous. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0053 | 37160096 | 122185067 | PESCADERO RD (ANDERSON BRIDGE) | 3 MI E BUTANO CUTT-OFF | 1937 | -- | Concrete continuous. Concrete Box Girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0054 | 37175821 | 122155504 | PESCADERO RD | ALPINE RD @ PESCADERO RD | 1968 | -- | Steel. Multi-plate metal arch culvert | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0056 | 37243982 | 122142883 | SAND HILL RD | SOUTH WHISKEY HILL RD | 1950 | -- | Steel. Multi-plate metal arch culvert | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0061 | 37320265 | 122210083 | CRYSTAL SPRINGS RD | POLHEMUS ROAD | 1974 | -- | Concrete continuous. Reinforced concrete double box culvert. | County of San Mateo Department of Public Works | Caltrans | Yes |
| 35C0063 | 37161603 | 122182488 | WURR RD (LOMA MAR) | 0.1 MI E PESCADERO RD | 1962 | -- | Steel. Steel girder (railroad car) | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0072 | 37311314 | 122155787 | INDUSTRIAL WAY | SOUTH HARBOR BLVD | 1950 | -- | Concrete continuous. Reinforced concrete double box culvert. | County of San Mateo Department of Public Works | Caltrans | Yes |
| 35C0111 | 37295492 | 122230597 | PILARCITOS CREEK R | 0.46 MI N OF S.H. 92 | 1910 | -- | Concrete. Concrete arch. | County of San Mateo Department of Public Works | Caltrans | Yes |
| 35C0116 | 37191766 | 122201453 | MADERA LANE | 0.1 MI N OF SH 84 | 1920 | -- | Concrete continuous. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0117 | 37151672 | 122225928 | STAGE ROAD | SOUTH OF NORTH ST | 1961 | -- | Concrete continuous. Concrete slab | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0118 | 37145112 | 122214482 | BUTANO CUT OFF | SOUTH PESCADERO RD | 1964 | -- | Concrete continuous. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0119 | 37163258 | 122171064 | WURR ROAD | 0.1 MI SOUTH PESCADERO | 1962 | -- | Prestressed concrete. Concrete girder. | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0121 | 37175778 | 122155351 | ALPINE ROAD | 0.01 MI W OF PESCADERO RD | 1920 | -- | Concrete. Concrete arch | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0186 | 37190826 | 122162566 | ENTRADA WAY | 0.1 MI. EAST OF SR 84 | 1973 | -- | Steel. Multi-plate metal arch culvert | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0194 | 37192762 | 122230343 | SEASIDE SCH RD SHV | 0.25 MILES W/O STAGE RD | 1976 | -- | Steel. Single span steel railroad car frame (single box girder) | County of San Mateo Department of Public Works | Caltrans | No |
| -- | -- | -- | ALPINE ROAD | MINDEGO CK: 3.5 MI E OF HWY 1 | 1939 | -- | concrete girder | County of San Mateo Department of Public Works | County | Yes |
| -- | -- | -- | ALPINE ROAD | ALPINE CK | 1939 | -- | concrete girder | County of San Mateo Department of Public Works | County | Yes |

**Table B-18. San Mateo County Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| -- | -- | -- | CLOVERDALE RD | 0.2 MI E OF HWY 1 | 1958 | -- | Concrete Box Steel Girder? | County of San Mateo Department of Public Works | County | No |
| 35C0016 | -- | -- | ALPINE ROAD | 0.3 MI N OF SH 280 | 1950 | -- | Concrete Girder | County of San Mateo Department of Public Works | Caltrans | No |
| 35C0036 | -- | -- | CRYSTAL SPRINGS (BIKE) | BYPASSED BY BRIDGE #35C-61 | 1928 | -- | Concrete Girder | County of San Mateo Department of Public Works | Not open to traffic | No |
| 35C0095 | -- | -- | SAN MATEO CREEK | 0.1 MI N CRYSTAL SPRINGS RD | 1964 | -- | -- | Ownership is in dispute between Town of Hillsborough and County | Caltrans | No |

**Table B-19. South San Francisco Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0094L | 37391055 | 122242531 | US HIGHWAY 101 SB | 04-SM-101-21.92-SSF | 1948 | 1969 | Steel continuous | Caltrans | Unknown | Unknown |
| 35 0094R | 37391146 | 122242466 | US HIGHWAY 101 NB | 04-SM-101-21.92-SSF | 1948 | 1969 | Steel continuous | Caltrans | Unknown | Unknown |
| 35 0118 | 37385530 | 122242281 | U.S. HIGHWAY 101 | 04-SM-101-21.61-SSF | 1947 | 1973 | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0119 | 37385939 | 122242330 | U.S. HIGHWAY 101 | 04-SM-101-21.69-SSF | 1947 | 1975 | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0121 | 37390524 | 122242383 | U.S. HIGHWAY 101 | 04-SM-101-21.80-SSF | 1948 | 1969 | Steel continuous | Caltrans | Unknown | Unknown |
| 35 0131S | 37401064 | 122233258 | N101-BAYSHORE OFF | 04-SM-101-23.39-SSF | 1957 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0212L | 37384237 | 122265738 | INTERSTATE 280 SB | 04-SM-280-R22.62-SSF | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0212R | 37384328 | 122265609 | INTERSTATE 280 NB | 04-SM-280-R22.62-SSF | 1967 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0228L | 37382190 | 122263064 | INTERSTATE 280 SB | 04-SM-280-R22.04-SSF | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0228R | 37382264 | 122262998 | INTERSTATE 280 NB | 04-SM-280-R22.04-SSF | 1971 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35C0021 | 37385468 | 122242548 | PRODUCE AVE | S/O SAN MATEO AVE | 1977 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0031 | 37390024 | 122244258 | LINDEN AVE | 0.2 MI W US 101 | 1974 | -- | Prestressed concrete | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0032 | 37395327 | 122273762 | DUNMAN ST | OVER HICKEY BLVD | 1965 | -- | Prestressed concrete | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0048 | 37385567 | 122243273 | SAN MATEO AVE | .1 MI W/O AIRPORT BLVD | 1960 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0078 | 37390480 | 122250374 | SPRUCE AVE | NORTH OF SOUTH ART CANAL | 1975 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0079 | 37392249 | 122255590 | CHESTNUT AVE | 0.1 MI S COMMERCIAL AVE | 1976 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0101 | 37384605 | 122240495 | UTAH AVE | 0.2 MI E OF S AIRPORT BLV | 1975 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0126 | 37390462 | 122250317 | SOUTH CANAL STREET | SPRUCE AVE | 1955 | 1976 | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0164 | 37381968 | 122234773 | ACCESS ROAD | NORTH OF NORTH ACCESS RD | 1948 | -- | Concrete continuous | City or Municipal Highway Agency / County of San Mateo | Municipal Highway Agency | Unknown |
| 35C0213 | 37385548 | 122241998 | SOUTH AIRPORT BLVD | 150 FT S/O MITCHELL AVE | 1977 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0148L | 37391942 | 122242144 | GRAND AVE | 0.1 MI E of US 101 | 1984 | -- | Steel continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0148R | 37391906 | 122242097 | SOUTH AIRPORT BLVD | 0.1 MI E of US 101 | 1984 | -- | Steel continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0173 | 37394518 | 122235280 | OYSTER POINT | 0.1 MI W of Gateway Bl | 1994 | -- | Prestressed concrete | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0046 | 37381972 | 122240108 | NORTH ACCESS RD | EAST OF AIRPORT BL | 1986 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |
| 35C0047 | 37381968 | 122235136 | NORTH ACCESS RD | 0.3 MI E AIRPORT BL | 1986 | -- | Concrete continuous | City or Municipal Highway Agency | Municipal Highway Agency | No |

**Table B-20. Woodside Bridge Inventory**

| Structure Number | Latitude North (DD°MM'SS.SS") | Longitude West (DDD°MM'SS.SS") | Facility Carried | Location | Year Built | Year Reconstructed | Structure Type Material | Bridge Ownership / Agency Responsible for Maintenance | Agency Responsible for Inspections | Replacement Likely during MRP 3.0? |
|---|---|---|---|---|---|---|---|---|---|---|
| 35 0044 | 37253090 | 122160189 | STATE ROUTE 84 | 04-SM-084-19.89-WDS | 1903 | -- | Concrete | Caltrans | Unknown | Unknown |
| 35 0230L | 37263731 | 122154765 | INTERSTATE 280 | 04-SM-280-R4.65-WDS | 1969 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0230R | 37263868 | 122154596 | INTERSTATE 280 NB | 04-SM-280-R4.65-WDS | 1969 | -- | Concrete continuous | Caltrans | Unknown | Unknown |
| 35 0231L | 37263963 | 122160880 | INTERSTATE 280 SB | 04-SM-280-R4.99-WDS | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0231R | 37264084 | 122160942 | INTERSTATE 280 NB | 04-SM-280-R4.99-WDS | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0232L | 37260664 | 122143522 | INTERSTATE 280 SB | 04-SM-280-R3.32-WDS | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35 0232R | 37260710 | 122143424 | INTERSTATE 280 NB | 04-SM-280-R3.32-WDS | 1969 | -- | Prestressed concrete | Caltrans | Unknown | Unknown |
| 35C0122 | 37253573 | 122151221 | MOUNTAIN HOME RD | 0.3 MI S OF S.H. 84 | 1900 | -- | Concrete | Town of Woodside | Caltrans | Yes |
| 35C0123 | 37255050 | 122163441 | KINGS MOUNTAIN RD | 0.05 MI E TRIPP RD | 1905 | -- | Concrete | Town of Woodside | Caltrans | Yes |
| 35C0191 | 37253152 | 122154511 | FOX HOLLOW ROAD | 500 FT S. OF SR 84 | 1975 | -- | Concrete continuous | Town of Woodside | Caltrans | Yes |

# Attachment C

## Program for Management of PCBs during Building Demolition – Data Summary through FY 2022/23 for San Mateo County MRP Permittees

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

555 County Center, 5th Fl
Redwood City, CA 94063
P 650.599.1406
flowstobay.org

September 25, 2023

To: SMCWPPP NPDES Technical Advisory Committee and Representatives of Municipal Programs to Manage PCBs During Building Demolition

From: SMCWPPP Staff

Subject: Program for Management of PCBs during Building Demolition – Data Summary through FY 2022/23 for San Mateo County MRP Permittees

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## Background

Provision C.12.g. of the Municipal Regional Permit (MRP 3.0)[1] requires Permittees to manage PCBs-containing materials and wastes during building demolition activities. San Mateo County and other MRP Permittees have developed and implemented a program for managing materials with PCBs concentrations of 50 ppm or greater in Applicable Structures[2] at the time the structures undergo demolition. For the purpose of annual reporting, this technical memorandum documents the following for San Mateo County MRP Permittees:

- The number of demolition permits for Applicable Structures applied for during FY 2022/23, which is the reporting year and the fourth year of the program (data from FY 2019/20, the first through third years of the program, are also included);
- A running list of the Applicable Structures that applied for a demolition permit (since July 1, 2019, the date the PCBs control program began implementation) that had material(s) with total PCB concentrations ≥50 ppm, with the address, estimated demolition date, and brief description of PCBs control method(s) used;
- For FY 2022/23 samples with total PCBs concentration ≥ 50 ppm, the PCBs concentration in each sample and a brief description of PCBs-containing materials that were sampled;
- The number of building material samples collected from Applicable Structures during the past four fiscal years (FY 2019/20 through FY 2022/23), categorized by PCBs concentration; and
- How the total number of building material samples collected is distributed among three PCBs concentration categories.

This memorandum was developed by SMCWPPP staff on behalf of San Mateo County MRP Permittees. It will be included with the Program's FY 2022/23 Annual Report.

## Number of Applicable Structure Applications

Table 1 summarizes the number of demolition permits for Applicable Structures applied for during FYs 2019/20 through 2022/23 by each Permittee and the number of associated building material samples with PCBs concentrations ≥50 ppm.

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[1] NPDES Permit No. CAS612008, Order No. R2-2022-0018.

[2] Applicable Structures are defined as buildings constructed or remodeled between the years 1950 and 1980 that are undergoing full-building demolition. Single-family residential and wood frame structures are exempt.

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Table 1: Number of Applicable Structure Applications Received in FYs 2019/20 through 2022/23.

| Permittee | Number of Applicable Structures | | | | Number of Samples with PCBs ≥ 50 ppm | | | |
|---|---|---|---|---|---|---|---|---|
| | FY 2019/20 | FY 2020/21 | FY 2021/22 | FY 2022/23 | FY 2019/20 | FY 2020/21 | FY 2021/22 | FY 2022/23 |
| Atherton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Belmont | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Brisbane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Burlingame | 1 | 2 | 1 | 2 | 0 | 0 | 7 | 0 |
| Colma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Daly City | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East Palo Alto | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Foster City | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Half Moon Bay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hillsborough | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Menlo Park | 1 | 2 | 9 | 0 | 1 | 0 | 2 | 0 |
| Millbrae | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacifica | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Portola Valley | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Redwood City | 1 | 3 | 2 | 0 | 0 | 12 | 4 | 0 |
| San Bruno | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Carlos | 1 | 2 | 0 | 0 | 0 | 12 | 0 | 0 |
| San Mateo | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| S. San Francisco | 6 | 7 | 13 | 2 | 1 | 0 | 2 | 5 |
| Woodside | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Mateo County | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **12** | **19** | **28** | **4** | **2** | **24** | **15** | **5** |

## List of Applicable Structures

Table 2 provides a running list of the Applicable Structures for which a demolition permit was applied since July 1, 2019 that had materials with PCBs concentrations ≥ 50 ppm. For each Applicable Structure, the address, estimated demolition date, number of samples with PCBs concentrations ≥ 50 ppm, and the range of PCBs concentrations in those samples are included.

## List of FY 2022/23 Building Material Samples with PCBs ≥ 50 ppm

Table 3 provides a list of FY 2022/23 building material samples with PCBs ≥ 50 ppm, the PCBs concentration in each sample, and a brief description of PCBs-containing materials that were sampled.

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Table 2. List of Applicable Structures with PCBs ≥ 50 ppm, FYs 2019/20 through 2022/23.

| Fiscal Year | Permittee | SMCWPPP Building ID | Address | Estimated Demolition Date | # of Samples with PCBs ≥ 50 ppm | PCBs Concentration Range in Samples with PCBs ≥ 50 ppm (mg/kg) |
|---|---|---|---|---|---|---|
| FY 2019/20 | Menlo Park | SM-2 | 305 Constitution Dr., Menlo Park, CA, 94025 | Jan 2020 | 1 | 54.5 |
| | South San Francisco | SM-6 | 1 Chestnut Ave., South San Francisco, CA, 94080 | Jan 2020 | 1 | 247 |
| FY 2020/21 | San Carlos | SM-17 | 1075 Commercial St./915 Old County Rd., Redwood City, CA, 94070 | Mar 2021 | 12 | 52-250,000 |
| | Redwood City | SM-28 | 975 Maple St., Redwood City, CA, 94063 | Jul 2021 | 2 | 97-102 |
| | Redwood City | SM-29 | 1150 Veterans Blvd., Redwood City, CA, 94063 | Oct 2021 | 10 | 50-330,000 |
| FY 2021/22 | Menlo Park | SM-42 | 1390 Willow Road (MPK 50) | Apr/May 2022 | 2 | 340-790 |
| | Redwood City | SM-55 | 1306 Main St., Redwood City, CA, 94063 | June 2022 | 4 | 580-5,000 |
| | South San Francisco | SM-56 | 225 Spruce St., South San Francisco, CA, 94080 | Fall 2022 | 2 | 1,200 - 25,000 |
| | Burlingame | SM-57 | 810 Malcolm Rd., Burlingame, CA, 94010 | Fall 2022 | 7 | 56 - 64,000 |
| FY 2022/23 | South San Francisco | SM-61 | 466 Forbes Blvd. South San Francisco, CA 94080 | August 2022 | 5 | 57 - 130,000 |

Table 3. List of FY 2022/23 Samples with PCBs ≥ 50 ppm.

| Sample Name | PCBs Concentration (mg/kg) | Material Description |
|---|---|---|
| SMCWPPP Building ID SM-58, 466 Forbes Blvd., South San Francisco | | |
| PCB-04C | 24,000 | Window Caulking |
| PCB-04D | 84,000 | Window Caulking |
| PCB-04E | 130,000 | Window Caulking |
| PCB-03C | 57 | Window Gasket |
| PCB-03D | 68 | Window Gasket |

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## Summary of Sampling PCBs during Building Demolition FY 2019/20 through FY 2022/23

Figure 1 summarizes the number of building material samples collected from Applicable Structures throughout San Mateo County during the past four fiscal years (FY 2019/20 through FY 2022/23), categorized by PCBs concentration:

1. PCBs Not Detected (ND)
2. PCBs < 50 ppm
3. PCBs ≥ 50 ppm

Figure 2 summarizes how the total number of building material samples is distributed among the above three PCBs concentration categories.

**Figure 1. San Mateo County Building Materials PCBs Sampling Results by Fiscal Year and PCBs Concentration Category**

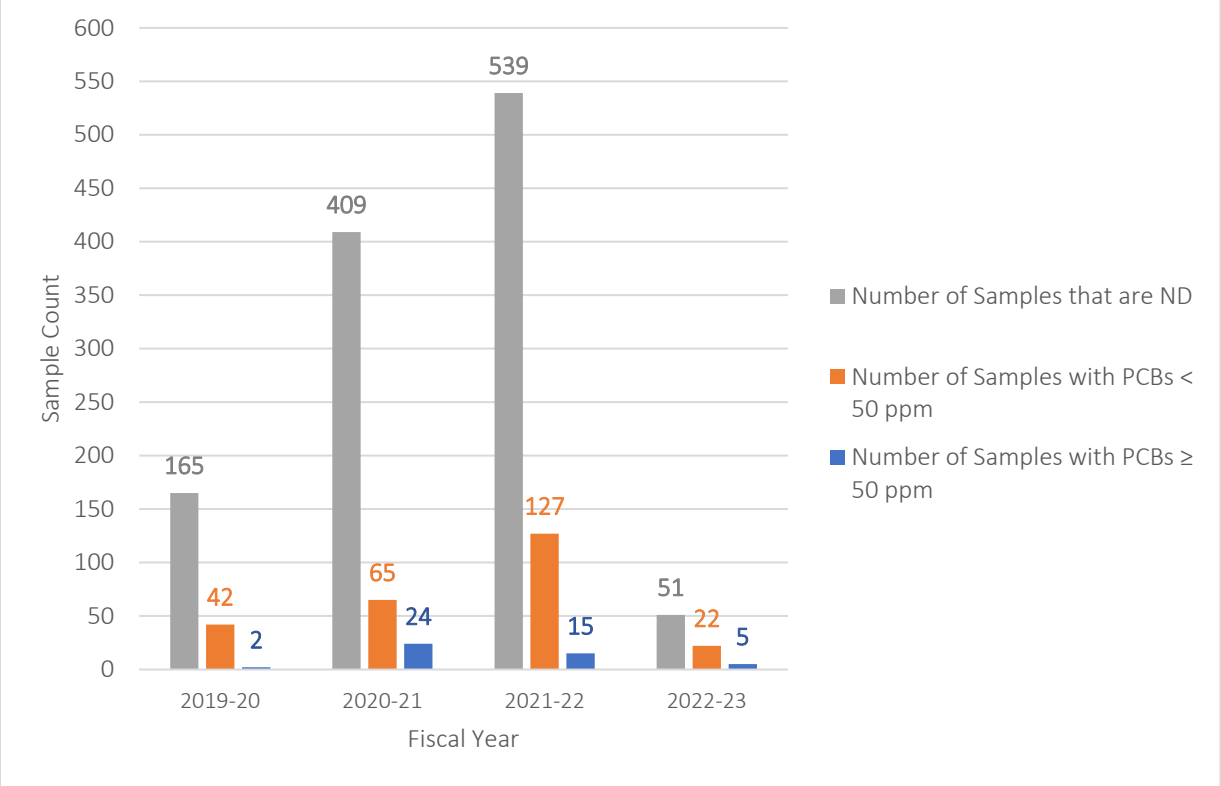

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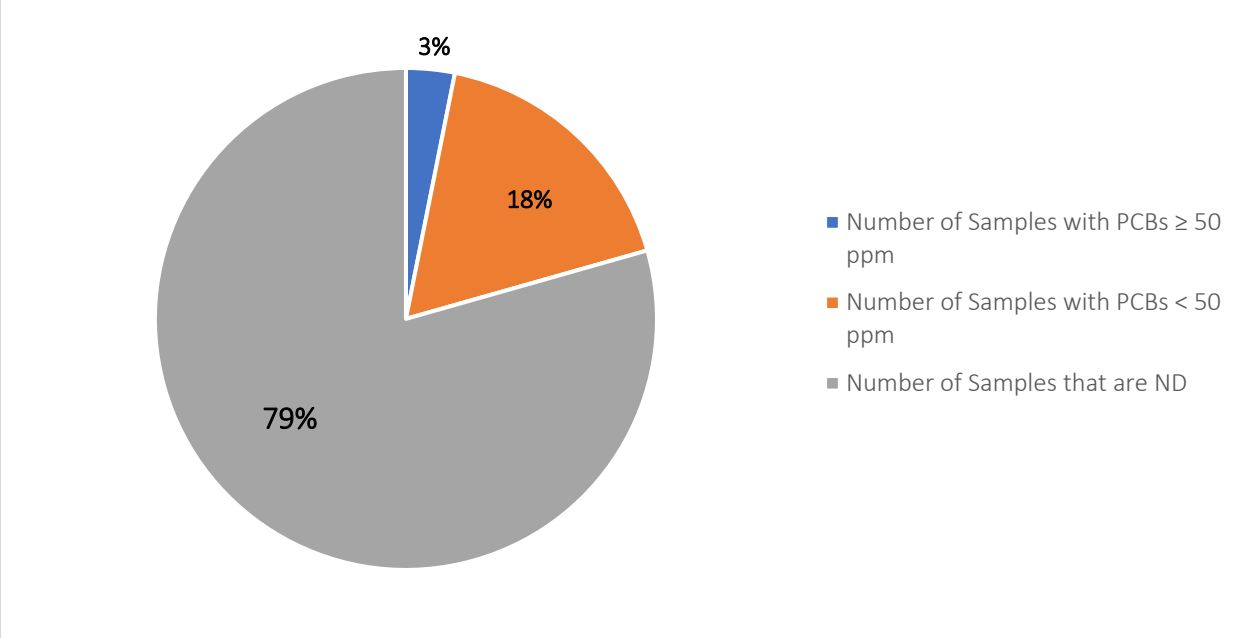
Figure 2. San Mateo County Building Materials PCBs Sampling Results - Percentage Distribution Among PCBs Concentration Categories




## Description of PCBs Control Method

Permittee Control Method

San Mateo County Permittees have implemented the following process for this control measure:

- The municipality informs applicable demolition permit applicants that their projects are subject to the program for managing materials with PCBs, necessitating, at a minimum, an initial screening for priority PCBs–containing materials.
- For every applicable demolition project, applicants implement the BASMAA protocol for identifying building materials with PCBs concentrations of 50 ppm or greater and then complete and submit a version of BASMAA's model "PCBs Screening Assessment Form" (Screening Form) or equivalent to the municipality.
- The municipality reviews the Screening Form to make sure it is filled out correctly and is complete and works with the applicant to correct any deficiencies.
- The municipality then issues the demolition permit or equivalent, according to its procedures.
- The municipality sends each completed Screening Form for Applicable Structures and any supporting documents to SMCWPPP staff. SMCWPPP staff compiles the forms and works with the other MRP countywide programs to manage and evaluate the data, and to assist Permittees with associated MRP reporting requirements.

Building Demolition Applicant Control Method

Applicants that determine, through implementation of the BASMAA protocol, that PCBs exist in priority building materials must follow applicable federal and state laws for handling and disposal. This may

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include reporting to U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs.

Depending on the approach for sampling and removing building materials containing PCBs, the applicant may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under Toxic Substances Control Act (TSCA). For example, TSCA requires manifesting the waste for transportation and disposal. (See 40 Code of Federal Regulations (CFR) 761 and 40 CFR 761, Subpart K.) TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. (See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).). 40 CFR 761.3 provides information relative to disposal of PCBs-containing building materials, including definitions of PCBs bulk product wastes and PCBs remediation wastes. Further information is provided in a memorandum "PCB Bulk Product Waste Reinterpretation" from the Office of Resource Conservation and Recovery, EPA[3]. Additionally, the disposal of PCBs waste is subject to California Code of Regulations (CCR) California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

MRP 3.0 Enhancements to the Control Program

Beginning July 1, 2023 and for demolition of Applicable Structures containing building materials with PCBs concentrations ≥ 50 ppm, San Mateo County MRP Permittees plan to implement the following enhancements to their PCBs control programs:

- Requiring demolition contractors to provide notification to the Permittees, the Water Board, and U.S. EPA at least one week before any demolition is to occur;
- Enhancing their construction site control programs during the demolition to minimize migration of PCBs into the MS4; and
- Verifying that PCBs in demolished buildings are properly managed to minimize transport to the MS4 by obtaining official documentation that the building materials with PCBs concentrations ≥ 50 ppm in demolished Applicable Structures were disposed appropriately according to state/federal regulations.

[3] Located here: https://www.epa.gov/sites/production/files/2016-01/documents/wste-memo_102412.pdf.

# Appendix 13

- FY 2022/23 Regional Supplement for New Development and Redevelopment, San Francisco Bay Area, Municipal Regional Stormwater Permit, Bay Area Municipal Stormwater Collaborative, September 2023
- CASQA 2023 Pesticide Annual Report and Effectiveness Assessment Final Report, California Stormwater Quality Association, August 2023
- CASQA FY 2022-23 Our Water Our World (OWOW) Report, California Stormwater Quality Association, August 2023.
- Summary of Modifications to the Bay Area Hydrology Model (BAHM) during FY 22-23

# Annual Reporting for FY 2022-2023

# Regional Supplement for New Development and Redevelopment

# San Francisco Bay Area Municipal Regional Stormwater Permit

## Bay Area Municipal Stormwater Collaborative

September 2023

**MRP Regional Supplement for New Development and Redevelopment**
**Annual Reporting for FY 2022-2023**

**TABLE OF CONTENTS**

## INTRODUCTION

This Regional Supplement has been prepared to report on regionally implemented activities complying with portions of the Municipal Regional Stormwater Permit (MRP) issued to 79 municipalities and special districts (Permittees) by the San Francisco Bay Regional Water Quality Control Board (Water Board). The Regional Supplement covers new development and redevelopment activities related to the following MRP 3.0 provision:

- C.3.j.iv Participate in Processes to Promote Green Infrastructure.

These regionally implemented activities were conducted under the auspices of the Bay Area Municipal Stormwater Collaborative (BAMSC), an informal coalition of the municipal stormwater programs in the San Francisco Bay Area.[1] Most of the 2022-23 annual reporting requirements of Provision C.3.j.iv covered in this Supplement were completely met by BAMSC member activities, except where otherwise noted herein or by Permittees in their reports. Through their program representatives on the BAMSC Steering Committee and its Subcommittees, MRP Permittees collaboratively participated in these BAMSC informal regional activities.

## GREEN INFRASTRUCTURE PLANNING AND IMPLEMENTATION

### C.3.j.iv Participation in Processes to Promote Green Infrastructure

This provision requires:

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

This section describes activities and accomplishments during FY 22-23 to promote green infrastructure (GI or GSI). The BAMSC activities described in this section provide compliance for MRP Permittees with this provision.

[1] In late FY 20-21, the predecessor to BAMSC, the Bay Area Stormwater Management Agencies Association (BASMAA), dissolved as a formal non-profit organization and its members continued to meet as an informal organization under the name Bay Area Municipal Stormwater Coalition (BAMSC). BAMSC members jointly prepared this Regional Supplement for FY 22-23.

## Activities and Accomplishments during FY 22-23

### *MRP 3.0 C.3/GI Work Groups*

During the May 11, 2022 adoption hearing for MRP 3.0, Water Board members expressed concerns about three issues related to the requirements in Provision C.3, New Development and Redevelopment Controls:

1. Allow for more "innovative" treatment options to be used for regulated projects;
2. Provide more flexibility for affordable housing projects that may qualify for Special Projects Category C low impact development (LID) treatment reduction credits; and
3. Consider the impacts of the new road reconstruction requirements (regulated at a threshold of one acre or more of impervious surface replaced) on disadvantaged communities (DACs).

Water Board members directed Water Board staff to form work groups to discuss the issues with a broad group of stakeholders and report back to the Board by August 2023. It was also envisioned that the outcomes of work group discussions might result in amendments to Provision C.3.

Three work groups – the Alternative Treatment Systems Work Group, the Special Projects Category C/Affordable Housing Work Group, and the Road Reconstruction in DACs Work Group – were formed and began meeting in August/September 2022. Countywide Program and Permittee staff actively participated in all work groups. Work group meetings continued through April 2023. Draft language for an MRP 3.0 C.3 Amendment was shared by Water Board staff on April 7, 2023, and a Tentative Order for the Amendment was released on July 21, 2023, with an adoption hearing scheduled for October 11, 2023.

### *BAMSC Development Subcommittee*

The BAMSC Development Subcommittee continued to meet approximately quarterly during FY 22-23 and promoted the implementation of GI by providing a forum to discuss the following topics:

- Water Efficient Landscape Ordinance (WELO), including a presentation and discussion with BART staff on how they implement WELO and best irrigation practices in GSI facilities;
- Regional-Scale, Multi-benefit Stormwater Management, including a case study from C/CAG/SMCWPPP on their approach to prioritizing and identifying potential GSI sites;
- Alternative Compliance, including the Caltrans Partnership Pathways program that provides financial partnering opportunities with local jurisdictions for treatment and trash capture projects.

***Other Participation and Comments***

- Reid Bogert (SMCWPPP) – Discussions with state and federal legislators and staff on opportunities to fund green stormwater infrastructure projects through climate resilience appropriations and earmark requests. Successful request for $2.4M in funding for a regional stormwater capture project in the City of San Bruno.
- Reid Bogert (SMCWPPP) – Presentation at the July 14, 2022 CASQA Quarterly Seminar on the topic of "Multi-Scale Green Stormwater Infrastructure in San Mateo County."
- Reid Bogert (SMCWPPP) – Project manager for Climate Resiliency Resources Guide Part 2 Project for GI Leadership Exchange. This Collaborative Grant Program project under the GI Leadership Exchange is developing Part 2 of the Climate Resilience Resources Guide. This grant project will result in an updated "glossy" document incorporating the content from Part 1 of the Climate Resilience Resources Guide and focusing on providing decision support tools and resources to integrate climate resilience with all phases of green stormwater infrastructure implementation. The project began in September 2022.
- Peter Schultze-Allen (EOA) – Presentation at the California Urban Forests Council annual conference, on the topic of "Stormwater and Urban Forest Connections" on September 30, 2022.
- Reid Bogert (SMCWPPP) – Presentation at Green California Schools and Community Colleges Summit, October 18, 2022: "Rainwater Resilient Schools in San Mateo County", featuring collaborative grant-funded and other green stormwater partnership projects involving schools and school districts in San Mateo County.
- Reid Bogert (SMCWPPP) – Presentation at the 2022 CASQA Conference, October 24, 2022, on "Activating Adaptation with the Climate Resilience Resources Guide, Part 1," a Regional Collaborative Grant project of the Green Infrastructure Leadership Exchange focusing on integrating climate adaptation with green stormwater management.
- Reid Bogert (SMCWPPP) – Presentation at the 2022 CASQA Conference, October 25, 2022, on "The Currency Exchange – Translating Metrics for Stormwater and Green Infrastructure Planning and Reporting," with a focus on the development of methods to calculate green stormwater infrastructure project benefits associated with large-scale stormwater capture projects in San Mateo County.
- Peter Schultze-Allen (EOA/SCVURPPP) – Presentation at the 2022 CASQA Conference, October 26, 2022, on the SCVURPPP GSI Vegetation Guide: "Healthy Plants for Better Bioretention Performance: An Approach from the San Francisco Bay Area."
- Peter Schultze-Allen (EOA/SMCWPPP) and Reid Bogert (SMCWPPP) – Moderated and participated in a panel at the 2022 CASQA Conference, October 26, 2022, on the topic of "Rain Barrels, Rebates & Reciprocity: Encouraging Community Adoption of Stormwater Capture by Lowering the Cost of Entry and Increasing

Accessibility," featuring a discussion of rain barrel and other green stormwater infrastructure rebate programs in California. Panelists also included Pam Boyle Rodriguez (City of Palo Alto) and Suzi Senna (SGA).

- Reid Bogert (SMCWPPP) – Participated on a panel organized by the San Mateo County Office of Education's Climate Ready and Sustainable Schools Initiative on January 10, 2023.
- Comments on Caltrans' *Draft Design Information Bulletin 94, Complete Streets: Contextual Design Guidance* – Peter Schultze-Allen (EOA/SCVURPPP) provided comments on the Green Streets chapter of this document on May 10, 2023. The comments contained recommendations for using consistent terminology and bioretention designs as municipal stormwater agencies and included references to GSI design guides in the Bay Area.
- Jill Bicknell (EOA/SCVURPPP) – Workshop for the American Public Works Association, Silicon Valley Chapter, on June 21, 2023, covering the new MRP C.3 and GSI requirements, and evaluation of GSI opportunities in streets and parking lots, including review of capital projects for "No Missed Opportunities," GSI location identification and screening, an example desktop screening exercise, and field evaluation.

**Future Activities**

During FY 21-22, Countywide Program and Permittee staff worked with Water Board staff as part of a BAMSC C.3/GSI Work Group on requirements for long-term and short-term implementation of GSI. The Work Group proposed an approach for setting short-term requirements in the context of long-term GSI implementation goals that would be established via a Technical Working Group (TWG), including Water Board staff and outside science experts from EPA, SFEP, SFEI, and other organizations. As a result of these discussions, Provision C.3.j.ii.(4) of MRP 3.0 contains a provision for discussion of long-term GSI goals via the TWG. (Short-term GSI numeric targets for this permit term are described in Provision C.3.j.ii.(2) and Attachment H.) The TWG will begin meeting in FY 23-24 to discuss long-term goals for GI and reductions in impervious surfaces at individual, countywide and regional scales. A report summarizing the TWG's efforts and recommendations will be submitted with the FY 24-25 Annual Report.

# 2023
# Pesticide Annual Report and Effectiveness Assessment

California Stormwater Quality Association

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION®

**August 2023**

## Preface

The California Stormwater Quality Association (CASQA) is a nonprofit corporation that advances sustainable stormwater management protective of California water resources. With approximately 2,000 members, our membership is comprised of a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, federal agencies, state agencies, ports, universities and school districts, wastewater agencies, water suppliers, industries, and consulting firms throughout the state. Collectively, CASQA represents over 36 million people in California.

This report provides CASQA's members with focused information on its efforts to prevent pesticide pollution in urban waterways. It is a component of CASQA's True Source Control Initiative, which seeks to address stormwater and urban runoff pollutants at their sources. This report was funded by CASQA, Alameda Countywide Clean Water Program, Contra Costa Clean Water Program, Fairfield-Suisun Urban Runoff Management Program, Marin County Stormwater Pollution Prevention Program, Napa Countywide Stormwater Pollution Prevention Program, Sacramento Stormwater Quality Partnership, San Mateo Countywide Water Pollution Prevention Program, Santa Clara Valley Urban Runoff Pollution Prevention Program, Sonoma County Water Agency, and Vallejo Flood & Wastewater District.

This report was prepared by Stephanie Hughes under the direction of the CASQA True Source Control Subcommittee (co-chairs Victoria Kalkirtz and Sara Toyoda), with input from Tammy Qualls of Qualls Environmental Consulting and Ashli Desai of Larry Walker Associates.

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## Abbreviations Used in this Report

**ALB** – Aquatic Life Benchmark

**BACWA** – Bay Area Clean Water Agencies

**BE** – Biological Evaluation

**CASQA** – California Stormwater Quality Association

**CWA** – Clean Water Act

**DPR** – California Department of Pesticide Regulation

**EAD** – Exposure Assessment Document (DPR)

**ECC** – Estimated environmental concentration

**EPA** – United States Environmental Protection Agency

**ERA** – Ecological Risk Assessment

**ESA** – Endangered Species Act

**IPM** – Integrated Pest Management

**MAA** – Management Agency Agreement between DPR and the Water Boards

**MS4** – Municipal Separate Storm Sewer System

**NPDES** – National Pollutant Discharge Elimination System

**OPP** – U.S. EPA Office of Pesticide Programs

**OW** – U.S. EPA Office of Water

**PAH** – Polycyclic aromatic hydrocarbon

**PEAIP** – Program Effectiveness Assessment and Improvement Plan

**PID** – Proposed Interim Decision

**PMAC** – Pest Management Advisory Committee (DPR)

**PPDC** – EPA's Pesticide Program Dialogue Committee

**PUR** – Pesticide Use Reporting

**RCD** – Risk Characterization Document (DPR)

**RMD** – Risk Management Directive (DPR)

**SFBRWQCB** – San Francisco Bay Regional Water Quality Control Board

**SPM** – Sustainable Pest Management Work Group (DPR)

**STORMS** – Strategy to Optimize Resource Management of Storm Water (a program of the State Water Board)

**SWAMP** – California Water Boards Surface Water Ambient Monitoring Program

**TMDL** – Total Maximum Daily Load (regulatory plan for solving a water pollution problem)

**TSC** – CASQA True Source Control Subcommittee

**UP3** – Urban Pesticides Pollution Prevention Partnership

**UPP** – Urban Pesticide Provisions

**USGS** – U.S. Geological Survey

**Water Boards** – California State Water Resources Control Board together with the California Regional Water Quality Control Boards

## Contents



## List of Figures



## List of Tables

## Executive Summary

This report by the California Stormwater Quality Association (CASQA) describes CASQA's activities related to the goal of preventing pesticide pollution in urban waterways for the period of July 2022 through June 2023.

To address the problems caused by pesticides in California's urban waterways, CASQA collaborates with the California State Water Resources Control Board and the California Regional Water Quality Control Boards (Water Boards). By working with the Water Boards and other water quality organizations, we address the impacts of pesticides efficiently and proactively through the statutory authority of the California Department of Pesticide Regulation (DPR) and EPA's Office of Pesticide Programs (OPP). The collaboration, initiated more than 19 years ago, has resulted in significant changes in pesticide regulation. A summary of CASQA's activities to address key management questions are described below, with more details and outcomes provided in Section 2.

**Near term / Current problems** – Are actions being taken by State and Federal pesticides regulators and stakeholders that are expected to end pesticide-caused toxicity or exceedances of pesticide water quality objectives in surface waters receiving urban runoff?

- CASQA shared its urban runoff expertise with pesticide regulators by preparing comment letters to EPA regarding etofenprox, carbendazim, and carbaryl. *(See Table 3 and Appendix.)*
- In response to CASQA requests to mitigate impacts of etofenprox use on urban impervious surfaces, EPA incorporated label language that restricts specific use including using CASQA's suggested pictogram and proposed labeling. *(See Table 3 and Appendix.)*
- In response to CASQA requests to mitigate environmental risks in urban environments, EPA initiated significant mitigation measures for urban uses of carbaryl including use deletions, spray drift management measures, general environmental protection measures (including water protection statements), and updated environmental hazard statements. *(See Table 3 and Appendix.)*
- CASQA updated the Pesticide Watch List following the publication of a U.S. Geological Survey (USGS) surface water quality monitoring dataset for Central California. The Watch List will be shared with pesticides regulators and with government agency and university scientists to stimulate generation of surface water monitoring and aquatic toxicity data for the highest priority pesticides. *(See Table 2.)*

**Long term / Prevent future problems** – Do pesticides regulators have an effective system in place to exercise their regulatory authorities to prevent pesticide toxicity in urban water bodies?

- DPR continues to demonstrate its commitment to addressing pesticide impacts on receiving waters through the creation of a Sustainable Pest Management (SPM) Roadmap that seeks to transition the state away from high-risk pesticides[1] to sustainable pest control practices.
- The State Water Board continued to work toward development of the Urban Pesticide Provisions (UPP). The desired outcome for these provisions is to institutionalize the State's strategy of utilizing pesticide regulations as the primary mechanism for addressing pesticide water quality problems associated with urban runoff.
- The State Water Board continues to work toward developing the UPP which are anticipated to be incorporated into the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries, and the Water Quality Control Plan for Ocean Waters of California. CASQA remains dedicated to supporting State Water Board staff.

[1] The SPM Roadmap defines high-risk pesticides as "active ingredients that are highly hazardous and/or formulations or uses that pose a likelihood of, or are known to cause, significant or widespread human and/or ecological impacts from their use." https://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/spm_roadmap.pdf

- In 2022, EPA published a workplan to address the incorporation of their Endangered Species Act (ESA) obligation with pesticide registrations and re-registrations. Twice this fiscal year, the plan was updated to include additional guidance; however urban pesticide uses were not included in both documents. CASQA coordinated with the Bay Area Clean Water Agencies (BACWA) to communicate with EPA headquarters about this omission. This led to an online meeting with five EPA OPP lead staff on July 6, 2023 where CASQA and BACWA representatives directly communicated urban pesticides use concerns. While EPA indicated that their near-term focus will continue to be identification of agricultural impacts to endangered species, they indicated an openness to further communication regarding urban mitigations, with a focus on labels (such as pictograms) and user education. (See Section 2.2.1.)
- Although many improvements have been made by EPA OPP since the early 2000s, improvement in scientific evaluations supporting EPA OPP's regulatory efforts and better understanding of urban runoff management systems are still necessary to adequately protect urban surface waters from pesticide impairments.
- Victoria Kalkirtz, co-chair of CASQA's TSC Subcommittee, joined the DPR's Pest Management Advisory Committee (PMAC).

In the coming year, CASQA plans to continue to address near-term pesticide concerns and seek long-term regulatory change. Near-term and long-term tasks are identified in Section 3, Tables 5 and 6. Key topics include:

- Continued engagement with EPA regarding incorporating their ESA obligation in registrations and re-registrations, including recommending the use of pictograms in labels, and seeking opportunities in California for EPA's regional and vulnerable species pilot programs;
- Continued engagement with DPR regarding the SPM Roadmap specific to urban implementation programs and opportunities;
- Continued support of the UPPs by the State Water Board;
- Continued development of a coordinated monitoring program in partnership with the Water Boards, DPR, and EPA Region 9;
- Registration review-related activities at EPA for pyrethroids and fipronil;
- Initiating discussion of urban water quality concerns at the EPA Pesticide Program Dialogue Committee's (PPDC) future meetings;
- DPR registration applications and proposed decisions for new products.

# Section 1. Introduction

## 1.1 IMPORTANCE OF CASQA'S EFFORTS TO IMPROVE PESTICIDE REGULATION

For decades, the uses of certain pesticides in urban areas – even when applied in compliance with pesticide regulations – have adversely impacted urban water bodies. Currently used pesticides are the primary cause of toxicity in California surface waters, including urban water bodies.[2] Under the Clean Water Act (CWA), municipalities are held responsible for the quality of urban runoff discharges conveyed to receiving waters through municipal storm drainage systems. When pesticide-related water pollution occurs, local agencies may be held responsible for exceedances in receiving waters, as well as costly monitoring and mitigation efforts. To date, some California municipalities[3] have incurred substantial costs to comply with pesticides-related Total Maximum Daily Loads (TMDLs) and additional permit requirements. In some cases (e.g., diazinon, chlorpyrifos), municipal compliance costs have continued more than a decade after termination of virtually all urban use. Throughout California, more municipalities are expected to be subject to similar requirements, as additional TMDLs and Basin Plan Amendments are adopted (Table 1). Meanwhile, local agencies have no authority to further control urban pesticide uses[4] in order to proactively prevent pesticide pollution and avoid these costs and liabilities.

Under federal and state statutes, EPA and DPR have the authority and responsibility to regulate pesticides and protect water bodies from adverse effects (including impacts from pesticides in urban runoff). For many years, neither agency recognized the need, nor possessed the institutional capacity, to exercise their authority to protect urban water quality. As a result, past registration actions allowed a number of pesticides (such as pyrethroids and fipronil) to be used legally in ways that resulted in widespread pollution in urban water bodies. This situation is depicted in Figure 1.

To change this situation, CASQA actively engages with state and federal regulators in an effort to develop an effective pesticide regulatory system, based primarily on existing statutes, that includes timely identification and mitigation of urban water quality impacts, and proactively prevents additional problems through the registration and registration review processes (Figure 2).

[2] See reports from the California Surface Water Ambient Monitoring Program Sediment Pollution Trends Program including Anderson, B.S., Hunt, J.W., Markewicz, D., Larsen, K., 2011. Toxicity in California Waters, Surface Water Ambient Monitoring Program. California Water Resources Control Board. Sacramento, CA.

[3] For example, Sacramento-area municipalities spent more than $75,000 in the 2008-2013 permit term on pyrethroid pesticide monitoring alone; Riverside-area municipalities spent $617,000 from 2007 to 2013 on pyrethroid pesticide chemical and toxicity monitoring.

[4] Local agencies in California have authority over their own use of pesticides but are pre-empted by state law from regulating pesticide use by consumers and businesses.

**Table 1. California TMDLs, Statewide Water Quality Control Plans, and Basin Plan Amendments Addressing Currently Registered Pesticides and/or Toxicity in Urban Watersheds[5, 6, 7]**

| Water Board Region | Water Body | Pesticide | Status |
|---|---|---|---|
| **Statewide** | All MS4s/All Urban Waterways:<br>Statewide Water Quality Control Plan amendments for urban pesticides reduction ["Urban Pesticides Amendments"] (Inland Surface Waters, Enclosed Bays & Estuaries, and Ocean) | All Pesticides/All pesticide-related toxicity | In preparation |
| | Sediment Quality Objectives (Enclosed Bays & Estuaries) | Sediment Toxicity [8] | Approved |
| | Toxicity Provisions (Inland Surface Waters and Enclosed Bays & Estuaries) | Toxicity [7] | Approved May 2023 [9] |
| **San Francisco Bay (2)** | All Bay Area Urban Creeks | All Pesticide-Related Toxicity | Approved |
| **Central Coast (3)** | Santa Maria River Watershed | Pyrethroids, Toxicity | Approved |
| | Lower Salinas River Watershed | Pyrethroids, Toxicity | Approved |
| | | Malathion, Chlorpyrifos, Diazinon [9] | Adopted by Central Coast Water Board, June 2022 [11] |
| | San Lorenzo River Watershed (Santa Cruz) | Chlorpyrifos [10] | Approved |
| **Los Angeles (4)** | Marina del Rey Harbor | Copper (Marine antifouling paint) [12] | Approved |
| | Oxnard Drain 3 (Ventura County) | Bifenthrin, Toxicity | EPA-Adopted Technical TMDL |
| | Calleguas Creek, its Tributaries and Mugu Lagoon | Water & Sediment Toxicity [7]<br>Diazinon & Chlorpyrifos [9] | Approved |
| | McGrath Lake (Ventura County) | Sediment Toxicity [7] | Approved |
| | Colorado Lagoon (Long Beach) | Sediment Toxicity [7] | Approved |
| | Dominguez Channel; Greater Los Angeles & Long Beach Harbor | Sediment Toxicity [7] | Approved |
| | Ballona Creek Estuary | Sediment Toxicity [7] | Approved |

[5] Excludes pesticides that are not currently registered in California, such as organochlorine pesticides.
[6] https://www.waterboards.ca.gov/water_issues/programs/tmdl/
[7] https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_final/apx_d_adopted_tmdls_list.pdf
[8] These TMDLs/Plan provisions can trigger toxicity testing stressor source identification studies, and additional follow up, even when toxicity is linked to current pesticides.
[9] https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.html
[10] Use prohibited in urban areas (diazinon) or no meaningful use due to use limitations (chlorpyrifos).
[11] https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/salinas/oppesticides/
[12] Primarily addresses pesticides that are directly discharged and should not ordinarily appear in stormwater (marine antifouling paint).

| Water Board Region | Water Body | Pesticide | Status |
|---|---|---|---|
| **Central Valley (5)** | Sacramento River and San Joaquin River Basins | Pyrethroids | Approved |
| | Sacramento-San Joaquin River Delta Waterways | Diazinon & Chlorpyrifos [9] | Approved |
| | Sacramento & Feather Rivers | Diazinon & Chlorpyrifos [9] | Approved |
| | Sacramento County Urban Creeks | Diazinon & Chlorpyrifos [9] | Approved |
| | Lower San Joaquin River | Diazinon & Chlorpyrifos [9] | Approved |
| **Lahontan (6)** | Pesticide Discharge Prohibition | All Pesticides | Approved |
| **Santa Ana (8)** | Newport Bay | Copper (Marine antifouling paint) [11] | Adopted by Santa Ana Water Board [13] |
| | San Diego Creek, and Upper and Lower Newport Bay | Toxicity (Diazinon & Chlorpyrifos) [9] | EPA-Adopted Technical TMDL |
| **San Diego (9)** | Shelter Island Yacht Basin (San Diego Bay) | Copper (Marine antifouling paint) [11] | Approved |
| | Chollas Creek | Diazinon [9] | Approved |

[13] https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.html

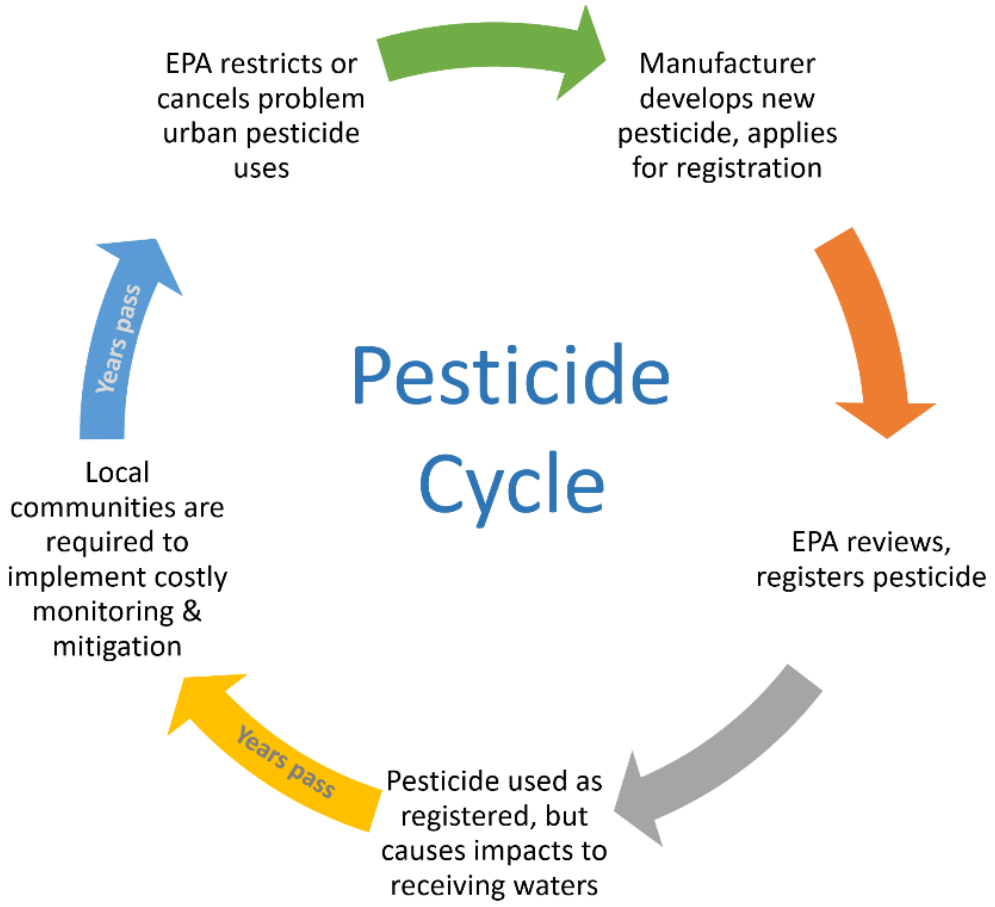


**Figure 1. The Pesticide Regulatory System Can Lead to Harmful Outcomes to Surface Waters.**

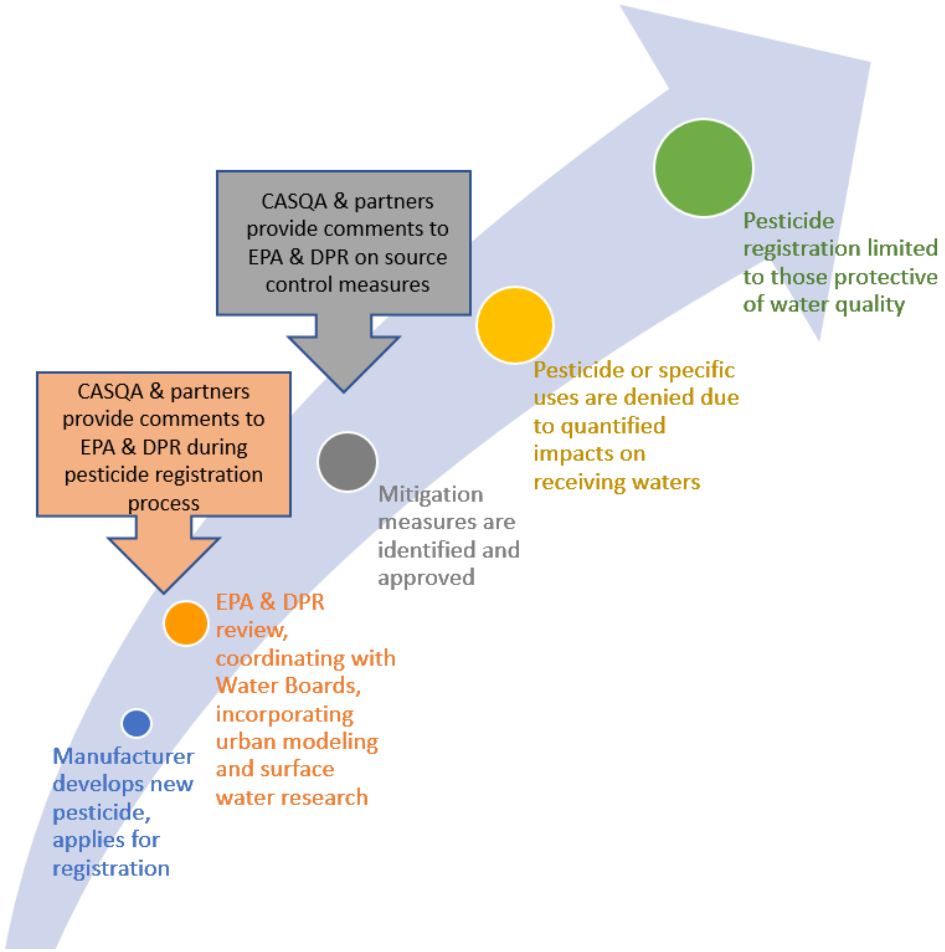


**Figure 2. Via Proactive Use of the Pesticide Regulatory Structure, CASQA and Partners Seek to Restrict Pesticide Uses that have the Potential to Cause Urban Water Quality Problems.**

## 1.2 CASQA'S GOALS AND APPLICATION TO PROGRAM EFFECTIVENESS ASSESSMENT

CASQA's *Vision for Stormwater*, first approved by the Board of Directors in 2015, is periodically updated to reflect developments in stormwater management. In October 2020, CASQA released the updated *Vision for Sustainable Stormwater Management*.[14] Within CASQA's Vision, Action 1.2 is to "Minimize Pollution Through True Source Control." Among the objectives described within Action 1.2, Objective 2 has the following scope:

> **Objective 2: Implement an Urban Pesticide Program**
>
> For decades now, the uses of certain pesticides in urban areas – even when applied in compliance with pesticide regulations – have adversely impacted urban water bodies. Currently used pesticides are the primary cause of toxicity in California surface waters, including urban water bodies. CASQA is actively engaged with state and federal regulators in an effort to develop an effective pesticide regulatory system, based primarily on existing statutes, that includes timely identification and mitigation of urban water quality impacts, and proactively prevents additional problems through the registration and registration review processes.
>
> Potential Collaborators: State Water Board, DTSC, EPA, DPR

The effectiveness of CASQA's efforts toward this scope can be expressed in relation to management questions established as part of Municipal Separate Storm Sewer Systems' (MS4s') program effectiveness assessments that are required in some MS4 permits. With respect to addressing urban pesticide impacts on water quality, the following two management questions are suggested for inclusion in MS4s' program effectiveness assessment:

**Question 1: (Near term / Current problems)** – Are actions being taken by State and Federal pesticides regulators and stakeholders that are expected to end recently observed pesticide-caused toxicity or exceedances of pesticide water quality objectives in surface waters receiving urban runoff?

**Question 2: (Long term / Prevent future problems)** – Do pesticides regulators have an effective system in place to exercise their regulatory authorities to prevent pesticide toxicity in urban water bodies?

This report is organized to answer these management questions and is intended to support annual permit compliance requirements for both Phase I and Phase II MS4s. It describes the year's status and progress, provides detail on stakeholder actions (by CASQA and others); and provides a roadmap / timeline showing the context of prior actions as well as anticipated end goal of these activities. This report may also be used as an element of future effectiveness assessment annual reporting.

[14] https://www.casqa.org/wp-content/uploads/2022/10/final_-_vision_for_sustainable_stormwater_management_-_10-07-2020.pdf

## Section 2. Latest Results of CASQA Efforts

At any given time, there are dozens of pesticides with current or pending actions from the EPA or DPR. Addressing near term regulatory concerns is important because some pesticides may pose immediate threat to water quality that can lead to compliance liability for MS4s, and because some of the regulatory decisions made by EPA and DPR will last many years. For example, pesticide registration decisions are intended to be revisited on a fifteen-year cycle. To inform its engagement on near-term regulatory concerns, CASQA uses the Pesticide Watch List in the prioritization of near-term efforts (Section 2.1).

Meanwhile, CASQA and BACWA continue to work on parallel efforts to effect long-term systemic changes in the regulatory process itself (see inset). By identifying inadequacies and inefficiencies in the pesticide regulatory process, and persistently working with EPA and DPR to improve the overall system of regulating pesticides, CASQA and BACWA are gradually achieving results (Section 2.2).

**CASQA and BACWA Continue to Coordinate the Monitoring of EPA and DPR Pesticide Regulatory Actions**

There has been a long history of collaboration between CASQA, the Bay Area Clean Water Agencies (BACWA), and the State Water Board, as all entities seek to track and respond to pesticide regulatory actions, with the goal of avoiding pesticide-related toxicity.

CASQA and BACWA regularly track pesticide regulatory activities by EPA, DPR and other agencies. In 2021, CASQA and BACWA combined resources to track stormwater and wastewater priorities into a single Action Plan, updated monthly.

Together, CASQA and BACWA accomplish tasks that are impractical for individual member agencies. Both CASQA and BACWA are committed to continued collaborations to streamline our proactive regulatory approach. In 2023, CASQA and BACWA jointly worked with staff at EPA Region 9 to develop a communication strategy to speak with EPA headquarters regarding the impact of urban pesticide use on endangered species. (See Section 2.2.1.)

### 2.1 NEAR-TERM REGULATORY CONCERNS

CASQA seeks to ensure that the Water Boards and EPA's Office of Water (OW) work with DPR and EPA's OPP to manage problem pesticides that are creating near-term water quality impairments. These efforts address CASQA Vision Action 1.2 as well as Phase II MS4 Program Effectiveness Assessment and Improvement Plan (PEAIP) Management Question 1 regarding observed pesticide-caused toxicity or exceedances of pesticide water quality objectives in surface waters receiving urban runoff.

**Assessment Question 1: (Near term / Current problems)** – Are actions being taken by State and Federal pesticides regulators and stakeholders that are expected to end recently observed pesticide-caused toxicity or exceedances of pesticide water quality objectives in surface waters receiving urban runoff?

**Answer:** As detailed below, at the State level, significant progress has been made by DPR in addressing near-term and current problems with pesticides in surface waters receiving urban runoff. DPR continues to implement improved registration processes and responses to observed water quality problems. DPR also continues to implement and evaluate mitigation measures for observed problems with pyrethroids and fipronil.

At the Federal level, less progress has been made at addressing near term problems. Some early actions were taken to address pyrethroid and fipronil problems at the urging of CASQA and DPR. However, EPA analyses do not show a clear understanding of key urban uses, and it is still unclear if upcoming risk management decisions for pyrethroids, fipronil, and imidacloprid and other neonicotinoids will provide any additional protection of urban water bodies.

### 2.1.1 Updated Pesticide Watch List

A key tool for identifying near-term regulatory concerns is CASQA's Pesticide Watch List. CASQA reviews scientific literature, government reports, and monitoring studies as they are published. This information is used to prioritize pesticides based on the most up-to-date understanding of urban uses, pesticide characteristics, monitoring, and surface water quality toxicity (for pesticides and their degradates). CASQA uses these insights to update the list each year (Table 2), which serves as a management tool to help focus efforts on the most important pesticides from the perspective of MS4 agencies.[15]

This year, a prime motivator for review involved the publication of a USGS surface water quality monitoring dataset for Central California (Sandstrom et al., 2022).[16] CASQA sought to compare urban surface water detections with aquatic toxicity indicators and urban use data. The following data were compiled (where available) and assessed in order to identify pesticides that may be of concern to CASQA:

- USGS California surface water quality monitoring data (Sandstrom, et al. 2022)
- DPR NorCal and SoCal urban surface water quality monitoring study summary results (% detected only; based on the most recent available online reports)
- Aquatic life benchmarks (ALBs) based on latest US EPA Ecological Risk Assessments (ERAs)
- Water quality objectives (WQOs) developed by the State and approved by EPA (where available)
- Estimated environmental concentrations (EECs) from EPA ERAs (as warranted by other findings)
- Annual urban usage per the DPR's Pesticide Use Reporting (PUR) database (years 2018 and 2020—latest available at the time of review)

Based on the review, the following Watch List updates were implemented:

- **Categories**: Updated a category from "New Urban Pesticides" to "Keep Watching" for those urban pesticides that may threaten water quality depending on approved urban use patterns.
- **Neonicotinoids (other than Imidacloprid):** Previously the following neonics were all considered Priority 2: acetamiprid, clothianidin, dinotefuran, thiamethoxam (degrades into clothianidin). The list was updated to include only clothianidin and thiamethoxam, both of which were detected in the USGS and DPR urban surface water monitoring studies. The other two neonics, acetamiprid and dinotefuran, were moved down to the new category "Keep Watching" due to lack of urban detection at this time.
- **Methoxyfenozide**: Based on relatively high rates of detection by DPR and USGS at urban sites, with the detections approaching the lowest ALB, methoxyfenozide was added to the Watch List, Priority 4.
- **Pesticides with no apparent outdoor urban uses**: The following three pesticides had previously been on the "New Urban Pesticides" list but based on the latest review, there are no apparent outdoor urban uses and therefore appropriate to delete from the Watch List: cyclaniliprole (insecticide), nitenpyram (neonic.), nithiazine (neonic.).

In addition, the following pesticides were reviewed, concluding that addition to the Watch List was not warranted, based on very low ALBs and/or very low urban usage: boscalid (fungicide), diflubenzuron (insecticide), linuron (herbicide), myclobutanil (fungicide), prometon (herbicide), tebuthiuron (herbicide). There are a number of antimicrobial pesticides under review by EPA for uses in outdoor paints and coatings (including isothiazolinones (DCOIT, BBIT, BIT, MIT, OIT)), the leaching of which can lead to water quality impacts; CASQA anticipates adding such pesticides to the Watch List in the future.

[15] The first Watch List was published by the UP3 in 2005.

[16] Sandstrom, M., Nowell, L., Mahler, B., Van Metre, P., New-generation pesticides are prevalent in California's Central Coast streams, Science of the Total Environment 806 (2022).

**Table 2. Current Pesticide Watch List (Updated May 2023)**

| Priority | Basis for Priority Assignment | Pesticides | | |
|---|---|---|---|---|
| 1 | Monitoring data exceeding benchmarks; linked to toxicity in surface waters; urban 303(d) listings | Pyrethroids (20 chemicals[17]) | Fipronil | Imidacloprid<br>Malathion |
| 2 | Monitoring data approaching benchmarks; modeling predicts benchmark exceedances; very high toxicity and broadcast application on impervious surfaces; urban 303(d) listing for pesticide, degradate, or contaminant that also has non-pesticide sources | Carbendazim (Thiophanate methyl)[18]<br>Chlorantraniliprole<br>Clothianidin (Neonic)<br>Copper pesticides [+] | Creosote (PAHs)<br>Indoxacarb<br>Pendimethalin<br>Pesticides with dioxins impurity[19] | PHMB [+]<br>Thiamethoxam (Neonic, degrades into Clothianidin)<br>Zinc pesticides (including Ziram) [+] |
| 3 | Pesticide contains a Clean Water Act Priority Pollutant; 303(d) listing for pesticide, degradate, or contaminant in watershed that is not exclusively urban | Arsenic pesticides<br>Bensulide<br>Chromium pesticides<br>Dichlorvos (DDVP) | Diuron<br>Naled<br>Naphthenates | Simazine<br>Silver pesticides [+]<br>Trifluralin |
| 4 | High or unknown toxicity (parent or degradate) and urban use pattern associated with water pollution; synergist for higher tier pesticide; on DPR priority list | Abamectin<br>ADBAC pesticides[20] [+]<br>Antimicrobials in paints/coatings<br>Azoxystrobin<br>Bacillus sphaericus [+]<br>Bacillus thuringiensis [+]<br>Bromacil<br>N-Bromosulfamates<br>Busan-77 [+]<br>Carbaryl<br>Chlorinated isocyanurates[+]<br>Chlorine [+]<br>Chlorine dioxide [+]<br>Chlorfenapyr<br>Chlorsulfuron<br>DCOIT [+]<br>DDAC [+] | Dichlobenil<br>Dithiopyr<br>Halohydantoins [+]<br>Hydramethylnon<br>Hypochlorites [+]<br>Imazapyr<br>Isoxaben<br>Mancozeb<br>Methomyl<br>Methoprene [+]<br>Methoxyfenozide<br>Methyl anthranilate [+]<br>Mineral bases, weak [+]<br>Mineral oil (aliphatic) [+]<br>MGK-264<br>Novaluron<br>Oryzalin<br>Oxadiazon<br>Oxyfluorfen | PCNB<br>Peroxyacetic acid [+]<br>Phenoxy herbicides[21]<br>Piperonyl butoxide (PBO)<br>Prodiamine<br>Propiconazole<br>Pyrethrins<br>Pyriproxyfen [+]<br>Sodium bromide [+]<br>Sodium chlorite [+]<br>Sodium percarbonate [+]<br>Sodium tetraborate [+]<br>Spinosad [+] / Spinetoram<br>Sulfometuron-methyl<br>Tebuconazole<br>Terbuthylazine [+]<br>Triclopyr<br>Triclosan<br>Trimethoxysilyl quats |

[17] Allethrins, Bifenthrin, Cyfluthrin, Cyhalothrin, Cypermethrin, Cyphenothrin, Deltamethrin, Esfenvalerate, Etofenprox, Flumethrin, Imiprothrin, Metofluthrin, Momfluothrin, Permethrin, Prallethrin, Resmethrin, Sumethrin [d-Phenothrin], Tau-Fluvalinate, Tetramethrin, Tralomethrin.

[18] Carbendazim is a registered pesticide, and also a degradate of thiophanate-methyl

[19] 2,4,-D, Chlorothalonil, Dacthal, Pentachlorophenol

[20] Alkyl Dimethyl Benzyl Ammonium Chlorides (ADBAC) includes a family of 21 different quaternary ammonium pesticides.

[21] MCPA and salts, 2,4-D, 2,4-DP, MCPP, dicamba

[+] *Used in pools, spas, and/or fountains*

| Priority | Basis for Priority Assignment | Pesticides | | |
|---|---|---|---|---|
| 5 | Frequent questions from partners[22] | Glyphosate | Metaldehyde | |
| Keep Watching | Urban pesticides that may threaten water quality depending on approved urban use patterns. | Acetamiprid (Neonic)<br>Cyantraniliprole | Dinotefuran (Neonic)<br>Flupyradifurone (Neonic-like) | Sulfoxaflor (Neonic-like) |
| None | Based on review of available data, no approved urban use or no tracking trigger as yet identified. | Most of the >1,000 existing pesticides | | |
| Unknown | Lack of information. No systematic screening has been completed for the complete suite of urban pesticides. | Unknown | | |

### 2.1.2 Description of Near-Term Regulatory Processes

Immediate pesticide concerns may arise from regulatory processes undertaken at DPR or EPA's OPP. For example, when EPA receives an application to register a new pesticide, there may be two opportunities for public comment that are noticed in the Federal Register, as depicted in green in Figure 3. EPA's process usually takes less than a year while DPR typically evaluates new pesticides or major new uses of active ingredients within 120 days.

**Figure 3. EPA's Registration Process for New Pesticides**


Another regulatory process, "Registration Review," depicted in Figure 4, is meant to evaluate currently registered pesticides about every 15 years, to account for new data available since initial registration. In general, it takes EPA five to eight years to complete the entire process. In addition to this process, pesticides are evaluated with respect to ESA criteria. EPA regularly updates its schedule for approximately 50 pesticides that will begin the review process in a given year.[23]

**Figure 4. EPA's Registration Review – Process to Review Registered Pesticides at a Minimum of Every 15 Years.**


DPR also has an ongoing, but informal review process (called continuous evaluation) that can address pesticides water pollution. If it needs to obtain data from manufacturers, DPR can initiate a formal action, called "Reevaluation." These evaluations, mitigation measure development, and mitigation effectiveness evaluation have involved ongoing communication with CASQA and partners.

[22] Chlorpyrifos and Diazinon, while often asked about, have near zero or no urban uses, respectively.
[23] See https://www.epa.gov/pesticide-reevaluation/registration-review-schedules for schedule information.

While EPA must consider water quality in all of its pesticide registration decisions, at DPR this step is not yet fully established as standard (most outdoor urban pesticide registration applications are routinely routed by DPR for surface water review, but a few – notably antimicrobial products used in storm drains – do not automatically receive this review). CASQA monitors registration applications, to identify those relevant to urban runoff, based on the Pesticide Watch List in Table 2 and use pattern/toxicity analysis for pesticides that have not previously been reviewed.

### 2.1.3 Key Near-Term Regulatory Activities and Progress

Table 3 presents a summary of recent CASQA and partner activities to address near-term regulatory concerns and the latest results; for additional insight regarding on-going pesticide registrations, see Appendix. CASQA monitors the Federal Register and DPR's website for notices of regulatory actions related to new pesticide registrations and registration reviews. This includes monitoring EPA's dockets via the website Regulations.Gov. Since the Pesticide Watch List is not based on a comprehensive review of all pesticides, CASQA watches for additional pesticides that appear to have any of the following characteristics: proposed urban, outdoor uses with direct pathways for discharge to storm drains, high aquatic toxicity, or containing a priority pollutant. Participating in these regulatory processes can take many years to complete.

In addition, EPA's OPP strives to update their Aquatic Life Benchmarks table on an annual basis.[24] In September 2022, EPA's Office of Pesticide Programs, Environmental Fate and Effects Division updated its pesticides Aquatic Life Benchmarks table.[18] These updates included benchmarks for 9 newly registered pesticides (and their degradates) and 57 previously registered pesticides (and their degradates) undergoing registration review.

At the state level, DPR's Human Health Assessment Branch published the Fipronil Risk Characterization Document (March 2023).[25] While this analysis is specific to human health, not ecotoxicity, it identified significant occupational exposures from use of liquid fipronil concentrate on structures. The mitigation plans are unknown at this time, and while they could include personal protective equipment or other actions that would not reduce ecological exposure, CASQA will continue to monitor DPR's mitigation efforts.

**Table 3. Latest Results of Efforts Communicating Near-Term Regulatory Concerns to EPA[26]**

| Regulatory Action or Concern | CASQA Efforts | | | Partner Support (Letters) | Outcomes and notes |
|---|---|---|---|---|---|
| | Letter(s) | Call(s) or emails | Mtg(s) | | |
| Endangered Species Act (ESA) obligations:<br>• EPA ESA Workplan Update (November 2022)<br>• ESA Draft Guidance for | ✓✓ | ✓ | ✓ | BACWA<br>SFBRWQCB | ***Pending.*** Both ESA documents neglect to consider urban pesticide uses. CASQA and BACWA continue to educate the EPA on the nexus between urban pesticide uses and impacts to endangered species, seeking mitigation (source control) that would reduce such impacts. (See discussion in Section 2.2.1) |

[24] https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk
[25] https://www.cdpr.ca.gov/docs/whs/active_ingredient/fipronil.htm
[26] Color coding in this table is meant to reflect the Pesticide Watch List prioritization color coding in Table 2.

| Regulatory Action or Concern | CASQA Efforts | | | Partner Support (Letters) | Outcomes and notes |
|---|---|---|---|---|---|
| | Letter(s) | Call(s) or emails | Mtg(s) | | |
| Pesticide Application Submissions that Require ESA Reviews (June 2023) | | | | | |
| Etofenprox Proposed Interim Decision (PID) | ✓ | | | BACWA | ***Success!*** Currently registered etofenprox outdoor products allow application on impervious surfaces up to a height of 2 to 3 feet and 2 to 3 feet out. Under the proposed label language, etofenprox would only be allowed to be sprayed on impervious surfaces in limited circumstances (See Appendix). Further, EPA used CASQA's suggested pictogram, used CASQA's proposed minimum sizing for graphic, and included Spanish translation. EPA also included improved rain restriction language, water protection statements, explicit mention of outdoor/indoor use, and specifically defined the spot treatment size. |
| Carbendazim (Thiophanate methyl) PID | ✓ | | | County of Sacramento | ***Pending.*** In 2020, the County of Sacramento responded to the ecological risk assessment noting that concentrations of carbendazim in urban runoff and in surface waters influenced by urban runoff are approaching EPA aquatic benchmarks for freshwater fish. Further, the county recommended revisions in the modeling scenarios and that the modeling be adapted separately for residential (re: paints and stains) versus commercial/industrial (e.g. roof membranes). In the March 2021 response to comments, EPA acknowledged the need for improvements in modeling environmental exposures from antimicrobials. In CASQA's response to the 2023 PID, CASQA reiterated Sacramento's recommendation, noting the importance of prioritizing this specific model improvement, because the result applies broadly to all antimicrobials used in building preservation. |
| Carbaryl PID | ✓ | | | | ***Success!*** The EPA documented a high degree of threat in the urban environment, leading to (1) the prohibition of residential dust formulations and residential granule formations for use on turf (because these are often applied incorrectly and end up on impervious surfaces such as sidewalks) and (2) significant mitigation measures for outdoor urban uses in residential and commercial settings (i.e., structural, turf, ornamental, nursery) to reduce the amount of carbaryl in the urban environment that enters outdoor drainage systems and waterbodies. In addition, CASQA sought clarification of application rates on pervious surfaces, due to inconsistencies in the EPA PID and the Biological Evaluation (BE). EPA subsequently updated the application rates to the lower values indicated in the BE. (See Appendix.) |

## 2.2 LONG-TERM CHANGE IN THE PESTICIDES REGULATORY STRUCTURE

Since the mid-1990s, CASQA (and its predecessor organization the Storm Water Quality Task Force) has worked toward a future in which the pesticide regulatory structure at the state and federal level proactively restricts pesticide uses that have the potential to cause urban water quality problems. These efforts directly relate to Phase II MS4 PEAIP Management Question 2.

**Assessment Question 2. (Long term / Prevent future problems)** – Do pesticides regulators have an effective system in place to exercise their regulatory authorities to prevent pesticide toxicity in urban water bodies?

**Answer:** Improvements in processes at EPA and especially at DPR have moved closer to that future. Many of these improvements are linked to the persistent work of CASQA and partners to educate regulators on how previous process deficiencies did not adequately address urban pesticide problems.

Overall, DPR has a system in place that is reasonably effective at addressing pesticide toxicity in urban water bodies, although improvement is needed to better coordinate this process with the requirements of the Clean Water Act and NPDES MS4 permits. DPR and the Water Board, along with CASQA and other stakeholders, are working diligently to strengthen this system and to institutionalize it. The goal is to embody this process in the State's UPPs and the Management Agency Agreement (MAA) between DPR and the State Water Board. In addition, DPR published an SPM Roadmap (*See Section 2.2.2*) which is expected to be implemented in coming years, incorporating urban pesticide uses.

At the Federal level, OPP has implemented some improvements in how it evaluates and responds to water quality problems associated with pesticides, but it does not yet do this reliably and does not have a system in place to ensure that this will happen consistently and adequately. Meanwhile, scientific studies are being conducted by USGS and EPA's Office of Research and Development to better understand the complexities of pollution in urban stormwater. In addition, another EPA branch, the Office of Chemical Safety and Pollution Prevention (OCSPP), tasked their Pesticide Programs staff with improving the integration of the EPA and the Services[27] implementation of the ESA.

### 2.2.1 Focus on EPA's Federal Endangered Species Act

The EPA OCSPP tasked their Pesticide Programs staff with improving the integration of the ESA in pesticide registrations and re-registrations. In April 2022, EPA published their "first-ever comprehensive workplan to address the decades-old challenge of protecting endangered species from pesticides." [28] The workplan presents a vision and four strategies to approach this challenging effort to protect endangered species while protecting public health. In 2023, this workplan was updated to describe specific mitigation measures to reduce pesticide impacts to endangered species. Unfortunately, the types of mitigation measures presented are ones only applicable to licensed users (such as detailed label changes) and/or agricultural uses (such as online maps detailing locations of endangered species habitat relative to agricultural crops).

CASQA has previously communicated directly with OCSPP's Deputy Assistant Administrator for Pesticide Programs to advance the importance of urban stormwater uses and the need for mitigations to clearly tie to risk analysis findings, targeting specific uses and products. This communication continued in 2022-2023, with CASQA and BACWA collaborating to seek input from EPA Region 9 on how best to present urban pesticide concerns to EPA headquarters. This led to brief memos that detailed concerns with the reregistration process and with the implementation of ESA. EPA invited CASQA and BACWA to a meeting with OCSPP leadership on July 6, 2023. CASQA's raised questions and received feedback in the following four key areas:

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[27] The U.S. Fish and Wildlife Service and the U.S. National Marine Fisheries Service (collectively referred to as the Services) are jointly responsible for administering the ESA. The National Marine Fisheries Service has jurisdiction for marine endangered species, while U.S. Fish and Wildlife Service has jurisdiction for freshwater and all other species.

[28] https://www.epa.gov/newsreleases/epa-announces-plan-protect-endangered-species-and-support-sustainable-agriculture

1. Compliance with the Clean Water Act

   It is essential that EPA's OPP assess and prevent urban water pollution as defined by the Clean Water Act. BACWA and CASQA have asked that registration reviews by EPA OPP address relevant requirements of the CWA. For example, when an ESA Biological Evaluation uses an effects threshold above EPA water quality criterion, it could create a regulatory gap for agencies with CWA permits.

   Question: What steps is EPA taking for intra-agency congruence, necessary for local government compliance with the CWA?

   EPA Feedback: There are times when ESA effects thresholds will have different values than the water quality criterion from EPA Office of Water. Meanwhile, the agencies are in active communication to discuss how to better harmonize these values.

2. Incorporating Urban Use into EPA's new Programmatic Approach

   The November 2022 ESA Workplan Update describes a new programmatic approach (by use type, region, or vulnerable species) rather than by individual pesticide in order to improve program efficiency.

   Questions: How and when does EPA OPP plan to incorporate urban uses in the new programmatic approach? Further, how can urban stakeholders engage with EPA so we can have input as to programmatic approaches that might be feasible in the urban context?

   EPA Feedback: Due to staffing constraints, EPA is currently prioritizing agricultural use as that is expected to have the greatest impact to endangered species. EPA hopes to learn from the agricultural re-registration process and use that to inform non-agricultural sources. At that time, the focus will be on mitigation (source control). Therefore, any technical information submitted to EPA should focus on specific mitigation (source control) measures.

3. Current ESA mitigations focus on label updates and "Bulletins Live Two" buffer zones

   Scientific evidence shows that unlicensed/untrained pesticide users typically don't read product labels and users that do read labels, usually do not read application instructions. Further, Bulletins Live Two (a map-based website) is not meant for urban users.

   Question: How does EPA plan to develop and implement mitigation measures appropriate to the urban context?

   EPA Feedback: EPA developed Bulletins Live Two as a way to indicate when the mitigations are needed in relatively small geographic locations to protect an endangered species. They recognize that this is challenging information to communicate. They welcome support as they seek alternative messaging to educate pesticide users. For instance, the Antimicrobials Division has made a lot of progress with pictograms, and has developed outreach materials to help people understand labels.

4. Public agencies are left out of mitigation discussions

   There are publicly disclosed meetings with EPA and registrants to discuss Biological Evaluations.[29]

   Question: How might urban stakeholders (with the burden of CWA and ESA compliance) be engaged proactively in discussions and analysis of urban mitigations?

[29] For example, a meeting was held on April 4, 2023 with dinoterfuran registrants as well as EPA staff (Pesticides Re-Evaluation Division, Environmental Fate and Effects Division, Biological and Economic Analysis Division) to discuss the dinoterfuran Biological Evaluation.

EPA Feedback: Pesticide registrants have specific rights for such meetings under the ESA. There are public comment periods throughout the review process. If a situation arises in which new scientific information is available, but not timed with public comment periods, EPA recommended communication with the lead chemical review manager and branch chief.

Overall, while EPA indicated that their near-term focus would continue to be identification of agricultural impacts to endangered species, they indicated an openness to further communication regarding urban mitigations, with a focus on labels (such as pictograms) and user education. CASQA and BACWA will seek to keep this communication open and coordinate with our national sister agencies to clarify that these issues are national in scope, not specific to California.

### 2.2.2 Focus on DPR's Sustainable Pest Management (SPM) Roadmap

In 2021, DPR formed a Sustainable Pest Management Work Group, the goal of which was "to develop a recommended roadmap with ambitious, measurable goals to practically achieve the state's vision to accelerate a system-wide transition to safer, more sustainable pest management." [30] A nine-member urban subgroup was formed to ensure that urban pesticides uses were effectively incorporated. The work group defined SPM as a "holistic, whole-system approach applicable in agricultural and other managed ecosystems and urban and rural communities that builds on the concept of integrated pest management (IPM) to include the wider context of environmental protection, economic vitality, and human health and social equity."

In Fall 2022, a draft roadmap was presented to stakeholders. CASQA reviewed the document and provided extensive feedback. The final roadmap was released in January 2023. To achieve urban SPM, DPR has identified 4 leverage points in the system. CASQA will seek opportunities to support DPR's SPM within each of these points:[31]

1. Enhance data and information collection for urban pesticide use
2. Advance research and outreach on urban pest management issues
3. Make SPM the preferred choice for both licensed and unlicensed users
4. Refocus urban design, building codes, and regulations to enhance pest prevention

The SPM Roadmap describes priority pesticides and makes mention of the need for "science-based prioritizations." CASQA shared the Watch List with DPR staff and has asked that one such prioritization parallel CASQA's Watch List, with the intention of a prioritizing pesticides that have direct links between urban use and toxicity in surface waters.

In addition, among the SPM stated priorities is a public awareness campaign. Based on CASQA's administration of the in-store retail program, *Our Water, Our World (OWOW)*, CASQA will continue to recommend messages at the point-of-purchase, particularly when store staff are well trained. Similarly, online campaigns are much more effective at engaging the public if they address a specific consumer problem or nuisance (e.g, termites) that garners "click-throughs" that lead them to science-based information when they are seeking to purchase pesticides (parallel to the brick-and-mortar point of purchase campaigns).

[30] https://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/
[31] https://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/spm_executive_summary.pdf

To reliably fund DPR's new focus, the State conducted a feasibility analysis to consider incremental increases of the mill assessment from the current $0.021 up to $0.0339 per dollar of pesticide sales. DPR's mill assessment is paid by a pesticide retailer or manufacturer when a pesticide is first sold into California and provides approximately 80 percent of the department's current funding. The mill assessment has not been increased since it was originally codified into state law in 2004. At present, DPR plans to phase-in the increase and continue the mill assessment's flat rate structure to start, while considering a tiered mill assessment in the future, with more problematic pesticides in the higher tiered rates. CASQA will track the development of such a tiered structure to ensure that urban surface water priorities are incorporated.

### 2.2.3 Focus on California's Urban Pesticides Provisions (UPP)

In 2014 the State Water Board made a strategically important decision to institutionalize its commitment to work closely with DPR and EPA to utilize pesticide regulatory authority as the primary mechanism for preventing and responding to impairments of receiving waters linked to current use pesticides in urban runoff. To accomplish this goal, the State Water Board established an urban pesticides reduction project (now titled the Statewide Urban Pesticides Provisions or UPP) as a top priority project under the comprehensive stormwater strategy it adopted in December 2015, known as "Strategy to Optimize Resource Management of Storm Water" or STORMS.[32] CASQA representatives have been participating actively in the development of the Urban Pesticide Provisions since their inception.

The State Water Board continues to work towards developing the UPP which are anticipated to be incorporated into the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries, and the Water Quality Control Plan for Ocean Waters of California. In mid-2019, DPR and the State Water Board signed a major update to their formal MAA that memorializes their existing systems and growing cooperation and lays out the steps they are taking toward a "unified and cooperative program to protect water quality related to the use of pesticides." The State Water Board STORMS staff indicate that communication with DPR staff regarding the UPP has been enhanced by the MAA and that the two agencies meet regularly.

CASQA continues to work closely with STORMS staff on the UPP as an effective path to solving urban toxicity and to support urban stormwater capture and use. In 2022, STORMS staff held several meetings with stakeholders, including CASQA representatives. CASQA provided the STORMS staff with input regarding potential options for evaluating the effectiveness of the UPP in addressing MS4 pesticide discharges to support identification of compliance pathway options for municipal stormwater permits. STORMS staff presented at the October 2021 CASQA conference, and a STORMS staff member typically attends each TSC meeting, providing updates and accepting feedback.

| | |
|---|---|
| | **CASQA Dedicated to Continuous Improvement of Our Water, Our World (OWOW)**<br>OWOW is a collaboration of municipalities and integrated pest management (IPM) experts to develop and distribute IPM information directly to consumers at point-of-purchase at garden centers and hardware stores, thereby reducing the purchases of harmful products. OWOW started as a pilot project in 1998, in just a handful of stores, initiated by the Central Contra Costa County Sanitation District, the City of Palo Alto Regional Water Quality Control Plant, and the Marin Countywide Stormwater Pollution Prevention Program. The program quickly grew and was administered by the former Bay Area Stormwater Management Agencies Association from 1999 – 2021. In January 2022, the program was transferred to CASQA, with the goal of providing statewide access to this important and successful outreach program. While several stormwater programs currently rely upon OWOW to meet existing permit requirements, statewide implementation is expected to grow, driven by the UPPs. It is expected that OWOW materials could also be crucial in supporting DPR's SPM urban educational outreach campaigns. |

[32] (http://www.waterboards.ca.gov/water_issues/programs/stormwater/storms/)

### 2.2.4 CASQA Participation in Federal and State Advisory Groups

As presented in Table 4, CASQA remains actively involved with various agencies and advisory groups that affect urban pesticide use and pest management.

**Table 4. Participation in Federal and State Efforts to Support CASQA's Goals**

| Agency or Conference | Latest Outcomes |
|---|---|
| EPA's Pesticide Program Dialogue Committee (PPDC) | The 40-person committee, chaired by the Director of OPP, includes representatives from growers, industry, environmental, public health, farmworkers, as well as state/local/tribal government. Dave Tamayo represents CASQA on the PPDC, with the goal of incorporating urban stormwater in the Federal dialogue. The PPDC holds biannual public meetings. At the May 2023 meeting, key CASQA topics included:<br>• A discussion of label reform, including digitization and standardization;<br>• An update on the Endangered Species Act Workplan by the Deputy Assistant Administrator for Pesticide Programs for Office of Chemical Safety and Pollution Prevention. |
| DPR's Pest Management Advisory Committee (PMAC) | Victoria Kalkirtz (co-chair of the TSC Subcommittee) represents CASQA on PMAC. Participation on the PMAC has resulted in expanded focus by DPR on urban pest management and water quality issues and generated funding for urban IPM research and implementation programs. |
| DPR's SPM Work Group | Two CASQA members served as invited members of the Urban Subgroup of the SPM. |

## Section 3. CASQA's Approach Looking Ahead

At any given time, EPA and DPR may be in the process of evaluating and registering various pesticides for urban use. CASQA will continue to track and engage in EPA and DPR activities, with a focus on top priority active ingredients (as identified in the annual Pesticide Watch List) and sharing relevant urban runoff information and CASQA's water-quality specific expertise with pesticides regulators. Key documents to be reviewed will include risk assessments and risk management proposals with an eye toward ensuring that pesticide regulators have and consider accurate information on relevant factors in urban areas such as pesticide use patterns, urban pollutant transport mechanisms, and receiving water conditions. CASQA strives to ensure that pesticide regulators have access to relevant information such as monitoring data, water quality regulatory requirements, and urban runoff agency compliance liabilities and cost information. As necessary, CASQA will continue to recommend changes in an individual pesticide's allowable uses or use instructions, request consideration of impacts on water bodies receiving urban runoff, and/or ask that regulators fill critical data gaps by obtaining more data from manufacturers. As resources allow and circumstances warrant, CASQA will continue to collaborate with wastewater organizations (such as BACWA), other water quality stakeholders, and the Water Boards in commenting on EPA and DPR actions.

In the coming year, CASQA will continue to address near-term pesticide concerns and seek long-term regulatory change. Although changes at the federal level are important for fully achieving CASQA's goal of protecting water quality through the effective use of pesticide regulations, until there is a more favorable situation at that level, we will continue to focus our efforts on solidifying progress at the state level. In the coming year, CASQA will continue engagement on specific

regulatory actions for priority pesticides at the federal level, while continuing the strategic focus on supporting State adoption of the UPPs. CASQA's current priority activities are as follows:

(1) Continue collaboration with DPR to address near-term regulatory concerns, while seeking OPP and OW actions to reduce inconsistencies:

- Ensure DPR action on fipronil water pollution is completed, including effective professional user education about restrictions on its outdoor urban use.
- Ensure DPR enforces mitigation measures for pyrethroids and fipronil, and adopts additional measures as necessary.
- Ensure the state continues to conduct surveillance monitoring to evaluate pyrethroids and fipronil mitigation effectiveness and to evaluate occurrence of new threats like imidacloprid and other neonicotinoid insecticides.
- Continue to encourage EPA to complete scientific groundwork and to identify and implement pyrethroids, fipronil, malathion, and imidacloprid mitigation measures, recognizing that it is likely that necessary mitigation cannot readily be implemented entirely by DPR.

(2) Seek long-term changes in the pesticide regulatory structure:

- Continued engagement with EPA regarding incorporating their ESA obligation in registrations and re-registrations, including recommending the use of pictograms in labels, and seeking opportunities in California for EPA's future regional and vulnerable species pilot programs.
- Continued engagement with DPR regarding the SPM Roadmap specific to urban implementation programs and opportunities.
- Leverage success at the state level and continue to be a key stakeholder in the STORMS project to adopt the statewide UPP. Through this process, CASQA will work with other stakeholders to implement the planned restructuring of California's urban surface water pesticides monitoring to increase its effectiveness and improve coordination.
- Encourage and assist the Water Board to continue to implement its MAA with DPR and increase its leadership role in preventing and mitigating pesticide impairments through more effective pesticide regulation.
- Seek procedure changes such that DPR continues to refine its registration procedures to address remaining gaps in water quality protection.
- Seek increased transparency of DPR regulatory activities, including timely access to scientific evaluation reports that are the basis of registration decisions.

CASQA will continue to seek opportunities to coordinate on high priority regulatory actions, with the Water Boards and other water quality stakeholders such as POTWs and non-profits, to take advantage of efficiencies, increase effectiveness, and ensure that the water quality community has a consistent message. Table 5 presents CASQA's activities anticipated for the coming year; CASQA will conduct these activities as priorities indicate and resources allow. Table 6 summarizes upcoming regulatory action items that are likely to proceed and may require CASQA attention in the coming year.

**Table 5. CASQA Pesticide Activities**

| Activity | | Purpose |
|---|---|---|
| Regulatory Tracking | Track Federal Register notices | Identify regulatory actions for high priority active ingredients that may require review. |
| | Track DPR notices of registration applications and decisions | Identify pesticides meriting surface water review that are not within DPR's automatic routing procedures, identify gaps or potential urban runoff-related problems with current DPR evaluation or registration plans other regulations, procedures, and policies. |
| | Track activities at the Water Boards | Identify opportunities for improvements in TMDLs, Basin Plan Amendments, and permits. |
| | Review regulatory actions, guidance documents, and work plans | Identify potential urban runoff-related problems with current EPA evaluation or registration plans, other regulations, procedures, and policies. |

| Activity | | Purpose |
|---|---|---|
| Regulatory Communications | Briefing phone calls, informal in-person meetings, teleconference meetings, and emails with EPA and DPR | Information sharing about immediate issues or ongoing efforts; educate EPA and DPR about issues confronting water quality community. Provide early communication on upcoming proceedings that help reduce the need for time-intensive letters. |
| | Convene formal meetings, write letters, and track responses to letters | Ensure current pesticide evaluation or registration process accurately addresses urban runoff and urban pesticide use and management contexts. Take advantage of opportunities to formally provide information and suggest more robust approaches that could be used in future regulatory processes. Request and maintain communication on mitigation actions addressing highest priority pesticides. |
| Advisory | Serve on EPA, DPR, and Water Board policy and scientific advisory committees | Provide information and identify data needs and collaboration opportunities toward development of constructive approaches for managing pesticides. |
| Educational | Presentations to and informal discussions with EPA, DPR, Water Board, CASQA members, | Educate EPA, DPR, Water Board, and CASQA members about the urban runoff-related shortcomings of existing pesticide regulatory process, educational efforts to support process improvements, and report on achievements. Encourage research and monitoring programs to address urban runoff data needs and priorities. Stimulate academic, government, or private development of analytical and toxicity identification methods to address anticipated urban runoff monitoring needs. Inform development of new pesticides by manufacturers and selection of pesticides by professional users. |
| | Develop and deliver public testimony | Educate Water Board members about the problems with existing pesticide regulatory process, encourage change, and report on achievements. |
| Monitoring and Science | Update Pesticide Watch List based on new scientific and regulatory information | The Pesticide Watch List (Table 2) serves as a management tool to prioritize and track pesticides used outdoors in urban areas. |
| | Data analysis of DPR/SWAMP/USGS/MS4 monitoring, pesticide use data, and information from scientific literature | Summarize data to educate CASQA members and water quality community, Water Boards, DPR, and EPA. |
| Reporting | Prepare Monthly Action Plans | Coordinate CASQA's regulatory actions with partners |
| | Prepare Annual Report to describe the year's status and progress, provide detail on stakeholder actions, and the context of prior actions as well as anticipated end goal of these activities. | Provide CASQA's members with focused information on its efforts to prevent pesticide pollution in urban waterways. The document serves annual compliance submittal for both Phase I and Phase II MS4s. It may also be used as an element of PEAIPs and future effectiveness assessment annual reporting. |

### Table 6. Anticipated Upcoming Opportunities for Pesticides Regulatory Engagement

| EPA Pesticide Registration Review (15-year cycle) (organized chronologically by anticipated next regulatory step) [33] | | | |
|---|---|---|---|
| **Priority** | **Topic** | **Item** | **Urban Runoff Concern** |
| varied | Herbicides | Programmatic ESA Consultation | Varied. This is one of several new pilot exercises by EPA to group ESA reviews by type of use instead of by individual pesticide. |
| unknown | New Antimicrobials | various | Varied; many of these pesticides are showing up for the first time at the PID level; review is needed to screen these for water quality issues |
| 1 | Fipronil | PID | Monitoring data; Anticipated 303(d) listings |
| 5 | Glyphosate | Re-release of PID (Court Order) | Frequent questions from partners |
| 2 | Dacthal (DCPA) | RA | 303(d) listings (dacthal, dioxins); Contains CWA Priority Pollutants (dioxins) |
| 3 | Sodium pyrithione | PID | Paint additive |
| 4 | Dicamba | RA | Phenoxy herbicide |
| 4 | Chlorothalonil | PID | Central Valley Water Board high relative risk; 303(d) listings (dioxins); Contains CWA Priority Pollutant (Dioxins); DPR monitoring priority |
| 1 | Imidacloprid | Re-release of PID (ESA process) | High toxicity, monitoring data, 303(d) listings |
| 2 | Clothianidin (neonic) | Re-release of PID (ESA process) | High toxicity, monitoring data, 303(d) listings |
| 2 | Thiamethoxam (neonic) | Re-release of PID (ESA process) | High toxicity, monitoring data, 303(d) listings |
| 4 | Peroxy Compounds (peroxyacetic acid) | PID (re-release) | Fountain chemical |

[33] RA = Risk Assessment; PID = Proposed Interim Decision

| | | | |
|---|---|---|---|
| 4 | Isothiazolinones (includes DCOIT, BBIT, BIT, MIT, OIT) | RA | Antimicrobials. Uses include paints. |
| 4 | Mancozeb | PID | Central Valley Water Board high relative risk |
| 4 | PCNB | PID | Dioxin impurity |
| 4 | Oxyfluorfen | PID | Re-release of PID after litigation. 303(d) listing |
| *Keep Watching* | Dinotefuran (neonic) | PID | Toxicity, mobility |

**Other EPA-related Items**

- Quarterly updates to the ESA Workplan website:
  - https://www.epa.gov/endangered-species/epas-workplan-and-progress-toward-better-protections-endangered-species
- U.S. EPA "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process" affects how the U.S. EPA uses cost and benefit analysis in setting pollution standards. Rule proposal was expected in 5/19.
- Proposed rule to eliminate some OPP Federal Register Notices (was anticipated September 2018 according to U.S. EPA semi-annual regulatory agenda)
- U.S. EPA Update to Guidelines for Deriving Aquatic Life Water Quality Criteria. Draft scoping document external peer review is next step. Seeking OPP engagement.

**DPR New Pesticide Product Registration Decisions**

| New Product Applications (Active ingredient – product name) | Why tracking | Current Status |
|---|---|---|
| 1R-Phenothrin - by MGK | Outdoor uses | Noted on EPA docket. Not yet in DPR Notice. |
| Tetraniliprole | Outdoor uses | Noted on EPA docket. Not yet in DPR Notice. |
| Momfluorothrin (and Phenothrin) - S-1563 | New urban pyrethroid | 2014: DPR confirmed that Surface Water would review. |
| Momfluorothrin (and Cypermethrin) - MGK Products | New urban pyrethroid | 2014: DPR confirmed that Surface Water would review. |
| Alpha-cypermethrin - Fendona CS | New urban pyrethroid | 2018: DPR confirmed that Surface Water would review. |
| Transfluthrin - Bayer Product | New urban pyrethroid. Indoor and outdoor uses | Noted on EPA docket. Not yet in DPR Notice. |
| Fipronil and Bifenthrin - Taurus Trio G | Landscaping product | 2017: DPR confirmed that Surface Water would review. |
| Fipronil - Termidor HP II | Termite product | 2018: DPR confirmed that Surface Water would review. |
| Fipronil - MGK Formula 3115 | Outdoor yellow jacket product | 2019: DPR confirmed that Surface Water would review.<br>7/9/21: Notice of Final Decision posted. Product limited to bait stations. |

| | | |
|---|---|---|
| Bifenthrin, Novaluron, and pyriproxyfen - Duraflex CS | Use on non-residential sites | 2019: DPR confirmed that Surface Water would review. |
| Indoxacarb - Doxem Precise | New aerated indoxacarb powder | 2019: DPR confirmed that Surface Water would review. |
| Zinc, Thiabendazole and 2-pyridinethiol-1-oxide – Ultra-Fresh DW-30 | Potential use in vehicle tires | DPR is asking the registrant of that product that should not have been approved for use in rubber to change the product label to again say "not for use in California" with regard to the use in rubber. |
| Fipronil – Imidacloprid: Fuse Foam by Control Solutions, Inc. | Indoor/outdoor fipronil-imidacloprid foam | BACWA/CASQA have been tracking this product since 2017.<br>7/2/2021: DPR issues notice to deny, noting several problems with the label.<br>5/27/2022: DPR confirmed that the label that they are reviewing is the same as the label available on the EPA website. |
| Bifenthrin / Acetamiprid F9228-2 RTU insecticide / miticide by FMC | Outdoor and indoor uses. Label allows liberal spraying. | 1/5/2022: DPR confirmed that the Surface Water Group would review. |

**Other DPR-related Items**

- Registration Application Surface Water Reviews – continue to follow up on communications requesting review of all storm drain products and outdoor antimicrobials

**Water Boards**

- ***State Water Board Urban Pesticides Provisions*.**
- Pesticides 303(d) listings
- Pesticide TMDL implementation requirements for permittees

**Other Statewide Items**

- ***DPR's Sustainable Pest Management Roadmap***
- ***CA DPR Fipronil Human Health Risk Assessment and Mitigation.*** DPR finalized the fipronil Risk Characterization Documents (RCD) in May 2023. The final exposure assessment document (EAD), response to comments from US EPA, Office of Environmental Health Hazard Assessment, and other documents are posted at the link above. DPR is evaluating exposure scenarios of concern identified in the RCD, as well as comments specific to the risk mitigation process, and will issue a risk management directive (RMD) if DPR determines that mitigation is required.
- ***California Department of Food & Agriculture Program EIR on invasive species*** control covering potential broadcast pesticide applications urban areas of multiple priority pesticides. **October 2021 update**: California's Court of Appeal has ruled that a statewide pesticide-spraying program violates the law by failing to study and minimize the threats from pesticides and to properly inform the public about the risks of spraying. The ruling noted that the department did not analyze or disclose the health and environmental harms of the more than 75 pesticides. The court decision also noted a lack of public notice. Furthermore, they did not evaluate local impacts or allow opportunity for affected communities to opt out. **June 2022 Update:** New ruling by Sacramento County Superior Court orders the state to halt spraying.

# Appendix

# Regulatory Participation Outcomes and Effectiveness Assessment Summary Tables

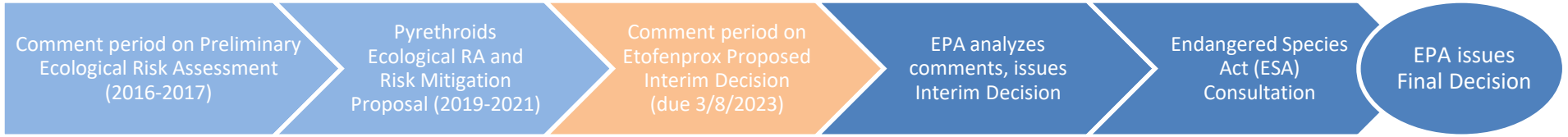
**Pesticide:** Carbaryl – EPA-HQ-OPP-2023-0144.
**Use**: Insecticide
**Why we care**: Toxicity; use pattern; monitoring data
**Actions taken:** CASQA commented on the Workplan (Nov. 2010) and the Proposed Interim Decision/ Draft Evaluation Supporting Proposed Mitigations Predicted to Avoid Jeopardy and Adverse Modification of Designated Critical Habitat and Reduce Take for Four Federally Listed Endangered and Threatened Species (Feb 2023).
**Status:** EPA released the US Fish and Wildlife Service Draft Biological Opinion in March 2023. Comments were due May 15, 2023. CASQA did not prepare a comment letter since EPA is moving forward with the label mitigations for turf, golf courses, and ornamentals that CASQA supported in its Feb 2023 letter.


**Next steps:** RPA and Final Biological Opinion.

| CASQA Comments to EPA (Feb 2023) | EPA Response | Did EPA incorporate CASQA's comment? |
|---|---|---|
| CASQA supports EPA's proposed label language mitigations for carbaryl. These mitigations include use deletions, spray drift management measures, general environmental protection measures (including water protection statements), and updated environmental hazard statements. | EPA included the Proposed Interim Decision (PID) agreements in the draft BiOp. (Draft BiOp, p.37-39) | Yes. |
| CASQA suggests label mitigation measures for consistency. These suggestions included clarification of application statement on pervious surfaces. CASQA also asked that EPA correct the application rates in the PID mitigations to be consistent with the mitigations stated in the November 2022 Biological Evaluation Memorandum titled, Draft Evaluation Supporting Proposed Mitigations Predicted to Avoid Jeopardy and Adverse Modification of Designated Critical Habitat and Reduce Take for Four Federally Listed Endangered and Threatened Species.<br>• The PID notes [p.41] that: "Reducing the maximum annual application rate for turf to 16 lbs ai / acre (currently labeled maximum annual application rate for residential turf and golf courses is 36 lbs ai / acre and 32 lbs ai / acre for sod)"<br>• However, the BE Memo documents the pesticide registrants' recommendations [Appendix C. Summary of Mitigations from Carbaryl Registrants for Listed Species, p. 85]: | EPA included the reduced rates of application for turf, golf courses, and ornamental plants/trees in the draft BiOp. (Draft BiOp, p.41) | Yes. |

| | | |
|---|---|---|
| ○ Ornamental Trees and Plants<br>i. Maximum Annual Amount: 4 lbs. ai / acre (currently 6 lbs. ai / acre)<br>ii. Maximum Annual Number of Applications: 4 (currently 6 lbs. ai / acre)<br>○ Turfgrass (Golf Turf, Sports Fields, Sod Farms, Domestic and Commercial Lawns, Cemeteries, Parks, Campsites, Recreational Areas)<br>i. Maximum Annual Amount: 10 lbs. ai / acre (currently 16 lbs. ai / acre)<br>ii. Maximum Application Rate: 5 lbs. ai / acre (currently 8 lbs. ai / acre) | | |

**Pesticide:** **Etofenprox** (EPA–HQ–OPP–2007–0804)
**Use**: Insecticide
**Why we care**: Priority pesticide due to toxicity, use, and monitoring data. 303(d) listings as well as adopted and pending TMDLs.
**Actions taken:** CASQA submitted a comment letter on the Preliminary Ecological Risk Assessment (July 2017), the Ecological Risk Mitigation (February 2020), and the Proposed Risk Mitigation (January 2021).
**Status:** EPA released a Proposed Interim Decision specific to etofenprox in January 2023. CASQA drafted a response letter in March 2023.




**Next steps:** ESA Consultation with public comment period.

| **CASQA 2/12/2020 Comments to EPA relevant to etofenprox** | **EPA Response** | **Did EPA incorporate CASQA's comment?** |
|---|---|---|
| **PERIMETER SPRAYS**: Restrictions on perimeter sprays of pyrethroids to impervious surfaces around buildings will have negligible effect on the ability to achieve the societal benefits of controlling most of the target pests listed in the benefits section. According to industry standard references, this is because perimeter sprays are neither an effective means nor a common industry practice for controlling the following pests: structure-attacking pests (including termites, carpenter ants, and carpenter bees); stinging and biting pests including paper wasps, yellowjackets, biting flies, and black widow spiders); and public health pests (including bedbugs, house flies and other filth flies, mosquitoes, ticks, fleas, and fire ants). Rather than utilizing perimeter applications of pyrethroids, control strategies for these pests typically rely on more targeted applications (of pyrethroids or other insecticides) to nests, infestations, and harborage sites, in combination with non-pesticidal techniques such as exclusion and sanitation. The utility and common occurrence of targeted applications in structural applications by pest management professionals is acknowledged and well | Currently registered etofenprox outdoor products allow application on impervious surfaces up to a height of 2 to 3 feet and 2 to 3 feet out. Under the proposed label language, etofenprox would only be allowed to be sprayed on impervious surfaces in these cases:<br>• Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure<br>• Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch<br>• Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level<br>(EPA Etofenprox PID, Appendix B: Proposed Labeling Changes for Etofenprox Products) | Yes! |

| | | |
|---|---|---|
| summarized in the following statement from the National Pest Management Association: "Structural pest management applications are often made as spot treatments or crack and crevice applications. This targeted approach, focused on pest source locations and invasion points on the exterior of buildings, and highly focused applications indoors to specific harborage areas highlight the ways that structural pest control use patterns differ from many other application methods"<br><br>In California, Argentine ant control is the primary driver for the use of perimeter sprays of pyrethroids. Incidental control of other nuisance pests that occasionally enter structures may be a minor co-benefit of perimeter sprays. However, according to Argentine ant control experts, better targeted and more limited areas of applications of pyrethroids and other insecticides, especially in combination with insecticidal baits and non-pesticide techniques that reduce conducive conditions can achieve the benefits of Argentine ant control in ways that pose less of a threat to water quality than sole reliance on perimeter sprays. | | |
| **CASQA SUPPORTS EPA-PROPOSED LABEL CHANGES, WITH MODIFICATIONS** CASQA supports the concept of a graphic on product packages showing an image of an "X" – or better the "do not" symbol– over an outdoor drain. We have extensive experience with regard to graphically communicating "do not allow to enter gutters and storm drains" to various audiences and have found this approach to be very effective, if the graphic is properly designed. We appreciate EPA's example from pyrethroids manufacturer outreach (shown to the right), but cannot support the use of this graphic due to lack of clarity, particularly when the image is reduced in size to fit on smaller packaging.<br>We request that EPA please select a clear, schematic graphic that is very obvious as to what is prohibited. We would be pleased to work with EPA, our national association, the National | EPA used CASQA's suggested pictogram, used CASQA's proposed minimum sizing for graphic, and included Spanish translation. EPA also included improved rain restriction language, water protection statements, explicit mention of outdoor/indoor use, and specifically defined the spot treatment size. (EPA Etofenprox PID, Appendix B: Proposed Labeling Changes for Etofenprox Products) | Yes. (Note: since the release of this PID, EPA has released a study of the impact of refraining from pesticide use if rain is expected within 24 or 48 hours. In its comment letter on this PID, CASQA sited that EPA study as a source to ask for even stricter rain language for etofenprox.) |

| | | |
|---|---|---|
| Municipal Stormwater Alliance (NMSA), and registrants toward selecting an appropriate graphic.<br>CASQA supports these other proposed label changes:<br>• Prohibition on applications during rain<br>• Advisory statement to avoid applications if rain is forecast within 24 hours (We would prefer an enforceable statement)<br>• Addition of water protection statements<br>• Definition of spot treatment (2 sq. ft.)<br>• Requirement that product labels explicitly state whether particular products are allowed to be used indoors only, outdoors only, or both indoors and outdoors<br>• Reduction in height above ground level of building treatments from 3 feet to 2 feet<br>To ensure that these label elements completely and effectively address products that may be dumped or washed into gutters and storm drains, we request that EPA modify the "label table" in Appendix B to:<br>1.Identify a specific outdoor drain graphic and require the same graphic be used on all products.<br>2.Establish minimum size for the outdoor graphic, to ensure that it is legible, i.e., no smaller than 1.5 square centimeters unless this size is greater than 10% of the size of the label.<br>3.Modify the list of products that must include the graphic, stewardship language, and Spanish translations. | | |
| **EPA SHOULD PROVIDE CALIFORNIA-SPECIFIC LABELS FOR OUTDOOR STRUCTURAL PEST CONTROL PRODUCTS THAT ARE CONSISTENT WITH CALIFORNIA REGULATIONS** EPA's urban runoff risk mitigation proposal is less protective than existing California regulations. It differs from California regulations in numerous, arcane manners. We anticipate that these differences will be very confusing for applicators. It is likely that many applicators will violate California requirements by following the label on the product (just as they have been trained to do – "Read the Label") | EPA did not provide California-specific labels. | No. |

| | | |
|---|---|---|
| instead of the California requirements. In addition to allowing water pollution, this could subject professional applicators to enforcement. To address this, we request that EPA provide California-specific labels for outdoor structural pest pyrethroids products that are completely consistent with California Surface Water Protection Regulations. | | |

# Our Water Our World


Annual Report

California Stormwater Quality Association

CASQA
CALIFORNIA STORMWATER
QUALITY ASSOCIATION®

**August 2023**

## Preface

The California Stormwater Quality Association (CASQA) is a nonprofit corporation that advances sustainable stormwater management protective of California water resources. With approximately 2,000 members, CASQA's membership is comprised of a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, federal agencies, state agencies, ports, universities and school districts, wastewater agencies, water suppliers, industries, and consulting firms throughout the state. Collectively, CASQA represents over 36 million people in California.

This report provides CASQA's members with focused information on its efforts to raise awareness about the connection between pesticide use and water quality through the Our Water, Our World program (OWOW). The goal of Our Water, Our World is to support a statewide integrated pest management (IPM) outreach program that provides direct to consumer information on less-toxic IPM practices.

By focusing on true source control and public outreach, OWOW advances Principles 1 and 3 of *CASQA's Vision for Sustainable Stormwater Management.*[1]

## Acknowledgements

Our Water, Our World is funded by CASQA, the organizations implementing the OWOW program (see Table 1 in Section 2 of this report) and is sponsored by the Bay Area Clean Water Association (BACWA). This report was prepared by CASQA with support from Suzanne Bontempo.

## Disclaimer

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[1] https://www.casqa.org/sites/default/files/downloads/final_-_vision_for_sustainable_stormwater_management_-_10-07-2020.pdf

# Table of Contents

# Section 1. Introduction

Our Water, Our World (OWOW) is an award-winning partnership between municipal agencies and garden centers and hardware stores that sell pest control products. Initiated in 1998, the program focuses on less-toxic, eco-friendly products and techniques as many common pesticides are harmful to sensitive species and ecosystems when they reach local creeks, bays, and the ocean.

OWOW started as a pilot project in 1998, in just a handful of stores, initiated by the Central Contra Costa County Sanitation District, the City of Palo Alto Regional Water Quality Control Plant, and the Marin Countywide Stormwater Pollution Prevention Program. The program quickly grew and was administered by the former Bay Area Stormwater Management Agencies Association from 1999 – 2021. During that time, over 130 agencies in 16 counties implemented the program, working in approximately 239 stores. Starting in January 2022, the program was transferred to CASQA, with the goal of providing statewide access to this important and successful outreach program.

From a stormwater management perspective, OWOW is an excellent opportunity and cost-efficient way to educate the public and reduce toxicity in waterways from current use pesticides. Several municipalities utilize OWOW to meet permit requirements, including the San Francisco Bay Area Municipal Regional Permit[2], the Central Valley Region-wide MS4[3], and the Phase II – Small MS4 General Permit[4].

This report provides a summary of the OWOW program activities implemented between July 2022 and June 2023.

# Section 2. Program Elements

The OWOW program consists of several elements, which are integral to its effectiveness.

## 2.1 INTEGRATED PEST MANAGEMENT (IPM) ADVOCATES

IPM Advocates are individuals who have been trained on how to engage with retailers and the public. They provide local implementation of the program on behalf of participating agencies. Local implementation generally consists of coordinating with participating retailers to provide in-store displays, shelf tags, in-store presentations and training, and advice to customers about pest management methods that are healthier for people and the environment. Additionally, IPM Advocates receive annual continuing education and training.

## 2.2 EDUCATIONAL MATERIALS

In the store, consumers are directed to less-toxic products and techniques through:

- Fact sheet displays near pest products to educate the public on a wide range of pest management topics.
- Shelf tags to guide customers to less-toxic products.
- Display posters with QR codes linking directly to the OWOW website and fact sheets.

[2] Municipal Regional NPDES Permit and Waste Discharge Requirements General Permit for Discharges from Municipal Separate Storm Sewer Systems (MS4), California Regional Water Quality Control Board – San Francisco Bay Region, 2022. Water Quality (WQ) Order R2-2022-0018-DWQ, NPDES NO. CAS612008, CA.
[3] Municipal Regional NPDES Permit and Waste Discharge Requirements General Permit for Discharges from Municipal Separate Storm Sewer Systems (MS4), California Regional Water Quality Control Board – Central Valley, 2016. Water Quality (WQ) Order R5-2016-0040-DWQ, NPDES NO. CAS0085324, CA.
[4] NPDES Permit for Waste Discharge Requirements for Discharges from Small MS4, California State Resources Control Board, 2013. WQ Order 2013-0001-DWQ, NPDES No. CAS000004, CA.

On the OWOW website, consumers can view the following:

- All 18 fact sheets.
- Stores participating in the OWOW program.
- Lists of less-toxic products and active ingredients.

### 2.3 TRADE SHOWS

OWOW representatives provide exhibits annually at trade shows to educate store buyers on less-toxic products. Participation in these events helps ensure stores carry less-toxic products.

## Section 3: Partnerships

The program is administered by CASQA, implemented by local cities and counties, with IPM Advocates and University of California Statewide IPM Program (UC IPM) serving as collaborative partners, as shown in Figure 1.

CASQA manages and provides the central services necessary to operate and maintain Our Water, Our World, including the development of the in-store education materials (e.g., less-toxic product lists, label files, and active ingredient lists), creation and updates of outreach materials, operation and updates to the OWOW website, vendor (i.e., retail partners and pesticide distributors) outreach, preparation of an annual report, fulfillment of outreach materials orders, and program management and development.

IPM Advocates are trained individuals that support local implementation of the OWOW program. They provide retail stores, nurseries, hardware stores, and garden centers direct to consumer information on integrated pest management tools, products, and practices. IPM Advocates are the link between the municipalities and the retailers where they reach consumers. Suzanne Bontempo was contracted by CASQA to coordinate the IPM Advocates to keep continuity within the program, hold regular meetings to communicate updates on new pests and new pest management techniques, and maintain the outreach material. The active IPM Advocates include Suzanne Bontempo, Debi Tidd, Julie Barbour, Lorenzo Levinger, Charlotte Canner, Maris Sidenstacker, and Lisa Ratusz.

The UC IPM Program provides research and expertise on IPM practices promoted throughout the state and maintains a website of less-toxic IPM for nearly 1000 home, garden, landscape, and turf pests. Karey Windbiel-Rojas, Staff Director for Urban and Community IPM, UC IPM Program has been involved with the IPM Advocate program since its inception and continues to assist with advocate training, technical resources on pest management practices, and as a liaison with UC resources.

Municipal agencies subscribe to OWOW through CASQA and implement the OWOW program in their local retail stores by contracting with IPM Advocates, using municipal staff or other contractors. Implementation may occur by a single agency at stores within their jurisdiction or organized at a regional scale, where agencies combine resources to implement the OWOW program at select stores used by multiple jurisdictions. In addition, municipal agencies conduct outreach to inform residents about the OWOW program. Table 1 provides the list of agencies implementing OWOW as of June 30, 2023. Bay Area Clean Water Agencies (BACWA) continue to support the OWOW program as a sponsor.

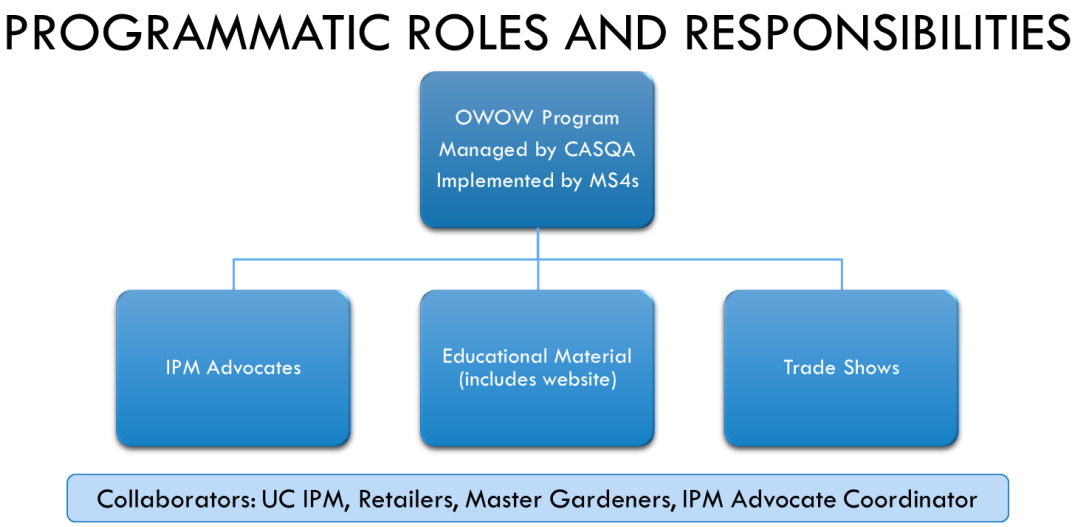



Figure 1. OWOW Program Roles and Responsibilities

# Table 1. Agencies Implementing OWOW

**Bay Area**

Alameda County

Alameda County Flood Control & Water Conservation District

Alameda County Public Works Agency

City of Alameda

City of Albany

City of American Canyon

City of Antioch

City of Belmont

City of Belvedere

City of Berkeley

City of Brentwood

City of Brisbane

City of Burlingame

City of Calistoga

City of Campbell

City of Clayton

City of Cloverdale

City of Concord

City of Cotati

City of Cupertino

City of Daly City

City of Dublin

City of East Palo Alto

City of El Cerrito

City of Emeryville

City of Foster City

City of Fremont

City of Half Moon Bay

City of Hayward

City of Healdsburg

City of Hercules

City of Lafayette

City of Larkspur

City of Livermore

City of Los Altos

City of Martinez

City of Menlo Park

City of Mill Valley

City of Millbrae

City of Milpitas

City of Monte Sereno

City of Mountain View

City of Napa

City of Newark

City of Novato

City of Oakland

City of Oakley

City of Orinda

City of Pacifica

City of Palo Alto

City of Piedmont

City of Pinole

City of Pittsburg

**Bay Area (Con't)**

City of Pleasant Hill

City of Pleasanton

City of Redwood City

City of Richmond

City of Rohnert Park

City of San Bruno

City of San Carlos

City of San Jose

City of San Leandro

City of San Mateo

City of San Pablo

City of San Rafael

City of San Ramon

City of Santa Clara

City of Santa Rosa

City of Saratoga

City of Sausalito

City of Sebastopol

City of South San Francisco

City of St. Helena

City of Sunnyvale

City of Ukiah

City of Walnut Creek

Contra Costa Clean Water Program

Contra Costa County

County of Alameda

County of Marin

County of Napa

County of San Mateo

County of Santa Clara

Marin Countywide Stormwater Pollution Prevention Program

Mendocino County

Napa Countywide Stormwater Pollution Prevention Program

San Mateo Countywide Water Pollution Prevention Program

Sonoma County

Sonoma County Water Agency

Town of Atherton

Town of Colma

Town of Corte Madera

Town of Danville

Town of Fairfax

Town of Hillsborough

Town of Los Altos Hills

Town of Portola Valley

Town of Ross

Town of San Anselmo

Town of Tiburon

Town of Windsor

Town of Woodside

Town of Yountville

Union City

Vallejo Flood and Wastewater District

Valley Water (Santa Clara Valley Water District)

Zone 7 Water Agency

**Central Valley**

Butte County

City of Ceres

City of Davis

City of Dixon

City of Escalon

City of Lathrop

City of Lincoln

City of Lodi

City of Manteca

City of Newman

City of Patterson

City of Ripon

City of Riverbank

City of Roseville

City of Sacramento

City of Stockton

City of Tracy

City of Turlock

City of West Sacramento

City of Woodland

City of Yuba City

County of Sacramento

County of San Joaquin

El Dorado County

Fresno Metropolitan Flood Control District

Sacramento Stormwater Quality Partnership

Mountain House Community Service District

San Joaquin County

Stanislaus County

Yuba City

**Central Coast**

City Buellton

City of Carmel-by-the Sea

City of Carpinteria

City of Del Rey Oaks

City of Goleta

City of Monterey

City of Pacific Grove

City of Sand City

City of Santa Maria

City of Seaside

City of Solvang

County of Monterey

Santa Barbara County

**Southern California**

City of Santa Clarita

**Sponsor**

Bay Area Clean Water Agencies (BACWA)

# Section 4. Annual Program Implementation

The following OWOW outreach services were conducted between July 2022 and June 2023.

## 4.1 IPM ADVOCATES

After training by the University of California IPM Program, IPM Advocates are contracted by local municipalities and then assigned to stores, where they pass on their knowledge to staff and hold educational events for customers. Excellent relationships between the IPM Advocates and store management and staff are key to the successful promotion of less-toxic, eco-friendly projects.

### IPM Coordination

Ms. Bontempo held regular IPM Advocate coordination meetings to communicate updates on new pests and new pest management techniques.

## 4.2 EDUCATIONAL OUTREACH MATERIALS

Educational materials include fact sheets for specific pests, gardening and pesticide applications, shelf tags to identify eco-friendly products in stores, and the OWOW website that makes the material accessible to the public. Examples of OWOW outreach materials are provided in Appendix A.

### Fact Sheets

There are 18 OWOW fact sheets available, including four (4) available in Spanish. Starting in January 2022, posters with trackable QR codes were made available in the pesticides aisle to encourage consumers to digitally access the OWOW fact sheets. The trackable QR codes record which fact sheets are viewed by consumers in retail stores. According to the data from the QR code posters, between July 2022 and June 2023, the three most viewed fact sheets were 'Ants,' 'Rats and Mice,' and 'Moles, Voles, and Gophers.' Table 2 presents a summary of QR code scans for each fact sheet. Additionally, Figure 2 shows the frequency of QR code scans per month for the reporting period.

### Website

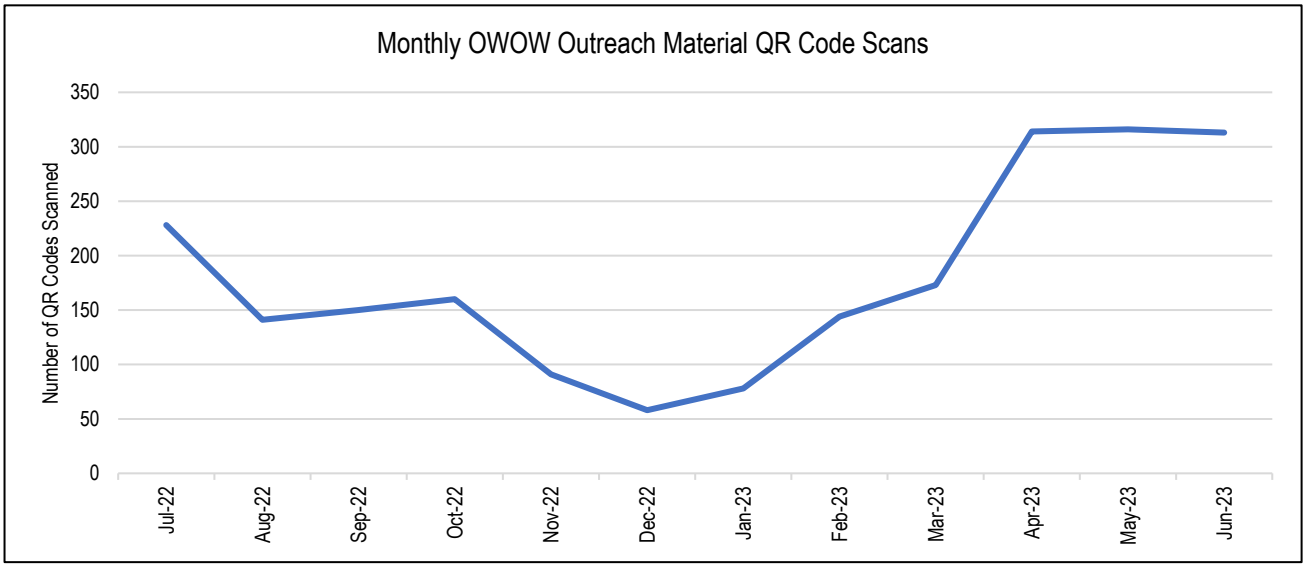
The OWOW website provides public access to the fact sheets, the less-toxic product list, and the Store Finder, which is an interactive map to search for participating stores. Updates to the Store Finder are made on a quarterly basis. During the 2022 – 2023 reporting year, 39 stores were added to the OWOW program and made available on the Store Finder.

### Store-based Product Lists

The store-based product lists provide the current lists of the eco-friendly products that Home Depot and Ace Hardware stores sell each year. IPM Advocates use the store-based product lists to identify the eco-friendly products on store shelves using labels or "shelf talkers/tags." Each year, the product lists are reviewed, and updates are made as needed in consultation with subject matter experts. Appendix B provides the product lists for 2023.

## Table 2. QR Code Scans by OWOW Product from July 2022 to June 2023

| OWOW Product | QR Code Scans |
|---|---|
| OWOW Website | 145 |
| Ants | 268 |
| Aphids | 152 |
| Bed Bugs | 73 |
| Cockroaches | 161 |
| Fleas | 143 |
| Healthy Gardens | 72 |
| Hiring a Pest Company | 13 |
| Lawns | 20 |
| Moles Voles Gophers | 263 |
| Mosquitoes | 140 |
| Pesticide Use & Disposal | 24 |
| Pesticides & Water Quality | 11 |
| Rats & Mice | 213 |
| Roses | 106 |
| Snails & Slugs | 118 |
| Spiders | 89 |
| Weeds | 59 |
| Yellowjackets | 54 |
| Spanish Fact Sheets | 30 |
| **Total** | **2,154** |




## Figure 2. Monthly OWOW Outreach Material QR Code Scans between July 2022 and June 2023

## 4.3 VENDOR OUTREACH

Education of vendors and retailers on less-toxic products is a critical step to ensure stores carry less-toxic products.

### Retail Partners

Ms. Bontempo led collaboration with key retail partners. During the past year, she maintained OWOW's relationship with the Home Depot Corporate Sustainability Officer and communicated quarterly to Home Depot Corporate to keep goals aligned and to provide updates on OWOW activities in the stores. Each year OWOW receives a letter of support from the Home Depot Corporate Sustainability Officer that facilitates collaboration with local retailers (see Appendix C). Home Depot Corporate is a model retailer partner and OWOW strives to replicate this partnership with other retailers and vendors. In 2023, a successful collaboration with Outdoor Supply Hardware (OSH) led to bringing 11 of the 14 OSH stores into the OWOW program. Including these OSH stores, 39 new retailers, primarily from the Central Valley region, joined the OWOW program between July 2022 and June 2023. These additions, from counties Alameda, Butte, Contra Costa, El Dorado, Fresno, Los Angeles, Mendocino, Napa, Placer, San Joaquin, San Mateo, Santa Barbara, Santa Clara, Sonoma, and Stanislaus, demonstrate the expanding reach of the OWOW program.

### Vendor Communication

Established relationships with national pesticide manufacturers and annual communication with vendors is essential to learn about new pesticide active ingredients, products, and market trends. Key vendors have reported many obstacles in 2023 as follows:

- Supply chains are still straining product supply.
- Consumers continue tend to purchase less plants and related products.
- Consumer expendable cash flow is less available due to inflation and fuel cost.

### Trade Show Booths

Attending trade shows provides an opportunity to meet vendors, learn about the new products coming to the California marketplace, answer questions, and provide mentorship to the retail buyers. In 2022 – 2023, OWOW representatives attended the following trade show events:

- BFG Marketplace Expo, Reno NV, October 22 – Retailer Show
- Northern California Home & Landscape Expo, Sacramento CA, February 2023 – Consumer Show
- NorCal Landscape Trade Show, San Mateo, CA, February 2023 – Landscape & Garden Professional Show

## 4.4 TRAINING AND OUTREACH FOR RETAILERS AND CONSUMERS

IPM Advocates and other OWOW service providers conduct OWOW outreach activities to educate retailers and consumers at the local level. Local OWOW implementation activities vary between agencies. Many agencies receive tailored OWOW reports from their contracted IPM Advocate with a summary of their local OWOW data (for example, the number of trainings, the number of staff trained, and/or the number of fact sheet distributed).

IPM Advocates provided OWOW services to approximately 282 participating retailers throughout California. Table 3 provides a summary of outreach activities between July 2022 and June 2023. These activities were funded by the stormwater programs of local municipalities.

## Table 3. Summary of Outreach Activities

| Audience | OWOW Outreach Activity |
|---|---|
| **Retailers** | 282 retailers participated in the OWOW program |
| | 162 trainings conducted |
| | 1,034 retail staff trained |
| **Direct to Consumer** | 168 public outreach events |
| | 15,532 people attended these public outreach events (In person and virtually) |
| | 2,154 scans of QR Codes for OWOW fact sheets |

IPM Advocates and other OWOW service providers conducted 154 trainings and trained 960 retail store staff. The training topics include IPM and strategies for managing pest problems with less-toxic and eco-friendly products. In addition, IPM Advocates provided tips for new gardeners and how to protect gardens in the time of drought. Education has expanded to include protecting gardens during times of drought since plants are more prone to pest problems when they are (drought) stressed. IPM Advocates provided additional digital support, which included a biannual retailer e-newsletter, along with online webinars and social media posts aimed at the public.

### Retailer e-Newsletter

A biannual newsletter is emailed to participating retailers at the beginning of spring and fall. This newsletter contains information on seasonal pest problems and eco-management solutions. These newsletters help store staff, including managers, stay current on pest problems that might be affecting their customers. Many of the managers print the OWOW newsletter and post it for all staff to review. Out of the 282 retailers, 161 retailers receive the e-newsletter.

### IPM Educational Webinars

Webinars were developed in lieu of in-person outreach events during the first year of the COVID-19 pandemic. These webinars have grown in popularity and now are a regular service provided by IPM Advocates to agencies that contract with them at the local scale. Each registrant received a program outline and a 'Helpful Gardening Resource' page.

### Outreach Barriers

Many retailers continued to be impacted by supply chain challenges and inventory and labor shortages, which led to delays in scheduling retailer trainings and setting up shelf displays. Additionally, many of the retail trainings and public outreach events were further delayed until April due to the prolonged wet weather during the first half of 2023

# Section 5. Program Development

To support a growing demand for OWOW outreach material and IPM Advocates, there are efforts currently underway, as well as future considerations, to advance the OWOW program.

## 5.1 UPDATES IN PROGRESS

### Fact Sheets and Pocket Guide

In 2023, four fact sheets and the pocket guide are undergoing review for technical accuracy by subject matter experts. The fact sheets undergoing review include Ants (both English and Spanish), Yellowjackets, Pesticides and Water Quality, and Fleas. The revised fact sheets will be made available to OWOW subscribers in Fall 2023. Additional fact sheets will undergo review in 2024.

### Universal Product List

The Universal Product List is an Excel spreadsheet that modifies the existing store-based products lists with added functionality for sorting products by pest, product name, brand, and active ingredient. The Universal Product List will first be made available to IPM Advocates and subscribing agencies. A future consideration is transforming the spreadsheet into a user-friendly database available on the OWOW website so consumers could have an easier time finding less-toxic products for their pest problems.

## 5.2 FUTURE CONSIDERATIONS

### Implementation and Guidance Handbook

To bring consistency to the OWOW program's implementation, the *Implementing an IPM Partnership: A How-To Manual* dated March 2000, will be revised to describe current practices and responsibilities for OWOW subscribing agencies, IPM Advocates, and participating retailers. The primary goal of the Implementation and Guidance Handbook is to describe the core elements of local implementation, establish an annual reporting schedule, and provide consistency in retailer trainings, materials, displays, and communication.

### IPM Advocate Training Program

To operate at a statewide scale, and in a sustainable manner, certain aspects of the existing OWOW program must be formalized and expanded. In 2022, CASQA began developing an outline for an IPM Advocate Training Program. As part of this initiative, CASQA intends to work with and potentially partner with Department of Pesticide Regulation (DPR). CASQA will coordinate workgroups comprised of OWOW Subscribers, current IPM Advocates, and training experts to develop a framework for the IPM Advocate Training Program.

# Appendix A – Example Outreach Materials


Figure A1. Trackable QR Code Poster in Store Aisle

EFFECTIVE ECO-FRIENDLY PEST CONTROL • LESS-TOXIC PRODUCTS

# CONTROLLING ANTS IN YOUR HOME

## CONTROL ANTS IN YOUR HOME WITH THESE ECO-FRIENDLY PRODUCTS

| | |
|---|---|
| Bait stations containing borates or hydramethylnon | Amdro Kills Ants Ant Killer, Amdro Kills Ants Ant Killing Bait, Combat Source Kill 4 products, KM Ant Pro products, Maggie's Farm Simply Effective No Spill Ant Kill, Terro Ant Killer II Liquid Ant Baits |
| Diatomaceous earth (DE) products | Concern Diatomaceous Earth Crawling Insect Killer, Safer Brand Diatomaceous Earth Ant and Crawling Insect Killer, St. Gabriel Organics Insect Dust—Diatomaceous Earth |
| Applicator for diatomaceous earth (DE) | Pest Pistol |
| Plant-based insecticides | EcoLogic Ant and Roach Killer, Ecosmart Ant and Roach Killer, Orange Guard |
| Hose attachment | Bug Blaster |
| Sticky barrier | Stikem Special pest glue, Tree Tanglefoot Insect Barrier |

Argentine ants are frequent invaders in California homes. They are tiny (1/8 inch). They come inside a few at a time at first (the scouts), and then in long lines, following scent trails to a food source.

## A QUICK FIX FOR AN ANT EMERGENCY

If you deal with ants when they first come inside, a few simple steps can take care of the problem.

1. Find what ants are after (usually leftover food) and where they are entering the room (usually through a crack in the wall). Mark the spot so you can find it again. If you can't find an entry point, see Step 4.
2. Spray lines of ants with soapy water and wipe up with a sponge, and clean up any food or spills.
3. Next, block entry points temporarily with a smear of petroleum jelly or a piece of tape.
4. If you can't find an entry point, clean up the ants (Step 2). Place a bait station in an out-of-the-way spot on the line the ants have been following. Remember to remove the bait station when the line of ants has disappeared so you don't attract more ants into the house. (See *Tips for Using Ant Baits.*)

While they can be pests, ants are helpful creatures, especially outside. Ants kill and eat many pest insects, help to aerate soil, and recycle animal and vegetable material. This is good news, because it's probably not possible to eliminate ants from their outdoor habitat. The best way to manage an ant invasion is to keep them outside.

## KEEP ANTS AWAY

- Store food in the refrigerator, or in containers that seal tightly.
- Keep things clean and dry, and fix leaking faucets and pipes (ants come in to find water as well as food).
- Weather-strip doors and windows.

Choose eco-friendly products for your home and garden. Look for this symbol before you buy.

Figure A2. Ant Fact Sheet

**OWOW Retail Newsletter Spring 2023 Edition**

**Spring garden pests that love cool, rainy spring weather**

With the abundance of rains this season, we are also seeing an abundance of rainy season garden pests, such as slugs, earwigs, mushrooms, weeds, and assorted plant diseases. Here we will review management tips that you can share with your customers.

1) Slugs & Snails -
Remind customers to remove any soggy or rotting leaves from the plant, clear the base of the plant removing any debris to ensure the crown is clear.
Though eco-friendly slug & snail baits containing iron phosphate are favorable, they will dissolve with rainy conditions. Exclude slugs & snails by placing a barrier of copper tape around plants.
Placing chunky bark mulch around slug & snail prone plants will reduce their activity as they are less likely to cross the chunky bark mulch.
After the rainy season when irrigation systems are on, avoid watering at night which favors slug & snail activity. Advise your customers to water during the sunrise hours; 4am-7am is best for the overall health of the garden.
You can read more about slug & snail management here.

2) Earwigs -
Insecticides are typically not effective for earwig control. Make a trap! You might sell earwig traps or you can coach folks on how to make a simple trap as shown on the UCIPM website.
Though earwig baits containing iron phosphate & Spinosad are available, they will dissolve with rainy conditions. Best to wait until the rains stop before using.
After the rainy season when irrigation systems are on, avoid watering at night which favors slug & snail activity. Advise your customers to water during the sunrise hours, 4am-7am is best for the overall health of the garden.

3) Mushrooms -
We will have more customers asking about how to remove mushrooms from their lawn or garden areas. Mushrooms often are a sign of a healthy garden environment and commonly appear in moist soils after the rain or with frequent irrigation. They are short lived and will disappear on their own. Careful handling and proper identification are important when making decisions about removing mushrooms in the garden. You can find more information here on the UC IPM mushroom page.

4) Weeds
Keep weeds in check. Best management is to remove with tools or hand pull when they are young, once the soil has dried enough to walk on. Mow or trip taller weeds or use grazing animals. Take advantage of the benefits sheet mulching offers. There are many effective eco-herbicides available. Always read the label and apply according to that label. Avoid letting weeds go to seed.
You can find eco-friendly herbicides and more about managing weeds here.

5) Plant diseases-
There is a good chance we will see an abundance of plant diseases due to the cool, wet spring weather. Proper identification is key to pest management. The UC IPM website can help with identification. Look up the plant and then from there you will find a list of pests common to that plant. From there you will find the information that will assist with managing the plant disease.

Figure A3. Spring e-Newsletter Page 1

# Appendix B – 2023 Product Lists

## 2023 Home Depot Product List

**Pesticide Bays**

Amdro Gopher Traps
BioAdvanced Organics Houseplant Insect & Mite Control
BioAdvanced Organics Tomato, Vegetable & Fruit Insect Control
Bird-B-Gone Stainless Steel Bird Spikes
Black Flag Handheld Bug Zapper
Black Flag Pantry Pest Trap
Black Flag Roach Motel
Bonide Cpt Jack's Copper Fungicide
Bonide Cpt Jack's Dead Weed Brew
Bonide Cpt Jack's Insecticidal Super Soap
Bonide Cpt Jack's Lawn Weed Brew
Bonide Cpt Jack's Neem Max 70%
Bonide Cpt Jack's Neem Oil
Bonide Cpt Jack's Orchard Spray
Bonide Cpt Jack's Rose Rx
Bonide Cpt Jack's Tomato & Vegetable
Bonide Mole Max
Bonide Repels All
Buggy Bands Mosquito Repellent
Buggy Beds Bed Bug Trap
Critter Ridder
Cutter Essentials Bug Control
Cutter Essentials Outdoor Fogger
Dr. Earth Pest Control Insect Killer
EcoLogic Ant & Roach Killer
EcoLogic Bed Bug Killer
EcoLogic Home Insect Control 2
EcoLogig Flying Insect Killer
First Saturday Lime Insect Repellent
Fly Swatter
Garden Safe Fungicide 3
Garden Safe Houseplant & Garden
Garden Safe Insecticidal Soap
Garden Safe Multi Garden Insect
Garden Safe Neem Oil Extract
Garden Safe Rose & Flower
Garden Safe Slug & Snail
Gopher Traps
Green Gobbler 20% Vinegar Weed Killer
Harris Diatomaceous Earth
Harris Roach Killing Powder
Harris Roach Tablets
Havahart Live Animal Trap
Hot Shot Bed Bug Killer Dust
Liquid Fence Deer & Rabbit Repellent
Monterey Nematode Control
Mosquito Dunks
Mouse Traps
Mouse X
Organiocide Bee Safe 3-in-1 Garden Spray
Ortho Bed Bug Trap
Ortho Ground Clear Weed & Grass Killer (green label)
Owl, Garden Defense
Preen Natural Weed Prevent
Raid Ant Baits III
Raid Fly Ribbon
Raid Fly Stick
Raid Fly Trap
Raid Window Fly Trap
Rat Traps
Rat X
Rescue Fly Trap
Rescue Fly Trap Refill
Rescue Outdoor Fly Trap
Rescue W-H-Y Trap
Rescue W-H-Y Trap Refills
Rescue Yellow Jacket Trap
Rescue Yellow Jacket Trap Cartridge
Rescue Yellow Jacket Trap Refill
Safer Brand Ant, Roach & Spider Killer
Safer Brand Diatomaceous Earth Crawling Insect Killer
Safer Brand Home Indoor Pest Control
Safer Brand Home Multi-Insect Killer (DE)

Safer Brand Indoor Fly Trap
Safer Brand Indoor Fly Trap Refills
Safer Brand Snake Shield
Sevin 2-in-1 Sulphur Dust
Skunk Scram Repellent Granules
Southern Ag Thuricide Bt
Terro Fruit Fly Trap
Terro Liquid Ant Bait II
Terro Liquid Ant Killer II
Terro Multi-Surface Liquid Ant Baits
Terro Outdoor Liquid Ant Bait Stakes
Tom Cat Attractant Gel
Tom Cat Mouse Trap
Tom Cat Rat Traps
Tom Cat Rodent Repellent
Treekote Tree Wound
Uncle Ian's Dog & Cat Repellent

**Fertilizer Bays**

Alaska Fish Plant Food 5-1-1
Bonnie Harvest Select Raised Bed Plant Food
Dr Earth Lawn Food
Dr. Earth Fertilizer
Earthworm Castings
Espoma Organic Fertilizer
Espoma Organic Lime
Espoma Organic Soil Acidifier
Kellogg Organic Plus Fertilizer
Mater Magic
Miracle-Gro Fertilizer Spikes Tree & Shrub
Monterey Fish & Guano Fertilizer
Osmocote
Pennington Epson Salts
Vigoro Fruit, Nut &Citrus Fertilizer Spikes
Vigoro Tree & Shrub Fertilizer Spikes
Uncle Ian's Mole, Gopher, Deer, & Squirrel Repellent
Victor Electric Mouse Trap
Victor Electric Rat Trap
Victor Gopher Traps
Victor Mouse Traps
Victor Natural Rodent Repeller Packs
Victor Rat Traps
Victor Rat-A-Way Rat & Mouse Repellent
Weed Block Landscaping Fabric
Weed Control Fabric
Zevo Ant, Roach & Spider
Zevo Fly, Gnat & Fruit Fly
Zevo Flying Insect Trap
Zevo Flying Insect Trap Refills
Zevo Multi Insect
Zevo Wasp, Hornet, & Yellow Jacket

## 2023 ACE Hardware Product List

Alaska Fish Fertilizer
Amdro Kills Ants Ant Killer
Answer Kills Roaches Powder
Bed Bug Traps
BioCare Codling Moth Traps
Bird Repellent Gel
Bird Scare Tape
Bird-B-Gone Flash Tape
Bird-B-Gone Steel Bird Spikes
Black Flag Roach Motel
Black Flag Window Fly Traps
Bonide All Seasons Spray Oil
Bonide Burnout
Bonide Captain Jack's Dead Bug Brew
Bonide Chipmunk, Squirrel, & Rodent Repellent
Bonide Copper Fungicide
Bonide Go Away! Rabbit, Dog, & Cat Repellent
Bonide Hot Pepper Wax Animal Repellent
Bonide Insecticidal Soap
Bonide Mole Max
Bonide Mosquito Beater
Bonide Mouse Magic
Bonide Neem Oil
Bonide Rat Magic
Bonide Repels All
Bonide Snake Stopper
Bonide Sulfur Fungicide
Bonide Tomato & Vegetable
Bonide Wilt Stop
Buggy Beds
Cloud Cover
Combat Ant Killing Bait
Combat Roach Killing Bait
Critter Ridder Sprinkler
Good Nature CO2 Rodent Trap
Gopher Baskets
Gopher Hawk
Gopher Scram
Gopher Traps
De-Fence Deer & Rabbit Repellent
Deer Off Deer Repellent
Diatomaceous Earth
Dr. Earth Final Stop Disease Control Fungicide
Dr. Earth Final Stop Fruit Tree Insect Killer
Dr. Earth Final Stop Rose & Flower Insect Killer
Dr. Earth Final Stop Vegetable Insect Killer
Dr. Earth Final Stop Yard & Garden Insect Killer
Dr. Earth Organic Fertilizer
Drop in the Bucket Mouse Trap
E.B. Stone Organic Fertilizer
Earth's Ally Disease Control
Earth's Ally Insect Control
Earth's Ally Weed & Grass Killer
Earth's Ally Weed Killer
EcoSmart 3 in 1 Rose & Flower
EcoSmart Ant & Roach Killer
EcoSmart Flying Insect Killer
EcoSmart Garden Insect Killer
EcoSmart Home Pest Control
EcoSmart Insect Killer
EcoSmart Insect Killing Granules
EcoSmart Mosquito Fogger
EcoSmart Wasp & Hornet Killer
EcoSmart Weed & Grass Killer
Epsom Salts
Espoma Garden Lime
Espoma Organic Fertilizer
Espoma Organic Insect Soap
Espoma Soil Acidifier
Fly Paper
Fly Ribbon
Fly Stick
Fly Swatter
Fly Trap
Fresh Cab Rodent Repellent
Fruit Fly Trap
Giant Destroyer Garlic Repellent Clips Deer & Rabbit
Harris 20% Vinegar Weed Killer
Harris Bed Bug Killer Diatomaceous Earth
Harris Boric Acid Roach Powder
Harris Diatomaceous Earth
Harris Famous Roach Tablets

Harris Neem Oil
Harris Roach Traps
Havahart Live Animal Cage Trap
Insect Sticky Traps
Jobe's Fertilizer Spikes
Jobe's Organic Fertilizer
Jobe's Organic Fertilizer Spikes
JT Eaton Kills Bed Bugs Powder
Liquid Fence Animal Repellent
Liquid Fence Deer & Rabbit
Liquid Fence Snake Repellent
Live Catch Mouse Trap
Messina's Animal Stopper
Messina's Deer Stopper
Messina's Rodent Stopper
Messina's Squirrel Stopper
Miracle Gro Performance Organics
Mole Trap
Mole X
Monterey 70% Neem Oil
Monterey Bt
Monterey Fish & Guano
Monterey Fruit Tree Spray Plus
Monterey Garden Insect Spray
Monterey Horticultural Oil
Monterey Liqui-Cop
Monterey Neem Oil
Monterey Take Down Garden Spray
Mosquito Bits
Mosquito Dunks
Moss Out! Roofs & Walks
Mouse Traps
Mouse X
Mouse Zero
Natria Grass & Weed Control
Natria Insect, Disease, & Mite Control
Natria Insecticidal Soap
Natria Neem Oil
Natria Rose & Flower
Natria Snail & Slug Killer Bait
Nature's Care Organic Fertilizer
Neem Oil
Orange Guard
Organocide Bee Safe 3 in 1 Garden Spray
Ortho 3 in 1 Insect, Mite, & Disease
Ortho Bed Bug Traps
Ortho Deer B Gon
Ortho GroundClear Weed & Grass
Ortho Home Defense Ant & Roach Killer w/ Essential Oils
Ortho Home Defense Crawling Bug Killer w/ Essential Oils
Ortho Home Defense Flying Bug Killer w/ Essential Oils
Ortho Insect Killer Tree & Shrub
Osmocote
Owl Garden Defense
Pulverize Weed & Grass Killer
Pulverize Weed Killer for Lawns
Pulverize Weed, Brush & Vine Killer
Raid Ant Baits III
Raid Essentials Ant & Roach
Raid Essentials Ant, Spider, & Roach
Raid Small Roach Baits
Rat Traps
Rat X
Rat Zero
Rescue Ant Baits
Rescue Fly Trap
Rescue Fly Trap Refill
Rescue Fly TrapStik
Rescue Pantry & Birdseed Moth Traps
Rescue WHY Trap
Rescue WHY Trap Refills
Rescue Yellowjacket Trap
Rescue Yellowjacket Trap Cartridge
Rescue Yellowjacket Trap Refill
Safer 3 in 1
Safer Ant & Crawling Insect Killer
Safer Caterpillar Killer
Safer Critter Ridder Animal Repellent
Safer Critter Ridder Deer & Rabbit
Safer Diatomaceous Earth
Safer End ALL
Safer Garden Dust
Safer Garden Fungicide
Safer Houseplant Sticky Stakes
Safer Insect Killing Soap
Safer Moss & Algae Killer
Safer Neem Oil
Safer Pantry Pest Trap
Safer Rose & Flower
Safer Snake Shield
Safer Tomato & Vegetable
Safer Yellowjacket & Wasp Attractant
Safer Yellowjacket & Wasp Trap
Scarecrow
Scott's Continuous Release Fertilizer

Scotts Moss EX
Scram for Cats
Sevin Sulfur Dust
Shake Away Rodent Repellent
Slug Trap
Sluggo
Sluggo Plus
Soil Moist
St. Gabriel Moss Killer
Stay Away Ants
Stay Away Mice
Stay Away Moths
Stay Away Spider
Tanglefoot
Terro Ant Killer Liquid
Terro Clothes Moth Alert
Terro Flea Trap
Terro Fly Magnet
Terro Fruit Fly Trap
Terro Indoor Fly Trap
Terro Liquid Ant Bait
Terro Moth Traps
Terro Multi-Purpose Insect Bait
Terro Multi-Surface Liquid Ant Bait
Terro Outdoor Liquid Ant Bait
Terro Roach Magnet
Terro Wasp & Fly Trap
Tom Cat Animal Repellent
Tom Cat Attractant Gel
Tom Cat Deer Repellent
Tom Cat Mouse Traps
Tom Cat Rat Traps
Tom Cat Rodent Repellent
Victor Black Box Gopher Trap
Victor Electronic Mouse Trap
Victor Electronic Rat Trap
Victor Fly Magnet
Victor Mole & Gopher Repellent
Victor Mole Trap
Victor Mouse Traps
Victor Mouse-A-Way Mouse Repellent
Victor Natural Rodent Repeller Packs
Victor Rat Traps
Victor Rat Zapper
Victor Rat-A-Way Rat & Mouse Repellent
Victor Tin Cat Mouse Trap
Whitney Farms Lawn Weed Killer
Whitney Farms Organic Fertilizer
Whitney Farms Weed & Grass Control
Window Fly Trap
Yard Enforcer Sprinkler


# Appendix C – The Home Depot Support Letter

# Interoffice
## MEMORANDUM

**DATE:** January 1, 2023

**TO:** California Store Managers, D28 ASMs and Department Heads

**FROM:** Ron Jarvis

**CC:** Steve Knott, Scott Jacobson

**SUBJECT:** Our Water Our World training

OUR WATER, OUR WORLD is a coalition of organizations whose purpose is to encourage consumers to use less toxic pest controls in and around their homes. They specialize in retail friendly education. Their goal is not to alienate consumers by telling them what they can't use, but instead their information focuses on less toxic pest management and ties into products currently on our shelves.

An Our Water, Our World (OWOW) representative will be in your store to help train employees and label less-toxic products with shelf-talkers. The representative may also schedule a tabling event to educate consumers. This ties in well with "How-to" weekend events. The representative will display a sampling of excellent less toxic and Eco Options products off our shelves. They will provide free informational literature and a wealth of knowledge and experience. Please enjoy this additional help in your store.

A representative will contact you before the training or demonstration date to arrange details. Please contact Suzanne Bontempo at (415) 317-0475 if you have any questions.

Thank you

Ron Jarvis

from the desk of.....
**Ron Jarvis**
**Merchandising Vice President – Sustainability**
THE HOME DEPOT USA, INC.
2455 Paces Ferry Road
Atlanta, GA 30339
(770) 384-4835
Fax (770) 384-4411



Figure C1. 2023 The Home Depot Support Letter

# Summary of Modifications to the Bay Area Hydrology Model (BAHM) during FY 22-23

## Introduction

The Bay Area Hydrology Model (BAHM) is a tool developed to assist permittees and development project engineers with sizing and design of facilities needed to meet the hydromodification management (HM) requirements in Provision C.3.g and to demonstrate that planned facilities meet the HM standards. MRP Provision C.3.g.vi.(4) requires Permittees allowing the use of the BAHM to report collectively, with each Annual Report, a listing, summary, and date of modifications made to the BAHM, including the technical rationale. This document fulfills the requirements for this report and has been submitted with each countywide stormwater program's FY 22-23 Annual Report.

## Background

The BAHM and its User Manual were developed in 2007 by Clear Creek Solutions, based on the Western Washington Hydrology Model (WWHM), and funded jointly by the Santa Clara, San Mateo, and Alameda countywide stormwater programs. These programs also funded an update to the BAHM and User Manual in 2013. Other than minor code fixes, there have been no updates to the BAHM since 2013.

The BAHM is recognized in the MRP as an acceptable tool for showing compliance with HM standards and those standards have not changed in MRP 3.0. However, updates to BAHM and the User Manual were needed to improve model performance and design capability, extend rainfall and evaporation data, and make it more user-friendly. In addition, the Contra Costa Clean Water Program requested that data for their county be incorporated into the BAHM.

To accomplish these tasks, the Bay Area Phase I countywide programs (with the exception of the Solano Stormwater Alliance which uses other approved tools to comply with C.3.g) provided in-kind support to a Bay Area Municipal Stormwater Collaborative (BAMSC) project of regional benefit to update the BAHM and User Manual. The Project Team consisted of EOA and subcontractor Clear Creek Solutions. A Regional BAHM Updates Work Group was formed to scope and direct the project and five meetings of the Work Group were held at appropriate milestones.

Updates to the BAHM software and User Manual began in January 2023 and were completed in June 2023. The link to the updated software and a Word version of the User Manual were provided to the Work Group for review on June 30, 2023. Once the products have been finalized, BAHM 2023 and User Manual will be posted at the following link: https://www.clearcreeksolutions.info/bahm-download-page

## Description of BAHM Updates

The key changes to the BAHM 2013 software included the following:

- Added Contra Costa County area map, and rainfall and evaporation data. The Contra Costa map was developed by including .shp files for the following layers:
    - County Map
    - Streets Map
    - Rain Gage Location Map for seven rainfall gages in Contra Costa County
    - Isopluvial Map of the County 24-hour, 25-Year Event.
    - Evaporation Data Location Map (one evaporation gage for the County).

- Added the rainfall data series for the seven Contra Costa gages and the evaporation gage data. The seven gages are listed below with their dates and period of record.
    - Brentwood: 10/1/1959 - 9/30/2021 (62 years)
    - Saint Mary's: 10/1/1972 - 9/30/2021 (49 years)
    - Dublin Fire: 10/1/1973 - 9/30/2021 (48 years)
    - Los Medanos: 10/1/1974 - 9/30/2021 (47 years)
    - Orinda Fire: 10/1/1973 - 9/30/2021 (48 years)
    - Flood Control District (WC): 10/1/1959 - 9/30/2021 (62 years)
    - Martinez: 10/1/1959 - 9/30/2021 (62 years)
- Extended the rainfall data series for the existing six rain gages through water year 2022. The existing six gages are listed below with their dates and period of record.
    - San Jose: 10/1/1959 - 9/30/2022 (63 years)
    - Morgan Hill: 10/1/1959 - 9/30/2022 (63 years)
    - Berkeley: 10/1/1959 - 9/30/2022 (63 years)
    - Newark: 10/1/1959 - 9/30/2022 (63 years)
    - Livermore: 10/1/1959 - 9/30/2022 (63 years)
    - San Francisco: 10/1/1959 - 9/30/2022 (63 years)
- Extended the evaporation data series (one evaporation gage for each of the three original BAHM counties: Alameda, San Mateo, and Santa Clara) to water year 2022.
- Improved the model's compatibility with Microsoft Windows 11 operating systems.
    - Tested the model and the latest Windows 11 operating system and evaluated compatibility issues with Microsoft default controls, Microsoft default security and Microsoft permissions issues.
- Updated and provided standard defaults for bioretention elements. An option for Default Bioretention has been added to the model. The default values include:
    - Computing the surface area based on tributary impervious area.
    - Setting default layer depths for biotreatment soil media layer and gravel layer.
    - Setting defaults for the overflow structure (users can select different outlet structures).
    - Calculating an equivalent rectangular facility for an irregularly shaped facility using a look-up table.
- Added guidance for modeling a Self-Retaining Area.
    - Added a step-by-step process and example for modeling a self-retaining area as a shallow trapezoidal pond element to the User's Guide.
    - The user will determine ratio of upstream to downstream areas, determine depth of impoundment, and then set up trapezoidal pond element accordingly.
- Added impervious area representation options.
    - A table shows options for impervious land types including Roads, Roofs, Driveways, Sidewalks, Parking and Porous Pavement, and associated slopes.

- Added options for riser and weir representations.
    - Included in the manual is a conversion table relating the size of a rectangular opening for the riser with the size of a circular opening for the riser.
    - Surface area ranges from 0.5 to 22.50 square feet, with a table included for conversion.

Specific changes to the User Manual included the following:

- Page ii - Added outline of the future inclusion of BAHM 2023 instructional material and how it will be accessed.
- Page iii - Altered the license agreement to include CCCWP.
- Page viii – Updated the acknowledgements.
- Page 2 - Outlined what has been added to the BAHM 2023.
- Page 44 - Updated the list of impervious land use types and slopes available.
- Page 76 - Described the Self-Retaining Area and its function in the BAHM.
- Page 80 - Updated the description of Bioretention modeling.
- Page 115 - Updated the description of outlet structure configurations, including a conversion table (rectangular to circular outlet) on Page 122.
- Page 160 – Described the contents of a BAHM report.
- Page 167 – Described what is included in the reviewer checklist.
- Page 174 - Noted that Contra Costa shares parameter values with Alameda and San Mateo counties.
- Page 218 - Update the cited works to reflect the newest versions of those works and references.

## Future Tasks

Future activities in FY 23-24 will include three virtual training courses on BAHM 2023 for BAHM users and reviewers, development of training videos, final revisions to the BAHM and User Manual (if any), and technical support.

# Appendix 17

- Regional Best Management Practices Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations – September 30, 2023

BAY AREA MUNICIPAL
STORMWATER (BAMS) COLLABORATIVE

# Regional Best Management Practices Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations

## Submitted in compliance with the San Francisco Bay Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R2-2022-0018, Provision C.17.a.

**Prepared on behalf of:**

Alameda Countywide Clean Water Program

Contra Costa Clean Water Program

San Mateo Countywide Water Pollution Prevention Program

Santa Clara Valley Urban Runoff Pollution Prevention Program

Solano Stormwater Alliance

## September 30, 2023

# TABLE OF CONTENTS

# 1 INTRODUCTION

This Regional Best Management Practices (BMPs) Report (Regional BMP Report) for addressing non-stormwater discharges associated with unsheltered homeless populations was prepared by the Bay Area Municipal Stormwater Collaborative (BAMS Collaborative). The Regional BMP Report was developed in compliance with the Municipal Regional Permit (MRP) for urban stormwater adopted by the San Francisco Bay Regional Water Quality Control Board (Permit Order No. R2-2022-0018, MRP 3.0) Provision C.17.a.i.(2) in 2022. The MRP regulates stormwater discharges from municipal separate storm sewer systems (MS4s) owned and/or operated by 79 cities, counties and other public agencies (i.e., Permittees) in the San Francisco Bay Area.

The BAMS Collaborative represents 103 stormwater management agencies in the San Francisco Bay Area, including 88 cities and towns, eight counties, and seven special districts. The BAMS Collaborative is focused on regional challenges and opportunities to improve the quality of stormwater flowing to our local creeks, the Delta, San Francisco Bay, and the Pacific Ocean. The BAMS Collaborative was organized in 2021 by the Board of Directors for the Bay Area Stormwater Management Agencies Association (BASMAA) to continue the information sharing and permittee advocacy functions of BASMAA in an informal manner after BASMAA's dissolution. The BAMS Collaborative continues BASMAA's mission to encourage information sharing and cooperation, and to develop products and programs that are required and/or more cost-effectively completed regionally than locally. The BAMS Collaborative has collectively developed this Regional BMP Report in fulfillment of MRP Provision C.17.a.iii.(1).

## 1.1 PURPOSE

This Regional BMP Report was collectively prepared by a BAMS Collaborative Work Group with representatives from the Alameda Countywide Clean Water Program, Contra Costa Clean Water Program, San Mateo Countywide Water Pollution Prevention Program, Santa Clara Valley Urban Runoff Pollution Prevention Program, and Solano Stormwater Alliance and individual cities, counties, and districts in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano Counties that are regulated by the MRP. The Work Group also engaged service provider agencies, Caltrans, and other partner agencies during the development of this Regional BMP Report to gain additional insight and information on BMPs designed to address non-stormwater discharges associated with unsheltered homeless populations.

To encourage ongoing regional, countywide, and municipal coordination efforts, the BAMS Collaborative Work Group collectively identified effective BMPs to prevent and address non-stormwater discharges associated with unsheltered populations into municipal separate storm sewer systems (MS4s) that impact water quality and specific milestones for reducing such discharges within a given timeframe.

MRP Provision C.17.a.i.(2) requires the Regional BMP Report to:

- Describe practices that may be implemented by Permittees, including those currently being implemented, to address discharges associated with homelessness that are

impacting water quality.

- Identify regional and/or countywide efforts and implementation actions to address discharges associated with homelessness (including how those efforts and actions have been affected by unsheltered population growth). Include recommendations for engaging in these efforts and incorporating discharge-reduction strategies that also help meet the unsheltered population's clean water needs.
- Identify actions taken during the COVID-19 pandemic to reduce the spread of the virus in homeless populations, such as temporarily housing unsheltered people in hotels, that may have reduced discharges associated with homelessness. Permittees shall consider the practicability of such actions for longer-term implementation.

The broader goal of the Regional BMP Report is to develop useful information that can be used toward prioritizing individual Permittee and potential collaborative BMPs for reducing or managing such discharges, while ensuring the protection of public health. Examples of collaborative BMPs could include efforts between Permittees, Caltrans, sanitary sewer agencies, railroads, non-profit agencies, social service organizations, and others.

## 1.2 REGULATORY BACKGROUND

MRP Permittees have implemented illicit discharge detection and elimination programs since the inception of the NPDES municipal stormwater permits. Illicit discharges are discharges to a MS4 that are not composed entirely of stormwater and are prohibited by the MRP. The required elements of these programs are in MRP Provision C.5 - Illicit Discharge Detection and Elimination. The municipal illicit discharge detection and elimination programs include the legal authority to prohibit illicit discharges, procedures to receive information (e.g., complaints) on illicit discharges from municipal staff conducting field work and the general public, a process to investigate illicit discharges and achieve effective abatement.

Typically, municipal Permittees identify a responsible party and implement enforcement actions to achieve effective abatement of illicit discharges in a timely manner. Permittees may also choose to use education and outreach as an alternative to enforcement to bring responsible parties into compliance. If a responsible party cannot be identified Permittees will perform cleanup and abatement actions.

Discharges associated with people experiencing unsheltered homelessness, including human waste and trash, are prohibited under the MRP. Preventing and controlling illicit discharges from unsheltered populations presents unique challenges. For example, encampments can be transient, sanitation services can be difficult to maintain, unsheltered populations may not be receptive to the services, and typical illicit discharge enforcement actions/fines may not be appropriate or useful in these situations. Preventing and controlling illicit discharges from unsheltered populations cannot be fully addressed through the Permittee's illicit discharge program and enforcement procedures alone.

To address water quality impacts from discharges associated with unsheltered populations, Permittees evaluate the specific occurrence and implement appropriate BMPs. The BMPs implemented to address water quality issues in the short term can be in addition to longer term measures implemented by municipalities to address unsheltered homelessness, such as

providing housing and supportive services. Municipal staff associated with stormwater management may collaborate with other departments and organizations that are addressing the broader social issue of homelessness, but the immediate concern of stormwater management staff (as detailed in and supported by the BMP Factsheets in Attachment A), is to address short term water quality issues.

In addition to illicit discharge programs, applicable Permittees also address discharges associated with unsheltered populations under the Provision C.10 Direct Discharge Control Program and Provision C.14 Bacteria Control for Impaired Waterbodies. Direct Discharge Control Programs implemented via C.10 by specific Permittees prevent or reduce the impacts of discharges of trash and other pollutants from unsheltered homeless populations near surface waters. Provision C.14 includes requirements for specific agencies to evaluate the potential for bacteria transport and/or impact to surface waters from unsheltered populations and/or implement BMPs to address these discharges where needed.

The reissued MRP, that became effective July 1, 2022, includes a new provision (MRP Provision C.17) that specifically addresses illicit discharges to MS4s associated with unsheltered populations, including illicit discharges from areas where unsheltered people congregate. The Provision encourages "ongoing regional, countywide, and municipal coordination efforts" through the development of this Regional BMP Report. In addition, the Provision has new reporting requirements for Permittees to report individually on BMPs implemented and their effectiveness as well as reporting collectively.

As required by MRP Provision C.17.a.i.(2), this Regional BMP Report describes the BMPs that are currently being implemented or may be implemented by Permittees in the future to address discharges associated with homelessness impacting water quality. These practices are summarized in Section 3.0 (BMP Fact Sheets). The MRP also requires the Regional BMP Report to identify regional and/or countywide efforts, strategies that also help meet clean water needs, and actions taken during the COVID-19 pandemic to reduce the spread of the virus in unsheltered populations that may have reduced discharges associated with homelessness. These categories of actions are also specifically identified in the Section 3.0 (BMP Fact Sheets).

## 1.3 UNSHELTERED HOMELESS POPULATIONS DEFINITIONS AND AREAS OF CONGREGATION

Title 24 of the Code of Federal Regulations (CFR) defines unsheltered populations as "an individual or family with a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings, including a car, park, abandoned building, bus or train station, airport, or camping ground".

For the purpose of the Regional BMP Report, the following are considered unsheltered populations, based on requirements in the MRP, areas of congregation, and the potential for generating non-stormwater discharges that may enter MS4s and surface waters.

- People living on sidewalks in sleeping bags or tents.
- People living on streets in vehicles.
- People living in safe parking areas in vehicles.

- People living in parks, open spaces, and along waterways in vehicles, sleeping bags or tents.
- People living in formal or informal encampments (including tents or cabins) on streets, open spaces, and along waterways.

## 1.4 WATER QUALITY IMPACT

Surface water quality in Bay Area watersheds is threatened by urban development that degrades creek habitat and introduces potential pollutants. Stream channels have been altered for agricultural and flood control purposes, riparian forests have been converted to urban land uses, and the network of storm drainage systems constructed over the years limits opportunities for stormwater infiltration and increases peak rates of storm flow runoff. Results of bioassessment monitoring conducted by the BASMAA Regional Monitoring Coalition (RMC) from 2012 through 2016 suggest that urban streams in the Bay Area are generally in poor ecological condition with impacted populations of aquatic life resulting from modifications to the watershed and riparian areas associated with the urban development that has occurred over the past 70 years.[1]

Additionally, stormwater runoff from urban areas may convey trash, sediment, nutrients, pesticides, bacteria, metals, vehicle-related compounds, and legacy pollutants to surface waters. Emerging contaminants and the effects of climate change also likely impact surface water quality. These potential pollutants and issues are tracked through routine monitoring of creeks, beaches, and the San Francisco Bay. This monitoring is conducted by a variety of organizations and programs such as BAMS Collaborative member agencies, San Francisco Baykeeper, AB411 Compliance Monitoring, the San Francisco Estuary Institute (SFEI), and the Regional Monitoring Program for Water Quality in San Francisco Bay (i.e., RMP).

These monitoring efforts have identified urban runoff as an important pathway for several pollutants. As a result, MS4 contributions of pollutants are being addressed through water quality control plans that are implemented through MRP provisions:

- C.9 - implements requirements of the Total Maximum Daily Load (TMDL) for Diazinon and Pesticide-Related Toxicity for Urban Creeks;
- C.10 - requires a 100 percent reduction in trash loads from MS4s by June 30, 2025;
- C.11 and C.12 - address impacts from legacy pollutants, mercury and PCBs, on San Francisco Bay;
- C.13 - implements a control program for copper; and
- C.14 - addresses exceedances of bacteria Water Quality Objectives (WQOs) that have been identified in several receiving waters discharging to or along San Francisco Bay and the Pacific Ocean).

[1] BASMAA. 2019. *BASMAA Regional Monitoring Coalition Five-Year Bioassessment Report, Water Years 2012 - 2016.* March 15, 2019. Prepared by EOA, Inc and Applied Marine Sciences.

These MRP provisions require monitoring, tracking, and implementation of control measures to address discharges of the pollutants to creeks, the Bay, and the ocean via MS4s.

The Provisions identified above are associated with specific pollutants known to impact surface waters, while the MRP Provision C.17 is associated with addressing a specific source of pollutants (i.e., unsheltered populations). Common pollutants generated from unsheltered populations that may enter MS4s and surface waters are trash and debris (e.g., food waste, plastics, paper, cardboard, materials for shelter/bedding, etc.), and human waste (e.g., bacteria, pathogens). These pollutants are largely addressed in Provisions C.10 and C.14, as described above. Human waste may be directly from individuals or from recreational vehicles (e.g., leaking waste tanks, illegal dumping into storm drains or water bodies). Other types of pollutants that may also be generated from unsheltered populations include hazardous waste (e.g., cleaning chemicals, needles, electronic waste), motor oil and other fluids from leaking vehicles, and pet waste. Additionally, unsheltered populations living near waterways may cause ecological impacts such as barriers to fish passage, habitat loss for wildlife due to vegetation clearing, excavated or compacted soil, temporary structures built near or within waterways, etc..[2]

To date, the link between unsheltered homeless populations and trash in surface waters has been primarily established through visual observations. Many local agencies routinely conduct cleanups at encampments located on streets and near surface waters to remove significant quantities of trash and debris. For example, the City of San José removed approximately 432 tons of trash from encampments in FY 2020-21.[3] If not removed, trash from encampments may enter MS4s and surface waters, and could potentially impact water quality and beneficial uses within these surface waters.[4] Aside from trash, however, data that directly links other pollutants (e.g., bacteria or toxic chemicals) generated from encampments to water quality appear to be limited or unavailable. While numerous sources mention the water quality concerns associated with encampments, actual data are lacking.[5]. For example, the first phase of a DNA testing project to identify the leading causes of *E. coli* concentrations above numeric WQOs in the Lower American River revealed that the main sources of bacteria were birds and other wildlife, with negligible contributions from humans.[6] A microbial source identification study conducted in the Pillar Point Harbor watershed in San Mateo County focused on identifying geographic and seasonal sources of "controllable" bacteria (i.e., human and dog sources). However, detections of the genetic marker for human sources (i.e., HF183) were rare (2 of 48 samples) making it difficult to directly link detection of the HF183 marker to known locations of unsheltered individuals or encampments, as opposed to other potential human

[2] Valley Water. 2022. FY 2021–22 Annual Report, Safe, Clean Water and Natural Flood Protection. May 2022

[3] City of San José. 2022. *FY 2021-2022 Annual Report, Appendix 10.4.* September 2022

[4] Not all visibly discarded materials at an encampment located in a street/sidewalk are transportable through an MS4 to a surface water body (i.e., large bulky items such as tents, tarps, mattresses, etc.).

[5] Santa Ana Watershed Project Authority (SAWPA). 2020. Assessing Homelessness Impacts on Water Quality, Riparian and Aquatic Habitat in Upper Santa Ana River Watershed. Prepared for Santa Ana Watershed Project Authority. September 2020. Prepared by GEI Consultants, Inc. and CWE, Inc.

[6] Central Valley Water Board, 2019. Lower American River Bacteria Study - Data Summary of Phase 1 Source Identification Results

sources.[7] Therefore, while discharges associated with unsheltered populations identified in Section 1.3 may impact water quality, it should not be assumed that every unsheltered individual is a source of stormwater pollutants, or what the relative impacts may be regarding different types and loading rates of runoff related pollution.

The BMPs described in this Regional BMP Report focus on addressing unsheltered populations and the pollutants associated with encampments.

## 1.5 COMPLEXITY OF ISSUE

Although the purpose of this Regional BMP Report is to identify BMPs, the BAMS Collaborative Work Group has found significant value in regional collaboration, sharing knowledge, and providing each other with resources on effective strategies to manage the discharges associated with unsheltered populations. Throughout the development of the Regional BMP Report, participating agencies and members of the BAMS Collaborative Work Group have expressed awareness and concern over the fact that identifying BMPs and strategies to manage the water quality impacts associated with unsheltered populations does not inherently address the complex issues contributing to and impacting the chronic homelessness in the region. As such, the BAMS Collaborative Work Group agreed that development of this Regional BMP Report would be inappropriate without the acknowledgement of those complexities. This section discusses several considerations that impact not only the implementation of the BMPs identified in this Regional BMP Report, but also their overall likelihood, or lack thereof, of success in addressing the root causes of homelessness.

**Intersectionality**

As noted in the MRP 3.0 Fact Sheet, the number of Bay Area residents experiencing homelessness has increased between MRP 2.0 and the adoption of MRP 3.0. The Fact Sheet also cites the increase at approximately 25 percent between 2017 and 2019, based on Point-in-Time count data in the South Bay, East Bay, and the San Francisco Peninsula. However, the increase in unsheltered homelessness is on the rise across the United States.[8] A myriad of different issues may contribute to the rise in unsheltered homelessness, including the lack of affordable housing, increased housing costs, stagnant wages, pandemic-related disruptions, as well as acute physical or behavioral health crises, escaping domestic violence, and long-standing historical and structural racial disparities.[9,10] To effectively address and reduce homelessness, a coordinated systems approach is needed to inform decisions, allocate resources, and provide housing and services to address the needs of those experiencing homelessness.

In the San Francisco Bay Region, collaborative and coordinated efforts to reduce homelessness have been enacted throughout many levels of government. At the Statewide level, the Homeless Emergency Aid Program (HEAP) was established by Senate Bill 850 (2018) as a

[7] San Mateo Countywide Water Pollution Prevention Program (SMCWPP). 2020. *Pillar Point Harbor Watershed Pathogen Indicator Stressor/Source Identification Project Report.* Revised June 2020.
[8] The 2022 Annual Homelessness Assessment Report (AHAR) To Congress. US Department of Housing and Urban Development
[9] "What causes Homelessness?", The National Alliance to End Homelessness
[10] Homelessness in California: Causes and Considerations

response to the housing and homelessness crisis. The initiative allocated $500 million to a one-time set of block grants to help local communities address homelessness. By 2019, 54 block grants were awarded to 43 Continuums of Care (CoCs) and 11 municipalities.[11] The Housing and Homelessness budget trailer bill (AB 129), approved in 2023, establishes Round 5 of the Homeless Housing, Assistance and Prevention (HHAP) Program to be funded at $1 billion in 2023-24 to support the achievement of homelessness reduction goals through state grant programs.[12] All Home, a 501(c)(3) non-profit organization, alongside the Regional Impact Council (RIC), a coalition of Bay Area regional elected officials, city and county staff, leaders from business, nonprofit, and philanthropic organizations, developed and released a Regional Action Plan to reduce homelessness in the Bay Area by 75% in 3 years.[13] Agencies across the San Francisco Bay Region have incorporated the goals of the Regional Action Plan into their respective CoC programs.[14,15] From there, agency departments work and collaborate with others to develop tools and implement services that bring resources directly and indirectly to those who are in most need of assistance -- which is to say -- stormwater agencies are not the primary responsible entities for implementing programs to end/reduce homelessness. Stormwater management agencies can only provide services that help prevent and mitigate MS4 related environmental impacts associated with homeless-related activity.

Even so, questions remain about how local stormwater management programs fit into the complex network of service providers working to address homelessness and how the efforts of these programs will support, not detract, from the important work being implemented by more appropriate and qualified organizations. While there are many ways in which the work of stormwater management agencies can interact and engage with organizations whose primary mission is to end homelessness, stormwater management agencies need to make sure that they are not exacerbating the homelessness crisis or disrupting existing efforts by other agencies in the process of addressing water quality issues. As a first step, the development of this Regional BMP Report, the action of identifying stormwater adjacent BMPs, and the initial regional collaboration borne out of this process have illuminated important connections and educational context needed to work in conjunction with other service providers in the region on these complex issues. Nevertheless, it must be recognized that the purpose and funding of stormwater management programs is to focus on protecting stormwater quality.

**Limitations and Challenges**

In addition to addressing the intersection between the homelessness crisis and stormwater management, the BAMS Collaborative Work Group identified the following limitations and challenges to implementing BMPs to address non-stormwater discharges from unsheltered populations:

- Funding issues;

[11] An Initial Assessment of California's Homeless Emergency Aid Program

[12] https://www.counties.org/csac-bulletin-article/homelessness-trailer-bill-update

[13] Regional Action Plan: A Call to action from the Regional Impact Council. February 2021, All Home

[14] Staff Report from the Contra Costa Council on Homelessness. Contra Costa County Homeless System of Care Quarterly Report for Quarter 4 of 2022 (October – December)

[15] Home Together 2026 Community Plan. Alameda County Office of Homeless Care and Coordination

- Jurisdiction or land use authority;
- Coordination, communication and cooperation with unsheltered individuals and populations; and
- Legal implications of certain types of actions.

Funding the unfunded federal and state mandated stormwater permit compliance programs continues to be one of the most significant challenges facing agencies implementing MRP 3.0. With the increase in requirements and the absence of new revenues for stormwater pollution prevention and management, agencies must consistently prioritize actions that have proven most beneficial to water quality. In addition, the ability to apply current stormwater-specific revenue streams to addressing the discharges of unsheltered populations is unclear. One option for funding some of the BMPs identified in this Regional BMP Report is franchise agreements with vendors, such as municipal waste franchise agreements. These agreements, however, may be limited or restricted at local or regional levels or may not be possible due to other precedents and priorities of individual agencies.

Jurisdictional and land use issues also create challenges for implementing BMPs associated with unsheltered homelessness. By definition (Section 1.3), unsheltered populations may congregate on public or private lands, and may be transient or gather into formal or informal encampments. It can therefore be challenging to gather data, identify trends, and focus BMPs. In the San Francisco Bay Region, the areas where unsheltered populations gather into encampments may be outside municipal jurisdictional authority, such as on Caltrans, Bay Area Rapid Transit (BART), Union Pacific Railroad, or Burlington Northern Santa Fe (BNSF) Railways property. While collaborating with other entities is clearly important, individual stormwater management programs have limited or no capacity to implement services and BMPs in other jurisdictions.

Coordination, communication, and cooperation of unsheltered individuals and populations has been identified as another challenge to implementing BMPs to address non-stormwater discharges. Unsheltered individuals may have experienced trauma because of their situation or past experiences which can lead to mental health, behavioral and/or substance abuse issues. These factors can make it challenging to build relationships and trust, which are essential for effective communication and collaboration. Unsheltered individuals are also often mobile, which can make consistent coordination challenging.

Lastly, complex problems often require complex solutions, and the best solution for addressing homelessness does not lie in legal solutions focused on water quality impairments, such as enforcement of an MS4 permit. Although legal options may be available, Permittees do not believe that enforcement is a suitable practice for addressing discharges from unsheltered homeless populations. Policy changes, such as housing subsidies, housing development and funding for shelters, interim housing, and permanent supportive housing, as well as addressing mental health and substance abuse, would be more appropriate supportive actions than using stormwater regulations as a means of enforcement. It is important that the MRP continue to focus on supporting municipalities with data and information to support understanding and responding to the potential water quality impacts from unsheltered populations, and to respect

the roles of other municipal departments and agencies in their roles to address the more fundamental issue of homelessness occurrence and solutions.

# 2 DESCRIPTION OF COUNTYWIDE PROGRAM EFFORTS AND CONTINUUM OF CARE PROGRAMS

Permittees routinely collaborate at the Countywide level to efficiently and cost-effectively implement a variety of municipal programs. Stormwater programs that are generally organized at the Countywide level are an example of these collaborations. Another example are the Countywide Continuum of Care Programs (CoC Programs), which are Countywide efforts to provide support and housing service to sheltered and unsheltered members of the community. CoC Programs are designed to promote communitywide commitment to the goal of ending homelessness; provide funding for efforts by nonprofit providers, and State and local governments to quickly rehouse unsheltered individuals and families while minimizing the trauma and dislocation caused to unsheltered individuals, families, and communities by homelessness; promote access to and effect utilization of mainstream programs by homeless individuals and families; and optimize self-sufficiency among individuals and families experiencing homelessness. The Department of Housing and Urban Development (HUD) requires the CoC Programs to conduct an annual count of people (point-in-time or PIT count) experiencing homelessness who are sheltered in emergency shelter, transitional housing, and Safe Havens on a single night. CoC Programs are also required to conduct a PIT count of unsheltered people experiencing homelessness every other year (odd numbered years). Each count is planned, coordinated, and carried out locally, and provides valuable information for providing housing and other services.

This section describes the MRP Stormwater Management Programs and the associated local CoC Programs.

**Alameda County**

The Alameda Countywide Clean Water Program (ACCWP) is an association of 17 member agencies: Alameda County, the cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, Union City, the Alameda County Flood Control and Water Conservation District, and the Zone 7 Water Agency. The ACCWP facilitates local compliance with the Federal Clean Water Act, coordinating its activities with other pollution prevention programs, such as wastewater treatment plants, hazardous waste disposal, and water recycling. The ACCWP also works with public agencies from around the County to foster a culture of stewardship, educating residents and businesses alike on how to prevent stormwater pollution. Alameda County has over 100 watersheds, ranging in size from just a few acres to the giant Alameda Creek watershed that overlaps with two other counties.

The Alameda County Office of Homeless Care and Coordination serves to implement expanded services and supports and lead the development of a strategic framework to address and work to end homelessness in Alameda County. The Office is working to build a robust, integrated, and coordinated system of homelessness and housing services, and to improve efficiency and

coordination within HCSA and with external partners. The five major initiatives of the program are:

- Property Owner Engagement
- CalAIM
- Homekey Initiative
- Project Roomkey
- Fairmont Navigation Center

Everyone Home, the collective impact initiative for the Berkeley/Oakland/Alameda County Continuum of Care (CoC) is actively engaged in the fight to end homelessness in Alameda County. In partnership with the Alameda County homeless and housing service delivery system, city leaders, the business community, the faith community, non-profits, and, most importantly, those who have themselves experienced the trauma of homelessness, EveryOne Home is building a future that aspires to sufficient resources, advocacy, and strong community involvement to erase homelessness in our social landscape.

**Contra Costa County**

The Contra Costa Clean Water Program (CCCWP) is comprised of unincorporated Contra Costa County (CCC), the County's 19 incorporated cities/towns[16] , and the Contra Costa County Flood Control & Water Conservation District (District). These 21 public agencies are collectively referred to as "Contra Costa Permittees". The mission of the CCCWP is to coordinate and assist Contra Costa Permittees' efforts to reduce and/or eliminate pollutant discharge into and from their MS4 in compliance with the MRP. The CCCWP is funded in part by a stormwater utility assessment (SUA) that is collected by the CCC Tax Collector with the property tax bill. The assessment is restricted revenue that may only be used for NPDES program activities including the construction of pollution control improvements and drainage system maintenance.

Contra Costa County has 16 major watersheds. These 16 major watersheds comprise 31 sub-watersheds, of which all but eight are entirely within the County. Creeks in the western portion of the County flow towards the San Francisco Bay, while those in the eastern portion of the County flow towards the Sacramento-San Joaquin Delta. The largest watersheds in the County are the Walnut Creek (93,556 acres) and Marsh Creek (60,066 acres) watersheds, which span multiple jurisdictions. However, many of the smaller watersheds and sub-watersheds are "community sized" and are important features of those communities.

Given the size and scale of the land areas that comprise Contra Costa County, the BMPs identified in this Regional BMP Report pertain to those watersheds and jurisdictions within the boundary of Contra Costa County, which reflect the existing county-wide stormwater compliance coordination efforts and administrative resources. While Contra Costa Permittees and the CCCWP gathered information to support the development of this Regional BMP Report,

[16] Cities of Antioch, Brentwood, Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek, and Towns of Danville and Moraga.

many other collaborators, leads, and departments are involved in implementing these BMPs at the County-wide or local jurisdictional level.

The Contra Costa Council on Homelessness (CoH) is the governing and oversight body for the County Continuum of Care (CoC) and its members are appointed by the Board of Supervisors. The Council provides advice and input to the Board of Supervisors on the operations of homeless services, program operations, and program development efforts in Contra Costa County. The Contra Costa CoC is comprised of multiple partners, including service providers, members of faith communities, local businesses, private and public funders, community members, education systems and law enforcement, and others who are working collaboratively to end homelessness. The CoH and CoC are supported by Contra Costa Health Services Health, Housing & Homeless Services (H3) Division.

H3 functions as the CoC administrative entity and collaborative applicant, CoC Lead Agency and Homeless Management Information System (HMIS database) Lead Agency. H3 integrates housing and homeless services across the County health system, coordinates housing and homeless services across County government and in the community. H3 also provides technical assistance, strategic guidance, and funding to a network of community-based agencies organized to respond to homelessness in the community. A list of key Countywide collaborators and agencies implementing BMPs include:

- Contra Costa County CoC Program Services:
    - CoC Council on Homelessness
    - CoC Health, Housing & Homeless (H3) Services
        - Coordinated Outreach Referral, Engagement (C.O.R.E.) program.
        - Homeless Youth and Adult Services
        - Permanent Support Housing
        - Community Homeless Court
        - Health Care for the Homeless
    - Behavioral health, alcohol and other drug, and mental health services
    - CoC Annual/Data Report
- Trinity Center: Offers housing support, substance use counseling, workforce development and winter evening programs
- Monument Crisis Center: A community-based non-profit family resource center for Central and East Contra Costa County. Located in Concord, the Center offers nutritious food, quality resources and referrals to low-income individuals and families in order to help them become stable and secure in the community.
- St. Vincent de Paul of Contra Costa County: Programs include providing food, clothing, shelter, rental assistance, medical services, employment, and workforce development.
- Contra Costa 211 Crisis Database.
- Additional CoC partners and funders

**San Mateo County**

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint

Powers Authority (JPA) that addresses issues of regional importance to San Mateo County jurisdictions such as congestion management and water quality. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting San Mateo County municipalities with complying with the municipal stormwater NPDES permit (i.e., MRP). The San Mateo County municipalities SMCWPPP assists are 15 cities, five towns, the County of San Mateo and the San Mateo County Flood and Sea Level Rise Resiliency District.

About 26% of San Mateo County's 450 square miles is considered urbanized, with most of the urban area located on the eastern portion of the County adjacent to San Francisco Bay. Four watersheds lie within or border the County: San Francisco Bay watershed, San Francisco Coastal South watershed, Coyote watershed and San Lorenzo-Soquel watershed.

The San Mateo County Board of Supervisors is committed to preventing homelessness and ensuring anyone who is experiencing homelessness is supported with safe shelter and a pathway to housing. The Human Services Agency (HSA) is the County Department tasked with implementing this vision on behalf of the Board of Supervisors and the San Mateo County Continuum of Care Steering Committee (CoC), a diverse, cross-sectoral body that guides and shapes the countywide response to homelessness. HSA works in close collaboration with other County departments and community partners in these efforts.[17]

The County's CoC *Strategic Plan on Homelessness* identifies the programs, initiatives and strategies in place and system improvements for the next three years. The programs and services described include outreach and engagement, shelter/interim housing, housing solutions, prevention assistance, and targeted programs for special populations. The Plan identifies the strategies to accomplish the goals and track progress towards these goals, including reaching functional zero homelessness.

In addition to these efforts, San Mateo County and the City of Half Moon Bay have developed a Homeless Encampments Bacteria Runoff Prevention Plan for Pillar Point Harbor Beaches and Venice Beach to meet requirements of MRP Provision C.14.d. This plan identifies locations of encampments, existing BMPs (human services, sanitation services, clean-ups, illicit discharge enforcement), proposed BMPs, and an implementation schedule.

**Santa Clara County**

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) is an association of thirteen cities and towns in Santa Clara Valley, the County of Santa Clara, and Valley Water (formerly the Santa Clara Valley Water District). SCVURPPP participants are part of the Santa Clara Basin Watershed, which generally follows the boundaries defined by the USGS HUC 8 digit "Coyote" watershed with some minor adjustments made by SCVURPPP to account for catchment areas that have changed with urbanization and modifications to the built environment. The watershed comprises 709 square miles.

[17] County of San Mateo Human Services Agency, San Mateo County Continuum of Care (CoC) *Strategic Plan on Homelessness* July 2022 through June 2025.

There are two significant areas of Santa Clara County that are outside of the SCVURPPP area and not addressed by this Report. The northeastern part of the County is in a watershed that drains to Alameda County. It is largely undeveloped. The southern end of Santa Clara County ("South County"), including the Cities of Morgan Hill and Gilroy, is excluded because it drains to Monterey Bay. Thus, South County is not part of the San Francisco Bay Regional Water Quality Control Board Region 2 or the Bay Area Integrated Regional Water Management Plan region, and it is not covered by the San Francisco Bay Region MRP. This area is part of Region 3, under the jurisdiction of the Central Coast Regional Water Quality Control Board.

In Santa Clara County, efforts to provide services to unsheltered populations are led by the Santa Clara County Continuum of Care (SCC CoC), which is a broad group of stakeholders dedicated to ending and preventing homelessness in Santa Clara County. The key CoC responsibilities are ensuring community-wide implementation of efforts to end homelessness, as well as ensuring programmatic and systemic effectiveness. The SCC CoC developed the Community Plan to End Homelessness (2020-2025) through a robust community engagement process. This plan will guide the County, cities, nonprofits, and other community members as they make decisions about funding, programs, priorities, and needs. The Plan aims to:

- Achieve a 30% reduction in annual inflow of people becoming homeless,
- House 20,000 people through the supportive housing system,
- Expand the Homelessness Prevention System and other early interventions to serve 2,500 people a year,
- Double temporary housing and shelter capacity to reduce the number of people sleeping outside; and
- Address the racial inequities present among our unhoused people and families and track progress towards reducing disparities.

**Solano County**

The Solano Stormwater Alliance (Alliance) is a group of cities and utilities that manage storm drain networks in Solano County collaborating to prevent pollution from entering waterways that flow to the San Francisco Bay. Alliance members follow regulations specified within the Municipal Regional Stormwater National Pollutant Discharge Elimination Permit issued by the San Francisco Regional Water Quality Control Board, and include City of Vallejo, Vallejo Flood and Wastewater District, City of Fairfield, and City of Suisun City. The Fairfield-Suisun Sewer District manages the Alliance regional and Bay-wide collaboration efforts.

The County of Solano coordinates Housing and Homeless initiatives focused on the Behavioral Health population, in coordination with Health and Social Service Divisions, County Departments, Solano Homeless Continuum of Care and other community partners. The purpose of these efforts is to promote fully integrated independent living, self-sufficiency and resilience for the people served.

# 3 BEST MANAGEMENT PRACTICES

To support the development of this Regional BMP Report, the BAMS Collaborative Work Group surveyed regional agencies to identify BMPs that address the non-stormwater discharges from

unsheltered populations in San Francisco Bay Region. Results of the survey, including the description of BMPs, goals, challenges, lessons learned, partners and collaborators, and other considerations, have been organized into BMP Fact Sheets. The BMP Fact Sheets also include local examples of BMPs being implemented or planned for implementation by MRP Permittees. These local examples do not necessarily include all instances of BMP implementation by Permittees.

**Attachment A** includes the BMP Fact Sheets developed as part of this Regional BMP Report and are designed to serve as a resource for MRP Permittees and other interested parties.

The BMP Fact Sheets have been organized based on the type and level of implementation:

- **Support (Direct):** These BMPs provide services and incentives offered directly to unsheltered populations. These fact sheets are numbered S-01 to S-09.
- **Outreach (Direct)**: These BMPs provide information about resources and programs offered directly to unsheltered populations. There is one Outreach fact sheet, numbered O-01.
- **Programmatic (Indirect)**: These BMPs are implemented across a region or municipal jurisdiction and provide services offered indirectly to unsheltered populations. These fact sheets are numbered P-01 to P-07.

Each BMP Fact Sheet also includes the following information:

- **Impact to Water Quality**: Whether the BMP has a direct impact on water quality (e.g., by providing portable toilets) or an indirect impact (e.g., by providing access to housing)
- **Area of Implementation**: Whether the BMP is implemented locally or regionally.
- **COVID-19**: Whether COVID-19 was a driver for BMP implementation.
- **Clean Water Needs Met**: If the BMP also helps meet the unsheltered population's clean water needs. For example, providing access to sanitation services, drinking water, handwashing, showers, and laundry.

# 4 MILESTONES

The MRP requires that the Regional BMP Report describe milestones for reducing non-stormwater discharges from unsheltered populations within a given timeframe. As described in Section 1.5, homelessness is a complex issue and identifying BMPs and strategies to manage the discharges associated with unsheltered populations does not inherently address the issues contributing to and impacting chronic homelessness in the region. Many factors, including rising housing costs, lack of affordable housing, mental health issues, and loss of employment, contribute to homelessness, and cannot be addressed by stormwater agencies. However, MRP Permittees plan to continue to implement BMPs to address non-stormwater discharges from unsheltered populations.

The BAMS Collaborative has identified the following milestones for implementation in the MRP 3.0 term (i.e., by June 30, 2027). Recognizing the complexity of the issue, these milestones aim to improve collaboration between different agencies and ensure that all Permittees have access to information and resources for potential local implementation of BMPs.

| Milestone | Timeframe |
|---|---|
| 1. At the local, countywide, or regional level, participate in stormwater related regional or statewide meetings (e.g., BAMS Collaborative Work Group meeting[1], California Stormwater Quality Association (CASQA) Annual Conference, CASQA Quarterly Seminars, Alameda County's Illegal Dumping Conference) by presenting local, Bay Area case studies or obtaining information on activities outside the Bay Area.[2] | Once each fiscal year through June 2027 |
| 2. At the local or countywide level, present information to local CoC groups on stormwater permit requirements to improve collaboration. | Present information at least two times to each CoC by June 30, 2026 |
| 3. Distribute the Regional BMP Report to municipal staff from other departments to inform them of efforts being made across the region. | October 2023 |
| 4. Ensure that staff from other municipal departments are aware of BMPs that can reduce non-stormwater discharges. | Ongoing |
| 5. Ensure that each Permittee agency has a list of local resources (e.g., housing services, mental health services, access to restrooms and laundry facilities) that can be offered to unsheltered populations. | Countywide Stormwater Programs verify resource list is available and distributed to Permittees by December 2023 |

Notes:

[1]BAMS Collaborative Work Group meetings could include outside agencies (e.g., rail agencies, Caltrans, etc.) and/or Federal, or State agencies (e.g., EPA, Regional Water Board, etc.) to share information.

[2]Examples of practices of interest outside of the Bay Area include Hygiene Hubs in Portland, OR that are operated by unsheltered individuals and provide multiple services; Microsites (i.e., various types of small temporary shelters) in Eugene, OR to provide safe locations for those in need and that are managed by community partner non-profits; the Housing First program, developed in Houston, TX, which has reduced the unhoused population in that region substantially between 2011 and 2020; and the JustCARE Program in King County, CA which provides behavioral health support to unsheltered individuals through intensive case management and temporary lodging.

# ATTACHMENT A

Best Management Practices Fact Sheets (including references)

# ATTACHMENT A – BMP FACT SHEETS

## DIRECT SUPPORT BMPS

- S-01: PORTABLE TOILETS AND HANDWASH STATIONS
- S-02: MOBILE SHOWER AND LAUNDRY SERVICES
- S-03: STATIONARY SHOWER AND LAUNDRY SERVICES
- S-04: GARBAGE COLLECTION AND DISPOSAL SERVICES
- S-05: INCENTIVES FOR INDIVIDUALS CONDUCTING CLEANUPS/SANITATION SERVICES
- S-06: ENCAMPMENT CLEANUPS
- S-07: TEMPORARY SAFE PARKING PROGRAMS FOR CARS AND RECREATIONAL VEHICLES
- S-08: SEWAGE PUMP-OUT SERVICES FOR RECREATIONAL VEHICLES
- S-09: PHYSICAL BARRIERS AND DETERENTS TO ENCAMPMENTS

## DIRECT OUTREACH BMPS

- O-01: PROGRAMS TO ESTABLISH RELATIONSHIPS WITH HOMELESS POPULATIONS

## INDIRECT PROGRAMMATIC BMPS

- P-01: ACCESS TO SUPPORTIVE HOUSING
- P-02: ENCAMPMENT MANAGEMENT POLICIES
- P-03: FUNDING INITIATIVES
- P-04: INTER-DEPARTMENT AND INTER-AGENCY INFORMATION SHARING
- P-05: COORDINATION WITH STATE AND RAIL AGENCIES
- P-06: COORDINATION WITH NON-PROFIT ORGANIZATIONS
- P-07: SOPS FOR RESPONDING TO RV AND ENCAMPMENT ILLICIT DISCHARGES

# PORTABLE TOILETS AND HANDWASH STATIONS

S-01

*Portable toilets and handwashing station. Image courtesy of City of Cupertino*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☒ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Handwash stations and portable toilets can protect water quality by containing human waste, thereby reducing discharges of bacteria and other pollutants to storm drains and water bodies. Implementation of this BMP rose considerably in many Bay Area cities during the COVID-19 pandemic due to the stay on encampment removal and to prevent the spread of infection. This BMP is continuing to be implemented in some areas. Handwash stations and portable toilets require regular cleaning/maintenance. Cleaning/maintenance for a portable toilet generally includes emptying the waste tank, providing toilet bowl liners and small amounts of toilet paper, and cleaning the unit and surrounding area. Cleaning/maintenance for a sink includes filling up the water tank, restocking the soap and paper towels, providing trash cans and a trash collection service, and cleaning the unit and surrounding area.

**BMP Goals:**

- Service people's basic needs and build meaningful relationships with local, unsheltered members of the community.
- Reduce non-stormwater discharges.
- Provide mobile/moveable sanitation services to known encampments and public gathering locations.
- Improve sanitation for neighboring sheltered residents and public areas.

**Challenges:**

- Routine maintenance is required to clean portable toilets and refill handwash stations.
- There are accounts of mobile toilets being destroyed, being used for illicit activities and/or vandalized. Costs escalate for replacing units.
- Portable toilet locations can become places where unwanted loitering and littering can occur.

- There are space constraints for placing portable toilets and handwashing stations.

**Lessons Learned:**

- If resources are available, continue to try to find areas where portable toilets may be beneficial and at minimal risk for vandalism/destruction.
- Placing portable toilets in high-visibility areas may help prevent vandalism.
- Engaging with an unsheltered individual at the location to monitor the portable toilets may help prevent vandalism.
- Explore new types of structures made of steel, or other material, that discourage destruction of property and/or stationary restroom facilities where feasible.
- Emergency cleanups may be required due to public concerns regarding hygiene and safety.

**Personnel & Collaborators**

- Contractors for placing the portable toilets and refilling hand wash stations
- Disposal hauler for routine maintenance
- If needed, local non-profit agencies for providing locations for placing portable toilets, outreach, etc.

**Local Implementation Examples:**

- The City of San José provides portable toilets at 15 of San José's largest encampments. In addition, the City addresses the removal of human waste at encampment locations as part of the encampment trash program. Human waste in containers (e.g., buckets, bags) and trash/debris soiled with human waste are also removed and disposed of appropriately.
- The City of Cupertino began providing portable toilets with secondary containment and hand washing stations during the COVID-19 pandemic. The practice is ongoing as needed for encampments in the City's right-of-way. The City funds and contracts with a private toilet/sink provider for maintenance.
- In FY 2023-24, Valley Water plans to install 35 portable toilets at over 20 locations countywide to help to reduce biowaste discharges and improve water quality.
- The City of Oakland has been providing portable toilets and washing stations since October 2016. By the spring of 2019, the number of sites receiving portable toilets and washing stations was 20, and this increased to 40 during the COVID-19 pandemic. The City provides cleaning services at these sites. During the pandemic, cleaning service at most sites increased from three times per week to four times per week. The typical configuration of a site includes two standard portable toilets and a two-faucet wash-station.
- During the COVID-19 pandemic, the City of Redwood City provided portable toilets, handwashing stations, and other critical support for COVID-19 health and safety, including Personal Protection Equipment (PPE), which was donated by local non-profits.
- During the COVID-19 pandemic, the City of Hayward provided portable toilets and wash stations at multiple locations, and worked with a contractor for regular maintenance.

- During the COVID-19 pandemic, the City of Albany provided portable toilets and wash stations at three locations. The City worked with a contractor for regular maintenance. At times, emergency cleanups were required because of public concerns regarding hygiene and safety.
- Contra Costa County began providing portable toilets and wash stations at known encampment locations in October 2020 in attempts to help address health and safety needs of the unhoused community during the COVID-19 pandemic when many stationary services became unavailable. Unfortunately, services were discontinued in March 2022 due to accounts of recurring vandalism, rendering them unusable and unpumpable.

**References and Resources:**

- City of Oakland Human Services Department – Hygiene Site Background, Review and Recommendations October 2020, Attachment D.
- Somewhere to Go: Assessing the Impact of Public Restroom Interventions on Reports of Open Defecation in San Francisco, California from 2014 to 2020

# MOBILE SHOWER AND LAUNDRY SERVICES

S-02


*A mobile shower facility in Oakland. Image courtesy of EOA, Inc.*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (direct)
- ☐ Water Quality (indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Access to shower and laundry services significantly helps reduce non-stormwater discharges from encampments and can restore dignity to individuals experiencing homelessness. Important factors to consider when providing mobile shower and laundry services include frequency of service, the number of individuals requiring service, and space available to park.

**BMP Goals:**

- Reduce non-stormwater discharges.
- Provide mobile/moveable sanitation services to known encampment locations.
- Establish meaningful relationships with unsheltered populations.

**Challenges:**

- Mobile shower and laundry require staff and/or volunteers trained in safe sanitation procedures and, at times, conflict resolution.
- Utilization may be low because it is difficult to find the best time and location to offer the service.
- Encampments may be small and scattered, making it challenging to reach more potential participants.
- There are space constraints for parking the mobile unit.
- Access to potable water, energy and wastewater utilities may be unavailable/limited.

**Lessons Learned:**

- This is a well-received and beneficial resource for people experiencing homelessness.

**Personnel & Collaborators:**

- Contractors/non-profits that provide these services
- Trained staff (provided by municipal agency or non-profit) for interacting with unsheltered populations

**Local Implementation Examples:**

- Several local agencies, including the Cities of Santa Clara, Oakland, Berkeley, and East Palo Alto, work with Project WeHOPE (a non-profit organization) to provide a mobile hygiene service called Dignity on Wheels. The service includes access to free showers and laundry in a mobile trailer. Each four-hour operation session may provide up to 30 showers and up to 14 single loads of laundry. The schedule showing locations and times is available on the Dignity on Wheels website. The City of Oakland also works with Urban Alchemy to provide mobile shower services.
- In 2018, the City of Fremont and the City of Union City received $125,000 in funding from Alameda County to purchase a mobile hygiene unit, which has two showers and a washer and dryer for laundry. The unit rotates to different locations in Fremont, Newark, and Union City and provides access to showering and laundry facilities. Waste and wastewater are disposed of at appropriate facilities located at the City of Fremont's corporation yard. The service, called CleanStart Mobile Hygiene Unit, was recently restarted and is serving unhoused residents with a new schedule.
- Mobile showers and sanitation services are provided at multiple locations within Contra Costa County by partner agencies in Contra Costa County's Continuum of Care (CoC) such as Clean Start Showers, SHARE Community Mobile Showers, Shower House Ministries, and Safe Organized Spaces (SOS) Richmond. For example, the cities of Pittsburg and Martinez are in partnership with The Bay Church to offer Clean Start Showers bi-weekly and weekly, respectively, for homeless members of the community. The City of Antioch partners with SHARE Community (a local non-profit) to offer mobile shower services at two sites. In addition to this, the City of Antioch partners with a small local ministry group to distribute vouchers at these mobile shower locations to offer unhoused residents one load of laundry per week.
- The City of San Leandro recently purchased a mobile shower, and a washer and dryer unit. The City is in the process of determining how best to compliment programs (e.g., April Showers) being implemented by the Interfaith Homelessness Network at the local Boys & Girls Club and Creekside Community Church.

**References and Resources:**


- City of Fremont Direct Discharge Trash Control Program Report, 2018
- CleanStart Mobile Hygiene Unit
- Contra Costa County Continuum of Care
- Dignity on Wheels
- Project WeHOPE
- Safe Organized Spaces (SOS) Richmond
- SHARE Community
- Urban Alchemy

# STATIONARY SHOWER AND LAUNDRY SERVICES

S-03

*The City of Alameda partners with a local church to provide showers to unsheltered individuals. Image courtesy of City of Alameda*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Laundry and shower facilities provided at fixed locations (e.g., faith-based organizations, community centers, laundromats) for unsheltered populations help reduce non-stormwater discharges from encampments and can restore dignity to individuals experiencing homelessness. Other services, such as food distribution, can also be offered at the same location.

**BMP Goal:**

- Reduce non-stormwater discharges.
- Provide sanitation services to unsheltered populations.
- Service people's basic needs and build meaningful relationships with local, unhoused members of the community.

**Challenges:**

- Availability of locations that are willing to offer showers and laundry facilities to unsheltered populations
- Finding funding and appropriate and effective non-profits to provide staff/volunteers to coordinate
- Unsheltered people must be able to travel to the stationary facility.

**Lessons Learned:**

- Additional staff may be required to monitor and maintain the laundry and shower facilities.
- Stationary facilities should be located in or near encampments or transportation hubs, and generally be accessible, including for individuals with physical disabilities.

**Personnel & Collaborators:**

- Staff for facilities

- Faith based organizations, local non-profits, school districts, and community centers may offer facilities or assistance.

**Local Implementation Examples:**

- In partnership with a local church and community volunteers, the City of Alameda provides space for weekly showers to unsheltered individuals. The City of San Leandro works with non-profit organizations (e.g., Interfaith Homelessness Network April Showers program) to provide shower facilities to the homeless at a church or at the City of San Leandro's Boys and Girls Club.
- The City of Albany partners with the Albany Community Foundation and Albany Thrives Together (local non-profits) to provide free showers to unsheltered populations at the Albany School District.
- The Cities of San José, Saratoga, Cupertino, Los Gatos, Monte Sereno and the County of Santa Clara provide funding to West Valley Community Services which offers comprehensive programs to low-income and homeless families in the West Valley region of Santa Clara County. Their services include distributing laundry quarters and hygiene kits to unsheltered populations.

**References and Resources:**

- Alameda County Resource Finder (includes a variety of resources/services for homeless)
- Albany Community Foundation
- Albany Thrives Together
- City of San José Homeless Services Directory (includes a variety of resources/services for homeless populations)
- West Valley Community Services

# GARBAGE COLLECTION AND DISPOSAL SERVICES

S-04


*A dedicated, accessible garbage disposal area near an encampment. Image courtesy of City of Cupertino*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☒ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Disposal containers keep trash and other disposed materials, such as recyclable and compostable items, encapsulated and enclosed prior to collection helping reduce discharges to the stormwater conveyance system and surface waters. Providing disposal collection services to encampments requires coordination between different departments and contractors. The size of the encampment generally determines the size of the disposal containers and frequency of pick-up. Local jurisdictions may also need to supply trash bags to encampment residents.

**BMP Goals:**

- Reduce trash and waste-related water quality issues.
- Reduce illegal dumping.

**Challenges:**

- Disposal containers can be destroyed and/or vandalized or could be used for other purposes than garbage disposal.
- Space is needed for placing disposal containers.
- These areas can become an illegal dumping spot for other people not residing in the encampment.
- Separate disposal is needed for needles.

**Lessons Learned:**

- Disposal containers must be kept accessible for waste haulers. Carts get moved around and can become inaccessible. One solution is getting garbage bins and disposal containers without wheels.

- Some disposal hauler staff will not exit their vehicle to service in an active encampment. Containers can become inaccessible if there is trash/debris in front of the container that would have to be moved first to service the container.
- Garbage collected must be removed relatively quickly to prevent rummaging.
- Some municipalities utilize their franchise agreements with disposal haulers to provide these services which could result in cost savings if these services are included in the agreement.

**Personnel & Collaborators:**

- Contractors for placing the disposal containers
- Disposal haulers for routine maintenance
- Municipal staff

**Local Implementation Examples:**

- The City of Cupertino provided disposal containers to residents of an encampment that developed on a City sidewalk during the COVID-19 pandemic. The City initially provided plastic trash containers. However, these got moved around and the disposal hauler could not access them for disposal. The City then replaced the plastic trash containers with metal containers which could not be moved around.

- The City of San José began a garbage pickup program as part of its response to COVID-19 but has continued it as a core element of its Encampment Management Program. The City provides trash pickup at 150+ encampment locations weekly or every other week depending on need. In addition, litter bags are distributed and collected from each encampment, human waste is properly disposed of, and escalated actions to remove debris including encampment abatement, are utilized to manage discharges into waterways. These efforts also offer an opportunity to engage residents and educate them on the importance of bagging and containing their trash to prevent it from entering the storm drains.
- Contra Costa County's Coordinated Outreach Referral Engagement Program (CORE) works to engage and stabilize unsheltered individuals living outside through consistent outreach to facilitate and/or deliver health and basic need services and secure permanent housing. The CORE team regularly distributes trash bags to individuals and coordinates with Contra Costa County Public Works' contractors for trash pick-up.
- The City of Albany's Public Works Department has a contract with the City's waste management contractor to clean up trash from encampments on an 'as needed' basis.

**References and Resources:**

- City of San José Encampment Management Program
- Contra Costa County's Coordinated Outreach Referral Engagement Program

# INCENTIVES FOR INDIVIDUALS CONDUCTING CLEANUPS/SANITATION SERVICES

S-05

*The City of San José provides a redemption value of $5 per bag of trash collected. Image courtesy of EOA, Inc.*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Providing cash incentives to unsheltered individuals for picking up litter around encampments or cleaning portable toilets can help reduce water quality impacts. This BMP also helps build relationships with individuals so they are more receptive to other interventions and can provide work experience for other job opportunities.

**BMP Goals:**

- Prevent litter, waste and other pollutants from entering waterways.

**Challenges:**

- Building trust between individuals and the organization(s) offering incentives
- Individuals feeling safe to do this type of work in encampments

**Lessons Learned:**

- Make the process as simple and straightforward as possible to increase engagement.
- Make sure the type of incentive is a good fit for the specific unsheltered population (e.g. accessible, convenient, desired, etc.).
- This type of BMP can result in cost savings compared with having municipal crews collect litter and illegally dumped materials.

**Personnel & Collaborators:**

- Contractors for placing the disposal containers
- Disposal haulers for routine maintenance
- Municipal staff

- If needed, non-profits can provide additional staff and outreach

**Local Implementation Examples:**

- The City of Oakland implements a janitorial leadership development program at encampment sites where regular outreach and engagement alone are not sufficient in addressing challenges such as portable toilet units being damaged and difficult relationships between the vendor and the site residents. This program includes stipends (in the form of $25 gift cards) for participating individuals, and cleaning supplies for the site. It has proven to be an effective intervention for the successful maintenance of the portable toilets.
- Through its Cash for Trash program, the City of San José enlists unsheltered homeless individuals to bag their trash to prevent it from entering waterways, stormdrains or contributing to blight. City staff provide a redemption value of $5 per bag of trash collected. Each program participant can submit up to five bags per week for a total redemption value of $25 per week. Funds are loaded onto a reloadable Mastercard. These reloadable debit cards are program-specific cards that Mastercard has enabled maintenance-free, as part of this partnership. Funds can be used to pay for essential items with minor restrictions on items like alcohol and tobacco.
- Several cities collaborate with Downtown Streets Team (DST) to work with unsheltered individuals. Through the encouragement and support of DST staff and peers, DST participants or "Team Members" often connect to and follow-through with Coordinated Entry System (CES) and other services they otherwise are not actively engaging in. The DST program provides volunteer work experience opportunities for individuals experiencing homelessness in Redwood City. Team members volunteer work experience includes picking up litter, emptying trash receptacles, and assisting with clean-ups. In exchange for volunteering, Team Members receive stipends in the form of gift cards, rent, storage, and basic needs; and are offered additional support services.

**References and Resources:**

- Cash for Trash
- Downtown Streets Team

# ENCAMPMENT CLEANUPS

S-06

*Encampment cleanup at Guadalupe Ponds in San José. Image courtesy of Valley Water*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☐ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Individuals experiencing homelessness can generate waste during their daily activities of food preparation and consumption, shelter building and maintenance, storing their possessions, eliminating unwanted materials, and gathering recyclable materials of value. The resulting refuse may become harborages and food sources for vectors and related pathogens, sources of odors, fuel for fires, biohazards, unattractive nuisances to the public, and potential stormwater pollution. Local jurisdictions conduct cleanups of encampments on an as-needed basis. Encampment cleanups do not involve removing people or property from the site.

**BMP Goals:**

- Significantly reduce trash/illegal dumping that results from vacated and occupied encampments.
- Reduce litter entering local storm drains and waterways.

**Challenges:**

- Staff time is intensive.
- This is a temporary best management practice if it's implemented without additional integrative supportive services or temporary housing solutions from other agencies.

**Lessons Learned:**

- This BMP may require coordination with police and staff trained in conflict resolution and hazardous waste disposal to provide support during cleanups.
- Storing personal property, as required by law, requires significant staff time so this could be an area that is helpful to partner with a non-profit.

**Personnel & Collaborators:**

- Contractors for removing and hauling away waste materials
- Trained staff (provided by municipal agency or non-profit) for placing notices regarding cleanups and interacting with unsheltered populations

**Local Implementation Examples:**

- The City of Santa Clara Police Department (SCPD) Community Response Team routinely conducts cleanup operations throughout the city, including those near waterways. Specific site cleanups are conducted on an as-needed basis. SCPD coordinates with the City's Department of Public Works, Valley Water, private property owners, and a contractor to conduct cleanups.
- Valley Water coordinates with local municipalities to clean up trash, debris and hazardous pollutants generated from encampments near waterways to reduce the amount of these pollutants entering streams. In FY 21-22, responding to higher volumes of encampment-generated trash and debris in creeks throughout the county, Valley Water managed 1,457 acres to clean up 868 tons of trash, debris, and hazardous pollutants, exceeding the goal of managing 300 acres annually.

  Valley Water posts signs with 72-hours notice before an encampment cleanup. The signs ask encampment residents to place their belongings they do not want to be removed within a 12' x 12' area around their living space. During clean up, any trash and debris left outside of that area is removed. Personal items found outside the 12' x 12' area are bagged and left onsite.
- The City of Alameda's Public Works Maintenance crews perform bi-weekly cleanups at the Main Street encampment site. Municipal street sweepers are active in peripheral paved areas at least weekly.
- The City of Oakland's Public Works and Keep Oakland Clean and Beautiful (KOCB) crews are involved in weekly garbage removal efforts and publicly post the locations of garbage removal, days of scheduled pickup and the type of intervention (pile removal, garbage cart service, porta potty, wash stations, abandoned auto).
- The City of San José developed the BeautifySJ program that includes information and efforts to clean up and restore the community. Initiatives include reporting illegal dumping, volunteer trash clean-ups, encampment management/clean-ups, and a grant program that provides funds for community engagement and neighborhood clean-ups.
- The City of Redwood City's Public Works Department conducts garbage pickup services, including clean-up related to RVs on the street as well as encampments of all types throughout the City. In December 2021, the City enlisted the services of a nongovernmental organization (NGO) to assist with Encampment Waste Services as a pro-active approach to address trash and waste pick-ups, especially at encampments.
- Contra Costa County's CORE program includes education and outreach to unhoused community members about the importance of keeping encampment sites tidy and encourages residents to pick up their own trash. The CORE team also distributes trash bags and coordinates trash pick-ups at encampments.

- Abundant Grace Coastside Worker's Clean Team has had success with cleaning up abandoned encampments within Half Moon Bay and mobilizing the local unhoused population to ask for help with keeping their encampments clean.
- The City of San Leandro recently piloted a program in collaboration with the San Leandro Downtown Community Benefit District and administered by the San Leandro Improvement Association (SLIA) to deploy Safety Ambassadors to pick up litter, return grocery carts, remove minor graffiti, and report larger issues for Cleaning Ambassadors who conduct daily clean-ups. The City of San Leandro is also exploring partnerships with non-profits that work with the unhoused to clean-up encampment sites.
- The City of Pittsburg has a designated team of two police officers that monitor for potential encampments and encourage individuals to leave the premises before they have a chance to set up camp. For those that have established camps, the police officers put these individuals on notice, post the site, and the City follows up by removing all their debris immediately. Bags are provided to these individuals to give them a chance to take what they want and leave the rest. The City has an on-call contractor to help remove debris from the creek banks.

**References and Resources:**

- Abundant Grace Coastside Worker
- BeautifySJ program
- Contra Costa County's CORE program
- Keep Oakland Clean and Beautiful
- Oakland encampment cleanup schedule
- Safe Clean Water and Natural Flood Protection, FY 21-22 Annual Report, Valley Water

# TEMPORARY SAFE PARKING PROGRAMS FOR CARS AND RECREATIONAL VEHICLES

S-07

*Safe RV Parking Lot in Mountain View. Image courtesy of City of Mountain View*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☒ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Temporary Safe Parking Programs aim to minimize public health concerns while helping unsheltered individuals transition to alternative permanent housing. Participants of these programs are consolidated in a specified area, thereby consolidating waste, cleaning locations, and general areas of living activity. Temporary parking areas for cars generally include access to a kitchen, indoor restrooms, and showers.

**BMP Goals:**

- Reduce the costs and staff time related to RV residency-related clean-up and response to calls.
- Assist RV residents transition into permanent housing.
- Reduce RV-residency related environmental and public health impacts.

**Challenges:**

- There is limited availability of business/institutional partners willing to provide parking spaces, and limited availability of public parking spaces.
- This BMP is often limited to working RVs/cars only.

**Lessons Learned:**

- It is helpful to have parking located in safe areas and to have the support of the community.
- There may be a need for access control and other rules/regulations to manage the space.

**Personnel & Collaborators:**

- Municipal staff

- Local businesses or faith-based organizations can provide parking spaces

**Local Implementation Examples:**

- In July 2018, the City of East Palo Alto permitted Project WeHope (a local non-profit) to utilize a City-owned parking lot and operate a temporary overnight RV parking program from 7:00 pm to 7:00 am for RVs owned by unsheltered individuals or households. During the COVID-19 pandemic, Project We Hope operated the program during daytime hours, allowing RVs to remain on-site for 24 hours per day. The daytime program operation was authorized separately through City Council resolution (Resolution No. 49-2020) when the County Shelter-in-Place Order took effect. The City Council extended the program into early 2023.
- Several cities in Santa Clara County and the County of Santa Clara support the Rotating Safe Car Park Program in partnership with several local faith organizations. These organizations host guests for at least one month and up to three months per calendar year. Guests at the host location have access to indoor restrooms.
- The City of Mountain View offers a safe parking program that is operated 24 hours a day, seven days a week. Most of the participants are families and are residing in oversized vehicles, such as RVs. The City has been instrumental in: supporting the formation of a local, nonprofit, safe parking provider MOVE Mountain View launching small, safe parking programs at faith-based locations; adopting a Safe Parking Ordinance to facilitate the creation of safe parking locations on private lots; securing three dedicated safe parking lots; partnering with the County of Santa Clara to provide safe parking and a range of other services to support unstably housed residents on a path to permanent housing; and growing to become the largest safe parking provider in the region with the capacity for up to 101 parking spaces (includes both municipal and faith-based lots). Similar safe parking programs exist in Palo Alto and San José. The Palo Alto program is funded by the County of Santa Clara and operated on City-owned property.
- The City of Union City offers a safe overnight parking program called CAREavan in coordination with local community and faith-based organizations. It provides a safe place to park overnight for families and/or individuals who have been displaced and are temporarily unsheltered.
- The City of Fremont has a partnership with Union City, and Fremont staff can refer homeless individuals living in their vehicles to the CAREavan program. In turn, residents of Union City who are homeless are welcomed at Fremont's winter relief program. This program is similar to the provision of an RV safe parking area but is unique due to the partnership and collaboration that exists between two adjacent cities.
- The City of Fremont also has the Safe Parking Host Site Program (SPHS), which is designed as a safe, transitional space for individuals living in their vehicle. The program is a rotational model, with five faith-based organizations across the City hosting individuals or couples on their site for one month before rotating to the next site. Each site provides parking for 15 vehicles. The City's goal is to expand the program and the City is looking for a permanent site on public property.

- The City of Alameda coordinates with a local non-profit to provide overnight parking for people living in cars and RVs. Bathrooms and washing facilities are available at the parking site.
- The Alameda County Safe Parking Program offers a 24-hour safe parking program to single individuals living in cars. Participants are provided access to portable toilets and handwashing stations at the parking location.
- In the fall of 2020, Redwood City launched the Temporary RV Safe Parking Program to address over 110 households living in RVs on the street in the City. Since the launching of the program, the number of unsheltered households living in RVs on the street in Redwood City has dropped significantly to 10-15 RV/Motor Homes on any given night (Request for Proposals: Redwood City Homeless Outreach, May 2022).
- San Mateo County and the City of Half Moon Bay have begun to explore a partnership with WeHope to set up a safe parking program on the San Mateo coastside area. If this partnership proves fruitful it would help unsheltered homeless populations by providing them with safe parking, social support, bathrooms, showers, laundry facilities and meal services. A full-time security officer would also be at the site.
- The City of San Leandro intends to strategize, execute, and assess a pilot micro-site Safe Parking Program in collaboration with faith-based organizations.

**References and Resources:**

- Alameda County Safe Parking Program
- Fremont Safe Parking Host Site Program
- Memorandum to the Mountain View City Council, from Kimberly S. Thomas (Assistant to the City Manager and Praneet Dhindsa (Human services Manager) re: Human Services Division Update on Initiatives to Assist Homeless and Unstably Housed Residents. December 15, 2022.
- MOVE Mountain View
- Santa Clara County Rotating Safe Car Park Program
- Union City and Fremont CAREavan
- WeHope

# SEWAGE DISPOSAL SERVICES FOR RECREATIONAL VEHICLES

S-08

*RV-based encampments are not uncommon in the Bay Area. It is essential waste from these vehicles are managed properly. Image courtesy of City of Mountain View.*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☐ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Providing free sewage disposal services to individuals living in RVs is a way for jurisdictions to prevent illegal dumping of sewage down storm drains or waterways. The following types of services may be provided:

- Voucher programs where individuals can take RVs to a pump-out site for free disposal.
- Mobile pump-out vehicles that can drive to the RV to collect waste.
- Sewer hook ups at safe parking sites.
- Using sewer manholes to discharge wastewater to the municipal sanitary sewer collection system.
- Providing discharge location at a municipal wastewater treatment plant.

**BMP Goals:**

- Reduce illicit discharges or illegal dumping.

**Challenges:**

- Utilization of the free pump-out program has been very low.
- Older RVs do not work with RV pump out locations or mobile services.
- RV hook up equipment is broken or inoperable and cannot work with RV pump out locations or mobile services.
- Many RVs are inoperable, and owners cannot drive them to the pump-out sites.
- There is a lack of contractors that provide mobile pump-out services.

**Lessons Learned:**

- Utilization of the free pump-out program has been very low to none in two agencies that offered it.

- Some people living in RVs do not make use of the vehicle's sanitary systems, they instead use public restrooms at City facilities, stores, or gyms in the areas surrounding their parking site.
- Some RV owners who rent RVs pay for mobile sanitary waste disposal services for their renters.

**Personnel & Collaborators:**

- Municipal staff or trained outreach staff (non-profit) to distribute vouchers or information about pump out locations
- Mobile pump out contractors
- Municipal staff to monitor discharge locations

**Local Implementation Examples**

- The City of Mountain View conducted a 12-week pilot program to provide free waste pump-out services to people living in RVs. The pilot program was conducted from January through April 2018, with services offered at two locations. Securing a vendor to provide the pump-out service proved challenging. In response to a Request for Proposals (RFP) issued to three prospective vendors, no proposals were received in the first round, and one proposal was received in the second round. To advertise the program, staff and Community Services Agency (CSA) outreach workers contacted RV residents directly or by leaving information and a voucher packet on RV doors or windshields if the attempt to contact the individual was unsuccessful. The City also provided a courtesy notice to residents within a 500' radius of each service location. Information on the program was available on the City's website, and the City received media interest and coverage of the program. Despite considerable outreach, the utilization of the pilot was relatively low, with 3.08 visits to the pilot sites per four-hour session and a cost of $935 per individual RV serviced. Considering the limited pilot usage, challenges with siting, the high costs associated with providing waste disposal service through a mobile vendor or as a City operation, as well as the high cost to construct a dump station on City land, the City decided to not proceed with the provision of providing a free waste disposal service.

  The City of Mountain View shared their experiences with addressing the issue of providing pump-out services to people living in RVs to reduce the likelihood of discharges to the storm drain at a SCVURPPP Industrial and Illicit Discharge Detection and Elimination (IND/IDDE) Ad Hoc Task Group (AHTG) workshop on May 30, 2019 and at an ACCWP Industrial and Illicit Discharge Control (IIDC) Subcommittee workshop on November 6, 2019.
- Valley Water coordinates with the County of Santa Clara, and the Cities of Morgan Hill and Gilroy to distribute vouchers to people living in RVs to provide free pump-out services at County facilities at Mt. Madonna and Coyote Lake County Park. However, no vouchers have been used so far.

- Recreational Vehicles users can dump their waste for free at the Vallejo Flood and Wastewater District's RV dump site. This free service is used on average 22 times per week, though the type and housing status of users is not tracked.
- The City of Pacifica provided one time RV disposal at their Wastewater Treatment Plant.

**References and Resources:**

- Recreational Vehicle Waste Disposal Pilot Results and Consideration of Ongoing Waste Disposal Services. City of Mountain May 15, 2018.
- RV Dump Station Directory

# PHYSICAL BARRIERS AND DETERENTS TO ENCAMPMENTS

S-09


*Signage to deter encampments and illegal dumping. Image courtesy of City of Suisun City.*

**Implementation Level:**

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Physical barriers, such as fences and signage, are sometimes used near sensitive locations (e.g., waterways) to deter encampments and prevent illegal dumping.

**BMP Goals:**

- Reduce illegal dumping into or near waterways

**Challenges:**

- Placing physical barriers can be cost-intensive.
- Fences and signage are prone to vandalization.

**Lessons Learned:**

- Routine maintenance of physical barriers is required.

**Personnel & Collaborators:**

- Contractors for installing and maintaining barriers and signage

**Local Implementation Examples:**

- The City of Suisun City recently identified and posted signs in 'Environmental Sensitive Areas' that have been effective at reducing non-stormwater discharges associated with homelessness, including along the Suisun Marsh shoreline.
- The City of San José uses a combination of deterrents including installing and repairing gates fencing, bollards, boulders and locking mechanisms to deter vehicles and people from entering, dumping, and encamping in certain areas. In 2021, the City received grant funding from the EPA to, among other activities, fund building and repairing

structural barriers adjacent to creeks to serve as deterrents to encampments and to reduce nonauthorized vehicle access to creeks.

**References and Resources:**

- City of San José  Direct Discharge Trash Control Program Plan, January 2023

# PROGRAMS TO ESTABLISH RELATIONSHIPS WITH HOMELESS POPULATIONS

O-01

*Unsheltered individuals work with Downtown Streets Team as "Team Members" to clean streets, parks, and other public spaces. This helps build long-term relationships. Image credit: City of Redwood City*

**Implementation Level:**

☐ Support (Direct)
☒ Outreach (Direct)
☐ Programmatic (Indirect)

**At-a-glance**:

☐ Water Quality (Direct)
☒ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☐ Regional implementation

Establishing relationships and trust with unsheltered populations is important to ensure their willingness to engage in and eventually accept social services and move into temporary or permanent housing. Building relationships takes time, often many weeks or months. These outreach efforts also help identify other needs such as behavioral health and recovery services, employment, general hygiene, etc., that may not be known. Efforts to establish relationships with homeless populations often occur through non-profit, contracted outreach teams, or municipal police departments.

**BMP Goals:**

- Provide an opportunity for homeless outreach workers and mental health clinicians to regularly visit encampments, establish relationships, and provide resources to unsheltered individuals.
- Understand and offer both basic services as well as options for social services and emergency housing.

**Challenges:**

- Requires staff trained in various disciplines (e.g., outreach, behavioral health, social services).
- The mobility and turnover of individuals experiencing homelessness in a given place can be high thus making establishing meaningful connections a challenge.

**Lessons Learned:**

- Consistent efforts to establish long-term relationships with unsheltered populations have a higher likelihood of resulting in services being accepted.

- It may be challenging to establish relationships if there is an association or perceived association with the police department or law enforcement. Consider moving support officers under medical services or fire department.

**Personnel & Collaborators:**

- Municipal social service and police departments
- Non-profits that can provide staff trained in various disciplines (e.g., outreach, behavioral health, social services) and other contracted outreach teams

**Local Implementation Examples:**

- San Mateo County, in coordination with Coastside Hope, provides emergency safety net assistance for the unsheltered including food, rental, and utility assistance, referrals for healthcare, help with complex forms, and advocacy. Coastside Hope's services play an important role in building relationships, keeping individuals housed, and preventing homelessness, which ultimately prevents the development of encampments and potential for stormwater pollution.
- Contra Costa County's CORE program has been very successful in building long-term relationships and trust with unsheltered individuals. Through this trust, residents are more likely to accept social services and to participate in clean-ups of their encampment areas. It may take a long time to establish this trust, but it has proven to be successful over the long-term.
- The City of San José contracts with a local non-profit to implement its Services Outreach Assistance and Resources (SOAR) program at 15 of San José's largest encampments. Participating sites receive proactive, regular street outreach and case management.
- Redwood City has a Downtown Streets Team (DST) to work with unsheltered individuals who are not otherwise utilizing the County's Coordinated Entry System (CES) by providing a pathway to ending homelessness through employment and housing with an emphasis on peer-to-peer support and encouragement. Through the encouragement and support of DST staff and peers, DST participants or "Team Members" often connect to and follow-through with CES and other services they otherwise are not actively engaging in. The DST program provides volunteer work experience opportunities for individuals experiencing homelessness in Redwood City. Team members volunteer work experience includes picking up litter, emptying trash receptacles, and assisting with clean-ups throughout the City. In exchange for volunteering, Team Members receive stipends in the form of gift cards, rent, storage, and basic needs; and are offered the additional support services. The DST Program launched in October 2019 (Redwood City Staff Report to City Council, August 22, 2022).
- The City of San Leandro partners with community-based organizations to conduct outreach and provide basic need and emergency services in encampments, parking lots, bridges, parks, sidewalks, and other locations in the community. For example, Safety Ambassadors respond to calls from merchants, conduct daily wellness checks, and coordinate with volunteers to distribute lunches to unsheltered people. Ambassadors triage transients' needs and, when appropriate, refer them to resources. Other support services include but are not limited to emergency bus tickets, Clipper cards, ride

assistance, emergency gas cards, payment assistance for past due rent, motel vouchers, assistance with car impoundment, storage lock out, vehicle repair, food, and clothing.

- In January 2023, the City of San Leandro provided a Storm Support Resource Center at a local church in partnership with Building Futures. A dry space and a variety of supportive services were provided. Building Futures distributed resources and conducted assessments to assist with housing. Bay Area Legal Aid assisted with the social security application process. The City also partnered with community and faith-based organizations to provide food, clothing, supportive services, and shelter at a local hotel and at a Warming Center during the winter months.
- Camp Hope was founded in 2020 and was operated by the Homeless Action Coalition with assistance from City of Martinez staff. Camp Hope provided basic life necessities to approximately 20 homeless residents such as food, clothing, drinking water, port-a-potties, electric service, legal and City public works staff services. Unfortunately, the Camp Hope effort was terminated as it became a magnet for vandalism, illicit activities, and the crime level in downtown Martinez increased significantly. Alternative mechanisms of support are being investigated.
- In 2022, the City of Half Moon Bay launched the Crises Assistance Response & Evaluation (CARES) pilot program. Through a contract with El Centro de Libertad, the CARES program provides an alternative response to mental health related 911 calls traditionally answered by fire, ambulance, or law enforcement. Service calls appropriate for the CARES team include welfare checks, suicidal ideation and other mental health distress, substance abuse, and low-level, nonviolent concerns related to behavioral health. The team is staffed by a 2-person, bilingual mobile unit made up of a specially trained behavioral health professional and emergency medical technician.
- San Mateo County and the City of Half Moon Bay, partner with Abundant Grace Coastside Worker to conduct job-readiness programming, including its Coastside Clean Team, which picks up trash along the beaches and trails of Half Moon Bay.
- A non-profit called Downtown Streets Team partners with cities across the Bay Area (e.g., Palto Alto, Oakland, Redwood City, Sunnyvale, Berkeley) to build teams of unhoused individuals to engage in community beautification and clean-up projects. Downtown Streets Team also provides a pathway to recover from homelessness by providing access to case management and employment placement services. Unhoused people hear about these services through peer-to-peer outreach from current members of the team.
- The City of Fremont has a partnership with the police department and the Washington Hospital Healthcare System to provide crisis intervention and de-escalation services, and helps connect homeless community members with local mental health and support services providers.
- The San José Police collaborate with the County of Santa Clara Department of Behavioral Health to pair San José Police Officers and behavior clinicians to rapidly assist individuals in a mental health crisis. Officers in the program receive additional mental health and de-escalation training, respond to calls with the County's Mobile Crisis Response Team, and provide resources.

- The City of Los Altos police officers conduct outreach to unhoused unsheltered individuals on a regular basis. They also provide resource cards providing information on shelters and other helpful organizations.
- The City of San Mateo Police Department has a Homeless Outreach Coordinator. The Coordinator works to build relationships with homeless in the City and provides information on services available.

**References and Resources:**

- Call 211 Bay Area (Connects Residents With Health & Human Service Programs)
- Coastside Hope
- Contra Costa County Coordinated Outreach Referral, Engagement (C.O.R.E.) program
- Crises Assistance Response & Evaluation (CARES)
- El Centro de Libertad
- Fremont Mobile Evaluation Team
- Loaves and Fish
- Monument Crisis Center
- Redwood City DST
- Redwood City Staff Report on Study Session on homelessness Initiatives Work Plan Implementation, August 22, 2022
- St. Vincent de Paul
- Trinity Center

# ACCESS TO SUPPORTIVE HOUSING

P-01


*An Interim Housing Project in the City of San José. Image courtesy of City of San José.*

**Implementation Level:**

- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

**At-a-glance**:

- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Supportive housing programs are generally implemented by the County Continuum of Care (CoC) Programs. Local jurisdictions and non-profits coordinate with the CoC Programs to offer housing and other services to unsheltered and sheltered individuals and families. Housing assistance programs are classified into the following types:

- Emergency shelter - provides a safe place to sleep for people who are unhoused. Provides meals, showers, other basic needs services, and connections to community resources.
- Transitional housing - provides temporary housing and services for people who are unhoused and seeking a more structured living environment, especially youth and veterans.
- Rapid rehousing - provides supportive services and temporary rental assistance to people who are unhoused. Helps individuals and families obtain permanent housing and increase income so that they can remain housed independently.
- Interim housing - provides temporary housing for people who are unhoused and have been enrolled in a rapid rehousing or permanent supportive housing program while they are searching for a permanent place to live.
- Permanent supportive housing - helps individuals and families with disabilities maintain permanent housing through long-term rental subsidies, connections to medical and behavioral health care, and other services.

**BMP Goals*:***

- Provide information and assistance about what supportive housing services are available and how to access these services.

- Increase access to affordable and supportive housing, and offer housing to unsheltered individuals to minimize associated water quality impacts.
- Connect people with a home so they are in a better position to address other challenges that may have led to their homelessness, such as obtaining employment or addressing substance abuse issues.

**Challenges:**

- The need for housing is much higher than available funding and housing.
- High housing costs make permanent housing re-entry challenging.
- There can be logistical and technological barriers to accessing supportive housing, along with a lack of case management and long wait times.
- Physical disabilities and mental health issues can impede ability to access these services.
- Social services are often needed to support individuals entering supportive housing and to ensure they have what they need to remain housed. Funding and availability of social services are limited.
- Individuals may not accept housing, or the type of housing offered.
- There can be an influx of unsheltered persons and crime/loitering on community streets and properties near supportive housing when individuals are forced out or leave.
- Some housing services are only available to certain demographics (e.g., only women and children, young adults (ages 18-24), single men, no pets, etc.).

**Lessons Learned:**

- Requires coordination between multiple agencies
- The amount and duration of housing should be enough to help people secure a permanent place to live, which also often involves securing a job. This assistance shouldn't be a standard "package" but flexible to meet unique needs. This is particularly important when financial circumstances or housing costs change.

**Personnel & Collaborators:**

- Municipal staff
- Multiple non-profit agencies

**Local Implementation Examples:**

- Contra Costa County has many emergency, transitional, and permanent housing options available either directly through the County's Health, Housing, and Homeless (H3) Services or through community-based organizations located throughout the County in Contra Costa County's Continuum of Care (CoC). According to the 2022 Point in Time Count, approximately 2,680 emergency, transitional, and permanent housing beds were present in Contra Costa County on February 23, 2022. The number of beds fluctuates depending on the time of year, weather conditions, and resources available.
- During the 2020 pandemic, the State purchased a local motel in the City of Pittsburg and converted it into an emergency shelter facility under the Project Roomkey Program. The facility has now evolved into interim housing under the State's Homekey Program. It

was noted that most of the residents at the shelter are brought in from other cities (7% Pittsburg vs. 93% other city origins) thereby adding to the existing City unhoused population when they leave the shelter. Nearby sheltered residents have commented on the facility and its effectiveness for various real or perceived reasons.

- Opportunity Village is an Interim Housing Program targeted towards unsheltered adults in the City of Antioch. The program houses a maximum of forty-five participants at a time and works to connect participants to stable housing.
- In the County of Santa Clara, Project Roomkey was established in March 2020 as part of the state response to the COVID-19 pandemic to provide non-congregate shelter options, such as hotels and motels, including three meals per day for people experiencing homelessness. This program ended with the pandemic. The County also entered into a service agreement with a non-profit agency to operate a motel program for families with children. The goal of this temporary shelter program/interim housing program is to support households with basic needs resources to regain self-sufficiency and exit homelessness or to provide households with short-term housing while they search for permanent housing or wait for a permanent housing unit to open. In addition, the County partners with Casitas de Esperanza (a local non-profit) to provide temporary housing for unhoused families serving up to 25 families per night. The County's Office of Supportive Housing has service agreements with non-profit agencies to provide Temporary Housing and Basic Needs Services for clients seeking assistance including access to ADA-compliant restroom and shower trailer seven days a week, and a laundry trailer four days a week.
- The City of San José has constructed six interim housing sites totaling 499 beds in 385 individual units. They are temporary, non-congregating shelters, where individuals receive support services and assistance finding stable housing.
- San Mateo County partnered with service provider Abode Services from 2016 to 2018 to provide rapid rehousing services. The agreement was funded using Measure A Sales and Use tax revenue allocated to Homeless Services and was claimed under Measure A initiative tracking code HSALA. In the fiscal year 2022, Abode Services assisted 5,534 individuals in rapid rehousing programs, and 60 percent of households housed through rapid rehousing programs exited to permanent housing.
- The City of Oakland works with several non-profit organizations to provide rapid rehousing programs to families and/or youth, including, but not limited to, East Oakland Community Project, Building Futures with Women and Children, Abode Services, and Bay Area Community Services.
- In San Mateo County, LifeMoves opened the Coast House to provide interim housing and support services to families, couples, and individuals experiencing homelessness in Half Moon Bay. With 52 private rooms, the Coast House offers safe shelter and wraparound case management services to help clients work toward long-term self-sufficiency and returning to homes of their own. Since it opened in 2020, the Coast House has served 151 people, with 68 of the participants successfully moving into

permanent housing. In 2022, Abundant Grace was able to house 17 of its unhoused workers and move 20 of their unhoused workers into the Coast House Shelter.

- San Mateo County constructed a community services and affordable housing facility called the Navigation Center Shelter in April 2023, and is planning to operate an additional facility called the Middlefield Junction Community Hub. The City of Half Moon Bay is also in the process of converting its property at 555 Kelly Avenue into 40 units of affordable housing and a resource center for low-income farmworkers. These facilities are designed to provide permanent housing.
- In March 2016, the City of San Leandro (Human Services and Police Departments) partnered with Building Futures with Women & Children (BFWC), a local nonprofit service provider and the Rental Housing Association of Southern Alameda County to form the San Leandro Homeless Compact. This collaborative is dedicated to providing long-term housing and services to homeless individuals in San Leandro. The compact is the first of its kind in Northern California, and is a collaboration between the local government, BFWC and landlords to secure housing in tandem with key services. The Rental Housing Association, along with the compact, helps coordinate landlords to provide the housing and BFWC provides a variety of supportive services for individuals staying in the units. The compact is funded by the City and County, and HUD vouchers.
- The City of San Leandro provides funding for capital and operational support to Building Futures for the San Leandro Homeless Shelter, a thirty-bed homeless shelter and Sister Me Home, a twenty-bed safe house. The City of San Leandro is also collaborating with non-profits to acquire a local motel and convert it to a navigation center.
- Several cities and counties in the Bay Area offer Home Sharing Programs that connect homeowners with extra rooms with people seeking an affordable place to live. For example, San Mateo County partners with HIP Housing and the City of Fremont partners with Covia to provide home matching services.
- Several cities, such as San José and Oakland, have built tiny houses or community cabins for temporary, emergency and permanent housing. These initiatives often involve funding from state grants, and partnerships with non-profits and landowners such as Caltrans. For example, Oak Street Community was established by the City of Oakland in partnership with Family Bridges and offers 38 beds and six-months stay. These community cabins are one of six outdoor, emergency shelters in the City of Oakland.

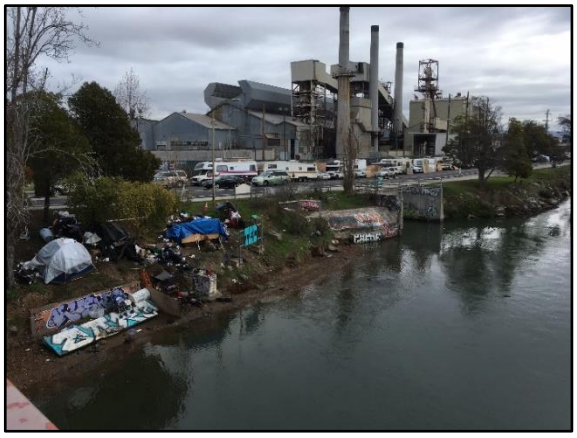
**References and Resources:**

- Abode Services
- Best Practices Approaches for Engaging Chronically Homeless in Redwood City with Services and Transitioning Them to Interim Housing with Wrap Around Services, September 2022
- California's Homekey Program: Unlocking Housing Opportunities for People Experiencing Homelessness, March 2022
- City of Fremont Home Sharing Program
- County of Santa Clara Supportive Housing Map

- Ending Homelessness 2022 – The State of the Supportive Housing System in Santa Clara County, County of Santa Clara
- Family Bridges Community Cabins
- Homelessness Task Force-Tools for Cities and Counties 2018
- LifeMoves
- Oakland Cabin Shelter Program at Wood Street (Caltrans property)
- Performance Audit of the City of Oakland's Homelessness Services, September 2022
- Project Roomkey
- Rapid Rehousing Resources (including toolkit, a building owner's toolkit, rapid re-housing benchmarks and standards)
- San Mateo County Home Sharing Program
- San Mateo County Navigation Center Program Overview
- San José  Interim Housing Communities
- Toward a New Understanding: The California Statewide Study of People Experiencing Homelessness, June 2023
- Trinity Center Case Management

# ENCAMPMENT MANAGEMENT POLICIES

P-02



*Encampment Management Policies identify factors (e.g., proximity to water) that guide BMP implementation. Image credit: City of Oakland*

**Implementation Level:**

- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

**At-a-glance**:

- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Encampment management policies establish guidance for municipal staff for implementing practices to manage the adverse impacts of encampments

**BMP Goals:**

- Provide consistent guidance to municipal staff across departments to manage encampments.

**Challenges:**

- Coordination across municipal departments and maintaining common goals
- Implementing encampment management policies while navigating unknowns and potential safety concerns

**Lessons Learned:**

- Consider public perception of encampment management policies and balance the interests of all residents, sheltered and unsheltered.
- Keep camps small (<20 people), if possible, so they are easier to manage, safer and have a smaller impact on surrounding neighbors.

**Personnel & Collaborators:**

- Municipal staff from various departments
- Contractors as needed

**Local Implementation Examples:**

- The City of Oakland Encampment Management Policy was developed as part of its Permanent Access to Housing (PATH) Framework, which was adopted in December 2019. The Encampment Management Policy is consistent with the guidance and best

practices promoted by the City's Department of Race and Equity. The purpose of this policy is to protect and serve all Oaklanders, sheltered and unsheltered, and to manage the adverse impacts of homeless encampments by balancing the interests of all residents, focusing on encampment actions on mitigating negative outcomes as they pertain to public safety, public health, and equity outcomes. The policy includes definitions of locations deemed high and low sensitivity (i.e., 50 feet from a playground, within 50 feet of a protected waterway, etc.) and outlines a variety of ways that the Encampment Management Team (EMT) can intervene to help achieve the goals of the policy. The City of Oakland prioritizes encampment cleaning operations if an encampment is near a waterway or storm drain.

- The City of San José's City Roadmap – Encampment Management and Safe Relocation Policy, which began during the COVID-19 pandemic, outlines principles of an equitable, effective, and efficient approach to encampment management. The four objectives of the City's Encampment Management and Safe Relocation Policy include: clean the City's public spaces, create setbacks for priority locations, identify sites that promote safety and belonging, connect people to social services and meet their basic needs. Abatements are minimized to limit impacting the most vulnerable people in society.
- Redwood City began implementing the Resolving Encampments through Effective Engagement (REEE) Pilot Program. REEE will focus specifically on addressing homeless encampments by addressing health and safety concerns, offering services and housing to encampment residents, and ultimately reducing the number of homeless encampments in the City.
- The City of Fremont created an Assessment and Evaluation Form for Homeless Encampments and Hot Spots as part of its Trash Control Program. The City conducts weekly site assessments of encampments using this form to gather data for evaluation, and effective management of encampments. This form allows inspectors to track number of camps, location, impacts to waterways, property ownership, site condition, safety concerns, potential abatement/enforcement mechanisms, as well as maintenance and management needs.
- Valley Water created a Water Resources Encampment Risk Assessment to aid staff in documenting and assessing risks related to encampments located on Valley Water lands. The form allows for tracking of encampment locations, infrastructure, waterways, maintenance needs, safety issues, environmental impacts, and adjacent facilities. In this form, there is a hazard rating scale to help inform encampment management including if an abatement is warranted for the encampment. This tool helps ensure the protection of natural resources, water quality, and the health and safety of employees and the public.
- The City of San Leandro coordinates street outreach and case management services through bi-weekly meetings with City staff, other public agencies, and non-profits.

**References and Resources:**

- City of Oakland's 2019 Permanent Access to Housing (PATH) Framework
- City of Oakland Encampment Management Policy
- Exploring Homelessness Among People Living in Encampment and Associated Cost

- San José Encampment Management and Safe Relocation Policy
- Understanding Encampments of People Experiencing Homelessness and Community Responses
- Water Resources Encampment Risk Assessment. Valley Water. 2022.

# FUNDING INITIATIVES

P-03

*Pavilion Inn Development, a Young Adult Supportive Housing project, received funding from the Santa Clara County Measure A Housing Bond, Homekey funding from the State of California, State funding through the City of San José, and Santa Clara County Housing Authority vouchers. Image courtesy of County of Santa Clara.*

**Implementation Level:**

- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

**At-a-glance**:

- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Local, Countywide, State, Federal, and Bay Area/Regional-level funding initiatives ensure the long-term sustainability and the ongoing implementation of efforts to mitigate the public health and environmental impacts of homelessness, and support implementation of long-term solutions. Funding initiatives are often sourced through municipal general fund allocations, countywide measures, HUD, local, regional, or statewide grants, and NGO fundraising efforts.

**BMP Goals:**

- Obtain funding and resources allotted to housing and supportive programs serving unsheltered homeless populations.
- Enhance opportunities for cross-agency collaboration to implement BMPs.

**Challenges:**

- Grant funding for housing and homelessness programs can be regionally competitive.
- Grants require significant staff time to prepare and submit applications.
- Countywide measures that require passing via a vote require public outreach.
- Public opinion and support can stop or slow down programs.

**Lessons Learned:**

- Be very clear about goals, objectives, the need for the funding and outcomes.
- Collaborate and partner with other organizations including regionally to pool resources and increase chances for funding.

**Personnel & Collaborators:**

- Municipal staff and/or contractors to prepare grant funding applications
- Non-profit organizations or often the recipients of grant funding

**Local Implementation Examples:**

- Project Homekey is an initiative by the State of California that provides local government agencies with funds to purchase and rehabilitate housing – including hotels, motels, vacant apartment buildings and other properties – and convert them into permanent, long-term housing for people experiencing or at risk of homelessness. Funding comes from the state's allocation of federal Coronavirus Aid Relief Funds and the state's General Fund. The County of San Mateo, the County of Santa Clara, County of Contra Costa, and many counties and cities in the Bay Area (e.g., Milpitas, Mountain View, San José) received funding through Project Homekey to purchase hotels.
- The County of Santa Clara's Continuum of Care (CoC) program received $11 million in funding from the U.S. Department of Housing and Urban Development (HUD) to provide services to unsheltered individuals. The County also received funding from the 2016 Measure A Affordable Housing Bond, which helped add several thousand units of affordable and supportive housing to the housing development pipeline.
- Annually, the City of San José receives funds from HUD to administer various grants that benefit unsheltered or low/moderate income persons. These include the following:
    - Community Development Block Grant (CDBG) - This program funds various nonprofit agencies and other city departments to implement services that benefit low- and moderate-income persons, resolve slum and blight concerns, or address community development needs. Grantees are generally selected through a competitive process and provide such services as senior nutrition, neighborhood engagement, legal services for tenant rights and fair housing, homeless outreach, housing rehabilitation, and code enforcement.
    - Emergency Solutions Grant (ESG) - This program is designed to identify sheltered and unsheltered homeless persons, as well as those at risk of homelessness, and provide the services necessary to help them quickly regain stability in permanent housing. Grantees are generally selected through a competitive process and provide such services as homeless outreach, shelter for families and victims of domestic violence, and rental assistance.
    - HOME Investment Partnership (HOME) - HOME provides formula grants to states and localities that communities use - often in partnership with local nonprofit groups - to fund a wide range of activities including building, buying, and/or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income people. It is the largest Federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. The City of San José currently dedicates HOME funds for the development of new affordable housing projects, and Tenant-Based Rental Assistance (TBRA).
- Voters in San José approved Measure E on March 3, 2020. It enacted a Real Property Transfer Tax, which is imposed on property transfers of $2 million or more. Revenues generated by Measure E provide funding for general City services, including affordable

housing for seniors, veterans, disabled, and low-income families; and helping families who are unsheltered move in to shelters or permanent housing.

- The City of Pittsburg was awarded funds from the Community Development Block Grant CARES Act (CDBG-CV) program to prevent, prepare for, and respond to the spread of COVID-19. The funds supported the City's efforts in addressing the health and safety concerns associated with the local unsheltered community during the COVID-19 pandemic.
- The San Mateo County Board of Supervisors awarded three cities, Redwood City, Millbrae and Half Moon Bay, grants in December 2022 to address homelessness. Redwood City and Millbrae will expand existing programs that steer individuals and families experiencing homelessness into shelters and services. Half Moon Bay will provide a safe parking area, with hygiene facilities and outreach services for people living in vehicles.
- The City of Milpitas provides support to unsheltered populations from the following funding sources:
    - The City Council designated $950,000 in American Rescue Plan Act funding to expanding the Rent Relief Program to a Rent & Mortgage Relief Program.
    - Permanent Local Housing Allocation (PLHA) is a California Department of Housing and Community Development grant. The City of Milpitas has been approved for its 2019, 2020, and 2021 entitlement of $1,017,554. The City is waiting for the Standard Agreement but was approved for 20% ($193,335.26) of the funding to go to the Homeless Engagement and Access team (HEAT). The HEAT team conducts homeless outreach, assessment, and street-based case management services.
    - Mayor Rich Tran requested support of one-time funding as part of the FY22-23 State budget from Assemblymember Alex Lee's Office. Assemblymember Lee approved the one-time state funding request, including $1,500,000 for homelessness prevention and unhoused services. The initial request was for continuation and expansion of the City's mobile shower and laundry services, twice a week, for a period of three years ($300,000), establish a Milpitas Resource Center as a 2-year pilot program ($500,000) and provide rent relief to vulnerable Milpitas residents ($700,000).
- The City of Alameda uses a creative method to raise funds for unsheltered populations in the City. They have installed specially designed orange "parking meters" to collect spare change and credit card donations at 20 sites to raise funds for services for unsheltered individuals. Businesses, individuals, families, and groups may also sponsor a meter. The City has created a map of the meter locations.
- The City of San Leandro allocates about $260,000 annually through a competitive process to local non-profits through Community Assistance Program (CAP) and Community Development Block Grant (CDBG).
- The City of Walnut Creek offers:

- Homeless Services Grant -This grant program was approved by Walnut Creek City Council in July 2017 to fund services that address homelessness in Walnut Creek. The Homeless Services Grant will have $70,000 available each fiscal year.
- Permanent Local Housing Allocation - In 2017, the state began a new Permanent Local Housing Allocation (PLHA) grant available to jurisdictions to implement plans to increase the affordable housing stock, as well as address homelessness. The PLHA is an ongoing formula grant that provides non-competitive funding to entitlement cities like Walnut Creek. From 2019-2023, the state will provide an estimated $830,694 available over a five-year implementation period (2020-2024) through the PLHA grant to assist persons who are experiencing or at risk of experiencing homelessness. Walnut Creek is estimated to receive an allocation of $138,449 annually.

**References and Resources:**

- CA Housing and Community Development Grants & Funding
- Community Development Block Grant CARES Act
- Emergency Solutions Grant (ESG)
- Federal grants received by the City of San José
- HOME Investment Partnership (HOME)
- Homekey Program Notice of Funding Availability
- Homeless Housing, Assistance and Prevention Program (HHAP)
- Homelessness Task Force Tools and Resources for Cities and Counties 2018
- HUD Programs and Grantee Info
- Permanent Local Housing Allocation
- San Francisco Bay Water Quality Improvement Fund Request for Applications-US EPA
- Valley Water Standard Grants Program

# INTER-DEPARTMENT AND INTER-AGENCY INFORMATION SHARING

P-04

*Coordination with other departments and agencies is important tool for obtaining resources and information. Image courtesy of SCVURPPP.*

**Implementation Level:**

- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

**At-a-glance**:

- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Municipal stormwater staff coordinate with other departments within their agency (e.g., housing services, City/Town/County/Agency manager's office) and with other municipal agencies to develop and implement strategies to address non-stormwater discharges from unsheltered populations. This coordination offers opportunities for additional funding, access to staff with appropriate and applicable expertise, and data that may inform and improve future efforts.

**BMP Goal:**

- Connect with other departments and municipal agencies to share information and resources.

**Challenges:**

- Scheduling meetings and coordinating meetings across different departments and agencies can be difficult.
- Detracting from programs to provide housing and social services being implemented by appropriate and qualified organizations with implementation of temporary, water quality based BMPs.

**Lessons Learned:**

- Funding and resources may be available from other departments (e.g., City Manager's office) and agencies (County Housing Departments) that share similar goals.

**Personnel & Collaborators:**

- Municipal staff from different agencies and departments

**Local Implementation Examples**

- On September 15, 2015 (Item No. 27), with recommendations from the County of Santa Clara's Housing Task Force (HTF), the County Board of Supervisors directed the Administration to expand and improve homelessness prevention programs in Santa Clara County. The HTF's recommendations were intended to develop an effective and efficient coordinated network of service partners that could fully serve individuals and families who are on the brink of homelessness. The HPS Pilot was established in 2017 in a unique partnership between public agencies, private funders, and non-profit services providers. D:H (Destination: Home) is the Administrative Lead of the HPS Pilot while Sacred Heart as the Program Lead, works with partner agencies under a "no wrong door" policy that removed barriers to county residents seeking homelessness prevention services at any of the participating agencies. Additionally, Sacred Heart oversees the training and coordination of the HPS Pilot with the partner agencies to ensure the prevention services provided meet the community needs. The HPS Pilot targets households with the highest needs and provides longer-term financial assistance, case management services, employment services, legal services, childcare, and transportation. The HPS Pilot has made it possible to streamline and standardize service delivery, assessments, prioritization, and data collection. Since 2017, the HTF Pilot has assisted 4,455 unduplicated households and 95.8% of those households have been able to retain their housing.
- In March 2020, the County of Santa Clara and its partners established the Housing Joint Departmental Operations Center (JDOC), which brought together the Office of Supportive Housing (OSH), Valley Homeless Healthcare Program (VHHP), Behavioral Health Services Department (BHSD), Public Health Department (PHD), and the City of San José to implement strategic and collaborative responses to protect the health and safety of unhoused individuals and families. On April 2, 2020, the JDOC launched a hotline to centralize referrals to temporary housing programs. Requests for shelter are received from hospitals, service providers, and unhoused individuals and families. The intake process includes an assessment to determine the appropriate placement for each individual. The hotline has proven effective in preventing unhoused residents and County partners from needing to call or visit multiple shelter sites to determine availability and eligibility. This centralization also enables improved data collection to analyze trends and system gaps. Due to the success of the hotline and the increased shelter utilization, the OSH identified State funding to continue the operations for a two-year pilot period.
- To further efforts in collaborating with other agencies in tackling the homeless concerns, the City of Fremont actively engages in Homeless Task Force meetings that include staff from Abode Services and various City departments (Fremont Direct Discharge Trash Control Program, 2018).
- The City of Santa Clara has convened a Homelessness Taskforce that includes stakeholders with a range of perspectives and experience to help identify priorities and provide recommendations related to the development of a City Plan to address Homelessness and its impacts. The City has received feedback on the Homelessness Plan

Draft Framework, conducted a Study Session, and will be submitting a finalized plan to City Council in 2023.

- Since 2004, the City of San José and Valley Water have collaborated to help keep waterways clean within their jurisdictions through a Trash Removal and Prevention Memorandum of Agreement (MOA). This MOA improves coordination and communication and promotes a more effective use of resources and expertise between the two parties. In 2008, the parties updated the MOA to include encampment cleanups. Since then, the MOA for Encampment Cleanup and Trash Removal and Prevention has been updated and extended twice (in 2013 and 2019) and is currently set to expire June 30, 2025.
- The County of Alameda coordinates weekly Alameda County Health Care for the Homeless Meetings, monthly Alameda County all-city meetings around homelessness, and monthly Alameda County all-city meetings around housing.
- The City of Albany organizes monthly case conferences with Albany Project HOPE (a local non-profit), Albany Policy Department, Albany Public Works, Alameda County Homeless Services Regional Coordinator, and the Lifelong Street Medicine Program Manager. The Lifeline Street Medicine is the largest provider of Street Medicine services in Alameda County.
- The City of Redwood City's Homeless Services Manager leads the City's inter-departmental and inter-agency efforts. The City is deeply integrated into the County Homeless Services System and the City recently expanded these efforts through a $1.8 million contract to create a Redwood City Coordinated, Inter-Agency Homeless Outreach Strategy Team. The City has invested one time City resources and sought outside funding for this work.
- The City of Hayward has an internal team consisting of staff from Community Development, Police Department, Water Pollution Source Control (stormwater program), Code Enforcement and other interested parties that work together to abate encampments and help provide services to needy individuals.
- The City of Cupertino has an internal working group comprised of Emergency Services Division, Public Works Director, and Stormwater Program representative and coordinates with the Santa Clara County Office of Supportive Housing as well as Caltrans.
- The City of Walnut Creek has established the Walnut Creek Homeless Community Task Force, which is composed of Walnut Creek City staff, the Walnut Creek Police Department, community organizations, local businesses, and community residents. The task force has been meeting regularly for over four years with a mission to research and identify best, promising, and emerging practices for short-term and long-term solutions to the causes of homelessness; to present information and recommendations to Walnut Creek City staff and City Council; and to work collaboratively to put into place respectful and compassionate solutions.
- The Contra Costa Council on Homelessness (the Council) provides a forum for the Continuum of Care (CoC) to communicate the implementation status of strategies to

prevent and end homelessness. The purpose of the forum is to educate the community on issues and advocate for Federal, State, County and City policy issues that affect people who are homeless or at-risk of homelessness. The Council provides advice and input on the operations of support services, policy formulation and program development efforts in Contra Costa. Furthermore, it establishes the local process for applying, reviewing, and prioritizing project applications for funding in HUD Homeless Assistance Grant Competitions, including the CoC Program and the Emergency Solutions Grant (ESG) Program. The San Pablo Police Department currently serve on the Council in a public safety seat. The City of San Pablo's involvement has allowed the City to have input on the services and programs available in Contra Costa and advocate for those who are unhoused in the City.

- The City of Antioch hosts an Unhoused Resident Services Pop-Up Event where City staff invite the community and local stakeholders to learn more about the local resources.
- The City of San Leandro collaborates with local non-profits to provide staff, partners, and community members training in mental health awareness, safety, conflict de-escalation, local resources, gender-based violence, and trauma-informed care. There are plans to pilot a Mental Health Response Unit in 2024 with Alameda County Fire Department, San Leandro Police Department and community-based organizations.

**References and Resources:**


- Albany Project HOPE
- City of Santa Clara Homelessness Plan Draft Framework
- Contra Costa Council on Homelessness
- Destination: Home
- Fremont Direct Discharge Trash Control Program, 2018
- Walnut Creek Homeless Community Task Force
- Walnut Creek Police Department Homeless Resources

# COORDINATION WITH STATE AND RAIL AGENCIES

P-05

*Responding to encampments not in a local jurisdiction's right-of-way requires coordination with other agencies. Image courtesy of City of Redwood City.*

**Implementation Level:**

☐ Support (Direct)
☐ Outreach (Direct)
☒ Programmatic (Indirect)

**At-a-glance**:

☐ Water Quality (Direct)
☒ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing Implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☒ Regional implementation

Many encampments across the Bay Area are located on Caltrans, California Highway Patrol (CHP), and Union Pacific (or other railroad properties) properties. Local agencies need to coordinate with these agencies to manage these encampments. Some cities and counties in the Bay Area have established Memorandum of Understandings (MOUs) or Memorandum of Agreements (MOAs) between their jurisdiction and these agencies to formalize shared boundaries and come to an agreement on processes for responding to homelessness (e.g., timing of notifications for service requests, applications for funding). Conducting outreach to and offering supportive services to encampments on Highway 101 for example, requires coordinating with Caltrans, working across agency policies and timelines, and using available resources. By having established relationships in the form of MOUs and MOAs, and consequentially, smooth workflows, defined fiscal responsibilities, clearing and cleaning, access, and notification times, local jurisdictions can be as responsive to homelessness as possible.

**BMP Goals:**

- Develop processes for responding to water quality impacts from unsheltered populations located on properties that are not under the jurisdiction of local agencies.

**Challenges:**

- Difficult to find appropriate contacts at State and railroad agencies.
- Different priorities and difficulty agreeing on a management process.
- The issue may just get moved from one jurisdiction to another.

**Lessons Learned:**

- Make a commitment to establishing relationships and regular communication, potentially in the form of a work group or task force.

- State and rail agencies may have a list of local collaborators (non-profits) that they work with and can share with local municipalities.
- Transportation agencies typically prioritize locations of unhoused populations that involve a safety risk to both the unhoused individuals as well as the general public (e.g., on highway off-ramps).

**Personnel & Collaborators:**

- Law enforcement agencies and enforcement departments of State agencies may need to be involved where transportation safety issues and locations of unhoused populations are at conflict.
- If needed, faith based organizations, local non-profits, and community centers can assist with relocation, outreach and clean ups.

**Local Implementation Examples:**

- The City of San José executed a Memorandum of Understanding (MOU) in December 2020 with Union Pacific Railroad Company to coordinate resources to clean up trash, debris, overgrown vegetation, and encampments on their respective properties. The parties will conduct a minimum of eight coordinated cleanups, as needed, per year under this MOU. In FY 2021-22 there were six cleanups that occurred along railroad property.
- In March 2022, Redwood City initiated a meeting with Caltrans and State legislative representatives which resulted in the establishment of a working group to address homeless encampments on Caltrans properties. The working group continues to meet every two months to request Caltrans action on homeless encampments and to assure sufficient lead time (e.g., two weeks' notice) to provide intensive outreach to encampment residents by offering shelter and housing options as well preventing loss of personal belongings which occurs when minimal notice is given prior to encampment clear-outs. As a result of the initial March meeting, Caltrans has also taken action to modify the landscape of critical locations such as the Woodside Road/El Camino Real cloverleaf to reduce the likelihood of re-encampment. The City will continue to share information with Caltrans where there are concerns regarding health and safety at the encampments on Caltrans right of way.
- Contra Costa County Public Works Maintenance and Environmental Health coordinate regularly with Caltrans and the railroads for encampment cleanups.
- Caltrans representatives participated in a BAMS Collaborative Work Group information sharing meeting on January 24, 2023. After the meeting, Caltrans shared with the BAMS Collaborative Work Group contact information for key Caltrans staff working in the Bay Area on homelessness and encampments and a list of 23 local partners Caltrans collaborates with in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano Counties, including non-profit organizations.

# COORDINATION WITH NON-PROFIT ORGANIZATIONS

P-06

*The Trinity Center Overnight Shelter Program offers up to 38 participants a warm evening meal and a safe, dry place to sleep each year from December to April. Image courtesy of City of Walnut Creek.*

**Implementation Level:**

☐ Support (Direct)
☐ Outreach (Direct)
☒ Programmatic (Indirect)

**At-a-glance**:

☐ Water Quality (Direct)
☒ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing Implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☒ Regional implementation

Non-profit organizations have the expertise, set-up, and staff to provide a wide range of services to unsheltered populations, including those that address non-stormwater discharges. The services may include conducting cleanups at areas where unsheltered populations congregate, establishing relationships with unsheltered individuals, providing them with information on shelter, job development or other BMPs, etc. Additionally, unsheltered populations may be more receptive to receiving information and services from these organizations rather than government agencies.

**BMP Goals:**

- Provide a range of services to unsheltered populations, including those that address non-stormwater discharges.

**Challenges:**

- Finding the appropriate non-profit organizations
- Funding and public support for these programs can be difficult.
- Monitoring the program to make sure they are within budget and workers are following the scope (i.e., only cleaning in approved areas and capping the maximum number of participants as outlined in the program)

**Lessons Learned:**

- These programs require a lot of oversight and support from organizations running the program.
- Good relationships with local solid waste haulers are invaluable due to the flexibility that can be required to run these programs.

**Personnel & Collaborators:**

- Municipal staff oversight of programs
- Faith based organizations, local NGOs, school districts, and community centers

**Local Implementation Examples:**

- The City of Sunnyvale collaborates with the Downtown Streets Team (DST), a non-profit organization, to conduct regular cleanups in the downtown area. In addition, DST provides aid and support to homeless individuals with the goal of transitioning the homeless into permanent housing. DST clients serve on a team of volunteers that provide community services throughout the year. The City is also implementing a one-year pilot to provide services to unhoused populations as a complement to services provided by the County of Santa Clara. The City contracted with HomeFirst to provide services, including outreach, case management services to direct to support services available, and dedicated shelter beds for individuals needing accommodation beyond what is available from the County. HomeFirst provides two dedicated staff for these services. The City created an interdepartmental team lead by the Assistant City Manager, and City staff meet periodically with the contractor to discuss progress on outreach, determine additional locations for action, and share information gained from the community. The project funding is also available to address site cleanup, as needed.
- The Cities of San José , Saratoga, Cupertino, Los Gatos, Monte Sereno and the County of Santa Clara provide funding to West Valley Community Services which offers comprehensive programs to low income and homeless families in the West Valley region of Santa Clara County. Their services include distributing laundry quarters and hygiene kits, referrals to shelters, and safe parking areas. In addition, West Valley Community Services owns and operates two apartment complexes that offer permanent housing to low-income households. These complexes are managed through the City of Cupertino Below Market Rate Housing Program.
- The City of Albany has created a partnership, known as Albany Project Hope (APH), with Berkeley Food & Housing Project (BF&HP) and the Solano Community Church to assist those living unsheltered in Albany find permanent housing (or, if appropriate or necessary, alternatives such as transitional housing, return to families, homeless shelters, residential care or other living situations).
- The City of Milpitas receives Community Development Block funding from the Housing and Urban Development Department. One of the organizations it funds is LifeMoves who provide shelter and intensive care management services to Milpitas residents across its facilities in Santa Clara County.
- LifeMoves Homeless Outreach Team (HOT) also works throughout San Mateo County to meet unsheltered clients wherever they are and provide services in the field. HOT canvasses the streets and known encampments to identify, build relationships, and assist unsheltered clients as needed.
- The City of Half Moon Bay has a contract with the local nonprofit Abundant Grace Coastside Worker. Abundant Grace Coastside Worker aims to transform the lives of

Coastsiders experiencing or at risk for homelessness through meaningful employment, community-building, food justice, and other support services. They provide workforce training opportunities through their coastal clean team and farm apprenticeship programs. In 2020, they purchased a workforce development center that provides a physical location for their programs as well as access to showers, laundry, Wi-Fi, mail delivery, temporary storage, food distribution, job/housing program assistance, and a safe gathering space for unsheltered individuals.

- The City of San Leandro partners with a local non-profit to provide a Domestic Violence Outreach and Mobile Unit**.** A 24-hour/day, 365 days/year program administered by non-profit staff in collaboration with other contracted service providers who provide intensive case management, including housing and shelter resources.
- The City of Walnut Creek coordinates with the Walnut Creek Homeless Task Force for monthly meetings to discuss compassionate solutions to homelessness and to work collaboratively with local and regional organizations to develop safety net services and the means for affordable supportive housing.

**References and Resources:**

- Abundant Grace Coastside Worker
- Albany Project Hope
- Downtown Streets Team
- Homelessness Taskforce Report- Tools and Resources for Cities and Counties, 2018
- LifeMoves Homeless Outreach Team
- Monument Crisis Center
- St. Vincent de Paul of Contra Costa County
- Walnut Creek Homeless Task Force and wchomelessctf@gmail.com
- West Valley Community Services

# STANDARD OPERATING PROCEDURES FOR RESPONDING TO RV AND ENCAMPMENT ILLICIT DISCHARGES

P-07

*Staff using a vacuum truck to clean an illicit RV discharge. Image courtesy of City of Mountain View.*

**Implementation Level:**

☒ Support (Direct)
☐ Outreach (Direct)
☒ Programmatic (Indirect)

**At-a-glance:**

☒ Water Quality (Direct)
☐ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing Implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☐ Regional implementation

Standard Operating Procedures (SOPs) that focus on how to respond to RV and encampment illicit discharges, and that focus especially on responses to discharges of human waste and other immediate threats to water quality, provide tried and tested options to municipal agencies on how to manage encampment discharges and prevent the reoccurrence of waste accumulation in closed and abated encampments. The SOPs can be shared with other jurisdictions and provide opportunities for cross-agency collaboration.

**Challenges:**

- Staff time to develop, review, and revise SOPs over time
- Special training for municipal staff sanitizing sidewalks, plazas and other public right of way areas

**Lessons Learned:**

- Encompass needs of specific locations (i.e. near waterways) or times of year in the SOP.
- It often takes a lot of time to address illicit discharges from encampments since multiple agencies and departments need to work together to develop a collaborative approach to address the encampment.
- Police may need to be present for cleanups of illicit discharges from RVs and encampments.

**Personnel & Collaborators:**

- Municipal staff and/or contractors

**Local Implementation Examples:**

- The City of Berkeley's SOP for Managing Vehicular Homelessness in the Public Right-of Way, developed in September 2022, outline the ways in which the Homeless Response Team and its participating departments will ensure Municipal Code standards are maintained. These include, for example, prioritizing initial outreach and attempting voluntary compliance and if these are not abided by, implementing remedies such as scheduling deep cleanings to remove debris.
- The City of Pleasanton utilizes an SOP for when an encampment is along or near a waterway. It includes Police Department, Code Enforcement, and Environmental Services staff responsibilities. The City works closely with its local flood control agency (Zone 7) for encampments on their property as well.
- The City of Oakland uses an internal SOP for how to respond to illicit discharges from encampments and/or RVs, including cleaning storm drains and addressing human waste discharges.
- West Valley Clean Water Authority developed sanitization procedures BMPs for municipal maintenance staff to use when publicly used areas present an elevated risk to public health. The BMPs include protecting storm drains and surface water from any discharges related to the cleaning activities.
- Within the City of Pittsburg, City staff, with the assistance of law enforcement officers, will engage the RV occupants and tell them to stop discharging their grey water and sewage. It is not in the City's policy to tow RVs. City staff will wash down and vacuum the gutter to then dispose of the wastewater to the sanitary sewer.
- The City of El Cerrito inspectors have been successful in responding to reports or observations of encampment illicit discharges in accordance with the City's Enforcement Response Plan. An inspector immediately follows up on a report of an illicit discharge. It often takes time to address illicit discharges from encampments since multiple agencies and departments, such as Contra County County's CORE team, Public Works Maintenance Team, Police Department, and others work together to come up with a collaborative approach to address the encampment at large. This involves the CORE team working with residents to clean up their own trash and to offer other services and housing so residents will vacate the encampment. If the encampment or RV is determined to be hazardous, then multiple City departments, along with County CORE will work together to provide appropriate outreach and notification to the residents and subsequently work to clean up the encampment area. This collaborative approach has worked well, although often takes time to complete.

**References and Resources:**

- City of Oakland Direct Trash Discharge Control Plan, 2019